



CALIFORNIA
HEALTH BENEFITS REVIEW PROGRAM

Analysis of Assembly Bill 1214: Waiver of Benefits

A Report to the 2007-2008 California Legislature
December 12, 2007

CHBRP 07-09



The California Health Benefits Review Program (CHBRP) responds to requests from the State Legislature to provide independent analyses of the medical, financial, and public health impacts of proposed health insurance benefit mandates and proposed repeals of health insurance benefit mandates. In 2002, CHBRP was established to implement the provisions of Assembly Bill 1996 (California Health and Safety Code, Section 127660, et seq.) and was reauthorized by Senate Bill 1704 in 2006 (Chapter 684, Statutes of 2006). The statute defines a health insurance benefit mandate as a requirement that a health insurer or managed care health plan (1) permit covered individuals to obtain health care treatment or services from a particular type of health care provider; (2) offer or provide coverage for the screening, diagnosis, or treatment of a particular disease or condition; or (3) offer or provide coverage of a particular type of health care treatment or service, or of medical equipment, medical supplies, or drugs used in connection with a health care treatment or service.

A small analytic staff in the University of California's Office of the President supports a task force of faculty from several campuses of the University of California, as well as Loma Linda University, the University of Southern California, and Stanford University, to complete each analysis within a 60-day period, usually before the Legislature begins formal consideration of a mandate bill. A certified, independent actuary helps estimate the financial impacts, and a strict conflict-of-interest policy ensures that the analyses are undertaken without financial or other interests that could bias the results. A National Advisory Council, drawn from experts from outside the state of California and designed to provide balanced representation among groups with an interest in health insurance benefit mandates, reviews draft studies to ensure their quality before they are transmitted to the Legislature. Each report summarizes scientific evidence relevant to the proposed mandate, or proposed mandate repeal, but does not make recommendations, deferring policy decision making to the Legislature. The State funds this work through a small annual assessment on health plans and insurers in California. All CHBRP reports and information about current requests from the California Legislature are available at the CHBRP Web site, www.chbrp.org.

A Report to the 2007-2008 California State Legislature

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December 12, 2007

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PREFACE

This report provides an analysis of the potential impacts of Assembly Bill 1214. The bill would allow health care service plans and insurers to issue, renew, or amend plans or policies that omit one or more currently mandated benefits if a contract holder or policyholder in the group or individual market waives the benefit. In response to a request from the California Assembly Committee on Health on February 27, 2007, the California Health Benefits Review Program (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. AB 1214 is a “two-year” bill, meaning that it is not scheduled for a hearing until the second year of the legislative session, in this case 2008.

Janet Coffman, MPP, PhD, Miki Hong, MPH, Wade Aubry, MD, and Edward Yelin, PhD, all of the University of California, San Francisco, conducted the medical effectiveness analysis. Wayne Dysinger, MD, MPH, of Loma Linda University and Ted Ganiats, MD, of the University of California, San Diego provided input on the medical effectiveness analysis of the preventive services benefit mandates. Susan Ettner, PhD, of University of California, Los Angeles provided input on the medical effectiveness analysis of mental health and substance abuse benefit mandates and Michael Cabana, MD, of the University of California, San Francisco provided input on the medical effectiveness analysis of the pediatric asthma mandate. Steve Clancy, MLIS, of the University of California, Irvine, Penny Coppernoll-Blach, MLIS, of the University of California, San Diego, and Min-Lin Fang, MLIS, of the University of California, San Francisco, conducted the literature search. Melinda Beeuwkes Buntin, PhD, of RAND Inc., provided technical assistance and expert input on the analytic approach. Helen Halpin, PhD, of the University of California, Berkeley, and Susan Philip, MPP of CHBRP staff prepared the literature analysis on consumers’ ability to use information to make informed health care coverage decisions. Sara McMenamain, MPH, PhD, and Helen Halpin, PhD, both of the University of California, Berkeley, prepared the public health impact analysis. Gerald Kominski, PhD, and Nadereh Pourat, PhD, of the University of California, Los Angeles, prepared the cost impact analysis. Jay Ripps, FSA, MAAA, of Milliman, Inc., provided actuarial analysis. Susan Philip, MPP, and Cynthia Robinson, MPP, of CHBRP staff prepared the Introduction 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 two members of the CHBRP Faculty Task Force—Harold Luft, PhD, of the University of California, San Francisco, and Thomas MaCurdy, PhD, of Stanford 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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Susan Philip
Director

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EXECUTIVE SUMMARY

California Health Benefits Review Program Analysis of Assembly Bill 1214

Assembly Bill (AB) 1214, also called the “Freedom to Choose Health Benefits Act of 2007,” would allow for the development, marketing, and purchasing of health insurance products that waive a subset of benefit mandates currently in law. Specifically, as of July 1, 2008, health care service plans and insurers would be permitted to issue, renew, or amend plans or policies that omit one or more currently mandated benefits if a contract holder or policyholder in the group or individual market waives the benefit.

The intent of AB 1214 is to allow health insurance products to be customized to meet the perceived health care needs of a purchaser—generally an employer in the group market, or an individual in the individual market. In effect, AB 1214 would allow insurance carriers in the state of California to offer health insurance products exempt from benefit mandates as long as the purchaser agrees in writing to waive those benefits. AB 1214 is based on the premise that, given choices, purchasers would make decisions regarding their health benefits that best meet their own or their employees’ needs.

Provisions of AB 1214

AB 1214 permits policyholders to waive all benefits that are currently mandated under the California Health & Safety Code *except* for “Basic Health Care Services.” Basic Health Care Services are those services included in the minimum benefit package enacted by the Knox-Keene Health Care Service Act of 1975¹. Thus, health maintenance organizations (HMOs) and preferred provider organizations (PPOs) that are regulated by the Department of Managed Health Care (DMHC) would be required to include coverage of Basic Health Care Services in all of their products. Enrollment in these plans accounts for over 90% of the privately insured market in California. AB 1214 does not affect the DMHC’s authority to conduct independent medical review; review plan designs, benefits, contracts, and marketing materials; or other enforcement activities.

AB 1214 permits policyholders to waive *all* benefits that are currently mandated by the California Insurance Code. This would affect PPOs and indemnity (fee-for-service) health insurance products that are regulated by the California Department of Insurance (CDI). Enrollment in these policies accounts for about 10% of the private fully-insured market in California. AB 1214 would not impact the CDI’s ability to enforce other consumer protections, such as operational and financial reviews of insurance carriers.

Currently, there are 40 benefit mandates to provide coverage or merely offer coverage under the California Health and Safety Code. There are 34 benefit mandates to provide coverage or offer coverage under the Insurance Code, many of which are the same mandates found in the

¹ Health maintenance organizations in California are licensed under the Knox-Keene Health Care Services Plan Act, which is part of the California Health and Safety Code.

California Health and Safety Code. In addition there are 4 provider mandates that may also be waived under AB 1214—bringing the total to 44 distinct mandates.

AB 1214 requires the DMHC and CDI to prepare a disclosure form prior to July 1, 2008, that would specify the waived benefit mandates for purchasers.² The expectation is that DMHC and CDI would use their enforcement authority to ensure that plans and insurers provide sufficient written information about what mandated benefits are included and what mandated benefits and offerings are excluded so that the purchaser understand they are agreeing to waive mandated benefits.

AB 1214 *does not require* carriers to offer products that waive mandated benefits, or “limited-mandate plans.” AB 1214 *does not require* carriers to offer limited-mandate plans in conjunction with plans that offer the full array of mandated benefits. Under AB 1214, a carrier can offer a limited-mandate plan in a specific market—for example, the individual market in Los Angeles. If an individual purchaser does not waive (or demands a mandated benefit) that is excluded under a limited-mandate plan, a carrier is not required to offer the purchaser an alternative product with the benefit included. In that case, the individual purchaser would be expected to go to another carrier that offers a product that includes the desired benefit(s). The same would hold true for large- and small-group purchasers.

Consumer Choice

- If AB 1214 were to pass into law, employees of large groups would likely have choices among health insurance products, as their employers would likely offer a limited-mandate plan in conjunction with other health insurance products (for example, an HMO). Traditionally, small firms offer their employees fewer health insurance product options than large firms. In 2005, 92% of California’s large firms offered their workers a choice of health insurance products versus 64% of small firms. After passage of AB 1214, if a small firm chooses to offer *only* a limited-mandate plan, an employee may not have other choices. In the individual market, it is likely that carriers would develop limited-mandate plans after passage of AB 1214. Thus consumers in the individual market would have choices among health insurance products to the extent carriers make those products available in their service areas.
- A key assumption behind AB 1214 is that consumers have the information, knowledge, and skills to effectively assess their insurance options. The available research indicates that in general, the population’s knowledge and understanding of health insurance is very limited, as are the skills needed to apply the knowledge. Efforts have been made to develop decision-support tools to help consumers weigh options and make choices among health insurance products. The limited research on the effectiveness of those tools is not sufficient to assess whether consumers are making informed decision as a result of using these tools.

² Subdivision (C) under Sections 1367.08 and 10119.3.

Medical Effectiveness of Current Mandates: Summary of Evidence

AB 1214 would permit the waiver of 44 health insurance benefit mandate and mandated offering statutes that address numerous health care services for a wide range of diseases and conditions.

CHBRP reviewed evidence regarding the medical effectiveness of 31 of the 44 mandates to which AB 1214 would apply. Thirteen mandates were not analyzed because they do not require coverage for specific diseases or health care services, require coverage for a vaccination that has yet to be approved by the Food and Drug Administration, or apply to such a large number of diseases that the evidence cannot be summarized briefly.

For this analysis, CHBRP relied primarily on meta-analyses, systematic reviews, and evidence-based practice guidelines, because these types of studies synthesize findings from multiple studies. Previous CHBRP reports were reviewed where applicable. Individual studies were examined only if meta-analyses, systematic reviews, or evidence-based practice guidelines were not available or if no such syntheses had been published recently. If no studies had been published, CHBRP relied on clinical practice guidelines based on expert opinion.

The amount and strength of the evidence regarding the medical effectiveness of the services for which coverage could be waived under AB 1214 varies. The outcomes that are most important for assessing effectiveness also differ.

Nevertheless, most of the mandates and mandated offerings addressed by AB 1214 require health insurance products to provide coverage for health care services for which there is strong evidence of effectiveness.

Findings regarding the medical effectiveness of specific health care services for which coverage could be waived under AB 1214 are as follows:

- There is *clear and convincing evidence* from multiple, well-designed randomized controlled trials (RCTs) that the following tests and treatments *are medically effective*: cancer screening tests for breast, cervical, and colorectal cancers; diagnostic procedures and treatments for breast cancer; diabetes management medications, services, and supplies; services for the diagnosis and treatment of osteoporosis; medication and psychosocial treatments for severe mental illness and alcoholism; some preventive services for children and adolescents; prescription contraceptive devices; diagnosis and treatment of infertility; and home care services for elderly and disabled adults.
- A *preponderance of evidence* from nonrandomized studies and/or RCTs with major weaknesses indicates that the following tests and treatments *are medically effective*: liver and kidney transplantation services for persons with the human immunodeficiency virus (HIV); medical formulas and foods for persons with phenylketonuria; prosthetic devices; orthotic devices for some conditions; special footwear for persons with rheumatoid arthritis; acupuncture; pain management medication for persons with terminal illnesses; pediatric asthma management; prenatal diagnosis of genetic disorders; expanded alpha-fetoprotein screening; and surgery for the jawbone and associated bone joints.

- The evidence of the effectiveness is *ambiguous* for prosthetic devices used by persons who have had a laryngectomy; special footwear for persons with diabetes; breast reconstruction surgery following mastectomy; and hospice care.
- There is *insufficient evidence* to determine whether the following tests and treatments are effective: tests for screening and diagnosis of prostate cancer, lung cancer, oral cancer, and skin cancer; orthotic devices for some conditions; general anesthesia for dental procedures; screening the blood lead levels of children at increased risk for lead poisoning; reconstructive surgery for clubfoot and craniofacial abnormalities; and home care for children.
- There is *insufficient evidence* to determine whether longer lengths of inpatient stays are associated with better outcomes for females who have a mastectomy or lymph node dissection.
- A *preponderance of evidence* from nonrandomized observational studies indicate that screening for bladder cancer, ovarian cancer, pancreatic cancer, and testicular cancer, and screening the blood lead levels of children at average risk for lead poisoning is *not medically effective*.

Potential Public Health Impacts: Effects of Waiving Specific Benefit Mandates

Using three criteria (medical effectiveness findings, scope of the public health problem, and the type of impact of the public health problem), public health impacts were estimated if coverage for a particular benefit was dropped. Benefits with either “clear and convincing” or a “preponderance” of evidence of their medical effectiveness were categorized into six different groups based on scope and type of impact. **Broad** public health scope was defined as conditions affecting a large segment of the population (1 in 20 persons or more), **moderate** public health scope was defined as conditions affecting between 1 in 2,000 and 1 in 20 persons, and **limited** public health scope was defined as conditions affecting a more limited segment of the population (1 in 2,000 or less). The **type** of the public health impact was defined in terms of mortality or **morbidity** impact. Mortality (rates of death within a population) and morbidity (rates of the incidence and prevalence of disease) are commonly used measures for health status in a community. For those benefits where there was evidence of “no impact,” a conclusion of **no impact on public health** was drawn. For benefits where there was either “insufficient” or “ambiguous” medical effectiveness evidence or no prevalence data, a conclusion of **unknown** impact on public health was drawn.

Mandates with a potential impact of **broad public health scope** if coverage is dropped:

- **Mortality impact:** cancer screening tests for breast, cervical, and colorectal cancers; diagnostic tests and treatments for breast cancer; diabetes management medications, services, and supplies; medication and psychosocial treatments for severe mental illness and alcoholism; preventive services for children and adolescents; and pediatric asthma management.

- **Morbidity impact:** prescription contraceptive devices.

Mandates with a potential impact of **moderate public health scope** if coverage is dropped:

- **Mortality impact:** services for the diagnosis and treatment of osteoporosis and prenatal diagnosis of genetic disorders.
- **Morbidity impact:** prosthetic devices; orthotic devices for some conditions; pain management medication for persons with terminal illnesses; acupuncture; general anesthesia for dental procedures; diagnosis and treatment of infertility, and surgery for the jawbone and associated bone joints.

Mandates with a potential impact of **limited public health scope** if coverage is dropped:

- **Mortality impact:** medical formulas and foods for persons with phenylketonuria, and expanded alpha-fetoprotein screening.
- **Morbidity impact:** special footwear for persons with rheumatoid arthritis, home care services for elderly and disabled adults, and hospice care.

Mandates with evidence of **no impact on public health** if coverage is dropped:

- Screening the blood lead levels of children at average risk for lead poisoning.

Mandates with an **unknown impact on public health** if coverage is dropped:

- Tests for screening and diagnosis of prostate cancer, transplantation services for persons with HIV; prosthetic devices for persons who have had a laryngectomy; special footwear for persons with diabetes; reconstructive surgery for breast cancer; and reconstructive surgery for clubfoot and craniofacial abnormalities.

Potential Cost Impacts of AB 1214

Analytic Approach

- Because there are currently 44 mandates under California law, the number of possible combinations of these 44 benefits that insurers might offer, if they were no longer mandated, is virtually limitless. For its analysis of AB 1214, CHBRP employed a simplifying assumption regarding the expected design of health plan benefit designs if AB 1214 were to be enacted. This assumption was that insurers would all offer three prototypes of the limited-mandate plans for four market segments: one for the DMHC-regulated group and individual markets, one for the CDI-regulated group market, and one for the CDI-regulated individual market. The rationale for which mandates would remain and which would be eliminated from each of the three prototype plans was based on: (1) review of grey literature (e.g., not peer reviewed), (2) review of plans offered in other states with laws that allowed for the development of plans not subject to state mandates, (3) review of low-premium plans currently offered in California, and (4) discussion with a content expert.
- In addition to the simplifying assumption that only three prototypes of the limited-mandate plans would be offered in the market, CHBRP employed a scenario approach to the analysis

of the cost impacts of AB 1214. These scenarios were necessary because of the difficulty associated with estimating how many employers would offer these limited-mandate plans in the group market and how many individuals would purchase these plans in the individual market. Therefore, CHBRP's analysis models the maximum short-term savings theoretically possible using the following two scenarios:

- **Scenario 1 (High Impact)**—Substitution of all current health insurance products with the three prototype limited-mandate plans. This scenario assumes all insurers would offer these limited-mandate plans in every market, and all currently insured Californians would purchase these limited-mandate plans instead of their current health insurance products.
- **Scenario 2 (Low Impact)**—Substitution of all high-deductible health plans (HDHPs) currently available in the market with limited-mandate HDHPs. This scenario assumes that only those who currently have lower-premium plans (i.e., HDHPs) would be interested in purchasing health insurance products with limited mandates, and that everyone currently with an HDHP would purchase a less-expensive HDHP with limited mandates. In addition, this scenario also accounts for the substitution of some full-benefit products with limited-benefit HDHPs because of the change in relative prices (i.e., premiums) of HDHPs compared to full-benefit plans.

Both scenarios overstate the impact of AB 1214, because not everyone would switch from their current plans to limited-mandate plans. Therefore, these scenarios should be thought of as **upper bounds**, in the short term rather than actual estimates of how the market might respond to AB 1214. They are useful because they show **at most** the short-term savings that might be possible if there was broad acceptance of these policies.

Scenario 1 Findings

- Under this scenario, total premiums and member copayments among the commercially insured population would decline by \$3.324 billion dollars, a reduction of 4.893%. However, out-of-pocket expenditures for services that would no longer be covered would increase by \$1.427 billion—less than the projected decrease in premiums, reflecting primarily lower spending on services no longer covered by insurance. The net impact on premiums and out-of-pocket expenditures would be a reduction of \$1.898 billion, or 2.763%.
- About 26,000 Californians would become insured as a result of this scenario. This would increase expenditures for premiums and for out-of-pocket expenditures by \$56 million among these individuals.
- Therefore, the combined effect on those currently insured in the commercial market and on those newly insured would be a reduction in premium and out-of-pocket expenditures of \$1.842 billion, or 2.393%.

Scenario 2 Findings:

- Under this scenario, total premiums and member copayments among the commercially insured population would decline by \$255 million dollars, a reduction of 0.372%. However, out-of-pocket expenditures for services that would no longer be covered would increase by

\$101 million—less than the projected decrease in premiums, reflecting primarily lower spending on services no longer covered by insurance. The net impact on premiums and out-of-pocket expenditures would be a reduction of \$154 million, or 0.225%.

- About 22,000 Californians would become insured as a result of this scenario. This would increase expenditures for premiums and out-of-pocket expenditures by \$38 million among these individuals.
- Therefore, the combined effect on those currently insured in the commercial market and on those newly insured would be a reduction in premium and out-of-pocket expenditures of \$116 million, or 0.151%.

Potential Long-Term Impacts of AB 1214

Adverse risk selection is likely to occur as a result of AB 1214 in subsequent years after the bill's implementation. Lower-risk individuals (e.g. those with less health care needs) would be more likely to switch to limited-mandate products that become available in the market, leaving higher-risk individuals in those insurance products with more generous benefits. This segmentation of risk would further increase the premium difference between generous-mandate insurance products and limited-mandate insurance products. Under certain circumstances, it is possible that generous-mandate insurance products could be driven out of some market segments entirely because they are no longer price competitive.

Although it is difficult to predict the ultimate percentage impact of adverse risk selection on premiums, the segmentation of risk, particularly in the individual market, is likely to increase the magnitude of the premium differences estimated in this report, which are based solely on the actuarial value of excluded benefit mandates. Risk selection is likely to magnify the premium differences because low-risk individuals who are most likely to switch into limited-mandate insurance products are also least likely to use those services that are excluded from coverage. The net impact of adverse risk selection over time would be an increase in premiums for those who remain in generous-mandate insurance products and a decline in premiums for those who select limited-mandate insurance products.

While individuals in limited-mandate insurance products pay lower premiums, they would potentially face large out-of-pocket expenditures if they require services for a condition that was previously covered by a mandated benefit but is now excluded from their current insurance benefit package. According to numerous studies, individuals are substantially less likely to use services for which they have no insurance coverage (Newhouse 1993). In these instances, the costs of these services would be borne fully by the individual, either in the form of out-of-pocket expenditures or reduced health status if the individual decides to forgo care because it is too expensive. In the latter case, the costs of the care may eventually be borne by health care providers and by taxpayers in the form of uncompensated care. It may also be borne by public programs or by nonprofit organizations if the individual qualifies for services provided by those entities. For example, a woman enrolled in a policy without any reproductive or maternity benefits may obtain certain services at Planned Parenthood or may qualify for California's Access to Infants and Mothers program (AIM) if she becomes pregnant.

Table 1. Potential Cost Impacts of AB 1214—Waiver of Mandated Benefits (Scenario 1)

| | Before Enactment of AB 1214 | After Enactment of AB 1214 | Increase/ Decrease | % Change After Enactment |
|---|--|---|-------------------------------|---|
| Coverage | | | | |
| Number of individuals whose insurance products are subject to AB 1214 (1) | 17,335,000 | 17,361,000 | 26,000 | 0.150% |
| Number of uninsured individuals | 4,882,000 | 4,856,000 | -26,000 | -0.533% |
| Total number of individuals | 22,217,000 | 22,217,000 | -- | 0.000% |
| Expenditures | | | | |
| <i>For those members who were originally insured</i> | | | | |
| Premium expenditures by private employers for group insurance | 43,944,936,000 | 41,794,783,000 | -2,150,153,000 | -4.893% |
| Premium expenditures for individually purchased insurance | 5,515,939,000 | 5,272,163,000 | -243,776,000 | -4.419% |
| CalPERS employer expenditures | 2,631,085,000 | 2,498,581,000 | -132,504,000 | -5.036% |
| Premium expenditures by employees with group insurance or CalPERS | 11,468,688,000 | 10,913,374,000 | -555,314,000 | -4.842% |
| Member Copayments (deductibles, copayments, etc) | 5,117,856,000 | 4,875,351,000 | -242,505,000 | -4.738% |
| Expenditures for non-covered services (2) | -- | 1,426,520,000 | 1,426,520,000 | N/A |
| Total annual expenditures for originally insured members | 68,678,504,000 | 66,780,772,000 | -1,897,732,000 | -2.763% |
| <i>For those Newly Insured Members</i> | | | | |
| Premium expenditures by private employers for group insurance | -- | 62,614,000 | 62,614,000 | N/A |
| Premium expenditures for individually purchased insurance | -- | 7,899,000 | 7,899,000 | N/A |
| CalPERS employer expenditures | -- | 3,743,000 | 3,743,000 | N/A |
| Premium expenditures for employees with group insurance or CalPERS | -- | 16,349,000 | 16,349,000 | N/A |
| Member Copayments (deductibles, copayments, etc) | -- | 7,303,000 | 7,303,000 | N/A |
| Expenditures for non-covered services (2) | 44,266,000 | 2,137,000 | -41,882,000 | -95.145% |
| Total annual expenditures for newly insured members | 44,266,000 | 100,045,000 | 56,026,000 | 127.292% |
| <i>For the Uninsured</i> | | | | |
| Total annual expenditures for the uninsured | 8,230,350,000 | 8,230,350,000 | -- | 0.000% |
| Total annual expenditures | 76,952,873,000 | 75,111,167,000 | -1,841,706,000 | -2.393% |

Source: California Health Benefits Review Program, 2007.

Notes: The population includes individuals and dependents in California who have private insurance (group and individual) or are enrolled in CalPERS HMO. (1) All population figures include enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment-based coverage. (2) Benefits not covered due to the waiver of benefits under AB 1214.

Key: DMHC = California Department of Managed Care, CDI = California Department of Insurance, CalPERS = California Public Employees' Retirement System; HMO = health maintenance organization and point of service plans.

Table 2. Potential Cost Impacts of AB 1214—Waiver of Mandated Benefits (Scenario 2)

| | Before Enactment of AB 1214 | After Enactment of AB 1214 | Increase/ Decrease | % Change After Enactment |
|---|--|---|-------------------------------|---|
| Coverage | | | | |
| Number of individuals whose insurance products are subject to AB 1214 (1) | 17,335,000 | 17,357,000 | 22,000 | 0.127% |
| Number of uninsured individuals | 4,882,000 | 4,860,000 | -22,000 | -0.451% |
| Total number of individuals | 22,217,000 | 22,217,000 | -- | 0.000% |
| Expenditures | | | | |
| <i>For those members who were originally insured</i> | | | | |
| Premium expenditures by private employers for group insurance | 43,944,936,000 | 43,702,812,000 | -242,124,000 | -0.551% |
| Premium expenditures for individually purchased insurance | 5,515,939,000 | 5,392,503,000 | -123,436,000 | -2.238% |
| CalPERS employer expenditures | 2,631,085,000 | 2,631,085,000 | -- | 0.000% |
| Premium expenditures by employees with group insurance or CalPERS | 11,468,688,000 | 11,476,886,000 | 8,198,000 | 0.071% |
| Member Copayments (deductibles, copayments, etc) | 5,117,856,000 | 5,219,881,000 | 102,025,000 | 1.994% |
| Expenditures for non-covered services (2) | -- | 100,865,000 | 100,865,000 | N/A |
| Total annual expenditures for originally insured members | 68,678,504,000 | 68,524,032,000 | -154,472,000 | -0.225% |
| <i>For those Newly Insured Members</i> | | | | |
| Premium expenditures by private employers for group insurance | -- | 14,907,000 | 14,907,000 | N/A |
| Premium expenditures for individually purchased insurance | -- | 38,502,000 | 38,502,000 | N/A |
| CalPERS employer expenditures | -- | -- | -- | N/A |
| Premium expenditures for employees with group insurance or CalPERS | -- | 3,924,000 | 3,924,000 | N/A |
| Member Copayments (deductibles, copayments, etc) | -- | 17,242,000 | 17,242,000 | N/A |
| Expenditures for non-covered services (2) | 37,533,000 | 1,236,000 | -36,297,000 | -96.707% |
| Total annual expenditures for newly insured members | 37,533,000 | 75,811,000 | 38,278,000 | 101.985% |
| <i>For the Uninsured</i> | | | | |
| Total annual expenditures for the uninsured | 8,236,837,000 | 8,236,837,000 | -- | 0.000% |
| Total annual expenditures | 76,952,874,000 | 76,836,680,000 | -116,194,000 | -0.151% |

Source: California Health Benefits Review Program, 2007.

Notes: The population includes individuals and dependents in California who have private insurance (group and individual) or are enrolled in CalPERS HMO. (1) All population figures include enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment-based coverage. (2) Benefits not covered due to the waiver of benefits under AB 1214.

Key: DMHC = California Department of Managed Care, CDI = California Department of Insurance, CalPERS = California Public Employees' Retirement System; HMO = health maintenance organization and point of service plans.

INTRODUCTION

Assembly Bill (AB) 1214, also called the “Freedom to Choose Health Benefits Act of 2007,” would allow for the development, marketing, and purchasing of health insurance products that waive a subset of benefit mandates currently in law. Specifically, as of July 1, 2008, health care service plans and insurers would be permitted to issue, renew, or amend plans or policies that omit one or more currently mandated benefits if a contractholder or policyholder in the group or individual market waives the benefit.

Under AB 1214, the “policyholder” (or the entity authorized to waive benefit mandates) is the purchaser. In the large- and small-group market, this means the employer or a group (such as an association) and not the individual employee or dependant. In the individual market, this would mean the individual purchaser.

The intent of AB 1214 is to allow health insurance products to be customized to meet the perceived health care needs of a purchaser. According to the bill’s author:

- The current health insurance regulatory and legal framework does not allow a group or individual purchaser to opt out of benefits the purchaser regards as unnecessary to obtain a more affordable policy. This lack of choice financially penalizes those who are healthy and do not expect themselves to be at risk for medical conditions for which there is required coverage.
- Allowing for the development of products that waive certain mandated benefits would spark innovation and competition among carriers, provide an array of lower-priced products, and potentially expand coverage to those who are currently uninsured—especially for those in the small-group or individual markets.
- AB 1214 is also intended to offer incentives to group and individual purchasers to conduct a careful review of the benefits associated with a plan so that they are purchasing policies that fit their health care needs.
- The intent is also to bring the issue of choice in selecting health care plans, as well as affordability, into the forefront of the health care reform debate.

Proponents of similar bills state that allowing for the development of health insurance products exempt from state mandates would encourage the market to develop health insurance policies at a lower price, making health insurance more accessible and affordable.^{3,4} Proponents also state that the current regulatory framework of charging the younger and healthier more to subsidize the sick raises issues of equity and fairness in payment structures. Proponents argue that benefit mandates, in particular, force those who would not necessarily want or need a benefit to buy it even when they would rather purchase a less expensive limited-benefit plan (Westerfield, 2003).

³ Texas, Consumer Choice of Benefits Plans, Title 8, Chapter 1507, Texas Insurance Code, 2003.

⁴ Georgia, Official Code of Georgia Annotated, Ch. 33-60, “Small Business Employee Choice of Benefits Health Insurance Plan Act,” 2004.

Provisions of AB 1214

A few important definitions and clarifications are warranted to fully understand the provisions of AB 1214:

- **Effect on Health Plans:** AB 1214 permits policyholders to waive all benefits that are currently mandated under the California Health & Safety Code *except* for “Basic Health Care Services.” Basic Health Care Services are those included in the minimum benefit package enacted by the Knox-Keene Health Care Service Act of 1975. Thus, health maintenance organizations (HMOs) and preferred provider organizations (PPOs) that are regulated by the Department of Managed Health Care (DMHC) would be required to include coverage of Basic Health Care Services in all of their products. Enrollment in these plans accounts for over 90% of the private fully-insured market in California.⁵
- **Basic Health Care Services:** Basic Health Care Services include a wide range of preventive and medically necessary diagnostic and treatment services provided in the inpatient, outpatient, physician offices, and post-acute care settings. “Basic Health Care Services” include all of the following: (1) Physician services, including consultation and referral; (2) Hospital inpatient services and ambulatory care services; (3) Diagnostic laboratory and diagnostic and therapeutic radiologic services; (4) Home health services; (5) Preventive health services; (6) Emergency health care services, including ambulance and ambulance transport services and out-of-area coverage; and (7) Hospice Care. DMHC regulations to enact this statute elaborate on the range of necessary services [California Code of Regulations, Section 1300.67(f)(8)]. The bill author’s intent is to retain coverage for medically necessary services by maintaining “Basic Health Care Services” in statute. The bill author believes that all the statutory authority necessary to regulate and monitor managed care plans and the benefits included in the plans are contained in the original Knox-Keene Act. Therefore, legislatively-imposed benefits mandated after 1975 are redundant, and unnecessary. AB 1214 does not affect the DMHC’s authority to conduct independent medical review; review plan designs, benefits, contracts, and marketing materials; or other enforcement activities.⁶
- **Effect on Health Insurers:** AB 1214 permits policyholders to waive *all* benefits that are currently mandated by the California Insurance Code. This would affect PPOs and indemnity (fee-for-service) health insurance products that are regulated by the

⁵ This figure is from CHBRP analysis of enrollment data reported in the Report of Health Care Services Plan’s Provider Dispute Resolution Mechanisms: 2005 Annual Report by the Department of Managed Health Care, February, 2006.

⁶ Discussions with DMHC have indicated that this would be subject to legal interpretation. If AB 1214 permits the waiver of a benefit mandate that may have been considered a “basic health care service” prior to the enactment of that benefit mandate, then actively permitting the waiver of that benefit mandate may, in effect, repeal that protection under the broader statutory authority of Section 1345. For example, AB 1214 allows for the waiver of Section 1367.51 (Diabetes management and treatment). Because that was a specific benefit mandate enacted into law, it is possible that that the benefit would no longer be considered a “basic health care service”. In addition, it is possible that the specific action by a health plan and the applicant to waive the benefit would supersede any broader protections provided under Section 1345. These overlapping legal rules concepts may be subject to interpretation and/or need to be arbitrated by the courts.

California Department of Insurance (CDI). Enrollment in these policies account for about 10% of the private fully-insured market in California.⁷

- **Contractholder/policyholder:** AB 1214 refers to a “contractholder” or “policyholder” as the entity that may waive the mandated benefit when renewing an existing plan or policy or obtaining a new one. As mentioned, this generally means the employer in the group market and the individual in the individual market, since the employer is the group purchaser on behalf of the employees and their dependents in the group market, and the individual is the purchaser in the individual market. Subscribers and dependents in the group market would not be considered the contractholder or policyholder under AB 1214.
- **Mandates:** A benefit mandate is a law that requires a health plan or policy to cover a specified service or item or a set of services to prevent or treat a specific condition. An example would be a mandate to cover prostate cancer screening or a mandate that requires coverage for all services to screen and treat breast cancer. A provider mandate is a law that requires a health plan or policy to reimburse a provider for services that fall within their scope of practice. An example would be a mandate that requires coverage for the services provided by a licensed acupuncturist. A third type of mandate is related to the terms and conditions by which that benefit is administered. For example, the mental health parity law requires that coverage for serious mental health conditions must be covered *on par* with other medical conditions, so that mental health benefits and other benefits are subject to the same copayments, limits, etc.
- **Mandated offering:** A benefit mandated offering is a law that required a health plan or policy to give a group or individual purchaser the option of buying a specified service or item or a set of services to treat a specific condition. A mandated offering related to a specific provider is a law that requires a health plan or policy to give a purchaser the option of buying a benefit that provides reimbursement to a specific provider type, for example, acupuncturists.
- **Affected market:** Benefit mandates or mandated offerings may only apply to the group market as opposed to the group *and* individual market. In these cases, the law specifically would state that individual plans and policies are exempt or that the law only applies to group policies. If the law is silent, it would apply to all markets.

Table 3 summarizes the benefit mandates and mandated offerings that could be waived under AB 1214, if the contractholder or policyholder consents.

⁷ This figure is from CHBRP analysis of enrollment data reported in “CDI Licensees with HMSR Covered Lives Greater than 100,000” as part of the Accident and Health Covered Lives Data Call, December 31, 2005, by the California Department of Insurance, Statistical Analysis Division.

Table 3. Mandates in Current Law that Would Be Permitted to Be Waived under AB 1214, Categorized by Mandate Type

A. Cancer Screening & Treatment

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|--|------------------------------|-----------------------------------|--|----------------------|
| Cancer screening tests | 1367.665 | 10123.2 | Mandate | Individual and group |
| Prostate cancer screening and diagnosis | 1367.64 | 10123.83 | Mandate | Individual and group |
| Cervical cancer screening | 1367.66 | 10123.18 | Mandate | Individual and group |
| Breast cancer screening, diagnosis, and treatment | 1367.6 | 10123.8 | Mandate | No mention |
| Breast cancer screening with Mammography | 1367.65 | 10123.81 | Mandate | No mention |
| Mastectomy and lymph node dissection – length of stay | 1367.635 | 10123.86 | Mandate | Individual and group |
| Patient care related to clinical trials for cancer (1) | 1370.6 | N/A (2) | Mandate | No mention |

Notes: (1) For the purpose of this report, this mandate will not be analyzed since many services can apply to “patient care” provided in conjunction with cancer-related clinical trials. (2) An N/A in either the Health & Safety Code column or the California Insurance Code column indicates that a mandate does not apply to plans covered under that code.

B. Chronic Conditions

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|--|------------------------------|-----------------------------------|--|----------------------|
| Diabetes management and treatment | 1367.51 | 10176.61 | Mandate | No mention |
| Osteoporosis diagnosis, treatment and management | 1367.67 | 10123.185 | Mandate | No mention |
| Transplantation services for persons with HIV | 1374.17 | 10123.21 | Mandate | No mention |
| AIDS vaccine (1) | 1367.45 | 10145.2 | Mandate | Individual and group |
| Phenylketonuria | 1374.56 | 10123.89 | Mandate | No mention |

Note: (1) For the purpose of this report, the AIDS vaccine mandate will not be reviewed since an HIV/AIDS vaccine has yet to be developed.

C. Mental Illness

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|--|------------------------------|-----------------------------------|--|----------------------|
| Coverage for mental and nervous disorders (1) | N/A (2) | 10125 | Mandated offering | Group |
| Coverage and premiums for persons with physical or mental impairment (1) | 1367.8 | 10122.1 | Mandate | Individual and group |
| Parity in coverage for severe mental illness | 1374.72 | 10123.15 (10144.5) | Mandate | Group |
| Alcoholism treatment | 1367.2 | 10123.6 | Mandated offering | Group |

Notes: (1) For the purpose of this report, these mandates will be analyzed in conjunction with the mental health parity mandate. (2) An N/A in either the Health & Safety Code column or the California Insurance Code column indicates that a mandate does not apply to plans covered under that code.

D. Orthotics and Prosthetics

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|--|------------------------------|-----------------------------------|--|------------------|
| Orthotic and prosthetic devices and services | 1367.18 | 10123.7 | Mandated offering | Group |
| Prosthetic devices for laryngectomy | 1367.61 | 10123.82 | Mandate | No mention |
| Special footwear for persons suffering from foot disfigurement | 1367.19 | 10123.141 | Mandated offering | No mention |

E. Pain Management

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|---|------------------------------|-----------------------------------|--|------------------|
| Acupuncture | N/A (1) | 10127.3 | Mandated offering | Group |
| Pain management medication for terminally ill | 1367.215 | N/A | Mandate | No mention |
| General anesthesia for dental procedures | 1367.71 | 10119.9 | Mandate | No mention |

Note: (1) An N/A in either the Health & Safety Code column or the California Insurance Code column indicates that a mandate does not apply to plans covered under that code.

F. Pediatric Health

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|---|------------------------------|-----------------------------------|--|----------------------|
| Comprehensive preventive care for children aged 16 years or younger | 1367.35 | 10123.5 | Mandate | Group |
| Comprehensive preventive care for children aged 17 or 18 years | 1367.3 | 10123.55 | Mandated offering | Group |
| Asthma management | 1367.06 | N/A (1) | Mandate | No mention |
| Screening children for blood lead levels | 1367.3(b)(2)(D) | 10119.8 | Mandate | Individual and group |

Note: (1) An N/A in either the Health & Safety Code column or the California Insurance Code column indicates that a mandate does not apply to plans covered under that code.

G. Reproductive

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|---|------------------------------|-----------------------------------|--|----------------------|
| Contraceptive devices requiring a prescription | 1367.25 | 10123.196 | Mandate | No mention |
| Infertility treatments | 1374.55 | 10119.6 | Mandated offering | Group |
| Conditions associated with exposure to diethylstilbestrol | 1367.9 | 10119.7 | Mandate | No mention |
| Prenatal diagnosis of genetic disorders | 1367.7 | 10123.9 | Mandated offering | Group |
| Expanded alpha-fetoprotein | 1367.54 | 10123.184 | Mandate | Individual and group |
| Maternity benefits – minimum length of stay (1) | 1367.62 | 10123.87 | Mandate | Individual and group |
| Maternity coverage – amount of copayment or deductible for inpatient services | 1373.4 | N/A (2) | Mandate | No mention |

Notes: (1) This benefit may not technically be waived because it is required for plans that cover maternity services under the federal Newborns' and Mothers' Health Protection Act of 1996. The federal law is similar to the California law in that they both specify a length of hospital stay to be covered and allows mothers to be discharged earlier if the treating physician, in consultation with the mother, agrees to do so. The California law also requires that a post-discharge follow up visit be covered for early discharge while the federal law is silent on that provision. For the purposes of this report, this mandate will not be evaluated since it may not be waived. (2) An N/A in either the Health & Safety Code column or the California Insurance Code column indicates that a mandate does not apply to plans covered under that code.

H. Mandates related to Surgery

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|-----------------------------------|------------------------------|-----------------------------------|--|----------------------|
| Jawbone or associated bone joints | 1367.68 | 10123.21 | Mandate | No mention |
| Reconstructive surgery (1) | 1367.63 | 10123.88 | Mandate | Individual and group |

Note: (1) The federal Women’s Health and Cancer Rights Act of 1998 requires post-mastectomy reconstruction to be covered. California’s mandate is broader in that it requires that medically necessary reconstructive surgery be covered. If this mandate were to be waived, the federal requirements related to post-mastectomy reconstructive surgery would still apply.

I. Hospice and Home Health Care Benefits Mandates

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|------------------------|------------------------------|-----------------------------------|--|------------------|
| Hospice care | 1368.2 | N/A (1) | Mandate | Group |
| Home health care | N/A | 10123.10 | Mandated offering | Group |

Note: (1) An N/A in either the Health & Safety Code column or the California Insurance Code column indicates that a mandate does not apply to plans covered under that code.

J. Other Mandates Regarding Terms and Conditions of Coverage

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|--|------------------------------|-----------------------------------|--|----------------------|
| Prescription drugs: coverage of “off-label” use (1) | 1367.21 | 10123.195 | Mandate | No mention |
| Prescription drugs: coverage for previously prescribed drugs (1) | 1367.22 | N/A (2) | Mandate | No mention |
| Authorization for nonformulary prescription drugs (1) | 1367.24 | N/A | Mandate | No mention |
| Coverage for persons with blindness or partial blindness (3) | 1367.4 | N/A | Mandate | Individual and group |

Notes: (1) For the purposes of this report, these mandates will not be analyzed for several reasons: the prescription drug requirements could apply to any number of prescription drugs and conducting a medical effectiveness analysis or a public health impact analysis for all of the possible drugs would not be feasible. (2) An N/A in either the Health & Safety Code column or the California Insurance Code column indicates that a mandate does not apply to plans covered under that code. (3) This mandate is an anti-discriminatory measure to protect individuals who are legally blind. According to CHIS 2005 there are 110,000 legally blind insured persons in California under age 65. The question as to whether coverage is medically effective does not apply.

K. Other Provider Mandates (1)

| Description of Benefit | Health & Safety Code Section | California Insurance Code Section | Type of Requirement (Mandate or Mandated Offering) | Markets Affected |
|--|------------------------------|-----------------------------------|--|------------------|
| Medical transportation services – direct reimbursement | 1367.11 | 10126.6 | Mandate | No mention |
| OB-GYNs as primary care providers | 1367.69 | 10123.83 | Mandate | No mention |
| Pharmacists – compensation for services within their scope of practice | 1368.5 | N/A (2) | Mandate | No mention |

Notes: (1) For the purposes of this report, these provider mandates will not be analyzed since these providers may provide any number of services and conducting a medical effectiveness analysis or a public health impact analysis for all of those possible services would not be feasible. (2) An N/A in either the Health & Safety Code column or the California Insurance Code column indicates that a mandate does not apply to plans covered under that code.

Disclosure Provisions

AB 1214 requires the DMHC and CDI to prepare a disclosure form prior to July 1, 2008, that will detail required and waived benefits for purchasers.⁸ The bill author intends that the DMHC and CDI would use their enforcement authority to ensure that plans and insurers provide sufficient written information about what mandated benefits are included and what mandated benefits and offerings are excluded so that the purchaser understands what mandated benefits are excluded. Although not an explicit requirement, AB 1214 implies that a carrier is expected to explain the disclosure form and which benefits would be waived under that specific health insurance product.⁹

What AB 1214 Does Not Do

AB 1214 *does not require* carriers to offer products that waive mandated benefits or “limited mandate plans.” AB 1214 *does not require* carriers to offer “limited-mandate plans” in conjunction with plans that offer the full array of mandated benefits. Under AB 1214, a carrier can offer a limited-mandate plan in a specific market—for example, the individual market in Los Angeles. If an individual purchaser does not waive (or demands a mandated benefit) that is excluded under a limited-mandate plan, a carrier is not required to offer the purchaser an alternative product with the benefit included. In that case, the individual purchaser would be expected to go to another carrier that offers a product that includes the desired benefit(s). The same would hold for large- and small-group purchasers.

As mentioned, AB 1214 *does not* eliminate the DMHC’s nor the CDI’s ability to regulate health insurance products. For example, consumer protections enforced by the DMHC, including disclosure requirements, access to services, and internal and external grievance review would remain intact. Consumer protections enforced by CDI, such as operational and financial reviews of insurance carriers, would also remain intact.

⁸ Subdivision (C) under Sections 1367.08 and 10119.3.

⁹ This inference is drawn from the requirement of the applicant or contractholder/policyholder to sign the disclosure form and specify which benefits are waived. Subdivision (D), under Sections 1367.08 and 10119.3.

The Analytic Approach Used in this Report

As of January 1, 2007, CHBRP's charge was expanded, not only to analyze bills that would add health benefit mandates, but to those that would repeal existing mandates. CHBRP has been asked to analyze the medical effectiveness, public health, and cost impacts of AB 1214, since it has been interpreted as a bill that would effectively repeal or relax a set of health benefit mandate requirements in current law.

AB 1214 is based on the premise that, given choices, purchasers would make decisions regarding their health benefits that best meet their own or their employees' needs. Therefore this report first presents a summary of the literature related to consumers' ability to make informed choices for health insurance.

To assess the medical effectiveness and the likely public health and cost impacts of AB 1214, this report does the following:

- In the *Medical Effectiveness* section, CHBRP examines each of the benefits that may be waived under AB 1214 to determine whether the mandated benefit is considered to be medically effective based on existing evidence. Conclusions are drawn from the U.S. Preventive Services Task Force recommendations, CDC recommendations, NIH guidelines, and other authoritative sources. If a CHBRP analysis exists for a current benefit mandate, this report relies on that previous analysis. For example, the medical effectiveness analysis in the CHBRP report on AB 228 (2005) was used as evidence on the effectiveness of covering transplantation services for persons with HIV.
- The *Public Health Impact* section provides estimates of the scope of the population that would be affected by a health condition related to a mandated benefit. The report offers general conclusions regarding the public health impact of waiving a particular benefit mandate based on the findings presented in the *Medical Effectiveness* section and the number of insured Californians that may be affected by the health condition.
- Because there are currently 44 mandates under California law, the number of possible combinations of these 44 benefits that insurers might offer, if they were no longer mandated, is virtually limitless. For its analysis of AB 1214, CHBRP employed a simplifying assumption regarding the expected design of health plan benefit designs if AB 1214 were to be enacted. This assumption was that insurers would all offer three prototypes of the limited-mandate plans for four market segments: one for the DMHC-regulated group and individual markets, one for the CDI-regulated group market, and one for the CDI-regulated individual market. CHBRP's analysis models the possible maximum short-term savings using the following two scenarios:
 - **Scenario 1 (High Impact)**—Substitution of all current health insurance products with the three prototype limited-mandate plans. This scenario assumes all insurers would offer these limited-mandate plans in every market, and all currently insured Californians would purchase these limited-mandate plans instead of their current health insurance products.

- **Scenario 2 (Low Impact)**—Substitution of all high-deductible health plans (HDHPs) currently available in the market with limited-mandate HDHPs. This scenario assumes that only those who currently have lower-premium plans (i.e., HDHPs) would be interested in purchasing health insurance products with limited mandates, and that everyone currently with an HDHP would purchase a less-expensive HDHP with limited mandates. In addition, this scenario also accounts for the substitution of some full-benefit products with limited-benefit HDHPs because of the change in relative prices (i.e., premiums) of HDHPs compared to full-benefit plans.

Both scenarios overstate the impact of AB 1214, because not everyone would switch from their current plans to limited-mandate plans. Therefore, these scenarios should be thought of as **upper bounds**, in the short term rather than actual estimates of how the market might respond to AB 1214. They are useful because they show **at most** the short-term savings that might be possible if there was broad acceptance of these policies.

- The *Cost Impact* section also estimates the short-term impacts on those currently uninsured in California if AB 1214 were to pass and limited-mandate plans were to become available in the market. Finally, potential long-term impacts such as risk segmentation, and impacts on public programs are qualitatively addressed.

CONSUMER CHOICE: SUMMARY OF THE LITERATURE

Under AB 1214, the “policyholder” (or the entity authorized to waive benefit mandates) is the purchaser. The purchaser is to sign a disclosure form to indicate they understand they have waived a set of benefit mandates, and they understand the characteristics of the health insurance product (e.g. cost-sharing, covered benefits, benefit limits, etc.)

As previously mentioned, in the large- and small-group market, the “policyholder” is the employer or a group (such as an association) and not the individual employee or dependant. If AB 1214 were to pass into law, a purchaser in the large-group market would likely offer a limited-mandate plan in conjunction with other health insurance products (for example, an HMO) to its employees. Therefore, employees of large groups would likely have choices among health insurance products.

Small groups are likely to offer their employees fewer health insurance product options than large group. In 2005 for example, 92% of California’s large firms offered their workers a choice of health insurance products versus 64% of small firms (CHCF, 2005). Therefore, after passage of AB 1214, if a small group chooses to offer *only* a limited-mandate plan, an employee may not have other choices.

In the individual market, consumers are the policyholders and make the choice for themselves and their dependants regarding what health insurance product to purchase. If AB 1214 were to pass into law, it is highly likely that carriers would develop limited-mandate plans in the individual market. Thus consumers in the individual market would have choices among health insurance products to the extent carriers make those products available in their service areas.

One of the key assumptions behind AB 1214 is that consumers have sufficient information, knowledge, and skills to effectively assess their insurance options and determine whether additional benefits are worth the additional costs in premiums. However, surveys of the U.S. population, and in particular, Medicare beneficiaries, have found that the population’s knowledge and understanding of health insurance is very limited, and even where knowledge is demonstrated, the skills needed to apply the knowledge are not demonstrated (Davidson et al., 1992; Lubalin and Harris-Kojetin, 1999; Marquis, 1983; Marquis et al., 2006; Schaffler, 1980; Sofaer, 1999). A survey of the Medicare population found that only 11% of Medicare beneficiaries have adequate knowledge to make an informed choice between HMOs and traditional Medicare (Hibbard et al., 1998). After New Jersey reformed its individual market, researchers found that significant proportions of the population did not understand how the new market operated (Garnick and Swarz, 1999). In other studies, researchers found that families can understand one or two parameters of their benefits but that complex payment systems are not understood (Marquis, 1983). Also, most privately-insured people understand the basic elements of their health plan but underestimate coverage for mental health, substance abuse, and prescription drugs, and overestimate coverage for long term care (Garnick et al., 1993). In fact, most people are not familiar with their health insurance benefits until they have to use them.

A 2006 random sample survey of adults aged 65 and younger by the California Office of the Patient Advocate (CHI, 2006) found that in the last year 12% of adults enrolled in HMOs had

discovered that important benefits they needed were not covered and 10% reported they had misunderstood their coverage or benefits. In addition, 44% of adults enrolled in HMOs indicated that they knew little about what medications were covered under their plan and 31% knew little overall about the benefits covered under their plan.

Recognizing this deficiency in consumer knowledge and ability to make informed health insurance choices, researchers have examined the effects of providing more information and materials to consumers about their coverage and health plan choices in an effort to improve decision making. These studies have found that providing more information and materials does not increase consumer confidence levels in making choices. In a trial of Medicare beneficiaries, those receiving materials did not differ in their confidence as compared to the control group, but they were able to answer more questions correctly (McCormack 2001; 2002; 2003). Researchers have found that those with the least knowledge in the general population are the uninsured, those who are eligible for coverage but not enrolled, those under age 29, and non-whites (Schauffler, 1980). Within the Medicare population, those with the least knowledge include those at high risk of serious illness, older and non-white beneficiaries, and those without supplemental coverage, including Medicaid (Cafferata, 1984).

Given the well-established evidence that providing consumers with more complex information will not enable them to make informed decisions, there has been an effort to provide consumers with decision-support tools, such as those available on the Internet. For example, Medicare provides an interactive Web sites allowing beneficiaries to input their medical or pharmaceutical use profile. The sites will then generate a limited number of Medicare Advantage or Part D plans in their service area for comparison purposes. Researchers have begun to examine how effective these support tools are in enabling consumers to competently compare costs, benefit packages, provider networks, and (if available) quality of care measures. The limited number of studies indicate that there is weak or little evidence regarding the effectiveness of these tool to support consumers in comparing health plan options and making the most cost-effective and value-based decisions (CHCF, 2006a; Hibbard, 2003).

This evidence suggests that increasing the complexity of benefit options for health insurance in California may make it more difficult for consumers to know what they are purchasing and could lead to even greater numbers of persons finding themselves underinsured when they are sick, as important benefits they thought they had are not covered. Several researchers have concluded that it may be dangerous for consumers to make choices without more information and understanding and effective tools to support the decision-making process (Shaller et al., 2003; Sofaer and Gruman, 2003).

Disclosure Form

As previously mentioned, AB 1214 requires the DMHC and CDI prepare a disclosure form prior to July 1, 2008, that would detail all the benefits that would be required under current law and what benefits would be permitted to be waived. Carriers are to use the disclosure form to inform purchasers on what mandated benefits are excluded in the specific limited-mandate plan they market. Large group purchasers, given their negotiation process with carriers, would likely be

aware of the benefits that would be excluded in any limited-mandate plans they decide to purchase and then offer to their employees. Small groups typically rely on health insurance brokers to explain their health insurance option and thus brokers would play a role in ensuring that small group purchasers understand which benefits are excluded under the limited-mandate plans. Consumers purchasing insurance directly in the individual market would typically rely on Web-based and written materials, as well as communication with insurance agents. In states that allow carriers to market products not subject to mandate benefits (such as association health plans or out-of-state plans), there is some anecdotal evidence to show that disclosure forms do not sufficiently inform an applicant of the product's costs and benefits at the time of enrollment.¹⁰ The accuracy, transparency and readability (e.g. font size, reading level, etc.) of the disclosure form and related marketing materials would depend on the guidelines established by the regulatory agencies, and continued monitoring and enforcement.

¹⁰ Personal communication with John Sinibaldi, Employer Benefits Consulting, greater Tampa Bay area, December 7, 2007. Colorado's Department of Insurance reported nondisclosure or improper disclosure of mandated benefits with two carriers marketing association health plan products in 1999 and 2001 (Kofman et., al, 2006).

MEDICAL EFFECTIVENESS OF CURRENT MANDATES: SUMMARY OF EVIDENCE

AB 1214 would permit the waiver of 44 health insurance mandate and mandated offering statutes that address numerous health care services used to screen for, diagnose, treat, and manage a wide range of diseases and conditions.

CHBRP reviewed evidence regarding the medical effectiveness of 31 of the 44 mandates and mandated offerings to which AB 1214 would apply. Nine mandates were not analyzed because they do not require coverage for specific health care services or for specific diseases or conditions. Three mandates that address coverage for pharmaceuticals were not analyzed, because they apply to such a large number of diseases and conditions that the evidence cannot be summarized briefly. As indicated in Table 3, these mandates concern coverage for all drugs that are used off-label, not on health plans' formularies, or were previously prescribed to enrollees to treat any disease or condition. One mandate was not analyzed because it requires coverage for vaccination against a condition for which no vaccine is currently available (i.e., the AIDS virus).

Literature Review Methods

Studies of the medical effectiveness of the mandates and mandated offerings subject to AB 1214 were identified through searches of databases that index peer-reviewed literature on the effectiveness of health care services. Web sites maintained by organizations that produce systematic reviews and evidence-based guidelines regarding health care services were also searched. In addition, previous CHBRP reports on pertinent topics were reviewed. Appendix B presents more detailed information about the literature search methods.

Once the literature search was completed, the most useful sources of evidence were selected for review. For this analysis, CHBRP relied primarily on meta-analyses, systematic reviews, and evidence-based practice guidelines, because these types of studies synthesize findings from multiple studies and, thus, provide the strongest evidence of effectiveness. Where multiple meta-analyses, systematic reviews, and evidence-based practice guidelines were available, CHBRP focused on the syntheses that were most thorough and which provided the most information about the research designs of the studies synthesized. Most syntheses were published within the past five years, although in a few cases the only syntheses available were published in the late 1980s or 1990s. Individual studies were reviewed only if meta-analyses, systematic reviews, or evidence-based practice guidelines had not been published. If no studies had been published, CHBRP relied on clinical practice guidelines based on expert opinion.

Methodological Considerations

For this analysis, CHBRP took a broad view of the evidence of effectiveness for each mandate. The literature review focused on evidence about the effectiveness of major types of health care services used to screen, diagnose, treat, and manage the diseases and conditions addressed in the mandates and mandated offerings subject to AB 1214. CHBRP chose this broad approach to the literature review because the rapid pace of advances in medical technology leads to frequent changes in state-of-the-art therapy for many conditions. Medications or procedures that are

currently the most effective treatments for a disease or condition may soon be supplanted by new and improved alternatives.

This focused approach to the literature review may have led CHBRP staff to inadvertently omit important sources of evidence from the review. Most notably, relying on syntheses may have caused CHBRP to overlook studies published since the syntheses were completed. However, CHBRP believes this approach is appropriate given the large number of health care services for which evidence needed to be assessed in a short period of time. General conclusions about the effectiveness of treatments for which there is a large body of research probably would not change if the latest studies were added.

CHBRP discussed the relative merits of different tests and treatments for a disease or condition only where there was compelling evidence that certain tests or treatments were more effective than other alternatives. For example, CHBRP summarized findings regarding three different screening tests for breast cancer (i.e., mammography, clinical breast examination, and self-examination), because there is strong evidence that mammography is more effective than clinical breast examinations and self-examination. In contrast, CHBRP did not summarize findings from studies that have addressed the relative merits of different drugs used to treat osteoporosis because all of these drugs have been found to be more effective than placebos.

Outcomes Assessed

The outcomes that are most important for assessing effectiveness differ across the mandates and mandated offerings analyzed. Some of these mandates concern coverage for screening and diagnostic tests. In these cases, CHBRP examined evidence of a test's ability to accurately identify persons with a disease or condition and evidence of whether the benefits of testing outweigh the harms. For two mandates that address coverage for immunizations, CHBRP examined evidence regarding the vaccines' ability to prevent illness and evidence that the benefits of vaccines outweigh their side effects. Other mandates concern coverage for treatment and management of illness. In these cases, the pertinent outcomes vary with the nature of the illness addressed. For example, control of blood glucose level is a critical outcome for studies of medication and services used to manage diabetes, because glucose control improves health outcomes for people with diabetes. Conversely, evaluation of breathing outcomes is important in studies of asthma management interventions, because asthma affects a person's ability to breathe and because better performance on pulmonary function tests and less frequent symptoms are associated with better health and less use of acute care services.

Study Findings

The amount and strength of evidence regarding the medical effectiveness of the services for which coverage is required under the mandates subject to AB 1214 varies. For some mandates, CHBRP could draw upon multiple meta-analyses, systematic reviews, and evidence-based guidelines that synthesized findings from large, well-designed randomized controlled trials (RCTs). In other cases, the only evidence available comes from small, nonrandomized studies that have major methodological flaws. When examining the evidence for each mandate, CHBRP considered both the pattern of findings across studies and the methodological rigor of the studies.

Nevertheless, most of the mandates and mandated offerings addressed by AB 1214 require health insurance products to provide coverage for health care services for which there is strong evidence of medical effectiveness.

Findings regarding the medical effectiveness of specific health care services addressed by the mandates and mandated offerings that could be waived under AB 1214 are described below. The mandates are grouped by major categories of diseases, conditions, populations, and types of services. The findings are presented in Table 4 at the end of this section. Tables that contain further details regarding the characteristics of the studies reviewed and their findings can be found in Appendix C.

Cancer Screening and Treatment

Cancer screening tests

- There is *clear and convincing evidence*¹¹ that there are accurate screening tests for breast cancer, cervical cancer, and colorectal cancer and that the *benefits of routine screening of asymptomatic persons who are at risk for these cancers outweigh the harms*, because early diagnosis and treatment of these cancers reduces mortality.
- There is *insufficient evidence* to recommend for or against routine screening of asymptomatic persons for prostate cancer, lung cancer, oral cancer, and skin cancer.
- There is a *preponderance of evidence*¹² that screening asymptomatic persons for bladder cancer, ovarian cancer, pancreatic cancer, and testicular cancer is *not effective* because screening tests pose some risks and because early detection and treatment does not improve health outcomes.

Diagnosis and treatment of breast cancer

- There is *clear and convincing evidence* that there are *effective* diagnostic procedures and treatments for breast cancer. Major forms of treatment that have been found to be effective include surgery, radiation, chemotherapy, hormone therapy, and immunotherapy.¹³
- There is *insufficient evidence* to determine whether longer length of inpatient stay is associated with better outcomes for females who have a mastectomy or lymph node dissection.

¹¹ CHBRP characterizes evidence as “clear and convincing” where there are consistent findings from meta-analyses, systematic reviews, and evidence-based guidelines based on well-implemented RCTs or, if syntheses are not available, individual RCTs that are well-implemented. When assessing the strength of RCTs, CHBRP considers sample size, attrition, and equivalence between intervention and control groups. Concealment of allocation of patients to treatment and control groups (i.e., blinding) is also taken into consideration in cases in which blinding is feasible.

¹² CHBRP characterizes the evidence as a “preponderance” if the majority of studies, but not an overwhelming majority, reach the same conclusion. This classification is also used when the evidence is drawn from RCTs with major methodological weaknesses and from nonrandomized studies. Even if the overwhelming majority of these studies report the similar findings, the evidence is not as strong as evidence obtained from well-implemented RCTs.

¹³ Findings regarding the effects of performing breast reconstruction surgery in conjunction with mastectomy are discussed below under the heading “Reconstructive Surgery.”

Chronic Conditions

*Diabetes*¹⁴

- There is *clear and convincing evidence* that self-monitoring of blood glucose and comprehensive, ongoing education regarding diabetes self-management skills and nutrition therapy *improve* the management of Type 1, Type 2, and gestational diabetes.
- There is *clear and convincing evidence* that insulin is an *effective* treatment for persons with Type 1 diabetes and for some persons with Type 2 diabetes whose blood glucose levels are not well-controlled by other treatments.
- There is *clear and convincing evidence* that medications are *effective* treatments for Type 2 diabetes.
- There is a *preponderance of evidence* that insulin pump therapy is an *effective* alternative to multiple insulin injections for persons with diabetes who are unable to achieve glycemic control with multiple daily injections or for whom multiple injections are contraindicated.

Osteoporosis

- There is *clear and convincing evidence* that measurement of bone mineral density with dual-energy X-ray absorptiometry (DEXA) is an *effective* diagnostic test for bone mineral loss or osteopenia.¹⁵
- There is *clear and convincing evidence* that exercise, calcium, vitamin D, and medications are *effective* treatments for osteoporosis.

Transplantation services for persons with HIV

- The available studies of organ transplantation in HIV-positive patients consist primarily of studies of kidney and liver transplantation, with only a few reports of heart transplantation, multiple organ transplantation, and autologous stem cell transplantation for lymphoma after high-dose chemotherapy.
- Evidence from case series and case reports suggests that patients with HIV undergoing kidney transplantation have survival rates *similar* to those of patients without HIV.
- Evidence from case series and case reports suggests that in persons who do not have hepatitis C, survival rates after liver transplantation are *similar* regardless of HIV status.

¹⁴ Findings regarding the effects of therapeutic shoes on prevention and treatment of diabetic foot ulcers is discussed below under the heading “Special footwear (i.e., therapeutic shoes).”

¹⁵ Osteoporosis is the most common type of osteopenia, but osteomalacia from Vitamin D deficiency also causes bone mineral loss on DEXA testing.

Phenylketonuria (PKU)¹⁶

- The *preponderance of evidence* indicates that consuming phenylalanine-free medical formulas, low protein medical foods, and foods that are naturally low in phenylalanine is *effective* in reducing the severity of mental and behavioral disorders associated with PKU.

Mental Illness and Substance Use Disorders

Severe mental illnesses

- The *preponderance of evidence* indicates that medication, psychotherapy, and electroconvulsive therapy (ECT) are *effective* treatments for bipolar disorder, major depression, and schizophrenia.
- The *preponderance of evidence* indicates that treating persons who have bipolar disorder, schizophrenia, or severe or recurrent major depressive disorder with both medication and psychotherapy is more *effective* than treating them with either medication or psychotherapy alone.

Alcoholism

- There is *clear and convincing evidence* that pharmaceuticals and certain forms of psychotherapy are *effective* treatments for alcoholism.

Prostheses, Orthoses, and Special Footwear

Prosthetic devices for amputations and limb deformities

- Use of prosthetic devices has been the standard of care for amputations and congenital limb deformities for so long that their benefits are widely accepted even though there are very few controlled studies of prosthetics versus no treatment.

Orthoses

- There is a *preponderance of evidence* that knee orthoses are *effective* treatments for osteoarthritis of the knee, that foot orthoses are *effective* treatments for rheumatoid arthritis of the foot, and that ankle orthoses are *effective* for prevention of ankle sprains.
- There is *insufficient evidence* to assess the effectiveness of foot orthoses for treatment of Achilles tendonitis, plantar heel pain, soreness around the kneecap; the effectiveness of knee orthoses for treatment of soreness around the knee; hand and wrist orthoses for treatment of rheumatoid arthritis of the hand and wrist; or the effectiveness of foot and knee orthoses for prevention of sprains, strains, and stress fractures.

¹⁶ Phenylketonuria (PKU) is a metabolic disorder. Persons who have PKU cannot properly metabolize phenylalanine, an amino acid found in high concentrations in high protein foods. Inability to metabolize phenylalanine causes accumulation of phenylalanine and phenylketones in the blood, which can lead to mental retardation, behavioral problems, and other disorders if not treated.

- There is a *preponderance of evidence* that foot orthoses are *not effective* treatments for abnormal deviation of the big toe and bunions.

Prosthetic devices for persons who have had a laryngectomy

- Evidence from small nonrandomized studies of persons who have had a laryngectomy suggests that tracheoesophageal speech with a voice prosthesis *is more intelligible* than speech produced using esophageal speech and electrolaryngeal speech, and requires less cognitive effort on the part of listeners.¹⁷
- Evidence of the effect of tracheoesophageal speech with a voice prosthesis relative to esophageal speech and electrolaryngeal speech on self-reported ability to communicate in daily-life situations (e.g., talking on the telephone) is *ambiguous*.
- The *preponderance of evidence* from two nonrandomized studies suggests that quality of life *does not differ* among persons with laryngectomies who use tracheoesophageal speech with a voice prosthesis, esophageal speech, or electrolaryngeal speech.

Special footwear (i.e., therapeutic shoes)

- A *preponderance of evidence* suggests that therapeutic shoes are *effective* in improving functioning and reducing pain and inflammation in persons with rheumatoid arthritis.
- The evidence of the effectiveness of therapeutic footwear in preventing diabetic foot ulcers is *ambiguous*.
- There is *insufficient evidence* to determine whether therapeutic footwear prevents amputation among persons with diabetes.
- Evidence from two small RCTs suggests that therapeutic shoes are *less effective* than total contact casting in facilitating healing of diabetic foot ulcers.

¹⁷ Laryngectomies are usually performed to treat cancer of the larynx. They are occasionally performed on persons whose throats have been severely injured. Persons who have a laryngectomy lose the ability to speak normally. The three methods most frequently used to enable persons with laryngectomies to speak are esophageal speech, electrolaryngeal speech, and tracheoesophageal speech with a voice prosthesis. Esophageal speech involves the use of the esophagus to produce sound in place of the larynx. Tracheoesophageal speech is generated through use of a one-way, prosthetic valve that is placed in an incision between the esophagus and the trachea. This prosthesis allows air from the lungs to flow into the esophagus to produce sound. Electrolaryngeal speech is produced by a battery-operated machine that is held against the neck or placed in a small tube in the corner of the mouth. Speech therapy is needed to successfully use any of these three methods.

Pain Management

Acupuncture

- The *preponderance of evidence* suggests that needle acupuncture¹⁸ is an *effective* treatment for some musculoskeletal conditions, chronic headache, and postoperative nausea and vomiting.
- The *preponderance of evidence* suggests that needle acupuncture is as *effective* as or *more effective* than other nonsurgical treatments for osteoarthritis of the knee, temporomandibular joint (TMJ) disorders, pelvic pain associated with pregnancy, chronic headache, and postoperative nausea and vomiting.
- The *preponderance of evidence* suggests that needle acupuncture is an *effective* adjuvant treatment for chronic low back pain, pelvic pain, stroke, and chemotherapy-induced vomiting.

Pain management medication for persons with terminal illnesses

- Most of the research on pain management for persons with life-threatening illness has focused on cancer pain. Some of these studies include both persons whose cancers are terminal and persons whose cancers are treatable.
- The *preponderance of evidence* indicates that medications *reduce* pain caused by cancer or cancer treatment.

General anesthesia for dental procedures

- The use of general anesthesia and other forms of sedation is based primarily on consensus rather than scientific evidence.
- There is a consensus that general anesthesia is appropriate for persons who have physical or mental disabilities that make it difficult for them to cooperate during dental procedures, persons who cannot be given local anesthesia due to allergy or acute infection, and persons who need extensive dental care or dental surgery.
- There is a consensus that children undergoing dental procedures should receive general anesthesia only if they are unable or unwilling to undergo the procedure using local anesthesia or nitrous oxide.

Pediatric Health

Comprehensive Preventive Services for Children and Adolescents

- There is a *preponderance of evidence* that the following preventive services for children and adolescents are *effective*:
 - Immunizations recommended by the Centers for Disease Control Advisory Committee on Immunization Practices¹⁹

¹⁸ Needle acupuncture refers to the use of needles to stimulate acupuncture pressure points. Evidence of the effectiveness of other treatments provided by acupuncturists, such as cupping and moxibustion, was not reviewed.

- Counseling regarding nutrition and prevention of unintentional injuries
- Screening newborns for metabolic disorders shortly after birth (e.g., thyroid, hemoglobinopathies, PKU, galactosemia)
- Screening children younger than 5 years for visual impairment
- Providing Pap smears to sexually active adolescent females
- Screening for most sexually transmitted diseases among sexually active adolescents who are at *increased* risk for contracting these diseases
- There is *insufficient evidence* to recommend for or against the following preventive services:
 - Screening newborns for hearing loss
 - Screening asymptomatic children for iron deficiency
 - Screening asymptomatic adolescents for herpes simplex virus
 - Violence prevention counseling
- No meta-analyses, systematic reviews, or evidence-based guidelines could be located for some recommended preventive services for children and adolescents. In these cases, CHBRP relied on expert consensus or opinion. These services include:
 - Physical examinations
 - Measurement of height, weight, head circumference, and blood pressure
 - Developmental and behavioral assessments
 - Screening children at high risk for iron deficiency
 - Counseling regarding infant sleep position
 - Preventive dental examinations
 - Urinalysis screening of asymptomatic children under age 5 and sexually active adolescents
 - Pelvic examinations for sexually active adolescent females
 - Tuberculin testing for children and adolescents at high risk for tuberculosis
 - Cholesterol testing for children and adolescents at high risk for high cholesterol

Management of pediatric asthma

- There is *clear and convincing evidence* that asthma self-management education helps children with asthma and their parents learn skills necessary for controlling asthma and improving their health.

¹⁹ These immunizations include vaccines against diphtheria, tetanus, pertussis, haemophilus influenza type b, hepatitis a, hepatitis b, human papilloma virus, polio, influenza, measles, mumps, rubella, meningococcal disease, pneumococcal infection, rotavirus, and chickenpox.

- The *preponderance of evidence* suggests that peak flow monitoring is as *effective* as symptom monitoring and is especially useful for persons who have moderate or severe persistent asthma or a history of severe asthma exacerbations.
- The *preponderance of evidence* suggests that nebulizers and metered-dose inhalers (MDIs) are equally *effective* in improving health outcomes and that nebulizers should be used by persons who cannot use an MDI with a spacer or an MDI with both a spacer and face mask, such as infants.
- A *preponderance of evidence* suggests that use of spacers in conjunction with MDIs reduces the risk of local adverse effects, such as oral thrush;²⁰ they are most likely to benefit persons who are having a severe asthma exacerbation or who cannot use MDIs properly (e.g., young children).²¹

Screening for Blood Lead Levels

- There is *insufficient evidence* to recommend for or against routine screening for elevated blood lead levels in asymptomatic children who are at *increased risk* for lead poisoning.
- There is a *preponderance of evidence* to recommend *against* routine screening for elevated blood lead levels in asymptomatic children who are at *average risk* for lead poisoning due to the significant potential harms of treatment.²²

²⁰ Thrush is an oral yeast infection.

²¹ Studies of the impact of using spacers with MDIs on inhalation of asthma medications are difficult to generalize, because their features vary and because they have been studied in conjunction with different medications. Findings from laboratory studies suggest that effectiveness varies across medications and across spacers with different features (e.g., integrated with MDI device, contains valved holding chamber, shape of chamber, rigid or flexible chamber). In addition, many studies have sample sizes that limit their ability to detect statistically significant differences in breathing outcomes. Finally, no studies have been published regarding the use of spacers with the new hydrofluoroalkane-propelled MDIs (HFA MDIs). Historically, MDIs have used chlorofluorocarbons (CFCs), a major cause of ozone depletion, to propel medication. The U.S. Food and Drug Administration (FDA) has now mandated that CFC-based MDIs be removed from the market by 2009. They are being replaced by HFA MDIs.

²² There is good evidence that chelation treatment in asymptomatic children does not improve neurodevelopmental outcomes and is associated with a slight diminution in cognitive performance. Chelation therapy may result in transient renal, hepatic, and other toxicity, mild gastrointestinal symptoms, sensitivity reactions, and rare life-threatening reactions. Residential lead-based paint and dust hazard control treatments may lead to acutely increased blood lead levels from improper removal techniques.

Reproductive Health

*Contraceptive devices requiring a prescription*²³

- There is *clear and convincing evidence* that sexually active females who use prescription contraceptives are *much less likely* to become pregnant than sexually active females who do not use any type of contraception.
- There is a *preponderance of evidence* that prescription contraceptives are *more effective* than non-prescription contraceptives for preventing pregnancy.²⁴
- There is *clear and convincing evidence* that hormone-based contraceptives and IUDs are *more effective* than barrier methods for preventing pregnancy.

Infertility

- There is a *preponderance of evidence* that there are *effective* tests for ascertaining whether female infertility is due to lack of ovulation, tubal occlusion, endometriosis, or chlamydia.
- There is a *preponderance of evidence* that medication and surgery are *effective* treatments for certain disorders that cause infertility in males and females, and that tubal flushing is an *effective* treatment for other causes of female infertility.
- There is *clear and convincing evidence* that intrauterine insemination *increases* the likelihood of pregnancy in couples with mild male factor fertility problems or unexplained fertility problems, or where a female partner has minimal to mild endometriosis.

Prenatal diagnosis of genetic disorders

- There is a *preponderance of evidence* that there are *accurate* tests for identifying fetuses with certain genetic disorders, such as Down syndrome, spina bifida, and anencephaly.
- There is a *preponderance of evidence* that second trimester amniocentesis is *safer* than chorionic villus sampling and early (first trimester) amniocentesis.

Expanded alpha-fetoprotein screening

- There is a *preponderance of evidence* that expanded alpha-fetoprotein screening tests *accurately* detect likely cases of Down syndrome. Performing this test reduces the

²³ Prescription contraceptives can be divided into three major categories. Barrier methods are devices inserted into the vagina that are used in conjunction with a spermicide and removed between episodes of intercourse. They include the cervical cap, the cervical shield, and the diaphragm. Intrauterine devices are small devices composed of copper wire wrapped around a plastic frame that are implanted in the uterus. Hormone-based contraceptives prevent ovulation and change the lining of the uterus and cervical mucus to prevent pregnancy. Multiple methods have been developed to deliver hormone-based contraceptives, including pills, injections, implants, skin patches, and vaginal rings.

²⁴ However, prescription contraceptives *do not* protect against HIV. Condoms are the only form of contraception that prevents transmission of HIV.

number of women with healthy fetuses who will undergo diagnostic tests that have a small risk of miscarriage.

Surgical Procedures

Jawbone and associated bone disorders

- TMJ disorders were the only disorder of the jawbone and associated bone joints for which evidence could be located.
- A *preponderance of evidence* suggests that surgical treatments for TMJ disorders reduce pain among persons who do not respond to nonsurgical treatments.

Reconstructive surgery

- Breast reconstruction following mastectomy, clubfoot, and craniofacial abnormalities are the only indications for reconstructive surgery for which evidence could be located.
- Evidence of the impact of breast reconstruction following mastectomy on psychosocial outcomes is *ambiguous*.²⁵
- There is *insufficient evidence* to ascertain the effects of reconstructive surgery on physical and psychosocial outcomes for persons with clubfoot or craniofacial abnormalities.

Hospice and Home Health Care

*Hospice care*²⁶

- Studies of hospice care vary widely with regard to research design, study population, characteristics of the hospice intervention,²⁷ and outcomes assessed.
- Most studies of hospice care that have strong research designs were published in the 1980s. Pain control medication and standards of care for pain control may have changed since these studies were conducted.
- Most studies have evaluated the impact of hospice care on persons with terminal cancers.
- The *preponderance of evidence* suggests that hospice care *reduces* some symptoms associated with terminal illness, such as anxiety, diarrhea, and nausea.

²⁵ Women who have a mastectomy can elect to have breast reconstruction surgery or use a breast prosthesis. For most women with stage I or stage II breast cancer, mastectomy and breast conserving therapy (lumpectomy with levels I and II axillary node dissection, plus radiotherapy) are equally effective treatments. Mastectomy and chemotherapy and hormone treatment are the most effective treatments for stage III and stage IV cancers.

²⁶ Hospice care encompasses of care and services provided to persons in the late stages of terminal illnesses to relieve pain and suffering and maximize quality of life prior to death, and services provided to families to help them cope with a loved one's illness and their own bereavement.

²⁷ Some studies have assessed the delivery of hospice care in patients' homes, and some have examined inpatient hospice units in hospitals. Others have evaluated interventions that combined home-based and inpatient hospice services.

- The evidence of the effects of hospice care on the duration, frequency, and severity of pain is *ambiguous*.
- The evidence of the effects of hospice care on hospital use and quality of life is *ambiguous*.

Home care

- Studies of home care vary widely with regard to study populations, characteristics of home care interventions, comparison groups,²⁸ and outcomes assessed.
- Most studies evaluated the impact of home care on elderly persons and many were conducted outside the United States.
- There is *clear and convincing evidence* that home care is associated with statistically significant *reductions* in days of hospitalization and nursing home use and with a non-significant decrease in mortality relative to usual care.
- There is *clear and convincing evidence* that home-based rehabilitation is associated with *fewer* days of hospitalization than inpatient rehabilitation.
- The *preponderance of evidence* suggests that persons with stroke or hip fracture who receive home-based rehabilitation have *better* physical functioning than persons who receive inpatient rehabilitation.
- The *preponderance of evidence* indicates that home-based rehabilitation and inpatient rehabilitation have *similar effects* on mortality, psychological functioning, quality of life, hospital readmission, and caregiver burden.
- There is *insufficient evidence* to determine whether home care improves physical or mental health outcomes for children with very low birth weight, genetic disorders, or chronic conditions.

²⁸ Some studies compare persons receiving home care to persons who receive “usual care,” an undefined set of services typically available to persons in the communities in which the studies are undertaken. Other studies compare persons who receive rehabilitative services (e.g., physical therapy) in their homes to persons who receive similar services in inpatient settings.

Table 4. Mandates Addressed in AB 1214, by Strength of Evidence

| Description | Clear and Convincing Evidence that Test(s) and/or Treatment(s) are Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) are Effective | Evidence of the Effectiveness of Test(s) and/or Treatment(s) is Ambiguous | Insufficient Evidence to Determine whether Test(s) and/or Treatment(s) are Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) are not Effective |
|---|---|---|--|---|---|
| Cancer Screening and Treatment | | | | | |
| Cancer screening tests | X – colorectal, breast, and cervical cancer screening | | | X – prostate, lung, oral, and skin cancer screening | X – bladder, ovarian, pancreatic, and testicular cancer screening |
| Prostate cancer screening and diagnosis | | | | X | |
| Cervical cancer screening | X | | | | |
| Breast cancer screening, diagnosis and treatment | X | | | | |
| Breast cancer screening with mammography | X | | | | |
| Mastectomy and lymph node dissection – length of stay | | | | X | |
| Chronic Conditions | | | | | |
| Diabetes management | X – except for special footwear | | | | |
| Osteoporosis diagnosis, treatment, and management | X | | | | |
| Transplantation services for persons | | X ²⁹ | | | |

²⁹ Most evidence regarding organ transplantation in persons with HIV comes from studies of persons receiving kidney or liver transplants. There is insufficient evidence to determine whether findings generalize to transplantation of other organs.

| Description | Clear and Convincing Evidence that Test(s) and/or Treatment(s) are Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) are Effective | Evidence of the Effectiveness of Test(s) and/or Treatment(s) is Ambiguous | Insufficient Evidence to Determine whether Test(s) and/or Treatment(s) are Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) are not Effective |
|--|---|---|--|---|---|
| with HIV | | | | | |
| Phenylketonuria – medical formulas and medical foods | | X | | | |
| Mental Illness and Substance Use Disorders | | | | | |
| Parity in coverage for severe mental illness | X ³⁰ | | | | |
| Coverage for mental and nervous disorders | X | | | | |
| Alcoholism | X | | | | |
| Prostheses, Orthoses, and Footwear | | | | | |
| Orthotic and prosthetic devices | | X – prostheses and some orthoses ³¹ | | X – some orthoses ³² | X – foot orthoses for deviated big toe |
| Prosthetic devices for laryngectomy | | | X ³³ | | |
| Special footwear for persons with foot | | X – rheumatoid arthritis ³⁴ | X – diabetes | | |

³⁰ Due to time constraints, the review of evidence regarding treatments for mental illness was limited to three severe mental illnesses: bipolar disorder, major depressive disorder, and schizophrenia.

³¹ There is a preponderance of evidence that knee orthoses are effective treatments for osteoarthritis of the knee and that foot orthoses are effective treatments for rheumatoid arthritis of the foot. There is also a preponderance of evidence that ankle orthoses are effective for prevention of ankle sprains.

³² There is insufficient evidence to assess the effectiveness of foot orthoses for treatment of Achilles tendonitis, plantar heel pain, and soreness around the kneecap, and the effectiveness of knee orthoses for treatment of soreness around the kneecap. There is also insufficient evidence to determine the effectiveness of hand and wrist orthoses for treatment of rheumatoid arthritis, and the effectiveness of foot and knee orthoses for prevention of strains, sprains, and stress fractures.

³³ Findings from acoustical analyses differ from findings from studies of the self-reported ability to communicate in everyday situations.

³⁴ The only literature located on special footwear concerned special footwear for persons with diabetes or rheumatoid arthritis. Findings from these studies may not generalize to persons with foot disfigurement due to other diseases or conditions.

| Description | Clear and Convincing Evidence that Test(s) and/or Treatment(s) are Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) are Effective | Evidence of the Effectiveness of Test(s) and/or Treatment(s) is Ambiguous | Insufficient Evidence to Determine whether Test(s) and/or Treatment(s) are Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) are not Effective |
|---|--|--|---|--|--|
| disfigurement | | | | | |
| Pain Management | | | | | |
| Acupuncture | | X ³⁵ | | | |
| Pain management medication for persons with terminal illnesses | | X – cancer ³⁶ | | | |
| General anesthesia for dental procedures performed in hospitals | | | | X ³⁷ | |
| Pediatric Health | | | | | |
| Comprehensive preventive services for children aged 16 years | | X – some recommended services ³⁸ | | X – some recommended services ^{39,40} | |

³⁵ Evidence of effectiveness varies across the many diseases and conditions that are treated with acupuncture. The literature review was limited to studies of the use of acupuncture needles to stimulate acupressure points; other services provided by acupuncturists, such as cupping and moxibustion, were not assessed.

³⁶ Most studies of the impact of pain management medication on persons with terminal illnesses have assessed persons with terminal cancers. Their findings may not generalize to persons in the terminal phases of other diseases or conditions.

³⁷ No studies of the effectiveness of general anesthesia for dental procedures were located. However, there is a consensus among experts that use of general anesthesia is appropriate for young children, children who are extremely anxious or fearful about dental procedures, persons with mental or physical disabilities that impede their ability to cooperate during dental procedures, persons for whom local anesthesia cannot be used due to allergy or acute infection, and persons who require extensive dental care or dental surgery.

³⁸ The mandates regarding comprehensive preventive services for children and adolescents require health plans to cover services recommended by the American Academy of Pediatrics (AAP) and the Recommended Childhood Immunization Schedule issued jointly by AAP, the American Academy of Family Physicians, and the Centers for Disease Control’s Advisory Committee on Immunization Practices. Recommended services that *a preponderance of evidence indicates are effective* include immunizations, vision screening for children younger than five years, screening newborns for metabolic disorders, Pap smears for sexually active adolescent females, sexually transmitted disease screening for sexually active adolescents, and counseling parents and children about nutrition and prevention of unintentional injury.

³⁹ Recommended preventive services for children and adolescents for which *evidence of effectiveness is insufficient* include screening newborns for hearing loss, screening asymptomatic children for iron deficiency, screening asymptomatic adolescents for the herpes simplex virus, and violence prevention counseling.

⁴⁰ No meta-analyses, systematic reviews, or evidence-based guidelines could be located for some recommended preventive services for children and adolescents. For these services, the only evidence reviewed by CHBRP is based on expert consensus or opinion. These preventive services include physical examinations; measurement of height, weight, head circumference, and blood pressure; developmental and behavioral assessments; screening high risk children for iron

| Description | Clear and Convincing Evidence that Test(s) and/or Treatment(s) are Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) are Effective | Evidence of the Effectiveness of Test(s) and/or Treatment(s) is Ambiguous | Insufficient Evidence to Determine whether Test(s) and/or Treatment(s) are Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) are not Effective |
|--|---|---|--|---|---|
| or younger | | | | | |
| Comprehensive preventive care for children aged 17 or 18 years | | X – some recommended services | | X – some recommended services | |
| Asthma management | | X – peak flow monitors, nebulizers, education | X – spacers | | |
| Screening children for blood lead levels | | | | X – children at increased risk | X – children at average risk |
| Reproductive Health | | | | | |
| Contraceptive devices requiring a prescription | X | | | | |
| Infertility – diagnosis and treatment | X | | | | |
| Prenatal diagnosis of genetic disorders | | X | | | |
| Expanded alpha-fetoprotein screening | | X | | | |
| Surgical Procedures | | | | | |
| Jawbone and associated bone joints | | X ⁴¹ | | | |
| Reconstructive surgery | | | X – mastectomy with breast | X – clubfoot and craniofacial abnormalities | |

deficiency; urinalysis screening of asymptomatic children under age 5 and sexually active adolescents; pelvic exams for sexually active adolescent females; tuberculin testing for children and adolescents at high risk for tuberculosis; cholesterol testing for children and adolescents at high risk for high cholesterol; counseling regarding infant sleep position; and preventive dental examinations.

⁴¹ TMJ disorders were the only indication for jaw surgery for which evidence of effectiveness could be located.

| Description | Clear and Convincing Evidence that Test(s) and/or Treatment(s) <i>are</i> Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) <i>are</i> Effective | Evidence of the Effectiveness of Test(s) and/or Treatment(s) is Ambiguous | Insufficient Evidence to Determine whether Test(s) and/or Treatment(s) <i>are</i> Effective | Preponderance of Evidence that Test(s) and/or Treatment(s) <i>are not</i> Effective |
|-------------------------------------|--|--|---|--|--|
| | | | reconstruction ⁴² | | |
| Hospice and Home Health Care | | | | | |
| Hospice care | | | X | | |
| Home health care | X – elderly and disabled adults | | | X – children | |

⁴² Evidence was located for only three indications for reconstructive surgery: breast reconstructive following mastectomy, clubfoot, and craniofacial abnormalities.

POTENTIAL PUBLIC HEALTH IMPACTS: EFFECTS OF WAIVING SPECIFIC BENEFIT MANDATES

This public health impact analysis differs from the analytic approach used to assess the affects of mandating a new benefit since AB 1214 would allow for the waiver of existing benefit mandates. It is difficult to assess the market dynamics and the health profile of those individual and group purchasers who would elect to purchase limited-mandate plans that would become available in the market if AB 1214 were to be enacted. For example, if only males enrolled in a health plan that waives the reproductive health benefit mandates (either through their own choice in the individual market or through their employer’s choice in the group market), the impact on the public’s health would be zero. On the other hand, if females of child-bearing age enrolled in the same health plan, there is potential for a negative public health impact. In the absence of information on who would elect to purchase limited-mandate plans and what their health risks are, this report presents qualitative conclusions based on the potential overall public health impact of waiving specific mandated benefits, assuming these benefits are dropped across a large portion of the population. Thus, this section does not deal with issues of risk-selection, but instead draws conclusions as to what could happen to the public’s health if there were widespread losses of each of these specific benefits.

Table 5. Typology for Classifying Evidence of Negative Public Health Impact if Coverage for Benefit Were to Be Waived⁴³

| Medical Effectiveness Evidence | Severity of Condition | Scope of Affected Population | Potential Public Health Impact |
|---|-----------------------|---|--|
| Clear and convincing or preponderance of evidence | Mortality & Morbidity | 1 in 20 persons affected | Mortality impact, broad scope |
| Clear and convincing or preponderance of evidence | Morbidity | | Morbidity impact, broad scope |
| Clear and convincing or preponderance of evidence | Mortality & Morbidity | Between 1 in 20 and 1 in 2,000 persons affected | Mortality impact, moderate scope |
| Clear and convincing or preponderance of evidence | Morbidity | | Morbidity impact, moderate scope |
| Clear and convincing or preponderance of evidence | Mortality & Morbidity | 1 in 2,000 persons affected | Mortality impact, limited scope |
| Clear and convincing or preponderance of evidence | Morbidity | | Morbidity impact, limited scope |
| Ambiguous, mixed, or insufficient evidence | N/A | N/A | Unknown impact |
| Evidence of no impact | N/A | N/A | No impact |

For each mandate, this section of the report presents the public health scope of the condition or treatment, any gender or ethnic/racial disparities that are found in the literature, and the extent to

⁴³ Previous research has relied on the use of disability-adjusted life years (DALYs) to compute the burden of specific diseases on a population (Lopez, 2005; McKenna et al., 2005). This approach was not used in this report because there were many conditions mandated for which DALYs were either not an appropriate measurement or had not been previously calculated by other researchers.

which premature death is a relevant outcome.⁴⁴ Then an overall conclusion is drawn as to the potential public health impact if coverage for a particular mandated benefit were to be waived by/for people for whom the coverage is relevant. In developing a typology for the classification of the public health impact, three factors were taken into consideration: (1) the conclusion of the medical effectiveness review, (2) the type of health impact of the condition, and (3) the scope of the affected population. Table 5 describes the factors and the overall characterization of the impact. See Table 6 for a summary of the public health impacts in tabular form and rationale for cases where exceptions were made to the typology presented.

A. Mandates for Cancer Screening, Diagnosis, and Treatment

According to the California Cancer Registry, 142,085 new cases of cancer are expected in 2008, and nearly one out of every two Californians born today will develop cancer at some point over their lifetime (CCR, 2007). The most common cancer is prostate cancer, accounting for 16% of new cases, followed by breast cancer (15%), lung cancer (12%), and colorectal cancer (10%) (CCR, 2007). In addition, 1,430 cases of cervical cancer are expected in 2008 (1% of new cases) (CCR, 2007). As reported in the previous section, there is sufficient evidence to screen for colorectal cancer, cervical cancer, and breast cancer. There is either insufficient or equivocal evidence to screen for other cancers. It is estimated that 53% of insured males aged 50 to 64 years have had at least one prostate-specific antigen (PSA) test to screen for prostate cancer (CHIS, 2005). In addition, 80% of insured females aged 40 to 64 years have been screened for breast cancer using mammography in the last 2 years, while 91% of insured females aged 21 to 64 years have been screened for cervical cancer using a Pap smear in the past 3 years (CHIS, 2005). Among insured persons aged 40 to 64 years, 38% had been screened for colorectal cancer as recommended by screening guidelines (CHIS, 2005).

There are differences by gender and race/ethnicity in the rates of specific cancers and early diagnosis of these cancers. Overall, one in every two males and one in every three females born today will develop cancer during the course of their lifetime (CCR, 2007). Prostate cancer only affects males while breast cancer predominantly (99.4% of cases) affects females and cervical cancer affects females exclusively. Among males, blacks have the highest overall cancer rates and among females, non-Hispanic whites have the highest overall cancer rates. Black males are more likely to develop prostate cancer compared to non-Hispanic white, Hispanic, and Asian/Pacific Islander males (CCR, 2007). In terms of cervical cancer, Hispanic females are twice as likely to develop cervical cancer compared to other racial/ethnic groups (CCR, 2007). Rates of early diagnosis for breast and cervical cancers vary significantly by race/ethnicity. Although overall, 69% of female breast cancers are found at an early stage (i.e., in situ/localized), non-Hispanic white females have the highest rates (71%), followed by Asian and Pacific Islanders (70%), Hispanic (63%), and black females (61%) (CCR, 2007). Rates of early diagnosis of cervical cancer also vary by race/ethnicity, with black females being diagnosed early at the highest rate (54%), followed by Hispanic (50%), non-Hispanic white (48%), and Asian/Pacific Islander females (45%).

⁴⁴ To the extent that gender or racial/ethnic disparities are found in the literature, they will be presented in the report. However, this type of data is not collected for all conditions and the racial and ethnic categories reported on vary from condition to condition.

Cancer accounts for 23% of deaths in California and is the second leading cause of death in the state (CCR, 2007). One in five Californians born today will die of cancer, and in 2008 it is expected that 53,710 Californians will die as a result of cancer (CCR, 2007). Specifically, it is expected that there will be 5,185 deaths from colorectal cancer, 2,970 deaths from prostate cancer, 4,235 deaths from breast cancer, and 410 deaths from cervical cancer. The five-year survival rates are the highest for prostate cancer (95%), followed by breast cancer (88%), cervical cancer (72%), and colorectal cancer (63%) (CCR, 2007).

Evidence of Public Health Impact if Coverage for Benefit Were to Be Waived

Mandate 1: Coverage for Cancer Screening Tests. There is clear and convincing evidence to screen for colorectal cancer, cervical cancer, and breast cancer. There is either insufficient or equivocal evidence to screen for other cancers. Cancers for which there are effective screening tests affect a large number of persons in California each year: colorectal cancer (14,080 cases), breast cancer (21,160 cases) and cervical cancer (1,430 cases). For each of these types of cancer, the associated mortality would increase significantly in the absence of screening tests. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

Mandate 2: Prostate Cancer Screening and Diagnosis. Although there is sufficient evidence that prostate cancer screening can effectively detect prostate cancer in its early stages, there is insufficient evidence to determine whether prostate cancer screening improves health outcomes via early detection of prostate cancer. Therefore, the analysis concluded that there is an **unknown potential impact on public health** if coverage for this benefit were to be waived.

Mandate 3: Cervical Cancer Screening. There is clear and convincing evidence that screening reduces incidence and mortality from cervical cancer. Nationally, it is estimated that over the last 50 years screening has led to a 70% reduction in cervical cancer deaths (Saslow et al., 2002). Screening rates for cervical cancer are very high among the insured population in California (91% within last 3 years), which has led to a reduction in the number of cervical cancer cases in the state. In the absence of screening, the mortality rates from cervical cancer increase dramatically. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

Mandate 4: Breast Cancer Benefits. There is clear and convincing evidence that screening and treatment significantly reduces mortality from breast cancer. Breast cancer is the most common cancer among females—affecting one in nine in California. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

Mandate 5: Breast Cancer Screening with Mammography. There is clear and convincing evidence to determine that mammography screening significantly reduces mortality from breast cancer. Breast cancer is the most common cancer among females—affecting one in nine in California. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

B. Mandates Relating to Chronic Conditions: Diabetes, Osteoporosis, Transplants for HIV Patients, and PKU

Diabetes

In 2005, 1.8 million adults in California were diagnosed with diabetes—representing 7% of the adult population (UCLA, 2007). Among diabetic adults in California, 83% report having type 2 diabetes, while 17% report having type 1 (UCLA, 2007). The complications of diabetes include blindness, kidney disease, cardiovascular disease, limb disease requiring amputation, and death (UCLA, 2007). Diabetic adults in California report receiving the recommended diabetes examinations such as annual foot examinations (71%), annual dilated eye exams (71%), and annual cholesterol tests (90%) (UCLA, 2007).

Diabetes prevalence differs by gender with males reporting higher prevalence rates compared to females (7.6% vs. 6.3%) (CHIS, 2005). In addition, the diabetes age-adjusted death rate for males was higher than for females (CHS, 2004). Diabetes prevalence also varies across race/ethnicity in California, with American Indians/Alaska Natives having the highest prevalence rate (14.9%), followed by blacks (10.1%), and Hispanics (8.0%) (UCLA, 2007). The prevalence of diabetes among whites and Asians (6.0% and 6.5% respectively) did not vary significantly from the statewide average (7%) (UCLA, 2007). Blacks have the highest diabetes age-adjusted death rate compared to Hispanics, Asians, and whites (CHS, 2004). Overall, the diabetes crude death rate in California in 2002 was 18.9 deaths per 100,000 population (CHS, 2004). This translates into 6,783 deaths in 2002. Diabetes is also implicated in a range of other conditions that may be listed as the more proximate cause.

Osteoporosis⁴⁵

In California, 32% of insured females aged 50 to 64 years have had a bone mass density test to test for osteoporosis (CHIS, 2001). Approximately one-third (34%) of these females have been diagnosed with a bone condition such as bone loss, osteopenia, or osteoporosis. This translates into an overall prevalence rate among insured females aged 50 to 64 years of 11%. In California in 2002, 2% of insured females aged 55 to 64 years who had been diagnosed with osteoporosis reported breaking a bone as a result of a fall in the last 12 months (CHIS, 2001).

An analysis by race/ethnicity shows that Hispanic (16%) and black females (17%) are significantly less likely to be screened for osteoporosis compared to other racial/ethnic groups, whereas white females are significantly more likely to be screened (38%) (CHIS, 2001). Of the females screened with a bone density test, there were no significant differences by race/ethnicity in the rates at which they were diagnosed with a bone condition.

People with osteoporosis and related diseases are more susceptible to fracturing bones as the result of a fall. This can lead to placement in a nursing home and eventually, death. There were 166 osteoporosis-related deaths in California in 2001 (Max et al., 2002). This included 140 deaths among females and 26 among males (CDC WONDER, 2001).

⁴⁵ This section relies on information originally presented in CHBRP's analysis of: Assembly Bill 438 Osteoporosis Screening, a report to the 2003-2004 California Legislature, February 9, 2004.

Transplants for Patients with HIV⁴⁶

An estimated 72,000 Californians are HIV-positive, and an additional 60,000 are living with AIDS (CHS, 2002; DHS OA, 2007). It is estimated that between 3.5% and 6.9% of persons with HIV have end-stage renal disease (ESRD), which would require a lifetime of kidney dialysis (Roland and Stock, 2003). Kidney dialysis may shorten the life expectancy of persons with HIV, thus creating a need for kidney transplants in this population. Coinfection with Hepatitis B virus (HBV) or Hepatitis C virus (HCV) can lead to the development of end-stage liver disease (ESLD) among HIV-positive patients. It is estimated that approximately 9% of HIV patients are coinfecting with HBV and 23% to 33% of HIV patients are coinfecting with HCV (Roland and Stock, 2003). The United Network for Organ Sharing (UNOS) maintains a national database of all persons on the waiting list for organ transplants, but their HIV status is not collected. Therefore, there is no way to determine how many HIV-positive Californians are currently on the waiting list for organ transplants.

Much of the literature on racial disparities within the HIV-positive population concerns the differences between blacks and whites. Blacks have substantially higher rates of HIV/AIDS. Rates for black males are seven times that for white males (CDC, 2004). For females, the difference is even more striking: the rates of HIV/AIDS among black females are 19 times higher than that of white females (CDC, 2004). Additionally, blacks suffer greater morbidity and mortality from HIV (CDC, 2005b; Fleishman and Hellinger, 2003; McGinnis et al., 2003). The extent of gender or racial/ethnic disparities among HIV-positive persons receiving organ transplants is unknown.

Due to advances in treatment, the prognosis for HIV-positive persons in developed countries has improved. Deaths within the HIV-positive population are due to organ failure (Neff et al., 2004; Roland and Havlir, 2003; Valdez et al., 2001), particularly liver and kidney failure (Calabrese, 2001; Puoti et al., 2000). The extent to which HIV-positive persons die of liver and kidney failure in California is unknown. In addition, the extent to which this mandate has increased the overall number of transplants among Californians is unknown.

Phenylketonuria

Phenylketonuria (PKU) is a genetic disease in which the body is deficient in the enzyme needed to break down the amino acid phenylalanine. The result is a build up in blood and tissues of phenylalanine, which can lead to serious neurological problems. By following a medically supervised low phenylalanine diet, most of the symptoms of PKU can be avoided. In California, the prevalence of classic PKU is 1 in 27,000 births; this translates into 15 to 18 PKU births each year (CNSP, 2004). Since 1980, when a mandated screening program was instituted, 450 children have been diagnosed with PKU. PKU is found equally among males and females. Blacks have a lower incidence of PKU compared to whites and Asians (Medhelp, 2007). The complications from untreated PKU include mental retardation and brain damage, mental illness, seizures and tremors, and other cognitive problems. Women with PKU who become pregnant are at a higher risk for having a spontaneous abortion (Medhelp, 2007).

⁴⁶ This section relies on information originally presented in CHBRP's analysis of Assembly Bill 228: Transplantation Services: Human Immunodeficiency Virus, a Report to the 2005-2006 California Legislature, April 7, 2005.

Evidence of Public Health Impact if Coverage for Benefit Were to Be Waived

Mandate 1: Diabetes Management and Treatment. There is clear and convincing evidence that diabetes management and treatment improves health outcomes for persons with diabetes. Diabetes affects nearly 2 million persons in California. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

Mandate 2: Osteoporosis Diagnosis, Treatment, and Management. There is clear and convincing evidence that screening and treatment are effective in the diagnosis, treatment, and management of osteoporosis. Osteoporosis affects 11% of females aged 50 to 64 years, or 1 in 60 persons overall. Therefore, the analysis concluded that there is potential for a **mortality impact of moderate public health scope** if coverage for this benefit were to be waived.

Mandate 3: Transplantation Services for Persons with HIV. There is a preponderance of evidence that suggests that patients with HIV undergoing liver or kidney transplant have similar survival rates as patients without HIV. It is unknown how many persons in need of a transplant are HIV-positive. In addition, the extent to which the mandate has increased the total number of transplants among all Californians is unknown. Therefore, the analysis concluded that there is an **unknown potential impact on public health** if coverage for this benefit were to be waived.

Mandate 4: Phenylketonuria (PKU) testing and treatment. There is a preponderance of evidence that screening and treatment are effective in identifying children with PKU and reducing the severity of the associated mental and behavioral disorders. Between 15 and 18 babies with PKU are born every year in California. Therefore, the analysis concluded that there is potential for a **mortality impact of limited public health scope** if coverage for this benefit were to be waived.

C. Mandates Relating to Coverage for Mental Illness and Substance Abuse

Mental Illness

Mental health conditions covered under the current mandate include severe mental illness (SMI) of a person of any age, which includes schizophrenia, schizoaffective disorder, bipolar disorder, major depressive disorders, panic disorder, obsessive-compulsive disorder, pervasive developmental disorders or autism, anorexia nervosa, and bulimia. It also includes serious emotional disturbance (SED) of a child that results in behavior inappropriate to the child's age, according to expected developmental norms (DMHC, 2005). Based on 2000 Census data, the estimated prevalence of SED and SMI in California is 6.35 % of the non-institutionalized population (DMH, 2004). This breaks down into 7.46% of youth aged 0 to 17 years and 5.92% of adults aged 18 and older.

Among youth, there is no significant gender difference in the prevalence of SED and SMI. In contrast, among adults the prevalence was significantly different for males (4.54%) compared to females (7.23%) (DMH, 2004). The differences in rates of SED and SMI among children across race/ethnicity were not as dramatic, ranging from 6.83% for non-Hispanic white youth to 7.98%

for Hispanic youth. Across the adult population there was more variation, ranging from 4.55% for non-Hispanic Native Americans to 6.81% for Hispanics.

The disease burden associated with mental illness includes suicide, and it is estimated that there are 2,700 mental illness–related suicides in California each year.⁴⁷ Males are four times more likely to die by suicide compared to females (NIMH, 2007). Non-Hispanic whites and American Indian/Alaska Natives have the highest suicide rates (12.9 per 100,000 and 12.4 per 100,000 respectively) (NIMH, 2007). Non-Hispanic blacks, Asian and Pacific Islanders, and Hispanics have the lowest rates of suicide (ranging from 5.3-5.9 per 100,000) (NIMH, 2007).

Alcoholism Treatment

It is estimated that 7.8% of Californians experienced alcohol dependence or abuse in the past year (SAMHSA, 2005). This breaks down into a rate of 6.1% among adolescents aged 12 to 17 years, 16.7% among adults aged 18 to 25 years, and 6.4% among adults aged 26 or older. In 2006 there were close to 40,000 alcohol-related admissions to substance abuse treatment facilities (SAMSHA, 2006). This broke down into 18,897 admissions for alcohol only and 19,024 admissions for alcohol with secondary drug abuse. It is estimated that across the United States, there are 28.7 alcohol-related ED visits per 1,000 persons (McDonald et al., 2004). Applying this rate to California, it is estimated that there are approximately 1 million alcohol-related ED visits in California each year.

Compared to females, males were more likely to report binge alcohol use (33% vs. 16%) and heavy alcohol use (11% vs. 3%) (SAMSHA, 2006). Males were also more likely to be admitted to a treatment facility for alcohol-related substance abuse treatment (SAMSHA, 2006). In addition, males are more likely to have an alcohol-related visit to the ED than females (7.9 vs. 2.9 per 1,000) (McDonald et al., 2004). In terms of alcohol abuse differences by race/ethnicity, the highest rates of binge alcohol use and heavy alcohol use were reported by persons of American Indian or Alaska Native descent (36.2% and 12.8%, respectively). The lowest rates of alcohol abuse were reported by Asians (SAMSHA, 2005).

There were 10.1 alcohol-induced deaths per 100,000 Californians in 2004—this translated into nearly 3,700 deaths (DHS, 2006). Males had higher rates of alcohol-induced deaths compared to females (15.3 vs. 5.0 per 100,000). Persons of American Indian descent had the highest rates of alcohol-induced deaths (19.5 per 100,000). There are an additional 1,400 alcohol-related traffic fatalities each year in California (CHP, 2005).

Evidence of Public Health Impact if Coverage for Benefit Were to Be Waived

Mandate 1: Parity in Coverage for Severe Mental Illness. There is clear and convincing evidence that indicates that medications and psychotherapy are effective in treating severe mental illness. Mental illness affects over 2 million persons in California. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

⁴⁷ Calculated as the product of the estimated annual number of suicides in California: 3,000 (Wilson, 1999) and the estimated proportion of suicides that are associated with mental health issues: 90% (Moscicki., 2001).

Mandate 2: Coverage for Mental and Nervous Disorders. There is clear and convincing evidence that indicates that medications and psychotherapy are effective in treating mental and nervous disorders. Mental illness affects over 2 million persons in California. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

Mandate 3: Coverage for Alcoholism Treatment. There is clear and convincing evidence that pharmacological and psychosocial treatments are effective in treating alcohol dependence. Nearly 8% of Californians report alcohol abuse or dependence in the past year. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

D. Mandates Relating to Orthotics and Prosthetics

Orthotic and Prosthetic Devices and Services⁴⁸

A broad range of health conditions is associated with the use of orthotic and prosthetic (O&P) devices, from relatively rare diseases to more common conditions. According to Milliman analysis of national claims data, approximately 6.8 million O&P devices were used by the insured population nationally in 2004, for a utilization rate of 40.4 procedures per 1,000 persons. The 10 most common diagnoses associated with their use are: disorders of the muscle, ligament, and fascia (connective tissue); peripheral enthesopathies and allied syndromes (inflammation at site of attachment of ligament or tendon to bone); sprains and strains of the ankle and foot; other and unspecified disorders of the joint; mononeuritis of the upper limb and mononeuritis multiplex (painful nerve damage); traumatic amputation of leg(s); other disorders of the synovium (lining or membrane of the joints), tendon, and bursa (fluid sac between tendon and bone); sprains and strains of the knee and leg; malignant neoplasm of the female breast; and osteoarthritis and allied disorders.

No literature was identified that discussed gender or racial disparities with regard to overall utilization of O&P devices. There is some information, however, on disparities associated with the myriad of health conditions that necessitate the use of prostheses and orthoses. For example, males have been found to have higher rates of sprains and strains compared to females, and whites have higher rates compared to blacks (Collins, 1990). Research has also found that amputations and limb deficiency are more common in males than females (both adults and children) and more common in blacks compared to whites (CDC, 2001; Dillingham et al., 2002; Yigiter et al., 2005). According to the Milliman utilization database, males younger than 18 years appear to have a slightly higher utilization rate of O&P devices than females in the same age group (28.0 vs. 25.4 per 1,000 members). However, females aged 18 years and older have a substantially higher utilization rate (45.4 vs. 34.7 per 1,000 members) than their male counterparts. Utilization data by race and ethnicity are not available.

⁴⁸ This section relies on information originally presented in CHBRP's analysis of Assembly Bill 2012: Orthotic and Prosthetic Devices, a report to the 2006-2007 California Legislature, June 15, 2006.

Prosthetic Devices for Laryngectomy

A laryngectomy, or removal of the larynx, is typically performed in the course of treatment for laryngeal cancer. Occasionally a laryngectomy is performed due to a car accident or other trauma that results in severe damage of the larynx. Depending on the stage of progression of the cancer, either a partial or total laryngectomy may be performed. In California it is expected that there will be 875 new cases of laryngeal cancer in 2008 (CCR, 2007). Prosthetic devices can be used to help a patient who has undergone a laryngectomy to translate sounds into words.

In 2008, it is estimated that in California 705 cases of laryngeal cancer will be found among males, while only 170 cases will be found among females (CCR, 2007). This represents more than four times more cases of laryngeal cancer found in males compared to females. Nationally, blacks have the highest rates of laryngeal cancer (11.6 per 100,000 males and 2.0 per 100,000 females) while Asian/Pacific Islanders had the lowest rates (3.0 per 100,000 males and 0.3 per 100,000 females) (NCI, 2007).

Special Footwear for Persons Suffering from Foot Disfigurement

As defined in the mandate, foot disfigurement includes (but is not limited to) “disfigurement from cerebral palsy, arthritis, polio, spina bifida, diabetes, and foot disfigurement caused by accident or developmental disability.” The two most common types of disfigurement are due to diabetes and rheumatoid arthritis. As reported in the *Medical Effectiveness* section, there is insufficient and ambiguous evidence on the effect of special footwear for persons with diabetes; there is a preponderance of evidence that special footwear is effective for persons with rheumatoid arthritis. Therefore, the remainder of this analysis will only discuss rheumatoid arthritis (RA). The consensus in the literature is that the prevalence of RA in the United States is approximately 1% across all age groups (Abdel-Nasser et al., 1997; Lawrence et al., 1998; Silman and Hochberg, 2001). California claims data provided by Milliman for persons under age 65 years suggests that the rate of RA among the insured population under 65 is 0.49%. This would translate into approximately 130,000 Californians with RA. Of patients with RA it is estimated that 60% require special footwear, although only approximately 30% have received them (Vidigal et al., 1975).

In examining gender differences, the prevalence of RA is two to three times higher in females than in males (Abdel-Nasser et al., 1997; Lawrence et al., 1998; Rasch et al., 2003; Sangha, 2000; Voulgari et al., 2004). In addition, Native Americans have the highest prevalence of RA worldwide, and RA is at least twice as common in Native Americans compared with North American whites (Abdel-Nasser et al., 1997). The extent to which utilization rates of special footwear for RA differs across gender and race/ethnicity is unknown.

Evidence of Public Health Impact if Coverage for Benefit Were to Be Waived

Mandate 1: Orthotic and Prosthetic Devices and Services. There is a preponderance of evidence that orthoses and prostheses are effective for some conditions. In California, it is estimated that among the insured population, 40.4 per 1,000 or 11,000 persons receive O&P devices each year. Therefore, the analysis concluded that there is potential for a **morbidity impact of moderate public health scope** if coverage for these benefits were to be waived.

Mandate 2: Prosthetic Devices for Laryngectomy Patients. There is ambiguous evidence that prosthetic devices improve the quality of life for persons who have had a laryngectomy. Therefore, the analysis concluded that there is an **unknown potential impact on public health** if coverage for this benefit were to be waived.

Mandate 3: Special Footwear for Persons Suffering from Foot Disfigurement. There is insufficient and ambiguous evidence on the effect of special footwear for persons with diabetes; there is a preponderance of evidence that special footwear is effective for persons with rheumatoid arthritis. Therefore, the analysis concluded that there is potential for a **morbidity impact of limited public health scope** if coverage for this benefit were to be waived.

E. Mandates Relating to Pain Management: Acupuncture, Pain Management Medication for Terminally Ill Patients, and General Anesthesia for Dental Procedures

Acupuncture⁴⁹

Acupuncture therapies are used to treat a variety of health conditions. Based on Milliman's claims data (2005), within the categories of musculoskeletal and neurological disorders, three common conditions for which acupuncture is used include: (1) lower back pain, (2) neck pain, and (3) migraine or severe headaches. The prevalence of these three health conditions in the past 3 months among the insured adult population aged 18 to 64 years in the United States is 26.1% for lower back pain, 17.3% for migraine or severe headache, and 14.3% for neck pain (NHIS, 2002). The prevalence of any one of these three conditions is 37.3%. National estimates indicate that in 2002, 4.1% of the insured adult population has used acupuncture in their lifetime and 1.1% has used acupuncture in the past year (NHIS, 2002). In California, it is estimated that 2.4% of insured adults have used acupuncture in the past year (CHBRP, 2007b).

According to the National Health Interview Survey (NHIS) data, the self-reported prevalence of migraine or severe headache, in particular, is substantially higher in females at 23% compared to 10% of males. This finding is consistent with other studies on severe headaches and migraines, which indicate that migraines are two to three times more prevalent among females, possibly due to hormonal differences (Breslau and Rasmussen, 2001). In addition to high prevalence for these health conditions, females also reported using acupuncture at rates approximately twice as high compared to males (Goldstein et al., 2005; NHIS, 2002; Rafferty et al., 2002). After Asians, whites have the second highest utilization rate. Goldstein et al. (2005) found similar results among California respondents, with 5.9% of Asians using acupuncture in the past year compared to 3.1% of whites, 2.4% of blacks, and 1.3% of Hispanics.

Pain Management Medication for Terminally Ill Patients

Most of the research on pain management medication in the terminally ill has focused on patients dying of cancer. It is estimated that there will be 53,710 deaths in California from cancer in 2008 (CCR, 2007). Research has found that at the time of diagnosis, 30% to 40% of cancer patients indicate that they have moderate to severe pain, with 90% reporting significant pain sometime

⁴⁹ This section relies on information originally presented in CHBRP's analysis of: Assembly Bill 54: Health Care Coverage: Acupuncture, a Report to the 2007-2008 California Legislature, June 22, 2007.

during the course of their disease (Whitecar et al., 2000; Zech et al., 1995; Zhukovsky et al., 1995). Between 12% to 42% of cancer patients report that they inadequate pain management (Cleeland et al., 1994; Zech et al., 1995). Among patients in a palliative care program, good pain relief was reported by 76%, satisfactory efficacy by 12%, and inadequate efficacy by 12% (Zech et al., 1995).

Disparities in the provision of pain management medication to terminally ill patients by gender and race/ethnicity have been reported (Anderson et al., 2000; Cleeland et al., 1994; Cleeland et al., 1997). Overall the results suggest that females and members of minority ethnic groups are not receiving sufficient pain management medication. Cleeland et al. (1997) found that blacks, Hispanics, and other non-whites were under-medicated at a significantly higher rate compared to whites (65% vs. 50%).

General Anesthesia for Dental Procedures

Across insured Californians aged 2 to 65 years, 76% visited the dentist within the past year, 19% reported visiting the dentist more than one year ago, and 5% report never having been to the dentist (CHIS, 2001). Of these visits, 21% were as a result of a dental problem requiring a dental procedure (CHIS, 2001). It is estimated that 2.8% of adults in the United States get general anesthesia for dental procedures (Dionne et al., 1998). This would translate into an estimated 120,000 procedures using general anesthesia in California annually.⁵⁰

Males and females reported visits to the dentist in the past year at similar rates. Among insured Californians aged 2 to 65 years, whites had a higher percentage of reporting a visit to the dentist in the past year (79%) compared to Hispanics (68%), blacks (76%), or Asians (77%) (CHIS, 2001). Gender or racial/ethnic disparities in the use of general anesthesia for dental procedures are unknown.

Evidence of Public Health Impact if Coverage for Benefit Were to Be Waived

Mandate 1: Acupuncture. A preponderance of evidence suggests that acupuncture is effective in reducing pain and improving the functioning of persons with a variety of conditions. The utilization rate of acupuncture among the adult insured Californian population is 2.4%. Therefore, the analysis concluded that there is potential for a **morbidity impact of moderate public health scope** if coverage for this benefit were to be waived.

Mandate 2: Pain Management for Terminally Ill Patients

There is a preponderance of evidence that suggests that pain medication is effective in reducing pain caused by cancer or cancer treatments. There are 53,710 deaths expected in 2008 in California from cancer, and it is estimated that pain medication is used in 84% of terminal cancer cases (Davis and Walsh, 2004). Therefore, the analysis concluded that there is potential for a **morbidity impact of moderate public health scope** if coverage for this benefit were to be waived.

Mandate 3: General Anesthesia for Dental Procedures. Professional consensus suggests that the use of general anesthesia is effective for young children, persons who are extremely anxious,

or those with mental or physical limitations, as well as those needing extensive dental care. The utilization rate of general anesthesia among adults in the United States is 2.8%. Therefore, the analysis concluded that there is potential for a **morbidity impact of moderate public health scope** if coverage for this benefit were to be waived.

F. Mandates Relating to Pediatric Care

Comprehensive Preventive Care for Children

Recommended comprehensive preventive care for children includes routine physical examinations, health education counseling, and immunizations. In California, the vast majority of insured children (aged 18 and under) have seen a doctor in the past year (89%) (CHIS, 2005). Among insured adolescents (aged 12 to 17 years), 80% reported that they went to a doctor for a routine physical exam or check-up within the past year, 13% reported a visit within 1 to 2 years, 5% reported a visit 2 or more years ago, and 3% reported no visits (CHIS, 2005). Health education counseling varied among insured adolescents with 76% reporting a discussion with their doctor regarding physical activity, while less than one-third reported discussing drug use (31%), smoking (29%), alcohol (28%), STDs (24%), or mental health (21%). In California it is estimated that 79% of children have coverage for all recommended vaccine series by 35 months of age (CDC, 2007).

Overall among California's insured children (aged 0 to 18 years), there were no differences in the rates at which males and females visited the doctor in the past year, but there were differences by race. Asian children reported having not visited the doctor in the past year at higher rates compared to white children (15% vs. 9%) (CHIS, 2005). There were no significant differences in the rates at which children were immunized by race or ethnicity in California (DHS, 2006).

Comprehensive preventive care is associated with preventing a myriad of conditions that can lead to premature death. Immunizations protect against infectious diseases that can result in death; health education counseling can lead to a reduction in risky behaviors that can affect mortality rates; and routine health care check-ups are important to monitor blood pressure and weight, which can contribute to obesity, diabetes, and many other health problems.

Asthma Management⁵¹

In California, 13.6% of the population have ever been diagnosed with asthma (CHIS, 2001). Approximately 9.4% of insured children in California have symptomatic asthma (i.e., asthma for which they experienced symptoms in the past year) (CHIS, 2003). It is estimated that 2.5% of insured children in California aged 1 to 17 years have high-risk asthma, which is defined having visited an emergency room in the past 12 months or reporting daily or weekly symptoms of asthma (2001). Adolescents (aged 12 to 17 years) in California with high-risk asthma missed an average of 1.4 days of school in the last four weeks and 79.3% of children (aged 1 to 11 years)

⁵¹ This section relies on information originally presented in CHBRP's analysis of AB 264: Pediatric Asthma Self-Management Training and Education Services for Children at High Risk, A Report to the 2006-2007 California Legislature, May 25, 2006.

with high-risk asthma experienced restricted physical activity due to their asthma (CHIS, 2001). More than 75% of children with high-risk asthma report they currently take medicine for their asthma (CHIS, 2001). In addition, 18% of children aged 1 to 17 years with high-risk asthma had an emergency room visit and 5% were hospitalized because of their disease in the past year. Finally, 63.2% of adolescents with high-risk asthma report having ever received any information from their doctor on how to avoid the things that make their asthma worse (CHIS, 2001).

There are significant gender differences in high-risk asthma prevalence, with 2.9% of males aged 1 to 17 years reporting having high-risk asthma, compared with 2.1% of females in the same age group (CHIS, 2001). Black children have the highest rates of high-risk asthma (3.5%), followed by Hispanics (2.5%), whites (2.3%), and Asians (1.5%). In addition, black children with high-risk asthma reported the highest rate of restricted-activity days compared to white and Hispanic children.

Mortality among children with asthma is relatively rare. In 2002, the National Center for Health Statistics reported that there were 0.3 deaths due to asthma per 100,000 children. In California in 2002, 23 deaths due to asthma were reported among children 1 to 19 years and 458 deaths were reported among the entire population, including adults (CDC WONDER, 2002).

Screening Children for Elevated Blood Lead Levels

Elevated blood lead levels (BLLs) in children can lead to a variety of health problems including headaches, hearing problems, neurological impairment, seizures, and coma. The CDC definition of elevated BLLs is blood lead levels greater than or equal to 10 µg/dL (micrograms of lead per deciliter of blood). Recent estimates of overall prevalence of elevated BLLs across the entire U.S. population is 0.7%, while prevalence for children aged 1 to 5 years and 6 to 19 years were 1.6% and 0.2%, respectively (CDC, 2005a).

Overall, males are at greater risk for elevated BLLs than females (1.1% vs. 0.3%), but restricting the population to children aged 1 to 19 years, the rates between males and females were not different (CDC, 2005a). Across all ages, non-Hispanic whites had the lowest rates of elevated BLLs (0.5%) compared to non-Hispanic blacks (1.4%) and Mexican Americans (1.5%) (CDC, 2005a). Among children, non-Hispanic white children had the lowest mean blood levels compared to non-Hispanic black and Mexican American children.

Mortality among children with elevated BLLs is very rare, but is possible if they are exposed to high enough levels of lead. No research was found that described any deaths in California from elevated BLLs.

Evidence of Public Health Impact if Coverage for Benefit Were to Be Waived

Mandates 1, 2: Comprehensive preventive care for children aged 16 or younger and children aged 17-18. There is a preponderance of evidence that some recommended services are effective. There are more than 9.5 million children aged 0 to 18 years currently insured in California. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

Mandate 3: Asthma Management. There is a preponderance of evidence that asthma management is effective in reducing the negative side effects of asthma symptoms. In California, 13.6% of the entire population has been diagnosed with asthma. Therefore, the analysis concluded that there is potential for a **mortality impact of broad public health scope** if coverage for this benefit were to be waived.

Mandate 4: Screening Children for Blood Lead Levels. There is a preponderance of evidence **against** routine screening in children of average risk, and there is insufficient evidence to determine if screening is effective in children at increased risk. Therefore, the analysis concluded that there is **no potential impact on public health** if coverage for this benefit were to be waived.

G. Mandates Relating to Reproductive Services

Contraceptive Devices Requiring a Prescription

Unintended pregnancy is associated with many health and social consequences and costs the U.S. health care system an estimated \$5 billion dollars annually (DHS OWH, 2006; Trussell, 2007). In order to prevent unintended pregnancy, nearly 1 million insured females in California aged 18 to 44 report using some form of prescription contraceptives as their current form of birth control (DHS OWH, 2006). This represents 41% of the population of females currently using contraceptives and includes oral contraceptives (28%); long-acting methods such as Depo-Provera, contraceptive implant, and intrauterine contraceptives (11%); and the patch and the ring (2%). Other forms of nonprescription contraceptives used among females aged 18 to 44 years included condoms (25%), sterilization (both male and female, 29%), and other forms of contraceptives (5%).

Prescription contraceptive devices are only available for females. The contraceptive devices available to males (condoms and sterilization) do not require a prescription and thus would not be covered under this mandate. Among white females, the primary form of contraception most reported was the contraceptive pill (46%) (Weinbaum and Thorfinnson, 2006). In contrast, Hispanics and black females reported that condoms were their primary form of contraception (33% and 31% respectively) (Weinbaum and Thorfinnson, 2006).

The use of prescription contraceptives overall is not associated with premature death, although persons with specific risk factors should take these risk factors into account when choosing which form of contraception to use. In general, the risks associated with taking oral contraceptives are lower than the risks associated with pregnancy and childbirth.

Infertility Treatments

Among married females aged 15 to 44 years in the United States, 15.1% have impaired fecundity (i.e., the physical ability for a woman or a couple to have a child)—half of whom (7.4%) are infertile (defined as a couple that had been married/cohabiting for more than 12 months, had not used contraception, and had not become pregnant) (Chandra et al., 2005). Overall, 11.9% of females in the United States aged 15 to 44 reported that they had ever received any infertility services (Chandra, et al., 2005). This included 6.1% who had received fertility advice, 5.5% who had received medical help to prevent miscarriage, 4.8% who had tests performed on either the male or female, 3.8% who had received ovulation drugs, 1.1% who had received artificial

insemination, 0.7% who received surgery or treatment of blocked tubes, and 0.3% who had assisted reproductive technology.

Across the United States, among married females aged 15 to 44 years, blacks report higher rates of infertility (11.5%) compared to Hispanics (7.7%) or non-Hispanic whites (7.0%) (Chandra et al., 2005). Among females aged 15 to 44 years (regardless of marital status), non-Hispanic whites have the highest rates of having ever received any infertility service (13.8%) compared to Hispanics (8.2%) or blacks (8.4%) (Chandra et al., 2005).

Prenatal Diagnosis of Genetic Disorders

Approximately 3% of babies born in California are born with a birth defect (CBDMP). The most common birth defects include serious heart defects (2.25 cases per 1,000 births), chromosomal abnormalities (including Down syndrome, 1.87 cases per 1,000 births), oral cleft defects (1.27 cases per 1,000) and neural tube defects (0.68 cases per 1,000 births). Rates of birth defects vary by mother's race where black mothers have the highest rates of babies with birth defects (17.5 per 1,000 births), followed by whites (16.2 per 1,000 births), Hispanics (15.2 per 1,000 births), and Asians (12.9 per 1,000 births).

Nearly 1 in 10 babies with birth defects born in California will die before their first birthday (CBDMP). The risk of infant death (i.e., before 1 year of age) among babies with birth defects is 92.5 per 1,000 births compared to 6.2 per 1,000 births for babies without birth defects (CBDMP).

Expanded Alpha-Fetoprotein Screening

Alpha-fetoprotein screening (AFP) is used in California to calculate the risk of a pregnancy with a child with Down syndrome. Down syndrome occurs at a rate of 1.51 per 1,000 births which translates into approximately 830 cases/year in California (CBDMP). Rates of Down syndrome increase by age for mothers aged 20 and older, with the highest rates in the >39 year old age category (9.99 per 1,000 births). More than half of children born with Down syndrome have heart defects or other associated birth defects. In California approximately one quarter of pregnancies diagnosed with Down syndrome are terminated due to this diagnosis (Bishop et al., 1997). When looking specifically at Down syndrome by mother's race/ethnicity the highest rates are reported among births to Hispanic females (1.53 per 1000 births), followed by white females (1.15), black females (1.12), and Asian females (0.98) (CBDMP). Due to heart defects and other birth defects, about 10% of babies born with Down syndrome die before age 1.

Evidence of Public Health Impact if Coverage for Benefit Were to Be Waived

Mandate 1: Contraceptive Devices Requiring a Prescription. There is clear and convincing evidence that prescription contraceptives are more effective than non-prescription contraceptives for preventing pregnancy. Nearly one million insured females in California aged 18 to 44 years rely on prescription contraception for birth control. Therefore, the analysis concluded that there is potential for a **morbidity impact of broad public health scope** if coverage for this benefit were to be waived.

Mandate 2: Infertility Treatments. There is clear and convincing of evidence that diagnosis and treatment of male and female infertility are effective in improving pregnancy rates. Among married females aged 15 to 44 years, 15.1% have impaired fecundity (i.e., ability to get pregnant

or carry a baby to term). Therefore, the analysis concluded that there is potential for a **morbidity impact of moderate public health scope** if coverage for this benefit were to be waived.

Mandate 3: Prenatal diagnosis of genetic disorders. The preponderance of evidence suggests that diagnostic procedures are effective in identifying genetic disorders of the fetus. In California, approximately 3% of babies are born with a birth defect. Therefore, the analysis concluded that there is potential for a **mortality impact of moderate public health scope** if coverage for this benefit were to be waived.

Mandate 4: Expanded alpha-fetoprotein screening (AFP). There is a preponderance of evidence that AFP tests detect the likelihood of fetal Down syndrome at a rate of 70% to 80%. Down syndrome occurs at a rate of 1.51 per 1,000 births which translates into approximately 830 cases/year in California. Therefore, the analysis concluded that there is potential for a **mortality impact of limited public health scope** if coverage for this benefit were to be waived.

H. Mandates Relating to Surgery

Jawbone or Associated Bone Joints—Surgery

Conditions of the jaw and associated bone joints that require surgery include temporomandibular joint (TMJ) disorders, odontogenic tumors, and injury to the area from physical trauma. Of these, this report will focus on TMJ disorders because this is the condition where there is the most variability in coverage among health insurance plans. The cause of TMJ disorders is not clear, but physical trauma, grinding/clenching of teeth, presence of arthritis, and stress are all contributing factors. Across the United States, it is estimated that 10 million people currently have TMJ disorders and that 1.5-3 million people seek treatment annually (Marwick, 2005). This would translate into approximately 1 million Californians with TMJ disorders with 150,000-300,000 seeking treatment annually.

The literature suggests that the prevalence of TMJ disorders among females is 1.5 to 2 times higher than in males (Warren and Fried, 2001). The evidence is ambiguous in regards to different prevalence rates by race/ethnicity. While some research has found that rates of TMJ disorders do not differ by race/ethnicity (Keeling et al., 1994) others have found that blacks are more likely to have TMJ risk factors (Widmalm et al., 1995).

Reconstructive Surgery

Reconstructive surgery is most commonly done in California for females who have had a mastectomy to treat breast cancer. Breast cancer is the most common cancer among females in California, accounting for 43% of total current cancer in females (CCR, 2007). In 2008 it is expected that 21,160 cases of breast cancer will be diagnosed in California (CCR, 2007). The Milliman database indicates that the mastectomy rates for females aged 0 to 64 years is 85 per 100,000 for partial mastectomy and 72 per 100,000 for full. Studies have reported that rates of breast reconstruction following mastectomy range between 12.5% and 17% of breast cancer patients (Alderman et al., 2003; Polednak, 2001; Rowland et al., 2000). Other conditions for which reconstructive surgery is performed include clubfoot or craniofacial abnormalities. Although clubfoot is a relatively common birth defect, occurring in 1 out of 1,000 live births, surgery is used only in extreme cases (NIH, 2007). Craniofacial abnormalities refer to a group of

deformities of the head or facial bones. The most common abnormality is oral clefts, with one in 790 babies born in California being diagnosed (CBDMP). Oral clefts, such as cleft lip and cleft palate, require surgery to restore proper functioning.

The evidence regarding breast reconstructive rates following mammography by race and ethnicity is ambiguous. It has been reported that there is no difference in rates of reconstructive surgery post-mastectomy (Polednak, 2001), that blacks (compared to whites) have higher rates of surgery (Alderman et al., 2003), and that whites (compared to blacks) have higher rates of surgery (Rowland et al., 2000). Whites have the highest rates of cleft palate deformities and Asians had the lowest (CBDMP).

Evidence of Public Health Impact if Coverage for Benefit Were to Be Waived

Mandate 1: Jawbone or Associated Bone Joints—Surgery. A preponderance of evidence suggests that surgical treatments for TMJ disorders results in reduced pain. TMJ disorders affect approximately 1 million persons in California. Therefore, the analysis concluded that there is potential for a **morbidity impact of moderate public health scope** if coverage for this benefit were to be waived.

Mandate 2: Reconstructive Surgery. The evidence on the impact of reconstructive surgery for breast reconstruction, club foot, or craniofacial abnormalities is ambiguous or insufficient. Therefore, the analysis concluded that there is an **unknown potential impact on public health** if coverage for this benefit were to be waived.

I. Mandates Relating to Hospice and Home Health Care

Hospice Care

Hospice care provides physical, psychological, social, and spiritual care to dying persons and their families. Hospice care can be provided in either inpatient or at home on a part-time, full-time, or round-the-clock basis. The rate of current hospice care in the under 65 population across the United States is 8.0 per 100,000 (NHHCS, 2004a). The under 65 population represents 18.6% of total hospice patients. The rate of hospice care discharges in 2000 (including death) was 52.1 per 100,000 persons (NHHCS, 2004a). In the under 65 population, the mean length of hospice care service lasts for 163 days while the median length of service is 89 days (NHHCS, 2004a). This discrepancy in rates takes into account the fact that there are many episodes of care that are short in duration.

Across the United States, the rate of hospice care varies in the under 65 population by both gender and race. Looking at gender, females report higher rates of current hospice use (8.6 per 100,000) compared to males (7.5 per 100,000) (NHHCS, 2004a). In addition, blacks report much higher rates of current hospice use (14.4 per 100,000) compared to whites (6.8 per 100,000) (NHHCS, 2004a).

Home Health Care

Home health care is used to help patients who are recovering from an illness or injury to continue to receive medical care on a regular basis without having to leave their home. The most common primary diagnoses of current home health care patients are: diseases of the circulatory system (including heart disease), injury and poisoning, diseases of the musculoskeletal system and connective tissue (such as arthritis), diabetes, diseases of the nervous system, diseases of the respiratory system, and cancer (NHHCS, 2004b). The rate of current home health care use in the under 65 population across the United States is 16.4 per 100,000 (NHHCS, 2004b). This represents 29.5% of total patients. In the under 65 population, the mean length of home health care service lasts for 51 days while the median length of service is 17 days (NHHCS, 2004a).

Across the United States, the rate of home health care use varies in the under 65 population by both gender and race. Looking at gender, females report higher rates of home health care use (17.2 per 100,000) compared to males (15.6 per 100,000) (NHHCS, 2004b). In addition, blacks report higher rates of current home health care use (17.8 per 100,000) compared to whites (14.1 per 100,000) (NHHCS, 2004b).

Evidence of Public Health Impact if Coverage for Benefit Were to Be Waived

Mandate 1: Hospice Care. The evidence of the effects of hospice care on the duration, frequency, severity of pain, and quality of life is ambiguous. However, the preponderance of evidence suggests that hospice care reduces other symptoms associated with terminal illness (e.g., anxiety, diarrhea, nausea). Hospice is currently used by approximately 8.0 per 100,000 persons. Therefore, the analysis concluded that there is potential for a **morbidity impact of limited public health scope** if coverage for this benefit were to be waived.

Mandate 2: Home Health Care. There is clear and convincing evidence that home health care leads to better outcomes for elderly and disabled adult patients. Home health care is currently used by approximately 16.4 per 100,000 persons aged 0 to 64 years. Therefore, the analysis concluded that there is potential for a **morbidity impact of limited public health scope** if coverage for this benefit were to be waived.

Table 6. Summary of Public Health Impacts

Part A. Cancer Screening & Treatment

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|---|---|--|---|--|--|
| Cancer Screening Tests | <i>Clear and convincing evidence</i> to screen for colorectal cancer, cervical cancer, and breast cancer, but not for other cancers | 142,085 new cases of cancer expected in 2008 in California, including 14,080 cases of colorectal cancer, 1,430 cases of cervical cancer, and 21,160 cases of breast cancer | 52% of cancer occurs in males; 48% in females; among men, blacks have the highest rates and among women, non-Hispanic whites have the highest rates | 53,710 deaths expected in 2008 in California from cancer, including 5,185 due to colorectal cancer, 410 due to cervical cancer, and 4,235 from breast cancer | Mortality impact of broad public health scope for colorectal, cervical, and breast cancer Unknown impact on public health for other cancers |
| Prostate Cancer Screening and Diagnosis | <i>Insufficient evidence</i> to determine whether prostate cancer screening reduces mortality | 22,600 new cases expected in 2008 in California Probability of male being diagnosed over lifetime 1 in 7 | Affects males only African American males are 50% more likely to develop compared to non-Hispanic white, 70% more likely to develop compared to Hispanic males, and 6 times more likely than API males | 2,970 deaths expected in 2008 in California There is a 95% 5-years survival rate | Unknown impact on public health |

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|---|---|---|---|--|---|
| Cervical Cancer Screening | <i>Clear and convincing evidence</i> that screening reduces incidence and mortality from cervical cancer | There are 1,430 new cases expected in 2008 in California 91% of females received recommended screening in past 3 years | Affects females only Hispanic females have the highest risk of developing cervical cancer, about twice as high as non-Hispanic white females, black and Asian/Pacific Islander females | 410 deaths expected in 2008 in California. There is a 72% 5-years survival rate | Mortality impact of broad public health scope ⁵² |
| Breast cancer screening, diagnosis, and treatment Breast Cancer Screening with Mammography Breast cancer benefits | <i>Clear and convincing evidence</i> that screening and treatment significantly reduce mortality from breast cancer | 21,160 new cases expected in 2008 in California The probability of female being diagnosed over lifetime is 1 in 9 | Affects females predominantly (99.4% of new cases) Hispanics were less likely to ever have a mammography screening compared to non-Hispanic white and black females | 4,235 deaths expected in 2008 in California There is an 88% 5-years survival rate for females | Mortality impact of broad public health scope |

⁵² Although the number of cases of cervical cancer in California is not large enough to be classified as “broad scope” (i.e., 5% of population or greater) – current screening practices have reduced cervical cancer deaths by 70%. Currently 91% of females in California are screened for cervical cancer at the recommended rate. These factors led CHBRP to classify the impact of dropping coverage for cervical cancer screening as “broad scope.”

Part B. Chronic Conditions

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|---|---|---|---|---|--|
| Diabetes Management | <i>Clear and convincing evidence</i> that diabetes management and treatment is effective in improving health outcomes for persons with diabetes | Prevalence of diabetes among adults in CA in 2005 was 7% – which translates into nearly 2 million people | Diabetes is more prevalent among males than among females AIAN (14.9%), blacks (10.1%), and Hispanics (8.0%) have higher prevalence compared to whites (6.0%) or Asians (6.5%) | The crude death rate in CA in 2002 was 18.9 per 100,000 people – which translates into 6,800 deaths | Mortality impact of broad public health scope |
| Osteoporosis Diagnosis, Treatment, and Management | <i>Clear and convincing evidence</i> that screening and treatment for osteoporosis are effective | 11% of insured females aged 50 to 64 years have been diagnosed with a bone condition such as bone loss, osteopenia, or osteoporosis | Osteoporosis affects females predominantly No differences by race/ethnicity in rates of bone conditions | 166 osteoporosis-related deaths in California in 2001 | Mortality impact of moderate public health scope |
| Transplantation Services for Persons with HIV | <i>Preponderance of evidence</i> that patients with HIV undergoing liver or kidney transplant have similar survival rates of patients without HIV | It is unknown how many persons in need of a transplant are HIV-positive | It is unknown to the extent that there are gender or racial/ethnic disparities among HIV-positive persons receiving organ transplants | The extent to which HIV-positive persons die of liver and kidney failure in California is unknown | Unknown impact on public health |

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|---------------------------------------|--|--|---|---|--|
| Phenylketonuria testing and treatment | <i>Preponderance of evidence</i> that screening and treatment are effective in identifying children with PKU and reducing the severity of the associated mental and behavioral disorders | The prevalence of classic PKU is one in 27,000 births – this translates into 15-18 PKU births each year 450 children have been diagnosed since 1980 | There is no difference in rates of PKU among males and females, but blacks are much less likely to have PKU compared to whites and Asians | Women with PKU who become pregnant are at higher risk of spontaneous abortions if their PKU is not well managed | Mortality impact of limited public health scope |

Part C. Mental Illness and Substance Abuse

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|---|--|--|---|---|--|
| Parity in coverage for severe mental illness; Coverage for mental and nervous disorders | <i>Clear and convincing evidence</i> that medications and psychotherapy are effective in treating mental illness | 6.35% of non-institutionalized population (over 2 million Californians) | Higher rates among adult females and Hispanics | There are an estimated 2,700 mental illness–related suicides each year in California | Mortality impact of broad public health scope |
| Alcoholism treatment | <i>Clear and convincing evidence</i> that pharmacological and psychosocial treatments are effective in treating alcohol dependence | 7.8% of Californians report alcohol abuse or dependence in the past year | Males and people of AIAN descent report higher rates of abuse | There are nearly 3,700 alcohol-induced deaths in California each year as well as 1,400 alcohol-related traffic fatalities | Mortality impact of broad public health scope |

Part D. Orthotics and Prosthetics

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|--|--|---|---|--|--|
| Orthotic and prosthetic devices and services | <i>Preponderance of evidence</i> that orthoses and prostheses are effective for some conditions | O&P devices were used by the insured population nationally in 2004, for a utilization rate of 40.4 procedures per 1,000 persons | Adult females had higher utilization rates compared to males in 2004 (45.4 per 1,000 compared to 34.7) Utilization data by race/ethnicity is not available | Premature death is not an outcome typically associated with the utilization of O&P devices | Morbidity impact of moderate public health scope |
| Prosthetic devices for laryngectomy | <i>Ambiguous evidence</i> of the effect voice prosthesis has on quality of life | 875 new cases of laryngeal cancer are expected in California in 2008 | Four times as many males get laryngeal cancer compared to females Blacks have much higher rates of laryngeal cancer compared to other racial/ethnic groups | Premature death is not an outcome associated with prosthetic devices for laryngectomy | Unknown impact on public health |
| Special footwear for persons suffering from foot disfigurement | <i>Ambiguous /insufficient evidence</i> on the effect of special footwear for persons with diabetes; <i>preponderance of evidence</i> that special footwear is effective for persons with rheumatoid arthritis | Approximately 0.49% of the insured population under age 65 have been diagnosed with rheumatoid arthritis Special footwear is used by 30% to 60% of persons with this condition | The extent to which utilization rates of special footwear for rheumatoid arthritis differs across gender and race/ethnicity is unknown | The extent to which the utilization of special footwear for persons suffering from foot disfigurement reduces premature death is unknown | Morbidity impact of limited public health scope for persons with rheumatoid arthritis Unknown impact on public health for persons with diabetes |

Part E. Pain Management

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|--|---|--|---|---|--|
| Acupuncture | <i>Preponderance of evidence</i> suggests that acupuncture is effective in reducing pain and functioning in persons with a variety of conditions | In California, it is estimated that 2.4% of insured adults have used acupuncture in the past year | Females report higher prevalence of lower back pain, neck pain, and migraines or severe headache Females and Asians report higher utilization of acupuncture | Premature death is not an outcome typically associated with the conditions for which people get acupuncture | Morbidity impact of moderate public health scope |
| Pain management medication for terminally ill patients | <i>Preponderance of evidence</i> suggests that pain medication is effective in reducing pain caused by cancer or cancer treatment | 53,710 deaths in California from cancer – estimated that pain medication is used in 84% of terminal cancer cases | Females, blacks, and Hispanics are not receiving sufficient pain management medication | Pain medication does not reduce premature death for terminally ill patients | Morbidity impact of moderate public health scope |
| General anesthesia for dental procedures | Professional consensus that the use of general anesthesia is effective for young children, people with anxiety, or those with mental or physical limitations, and those needing extensive dental care | It is estimated that 2.8% of adults in the United States get general anesthesia for dental procedures | Gender or racial/ethnic disparities in the use of general anesthesia for dental procedures is unknown | None associated | Morbidity impact of moderate public health scope (1) |

Note: (1) There were no studies found on the effectiveness of general anesthesia for dental procedures. However, since the professional consensus is that it is effective for specific populations, we determined that there would be a public health impact if coverage was dropped, making an exception to the criteria requiring the level of evidence to be either “clear and convincing” or “a preponderance of evidence.”

Part F. Pediatric Health

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|--|---|--|--|--|--|
| <p>Comprehensive preventive care for children aged 16 years or younger</p> <p>Comprehensive preventive care for children aged 17 or 18 years</p> | <p><i>Preponderance of evidence</i> for some recommended services such as physical exams, counseling regarding health risks, and immunizations</p> | <p>89% of children aged 0 to 18 years visited a doctor in the past year; 79% of children have received the recommended vaccine series by 35 months</p> | <p>Asians were less likely to have a doctor visit in the past year compared to whites</p> <p>No racial/ethnic differences were found in immunization rates</p> | <p>Comprehensive preventive care is effective in preventing premature death through immunizations, health education counseling, and monitoring of health status indicators</p> | <p>Mortality impact of broad public health scope</p> |
| <p>Asthma management</p> | <p><i>Preponderance of evidence</i> that asthma management is effective in reducing the negative side effects of asthma symptoms</p> | <p>13.6% of the population in California have been diagnosed with asthma; 2.5% of insured children have high risk asthma</p> | <p>Males have higher rates of asthma compared to females</p> <p>Blacks have higher rates of asthma compared to whites and Hispanics</p> | <p>In California in 2002, 23 deaths due to asthma were reported among children aged 1 to 19 years old</p> | <p>Mortality impact of broad public health scope</p> |
| <p>Screening children for blood lead levels</p> | <p><i>Preponderance of evidence against</i> routine screening in children of average risk</p> <p>Insufficient evidence to determine if screening is effective in children at increased risk</p> | <p>1.6% of children in the U.S. aged 1 to 5 years had elevated blood lead levels (BLL)</p> <p>Among children aged 6 to 19 years, 0.2% had elevated BLL</p> | <p>Non-Hispanic whites are less likely to have elevated BLLs compared to non-Hispanic black and Mexican American children</p> | <p>Mortality among children with elevated BLLs is very rare, but is possible if they are exposed to high enough levels of lead</p> | <p>No impact on public health</p> |

Part G. Reproductive

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|--|--|--|---|---|---|
| Contraceptive devices requiring a prescription | <i>Clear and convincing evidence</i> that prescription contraceptives are more effective than non-prescription contraceptives for preventing pregnancy | Nearly 1 million insured females of reproductive age in California use prescription contraceptives | Contraceptive devices are only prescribed for females White females are more likely to use oral contraceptives while Hispanic and black females are more likely to use condoms | Contraceptives use does not lead to a reduction in premature death | Morbidity impact of broad public health scope ⁵³ |
| Infertility treatments | <i>Clear and convincing evidence</i> that diagnosis and treatment of male and female infertility are effective in improving pregnancy rates | 15.1% of married females aged 15 to 44 years have impaired fecundity (i.e., ability to get pregnant or carry a baby to term), half of which (7.4%) are classified as infertile (not pregnant within 12 months) | Blacks report higher rates of infertility compared to non-Hispanic whites and Hispanics; non-Hispanic whites report higher rates of ever having used infertility services | Premature death is not an outcome associated with infertility treatments | Morbidity impact of moderate public health scope |
| Prenatal diagnosis of genetic disorders | <i>Preponderance of evidence</i> that diagnostic procedures identify genetic disorders of the fetus | 3% of babies born in California have a birth defect | Birth defects were highest for babies born to black mothers and lowest for babies born to Asian mothers | Nearly one in ten babies born in California with birth defects will die before their first birthday | Mortality impact of moderate public health scope |

⁵³ This mandate was categorized as “broad scope” assuming that the health impacts (including psychological) of contraceptive use extends to partners of women using contraceptives. This would translate into nearly 2 million men and women using contraceptive devices requiring a prescription.

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|--|--|--|---|--|--|
| Expanded alpha-fetoprotein screening (AFP) | <i>Preponderance of evidence</i> that AFP tests detect likelihood of fetal Down syndrome at a rate of 70% to 80% | Down syndrome occurs at a rate of 1.51 per 1,000 births which translates into approximately 830 cases/year in California | Rates by race/ethnicity vary from 0.98 per 1,000 births to Asian females to 1.53 per 1,000 births to Hispanic females | 10% of babies born with Down syndrome die before age 1 | Mortality impact of limited public health scope |

Part H. Surgical

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|---|--|--|--|--|--|
| Jawbone or associated bone joints – surgery | <i>Preponderance of evidence</i> suggests that surgical treatment for TMJ results in reduced pain | It is estimated that 1 million people in CA have TMJ disorders and 150,000 to 300,000 receive treatment annually | Women have higher rates of TMJ disorders compared to men. The evidence is ambiguous in regards to different prevalence rates by race/ethnicity | The reduction in premature death is not an outcome associated with jawbone or associated bone joint pain | Morbidity impact of moderate public health scope |
| Reconstructive surgery | <i>Ambiguous/insufficient evidence</i> on the impact of reconstructive surgery for breast reconstruction, for club foot, or craniofacial abnormalities | Reconstructive surgery is most commonly preformed post-mastectomy (12.5%-17% of breast cancer patients), to correct craniofacial defects, and to correct club foot | Unknown gender or racial/ethnic disparities in rates of reconstructive surgery | Not an associated outcome | Unknown impact on public health |

Part I. Hospice and Home Health Care

| Topic (Statute) | Medical Effectiveness Conclusion | Public Health Scope | Gender or Racial/Ethnic Disparities | Premature Death | Potential Public Health Impact if Dropped |
|------------------------|--|---|--|--|--|
| Hospice care | <p>The evidence of the effects of hospice care on the duration, frequency, severity of pain, and quality of life is <i>ambiguous</i></p> <p>However, the <i>preponderance of evidence</i> suggests that hospice care reduces other symptoms associated with terminal illness</p> | The rate of current hospice care in the under 65 population across the U.S. is 8.0 per 100,000 | Females and blacks have higher rates of hospice use | The reduction in premature death is not an outcome associated with the use of hospice care | Morbidity impact of limited public health scope |
| Home health care | <i>Clear and convincing evidence</i> that home health care leads to better outcomes for elderly and disabled patients | The rate of current home health care use in the under 65 population across the U.S. is 16.4 per 100,000; this represents 29.5% of home health care patients | Females and blacks have higher rates of home health care use | Overall, home health care resulted in a non-significant decrease in mortality relative to usual care | Morbidity impact of limited public health scope |

Notes: API = Asian/Pacific Islander; AIAN = American Indian/Alaska Native

POTENTIAL COST IMPACTS

AB 1214 would allow insurance carriers in the state of California to offer health insurance products exempt from all current benefit mandates, except for Basic Health Care Services for DMHC-regulated products. It is difficult to predict which mandated benefits insurers would continue to offer to policyholders. Because there are currently 44 health care benefit mandates under California law, the number of possible combinations of these 44 benefits that might be offered if they were no longer mandated is virtually limitless (more than 17 quadrillion). This section first provides a brief summary of the existing literature⁵⁴ on the cost of insurance mandates in order to put the possible effects of AB 1214 on health care premiums into context. The bulk of this section then presents a quantitative analysis of two scenarios demonstrating the range of short-term impacts of AB 1214. Finally, this section presents a discussion of the potential long-term impact of AB 1214.

Cost of Insurance Mandates: Summary of the Literature

Two approaches to examining the cost of mandates have typically been used in past literature. A study of the cost of 13 mandates in Texas found that the mandated benefits accounted collectively for 7.6% of the premium for large groups and 7.2% of the premium for small groups (Albee et al., 2000). The only mandates that individually increased premium costs by more than a percentage point were for congenital defects, serious mental illness, and HIV/AIDS. A study of the cost of 41 mandates in Maryland found that while the full cost of the mandates was about 15.4% of the cost of paid claims, the marginal cost was only 1.9% (Maryland Health Care Commission, 2006). An evaluation of the federal Health Insurance Marketplace Modernization and Affordability Act of 2006 found that in the small-group market, the elimination of benefit mandates that were not in effect in at least 45 states would lead to a premium reduction of 5%. A GAO summary of actuarial studies found that the cost of mandated insurance benefits ranged from 5.4% to 22.0% of total claims costs, depending on the state, but noted that the proportion actually attributable to the mandates would depend on which services the insurers would have covered even in the absence of a mandate (GAO, 1993). Based on these studies, the cost of covering benefits required under mandate laws may reach up to 22%. But once the studies account for what insurers were covering prior to enactment (or what they would have covered regardless of the mandate law), the cost of mandated benefits falls in the range of 2% to 7% of total premiums.

CHBRP conducted a quantitative analysis of the marginal cost associated with each benefit mandate in current California law, and found that preventive services, mental health services for serious mental health conditions, and the maternity benefit mandates were considered the most costly relative to the other benefit mandates. In addition, benefits that are not currently mandated in California law but are high-cost benefits relative to other benefits include mental health and substance abuse services (other than serious mental health conditions) and outpatient prescription drugs (Maryland Health Care Commission, 2006).

⁵⁴ This section relies on information on the cost of benefit mandates originally presented in CHBRP's analysis of SB 365 (2007), a bill that would have permitted out-of-state carriers to sell insurance in state and not be subject to California-specific laws and regulations governing health insurance.

The Range of Impacts of AB 1214: Analysis of Two Scenarios

For the analysis of AB 1214, CHBRP employed a simplifying assumption regarding expected health plan designs if AB 1214 were to be enacted. The assumption is that insurers would all offer three prototype limited-mandate plans: one for the DMHC-regulated group and individual markets, one for the CDI-regulated group market, and one for the CDI-regulated individual market. The rationale for which mandates would be included in each of the three prototype plans is based on: (1) review of grey literature; (2) review of plans offered in other states with laws that allowed for the development of plans not subject to state mandates; (3) review of low-premium plans currently offered in California; and (4) input from a content expert, Melinda Beeuwkes Buntin, Ph.D., of RAND, who provided technical assistance and expert input on the analytic approach used in the cost impact analysis. The major exclusions in the DMHC-regulated prototype are durable medical equipment, prosthetics and orthotics, chemical dependency services, infertility services, acupuncture, and chiropractic. In addition to these exclusions, the CDI-regulated prototypes also exclude mental health services. CDI-regulated prototypes for the individual market also exclude maternity services; however, that exclusion is permitted under current law. The complete description of these three prototypes, and how they are developed appears in Appendix F.

In addition to the simplifying assumption that only one prototype plan would be offered in each of the four market segments, CHBRP employed a scenario approach to the analysis of the cost impacts of AB 1214. These scenarios were necessary because of the difficulty associated with estimating exactly how many employers would offer these prototype policies in the group market and how many individuals would purchase these prototypes in the individual market. Therefore, CHBRP's analysis models the maximum short-term savings theoretically possible using two scenarios. The first scenario estimates what the cost impacts would be if there is a broad take-up of these prototype plans in both the group and individual markets. The second scenario estimates what the cost impacts would be if there is low take-up of these prototype plans, concentrated solely among enrollees in the group and individual markets who currently purchase high-deductible health plans (HDHPs).

Before discussing the details and presenting the results of these two scenarios, it is important to understand all the possible impacts of AB 1214 on California's health insurance markets, and how CHBRP addressed these factors in conducting its analysis of AB 1214. These factors include the impacts of lower-cost, less comprehensive insurance policies on: (1) offer rates and take-up rates in the group market, (2) take-up rates in the individual market, (3) segmentation of risk within markets, and (4) possible reductions in the number of the uninsured. These factors are discussed in the next two sections.

Impacts of AB 1214 on Market Share, Offer Rates, and Take-Up Rates

One of the goals of AB 1214 is to make health insurance more affordable to employers and individual purchasers by allowing them to purchase only those benefits that are of most value to them. Despite evidence that most individuals are not able to accurately assess their true risk of disease and thus their future need for specific health care services (discussed above in the Public Health Impact section), eliminating benefit mandates can lower the short-term costs of some

health insurance premiums and can produce short-term reductions in health expenditures. Whether these short-term savings could be sustained over time is questionable, as discussed below in the section on Potential Long-Term Impacts of AB 1214.

Market Share, Offer Rates, and Take-Up Rates

The ultimate cost impact of AB 1214 will depend on how large a market share the new limited-mandate plans capture, as well as the average premium savings that can be achieved by these plans. Because AB 1214 is likely to increase the availability of health insurance products with lower premiums relative to the current market, economic theory and research evidence predict that some portion of the currently insured market would switch to these lower-cost plans (also known as a substitution effect). Economic theory and evidence also indicate that some individuals who are currently uninsured will be able to purchase insurance because it is now more affordable (also known as an income effect). In the group market, the impact of AB 1214 would depend on the market share achieved by these limited-mandate plans, which in turn depends on the proportion of employers that offer these plans (i.e., the offer rate) and the proportion of employees who enroll in these plans when offered (i.e., the take-up rate). In the individual market, the impact of AB 1214 on the market share of limited-mandate plans would depend solely on the take-up rate of individuals.

In its analysis of AB 1214, CHBRP does not attempt to predict the offer rates of employers or the take-up rates of individuals in the group market or individual market.⁵⁵ Instead, the high-impact scenario (scenario 1) and the low-impact scenario (scenario 2) make assumptions about the potential impact of AB 1214 if limited-mandate plans replaced full-mandate plans in entire segments of the insurance market. Specifically, in scenario 1, CHBRP assumes that limited-mandate plans would replace full-mandate plans in each of the four major market segments (DMHC-regulated group; CDI-regulated group; DMHC-regulated individual; CDI-regulated individual). This scenario is a high-impact estimate because it assumes a 100% offer rate of one of the three prototype plans⁵⁶ developed by CHBRP and 100% take-up by all individuals in the group market and individual market. In other words, limited-mandate plans would completely displace full-mandate (comprehensive) plans in every market segment. As such, it represents an upper bound on the impact of AB 1214, assuming the prototype plans developed for this analysis are representative of the typical plan that would be offered under AB 1214.

Scenario 2 assumes that limited-mandate plans would completely replace HDHPs only in each of the four market segments defined above (group DMHC-regulated; group CDI-regulated; individual DMHC-regulated; individual CDI-regulated). This scenario is a low-impact estimate, because it assumes that only individuals who have demonstrated a willingness to purchase lower-

⁵⁵CHBRP contacted states that had enacted laws allowing carriers to offer limited-mandate products. None of these states collected independent data on the market response to these product offerings. One state, Texas, requires carriers to report savings associated with its limited-mandate plans or “Consumer Choice Plans.” In 2006, these self-reported premium savings ranged from 0.5% to 38.3% for health insurance products limiting mandates and 2% to 29% for health insurance products that altered cost-sharing arrangements.

⁵⁶Note, that while the market is divided into four segments for the purposes of analysis (DMHC-regulated group; CDI-regulated group; DMHC-regulated individual; CDI-regulated individual), there are three limited-mandate prototype plans used. This is because the prototype for DMHC-regulated group and individual plans are identical, while there are two separate prototypes for CDI-regulated group and individual plans. For more information on the prototypes, see Appendix F.

cost, less comprehensive insurance plans would switch to even lower-cost, limited-mandate plans. Although scenario 2 is limited to those who currently have HDHPs within the DMHC- and CDI-regulated markets, it still represents an upper bound estimate within those markets because it assumes a 100% offer rate of and 100% take-up by individuals with HDHPs in the group and individual markets.

These two scenarios were developed based on CHBRP analysis of the research literature, market trends, and lessons from other states that have attempted to make health insurance more affordable by allowing insurance policies that are exempt from benefit mandates. For example, the research literature and experts generally report that self-insured employers, who are exempt from state benefit mandates, typically offer generous benefit packages (CHCF, 2006b). Therefore, CHBRP's analysis assumes that self-insured employers would remain self-insured under AB 1214. Evidence suggests that large-group employers who purchase health insurance also generally offer fairly generous benefit packages. For example, Table 6 indicates that 99.88% of covered lives in the large-group market with DMHC-regulated health plans and 95.87% with CDI-regulated policies have comprehensive benefit packages (i.e., those with deductibles lower than \$1,100 per individual per year).

In the small-group market (i.e., employers with 2-50 employees), the vast majority of employees have comprehensive benefit packages; although in the CDI-regulated market, employees are more likely to have HDHPs. Table 6 shows that in the small-group market, about 95% of covered lives with DMHC-regulated health plans have comprehensive benefit packages (i.e., those with deductibles lower than \$1,100 per individual per year), compared to about 71% with CDI-regulated policies.

HDHPs, which represent a less comprehensive benefit package because of the high deductibles and copayments, have a considerable market share in the individual market in California. According to Table 6, about 49% of covered lives in the DMHC-regulated individual market and about 58% in the CDI-regulated individual market in California have HDHPs. The large market share of HDHPs in the individual market suggests that purchasers in this market segment are responsive to the lower premiums associated with HDHPs. This is not surprising, given the fact that these purchasers do not receive an employer contribution toward their premium.

Table 7. Market Share of Insurance Products Under Scenario 1 (High Impact)—Substitution of all current health insurance products with limited-mandate health insurance products, based on CHBRP prototypes for DMHC-regulated and CDI-regulated markets

Distribution of Enrollment in Large-Group Plans (51+ Employees)

| Current Baseline Enrollment | | | | Enrollment following enactment of AB 1214 | | | |
|---|---------------|--|---------------|--|---------------|---|---------------|
| Comprehensive (low- or zero-deductible) plans with full mandated benefits | | HDHP plans with full mandated benefits | | Comprehensive plans (low- or zero-deductible) with limited mandated benefits | | HDHP plans with limited mandated benefits | |
| DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated |
| 99.88% | 95.87% | 0.12% | 4.13% | 99.88% | 95.87% | 0.12% | 4.13% |

Distribution of Enrollment in Small-Group Plans (2-50 Employees)

| Current Baseline Enrollment | | | | Enrollment following passage of AB 1214 | | | |
|---|---------------|--|---------------|--|---------------|---|---------------|
| Comprehensive (low- or zero-deductible) plans with full mandated benefits | | HDHP plans with full mandated benefits | | Comprehensive plans (low- or zero-deductible) with limited mandated benefits | | HDHP plans with limited mandated benefits | |
| DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated |
| 94.85% | 70.69% | 5.15% | 29.31% | 94.85% | 70.69% | 5.15% | 29.31% |

Distribution of Membership in Individual Plans

| Current Baseline Enrollment | | | | Enrollment following passage of AB 1214 | | | |
|---|---------------|--|---------------|--|---------------|---|---------------|
| Comprehensive (low- or zero-deductible) plans with full mandated benefits | | HDHP plans with full mandated benefits | | Comprehensive plans (low- or zero-deductible) with limited mandated benefits | | HDHP plans with limited mandated benefits | |
| DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated |
| 50.16% | 41.81% | 49.84% | 58.19% | 50.16% | 41.81% | 49.84% | 58.19% |

Source: CHBRP Survey of California Health Plans and Insurers, 2007.

Note: Market shares do not change after implementation because of the assumption that all group and individual policies have limited mandates.

Table 8. Market Share of Insurance Products Under Scenario 2 (Low Impact)—Increase in HDHP market share resulting from premium reductions that occur if all current HDHPs are replaced with limited-mandate HDHPs

Distribution of Enrollment in Large-Group Plans (51+ Employees)

| Current Baseline Enrollment | | | | Enrollment following passage of AB 1214 | | | |
|--|---------------|--|---------------|--|---------------|---|---------------|
| Comprehensive (low-or zero-deductible) plans with full mandated benefits | | HDHP plans with full mandated benefits | | Comprehensive plans (low-or zero-deductible) with full mandated benefits | | HDHP plans with limited mandated benefits | |
| DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated |
| 99.88% | 95.87% | 0.12% | 4.13% | 98.28% | 93.77% | 1.72% | 6.23% |

Distribution of Enrollment in Small-Group Plans (2-50 Employees)

| Current Baseline Enrollment | | | | Enrollment following passage of AB 1214 | | | |
|--|---------------|--|---------------|--|---------------|---|---------------|
| Comprehensive (low-or zero-deductible) plans with full mandated benefits | | HDHP plans with full mandated benefits | | Comprehensive plans (low-or zero-deductible) with full mandated benefits | | HDHP plans with limited mandated benefits | |
| DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated |
| 94.85% | 70.69% | 5.15% | 29.31% | 93.45% | 68.72% | 6.55% | 31.28% |

Distribution of Membership in Individual Plans

| Current Baseline Enrollment | | | | Enrollment following passage of AB 1214 | | | |
|--|---------------|--|---------------|--|---------------|---|---------------|
| Comprehensive (low-or zero-deductible) plans with full mandated benefits | | HDHP plans with full mandated benefits | | Comprehensive plans (low-or zero-deductible) with full mandated benefits | | HDHP plans with limited mandated benefits | |
| DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated | DMHC regulated | CDI regulated |
| 50.16% | 41.81% | 49.84% | 58.19% | 48.70% | 38.86% | 51.30% | 61.14% |

Source: CHBRP Survey of California Health Plans and Insurers, 2007.

Note: Market shares do change after implementation because of the assumption that all group policies retain all current mandates, while all HDHPs have limited mandates. The price reduction in HDHPs thus results in some substitution of HDHPs for full-mandate policies.

Price of Prototype Benefit Packages that Would Become Available in the DMHC- and CDI-Regulated Markets

Table 9 presents the estimated reduction in premiums associated with the prototype plans developed for this analysis. Scenario 1 applies to all the market segments shown in this table, whereas scenario 2 applies only to the HDHP products offered in each market. The second column of Table 9 shows the baseline premiums in each market segment. These are the baseline estimates CHBRP uses in all of its analyses. The third column shows the reduction in per member per month (PMPM) premium costs associated with the exclusion of currently mandated benefits. CHBRP assumes in this analysis that many, but not all, currently mandated benefits would continue to be offered by insurers in the prototype plans. Finally, the fourth column shows the percent reduction in premiums that would result from the limited-mandate prototype plans. These premium reductions range from 2.9% to 7.4%, depending on the market segment.

Table 9. Comparison of Comprehensive-Mandate Plans and AB 1214 Limited-Mandate Plans, by Market Segment

| Market Segment | Premiums For Comprehensive Mandate Plans (Baseline) (1) (PMPM) | Reduction due to Waived Mandates (2) (PMPM) | Reduction due to Waived Mandates (%) |
|------------------------|--|---|--------------------------------------|
| Large Group, CDI | \$400.95 | \$21.67 | 5.4% |
| Small Group, CDI | \$377.66 | \$17.16 | 4.5% |
| Individual, CDI | \$146.71 | \$10.91 | 7.4% |
| Large Group, DMHC | \$303.24 | \$15.27 | 5.0% |
| Small Group, DMHC | \$346.07 | \$15.49 | 4.5% |
| Individual, DMHC | \$294.54 | \$11.56 | 3.9% |
| Large Group HDHP, CDI | \$336.35 | \$18.29 | 5.4% |
| Small Group HDHP, CDI | \$260.55 | \$11.63 | 4.5% |
| Individual HDHP, CDI | \$150.07 | \$10.46 | 7.0% |
| Large Group HDHP, DMHC | \$247.03 | \$10.53 | 4.3% |
| Small Group HDHP, DMHC | \$310.77 | \$11.02 | 3.5% |
| Individual HDHP, DMHC | \$244.14 | \$7.13 | 2.9% |

Source: California Health Benefits Review Program, 2007

Notes: Scenario 1 applies to all market segments in this table. In other words, it works from the assumption that the entire insured population would enroll in one of the three prototypes of the limited-mandate plans following enactment of AB 1214. Scenario 2 applies only to the HDHP market segments. In other words, it works from the assumption that only those enrolled in HDHPs currently would enroll in one of the three prototypes of the limited-mandate plans following enactment of AB 1214. This table strictly prices out the premium difference in the benefit packages. (1) Baseline benefit premiums are those included in CHBRP’s 2007 Cost Model. See Appendix D for more information. (2) Mandates that would be waived are detailed in Appendix F.

Estimated Impacts of AB 1214: Scenario 1 Findings

As shown in Table 11, under this scenario total premiums and member copayments among the commercially insured population would decline by \$3.324 billion dollars, a reduction of 4.840%. However, out-of-pocket expenditures for services that would no longer be covered would increase by \$1.426 billion—less than the projected decrease in premiums, reflecting primarily

lower spending on services no longer covered by insurance. The net impact on premiums and out-of-pocket expenditures would be a reduction of \$1.898 billion, or 2.763%.

About 26,000 Californians would become insured as a result of this scenario. This would increase expenditures for premiums and for out-of-pocket expenditures by \$56 million among these individuals

Therefore, the combined effect on those currently insured in the commercial market and on those newly insured would be a reduction in premium and out-of-pocket expenditures of \$1.842 billion, or 2.393%.

Estimated Impacts of AB 1214: Scenario 2 Findings

As shown in Table 12, under this scenario total premiums and member copayments among the commercially insured population would decline by \$255 million dollars, a reduction of 0.372%. However, out-of-pocket expenditures for services that would no longer be covered would increase by \$101 million—less than the projected decrease in premiums, reflecting primarily lower spending on services no longer covered by insurance. The net impact on premiums and out-of-pocket expenditures would be a reduction of \$154 million, or 0.225%.

About 22,000 Californians would become insured as a result of this scenario. This would increase expenditures for premiums and for out-of-pocket expenditures by \$38 million among these individuals.

Therefore, the combined effect on those currently insured in the commercial market and on those newly insured would be a reduction in premium and out-of-pocket expenditures of \$116 million, or 0.151%.

Potential Long-Term Impacts of AB 1214

Risk Segmentation

Adverse risk selection is likely to occur as a result of AB 1214 in subsequent years after the bill's implementation. Lower-risk individuals (those with less health care needs) would be more likely to switch to limited-mandate products that become available in the market, leaving higher-risk individuals in those insurance products with more generous benefits. This segmentation of risk would further increase the premium difference between full-mandate insurance products and limited-mandate insurance products. Under certain circumstances, it is possible that full-mandate insurance products could be driven out of some market segments entirely because they are no longer price competitive.

Although it is difficult to predict the ultimate percentage impact of adverse risk selection on premiums, the segmentation of risk, particularly in the individual market, is likely to increase the magnitude of the premium differences estimated in this report, which are based solely on the actuarial value of excluded benefit mandates. Risk selection is likely to magnify the premium differences because low-risk individuals who are most likely to switch into limited-mandate insurance products are also least likely to use those services that are excluded from coverage. The net impact of adverse risk selection over time would be an increase in premiums for those who remain in full-mandate insurance products and a decline in premiums for those who select limited-mandate insurance products. However, those in limited-mandate insurance products would potentially face large out-of-pocket expenditures if they require services for a condition that was previously covered by a mandated benefit but is now excluded from their current insurance benefit package. Based on numerous studies, individuals are substantially less likely to use services for which they have no insurance coverage. In these instances, the costs of these services would be borne fully by the individual, either in the form of out-of-pocket expenditures or reduced health status if the individual decides to forgo care because it is too expensive. In the latter case, the costs of the care may eventually be borne by health care providers and by taxpayers in the form of uncompensated care. It may also be borne by public programs or by nonprofit organizations if the individual qualifies for services provided by those entities. For example, a woman enrolled in a policy without any reproductive or maternity benefits may obtain certain services at Planned Parenthood or may qualify for California's Access to Infants and Mothers program (AIM) if she becomes pregnant.

Impact on the Uninsured

An important goal of AB 1214 is to make insurance more affordable by allowing insurance policies to exclude a subset of currently mandated benefits. The lower premiums of such limited-mandate policies could result in more uninsured Californians being able to purchase private insurance, either through their employer in the group market or on their own in the individual market.

CHBRP has developed and employs a standard method for estimating the impact of premium changes on the number of uninsured, based on the best available evidence from the research

literature⁵⁷. Specifically, CHBRP assumes that a 10% change in premiums would produce a 1.1% change in the number of uninsured Californians. Recent research on the individual market in California is consistent with CHBRP's estimates (Marquis et al., 2006). Therefore, in both scenarios analyzed in this report, CHBRP provides an estimate of the increase in newly insured individuals that is expected to occur in response to premium reductions under AB 1214.

⁵⁷ See “Criteria and Methods for Estimating the Impact of Mandates on the Number of Individuals Who Become Uninsured in Response to Premium Increases” at http://www.chbrp.org/analysis_methodology/cost_impact_analysis.php.

Table 10. Scenarios 1 and 2: Baseline Per Member Per Month Premium and Expenditures, by Insurance and Health Plan Type, California, Calendar Year 2007

| | Large Group | | Small Group | | Individual | | CalPERS | | Total Annual |
|--|----------------|---------------|----------------|---------------|----------------|---------------|----------|--------------|------------------|
| | DMHC Regulated | CDI Regulated | DMHC Regulated | CDI Regulated | DMHC Regulated | CDI Regulated | HMO | Uninsured | |
| Population Subject to AB 1214 (1) | 10,354,000 | 363,000 | 3,086,000 | 679,000 | 1,268,000 | 794,000 | 791,000 | 4,882,000 | 22,217,000 |
| Population Currently Covered | 10,354,000 | 363,000 | 3,086,000 | 679,000 | 1,268,000 | 794,000 | 791,000 | 4,882,000 | 22,217,000 |
| Average Portion of Premium Paid by Employer | \$249.51 | \$323.69 | \$249.52 | \$281.52 | \$0.00 | \$0.00 | \$277.19 | \$0.00 | \$46,576,021,000 |
| Average Portion of Premium Paid by Employee | \$53.66 | \$74.60 | \$94.73 | \$61.82 | \$269.42 | \$148.66 | \$48.92 | \$0.00 | \$16,984,627,000 |
| Total Premium | \$303.17 | \$398.28 | \$344.26 | \$343.34 | \$269.42 | \$148.66 | \$326.11 | \$0.00 | \$63,560,648,000 |
| Covered Benefits Paid by Member (Deductibles, copays, etc) | \$16.35 | \$46.30 | \$25.58 | \$90.75 | \$45.45 | \$36.35 | \$16.82 | \$0.00 | \$5,117,856,000 |
| Benefits Not Covered | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$141.24 (2) | \$8,274,370,000 |
| Total Expenditures | \$319.52 | \$444.58 | \$369.84 | \$434.09 | \$314.86 | \$185.02 | \$342.92 | \$141.24 | \$76,952,874,000 |

Source: California Health Benefits Review Program, 2007.

Notes: The population includes individuals and dependents in California who have private insurance (group and individual) or are enrolled in CalPERS HMO. All population figures include enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment-based coverage. (2) Total expenditures by the uninsured are assumed to be equal to what the insured population expends for healthcare services **not** covered by insurance plus 50% of what the insured population expends for health care services that **are** covered by insurance.

Key: DMHC = California Department of Managed Care, CDI = California Department of Insurance, CalPERS = California Public Employees' Retirement System; HMO = health maintenance organization and point of service plans.

Table 11. Scenario 1: Impacts on Per Member Per Month and Total Expenditures by Insurance Plan Type Following Enactment of AB 1214, California, Calendar Year 2007

| | Large Group | | Small Group | | Individual | | CalPERS | | | Total Annual |
|--|----------------|---------------|----------------|---------------|----------------|---------------|----------|-----------|---------------|------------------|
| | DMHC Regulated | CDI Regulated | DMHC Regulated | CDI Regulated | DMHC Regulated | CDI Regulated | HMO | Uninsured | Newly Insured | |
| Population Subject to AB 1214 (1) | 10,354,000 | 363,000 | 3,086,000 | 679,000 | 1,268,000 | 794,000 | 791,000 | 4,856,000 | 26,000 | 22,217,000 |
| Average Portion of Premium Paid by Employer | -\$12.56 | -\$17.50 | -\$11.05 | -\$12.74 | \$0.00 | \$0.00 | -\$13.96 | \$0.00 | \$212.93 | -\$2,216,295,000 |
| Average Portion of Premium Paid by Employee | -\$2.70 | -\$4.03 | -\$4.21 | -\$2.80 | -\$9.35 | -\$10.65 | -\$2.46 | \$0.00 | \$77.81 | -\$774,840,000 |
| Total Premium | -\$15.27 | -\$21.53 | -\$15.26 | -\$15.54 | -\$9.35 | -\$10.65 | -\$16.42 | \$0.00 | \$290.74 | -\$2,991,135,000 |
| Covered Benefits Paid by Member (Deductibles, copays, etc) | -\$0.82 | -\$2.50 | -\$1.11 | -\$4.09 | -\$1.44 | -\$2.60 | -\$0.85 | \$0.00 | \$23.43 | -\$235,201,000 |
| Benefits Not Covered (2) | \$7.17 | \$10.40 | \$6.72 | \$8.05 | \$3.92 | \$4.86 | \$7.40 | \$0.00 | -\$134.38 | \$1,384,638,000 |
| Total Expenditures | -\$8.92 | -\$13.64 | -\$9.65 | -\$11.58 | -\$6.87 | -\$8.39 | -\$9.87 | \$0.00 | \$179.79 | -\$1,841,698,000 |
| Percentage Impact of AB 1214 | | | | | | | | | | |
| Insured Premiums | -5.035% | -5.407% | -4.432% | -4.525% | -3.472% | -7.162% | -5.036% | 0.000% | 100.000% | -4.706% |
| Total Expenditures | -2.792% | -3.068% | -2.608% | -2.667% | -2.183% | -4.534% | -2.877% | 0.000% | 127.294% | -2.393% |

Source: California Health Benefits Review Program, 2007.

Notes: The population includes individuals and dependents in California who have private insurance (group and individual) or are enrolled in CalPERS HMO. All population figures include enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment-based coverage. (2) Benefits not covered due to the waiver of benefits under AB 1214.

Key: DMHC = California Department of Managed Care, CDI = California Department of Insurance, CalPERS = California Public Employees' Retirement System; HMO = health maintenance organization and point of service plans.

Table 12. Scenario 2: Impacts on Per Member Per Month and Total Expenditures by Insurance Plan Type Following Enactment of AB 1214, California, Calendar Year 2007

| | Large Group | | Small Group | | Individual | | CalPERS | | | Total Annual |
|--|----------------|---------------|----------------|---------------|----------------|---------------|---------|-----------|---------------|----------------|
| | DMHC Regulated | CDI Regulated | DMHC Regulated | CDI Regulated | DMHC Regulated | CDI Regulated | HMO | Uninsured | Newly Insured | |
| Population Subject to AB 1214 (1) | 10,354,000 | 363,000 | 3,086,000 | 679,000 | 1,268,000 | 794,000 | 791,000 | 4,860,000 | 22,000 | 22,217,000 |
| Average Portion of Premium Paid by Employer | -\$1.38 | -\$2.71 | -\$0.59 | -\$4.61 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$56.09 | -\$227,218,000 |
| Average Portion of Premium Paid by Employee | \$0.30 | \$0.26 | -\$0.60 | -\$0.95 | -\$4.18 | -\$6.27 | \$0.00 | \$0.00 | \$159.65 | -\$72,811,000 |
| Total Premium | -\$1.08 | -\$2.45 | -\$1.18 | -\$5.56 | -\$4.18 | -\$6.27 | \$0.00 | \$0.00 | \$215.75 | -\$300,029,000 |
| Covered Benefits Paid by Member (Deductibles, copays, etc) | \$0.92 | \$0.38 | \$0.41 | -\$0.78 | -\$0.52 | -\$1.53 | \$0.00 | \$0.00 | \$64.88 | \$119,267,000 |
| Benefits Not Covered (2) | \$0.10 | \$0.60 | \$0.35 | \$2.34 | \$1.70 | \$2.88 | \$0.00 | \$0.00 | -\$136.59 | \$64,567,000 |
| Total Expenditures | -\$0.06 | -\$1.46 | -\$0.42 | -\$4.01 | -\$3.00 | -\$4.93 | \$0.00 | \$0.00 | \$144.04 | -\$116,194,000 |
| Percentage Impact of AB 1214 | | | | | | | | | | |
| Insured Premiums | -0.356% | -0.614% | -0.344% | -1.620% | -1.553% | -4.219% | 0.000% | 0.000% | 100.000% | -0.472% |
| Total Expenditures | -0.018% | -0.329% | -0.114% | -0.923% | -0.952% | -2.665% | 0.000% | 0.000% | 101.986% | -0.151% |

Source: California Health Benefits Review Program, 2007.

Notes: The population includes individuals and dependents in California who have private insurance (group and individual) or are enrolled in CalPERS HMO. All population figures include enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment-based coverage. (2) Benefits not covered due to the waiver of benefits under AB 1214.

Key: DMHC = California Department of Managed Care, CDI = California Department of Insurance, CalPERS = California Public Employees' Retirement System; HMO = health maintenance organization and point of service plans.

REFERENCES

- Abdel-Nasser AM, Rasker JJ, Valkenburg HA. Epidemiology and clinical aspects relating to the variability of rheumatoid arthritis. *Seminars in Arthritis and Rheumatism*. 1997;27(2):123-140.
- Agency for Healthcare Research and Quality. *Value of the Periodic Health Evaluation, Structured Abstract*. April 2006. Rockville MD. Available at: <http://www.ahrq.gov/clinic/tp/phetp.htm>. Accessed October 4, 2007
- Ahrens R, Lux C, Bahl T, Han SH. Choosing the metered-dose inhaler spacer or holding chamber that matches the patient's need: Evidence that the specific drug being delivered is an important consideration. *Journal of Allergy and Clinical Immunology*. 1995;96:288-294.
- Albee SK, Blount E, Lee TD, Litow M, Sturm M. *Cost Impact Study of Mandated Benefits in Texas: Report #1*. Milliman: July 21, 2000 (with August 30, 2000 revisions).
- Alderman AK, McMahon L Jr, Wilkins EG. The national utilization of immediate and early delayed breast reconstruction and the effect of sociodemographic factors. *Plastic Reconstructive Surgery*. 2003;111(2):695-703; discussion 704-5.
- Alfirevic Z, Sundberg K, Brigham S. Amniocentesis and chorionic villus sampling for prenatal diagnosis. *Cochrane Database of Systematic Reviews*. 2003;(3):CD003252.
- American Academy of Pediatric Dentistry (AAPD), American Academy of Pediatrics (AAP), Coté CJ, Wilson S, the Work Group on Sedation. Guideline for monitoring and management of pediatric patients during and after sedation for diagnostic and therapeutic procedures. *Pediatrics*. 2006;118:2587-2602.
- American Academy of Pediatrics (AAP). Recommendations for preventive pediatric health care. *Pediatrics*. 2000;105:645-646.
- American Academy of Pediatrics (AAP). Recommended immunization schedules for children and adolescents – United States, 2007. *Pediatrics*. 2007;119:207-208.
- American Association of Clinical Endocrinologists (AACE). *Diabetes Mellitus Guidelines, Endocrinology Practice*. 2007;13 (Suppl 1) 2007.
- American College of Obstetricians and Gynecologists (ACOG). Gestational diabetes. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2001 Sep. 14 p. (ACOG practice bulletin; no. 30).
- American College of Obstetricians and Gynecologists (ACOG). *Screening for Fetal Chromosomal Abnormalities*. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2007 Jan. (ACOG practice bulletin; no. 1).
- American Dental Association (ADA). *Policy Statement: The Use of Conscious Sedation, Deep Sedation and General Anesthesia in Dentistry*. Chicago, IL: American Dental Association; 2005.
- American Diabetes Association (ADA). Standards of medical care in diabetes. *Diabetes Care*. 2007;30, Supplement 1.

- American Psychiatric Association (APA). *Practice Guideline for the Treatment of Patients with Major Depressive Disorder, Second Edition*. Washington, DC: American Psychiatric Association; 2000.
- American Psychiatric Association (APA). *Practice Guideline for the Treatment of Patients with Bipolar Disorder, Second Edition*. Washington, DC: American Psychiatric Association; 2002.
- American Psychiatric Association (APA). *Practice Guideline for the Treatment of Patients with Schizophrenia, Second Edition*. Washington, DC: American Psychiatric Association; 2004.
- American Psychiatric Association (APA). *Practice Guideline for the Treatment of Patients with Substance Use Disorders, Second Edition*. Washington, DC: American Psychiatric Association; 2006.
- Anderson KO, Mendoza TR, Valero V, et al. Minority cancer patients and their providers: pain management attitudes and practice. *Cancer*. 2000;88(8):1929-1938.
- Arias MR, Ramón JL, Campos M, Cervantes JJ. Acoustic analysis of the voice in phonatory fistuloplasty after total laryngectomy. *Otolaryngology – Head and Neck Surgery*. 2000;122:743-747.
- Attia AM, Al-Inany HG, Farquhar C, Proctor M. Gonadotrophins for idiopathic male factor subfertility. *Cochrane Database of Systematic Reviews*. 2007;(4):CD005071.
- Bishop J, Huether C, Torfs CP, Lorey F, Deddens J. Epidemiologic study of Down syndrome in a racially diverse California population, 1989-1991. *American Journal of Epidemiology*. 1997;145(2):134-147
- Breslau N, Rasmussen BK. The impact of migraine: Epidemiology, risk factors, and co-morbidities. *Neurology*. 2001;56(6 Suppl):S4-S12.
- Brouwer RW, Jakma TSC, Verhagen AP, Verhaar JAN, Bierma-Zeinstra SMA. Braces and orthoses for treating osteoarthritis of the knee. *Cochrane Database of Systematic Reviews*. 2005;(1):CD004020.
- Cafferata GL. Knowledge of their health insurance coverage by the elderly. *Medical Care*. 1984;22:835-847.
- Calabrese LH, Albrecht M, Young J, McCarthy P, Haug M, Jarcho J, Zackin R. (2003). Successful cardiac transplantation in an HIV-1-infected patient with advanced disease. *N Engl J Med*. 2003;348(23):2323-2328.
- California Birth Defects Monitoring Program (CBDMP). *Down syndrome fact sheet*. Available at: http://www.cbdmp.org/bd_down_syn.htm. Accessed November 3, 2007.
- California Birth Defects Monitoring Program (CBDMP). *The Impact of Birth Effects: California*. Available at: http://www.cbdmp.org/gd_california.htm. Accessed November 3, 2007.
- California Cancer Registry (CCR). *California Cancer Facts and Figures, 2008*. Oakland, CA: American Cancer Society, California Division; 2007.

- California Department of Public Health (CDPH), Immunization Branch. *Immunization levels in child care and schools: 2007 Kindergarten Retrospective Survey Results*. Available at: <http://www.dhs.ca.gov/ps/dcdc/izgroup/pdf/KRS07Final.pdf>. Accessed November 5, 2007.
- California Department of Public Health, Center for Health Statistics (CHS). *Diabetes Deaths in California, 2002*. Sacramento, CA: California Department of Public Health; 2004.
- California Department of Public Health, Center for Health Statistics (CHS). *California and the HIV/AIDS Epidemic, 2002*. Available at: <http://www.drugpolicy.org/docUploads/FastFacts101502.pdf>. Accessed ?
- California Department of Health Services, Office of AIDS (DHS OA). HIV/AIDS Case Registry Section, data as of January 31, 2007. Available at www.dhs.ca.gov/AIDS/Statistics/pdf/stats2007/AIDSJan07AIDSmerged.pdf. Accessed December 5, 2007.
- California Department of Health Services, Office of Women's Health (DHS OWH). *Data Points: results from the California Women's Health Survey, 2006*. Issue 4, Summer 2006, Number 17.
- California Department of Managed Health Care (DMHC). (2005) *Mental Health Parity in California. Mental Health Parity Focused Survey Project: A Summary of Survey Findings and Observations*. Available at: www.dmhc.ca.gov/library/reports/med_survey/parity/sfor.pdf. Accessed October 24 2007.
- California Department of Mental Health (DMH). Original prevalence data based on the 2000 census: Estimates of prevalence of person with serious emotional disturbance (SED) and serious mental illness (SMI) – California. October 2004 Available at: http://www.dmh.ca.gov/Statistics_and_Data_Analysis/Prevalence_Rates_Mental_Disorders.asp. Accessed December 6, 2007.
- California Health Benefits Review Program (CHBRP). *Analysis of Assembly Bill 2185: Childhood Asthma Management*. Oakland, CA: CHBRP; 2004. Report No. 04-09.
- California Health Benefits Review Program (CHBRP). *Analysis of Assembly Bill 8: Health Care Coverage: Mastectomies and Lymph Node Dissections*. Oakland, CA: CHBRP; 2005a. Report No. 05-01.
- California Health Benefits Review Program (CHBRP). *Analysis of Assembly Bill 228: Transplantation Services: Human Immunodeficiency Virus*. Oakland, CA: CHBRP; 2005b. Report No. 05-02.
- California Health Benefits Review Program (CHBRP). *Analysis of Assembly Bill 264: Pediatric Asthma Self-Management Training and Education Services*. Oakland, CA: CHBRP; 2006a. Report No. 06-02.
- California Health Benefits Review Program (CHBRP). *Analysis of Assembly Bill 2012: Orthotic and Prosthetic Devices*. Oakland, CA: CHBRP; 2006b. Report No. 06-06.
- California Health Benefits Review Program (CHBRP). *Analysis of Assembly Bill 1429: Human Papillomavirus Vaccination*. Oakland, CA: CHBRP; 2007a. Report No. 07-02.

- California Health Benefits Review Program (CHBRP). *Analysis of Assembly Bill 54: Health Care Coverage: Acupuncture*. Oakland, CA: CHBRP; 2007b. Report No. 07-07.
- California Health Interview Survey (CHIS), 2001. Available at: www.askchis.com.
- California Health Interview Survey (CHIS), 2003. Available at: www.askchis.com.
- California Health Interview Survey (CHIS). 2005. Available at: www.askchis.com.
- California HealthCare Foundation (CHCF). Covered Workers with a Choice of Health Plans, by Firm Size. 2005. Available at: <http://www.chcf.org/documents/insurance/EmployerBenefitSurvey05.pdf>. Accessed November 26, 2007.
- California HealthCare Foundation (CHCF). *Consumers in Health Care: Creating Decision-Support Tools that Work*. 2006a. Available at: <http://www.chcf.org/documents/insurance/CreatingDecisionSupportTools.pdf>. Accessed November 15, 2007.
- California HealthCare Foundation (CHCF). *California Employer Health Benefits Survey*. 2006b. Available at: <http://www.chcf.org/documents/insurance/EmployerBenefitsSurvey06.pdf>. Accessed November 26, 2007.
- California Highway Patrol (CHP). 2005 Annual Report of Fatal and Injury Motor Vehicle Traffic Collisions. Available at: <http://www.chp.ca.gov/switrs/pdf/2005-sec5.pdf>. Accessed December 6, 2007.
- California Newborn Screening Program (CNSP) Newborn Screening Program Overview – for Parents. 2004. Available at: <http://www.dhs.ca.gov/pcfh/gdb/html/NBS/ProgrOVforParents.htm#HowCommonRDisordersCA>. Accessed November 1, 2007.
- Carr MM, Schmidbauer JA, Majaess L, Smith RL. Communication after laryngectomy: An assessment of quality of life. *Otolaryngology – Head and Neck Surgery*. 2000;122:39-43.
- Centers for Disease Control and Prevention (CDC). Poliomyelitis prevention in the United States: Updated recommendations of the Advisory Committee on Immunization Practices. *Morbidity and Mortality Weekly Report*. 2000;49(No. RR-5).
- Center for Health Improvement (CHI). 2006 Survey: What consumers want to know about their HMOs. Sacramento, CA: Center for Health Improvement; September 2006.
- Centers for Disease Control and Prevention (CDC). Hospital discharge rates for nontraumatic lower extremity amputation by diabetes status – United States, 1997. *Morbidity and Mortality Weekly Report*. 2001;50(43):954-958.
- Centers for Disease Control and Prevention (CDC). Diagnoses of HIV/AIDS—32 states, 2000-2003. *Morbidity and Mortality Weekly Report*. 2004;53(47):1106-1110. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5347a3.htm>. Accessed April 4, 2005.

- Centers for Disease Control and Prevention (CDC). Blood lead levels – United States, 1999-2002. *Morbidity and Mortality Weekly Report*. 2005a;54(20):513-516. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm>. Accessed November 5, 2007.
- Centers for Disease Control and Prevention (CDC). Health disparities experienced by Black or African Americans-United States. *Morbidity and Mortality Weekly Report*. 2005b;54(01):1-3. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5401a1.htm>. Accessed April 5, 2005.
- Centers for Disease Control and Prevention (CDC). Prevention and control of meningococcal disease: Recommendations of the Advisory Committee on Immunization Practices. *Morbidity and Mortality Weekly Report*. 2005c;54(No. RR-7).
- Centers for Disease Control and Prevention (CDC). Prevention of rotavirus gastroenteritis among infants and children: Recommendations of the Advisory Committee on Immunization Practices. *Morbidity and Mortality Weekly Report*. 2006;55(No. RR-12).
- Centers for Disease Control and Prevention (CDC). *Estimated Vaccination Coverage with Individual Vaccines and Selected Vaccination Series Among Children 19-35 Months of Age by State and Local Area US, National Immunization Survey, q1/2006-Q42006*. 2007. Available at: http://www2a.cdc.gov/nip/coverage/nis/nis_iap.asp?fmt=v&rpt=tab03_antigen_state&qtr=Q1/2006-Q4/2006. Accessed November 5, 2007
- Centers for Disease Control and Prevention Wonder Data (CDC WONDER). 2001. Available at: <http://www.wonder.cdc.gov/mortSQL.html>. Accessed December 6, 2007.
- Centers for Disease Control and Prevention Wonder Data (CDC WONDER). 2002. Available at: <http://www.wonder.cdc.gov/mortSQL.html>. Accessed December 6, 2007.
- Centers for Disease Control and Prevention, National Home and Hospice Care Survey (NHHCS). 2004a. Hospice care discharges, 2000. Available at: <http://www.cdc.gov/nchs/data/nhhcsd/hospicecaredischarges00.pdf>. Accessed November 4, 2007.
- Centers for Disease Control and Prevention, National Home and Hospice Care Survey (NHHCS). 2004b. Home health care discharges, 2000. Available at: <http://www.cdc.gov/nchs/data/nhhcsd/homecaredischarges00.pdf>. Accessed November 4, 2007.
- Chandra A, Martinez GM, Mosher WD, Abma JC, Jones J. Fertility, family planning, and reproductive health of U.S. women: Data from the 2002 National Survey of Family Growth. National Center for Health Statistics. *Vital Health Statistics*. 2005;23(25).
- Clark H, Rome K, Plant M, O'Hare K, Gray J. A critical review of foot orthoses in the rheumatoid arthritic foot. *Rheumatology*. 2006;45:139-145.
- Cleeland CS, Gonin R, Hatfield AK, Edmonson JH, Blum RH, Stewart JA, Pandya KJ. Pain and its treatment in outpatients with metastatic cancer. *New England Journal of Medicine*. 1994;333(9):592-6.
- Cleeland CS, Gonin R, Baez L, Loehrer P, Pandya KJ. Pain and treatment of pain in minority patients with cancer: the eastern cooperative oncology group minority outpatient pain study. *Annals of Internal Medicine*. 1997;127(9):813-816.

- Collins JG. Types of injuries by selected characteristics: United States, 1985-1987. National Center for Health Statistics. *Vital Health Statistics*. 1990;10(175).
- Crawford F, Thomson C. Interventions for treating plantar heel pain. *Cochrane Database of Systematic Reviews*. 2003;(3):CD000416.
- Crotty M, Whitehead CH, Gray S, Finucane PM. Early discharge and home rehabilitation after hip fracture achieves functional improvements: a randomized controlled trial. *Clinical Rehabilitation*. 2002;16:406-413.
- Cunliffe AL, Gladman JRF, Husbands SL, et al. Sooner and healthier: a randomized controlled trial and interview study of an early discharge rehabilitation service for older people. *Age and Ageing*. 2004;33:246-252.
- D'hondt NE, Struijs PAA, Kerkhoffs GMM, et al. Orthotic devices for treating patello femoral pain syndrome. *Cochrane Database of Systematic Reviews*. 2002;(2):CD002267.
- Davidson B, Sofaer S, Gertler P. Consumer information and biased selection in the demand for coverage supplementing Medicare. *Social Science and Medicine*. 1992;34:1023-1034.
- Davis MP, Walsh D. Epidemiology of cancer pain and factors influencing poor pain control. *American Journal of Hospice and Palliative Medicine*. 2004;21(2):137-142.
- Dillingham TR, Pezzin LE, MacKenzie EJ. Limb amputation and limb deficiency: Epidemiology and recent trends in the United States. *Southern Medical Journal*. 2002;94(8):875-883.
- Dionne RA, Gordon SM, McCullagh LM et al. Assessing the need for anesthesia and sedation in the general population. *Journal of the American Dental Association*. 1998;129:167-173.
- Dolovich MB, Ahrens RC, Hess DR, et al. Device selection and outcomes of aerosol therapy: Evidence-based guidelines: American College of Chest Physicians/American College of Asthma, Allergy, and Immunology. *Chest*. 2005;127:335-371.
- Early Supported Discharge Trialists. Services for reducing duration of hospital care for acute stroke patients. *Cochrane Database of Systematic Reviews*. 2005;(3):CD000443.
- Egan M, Brosseau L, Farmer M, et al. Splints/orthoses in the treatment of rheumatoid arthritis. *Cochrane Database of Systematic Reviews*. 2001;(4):CD004018.
- Endriga MC, Kapp-Simon KA. Psychological issues in craniofacial care: State of the art. *Cleft Palate-Craniofacial Journal*. 1999;36:3-11.
- Evitts PM, Searl J. Reaction times of normal listeners to laryngeal, alaryngeal, and synthetic speech. *Journal of Speech, Language, and Hearing Research*. 2006;49:1380-1390.
- Farrand P, Duncan F. Generic health-related quality of life amongst patients employing different voice restoration methods following total laryngectomy. *Psychology, Health and Medicine*. 2007;12:255-265.
- Farrow SJ, Kingsley GH, Scott DL. Interventions for foot disease in rheumatoid arthritis: a systematic review. *Arthritis & Rheumatism*. 2005;53:593-602.

- Feddah MR, Davies NM, Gipps EM, Brown KF. Influence of respiratory spacer devices on aerodynamic particle size distribution and fine particle mass of beclomethasone from metered-dose inhalers. *Journal of Aerosol Medicine*. 2001;14:477-485.
- Fernandes J, Saudubray JM, van den Berghe G, Walter JH. *Inborn Metabolic Diseases*. Heidelberg, Germany: Springer; 2006.
- Ferrari J, Higgins JPT, Prior TD. Interventions for treating hallux valgus (abductovalgus and bunions). *Cochrane Database of Systematic Reviews*. 2004;(1):CD000964.
- Fleishman JA, Hellinger FH. Recent trends in HIV-related inpatient admissions 1996-2000: A 7-state study. *Journal of Acquired Immune Deficiency Syndromes*. 2003;34(1):102-110.
- French R, Van Vliet H, Cowan F. Hormonally impregnated intrauterine systems versus other forms of reversible contraceptives as effective methods of preventing pregnancy. *Cochrane Database of Systematic Reviews*. 2004;(3):CD001776.
- Fung WF, Lau Y, Fielding R, et al. The impact of mastectomy, breast-conserving treatment and immediate breast reconstruction on the quality of life of Chinese women. *Australia New Zealand Journal of Surgery*. 2001;71:202-206.
- Gallo MF, Grimes DA, Schulz KF, d'Arcangues C, Lopez LM. Combination injectable contraceptives for contraception. *Cochrane Database of Systematic Reviews*. 2005;(3):CD004568.
- Gallo MF, Grimes DA, Schulz KF. Skin patch and vaginal ring versus combined oral contraceptives for contraception. *Cochrane Database of Systematic Reviews*. 2003;(1):CD003552.
- Garnick DW, Hendricks AM, Thorpe KE, Newhouse JP, Donelan K, Blendon RJ. How well do Americans understand their health coverage? *Health Affairs*. 1993;12:204-212.
- Garnick DW, Swartz K. Meeting information needs: lessons learned from New Jersey's individual health insurance reform program. *Medical Care Research and Review*. 1999;56:456-470.
- Giusti A, Barone A, Oliveri M, et al. An analysis of the feasibility of home rehabilitation among elderly people with proximal femoral fractures. *Archives of Physical Medicine and Rehabilitation*. 2006;87:826-831.
- Globlek D, Stajner-Katusic S, Musura M, Horga D, Liker M. Comparison of alaryngeal voice and speech. *Logopedics Phoniatrics Vocology*. 2004;29:87-91.
- Goldstein MS, Brown ER, Ballard-Barbash R, et al. The use of complementary and alternative medicine among California adults with and without cancer. *Evidence Based Complementary and Alternative Medicine: eCAM*. 2005;2(4):557-565.
- Gysels M, Higginson IJ, Rajasekaran M, Davies E, Harding R. *Improving Supportive and Palliative Care for Adults with Cancer: Research Evidence Manual*. London, UK: National Institute for Clinical Excellence; 2004.
- Handoll HHG, Rowe BH, Quinn KM, de Bie R. Interventions for preventing ankle ligament injuries. *Cochrane Database of Systematic Reviews*. 2001; (3): CD000018.

- Harding R, Kraus D, Easterbrook P, et al. Does palliative care improve outcomes for patients with HIV/AIDS? A systematic review of the evidence. *Sexually Transmitted Infections*. 2005;81:5-14.
- Hedrick SC, Koepsell TD, Inui T. Meta-analysis of home-care effects on mortality and nursing-home placement. *Medical Care*. 1989;27:1015-1026.
- Hibbard JH, Jewett JJ, Engelmann S, Tusler M. Can Medicare beneficiaries make informed choices? *Health Affairs*. 1998;17:181-193.
- Hibbard JH, Peters E. Supporting Informed Consumer Health Care Decisions: Data Presentation Approaches that Facilitate the Use of Information in Choice. *Annual Review of Public Health*. 2003;24:413-33.
- Higginson IJ, Finlay IG, Goodwin M, et al. Is there evidence that palliative care teams alter end-of-life experiences of patients and their caregivers? *Journal of Pain and Symptom Management*. 2003;25:150-168.
- Holly P, Kennedy P, Taylor A, et al. Immediate breast reconstruction and psychological adjustment in women who have undergone surgery for breast cancer: a preliminary study. *Psychology, Health and Medicine*. 2003;8:
- Hughes SL, Ulasevich A, Weaver FM, et al. Impact of home care on hospital days: A meta-analysis. *Health Services Research*. 1997;32:415-432.
- Institute for Clinical Systems Improvement (ICSI). *Breast cancer treatment*. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); September 2005.
- Institute for Clinical Systems Improvement (ICSI). *Diagnosis and Treatment of Osteoporosis*. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); July 2006.
- Janz NK, Mujahid M, Lantz PM, et al. Population-based study of the relationship of treatment and sociodemographics on quality of life for early stage breast cancer. *Quality of Life Research*. 2005;14:1467-79.
- Jensen GA, Morrisey MA. Small group reform and insurance provision by small firms, 1989-1995. *Inquiry*. 1999;36:176-187.
- Keeling SD, McGorray S, Wheeler TT, King GJ. Risk factors associated with temporomandibular joint sounds in children 6 to 12 years of age. *American Journal of Orthodontics and Dentofacial Orthopedics*. 1994;105(3):279-87.
- Kofman M, Lucia K, Bangit E, Pollitz K. Association Health Plans: What's All the Fuss About? *Health Affairs (Millwood)*. 2006;25:1591-1602.
- Kuczmariski RJ, Ogden CL, Guo SS, et al. CDC growth charts for the United States: Methods and development. National Center for Health Statistics. *Vital Health Statistics*. 2000;11(246).
- Kuisma R. A randomized, controlled comparison of home versus institutional rehabilitation of patients with hip fracture. *Clinical Rehabilitation*. 2002;16:553-561.

- Kvien T.K. (2004). Epidemiology and burden of illness of rheumatoid arthritis. *Pharmacoeconomics*. 22 (Suppl 1):1-12.
- Langhorne P, Widen-Holmqvist L. Early supported discharge after stroke. *Journal of Rehabilitation Medicine*. 2007;39:103-108.
- Lawrence RC, Helmick CG, Arnett FC, Deyo RA, Felson DT, Giannini EH, Heyse SP, et al. . Estimates of the prevalence of arthritis and selected musculoskeletal disorders in the United States. *Arthritis and Rheumatism*. 1998;41(5)778-799.
- Lopez, AD. The evolution of the Global Burden of Disease framework for disease, injury and risk factor quantification: developing the evidence base for national, regional and global public health action. *Global Health*. 2005;1:5.
- Lubalin JS, Harris-Kojetin L. What do consumers want and need to know in making health care choices? *Medical Care Research and Review*. 1999;56:67-102.
- Luttjeboer F, Harada T, Hughes E, Johnson N, Lilford R, Mol BWJ. Tubal flushing for subfertility. *Cochrane Database of Systematic Reviews*. 2007;(3):CD003718.
- Maciejewski ML, Reiber GE, Smith DG, et al. Effectiveness of diabetic therapeutic footwear in preventing reulceration. *Diabetes Care*. 2004;27:1774-1782.
- Management of Cancer Pain Volume 1*. Rockville, MD: Agency for Healthcare Research and Quality; 2001. Available at: <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat1.chapter.49577>. Accessed September 26, 2007.
- Mann K, Lehert P, Morgan M. The Efficacy of Acamprosate in the maintenance of abstinence in alcohol-dependent individuals: Results of a meta-analysis. *Alcoholism: Clinical and Experimental Research*. 2004;28:51-63.
- Marcusson A, Akerlind I, Paulin G. Quality of life in adults with repaired complete cleft lip and palate. *Cleft Palate-Craniofacial Journal*. 2001;38:379-385.
- Marcusson A, Paulin G, Östrup L. Facial appearance in adults who had cleft lips and palate treated in childhood. *Scandinavian Journal of Plastic and Reconstructive Surgery and Hand Surgery*. 2002;36:16-23.
- Marquis MS, Buntin MB, Escarce JJ, Kapur K, Louis TA, Yegian JM. Consumer decision making in the individual health insurance market. *Health Affairs*. 2006;25:W226-W234.
- Marquis MS. Consumers' knowledge about their health insurance coverage. *Health Care Financing Review*. 1983;5:65-80.
- Maryland Health Care Commission. Annual Mandated Health Insurance Services Evaluation. January 19, 2006.
- Max W, Sinnot P, Kao C, et al. The burden of Osteoporosis in California, 1998. *Osteoporosis International*. 2002;13:493-500.

- McCormack LA, Anderson W, Kuo M, Daugherty S, Bann C, Hibbard JH. Measuring beneficiary knowledge in two randomized experiments. *Health Care Financing Review*. 2001;23:47-62.
- McCormack LA, Anderson WL, Uhrig JD, Garfinkel SA, Sofaer S, Terrell SA. Health plan decision making in the Medicare population: results from a national randomized experiment. *Health Services Research*. 2001;36:133-49.
- McCormack LA, Garfinkel SA, Hibbard JH, Kilpatrick KE, Kalsbeek WD. Beneficiary survey-based feedback on new Medicare informational materials. *Health Care Financing Review*. 2001;23:37-46.
- McCormack LA, Uhrig JD. How does beneficiary knowledge of the Medicare program vary by type of insurance? *Medical Care*. 2003;41:972-8.
- McDonald AJ, Wang N, Camargo CA. US emergency department visits for alcohol-related diseases and injuries between 1992 and 2000. *Archives of Internal Medicine*. 2004;164:531-537.
- McGinnis KA, Fine MJ, Sharma RK, Skanderson M, Wagner JH, Rodriguez-Barradas MC, Rabeneck L, Justice AC; Veterans Aging Cohort 3-Site Study (VACS 3). Understanding racial disparities in HIV using data from the veterans aging cohort 3-site study and VA administrative data. *American Journal of Public Health*. 2003;93(10):1728-1733.
- McIntosh A, Peters J, Hutchinson A. et al. *Prevention and Management of Foot Problems in Type 2 Diabetes: Clinical Guidelines and Evidence*. Sheffield, UK: University of Sheffield; 2003.
- McKenna MT, Michaud CM, Murray CJ, Marks JS. Assessing the burden of disease in the United States using disability-adjusted life years. *American Journal of Preventative Medicine*. 2005;28(5):415-423.
- McLauchlan GJ, Handoll HHG. Interventions for treating acute and chronic Achilles tendinitis. *Cochrane Database of Systematic Reviews*. 2001;(2):CD000232.
- Medhelp. Available at: <http://www.medhelp.org/lib/pku.htm>, Accessed November 6, 2007.
- Moscicki EK. Epidemiology of completed and attempted suicide: toward a framework for prevention. *Clinical Neuroscience Research*. 2001;1:310-23.
- Nano MT, Gill PG, Kollias J et al. Psychological impact and cosmetic outcome of surgical breast cancer strategies. *Australia New Zealand Journal of Surgery*. 2005;7:940-947.
- National Asthma Education Program. *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma*. Bethesda, MD: National Institutes of Health, National Heart, Lung, and Blood Institute; 2007.
- National Cancer Institute (NCI). SEER Cancer Statistics (2007). *Cancer Stat Fact Sheets: Cancer of the Larynx*. Available at: <http://seer.cancer.gov/statfacts/html/larynx.html>. Accessed December 8, 2007.
- National Collaborating Centre for Mental Health (NCCMH) *Bipolar Disorder: The Management of Bipolar Disorder in Adults, Children, and Adolescents in Primary and Secondary Care*. London, UK: The British Psychological Society and the Royal College of Psychiatrists; 2006.

- National Collaborating Centre for Mental Health (NCCMH). *Depression: Management of Depression in Primary and Secondary Care*. London, UK: The British Psychological Society and the Royal College of Psychiatrists; 2004.
- National Collaborating Centre for Mental Health (NCCMH). *Schizophrenia: Full National Clinical Guideline on Core Interventions in Primary and Secondary Care*. London, UK: The Royal College of Psychiatrists and the British Psychological Society; 2003.
- National Collaborating Centre for Women's and Children's Health. *Fertility: Assessment and Treatment for People with Fertility Problems*. London, UK: The Royal College of Obstetricians and Gynecologists; 2004.
- National Comprehensive Cancer Network (NCCN). *Breast Cancer Screening and Diagnosis Guidelines: Clinical Practice Guidelines in Oncology* (Version 1.2007). 2006. National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed October 4, 2007.
- National Comprehensive Cancer Network (NCCN). *Breast Cancer: Clinical Practice Guidelines in Oncology* (Version 2. 2007). 2006. National Comprehensive Cancer Network, Inc. Available at: <http://www.nccn.org>. Accessed October 4, 2007.
- National Health Interview Survey (NHIS). 2002. Available at: http://www.cdc.gov/nchs/about/major/nhis/quest_data_related_1997_forward.htm. Accessed June 9, 2007.
- National Institutes of Health (NIH). Medline Plus: Medical Encyclopedia, Club Foot. 2007. Available at: <http://www.nlm.nih.gov/medlineplus/ency/article/001228.htm>, Accessed November 8, 2007.
- National Institute of Mental Health (NIMH). *Suicide in the U.S.: Statistics and prevention*. NIH Publication #03-4594. 2007. Available at <http://www.nimh.nih.gov/health/publications/suicide-in-the-us-statistics-and-prevention.shtml#Moscicki-Epi>. Accessed December 6, 2007.
- Neff GW, Sherman KE, Eghtesad B, Fung J. Review article: Current status of liver transplantation in HIV-infected patients. *Alimentary Pharmacology & Therapeutics*. 2004;20(10):993-1000.
- Newhouse JP and the Insurance Experiment Group. *Free for All? Lessons from the RAND Health Insurance Experiment*. Cambridge, MA: Harvard University Press, 1993.
- Nissen MJ, Swenson KK, Ritz LJ, et al. Quality of life after breast carcinoma surgery: a comparison of three surgical procedures. *Cancer*. 2001;91:1238-1246.
- Nyhan WL, Barshop BA, Ozand PT. *Atlas of Metabolic Diseases*. London, UK: Hodder Arnold; 2005.
- Parker G, Bhakta P, Lovett CA. A systematic review of the costs and effectiveness of different models of pediatric home care. *Health Technology Assessment*. 2002;6:1-118.
- Polednak AP. How frequent is postmastectomy breast reconstructive surgery? A study linking two statewide databases. *Plastic and Reconstructive Surgery*. 2001;108(1):73-77.
- Puoti M, Spinetti A, Ghezzi A, Donato F, Zaltron S, Putzolu V, Quiros-Roldon E, Zanini B, Casari S, Carosi G. (2000). Mortality for liver disease in patients with HIV infection: A cohort study. *Journal of Acquired Immune Deficiency Syndromes*. 2000;24(3):211-217.

- Pusic A, Thompson TA, Kerrigan CL, et al. Surgical options for the early-stage breast cancer: factors associated with patient choice and postoperative quality of life. *Plastic and Reconstructive Surgery*. 1999;104:1325-33.
- Rafferty AP, McGee HB, Miller CE, Reyes M. Prevalence of complementary and alternative medicine use: State-specific estimates from the 2001 Behavioral Risk Factor Surveillance System. *American Journal of Public Health*. 2002;92(10):1598-1600.
- Rasch EK, Hirsch R, Paulose-Ram R, Hochberg MC. Prevalence of rheumatoid arthritis in persons 60 years of age and older in the United States: Effect of different methods of case classification. *Arthritis and Rheumatism*. 2003;48(4):917-926.
- Reston JT, Turkelson CM. Meta-analysis of surgical treatments for temporomandibular articular disorders. *Journal of Oral and Maxillofacial Surgery*. 2003;61:3-10.
- Roland ME, Stock PG. Review of solid-organ transplantation in HIV-infected patients. *Transplantation*. 2003;75(4):425-429.
- Roland ME, Havlir DV. Responding to organ failure in HIV-infected patients. *New England Journal of Medicine*. 2003;348(23):2279-2281.
- Rome K, Handoll HHG, Ashford R. Interventions for preventing and treating stress fractures and stress reactions of bone of the lower limbs in young adults. *Cochrane Database of Systematic Reviews*. 2005;(2): CD000450.
- Rowland JH, Desmond KA, Meyerowitz BE, Belin TR, Wyatt GE, Ganz, PA. Role of breast reconstructive surgery in physical and emotional outcomes among breast cancer survivors. *Journal of the National Cancer Institute*. 2000;92(17):1422-1425.
- Roye BD, Vitale MG, Geljins AC, Roye DP. Patient-based outcomes after clubfoot surgery. *Journal of Pediatric Orthopedics*. 2001;21:42-49.
- Rubino C, Figus A, Loretta L, et al. Post-mastectomy reconstruction: a comparative analysis on psychosocial and psychopathological outcomes. *Journal of Plastic, Reconstructive and Aesthetic Surgery*. 2007;60:509-518.
- Sangha O. Epidemiology of rheumatic diseases. *Rheumatology*. 2000;39(Supp 2):3-12.
- Sarwer DB, Bartlett SP, Whitaker LA, et al. Adult psychological functioning of individuals born with craniofacial abnormalities. *Plastic and Reconstructive Surgery*. 1999;103:412-418.
- Saslow D, Runowicz CD, Solomon D, et al. American Cancer Society guideline for the early detection of cervical neoplasia and cancer. *CA: A Cancer Journal for Clinicians*. 2002;52(6):342-62.
- Schauffler HH. *A study of consumer health insurance education*. Report to DHHS, Centers for Disease Control, Bureau of Health Education. October 17, 1980.
- Scottish Intercollegiate Guidelines Network (SIGN). *Management of Osteoporosis. A National Clinical Guideline*. Edinburgh, UK: Scottish Intercollegiate Guidelines Network; 2003.

- Scottish Intercollegiate Guidelines Network (SIGN). *Safe Sedation of Children Undergoing Diagnostic and Therapeutic Procedures*. Edinburgh, UK: Scottish Intercollegiate Guidelines Network; 2004.
- Shaller D, Sofaer S, Findlay SD, Hibbard JH, Lansky D, Delbanco S. Consumers and quality-driven health care: a call to action. *Health Affairs*. 2003;22:95101.
- Shepperd S, Iliffe S. Hospital at home versus inpatient hospital care. *Cochrane Database of Systematic Reviews*. 2005;(3):CD000356.
- Silman AJ, Hochberg MC. *Epidemiology of the Rheumatic Diseases*. Second Edition. New York: Oxford University Press. 2001.
- Sloan FA, Conover CJ. Effects of state reforms on health insurance coverage of adults. *Inquiry*. 1998;35:280-293.
- Sofaer S, Gruman J. Consumers of health information and health care: challenging assumptions and defining alternatives. *American Journal of Health Promotion*. 2003;18:151-6.
- Sofaer S. Challenges for the public in negotiating the health system in the 21st century. *Journal of Urban Health*. 1999;76:211-28.
- Srisurapanont M, Jarusuraisin N. Opioid antagonists for alcohol dependence. *Cochrane Database of Systematic Reviews*. 2005(1):CD001867.
- Stajner-Katusic S, Horga D, Musura M, Globlek D. Voice and speech after laryngectomy. *Clinical Linguistics and Phonetics*. 2006;20:195-203.
- Substance Abuse and Mental Health Services Administration (SAMHSA). *2005 National Survey on Drug Use and Health: Detailed Tables*, Table 2.56B. Available at: <http://www.oas.samhsa.gov/NSDUH/2k5NSDUH/tabs/Sect2peTabs1to57.htm#Tab2.56B>. Accessed October 29, 2007.
- Substance Abuse and Mental Health Services Administration (SAMHSA). *2005 State Estimates of Substance Abuse and Mental Health*, Table B.16. Available at: <http://www.oas.samhsa.gov/2k5State/AppB.htm#TabB.16>. Accessed October 29, 2007.
- Trussell J. The cost of unintended pregnancy in the United States. *Contraception*. 2007 Mar;75(3):168-70.
- Tsai TL, Chang SY, Guo YC, Chu PY. Voice rehabilitation in laryngectomees: Comparison of daily-life performance of four types of alaryngeal speech. *Journal of the Chinese Medical Association*. 2003;66:360-363.
- UCLA Center for Health Policy Research (UCLA). *Diabetes: The Growing Epidemic*. Los Angeles, CA: UCLA Center for Health Policy Research; 2007. Available at www.healthpolicy.ucla.edu/pubs/publication.asp?pubID=231. Accessed December 5, 2007.
- U.S. General Accounting Office (GAO). Report to Congressional Requester. Private Health Insurance: Federal and State Requirements Affecting Coverage Offered by Small Businesses. 2003. Available at: www.gao.gov/new.items/d031133.pdf. Accessed March 31, 2007.

- U.S. Preventive Services Task Force (USPSTF). *Guide to Clinical Preventive Services: 2nd Edition*. 1996. Washington, DC: US Department of Health and Human Services; 1996.
- U.S. Preventive Services Task Force (USPSTF). *Guide to Clinical Preventive Services: 3rd Edition* 2006. Washington, DC: US Department of Health and Human Services; 2006. Available at: <http://www.ahrq.gov/clinic/uspstf/uspsttopics.htm>. Accessed September 25, 2007.
- U.S. Preventive Services Task Force (USPSTF). *Guide to Clinical Preventive Services: 3rd Edition: Recommendations and Systematic Evidence Reviews, Guide to Community Preventive Services*. 2006. Washington, DC: US Department of Health and Human Services; 2006.
- Valdez H, Chowdhry TK, Asaad R, Woolley IJ, Davis T, Davidson R, Beinker N, Gripshover BM, Salata RA, McComsey G, Weissman SB, Lederman MM. Changing spectrum of mortality due to human immunodeficiency virus: Analysis of 260 deaths during 1995-1999. *Clinical Infectious Diseases*. 2001;32(10):1487-1493.
- Vidigal E, Jacoby RK, Dixon AS, Ratliff AH, Kirkup J. The foot in chronic rheumatoid arthritis. *Ann Rheum Dis*. 1975 Aug;34(4):292-7.
- Vitale MG, Choe JC, Vitale MA, et al. Patient-based outcomes following clubfoot surgery: A sixteen-year follow-up study. *Journal of Pediatric Orthopedics*. 2005;25:533-538.
- Voulgari PV, Papadopoulos IA, Alamanos Y, Katsaraki A, Drosos AA. Early rheumatoid arthritis: Does gender influence disease expression? *Clinical and Experimental Rheumatology*. 2004;22(2):165-170.
- Warren MP, Fried JL. Temporomandibular disorders and hormones in women. *Cells Tissues Organs*. 2001;169(3):187-192.
- Weinbaum Z and Thorfinnson T (eds.) *Women's Health: Findings from the California Women's Health Survey, 1997-2003*. California Department of Health Services, Office of Women's Health. Sacramento, California, May 2006.
- Welsh M, Kelley G, Tran ZV. *Phenylketonuria: Screening and Management. Appendix C Session IV: Treatment Regimens and Their Effectiveness: A Meta-analytic Review – Technical Report*. Bethesda, MD: National Institutes of Health; 2000. Available at: <http://www.nichd.nih.gov/publications>. Accessed September 26, 2007.
- Westerfield DL. *Insuring the Uninsured through Association Health Plans*. NCPA Policy Report No.259. April 2003 Available at: <http://www.ncpa.org/pub/st/st259>. Accessed November 13, 2007.
- Whitecar PS, Jonas AP, Clasen ME. Managing pain in the dying patient. *American Family Physician*. 2000;61(3):755-765.
- Widmalm SE, Christiansen RL, Gunn SM. Race and gender as TMD risk factors in children. *Cranio*. 1995;13(3):163-166.
- Wilson C. *Suicide deaths: California, 1999*. California Department of Health Services, Center for Health Statistics. 1999. Available at: <http://www.dhs.ca.gov/hisp/chs/OHIR/reports/leadingcause/suicide1999.pdf>. Accessed November 6, 2007.

- Wolfe F, Mitchell DM, Sibley JT, et al. The mortality of rheumatoid arthritis. *Arthritis and Rheumatism*. 1994;37(4):481-494.
- World Health Organization (WHO). *Mental health: New understanding, new hope*. World Health Report 2001. Geneva, Switzerland.
- World Health Organization (WHO). *Medical Eligibility Criteria for Contraceptive Use*. Geneva, Switzerland: World Health Organization; 2004.
- Yelin E, Trupin L, Wong B, Rush S. The impact of functional status and change in functional status on mortality over 18 years among persons with rheumatoid arthritis. *Journal of Rheumatology*. 2002;29(9):1851-1857.
- Yeung EW, Yeung SS. Interventions for preventing lower limb soft-tissue injuries in runners. *Cochrane Database of Systematic Reviews*. 2001;(3): CD001256.
- Yigiter K, Ulger O, Sener G, Akdogan S, Erbahceci F, Bayar K. Demography and function of children with limb loss. *Prosthetics and Orthotics International*. 2005;29(2):131-138.
- Yurek D, Farrar W, Andersen BL. Breast cancer surgery: comparing surgical groups and determining individual differences in postoperative sexuality and body change stress. *Journal of Consulting and Clinical Psychology*. 2000;68:697-709.
- Zech DFJ, Grond S, Lynch J, Hertel D, Lehmann K. Calidation of world health organization guidelines for cancer pain relief: 1 10-year prospective study. *Pain*. 1995;63:65-76.
- Zhukovsky DS, Gorowski E, Hausdorff J, Napolitano B, Lesser M. Unmet analgesic needs in cancer patients. *Journal of Pain and Symptom Management*. 1995;10(2):113-119.

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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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