CalSIM
California Simulation of Insurance Markets

The California Simulation of Insurance Markets (CalSIM) model is designed to estimate the impacts of various elements of the Affordable Care Act on employer decisions to offer insurance coverage and individual decisions to obtain coverage in California. It was developed by the UC Berkeley Center for Labor Research and Education and the UCLA Center for Health Policy Research, with generous funding provided by The California Endowment.

Nine Out of Ten Non-Elderly Californians Will Be Insured When the Affordable Care Act is Fully Implemented

Ken Jacobs, Greg Watson, Gerald F. Kominski, Dylan H. Roby, Dave Graham-Squire, Christina M. Kinane, Daphna Gans, and Jack Needleman

The Affordable Care Act (ACA) will significantly expand access to affordable health coverage in California starting in 2014. Californians with the lowest incomes will have access to coverage under the expansion of Medi-Cal, while millions of low- and middle-income families will be eligible for subsidies through the California Health Benefit Exchange (the Exchange). Demand for health insurance in the state will also increase as a result of the minimum coverage requirement.

The level of enrollment in the new and expanded programs and the resulting share of Californians who gain coverage under the ACA will depend on a range of factors, including the ease of enrollment and retention, outreach strategies, and language accessibility.

We used the California Simulation of Insurance Markets (CalSIM) model, version 1.7, to predict changes in health coverage in California under the ACA using two scenarios: one based on typical responses by individuals and employers to expanded coverage offerings (the “base” scenario) and another based on a more robust enrollment and retention strategy planned by state coverage programs (the “enhanced” scenario).

Based on the results of our CalSIM model, we estimate that in 2019, after the ACA is fully implemented:

- Between 89 and 92 percent of Californians under the age of 65 will have health coverage, compared to 84 percent without the law.
- Between 1.8 and 2.1 million Californians will enroll in subsidized coverage in the California Health Benefit Exchange.
- Between 1.2 and 1.6 million individuals will be newly enrolled in Medi-Cal.
- Between 3 and just under 4 million Californians will remain uninsured, 1 million of whom will not be eligible for coverage due to immigration status.
Under our enhanced scenario, we assume that greater enrollment in Medi-Cal and the California Health Benefit Exchange could be achieved through many factors, including:

- Simplified enrollment and redetermination processes and systems;¹
- Robust outreach and education;
- Culturally competent and linguistically appropriate outreach and enrollment assistance;²
- Pre-enrollment from existing health and human service programs; and
- Use of institutional connections to reach individuals in life transitions to maximize seamless coverage.³

**Background**

The new California Health Benefit Exchange will serve as a marketplace for consumers to purchase private health plans. Consumers will have a choice of plans at a range of coverage levels. The Exchange will provide the information needed for consumers to make informed choices between plans.

Premium and cost sharing subsidies will be available through the Exchange for individuals with incomes up to 400 percent of the Federal Poverty Level (FPL)⁴ who do not qualify for Medi-Cal and do not have any family members with an offer of affordable job-based coverage.⁵ A separate Small Business Health Options Plan (SHOP) exchange will offer coverage to firms of 50 or fewer workers between 2014 and 2016, after which time it will be open to firms of 100 or fewer workers. Small businesses with low-wage workforces may be eligible for tax credits through the SHOP exchange.⁶

The ACA will expand Medi-Cal to adults and children in families with incomes up to 133 percent FPL, with an additional 5 percent income disregard. For this population, there will no longer be any asset test for eligibility.⁷ The new rules will significantly simplify program enrollment and retention. The federal government will pay 100 percent of the cost for newly eligible enrollees from 2014 through 2016; federal funding will be scaled down over time until it reaches the 90 percent floor in 2020.

Once the law goes into effect, individuals who do not have minimal essential coverage will be required to pay a tax penalty. The penalty will be waived if the cost of coverage exceeds 8 percent of family income, if an individual is uninsured for fewer than three months, if an individual’s income is below the federal tax-filing threshold, or if the individual meets other criteria for exemption described in the ACA. New employer-responsibility provisions will apply to firms with 50 or more full-time equivalent employees.

Each of these provisions will have an impact on employer decisions to offer coverage and individuals’ choices in taking up health care coverage. For employers with employees that are predominantly in lower income families, there will be less incentive to offer coverage, since their workers may be better off receiving higher wages in lieu of benefits and purchasing subsidized coverage through the Exchange. For the vast majority of employers, the tax advantage of offering health benefits will outweigh the value of any subsidies to employees in the Exchange and the cost of employer penalties. The minimum coverage requirement will increase demand for health insurance and lead to greater take up of offered coverage.
To predict eligibility and coverage for various health insurance options, CalSIM simulates employer and individual decisions to offer and enroll in health insurance under reform using behavioral assumptions based on evidence from the economics literature (see Appendix 1).

**Predicted Coverage**

Using the CalSIM model, we predict changes in coverage in California as a result of the ACA. Take up of available coverage options in the model is based on a wide range of factors, including the pre-policy starting point, health status, household income, change in cost to purchase coverage, and English proficiency. For Medi-Cal, we assume that 61 percent of uninsured newly eligible individuals, and 10 percent of those who were previously eligible but not enrolled, enroll under our base scenario. This assumption is based on current Medi-Cal take up in the state. For the enhanced scenario we follow the Urban Institute/Kaiser Family Foundation enhanced participation estimate and assume that 75 percent of the newly eligible uninsured and 40 percent of the previously eligible enroll. Nationally, the share of Medicaid-eligible individuals enrolled in the program ranges from 44 percent in Florida, to 80 percent in Massachusetts, to 88 percent in Washington DC. California is currently near the national average of 61.7 percent enrolled.

Our base scenario for enrollment in the Exchange is based on the probabilities found in the literature due to changes in cost of coverage for individuals with different incomes, health status, English proficiency, and starting point of coverage. In the enhanced scenario, we assume that language is not a barrier to enrollment, that eligibility and enrollment processes and systems are simplified, and that the state launches a robust outreach and education effort to make individuals aware of their coverage options. Under these conditions, we assume that 75 percent of uninsured adults who are eligible for subsidies enroll. Unless otherwise stated, estimates are for 2019 after employers and individuals have fully adjusted to the changes in coverage availability and responsibilities under the ACA. All estimates are for a point in time; the actual number of people who are enrolled in coverage over the course of a year will be greater.

**Results**

In line with other simulation models, we find a small decline in employer-based coverage (700,000 or 3.6 percent) due to the policy. For the vast majority of employers and employees, tax benefits of job-based coverage will still greatly outweigh the value of subsidies in the Exchange plus the cost of the penalty for non-offering employers with 50 or more full-time equivalent employees. Overall we predict that employers covering

<table>
<thead>
<tr>
<th>Type of Coverage</th>
<th>Without ACA 2019</th>
<th>With ACA 2019 Base Scenario</th>
<th>Net Change Base Scenario</th>
<th>With ACA 2019 Enhanced Scenario</th>
<th>Net Change Enhanced Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer Sponsored Insurance</td>
<td>19.8</td>
<td>19.1</td>
<td>(0.7)</td>
<td>19.1</td>
<td>(0.7)</td>
</tr>
<tr>
<td>Medi-Cal</td>
<td>5.9</td>
<td>7.0</td>
<td>1.2</td>
<td>7.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Healthy Families</td>
<td>0.8</td>
<td>0.6</td>
<td>(0.2)</td>
<td>0.7</td>
<td>(0.1)</td>
</tr>
<tr>
<td>Other Public</td>
<td>1.3</td>
<td>1.3</td>
<td>—</td>
<td>1.3</td>
<td>—</td>
</tr>
<tr>
<td>Exchange with Subsidies</td>
<td>—</td>
<td>1.8</td>
<td>1.8</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Individual Market/Exchange without Subsidies</td>
<td>2.3</td>
<td>2.1</td>
<td>(0.2)</td>
<td>2.2</td>
<td>(0.1)</td>
</tr>
<tr>
<td>Uninsured—Eligible for Coverage</td>
<td>4.7</td>
<td>2.9</td>
<td>(1.8)</td>
<td>2.0</td>
<td>(2.7)</td>
</tr>
<tr>
<td>Uninsured—Not Eligible due to Immigration Status</td>
<td>1.1</td>
<td>1.1</td>
<td>(0.0)*</td>
<td>1.0</td>
<td>(0.0)*</td>
</tr>
</tbody>
</table>


* Change is less than 100,000.

Note: Numbers may not add up due to rounding.
slightly more than 1 million California workers will cease to offer coverage, while an additional 350,000 employees will be newly covered on the job. The coverage increase is due to a combination of additional employers offering coverage and more employees taking up coverage that is offered to them as a result of the individual mandate and new requirements on large employers to automatically enroll employees into coverage.

We predict that in 2019, Medi-Cal coverage will increase by 1.2 to 1.6 million (under the base and enhanced scenarios, respectively). Enrollment in Healthy Families will decline slightly as older children under 133 percent FPL will now qualify for Medi-Cal. An estimated 1.8 to 2.1 million will be enrolled in the Exchange with subsidies, while 2.1 to 2.2 million will remain in the non-group market or be enrolled in the Exchange without subsidies.11 Finally, the number of uninsured will decline by 1.8 to 2.7 million people, leaving 3.0 to 4.0 million Californians without coverage. Of the remaining uninsured, about 1.0 million will not be eligible for subsidies or to purchase insurance in the Exchange because of their immigration status.

Enrollment in Medi-Cal and the Exchange is predicted to increase over time between 2014 and 2019. The pace of enrollment will be affected by outreach and enrollment strategies. In addition, maximum use of pre-enrollment prior to ACA implementation will reduce the time needed to reach stable enrollment levels.

Under the base enrollment scenario, the ACA is predicted to result in an additional 900,000 individuals enrolling in Medi-Cal by 2014, increasing to 1.2 million by 2019. This includes an estimated 500,000 individuals predicted to be enrolled in county Low-Income Health Programs who will be automatically enrolled in Medi-Cal in 2014.12 Under the enhanced scenario, with a more aggressive enrollment and outreach strategy, additional Medi-Cal enrollment would reach 1.4 million by 2014 and 1.6 million by 2019.

Under the base enrollment scenario, we project that in 2014, 900,000 individuals will take advantage of premium subsidies in the Exchange to buy coverage. With more aggressive outreach and enrollment assistance contemplated under the enhanced scenario, enrollment would reach 1.2 million in 2014. Enrollment in the subsidized Exchange would increase to 1.8 to 2.1 million by 2019.

### Exhibit 3. Predicted New Enrollment due to the ACA (in millions)

<table>
<thead>
<tr>
<th>Program</th>
<th>2014</th>
<th>2016</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medi-Cal Base</td>
<td>0.9</td>
<td>1.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Medi-Cal Enhanced</td>
<td>1.4</td>
<td>1.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Exchange with Subsidies Base</td>
<td>0.9</td>
<td>1.4</td>
<td>1.8</td>
</tr>
<tr>
<td>Exchange with Subsidies Enhanced</td>
<td>1.2</td>
<td>2.0</td>
<td>2.1</td>
</tr>
</tbody>
</table>


### Remaining Uninsured

An estimated 3 to 4 million Californians are predicted to remain uninsured in 2019. Of those, slightly more than 1 million will not be eligible for coverage options under the ACA due to immigration status. Another 800,000 to 1.2 million will be eligible for Medi-Cal or Healthy Families. If and when they seek care, they will have the ability to enroll in coverage. Robust outreach and education can also decrease the number of uninsured who are not aware of coverage opportunities and are therefore less likely to seek care or receive preventive services.

Under the base enrollment scenario an additional 800,000 would be eligible for subsidies in the Exchange. Of these, nearly 100,000 would be exempt from the individual mandate under the affordability exemption. With strong outreach and enrollment strategies, we predict that the number of uninsured who are eligible for Exchange subsidies could be cut in half. Finally, under the base scenario, an estimated 900,000 remaining uninsured would be eligible for the Exchange, but not for subsidies. Of those, 200,000 would have incomes under 400 percent FPL, but would not qualify for Exchange subsidies due to an offer of job-based coverage to themselves or to a family member. The numbers of higher income uninsured are not predicted to change significantly with greater outreach.
The Affordable Care Act will significantly expand access to affordable health coverage in California through Medi-Cal and the Health Benefit Exchange. An estimated 2.9 to 3.7 million Californians will be newly covered through Medi-Cal or receive subsidized coverage in the Exchange. Others will gain access to coverage through new prohibitions on insurers denying coverage based on pre-existing conditions. As a result, more than 89 percent of non-elderly Californians will have coverage when the ACA is fully implemented. The impact of the law will be spread across all of California’s counties. Please see the fact sheets accompanying this policy brief:

- Predicted Exchange Enrollment with Subsidies under the Affordable Care Act: Regional and County Estimates
- Predicted Increase in Medi-Cal Enrollment under the Affordable Care Act: Regional and County Estimates
- Remaining Uninsured in California under the Affordable Care Act: Regional and County Estimates

State policy decisions, the actions of the Exchange, and other outside factors will impact the actual number of individuals who benefit from these changes. The final results could exceed or fall below those predicted depending on the strength of outreach and enrollment and the affordability of the products in the Exchange. Simplified enrollment and re-determination systems, the use of presumptive eligibility and pre-enrollment of individuals in other state health and social service programs, language appropriate materials and outreach, and use of institutional connections to inform and enroll individuals who lose coverage due to life transitions are just some of the many ways the state and Exchange can maximize enrollment in health coverage in California.

Conclusions
Endnotes


4 In 2012, 400 percent of the Federal Poverty Level is $44,680 for an individual and $92,200 for a family of four.

5 An offer of employer sponsored insurance is considered affordable if the employee cost for single coverage is less than 9.5 percent of household income and the plan meets a minimum standard for generosity of benefits.

6 To be eligible for tax-credits through the SHOP exchange a firm must have fewer than 25 full-time equivalent employees and an average wage of less than $50,000 per year.

7 Asset tests remain for individuals applying for other Medicaid eligibility categories, including the elderly and disabled.


10 Sommers and Epstein, 2010.

11 CalSIM does not predict the percentage of unsubsidized individuals that will purchase coverage through the Exchange. Previous micro-simulation modeling literature estimates a range of 46–73 percent of this group will enroll through the Exchange.

Appendix 1: Methodology

The California Simulation of Insurance Markets (CalSIM) model is designed to estimate the impact of various elements of the ACA on employer decisions to offer insurance coverage and individual decisions to obtain coverage in California. The CalSIM model uses four data sources: the 2004–2008 Medical Expenditure Panel Survey (MEPS) Household Component (MEPS-HC) and the Person Round Plan (MEPS-PRPL) public use data files, the 2009 California Health Interview Survey (CHIS), California Employment Development Department (EDD) 2007 wage distribution, insurance offer, and firm size data, and the 2010 California Employer Health Benefits Survey (CEHBS). CHIS, EDD, and CEHBS provide weights and wage distributions that adjust the nationally-representative MEPS data to build a California-specific model. Once re-weighted, the MEPS-HC respondents are then assumed to represent the population of California. However, MEPS-HC does not include data on immigration status, and until 2007 did not report whether an individual was born in the United States. We therefore constructed a regression model using CHIS 2009 confidential data to predict the immigration status of MEPS-HC respondents based on a variety of socioeconomic, demographic, and family characteristics. By accounting for immigration status within the individual dataset construction process, the CalSIM model is able to adjust Medi-Cal and Exchange eligible populations based on undocumented immigrant and recent legal permanent residence status before determining firm and individual coverage decisions, rather than imposing an ex post adjustment. This approach enables a more accurate picture of the Medi-Cal and Exchange eligible and enrolled populations in California. However, it is limited by the sensitivity of the logistic regression modeling approach and predicted immigration status propensity scores.

Individuals are then identified as workers and non-workers (i.e., the unemployed and the respective dependents/spouses of workers). Workers are assigned employer wage distribution characteristics from EDD 2007 data based on firm size and insurance offer status from their MEPS record. The firms are then statistically matched to the Employer Sponsored Insurance (ESI) data from the 2010 CEHBS, which contains additional information on the actuarial value of the health plans offered. The matched dataset is used to create synthetic firms consisting of workers and their families, who then choose to participate in different aspects of the ACA, such as taking up coverage or dropping coverage. These decisions, once made by the firm and linked to each employee and their families, allow for individual probabilities to be assigned for insurance choices depending on family characteristics such as household income, health status, cost, availability of other coverage options, and immigration status. The California Simulation of Insurance Markets (CalSIM) model was created by the UC Berkeley Center for Labor Research and Education and the UCLA Center for Health Policy Research with funding from the California Endowment. For further information, please visit http://www.healthpolicy.ucla.edu/pubs/files/calsim_methods.pdf.
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