THE CALIFORNIA COST AND COVERAGE MODEL: CHBRP'S ANALYTIC TOOL FOR EXAMINING THE FINANCIAL IMPACTS OF BENEFIT MANDATES

Introduction

CHBRP's authorizing statute requests that CHBRP provide two sets of financial information to assist the Legislature's consideration of benefit proposed health benefit mandates: (1) current coverage, utilization and cost (premandate); and (2) projected changes in coverage, utilization and costs after the implementation of a mandate (postmandate). Table 1 below describes information requested by the Legislature in CHBRP's authorizing statute:

Table 1. Cost Information Requested by the Legislature

Premandate	Postmandate
• Existing benefit coverage for the test/treatment/service in the current insurance market; • Current utilization of the test/treatment/service; • Cost of providing the test/treatment/service; • Public demand for coverage of the test/treatment/service among self-insured plans; and • Current costs borne by insurers, relevant to the test/treatment/service.	• Changes in benefit coverage for the test/treatment/service if the proposed mandate is enacted; • Changes in utilization of the test/treatment/service; • Changes in the per unit cost of the test/treatment/service; • Changes in administrative costs; • Impact on total health care costs; • Costs or savings for different types of insurers; and • Impact on access and availability of tests/treatments/services.

California Cost and Coverage Model

CHBRP developed the California Cost and Coverage Model (aka Cost Model) to produce baseline and postmandate financial impacts requested by the Legislature. CHBRP's Cost Model is primarily an actuarial forecasting model, using data from the CHBRP's annual enrollment and premium survey, administrative payer data, the California Health Interview Survey and the California Employer Health Benefits Survey. Each year, a team of economists and researchers from a number of UC campuses, along with actuaries from Milliman and CHBRP staff, update and refine the CHBRP Cost Model.

This summary first describes the methods and assumptions developed by CHBRP to respond to these requests. Then it will describe adjustments that CHBRP has had to make to this model to account for changes resulting from the Affordable Care Act (ACA).

Baseline

Before CHBRP can measure an incremental change resulting from a proposed mandate, it must first establish a starting point, or baseline. This is a two-step process: (1) first requiring CHBRP to estimate current overall health insurance coverage for California; (2) and then, estimating current coverage for a specific proposed mandate.

Current coverage overall

To establish a baseline, CHBRP determines:

- Enrollment: Number of Californians currently enrolled in state-regulated health plans in relevant market segments (individual, small group, large group), CalPERS HMO plans, and Medi-Cal Managed Care;[1]
- Premiums: Current premiums by market segment (split by DMHC-regulated or CDI-regulated Individual, small group, and large group).

A comprehensive list of CHBRP's sources for coverage and demographic data can be found in Coverage and Demographic Data Sources section of this Appendix, but in short, CHBRP relies on both public administrative data, as well as an annual survey of the state's seven largest insurance carriers (representing 97% of the state-regulated market).

Baseline adjustments to account for the ACA

For the 2013 Legislative cycle, CHBRP made adjustments to its cost model in order to account for changes that would occur as a result of the ACA. Because ACA-induced market changes would not take place until January 1, 2014, CHBRP's 2013 cost model was constructed to make estimates for a market that did not yet exist. Key changes were made to:

- **Enrollment:** CHBRP relied on the California Simulation of Health Insurance Markets (CalSIM), a microsimulation model, in addition to its usual sources of enrollment data, to estimate how enrollment would change post-ACA implementation of the individual mandate and subsidies.[1]
- **Premiums:** The 2012 CHBRP Annual Enrollment and Premium Survey asked the seven largest insurance carriers in California to provide their average premium rates separately for grandfathered and nongrandfathered plans. The ratios from the carrier survey data are then applied to a national survey of aggregate premium rates,[1] to estimate premium rates for grandfathered and non-grandfathered plans that were consistent with the national premium results. The incremental impact of ACA on 2014 premiums was established as follows:
    - For non-grandfathered small-group and individual market segments, a 3% increase in medical costs is applied to reflect the total cost of requiring each plan to cover the essential health benefits.

[1] For details on data sources, see "Coverage and Demographic Data Sources" at the end of this section.

- For non-grandfathered small-group plans, a 5% increase in medical costs is applied to reflect the other additional costs of ACA (e.g., age rating, health status, increased premium taxes and fees, change in actuarial value, etc.).
- For DMHC-regulated individual plans and CDI-regulated individual policies, an increase of 20% and 31%, respectively, in medical costs is applied to reflect the other additional costs of ACA.

- **Market segments:** The ACA imposes additional requirements on health insurance products created after March 23, 2010. These plans are considered "non-grandfathered." Health insurance that existed before that date is considered "grandfathered" and the ACA has limited authority over those plans. In order to determine enrollment and premium costs associated with enrollees in grandfathered versus non-grandfathered health insurance, CHBRP's 2012 Annual Enrollment and Premium Survey asked the state's seven largest health plans to include that detail as part of its annual survey instrument. Beyond grandfathered and nongrandfathered plans, the addition of an health insurance exchange (Covered California),[2] where Californians could purchase federally subsidized insurance, was also included as a market segment in the 2013 CHBRP Cost Model.

Mandate-specific baseline

Coverage

For each proposed mandate, CHBRP surveys each of the state's seven largest insurance carriers on specific tests, treatments, and services relevant to the mandate. These surveys provide CHBRP with baseline coverage for a proposed mandate (as opposed to baseline coverage for health insurance generally), which would change based on the details of proposed legislation.

Utilization and unit cost

CHBRP must also determine how frequently a treatment or service is currently used—whether or not an individual has benefit coverage—and how much each unit of the test, treatment, or service costs. This is determined using a variety of sources, including actuary Milliman's Health Cost Guidelines, academic literature related to health costs, and other sources.

Incremental Change

Once CHBRP has estimated a baseline for coverage of a proposed mandate, and how frequently services associated with the proposed mandate are utilized, and how much they cost, CHBRP must then estimate how the volume of utilization would change if a mandate were to be enacted.

Changes in utilization of health care services are driven by several factors, namely: changes in benefit levels; levels of cost-sharing; enrollees demand and awareness of benefit coverage; providers' practice patterns; and level of health care management. CHBRP takes these factors into account when producing estimates. Similarly, CHBRP must also determine the unit cost for each unit of the proposed mandate, and whether that would change postmandate if demand for

[2] CHBRP estimated Covered California enrollment using CalSIM.

the treatment or service is expected to change. Together, CHBRP's estimates of changes in utilization and cost provides an estimate of the incremental change a specific proposed mandate would have on the state-regulated health insurance market.

Other important considerations:

- **Long-term impacts.** CHBRP has limited its impact analysis to a one-year horizon for several reasons: 1) CHBRP cost impacts model for premium and total expenditure estimates mimics most insurers' internal processes for determining premiums changes in a given year. 2) CHBRP has limited capacity for modeling the long-term cost and health consequences of benefit mandates. To conduct such analyses usually requires sophisticated, disease-specific simulation models that permit analysis of the progression of a disease (and the disease treatment's technological advancement) over the course of individual lifetimes, and allows for individual variability in disease progression, health outcomes, and subsequent costs. 3) Given the specific nature of most mandates analyzed by CHBRP, the long-term cost or public health impact as a result of the mandate are not necessarily addressed in the literature. Given these constraints, CHBRP will make a long-term cost estimate, when the literature and data permit. Please see Criteria and Guidelines for the Analysis of Long-Term Impacts for more information.
- **Impact on the number of uninsured individuals.** CHBRP also considers a proposed mandate's potential impact on the number of uninsured individuals. CHBRP models this impact if a proposed mandate's estimated increase in premiums exceeds 1 percent. For details, please see Criteria and Methods for Estimating the Impact of Mandates on the Number of Individuals Who Become Uninsured in Response to Premium Increases.

Definitions/Components of the Cost and Coverage Model

Cost

Cost is defined as the aggregate expenditures for health care services. (It is not the costs incurred by health care providers.) The rationale for this definition of "cost" is that legislators are ultimately interested in evaluating the financial impact of mandates on the major *payers* for health care services in the state.

In evaluating aggregate expenditures, CHBRP includes:

- Insurance premiums (paid by employers, government, and enrollees);
- Enrollee cost sharing (copayments, deductibles, co-insurance);
- Total cost of covered benefits (paid by insurer);
- Non-covered health expenses (paid by enrollees who have health insurance, but whose insurance does not cover specified services); and
- Total expenditures for health insurance premiums, enrollee cost sharing, and noncovered health expenses.

Utilization

Utilization is defined as the frequency or volume of use of a mandated service.

Coverage

Coverage is defined as the extent to which the mandated services are covered by state-regulated health insurance.

The model includes two types of health insurance plans or policies:

1. "Knox-Keene" plans: These include Health Maintenance Organizations (HMO), Point-of-Service (POS) health plans, and certain Preferred Provider Organization (PPO) health plans subject to the requirements of the Knox-Keene Health Care Service Plan Act of 1975. These plans are regulated by the Department of Managed Health Care and are included in one category because they are similar in type and regulatory requirements.
2. "Insurance" policies: These include PPOs and fee-for-service (FFS) health insurance products subject to the California Insurance Code, which are regulated by the California Department of Insurance.

These plan types are divided into three market segments representing private purchaser categories:

- Large group (51 or more employees),
- Small group (two to 50 employees), and
- Individual market (direct purchase).

Because some requirements of the Affordable Care Act (ACA) do not apply to "grandfathered" health insurance that existed before March 23, 2010, CHBRP's California Cost and Coverage Model also makes a distinction between "grandfathered" and "nongrandfathered" plans.

Coverage and Demographic Data Sources

The following bullets and Table 2 provide an enumeration of all data sources in California's Cost and Coverage Model:

- The California Simulation of Insurance Markets (CalSIM) is used to estimate health insurance status of Californians aged 64 and under in 2014. CalSIM is a microsimulation model that was created to project the effects of the Affordable Care Act on firms and individuals.[3] CalSIM relies on data from the Medical Expenditure Panel Survey (MEPS), the California Health Interview Survey (CHIS) 2009, analysis data from the California Employment Development Department, and the most recent California Employer Health Benefits Survey.

[3] UC Berkeley Center for Labor Research and Education and UCLA Center for Health Policy Research. *Methodology & Assumptions, California Simulation of Insurance Markets (CalSIM) Version 1.7*, June 2012. Available at http://www.healthpolicy.ucla.edu/pubs/files/calsim_methods.pdf. Accessed October 19, 2012.

- The California Health Interview Survey (CHIS) is used to estimate the number Californians aged 65 and older, and the number of Californians dually eligible for both Medi-Cal and Medicare coverage.[4] CHIS is a continuous survey collected annually that provides detailed information on demographics, health insurance coverage, health status, and access to care. Prior to 2011, CHIS was conducted every two years with a sample of over 40,000 households. Beginning in 2011, the CHIS is collected continuously, surveying over 20,000 households each year and is conducted in multiple languages by the UCLA Center for Health Policy Research.
- The most recent California Health Care Foundation/National Opinion Research Center (CHCF/NORC) survey of California employers is used to obtain estimates of the characteristics of the employment-based insurance market, including firm size, plan type, self-insured status, and premiums. The CHCF/NORC survey, collected annually since 2000, is based on a representative sample of California's employers.
- CalPERS premiums and enrollment are obtained annually from CalPERS administrative data for active state and local government public employees and their family members who receive their benefits through CalPERS. Enrollment information is provided for fully-funded, Knox-Keene licensed health care service plans covering non-Medicare beneficiaries, which comprise nearly 70%[5] of CalPERS total enrollment. CalPERS self-funded plans – approximately 25% of enrollment – are not subject to state mandates.
- The California Department of Health Care Services (DHCS) supplies CHBRP with the statewide average premiums negotiated for the Medi-Cal Managed Care Two-Plan Model and generic contracts with health plans participating in Medi-Cal Managed Care program. Administrative data for the Medicare program is obtained online from the federal agency, the Centers for Medicare and Medicaid Services (CMS).
- CHBRP also conducts a survey of the seven largest health plans and insurers in California, whose enrollment together represents an estimated 97.5% of the persons with health insurance subject to state mandates. Although it is important to note that it is CHBRP's policy to mask plan/insurer identifying information and to report data in aggregate in its analyses,[6] the seven are: Aetna, Blue Cross of California, Blue Shield of California, CIGNA, Health Net, Kaiser Permanente, and UnitedHealth/PacifiCare. These surveys provide data to determine baseline enrollment in the non-group (individual) market, and distributions between grandfathered and nongrandfathered insurance plans.

Utilization and expenditure data sources

The utilization and expenditure data for the California Cost and Coverage Model are drawn primarily from multiple sources of data used in producing the Milliman Health Cost Guidelines (HCGs). The HCGs are a health care pricing tool used by actuaries in many of the major health plans in the United States. The guidelines provide a flexible but consistent basis for estimating health care costs for a wide variety of commercial health insurance plans. The HCGs are used

[4] Although CHIS collects data on Californians of all ages, CHBRP's analysis relies on it particularly for information on the population aged 65 years and over.
[5] CalPERS enrollment as of September 30 of the previous year.
[6] For more information about this policy, see Appendix 18.

nationwide and by several California HMOs and insurance companies, including at least five of the largest plans. It is likely that these organizations would use the HCGs, among other tools, to determine the initial premium impact of any new mandate. Thus, in addition to producing accurate estimates of the costs of a mandate, the HCG-based values should also be reasonable estimates of the premium impact as estimated by the HMOs and insurance companies. The baseline analyses performed by Milliman start with PPOs in the large-group national market, which are then adjusted to account for differences by type of insurance, size of market, and geographic location.

Table 2. Population and Cost Model Data Sources and Data Items

Data Source	Items
California Simulation of Insurance Markets (CalSIM)	Uninsured, age: 0–17; 18–64 Medi-Cal (non-Medicare) (a), age: 0–17; 18–64 Other public (b), age: 0–64 Individual market, age: 0–17; 18–64 Small group, age: 0–17; 18–64 Large group, age: 0–17; 18–64
California Health Interview Survey, 2011 (CHIS 2011)	Uninsured, age: 65+ Medi-Cal (non-Medicare), age: 65+ Other public, age: 65+ Employer-sponsored insurance, age: 65+
CalPERS data, annually, enrollment as of September 30	CalPERS HMO and PPO enrollment • Age: 0–17; 18–64; 65+ HMO premiums
California Employer Survey, conducted annually by NORC and funded by CHCF	Enrollment by HMO/POS, PPO/indemnity self-insured, fully insured, Premiums (not self-insured) by: • Size of firm (3–25 as small group and 25+ as large group) • Family vs. single • HMO/POS vs. PPO/indemnity vs. HDHP employer vs. employer premium share
DHCS administrative data for the Medi-Cal program, annually, 11-month lag from the end of November	Distribution of enrollees by managed care or FFS distribution by age: 0–17; 18–64; 65+ Medi-Cal Managed Care premiums
CMS administrative data for the Medicare program, annually (if available) as of end of September	HMO vs. FFS distribution for those 65+ (noninstitutionalized)
CHBRP enrollment survey of the seven largest health plans in California, annually as of end of September	Enrollment by: • Size of firm (2–50 as small group and 51+ as large group), • DHMC vs. CDI regulated • Grandfathered vs. non-grandfathered Premiums for individual policies by: • DMHC vs. CDI regulated • Grandfathered vs. non-grandfathered
Department of Finance population projections, for intermediate CHIS years	Projected civilian, noninstitutionalized CA population by age: 0–17; 18–64; 65+
Medical trend influencing annual premium increases	Milliman estimate