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A Framework for Tracking the Impacts of the Affordable Care Act in California

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Executive Summary

The federal Patient Protection and Affordable Care Act (the ACA), enacted in March 2010, will have far-reaching impacts on health insurance coverage, health care financing, and health care delivery in the United States. Understanding the state-level impacts of the ACA will contribute to a better understanding of the national impacts of the law and will provide information to shape ongoing state implementation activities.

The goal of this project was to recommend how California (and the California HealthCare Foundation) can measure and monitor the impacts of health care reform in three areas: health insurance coverage; affordability and comprehensiveness of health insurance coverage; and access to health care services.

Within each of the three focus areas for this project we identified several categories of metrics needed to monitor the impacts of the ACA. We recommend a total of 51 measures that California can use to monitor the impacts of health care reform over time: 19 related to insurance coverage, 15 related to affordability and comprehensiveness of coverage, and 17 related to access to care. The recommended measures are summarized in **Figure 1**.

Next, we reviewed and assessed existing state and national data sources to determine how each data source might be employed to measure the impacts of the ACA in California. The data sources include population surveys and employer surveys, as well as data from health care providers, health plans, and public programs (e.g., Medi-Cal, county programs for indigent care). For each source of data we compiled technical information, such as: how the data are collected and from whom; how complete or representative the data are; whether comparisons can be made to other states and U.S. averages; whether comparisons can be made for regions within California; and whether the data can be used for monitoring trends among specific population groups such as children, people with low incomes, and by race and ethnicity. We reviewed the data collection instruments (e.g., survey questionnaires), technical documentation for the data sources, and publicly available reports that use the data. For data sources that are unique to California we also conducted key informant interviews with experts who are regular users of the data sources or who are responsible for the data collection in order to better understand the strengths and weaknesses of the data.

Selecting the “best “data source for each measure involved assessing the availability of the recommended measures from each data source, and weighing the strengths and weaknesses of potential data sources. **Figures 2, 3, and 4** present our recommended data sources for each measure, with asterisks showing where there are gaps in existing data to track these measures.

To summarize the gaps in existing data, we divided them into two categories. The first category includes measures that could be collected or modified using existing data collection infrastructure; the second includes measures that cannot be collected until full implementation of the ACA’s coverage provisions in 2014. **Figures 5 and 6** provide an “at a glance” summary of the data gaps we identified and our recommendations for filling them.

Finally, we identified different ways to analyze and present the recommended measures to policymakers and the public to inform them about the impact of health reform in California. Key elements of a successful data dissemination strategy will include organizing content in a thoughtful way, allowing users to view data in a variety of different formats, presenting measures in a way that highlights key information, and making technical documentation accessible.

FIGURE 1. Recommended Measures for Tracking the Impacts of Health Reform in California

Coverage Metrics

Coverage: Overview

- Insurance coverage distribution

Uninsurance

- Uninsured at point in time
- Uninsured at some point in the past year
- Uninsured for a year or more
- Reasons for uninsurance
- Number of people exempt from coverage mandate, by reason
- Number of people who pay the tax penalty for not purchasing coverage

Public Coverage

- Enrollment trend in state public programs
- Participation rate (% eligible who are enrolled)
- Churning (% leaving public coverage who re-enroll within 3 months)

Employer-Sponsored Insurance (ESI)

- Percent of employers offering coverage
- Percent of workforce in firms that offer coverage
- At employers offering coverage, percent of workers eligible
- Take-up rate (% of eligible employees enrolled)
- Percent of families with any ESI offer
- Percent of families offered ESI with all family members enrolled
- Number of employers paying penalty for not offering coverage

Health Insurance Exchange

- Number of people purchasing nongroup coverage through the exchange
- Number of businesses and people with group coverage through the exchange

Affordability and Comprehensiveness Metrics

Insurance Premiums

- ESI: Average annual premium for single coverage
- ESI: Average annual premium for family coverage
- ESI: Average annual employee contribution for single coverage
- ESI: Average annual employee contribution for family coverage
- Nongroup market: Average annual premium per enrollee

Subsidies for Premiums and Cost-Sharing

- Number of people receiving premium and cost-sharing subsidies in the insurance exchange
- Average value of premium and cost-sharing subsidies in the insurance exchange

Comprehensiveness of Coverage

- ESI: % distribution of enrollment by benefit level*
- Nongroup market: % distribution of enrollment by benefit level*
- ESI: deductibles for single coverage
- ESI: deductibles for family coverage
- Nongroup market: deductibles for single coverage
- Nongroup market: deductibles for family coverage

Financial Burden

- Percent of families with high cost burden
- "Affordable" premium as a percentage of income

**Benefit level refers to catastrophic, bronze, silver, gold, and platinum levels for actuarial value established by the ACA.*

Access to Care Metrics

Use of Services

- Percent of people with a usual source of care
- Type of place for usual source of care
- Percent of people who have had a doctor visit in the past year
- Percent of people with a preventive care visit in the past year

Barriers to Care

- Percent of people who forgo needed care
- Reasons for forgone care
- Percent of people who were not able to get an appointment in a timely way
- Percent of people who had difficulty finding a provider that would accept new patients
- Percent of people who had difficulty finding a provider that accepts their insurance

System-Level Access

- Percent of physicians accepting new patients
- Percent of physicians participating in public programs
- Emergency room visit rates
- Ambulatory care sensitive hospital admissions
- Preventable/avoidable emergency room visits

Safety Net

- Volume and type of services provided by safety net clinics
- Uncompensated care
- County indigent care volume and cost

FIGURE 2. Recommended Data Sources for Coverage Measures

Coverage Metrics

Overview Measures

Insurance coverage distribution	CHIS

Uninsurance

Uninsured at point in time	CHIS
Uninsured at some point in the past year	
Uninsured for a year or more	
Reasons for uninsurance	CHIS
Number of people exempt from coverage mandate, by reason	Exchange*
Number of people paying the tax penalty for not purchasing coverage	Income Tax Records*

Employer-Sponsored Insurance (ESI)

Percent of employers offering coverage	CEHBS
Percent of workforce in firms that offer coverage	
If employer offers coverage, percent of employees eligible	
Take-up rate (% of eligible employees enrolled)	
Percent of families with any ESI offer	NHIS
Percent of families offered ESI that take up coverage for all family members	
Number of employers paying the penalty for not offering coverage	CEHBS*

Health Insurance Exchange

Nongroup Coverage

Number of people purchasing coverage through the exchange	Exchange*
Number of people with and without subsidies	
Percent of nongroup market purchasing through the exchange	Exchange*/Insurance Regulators

Group Coverage

Number of employers purchasing coverage through the exchange	Exchange*/CEHBS*
Number of employers receiving tax credit to purchase in exchange	CEHBS*
Employer exchange take-up rate	
Number of workers with group coverage in exchange	
Workers with group coverage in exchange, as percent of exchange-eligible employer coverage	

Public Coverage

State public program enrollment	DHCS and MRMIB
Public program churning (% leaving public coverage who re-enroll within 3 months)	
Participation rate (% eligible who are enrolled)	CHIS

**Requires new data collection*

Notes: CHIS = California Health Interview Survey; CEHBS = California Employer Health Benefits Survey; NHIS = National Health Interview Survey; DHCS = Department of Health Care Services; MRMIB = Managed Risk Medical Insurance Board.

FIGURE 3. Recommended Data Sources for Affordability and Comprehensiveness Measures

Affordability and Comprehensiveness Metrics

Insurance Premiums

- ESI – Total premium for single coverage
- ESI – Total premium for family coverage
- ESI – Employee premium contribution: single coverage
- ESI – Employee premium contribution: family coverage

CEHBS

- Nongroup coverage – Premium per enrollee — *Insurance Regulators**

Subsidies for Premiums and Cost-Sharing

- Number receiving premium subsidies in the exchange
- Number receiving cost-sharing subsidies in the exchange
- Average value of premium subsidies in the exchange
- Average value of cost-sharing subsidies in the exchange

*Exchange**

Comprehensiveness of Coverage

ESI

- Enrollment by benefit level — *Exchange*/Insurance Regulators**
- Average deductible and distribution of deductibles for single coverage
- Average deductible and distribution of deductibles for family coverage

Exchange/CEHBS*

Nongroup Coverage

- Enrollment by benefit level
- Average deductible and distribution of deductibles per enrollee

Exchange/Insurance Regulators**

Financial Burden

- Percent of families with high cost burden — *MEPS-HC*
- "Affordable" premium contributions as a percentage of income — *Exchange**

**Requires new data collection*

Notes: CEHBS = California Employer Health Benefits Survey; MEPS-HC = Medical Expenditure Panel Survey – Household Component.

FIGURE 4. Recommended Data Sources for Access to Care Measures

Access to Care Metrics

Use of Services

Metric	Data source
Percent of people with a usual source of care	*CHIS*
Type of place for usual source of care	
Percent of people with a doctor visit in the past year	
Percent of people with a preventive care visit in the past year	*CHIS*/ MEPS-HC*

Safety Net

Metric	Data source
Volume and type of services provided by safety net clinics	*OSHPD Primary Care Clinic data, counties**
County indigent care volume and cost	*Counties**
Uncompensated care	*OSHPD – Hospital Annual Financial Disclosure Report*;* *Clinics – OSHPD Primary Care Clinic reports, local government operated clinics**

Barriers to Care

Metric	Data source
Percent of people who forgo necessary care	*MEPS-HC*
Reasons for forgone care	
Percent of people not able to get an appointment in a timely way	*CHIS*/ MEPS-HC*
Primary care: Percent of people who have difficulty finding a provider that will accept new patients	*CHIS*/NHIS*
Specialty care: Percent of people who have difficulty finding a provider that will accept new patients	*CHIS**
Primary care: Percent of people who have difficulty finding a provider that accepts their insurance	*CHIS*/NHIS***
Specialty care: Percent of people who have difficulty finding a provider that accepts their insurance	

System-Level Access

Metric	Data source
Primary care: Percent of physicians accepting new patients, by payer	*Medical Board of California**
Specialty care: Percent of physicians accepting new patients, by payer	
Primary care: Percent of physicians participating in public programs	
Specialty care: Percent of physicians participating in public programs	
Emergency room visit rates	*OSHPD Emergency Department Database*
Potentially preventable emergency room visits	
Ambulatory care sensitive hospital admissions	*OSHPD Patient Discharge Database*

**Requires new data collection*
***Not able to distinguish between primary and specialty care*

FIGURE 5. Filling Data Gaps: Existing Data Collection Infrastructure

Health Insurance Markets
(Exchange and Non-Exchange)

Health Insurance Markets	Recommended Data Source
Nongroup Market Premium per enrollee Enrollment by benefit level Average deductible and distribution of deductibles per enrollee	Insurance Regulators
ESI Market Enrollment by benefit level	Insurance Regulators

Safety Net

Safety Net	Recommended Data Source
Volume and type of services provided by safety net clinics	OSHPD Primary Care Clinic data, counties
County indigent care volume and cost	Counties
Uncompensated care	OSHPD – Hospital Annual Financial Disclosure Report Clinics – OSHPD Primary Care Clinic reports, local government operated clinics

System-Level Access

System-Level Access	Recommended Data Source
Percent of physicians accepting new patients, by payer – primary care, specialty care Percent of physicians participating in public programs – primary care, specialty care	Medical Board of California

Barriers to Care

Barriers to Care	Recommended Data Source
Percent of people not able to get an appointment in a timely way*	CHIS/MEPS-HC
Percent of people who have difficulty finding a provider that will accept new patients – primary care, specialty care** Percent of people who have difficulty finding a provider that will accept their insurance – primary care, specialty care***	CHIS/NHIS

Barriers to Care

Barriers to Care	Recommended Data Source
Percent of people with a preventive care visit in the past year*	CHIS/MEPS-HC

**Available from MEPS-HC; consider adding to CHIS*
***Measured in NHIS for primary care only; consider adding to CHIS*
****Measured in NHIS without distinction between primary and specialty care; consider adding to CHIS*

FIGURE 6. Data That Cannot Be Collected Until Full ACA Implementation

Health Insurance Exchange

Nongroup Coverage	Recommended Data Source
Number of people purchasing coverage through exchange	Exchange
Percent of nongroup market purchasing through the exchange	Exchange, Insurance Regulators
Number of exchange enrollees with and without subsidies	Exchange
Number of people receiving premium subsidies through the exchange	
Number of people receiving cost-sharing subsidies through the exchange	
Average value of premium subsidies in the exchange	
Average value of cost-sharing subsidies in the exchange	
"Affordable" premium contributions as a percentage of income	
Enrollment by benefit level	
Average deductible and distribution of deductibles per enrollee	

Group Coverage	Recommended Data Source
Number of employers purchasing coverage through the exchange	Exchange, CEHBS
Number of employers receiving tax credit to purchase in exchange	CEHBS
Number of workers with group coverage in exchange	CEHBS
Employer exchange take-up rate	CEHBS
Workers with group coverage in exchange, as percent of exchange-eligible employer coverage	
Enrollment by benefit level	Exchange
Average deductible and distribution of deductibles for single, family coverage	

ACA Requirements for Individuals and Employers

	Recommended Data Source
Number of people exempt from coverage mandate, by reason	Exchange
Number of people paying the tax penalty for not purchasing coverage	Tax Records
Number of employers paying the penalty for not offering coverage	CEHBS

1. Introduction and Project Overview

The federal Patient Protection and Affordable Care Act (the ACA), enacted in March 2010, will have far-reaching impacts on health insurance coverage, health care financing, and health care delivery in the United States. Understanding the state-level impacts of the ACA will contribute to a better understanding of the national impacts of the law and will provide information to shape ongoing state implementation activities.

There are several reasons that the impacts of the ACA will vary by state. First, states have significant flexibility in how they choose to implement the law, particularly with regard to health insurance coverage. Second, existing variation across states in health insurance coverage, health care financing, and health care delivery systems will play a role in determining the impacts of the law in each state. Finally, the ACA's impacts on a state will be determined in part by variation across states in economic, demographic, and socioeconomic characteristics (for example, the share of the population that will be newly eligible for Medicaid in 2014 or the share of employers that currently offer health insurance).

The goal of this project is to describe how California (and the California HealthCare Foundation) can measure and monitor the impacts of health care reform in three areas: health insurance coverage, affordability and comprehensiveness of coverage, and access to care.

The specific objectives of this project are to:

- Recommend broad areas of potential measurement to assess the impacts of the ACA on health insurance coverage, affordability and comprehensiveness of coverage, and access to services;
- Identify, evaluate, and recommend specific metrics in each broad measurement area;
- Describe and assess existing state and national data sources and how each data source might be employed to measure the impacts of the ACA in California;
- Identify gaps in existing data sources for measuring the impacts of health reform in California and propose strategies for filling these gaps; and
- Propose potential ways of analyzing and presenting information to policymakers and the public about the impacts of health reform in California including the use of dashboards, fact sheets, issue briefs and other activities.

Selection of Measures

The three topic areas that are the focus of this project – insurance coverage, affordability and comprehensiveness of coverage, and access to care – are broad, and there are numerous measures that could be used to track trends in each area. A key goal of this project is to select a limited number of high-priority measures that could be used to monitor trends over time in each of these areas.

In selecting the recommended measures, we took several factors into account, placing a high priority on measures that are closely related to major goals and provisions of the law, that reflect outcomes rather than processes for implementing the law, and that are likely to be useful to policymakers as they monitor the impacts of the ACA.

For most (if not all) of the measures, it will be desirable to monitor trends at a level more detailed than that provided by statewide totals. For example, it is important to understand differences in insurance coverage and access to care by characteristics such as age, income, and race/ethnicity. Similarly, discussions of employer-provided health insurance usually include detail by firm size, industry, wage level, or other characteristics. Finally, some of the recommended measures, especially the measures of access to services, are most actionable when measured at the local or regional level where care is actually delivered.

Selection of Data Sources

There are numerous data sources that could potentially be used to monitor the impacts of the ACA in California. Some are national in scope but also can be used for state-level estimates. One advantage of using a national data set for state-level tracking is that California can be compared to other states and to the nation as a whole. On the other hand, California has many state-specific data sources that provide a richness of detail typically not available from national sources. This difference is one of the many tradeoffs that will need to be considered in choosing data sources for tracking the impacts of reform.

In assembling our list of potential data sources we had three key requirements:

- First, the data had to be available at the state level. Although it will be useful in many instances to track impacts locally or regionally within the state, we did not include data sources that are available only at the local level. Similarly, we excluded national surveys where it is not possible to obtain state-specific estimates.

- Second, the data sources had to be collected on a regular basis. In other words, we excluded one-time, occasional, or discontinued data collection activities from the scope of our data source review.
- Finally, we selected data sources with an eye to their potential for measuring trends in insurance coverage, affordability, or access to services. Although there are numerous other data sources that can be used to track health care trends (for example, data on prevalence of specific diseases or quality of care), we excluded data sources that have only an indirect relationship to the three focus areas of this project.

We identified over 30 existing data sources for potential use to monitor the impacts of health reform. Our data review included population surveys and employer surveys as well as data from health care providers, health plans, and public programs (e.g., Medi-Cal, county programs for indigent care). For each source of data, we compiled technical information, such as: how the data are collected and from whom; how complete or representative the data are; whether comparisons can be made to other states and U.S. averages; whether comparisons can be made for regions within California; and whether the data can be used for monitoring trends among specific population groups such as children, people with low incomes, or by race/ethnicity. We reviewed the data collection instruments (e.g., survey questionnaires), technical documentation for the data sources, and publicly available reports that use the data. For data sources that are unique to California we also conducted key informant interviews with experts who are regular users of the data source or who are responsible for the data collection in order to better understand the data's strengths and weaknesses. See Appendix C for the list of key informant interviews.

In addition to identifying potential data sources for monitoring the impacts of the ACA, we developed a framework for assessing the strengths and weaknesses of each data source. The criteria we used in our assessment framework included the following:

- **Population coverage:** It is important that the data source be representative of the entire population of interest in California. For example, population coverage is a growing concern in telephone surveys that do not include cell phones, due to the increasing share of the population that uses only cell-phones and would not be reached by a traditional telephone survey.
- **Response rate:** The response rate is a commonly used indicator of survey data quality, although it should be noted that a low response rate by itself does not necessarily indicate that estimates from the survey are biased.[1] In addition, response rates are not necessarily calculated in the same way across surveys.
- **Timeliness of estimates:** The frequency of data collection and the time lag between data collection and release are both important for timely monitoring of trends. While some of the data sources that we reviewed are collected on an annual or continuous basis, others are collected less frequently. In addition, the time lag between when the data are collected and public availability also varies across the data sources.
- **Accessibility of data:** Some of the data sources that we reviewed are easily accessible to researchers, while others are more restricted either in terms of what is released or how it can be accessed. For example, it is possible to work directly with state-level data from the National Health Interview Survey, but the project must be approved by the National Center for Health Statistics and the data must be accessed at a NCHS-sponsored Research Data Center.
- **Level of geography:** All of the data sources that we reviewed can produce estimates for the state of California as a whole, but the ability to compare regions within the state or to compare California to the nation or other states adds value by providing additional policy-relevant information.
- **Subpopulation analysis:** Some data sources have more potential than others as reliable sources of information for specific subpopulations of interest to policymakers, such as children, low-income people, or specific racial and ethnic groups. For example, a population survey with a relatively small statewide sample would not provide very precise estimates for subpopulations within the state.
- **Ability to monitor change over time:** Some data sources are more consistent than others from year to year in terms of what is measured and how it is measured. In addition, some surveys produce estimates with smaller margins of error, meaning that observed year to year changes are more likely to be statistically significant.
- **Breadth of relevant topics included:** Some data sources collect information on a range of topics that are relevant to this project, while others are more limited in this regard.

One potential advantage of a data source that covers a wider range of topics is that the same data source could be used for multiple measures of health reform impact, reducing the likelihood of inconsistencies caused by using different data sources for different measures.

- **Depth of relevant topics included:** Some data sources collect more detail than others on relevant topics for this project. With regard to health insurance coverage, for example, in addition to knowing if people are insured it is also important to know what type of coverage they have.

Since no single data source is uniformly strong across all of the assessment criteria, identifying the "best" data source for each measure involves weighing the strengths and weaknesses of the different data sources.

Report Overview

The remainder of this report is organized as follows:

- Chapter 2 focuses on **insurance coverage**, describing recommended measures and data sources for monitoring the ACA's impacts;
- Chapter 3 presents recommended measures and data sources for monitoring the ACA's impacts on **affordability and comprehensiveness** of coverage;
- Chapter 4 is devoted to the measures and data sources relating to monitoring the ACA's impacts on **access to care**;
- Chapter 5 summarizes the **gaps in existing data** for monitoring the ACA's impacts;
- Chapter 6 discusses options for **presenting the data**, and key considerations for ensuring that users can easily access and understand the information.

The appendices include detailed descriptions of the data sources that we reviewed, our assessment of the relative strengths and weaknesses of the data sources, and a list of the key informants that we interviewed as part of this project.

2. Insurance Coverage

A key focus of the ACA is to increase the number of Americans who have health insurance by expanding public program eligibility and making changes to improve the affordability and accessibility of private health insurance. Major provisions of the law related to insurance coverage include Medicaid expansion to 138% of federal poverty guidelines[2], premium credits and cost sharing subsidies for individuals and families with incomes between 139 and 400% of federal poverty guidelines, the creation of insurance exchanges, a requirement for most people to have health insurance, a guarantee that people cannot be turned down for coverage by health plans or have their coverage canceled retroactively, and penalties for mid-sized and large employers that don't offer insurance. These policy changes will not only increase the number of people with health insurance, but will also cause shifts in how and where people get covered. For this reason, monitoring changes in insurance coverage is key to measuring the impacts of reform.

In this chapter, we describe recommendations for five types of measures for monitoring trends in insurance coverage. These include:

- Measures that provide an overview of the "big picture" of health insurance coverage trends;
- Measures that track issues related to uninsurance;
- Measures that relate to specific policy concerns about public coverage;
- Measures that provide a deeper look at the issues related to employer-sponsored coverage; and
- Measures related to enrollment in the health insurance exchange.

Table 1 summarizes the recommended measures related to insurance coverage. Where possible, it will be useful to track these measures by characteristics such as age, income, race/ethnicity, and geographic region within California.

Recommended Insurance Coverage Measures

Overview of Health Insurance Coverage

The ACA's provisions to reduce uninsurance include strategies to expand both public and private coverage. In addition to knowing how many people have coverage overall, it will be important to know what types of coverage they have and how the sources of coverage change over time. This proposed measure describes the distribution of coverage in five major categories: employer-sponsored insurance; nongroup (individually purchased) insurance; Medicare; state programs (Medi-Cal, Healthy Families, and other state/local coverage sources); and uninsurance.

Uninsurance

In addition to knowing how the overall uninsurance rate for California's population changes over time, our recommendations include metrics that will be useful for monitoring the dynamics of uninsurance (e.g., short-term vs. long-term uninsurance), the reasons for uninsurance, and compliance with the requirement to have coverage (also referred to as the "individual mandate"). The metrics that we recommend for these purposes include the following:

Uninsured at a point in time. Uninsurance at a point in time (e.g., at the time of the interview in survey data) provides a snapshot of how many people are currently without insurance.

Uninsured at some point in the past year: This measure of uninsurance includes everyone who had any period of uninsurance in the past year. By definition, this metric includes more people than a point-in-time measure of uninsurance and is useful as an indicator of the size of the total population directly affected by uninsurance in a given year.

Uninsured for a year or more. People who have been uninsured for a year or more likely face different barriers to obtaining coverage than people who have intermittent coverage. It will be important to understand what proportion of the uninsured population consists of "long-term" uninsured and how this dynamic changes with ACA implementation.

Reasons for uninsurance. With full implementation of the ACA, it will be important to understand the reasons for uninsurance among the remaining uninsured population and how these reasons change over time. For example, an increase in the percentage of people who indicate they are uninsured because of difficulty enrolling in public programs or because of cost could be indicators of ways in which the ACA is not working as intended.

Number of people exempt from coverage mandate, by reason: This measure serves two purposes. First, it is an indicator of the sustainability of the coverage expansions that are a main goal of the ACA: if premium costs continue to rise more rapidly than incomes, the number of people exempt from the mandate for affordability reasons will increase over time. In addition, tracking the number of people who are exempt from the mandate will also provide insight into the potential for adverse selection in private insurance markets, since success of many of the ACA's provisions related to private insurance depends on high participation in insurance risk pools.

Number of people that pay the tax penalty for not purchasing coverage. In addition to exemptions from the individual mandate, people could choose not to obtain coverage and pay a penalty instead. The size of this group has implications for the sustainability of the ACA's private insurance market reforms, as well as the law's progress toward achieving the goal of near-universal health insurance coverage.

Public Coverage

With full implementation of the ACA, public programs will expand to cover new populations, and enrollment is expected to increase dramatically. States must implement new Medicaid and CHIP enrollment and eligibility procedures and coordinate Medicaid enrollment processes with the health insurance exchanges. We recommend three measures that are specifically related to public coverage (including Medi-Cal and Healthy Families; if California chooses to establish a Basic Health Plan for people with incomes from 139 to 200% of federal poverty guidelines, this program should be included as well). The recommended measures include:

Enrollment trend in state public programs. Enrollment in state public insurance coverage is expected to expand dramatically as a result of the ACA, and it will be important to monitor enrollment trends over time. This measure will be useful to understanding the law's impact on health insurance coverage for low-income populations, as well as sustainability of the law in terms of its impact on public budgets.

Participation rate. This is a measure of the percentage of people eligible for public coverage who are actually

Table 1. **Summary of Recommended Insurance Coverage Measures**

TOPIC	MEASURE
Overview	Insurance coverage distribution
Uninsurance	Uninsured at a point in time
Uninsurance	Uninsured at some point in the past year
Uninsurance	Uninsured for a year or more
Uninsurance	Reasons for uninsurance
Uninsurance	Number of people exempt from coverage mandate, by reason
Uninsurance	Number of people that pay the tax penalty for not purchasing coverage
Public coverage	Enrollment trend in state public programs
Public coverage	Participation rate (% eligible who are enrolled)
Public coverage	Churning (% leaving public coverage who re-enroll within 3 months)
ESI	Percent of employers offering coverage
ESI	Percent of workforce in firms that offer coverage
ESI	At employers offering coverage, % of workers eligible
ESI	Take-up rate (% of eligible employees enrolled)
ESI	Percent of families with any ESI offer
ESI	Percent of families offered ESI with all family members enrolled
ESI	Number of employers that pay the penalty for not offering coverage
Health insurance exchange	Number of people purchasing nongroup coverage through the exchange
Health insurance exchange	Number of businesses and people with group coverage through the exchange

Source: State Health Access Data Assistance Center

enrolled. If the ACA coverage expansions are effective at reaching their target populations, the participation rate in public programs should increase. This measure should be tracked separately for different population groups in order to understand which groups have low participation rates and to identify strategies for increasing participation.

Churning of public program enrollment. There are several different ways of measuring public program coverage stability – the most common of these focus on continuity of coverage over time, gaps in coverage, frequency of transitions, and transitions between public programs.[3,4] Some transitions in and out of public coverage are expected and appropriate, as people's life circumstances change (e.g., gaining and losing jobs). For purposes of monitoring the ACA's impact on stability of coverage in public programs, we recommend measuring the percentage of people leaving public coverage who re-enroll within three months. It will be helpful to track this measure separately for key population groups if possible (e.g., single adults, families with children).

Employer-Sponsored Insurance (ESI)

Maintaining and expanding the role of employer-sponsored health insurance is another of the ACA's core strategies for reducing the number of uninsured. The ACA includes tax subsidies for certain small firms that offer insurance, and the law makes substantial changes to insurance regulation that are intended to make health insurance more affordable. In addition, firms with more than 50 employees may be subject to financial penalties if they do not offer health insurance. Trends in ESI coverage will be key indicators of the impact of the ACA, and these trends should be monitored separately by firm size (monitoring by industry and wage level may also be of interest). It will be important to understand how the availability of ESI is changing, and how both employee and dependent ESI coverage are affected. In addition, it will be important to monitor the overall level of ESI coverage as a potential indicator of the sustainability of the ACA reforms: If ESI continues to erode as it has over the past decade, an increasing number of people will be eligible for public coverage or for subsidies through the insurance exchange, raising the cost to the state and federal government. Key ESI coverage measures to track include the following:

Percent of employers offering coverage. This measure is a useful indicator of employers' decisions about whether to offer health insurance benefits. Many factors influence this decision, and while some employers may drop health benefits, others are likely to begin offering health benefits in response to the ACA. Overall, it is expected that the level of ESI will be roughly stable compared to what it would have been without reform.[5]

Percent of workforce in firms that offer coverage. Because large employers are much more likely to offer health insurance than small ones, the percentage of people who work at an employer that offers coverage is larger than the percentage of firms offering coverage. Both measures are meaningful and relevant as indicators of ESI availability.

*At employers offering coverage, percent of workers eligible.*In addition to deciding whether to offer insurance, employers also set policies about who is eligible to enroll. The ACA's employer penalties apply only to full-time employees, defined as employees working 30 or more hours per week. The ACA could affect employer decisions about employment and insurance eligibility. To understand the law's impact on access to ESI, it will be important to understand any changes in who is eligible to participate.

Percent of eligible employees who enroll in coverage (i.e., take-up rate). Eligible employees' decisions about whether to sign up for coverage are another key indicator that should be monitored. It is expected that take-up rates will increase as a result of the individual mandate,[6] but it will be important to monitor this issue over time.

Percent of families with any ESI offer. The ESI measures listed above are all firm or employee-level measures. While these measures are very valuable, trends in ESI coverage should also be monitored for families since about half of people who have ESI are covered as dependents.[7]

Percent of families offered ESI with all family members enrolled. In addition to understanding trends in availability and take-up of ESI by employees, it will also be important to understand these issues at the family level. Although almost all employers that offer ESI also make dependent coverage available,[8] the ACA could have an impact on employers' decisions to do so going forward. In addition, the ACA might influence family ESI take-up in a variety of ways and in either direction – for example, the take-up rate would decrease if more people who have access to ESI are also eligible for free coverage through public programs, or it might increase if the individual mandate encourages more families to sign up for dependent ESI coverage.

Number of employers that pay the penalty for not offering coverage. There is substantial debate over the likelihood that employers will respond to the ACA's coverage reforms by dropping health insurance benefits for their employees.[9] If more employers than expected choose to pay the penalty and not offer health insurance to their employees, more people than anticipated will be eligible for public coverage or premium and cost sharing subsidies in the health insurance exchanges; in turn, the cost to both the federal and state governments will be higher than expected. For this reason, it will be important to monitor trends in this measure.

Health Insurance Exchange

The health insurance exchange plays a key role in the ACA's coverage reforms, both as a vehicle for subsidies to individuals and employers and as a means of organizing the market and making it easier for individuals and employers to shop for coverage. Monitoring the use of the exchange will help determine how well these strategies are working. Measures in this area include:

Number of people with nongroup coverage purchased through the exchange. This measure should be used to track both the total people covered through the exchange (number of people and percentage of the entire nongroup market), and the totals for subsidized and non-subsidized coverage separately. The total for subsidized coverage will be useful in identifying the degree to which people who are eligible for subsidies are taking advantage of them, while the total for non-subsidized coverage will be an indicator of the exchange's success at making it easier to understand and purchase health insurance.

Number of businesses and workers with group coverage through the exchange. Similar to the measures for nongroup coverage, it will be useful to track this measure separately for employers receiving a tax credit through the exchange and those not eligible for the tax credit in order to understand the exchange's effectiveness at reaching the employer population eligible for subsidies as well as the exchange's effectiveness at attracting other employers.

Data Sources for Coverage Measures

For most of the measures related to insurance coverage, population surveys are the preferred source of data. Table 2 illustrates which of the proposed coverage metrics are available from six existing population surveys that are conducted in California: the California Health Interview Survey (CHIS), the Current Population Survey (CPS), the American Community Survey (ACS), the National Health Interview Survey (NHIS), the Medical Expenditure Panel Survey – Household Component (MEPS-HC), and the Survey of Income and Program Participation (SIPP), and Table 3 shows the sample size in California for each of these surveys.[10] See Appendix A for more detailed information about each of the data sources. As shown in Table 2, many of the proposed coverage measures are available from multiple sources.

Figure 7 illustrates the trend and variation in available uninsurance estimates for California from these six surveys, first for all ages, then for adults age 18 to 64 and children under age 18. (With the exception of the CPS, all of the estimates in the figure are point-in-time measures; although the CPS is technically a full-year measure of uninsurance, the reported values are more consistent with a point in time measure.[11]) The uninsurance estimates from CHIS are consistently lower than the estimates from other surveys; it is not unusual, however, for state surveys to have lower estimated rates of uninsurance than the federal surveys.[12]

Table 4 summarizes our recommended data source for each of the coverage measures. Where there is a gap in available data, an asterisk in the table indicates that new data collection is necessary to fill the gap.

Distribution of Coverage and Uninsurance

We recommend using CHIS as the source of measures related to the insurance coverage distribution, dynamics of uninsurance, reasons for uninsurance, and public program participation. We made this choice for several reasons: first, although CHIS does not have the largest sample size in California, it does have a very large sample that enables tracking key measures by region within the state and for subpopulations (such as age and income groups). Among the surveys that include several of the proposed metrics, CHIS has the largest sample size and its data are publicly accessible. Finally, CHIS is a very familiar and widely used source of information on insurance coverage in California. The major drawback to using CHIS to monitor the coverage measures is that it can't be used to compare trends in California to other states or the nation; another is its low response rate compared to the other population surveys.

When comparisons to the nation or other states are needed, we recommend using estimates from NHIS. Unlike the ACS and CPS, NHIS includes several of the proposed measures needed to understand the dynamics of insurance coverage; its sample size of approximately 13,000 Californians each year should be sufficient to make statewide estimates and some subpopulation estimates. Currently, state-level estimates from NHIS are extremely limited,[13] but it is possible to do state-level analysis at a National Center for Health Statistics or Census Bureau Research Data Center once a proposal has been approved by the NCHS.

Public Coverage

For measuring trends in public program enrollment we recommend using administrative data on enrollment in Medi-Cal and Healthy Families from the program administrators, the California Department of Health Care Services (DHCS) and the Managed Risk Medical Insurance Board (MRMIB), respectively.

For measuring participation rates we recommend using data from CHIS in both the numerator (number enrolled) and denominator (number potentially eligible for the program).

Table 2. **Existing Data Sources for Insurance Coverage Measures: Population Surveys**

TOPIC/MEASURE	CHIS	CPS	ACS	NHIS	MEPS-HC	SIPP
OVERVIEW MEASURES						
Insurance coverage distribution, by primary source of coverage	√	√	√	√	√	√
UNINSURANCE MEASURES						
Uninsured at a point in time	√		√	√	√	√
Uninsured at some point in the past year	√			√	√	√
Uninsured for a year or more	√	√		√	√	√
Reasons for uninsurance	√			√*		
Number of people exempt from coverage mandate, by reason						
Number of people that pay the penalty for not purchasing coverage						
PUBLIC COVERAGE MEASURES						
State public program enrollment	√	√	√	√	√	√
Participation rate (% eligible who are enrolled)	√	√	√	√	√	√
Public program churning (% leaving public coverage who re-enroll within 3 months)					√	√
ESI MEASURES						
Percent of employers offering coverage						
Percent of workforce in firms that offer coverage	√				√	√
If employer offers coverage, % of workers eligible	√				√	√
Take-up rate (% of eligible employees enrolled)	√			√	√	√
Percent of families with any ESI offer				√	√	√
Percent of families offered ESI with all family members enrolled				√	√	√
Number of employers that pay the penalty for not offering coverage						

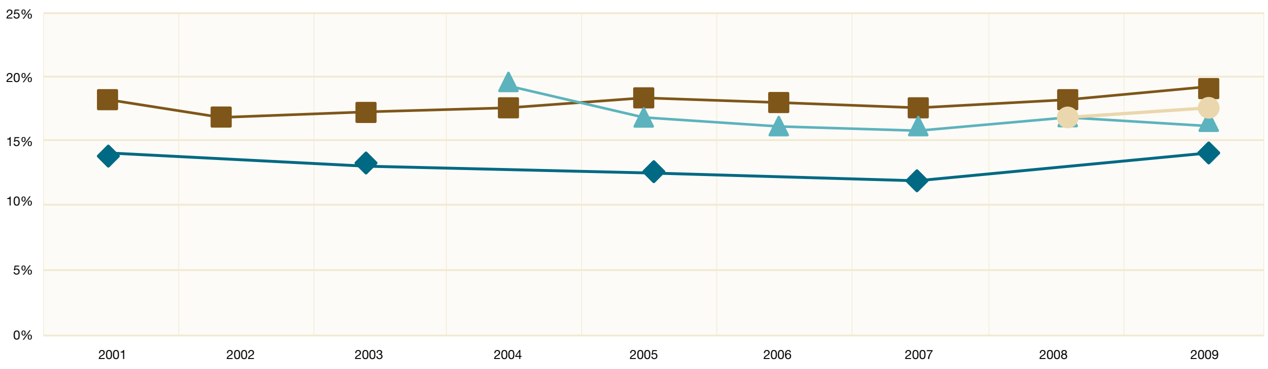
*Reason previous coverage ended

Note: Each of these surveys allows people to report having multiple sources of insurance coverage. Some reports based on these data assign a "primary source of coverage" using a hierarchy of logical rules (e.g., Medicare is always considered primary, followed by ESI, Medicaid, and individual coverage), while others allow for overlap between the sources of coverage. While each approach has its advantages, we recommend using a primary source of coverage approach, which by definition adds to 100% of the population across the different categories.

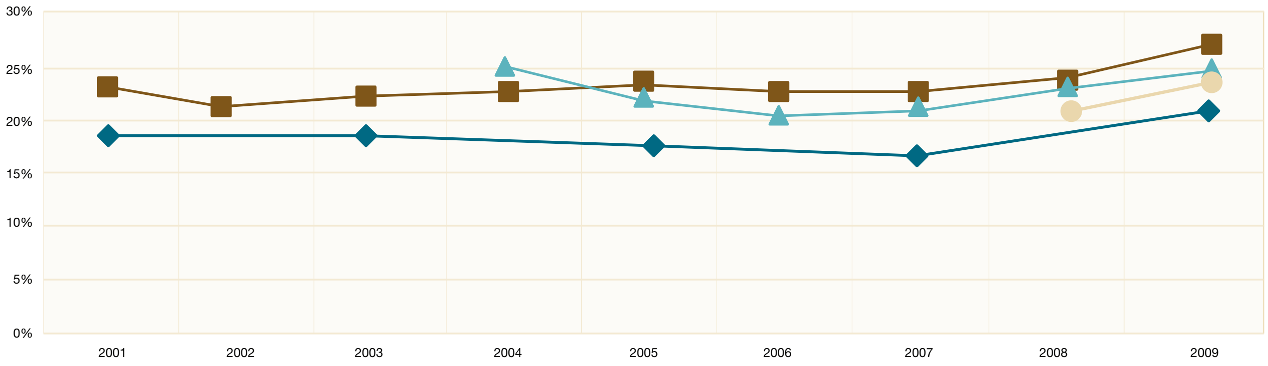
Source: State Health Access Data Assistance Center review of potential data sources

FIGURE 7. Comparison of California Uninsurance Rates from Population Surveys (Point in Time Measures of Uninsurance)

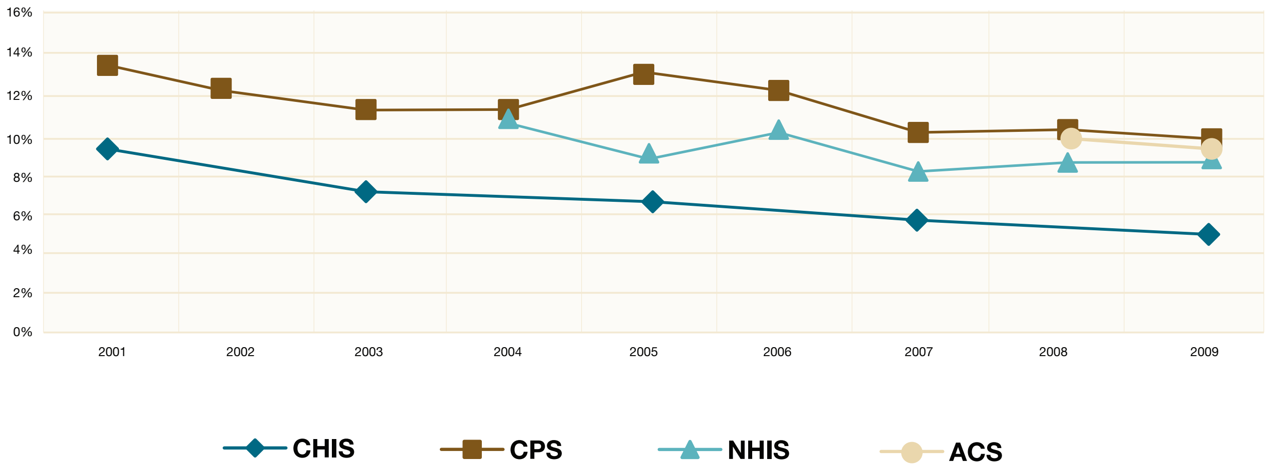
Percent Uninsured – All Ages



Percent Uninsured – Adults Age 18 to 64



Percent Uninsured – Children Under Age 18



Sources: AskCHIS (http://ww.chis.ucla.edu/main/default.asp); SHADAC tabulations from the Current Population Survey (enhanced series) and American Community Survey public use files; National Center for Health Statistics, "Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey" for survey years 2004 through 2009.

Table 3. **California Sample Size in Population Surveys**

SURVEY	YEAR	CALIFORNIA SAMPLE
CHIS	2009	59,938
CPS	2010	20,190
ACS	2009	450,615
NHIS	2004-06 avg.	12,971
MEPS-HC	2004-08 avg.	4,800
SIPP	2009	8,557

NHIS and MEPS HC figures are average annual sample sizes for the time periods shown. For more detail, see Appendix A, "Existing Data Sources for Tracking Health Reform's Impacts"; also see "Monitoring the Impacts of Health Reform at the State Level: Using Federal Survey Data," SHADAC Issue Brief, March 2011.

Source: State Health Access Data Assistance Center comparative analysis of population surveys

Neither administrative data nor survey data is a perfect source for this information. Population surveys commonly underestimate the number of people enrolled in Medicaid and other public programs in comparison to enrollment figures maintained by the agencies that administer these programs, but there are sources of error in each type of data.[14, 15]

Tracking public program churning accurately requires integration of data systems used for enrollment and eligibility in different state programs, since people who transition between programs should not be counted in the churning estimates if they are continuously covered. Although there are several different eligibility determination systems in operation for Medi-Cal and Healthy Families, the Medi-Cal Eligibility Data System (MEDS) maintained by DHCS serves as a single statewide data repository for Medi-Cal and Healthy Families enrollment information. However, MEDS does not currently include information for people enrolled in the Low Income Health Programs (LIHP) administered by counties under California's Section 1115 Medicaid waiver. As a result, a churning measure based only on MEDS would be incomplete. Perhaps more importantly, when the LIHP programs transition to Medi-Cal in 2014 the churning measure based on the more complete data might show changes that are not true changes in the underlying rate of churning. To avoid this problem, it would be preferable to incorporate all Medicaid-related enrollment into the data source used for calculating the churning measure. Given that there may also be significant movement between public coverage and subsidized coverage in the exchange,[16] it may be desirable to develop a churning measure that accounts for these transitions as well.

Employer-Sponsored Insurance (ESI)

Most of the measures related to ESI can be obtained through either the California Employer Health Benefits Survey (CEHBS) or the Medical Expenditure Panel Survey – Insurance Component (MEPS-IC). Figure 8 compares California and national trends in the percentage of employers offering health insurance, the percentage of employees at offering firms who are eligible for health insurance, and the percentage of eligible employees who take up coverage. The most substantial difference between the CEHBS and MEPS-IC estimates for California is in the percentage of employers offering coverage, and this difference is evident for the national estimates as well. The CEHBS (and the national Kaiser Family Foundation/Health Research and Educational Trust (HRET) employer survey that it is based on) produces consistently higher estimates of the percentage of employers that offer coverage than the MEPS-IC. One likely reason for this difference is that the MEPS-IC includes firms of size one or two, which are among the least likely to offer health insurance, while the CEHBS and Kaiser/HRET surveys include only firms with three or more employees.

We recommend using the CEHBS as the source for most of the recommended ESI measures because the data are available in a more timely way than the MEPS-IC estimates and the CEHBS microdata are more accessible. The CEHBS estimates can be compared to national estimates from the Kaiser Family Foundation's annual Employer Health Benefits Survey. If specific comparisons between California and other states are needed, MEPS-IC is a good alternative.

We recommend that NHIS be used as the source of family-level ESI estimates that are not available from CHIS or from employer surveys. Of the three federal surveys that collect this information (see Table 2), NHIS has the largest sample size in California.

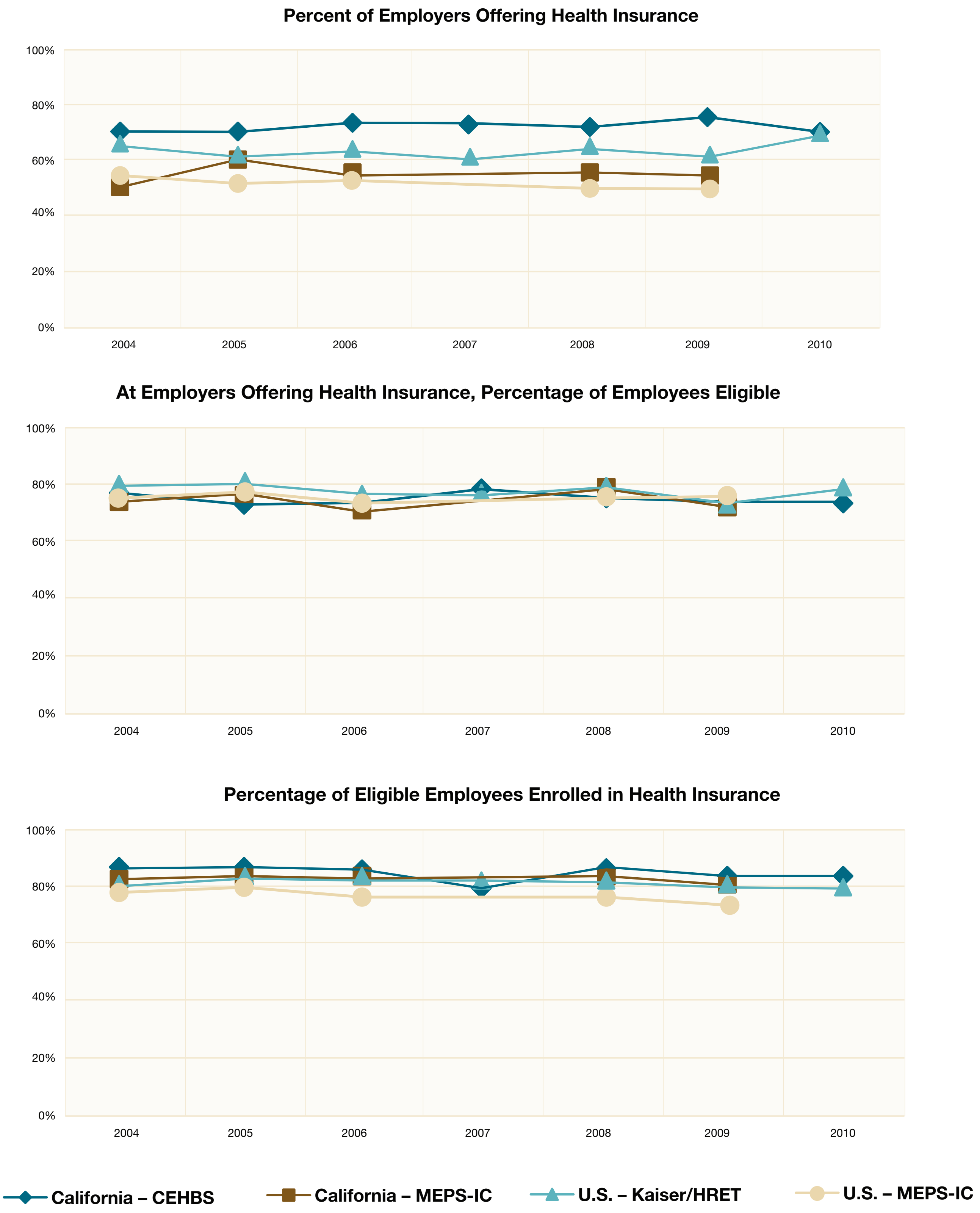
Table 4. **Recommended Data Sources for Coverage Measures**

TOPIC/MEASURE	DATA SOURCE
OVERVIEW MEASURES	
Insurance coverage distribution, by primary source of coverage	CHIS
UNINSURANCE MEASURES	
Uninsured at a point in time	CHIS
Uninsured at some point in the past year	CHIS
Uninsured for a year or more	CHIS
Reasons for uninsurance	CHIS
Number of people exempt from coverage mandate, by reason	Exchange*
Number of people paying the tax penalty for not purchasing coverage	Income tax records*
PUBLIC COVERAGE MEASURES	
State public program enrollment	DHCS and MRMIB
Participation rate (% eligible who are enrolled)	CHIS
Public program churning (% leaving public coverage who re-enroll within 3 months)	DHCS and MRMIB
ESI MEASURES	
Percent of employers offering coverage	CEHBS
Percent of workforce in firms that offer coverage	CEHBS
At employers offering coverage, % of workers eligible	CEHBS
Take-up rate (% of eligible employees enrolled)	CEHBS
Percent of families with any ESI offer	NHIS
Percent of families offered ESI with all family members enrolled	NHIS
Number of employers paying penalty for not offering coverage	CEHBS*
HEALTH INSURANCE EXCHANGE MEASURES	
Nongroup coverage:	
Number purchasing through the exchange	Exchange*
Numbers with and without subsidies	Exchange*
Percent of nongroup market purchasing through the exchange	Insurance regulators/Exchange*
Group coverage:	
Number of employers purchasing through the exchange	Exchange*/CEHBS*
Number of employers receiving tax credit to purchase in exchange	CEHBS*
Employer exchange take-up rate	CEHBS*
Number of workers with group coverage in exchange	CEHBS*
Workers with group coverage in exchange, as % of exchange-eligible employer coverage	CEHBS*

*Requires new data collection

Source: State Health Access Data Assistance Center

FIGURE 8. Comparison of ESI Measures from Employer Surveys, California and U.S.



Percent of Employers Offering Health Insurance

At Employers Offering Health Insurance, Percentage of Employees Eligible

Percentage of Eligible Employees Enrolled in Health Insurance

Sources: California HealthCare Foundation, California Employer Health Benefits Survey chartbooks, 2004 through 2010; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey Insurance Component Tables.

Health Insurance Exchange

For several of the exchange-related measures, the California Health Benefit Exchange will be the source of data. Obtaining this information directly from the exchange will likely be more efficient and reliable than collecting it through surveys. The exchange is responsible for certifying exemptions from the mandate to purchase health insurance coverage, and will also have information about the numbers of individuals and employers purchasing coverage through the exchange and the number of individuals receiving subsidies and the level of subsidies.

Some measures related to the health insurance exchange will require information about the insurance market outside as well as inside the exchange. These include the percent of enrollees in the nongroup market who purchase coverage through the exchange, and the employer exchange take-up rate (defined as the percent of eligible employers offering coverage through the exchange, where "eligible employers" include those that offer fully-insured health coverage and meet the employer size requirements for exchange participation):

- For the nongroup market, information about the size of the total market should be obtained from health plan filings with state regulators; for companies regulated as health care service plans or health insurers, these data are available now but will need to be aggregated from individual health plan reports filed with the California Department of Managed Health Care (DMHC) and the California Department of Insurance (CDI).
- For the employer market, defining the "exchange-eligible" population of employers and workers would be most efficiently done through the CEHBS, although this will require new data collection. In addition, the CEHBS is the recommended vehicle for collecting information about employer tax credits, since this information will not be available to the exchange. At least initially, we suggest cross-checking estimates of the number of employers purchasing coverage through the exchange (the numerator for the employer exchange take-up rate calculation) from the CEHBS with administrative data from the exchange.

3. Affordability and Comprehensiveness of Coverage

Major provisions of the ACA are aimed at increasing the affordability of health insurance premiums while simultaneously ensuring a minimum level of covered benefits and financial protection. With regard to premiums, for example, the ACA provides subsidies for individuals and employers to purchase coverage, establishes limits on premium rate variation, requires review of premium rate increases, and limits the percentage of premiums that can go toward health plan administration and profit. To ensure a minimum level of covered benefits and financial protection, the ACA provides subsidies for enrollee cost sharing for families with incomes below 250% of federal poverty guidelines, establishes a minimum "essential benefits package," requires first dollar coverage of preventive services, and prohibits annual and lifetime limits on benefits.

Balancing these goals of affordability of insurance premiums and comprehensiveness of coverage will be a key indicator of the ACA's success in achieving its goals. This chapter presents our recommendations for measures and data sources to monitor the ACA's impacts on affordability and comprehensiveness of coverage. We recommend four categories of measures:

- Measures of health insurance premiums;
- Measures of public subsidies for premiums and enrollee cost-sharing;
- Measures that address comprehensiveness of coverage; and
- Measures of the financial burden of health care costs.

These measures are summarized in Table 5 and described in more detail below.

Recommended Affordability and Comprehensiveness Measures

Insurance Premiums

Health insurance premiums are one of the most commonly used indicators of health care cost trends. Monitoring trends in health insurance premiums will be important for gauging the

Table 5. **Summary of Recommended Affordability and Comprehensiveness Measures**

TOPIC	MEASURE
Insurance premiums	ESI: Average annual premium for single coverage
Insurance premiums	ESI: Average annual premium for family coverage
Insurance premiums	ESI: Average annual employee contribution for single coverage
Insurance premiums	ESI: Average annual employee contribution for family coverage
Insurance premiums	Nongroup market: Average annual premium per enrollee
Subsidies for premiums and cost sharing	Number of people receiving premium and cost-sharing subsidies in the insurance exchange
Subsidies for premiums and cost sharing	Average value of premium and cost-sharing subsidies in the insurance exchange
Comprehensiveness of coverage	ESI: % distribution of enrollment by benefit level*
Comprehensiveness of coverage	Nongroup market: % distribution of enrollment by benefit level*
Comprehensiveness of coverage	ESI: deductibles for single coverage
Comprehensiveness of coverage	ESI: deductibles for family coverage
Comprehensiveness of coverage	Nongroup market: deductibles for single coverage
Comprehensiveness of coverage	Nongroup market: deductibles for family coverage
Financial burden	Percent of families with high cost burden
Financial burden	"Affordable" premium as a percentage of income

* Benefit level refers to catastrophic, bronze, silver, gold, and platinum levels for actuarial value established by the ACA.

Source: State Health Access Data Assistance Center

impact of ACA's insurance market reforms. We recommend several metrics to monitor trends in premiums for ESI and for the nongroup market:

ESI: Average annual premiums for single and family coverage. This metric would track changes in the average total premium for single and family coverage in the employer-sponsored insurance market. While this measure is very useful for monitoring the premiums actually being paid by employers and individuals, because it is influenced by changes in benefit sets as well as by changes in the underlying cost of care it is not necessarily a good indicator of overall cost trends.

ESI: Average employee contribution for single and family coverage. In addition to monitoring the trend in total premiums for ESI, it is also relevant to monitor the employee share of premiums. Employees make decisions about whether or not to enroll in coverage (and whether to enroll in single or family coverage) based on their own share of the premium. Understanding how increases in employee contributions compare to increases in total premiums will help to track how premium increases are being shared between employers and employees.

Nongroup market: Average annual premium. The ACA reshapes the market for individually purchased health insurance in important ways, and premiums for nongroup coverage will shift as a result. For example, beginning in 2014 insurers will no longer be allowed to vary premiums based on health status or gender, and variations based on age will be limited. In addition, the law's minimum loss ratio requirements, the requirement for first-dollar coverage for preventive services, and the design of an essential benefit set are all likely to affect the cost of coverage in the nongroup market. Finally, the composition of the population buying coverage in the nongroup market will also shift. Monitoring trends in nongroup market premiums will be important to understanding the impacts of the law on affordability of coverage in this market segment.

Subsidies for Premiums and Cost Sharing

Within the health insurance exchanges that will be set up in every state under the ACA, people with incomes at or below 400% of federal poverty guidelines will be eligible for sliding scale subsidies to buy coverage. In addition, people with incomes at or below 250% of poverty will be eligible for subsidies to offset enrollee cost sharing requirements (effectively increasing the actuarial value of the plan). Measures of the number of people receiving premium and cost sharing subsidies, as well as the average value of these subsidies, will be indicators of the level of public resources required to support access to coverage that is deemed "affordable" under the ACA and the sustainability of this commitment. Specific measures include:

Numbers of people receiving premium and cost sharing subsidies through the exchange. In addition to aggregate measures for premium and cost sharing subsidies, it will be useful to track these indicators by income range (the subsidies will be calculated using income ranges specified in the law) and to track what benefit levels are being purchased by people who receive the premium subsidies.

Average value of premium subsidies, and average value of cost sharing subsidies in the exchange. Similar to the measures of the number of people receiving subsidies, it will be useful to track the value of the premium and cost sharing subsidies by income range. The premium subsidy is the difference between the cost of the second lowest priced "silver" plan available to an individual through the exchange and the individual's premium contribution determined based on family income. The cost sharing subsidy, which applies only to people with family incomes at or below 250 percent of poverty and is available only to those who purchase the silver level of coverage in the exchange, includes both an increase in the plan's share of covered benefits and a decrease in the enrollee's maximum annual out of pocket cost; the amount of the cost sharing subsidy varies by income ranges specified in the law.

Comprehensiveness of Coverage

Although premiums are an important factor in determining affordability of health care, in recent years enrollee cost-sharing has played a growing role. For example, the percentage of California workers with employer-sponsored preferred provider organization (PPO) coverage who had an annual deductible of $500 or more increased from 15% in 2000 to 34% in 2010.[17] Measures of enrollee cost-sharing that we recommend to monitor trends in comprehensiveness of coverage include the following:

Distribution of enrollment by benefit level (ESI and nongroup markets). The four benefit levels established by the ACA – bronze, silver, gold, and platinum – correspond to actuarial values of 60%, 70%, 80%, and 90%, respectively.[18] (In addition, a "catastrophic" product will be available on a limited basis.) Because the actuarial value measure incorporates all facets of enrollee cost-sharing into a single measure, it is comparable across plans. The distribution of products being purchased in the nongroup and employer markets by benefit level will therefore be a useful indicator of changes in comprehensiveness of coverage at a population level over time. Ideally, this measure would include coverage purchased both inside and outside of the exchange, and it would allow for comparison of benefit sets being purchased inside and outside the exchange. The ACA does not require that health plans purchased outside the exchange be structured according to the defined benefit levels, but California's health insurance exchange law does establish this requirement for all state-regulated health insurance products beginning in 2014.[19]

Deductibles for individual and family coverage (ESI and nongroup markets). In addition to population-level measures of comprehensiveness of coverage such as actuarial value, it will be useful to monitor individual-level measures. Although the deductible is a less complete measure of comprehensiveness of coverage than actuarial value, it is meaningful from the perspective of an individual or employer because it is unambiguous and does not depend on individual circumstances. Deductibles are a fairly standard feature of enrollee cost sharing, while other features vary quite a bit across plans (e.g., copayments versus coinsurance, cost sharing requirements that vary by type of service received). Because deductibles are relatively easy to understand and easy to compare across policies, they are often used as a proxy for comprehensiveness of coverage. This measure should allow for comparison of benefit sets being purchased inside and outside the exchange. In addition to tracking the average level of deductibles over time it will be helpful to track the distribution of deductibles (for example, the percentage of people in plans with a deductible of $0, $1 to $500, $501 to $1,000, etc.) to better understand shifts over time.

Financial Burden

A central goal of the ACA is to increase access to health insurance coverage that is both affordable and comprehensive enough to provide meaningful financial protection for the cost of health care. Measures of the burden of health care costs on families will provide a useful gauge of progress toward this goal. The measures we recommend in this area include:

Percent of families with high cost burden. In addition to monitoring premiums and comprehensiveness of coverage separately, a measure that tracks the total financial burden of premiums and out-of-pocket spending will be needed to provide a fuller picture of trends in the financial burden of health care costs. There is no objective standard for what constitutes a "high" burden, but one common measure is the percentage of families whose total premiums plus out-of-pocket spending for health care exceeds 10% of family income.[20, 21]

"Affordable" premium contributions as a percentage of income. People with incomes below 400% of poverty who buy coverage through the insurance exchange will contribute a certain percentage of their income for premiums (as determined on a sliding scale), and will be eligible for federal subsidies to cover the difference between the total premium and their required contribution. Over time, however, the sliding scale for premium contributions will be adjusted upward, increasing the required percentage of income that these families pay for insurance. To measure how this financial burden changes over time we recommend tracking the level of premium contribution deemed "affordable" as a percentage of family income (at specified income levels) over time.

Data Sources for Affordability and Comprehensiveness Measures

Table 6 illustrates which of the proposed measures of affordability and comprehensiveness are currently available from population and employer surveys. See Appendix A for more detailed information about each of these data sources.

Our recommendations for data sources to monitor the affordability and comprehensiveness measures are summarized in Table 7. Where there are gaps in available data, an asterisk in the table indicates that new data collection is necessary to fill the gaps.

Insurance Premiums

Although several federal population surveys (NHIS, MEPS-HC, and SIPP) include questions about individuals' contributions to ESI, one of the primary goals of the ESI measures is to track trends in total premiums and employee share of the premiums in a comparable way. For this reason, we recommend obtaining the information about premium trends for ESI from an employer survey.

Figure 9 compares recent trends in total premium and employee share of premium for both single and family coverage from the CEHBS and MEPS-IC, with national comparisons. Although the trends are similar between California and the United States and across the surveys, the CEHBS finds total premiums in California that are consistently higher than the U.S. total from the Kaiser/HRET survey, while the MEPS-IC estimates show California more similar to the national average (and slightly below it). At the same time, the CEHBS estimates of employee contribution are lower than the Kaiser/HRET and MEPS-IC estimates for single coverage, and about the same as these other surveys for family coverage.

Because the CEHBS estimates are more timely and the data are more accessible, we recommend using the CEHBS for monitoring the ESI affordability and comprehensiveness measures; the Kaiser/HRET survey is a good source for

Table 6. **Existing Data Sources for Affordability/Comprehensiveness Measures**

	POPULATION SURVEYS				EMPLOYER SURVEYS	
TOPIC/MEASURE	**CHIS**	**NHIS**	**MEPS-HC**	**SIPP**	**CEHBS**	**MEPS-IC**
INSURANCE PREMIUMS:						
ESI: Total premium						
Single coverage					√	√
Family coverage					√	√
ESI: Employee contribution to premium						
Single coverage		√	√	√	√	√
Family coverage		√	√	√	√	√
Nongroup coverage: Premium per enrollee		√	√			
SUBSIDIES FOR PREMIUMS AND COST SHARING:						
Number of people receiving premium subsidies in the exchange						
Number of people receiving cost sharing subsidies in the exchange						
Average value of premium subsidies in the exchange						
Average value of cost sharing subsidies in the exchange						
COMPREHENSIVENESS OF COVERAGE:						
ESI: enrollment by benefit level						
Nongroup coverage: enrollment by benefit level						
ESI:						
Average deductible for single coverage					√	√
Distribution of deductibles for single coverage					√	√
Average deductible for family coverage					√	√
Distribution of deductibles for family coverage					√	√
Nongroup coverage:						
Average deductible per enrollee						
Distribution of deductibles per enrollee						
FINANCIAL BURDEN:						
Percent of families with high cost burden		√	√	√		
"Affordable" premium contributions as a percentage of income						

Source: State Health Access Data Assistance Center review of potential data sources

Table 7. **Recommended Data Sources for Affordability/Comprehensiveness Measures**

TOPIC/MEASURE	DATA SOURCE
INSURANCE PREMIUMS:	
ESI: Total premium	
Single coverage	CEHBS
Family coverage	CEHBS
ESI: Employee contribution to premium	
Single coverage	CEHBS
Family coverage	CEHBS
Nongroup coverage: Premium per enrollee	Insurance regulators*
SUBSIDIES FOR PREMIUMS AND COST SHARING:	
Number of people receiving premium subsidies in the exchange	Exchange*
Number of people receiving cost sharing subsidies in the exchange	Exchange*
Average value of premium subsidies in the exchange	Exchange*
Average value of cost sharing subsidies in the exchange	Exchange*
COMPREHENSIVENESS OF COVERAGE:	
ESI: enrollment by benefit level	Exchange*/Insurance regulators*
Nongroup coverage: enrollment by benefit level	Exchange*/Insurance regulators*
ESI:	
Average deductible & distribution of deductibles for single coverage	Exchange*/CEHBS
Average deductible & distribution of deductibles for family coverage	Exchange*/CEHBS
Nongroup coverage:	
Average deductible and distribution of deductibles per enrollee	Exchange*/Insurance regulators*
FINANCIAL BURDEN:	
Percent of families with high cost burden	MEPS-HC
"Affordable" premium contributions as a percentage of income	Exchange*

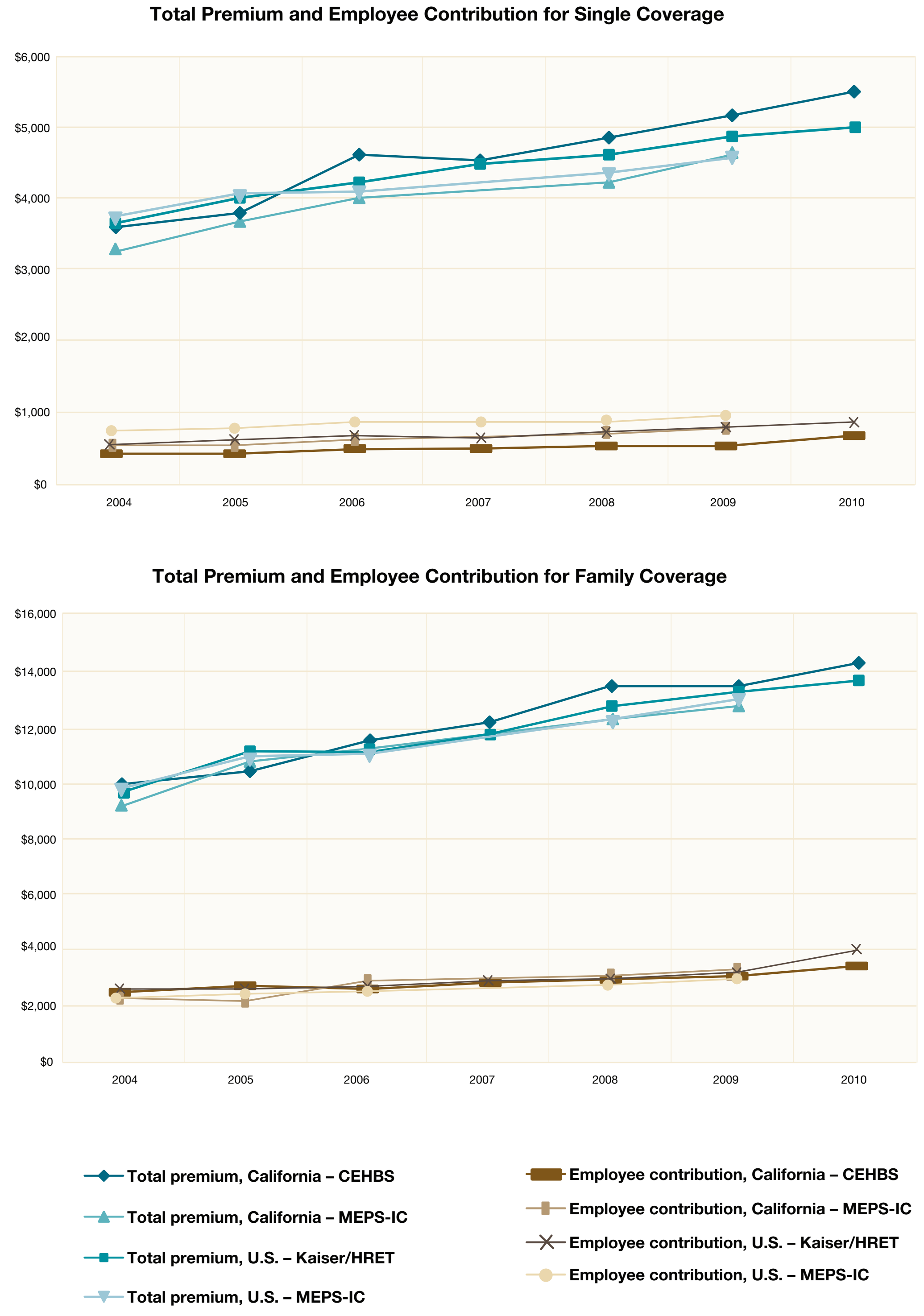
*Requires new data collection

Source: State Health Access Data Assistance Center

national comparisons, and MEPS-IC is a good alternative when comparisons between California and other states are needed.

For the nongroup health insurance market, we recommend using information from reports filed with insurance regulators. In contrast to the ESI measures, for the nongroup market much less information about premiums and comprehensiveness of coverage is available from surveys. Although some of the federal population surveys ask people about how much they pay for nongroup coverage, none collect information about deductibles; furthermore, it is unclear how reliable these self-reported cost data are. Much of the necessary information for tracking premiums in the nongroup market will likely be available from filings required for compliance with the ACA. For example, forms developed by the National Association of Insurance Commissioners (NAIC) to enforce the minimum medical loss ratio (MLR) provisions of the ACA include annual summary-level information about premiums and enrollment in the individual, small employer, and large employer markets. In addition, California's new premium rate review law requires health insurers and health care service plans to file information about enrollment and premiums for each product when they propose a premium change; this information could be matched to information about product

FIGURE 9. Employer Survey Estimates of Total Premiums and Employee Contributions, California and U.S.



Sources: California HealthCare Foundation, California Employer Health Benefits Survey chartbooks, 2004 through 2010; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey Insurance Component Tables.

characteristics (e.g., deductibles) to track trends in affordability and comprehensiveness of coverage by product type across the market. This source of information is essential for tracking trends in nongroup coverage; although it would also be useful for tracking trends in group markets, only an employer survey such as the CEHBS can capture trends in group market as a whole, because such a large share of the employer-sponsored insurance market is in self-funded plans that are not subject to state regulation.

Subsidies for Premiums and Cost Sharing

The measures related to subsidies for premiums and cost sharing should be monitored using data from the exchange. These include the numbers of people receiving premium and cost sharing subsidies, the average value of premium subsidies (by income), and the average value of cost sharing subsidies (by income).

Comprehensiveness of Coverage

Ideally, the measures for enrollment by benefit level would be tracked separately within the exchange as well as for the entire market. For both ESI and nongroup coverage, the exchange will be a useful source of information about the distribution of enrollment by benefit level for coverage purchased through the exchange. As noted earlier in this chapter, California's health insurance exchange law requires all state-regulated health insurance products to conform to the benefit level categories established by the ACA. Thus, it should be possible to monitor market-wide trends in benefit levels in California, at least for the fully-insured market. Monitoring this measure on a market-wide basis may require special data collection by insurance regulators for plans purchased outside the exchange. The ability to track this measure across the entire ESI market (including self-insured plans as well as fully-insured plans) will depend on the degree to which self-insured plans adopt these categories as a way to describe comprehensiveness of coverage; if it becomes common for self-insured plans to do this, then this measure could eventually be monitored for the ESI market as a whole using the CEHBS.

For monitoring trends in deductibles, we recommend using information from the exchange (ESI and nongroup markets), information from filings with insurance regulators for the nongroup market outside of the exchange, and the CEHBS for the ESI market as a whole.

Financial Burden

To measure the percentage of families with a high cost burden, we recommend using the MEPS-HC as the data source. Although two other federal surveys – NHIS and SIPP – also include questions about premiums and out-of-pocket spending, the MEPS-HC is considered the "gold standard" for out of pocket spending because the information that it collects is extremely detailed, while the other surveys have a single question about out of pocket cost. Finally, the measure on "affordable" premium contribution as a percentage of family income will be readily available from the exchange.

4. Access to Care

While expanded insurance coverage, improved affordability, and more comprehensive benefits are crucial steps toward the ACA's ultimate goal of better access to needed health care services, insurance coverage by itself does not ensure access to services. The ACA includes provisions aimed at ensuring adequate access to services (e.g., increased funding for Federally Qualified Health Centers (FQHCs), higher payment rates in Medicaid for primary care providers, and improved workforce training and development) and provisions to encourage more efficient use of existing resources (e.g., payments for coordinated care); however, meeting the needs of millions of newly insured people is expected to be a significant challenge. For this reason, it is important to closely monitor trends in access to health care services.

This chapter presents our recommendations for measures and data sources that can be used to monitor trends in access to care. We recommend four categories of access measures:

- Measures of service use;
- Measures of barriers to care;
- Measures of access at a system level; and
- Measures related to the safety net.

For all of the measures of access to care, it is particularly important that the measures be monitored by subgroups such as insurance type, income and race/ethnicity to identify disparities in access. In addition, these measures should be tracked at the regional or local level where possible, since local conditions have a strong influence on access to care. Table 8 summarizes the recommended measures to monitor access.

Recommended Access to Care Measures

Use of Services

Monitoring trends in use of services will be particularly important among population groups that are the main focus

Table 8. **Summary of Recommended Access to Care Measures**

TOPIC	MEASURE
Use of Services	Percent of people with a usual source of care
Use of Services	Type of place for usual source of care
Use of Services	Percent of people who have had a doctor visit in the past year
Use of Services	Percent of people with a preventive care visit in the past year
Barriers to Care	Percent of people who forgo needed care
Barriers to Care	Reasons for forgone care
Barriers to Care	Percent of people who were not able to get an appointment in a timely way
Barriers to Care	Percent of people who had difficulty finding a provider that would accept new patients
Barriers to Care	Percent of people who had difficulty finding a provider that accepts their insurance
System-Level Access	Percent of physicians accepting new patients
System-Level Access	Percent of physicians participating in public programs
System-Level Access	Emergency room visit rates
System-Level Access	Ambulatory care sensitive hospital admissions
System-Level Access	Preventable/avoidable emergency room visits
Safety Net	Volume and type of services provided by safety net clinics
Safety Net	Uncompensated care
Safety Net	County indigent care volume and cost

Source: State Health Access Data Assistance Center

of the ACA's coverage expansions, but is also relevant for the population as whole for two reasons: first, the ACA's changes to private insurance coverage (e.g., first-dollar coverage for preventive care) will affect a large segment of the population with existing coverage; and second, to the degree that increased demand for services causes problems accessing care, the entire population may be affected. We recommend three measures that are commonly used to gauge individual use of services.

Percent of people with a usual source of care. "Usual source of care" refers to the place or person where an individual typically goes to receive health care services. Usual source of care is a key metric of interest in monitoring ACA, because it is correlated with an individual's general access to the health care system.[22]

Type of place for usual source of care. Among people who have a usual source of care, it will be useful to understand variations in what type of place this is. For example, Medicaid enrollees in California rely heavily on community and public clinics and hospitals as their usual source of care, while people with Medicare and private coverage rely heavily on private doctor's offices and clinics.[23] Understanding this variation and changes over time in where people obtain care will be important to understanding the ACA's impacts on access to care.

Percent of people who have had a doctor visit in the past year. This is a common measure of access, used particularly to highlight and track disparities in access. People with insurance are more likely to report a doctor visit in the past year.[24] Monitoring this measure can provide an assessment of changes in how people are accessing health care services.

Percent of people with a preventive care visit in the past year. There is a substantial amount of research to support the notion that preventive care supports timely intervention for many health conditions. Given the changes in insurance coverage for preventive care and the likely increase in demand for these services by the newly insured under the ACA, it will be important to monitor preventive care use.

Barriers to Care

Another element of access to care is the degree to which people experience barriers to obtaining care. We recommend five measures to monitor individual barriers to obtaining care.

Percent of people who forgo necessary care. Forgone care is an indicator of potential problems with access to care. The trend in this measure, as well as variations across population groups (e.g., insurance type, race/ethnicity, etc.) will be one indicator of the ACA's impact on barriers to receiving necessary care. Some surveys measure the percentage of people who *delay* receiving necessary care either separately or in combination with measures of *forgone* care. Because people delay care for many reasons other than problems with access to the system, for purposes of monitoring how the ACA affects access to needed care we recommend using a measure that includes only forgone care.

Reasons for forgone care. In addition to knowing about the prevalence of access barriers, the reasons why people forgo necessary care should be monitored over time.

Percent of people who were not able to get an appointment in a timely way. In addition to tracking the number of people who forgo necessary care, it will be important to monitor specific barriers to receiving timely care given the concern about possible provider shortages under the ACA. This measure can provide information on access problems that are specifically related to system capacity, and should be monitored separately for primary care and specialty care.

Percent of people who have difficulty finding a provider that will accept new patients. Demand for provider services is expected to increase as a result of the ACA. One potential result is an increase in the number of providers that do not accept new patients. This metric can help assess the degree of shortage in the supply of health care providers.

Percent of people who have difficulty finding a provider that accepts their insurance. Over the past decade the number of physicians accepting Medi-Cal has declined, and in 2008 only 57% of physicians reported taking new Medi-Cal patients.[25]

There is concern that this problem will be exacerbated by the post-reform influx of new Medicaid enrollees. This metric can help monitor this specific threat to access to care, and should be monitored by type of insurance.

System-Level Access

Measuring access to care from a system-level perspective provides a broader view on whether there is adequate capacity within the health care delivery system to meet demand. One way to measure system-level access is by assessing the human and physical capital of the system, and another way is to measure events associated with a lack of system capacity. In both cases, the measures will have more value if they are compared with a benchmark level or tracked over time. We recommend five measures that are commonly used to assess system-level access to care. These include:

Percent of physicians accepting new patients. Monitoring physicians that are accepting new patients provides a measure of the system's capacity to meet demand for care. At the baseline, this is especially important in thinking about the capacity to provide care for the post-reform newly insured. We suggest monitoring this by type of insurance coverage and tracking it separately for primary care and specialty care physicians.

Percent of physicians participating in public insurance programs. In California and across the nation, reimbursement rates are substantially lower for public insurance programs than for private insurance. Low reimbursements are likely a key reason why California physicians are less likely to have Medi-Cal patients in their practice than to have Medicare or privately insured patients.[26] With the increase in demand for services that is expected to result from the ACA, there is a need to monitor this aspect of access to care, especially for people with coverage through Medi-Cal or Healthy Families. This measure should be tracked separately for primary care and specialty care.

Emergency room visit rates. Tracking emergency room visit rates by different subpopulations is another system-wide measure useful for monitoring access. While it is useful to track the overall trend in this measure, it is perhaps more useful to monitor disparities in use and how these disparities change over time.

Ambulatory care sensitive hospital admissions. Ambulatory care sensitive admissions are admissions "for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complication or more severe disease."[27] This measure is used as an indicator of access to quality ambulatory care, including preventive and disease management services.

Potentially preventable emergency room visits. Potentially preventable emergency room visits include non-urgent visits, urgent visits for a condition that could have been treated in a physician's office, and urgent visits that could potentially have been prevented with adequate preventive or primary care.[28] One analysis for Massachusetts found that about 40% of total emergency department visits are potentially preventable.[29] If the ACA goal of improving access to appropriate care is met, then there should be a decline in preventable emergency room visits. This measure should be monitored by type of insurance coverage.

The Safety Net

Despite broad coverage expansions under the ACA, there will continue to be a sizable population of uninsured and underinsured individuals. For this population, the safety net – comprised of clinics that provide free or reduced-cost services and hospitals that provide charity and indigent care – will continue to be a primary access point for health care services. However, because safety net providers often see insured as well as uninsured patients, they will likely face increasing demand for services from the newly insured.

Safety net care in California is primarily provided by a mix of hospitals, community health centers and clinics. Counties play a significant role in both the provision and financing of indigent care, and there is substantial variation across counties in eligibility criteria, benefits, and care delivery. The complexity of the safety net makes it challenging to measure detailed aspects of the safety net in a uniform way. We recommend the following three measures to monitor the safety net:

Volume and type of services provided by safety net clinics. Tracking trends in the volume and type of services provided by safety net clinics (including primary care clinics, Federally Qualified Health Centers (FQHCs), FQHC "look-alikes", Rural Health Centers, and county clinics) will help to illustrate the impact of the ACA on the safety net and the population it serves. This measure should be monitored separately by patient income, race/ethnicity, and insurance type.

Uncompensated care. Uncompensated care is the amount of health care services provided to patients who are either unable or unwilling to pay. This measure includes the cost of providing services for which payment was not expected (charity care) plus the cost of providing services where payment was anticipated but not received in part or in full (bad debt). We recommended monitoring uncompensated care for both hospitals (general acute care hospitals only) and clinics. In aggregate, this metric can be used to measure the size of demand for safety net services; it also provides valuable information on where the uninsured and underinsured are receiving care. As the ACA changes the coverage landscape it will be important to track the changing size and flow of uncompensated care.

County indigent care volume and cost. Separate from uncompensated care, it will also be useful to monitor the cost of county programs for indigent care. County indigent care programs are expected to undergo major shifts as a result of ACA implementation (and California's recent Medicaid waiver), but some need for indigent care services provided and financed through counties will remain. This measure would track the number of people served by county indigent care programs and the cost of their care over time.

Data Sources for Access Measures

Table 9 summarizes existing sources of data for the measures related to use of services and barriers to care, while existing data sources for the system-level access and safety net measures are summarized in Table 10. Table 11 summarizes our recommendations for data sources to be used for tracking the access measures. Where there are gaps in available data, an asterisk in the table indicates that new data collection is necessary to fill the gaps.

Use of Services and Barriers to Care

All or most of the use of services measures are included in CHIS, NHIS, and MEPS-HC, while MEPS-HC is the only source for information about forgone care and ability to get an appointment in a timely way.[30] No data are currently available on the percentage of people who have difficulty finding a provider that will accept new patients or that accepts their insurance, but these questions are being added to NHIS in 2011 (see discussion below for limitations related to measuring this indicator for both primary and specialty care).

For the use of services and barriers to care measures we recommend using CHIS where it is available. It may also be worthwhile to add new questions to CHIS for the measures that are not currently included in the survey such as percent of people with a preventive care visit in the past year, percent of people not able to get appointments in a timely way, and percent who have difficulty finding a provider that accepts new patients or accepts their insurance.

Where national comparisons are needed or where data are not available from CHIS, MEPS-HC is the recommended source of data for most of the use of services and barriers to care measures. One exception is that we recommend using the new NHIS questions about difficulty finding a provider; however, the NHIS question about difficulty finding a provider accepting new patients only pertains to primary care, and the question about insurance type does not distinguish between primary and specialty care. To track these measures separately for primary and specialty care, the best option may be to add new questions to CHIS.

System-Level Access

The Medical Board of California collected information on physicians accepting new patients and the distribution of patients by payer in a special supplement to its license renewal survey in 2008, but this information is not being collected on an ongoing basis. Because of concerns about adequate access to physician services, especially for public program beneficiaries, this is an important gap in existing data. If it cannot be filled through an add-on to the Medical Board's licensing survey, options for filling this gap include either a standalone physician survey or matching administrative databases:

- Standalone physician survey: The HSC Health Tracking Physician Survey, a national survey of physicians conducted by the Center for Studying Health Systems Change most recently in 2008, included questions on these topics and could be used as a model.
- Matching administrative databases: For tracking the percent of physicians participating in public programs, it may also be possible to match data from physician licensing files to claims data or participating provider data from Medi-Cal

Table 9. **Existing Data Sources for Individual-Level Access Measures: Population Surveys**

TOPIC/MEASURE	CHIS	NHIS	MEPS-HC	SIPP
USE OF SERVICES				
Percent of people with a usual source of care	√	√	√	
Type of place for usual source of care	√	√	√	
Percent of people with a doctor visit in the past year	√	√	√	√
Percent of people with a preventive care visit in the past year		Children only	√	
BARRIERS TO CARE				
Percent of people who forgo necessary care			√	Adults only
Reasons for forgone care			√	
Percent of people not able to get an appointment in a timely way			√	
Percent of people who have difficulty finding a provider who will accept new patients: Primary care Specialty care		√*		
Percent of people who have difficulty finding a provider that accepts their insurance: Primary care Specialty care		√**		

*Primary care only.

**New question added in 2011 (does not distinguish between primary and specialty care).

Source: State Health Access Data Assistance Center review of potential data sources

Table 10. **Existing Data Sources for Other Access Measures: Administrative Data**

TOPIC/MEASURE	OSHPD PATIENT-LEVEL DATA	OSHPD HOSPITAL AND CLINIC DATA	MEDICAL BOARD OF CALIFORNIA	COUNTY DATA
SYSTEM-LEVEL ACCESS				
Percent of physicians accepting new patients, by payer: Primary care Specialty care			 √* √*	
Percent of physicians participating in public programs: Primary care Specialty care			 √* √*	
Emergency room visit rates	√			
Ambulatory care sensitive hospital admissions	√			
Potentially preventable emergency room visits	√			
SAFETY NET				
Volume and type of services provided by safety net clinics		Partial		
Uncompensated care		Partial		
County indigent care volume and cost				Partial

*These data were collected as part of a special survey supplement in 2008 only.

Note: the OSHPD patient-level data can be compared to estimates from AHRQ's HCUP database.

Source: State Health Access Data Assistance Center review of potential data sources

Table 11. **Recommended Data Sources for Access Measures**

TOPIC/MEASURE	DATA SOURCE
USE OF SERVICES	
Percent of people with a usual source of care	CHIS
Type of place for usual source of care	CHIS
Percent of people with a doctor visit in the past year	CHIS
Percent of people with a preventive care visit in the past year	CHIS*/MEPS-HC
BARRIERS TO CARE	
Percent of people who forgo necessary care	MEPS-HC
Reasons for forgone care	MEPS-HC
Percent of people not able to get an appointment in a timely way	CHIS*/MEPS-HC
Percent of people who have difficulty finding a provider who will accept new patients:	
Primary care	CHIS*/NHIS
Specialty care	CHIS*
Percent of people who have difficulty finding a provider that accepts their insurance: Primary care Specialty care	CHIS*/NHIS**
SYSTEM-LEVEL ACCESS	
Percent of physicians accepting new patients, by payer:	
Primary care	Medical Board of California*
Specialty care	Medical Board of California*
Percent of physicians participating in public programs:	
Primary care	Medical Board of California*
Specialty care	Medical Board of California*
Emergency room visit rates	OSHPD Emergency Department Database
Ambulatory care sensitive hospital admissions	OSHPD Patient Discharge Database
Potentially preventable emergency room visits	OSHPD Emergency Department Database
SAFETY NET	
Volume and type of services provided by safety net clinics	OSHPD Primary Care Clinic data; counties*
Uncompensated care	OSHPD – Hospital Annual Financial Disclosure Report*; Clinics – OSHPD Primary Care Clinic reports, local government operated clinics*
County indigent care volume and cost	Counties*

*Requires new data collection

**NHIS question does not distinguish between primary and specialty care

Source: State Health Access Data Assistance Center

and Healthy Families; however, this would likely be a very difficult task and would still leave a gap in knowledge about providers accepting new patients.

Ideally, these measures of access to providers would also include physician assistants and nurse practitioners, but this may not be practical given existing data sources for these professionals (see Appendix A) and the resources required to collect new data.

We recommend calculating the measures related to emergency room visits, ambulatory care sensitive hospital admissions, and potentially preventable emergency room visits using the patient-level data collected by the California Office of Statewide Health Planning and Development (OSHPD). Estimates for California can be compared to national estimates from the Healthcare Cost and Utilization Project (HCUP) database maintained by the federal Agency for Healthcare Research and Quality (AHRQ). OSHPD already publishes reports on ambulatory care sensitive hospitalizations, based on the widely used prevention quality indicators (PQIs) developed by AHRQ.[31] For purposes of monitoring overall trends it may be most useful to track an overall measure of the total number of hospitalizations across all of the PQIs for populations of interest (e.g., age, race/ethnicity, insurance type). In addition, it may be useful to track summary measures of potentially preventable hospitalizations for acute and chronic conditions separately. Similar analysis could be done using the emergency department database to track ER visits that do not result in hospitalizations but that could have been prevented with adequate access to other outpatient care. Together, the indicators for potentially preventable hospitalizations and ER visits can provide a more comprehensive picture of the adequacy of access to outpatient care than either of these measures alone. To avoid double counting, ER visits that result in a hospitalization should only be counted in the hospitalizations measure.

Safety Net

Data sources related to the safety net measures are problematic due to the fragmentation of the system. Because some hospitals face different state reporting requirements than others, there is no comprehensive and consistent source of information on hospital uncompensated care. Specifically, the Kaiser Foundation hospitals report financial data on a regional basis rather than a hospital-specific basis, and they do not report uncompensated care. This is a significant gap in available data, since the Kaiser hospitals represent about 10 percent of general acute care hospital utilization in California. The preferred way to fill this data gap would be to require that all general acute care hospitals submit the necessary information for monitoring trends in uncompensated care as part of the Hospital Annual Financial Disclosure Reports submitted to OSHPD. Although it may be possible to obtain this information from other sources for the Kaiser Foundation hospitals (for example, from hospital community benefit reports filed with the state, Internal Revenue Service filings required of nonprofit hospitals, or Medicare cost reports), comparability of data obtained from different sources would be a concern.

There are also gaps in available data about safety net clinics. In particular, clinics operated by counties or other local governments are a major source of safety net care but are not included in the data reported to the state. (See Appendix A for a more detailed description of existing data sources.) To fill gaps in available clinic data it would be necessary to collect information from clinics operated by counties and other local governments. The most important data elements to collect would be the volume and type of services provided and uncompensated care (both charity care and bad debt). Presumably, a large majority of clinics operated by local governments participate in Medi-Cal, so information from DHCS on participating providers could be used to generate a reasonably complete list of these clinics; the data collection could be based on the existing Primary Care Clinic reports to OSHPD.

Similarly, there is no existing complete source of information on county-provided indigent care. To fill gaps in information about county indigent care volume and cost, summary data would need to be collected from the 24 counties that do not participate in the County Medical Services Program. See Appendix A for more detail on this data source.

5. Summary of Gaps in Existing Data

An important goal of this project was to identify gaps in existing data sources, and to recommend strategies for filling these gaps so that the impacts of health reform in California can be measured over time. This chapter summarizes the gaps in existing data across our three focus areas of coverage, affordability and comprehensiveness of coverage, and access to care.

With regard to the measures recommended in this report, there are two types of data gaps. Some measures for which data are not currently collected could be tracked by modifying or adding on to existing data collection infrastructures; others, however, cannot be collected until full implementation of the ACA's coverage provisions in 2014. Each of these categories is described in more detail below.

Existing data collection infrastructure

As described in the preceding chapters, the ACA is expected to have wide-ranging impacts on coverage, affordability/comprehensiveness of coverage, and access to care. Understanding its impacts will require new or modified data collection in a number of areas where current data collection infrastructure exists:

- **Private health insurance market trends:** monitoring trends in private health insurance premiums, benefits, and enrollee cost sharing will require new information about both the nongroup and ESI markets. We recommend tracking nongroup market trends using data that health plans submit to regulators, and tracking ESI trends using the CEHBS.
- **System measures of access to care:** The primary data gaps in system-level measures of access to care are the percentage of physicians accepting new patients and the percentage of physicians participating in public programs. As described in Chapter 4, the preferred method of filling this gap would be to add this information to the Medical Board of California's existing re-licensing survey.
- **Use of services and barriers to care:** This report recommends using population surveys to monitor measures of service use and barriers to care. To fill gaps in available data for these measures, the modification or enhancement of CHIS will likely be the best strategy because it currently includes many related questions, has a large sample size in California that enables analysis of subpopulations, and is flexible enough to change content in response to changing data needs.
- **Safety net:** The data gaps that we identified related to the safety net primarily relate to the completeness of existing data, rather than gaps in the type of information that is collected. California has a robust data collection system for safety net clinics and uncompensated care; making these data more complete by ensuring that all relevant entities report this information would enhance the understanding and monitoring of the ACA's impacts in California. In addition, to more fully understand trends in the demand for safety net care, more complete data on county indigent care volume and cost are needed.

Figure 10 summarizes the data gaps in these four areas and the recommended strategies for filling these gaps.

Data that cannot be collected until full ACA implementation

Several of the measures needed to track the impacts of the ACA in California are directly related to new coverage and affordability strategies and requirements included in the ACA, and thus cannot be collected until full implementation of the ACA in 2014. For example, several of our recommended measures for tracking the ACA's impacts on coverage relate directly to the numbers of individuals and employers purchasing coverage through the newly established California Health Benefit Exchange. As California builds the infrastructure needed to operate the exchange, it will be important to keep in mind the data needed to monitor the impact of the ACA in these key areas.

Although the California Health Benefit Exchange will play an important role in helping to fill these data gaps, it is not the only source of data needed to fill the data gaps directly related to new ACA coverage and affordability strategies and requirements. Specifically, information about the nongroup health insurance market and employer-sponsored insurance markets in their entirety (i.e., both inside and outside the exchange) will be needed to help place the data from the health insurance exchange into context. For the nongroup market, we have recommended using data filed by health plans with insurance regulators to provide this "big picture" context; for ESI markets, we recommended using the CEHBS as the source of this information because it is the best source of data that provides a complete picture of both the fully-insured and self-insured segments of this market.

Figure 11 summarizes the data gaps directly related to specific mechanisms and requirements created by the ACA, and our recommended strategies for filling these gaps.

FIGURE 10. Filling Data Gaps: Existing Data Collection Infrastructure

Health Insurance Markets (Exchange and Non-Exchange)	Recommended Data Source
Nongroup Market	
Premium per enrollee Enrollment by benefit level Average deductible and distribution of deductibles per enrollee	Insurance Regulators
ESI Market	
Enrollment by benefit level	Insurance Regulators

System-Level Access	Recommended Data Source
Percent of physicians accepting new patients, by payer – primary care, specialty care Percent of physicians participating in public programs – primary care, specialty care	Medical Board of California

Barriers to Care	Recommended Data Source
Percent of people not able to get an appointment in a timely way*	CHIS/MEPS-HC
Percent of people who have difficulty finding a provider that will accept new patients – primary care, specialty care** Percent of people who have difficulty finding a provider that will accept their insurance – primary care, specialty care***	CHIS/NHIS

Safety Net	Recommended Data Source
Volume and type of services provided by safety net clinics	OSHPD Primary Care Clinic data, counties
County indigent care volume and cost	Counties
Uncompensated care	OSHPD – Hospital Annual Financial Disclosure Report Clinics – OSHPD Primary Care Clinic reports, local government operated clinics

Barriers to Care	Recommended Data Source
Percent of people with a preventive care visit in the past year*	CHIS/MEPS-HC

**Available from MEPS-HC; consider adding to CHIS*
***Measured in NHIS for primary care only; consider adding to CHIS*
****Measured in NHIS without distinction between primary and specialty care; consider adding to CHIS*

FIGURE 11. Data That Cannot Be Collected Until Full ACA Implementation

Health Insurance Exchange	*Recommended Data Source*
Nongroup Coverage	
Number of people purchasing coverage through exchange	Exchange
Percent of nongroup market purchasing through the exchange	Exchange, Insurance Regulators
Number of exchange enrollees with and without subsidies	Exchange
Number of people receiving premium subsidies through the exchange	
Number of people receiving cost-sharing subsidies through the exchange	
Average value of premium subsidies in the exchange	
Average value of cost-sharing subsidies in the exchange	
"Affordable" premium contributions as a percentage of income	
Enrollment by benefit level	
Average deductible and distribution of deductibles per enrollee	
Group Coverage	
Number of employers purchasing coverage through the exchange	Exchange, CEHBS
Number of employers receiving tax credit to purchase in exchange	CEHBS
Number of workers with group coverage in exchange	CEHBS
Employer exchange take-up rate	CEHBS
Workers with group coverage in exchange, as percent of exchange-eligible employer coverage	
Enrollment by benefit level	Exchange
Average deductible and distribution of deductibles for single, family coverage	

ACA Requirements for Individuals and Employers	*Recommended Data Source*
Number of people exempt from coverage mandate, by reason	Exchange
Number of people paying the tax penalty for not purchasing coverage	Tax Records
Number of employers paying the penalty for not offering coverage	CEHBS

6. Presenting and Displaying the Data

The goal of this project is to describe how California can measure and monitor the impact of health care reform. In addition to carefully choosing measures and data sources, it will be important to analyze and present the information in a way that illustrates the impacts to a wide audience including policymakers, the media and the public. Reports, tables, charts and dashboards all deliver information, but simply presenting information doesn't ensure understanding. The following guidelines for presenting and displaying data will help to ensure that the information presented is accessible and understandable:

- The measures and related content should be organized in a way that allows users to easily find information of interest;
- Measures should be presented in a way that highlights key policy-relevant information;
- Users should be able to navigate and view the data in a variety of different formats, such as tables, charts, and maps;
- Finally, users should have access to documentation about the metrics such as the data sources and the analytic methods used for generating each measure.

Potential ways of disseminating information about the recommended measures include chartbooks, fact sheets, issue briefs, and an interactive website. This chapter provides recommendations for presenting the measures using these methods.

Organizing Content

A major challenge for presenting measures to monitor the impact of reform will be organizing the information in a way that guides users to measures of interest. Organizing the information by topic will likely be one of the most useful ways for users to access the information. Although this is an effective way to organize information, it can be challenging to limit the number of topics to a manageable list. Topics should be selected based on the interests and needs of potential users and should take into account any plans for adding new measures in the future. Potential topic groups for this project include:

- Overview
- Health insurance coverage
- Affordability and comprehensiveness of coverage
- Access to care
- Syntheses of the coverage, affordability, and access measures by insurance type (public, ESI, nongroup, and uninsured)
- Analyses for specific population groups (e.g., children, low-income)
- Safety net
- Disparities
- State-to-state comparisons
- Sub-state geographic comparisons
- California compared to the United States

For example, "Overview" could include representative measures across the areas of coverage, affordability and comprehensiveness, and access. Materials available under this topic could highlight the most recently available estimates and include some time trends for key overview measures (e.g., uninsured at point in time) with national comparisons where possible.

A topical section on "disparities" might include measures for which subgroup analyses can be conducted, along with analyses of differences between key groups (e.g., difference between low income and other income groups, differences between white/Caucasian and other racial and ethnic groups). Again, for key measures of interest, these differences could be shown over time to illustrate increasing or diminishing disparities.

Depending on user interest, measures could be selected to highlight impacts of reform on specific subpopulations. For example, a topic could highlight measures of particular concern to child advocates. Topics like this will be limited to measures where sample size permits this level of analysis, but they provide value to users with a particular focus.

Similarly, analysis by geographic area – within-state comparisons, cross-state comparisons, and comparisons of California to the U.S. – will be limited by available data. Many of the recommended measures are not available at geographic areas below the state level, and in some cases the data sources used will not allow for cross-state or national comparisons.

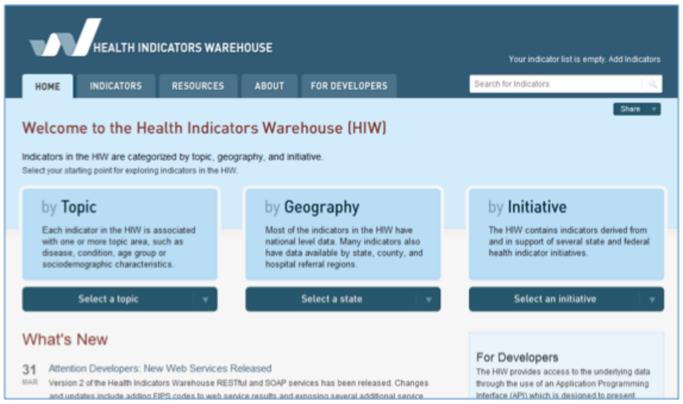
For an interactive website, the organizational structure should present a visitor with a variety of ways to access and view the measures, including the option to view all the measures at once and access subsets of interest via additional navigation points. This two-faceted approach enhances usability for a variety of audiences by showing an easily digestible overview of metrics organized by subgroup while allowing one-click access to the comprehensive list.

Displaying all the measures in one place can provide a good summary of the project as a whole. Given the number of recommended measures, it will be important to keep this display as clean as possible. For example, measures can be displayed in an organized list. From this list, navigation from each measure could allow the user to explore specific estimates including comparative and trend analysis along with subpopulation breakdowns. Alternatively, the list of measures can act as a preview or snap shot by displaying single-year estimates for all measures (without analysis by subpopulation and without comparison groups). These two options—a list with navigation points and a list with single-year estimates— could also be combined by displaying single year estimates with a navigation option that allows for additional display options.

Viewing a long list of measures in one interface can provide a good overview, but it can also be overwhelming. The major navigation of the website should also allow users to view smaller subsets of information derived from the measures. Subsets of interest might include:

- *Measures by **topic** (or theme).* Creating navigation links based on topic is likely the most useful and intuitive way for users to view the measures and related information. Within each topic, there can be overviews, key measures or summary statics, as well as details on each individual measure.
- *Measures by the **data source** from which they are derived.* Creating a main navigation link to content and measures by data source will be helpful for analytic users interested in technical characteristics of the data sources such as collection method, sample size, response rate, etc.
- *Measures that have been r**ecently updated.*** For users seeking the most up-to-date information or those who are tracking the project closely, it might be useful to have a navigation link to measures that have been recently updated.
- *Content by **product type.*** Another useful way of organizing the measures and information related to the measures is by product type. This can help users find static content derived from the measures such as chart books, factsheets, issue briefs, etc. This is particularly helpful for users who are looking for measures and information in a printable form.

Most websites that display data include major navigation points that allow users to access measures and information in a variety of ways. The **Health Indicators Warehouse,** developed by the National Center for Health Statistics, provides users quick access to a full list of measures while also providing links to subsets of interest. The home page allows users to search for metrics by topic, geography, and health indicator initiative. In addition, users can access all indicators at once using the "indicators" tab, which takes them to an interactive interface for viewing specific estimates.



Welcome to the Health Indicators Warehouse (HIW)

Indicators in the HIW are categorized by topic, geography, and initiative.

Select your starting point for exploring indicators in the HIW.

by Topic

Each indicator in the HIW is associated with one or more topic area, such as disease, condition, age group or sociodemographic characteristics.

by Geography

Most of the indicators in the HIW have national level data. Many indicators also have data available by state, county, and hospital referral regions.

by Initiative

The HIW contains indicators derived from and in support of several state and federal health indicator initiatives.

What's New

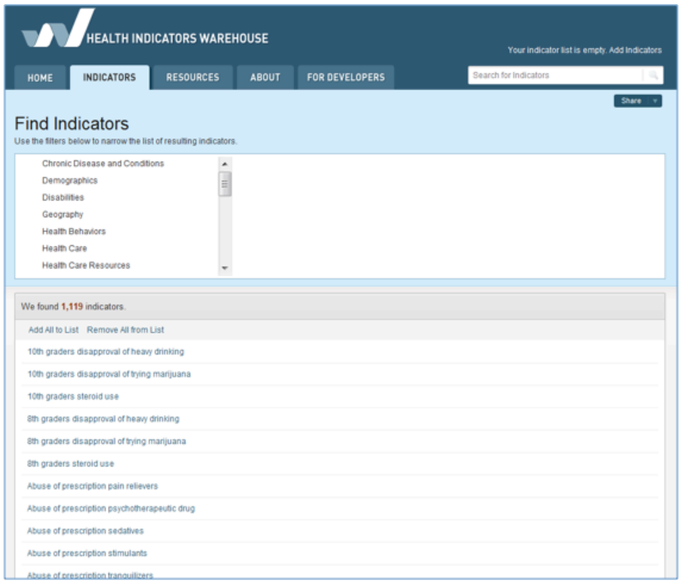
31 MAR Attention Developers: New Web Services Released

Version 2 of the Health Indicators Warehouse RESTful and SOAP services has been released. Changes and updates include adding FIPS codes to web service results and exposing several additional service

For Developers

The HIW provides access to the underlying data through the use of an Application Programming Interface (API) which is designed to present

Source: http://www.healthindicators.gov/



Find Indicators

Use the filters below to narrow the list of resulting indicators.

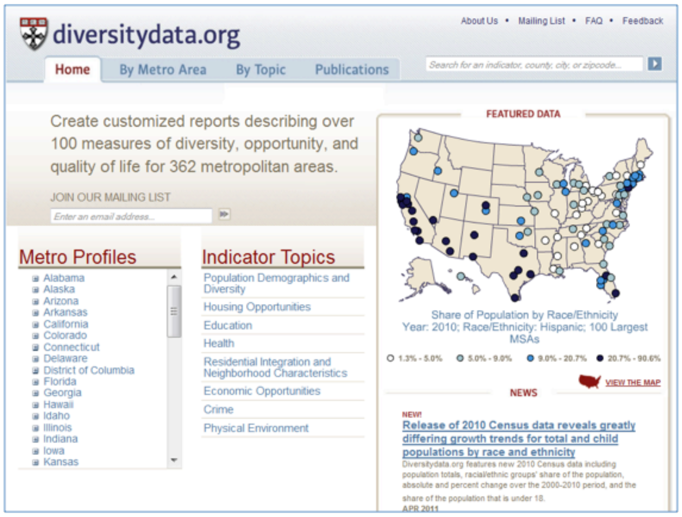
Chronic Disease and Conditions
Demographics
Disabilities
Geography
Health Behaviors
Health Care
Health Care Resources

We found 1,119 indicators.

Add All to List Remove All from List

10th graders disapproval of heavy drinking
10th graders disapproval of trying marijuana
10th graders steroid use
8th graders disapproval of heavy drinking
8th graders disapproval of trying marijuana
8th graders steroid use
Abuse of prescription pain relievers
Abuse of prescription psychotherapeutic drug
Abuse of prescription sedatives
Abuse of prescription stimulants
Abuse of prescription tranquilizers

As another example, the **Diversity Data** site developed by Harvard University organizes its information by topic and publication. It also highlights geography as a specific topic of interest. In this case, the list of topics is brief, but the user can drill down to specifics via a telescoping list of metrics available under each topic.



Create customized reports describing over 100 measures of diversity, opportunity, and quality of life for 362 metropolitan areas.

Metro Profiles

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas

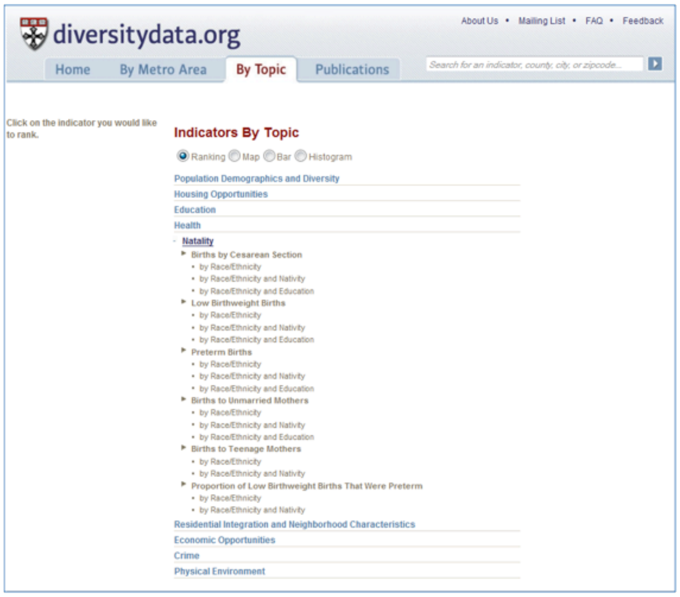
Indicator Topics

- Population Demographics and Diversity
- Housing Opportunities
- Education
- Health
- Residential Integration and Neighborhood Characteristics
- Economic Opportunities
- Crime
- Physical Environment

Share of Population by Race/Ethnicity
Year: 2010; Race/Ethnicity: Hispanic; 100 Largest MSAs

NEW!
Release of 2010 Census data reveals greatly differing growth trends for total and child populations by race and ethnicity
Diversitydata.org features new 2010 Census data including population totals, racial/ethnic groups' share of the population, absolute and percent change over the 2000-2010 period, and the share of the population that is under 18.
APR 2011

Source: http://diversitydata.sph.harvard.edu/



Click on the indicator you would like to rank.

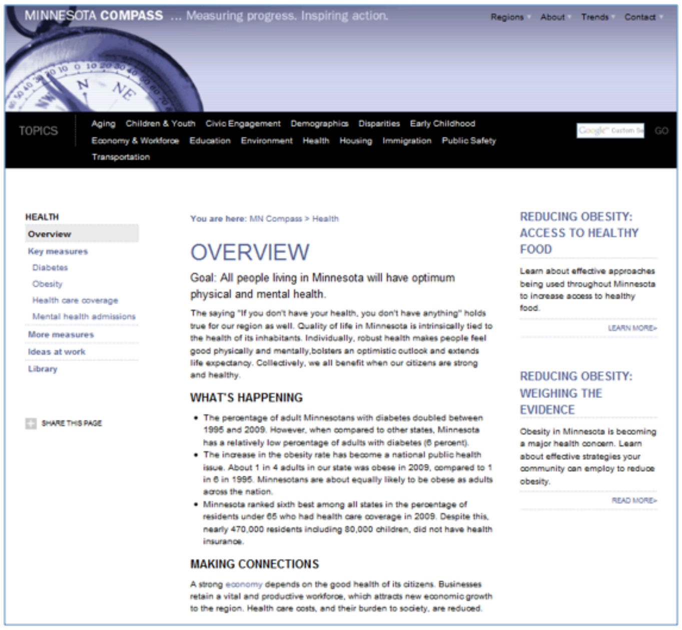
Indicators By Topic

● Ranking ○ Map ○ Bar ○ Histogram

- Population Demographics and Diversity
- Housing Opportunities
- Education
- Health
  - Natality
    - Births by Cesarean Section
      - by Race/Ethnicity
      - by Race/Ethnicity and Nativity
      - by Race/Ethnicity and Education
    - Low Birthweight Births
      - by Race/Ethnicity
      - by Race/Ethnicity and Nativity
      - by Race/Ethnicity and Education
    - Preterm Births
      - by Race/Ethnicity
      - by Race/Ethnicity and Nativity
      - by Race/Ethnicity and Education
    - Births to Unmarried Mothers
      - by Race/Ethnicity
      - by Race/Ethnicity and Nativity
      - by Race/Ethnicity and Education
    - Births to Teenage Mothers
      - by Race/Ethnicity
      - by Race/Ethnicity and Nativity
    - Proportion of Low Birthweight Births That Were Preterm
      - by Race/Ethnicity
      - by Race/Ethnicity and Nativity
- Residential Integration and Neighborhood Characteristics
- Economic Opportunities
- Crime
- Physical Environment

Source: http://diversitydata.sph.harvard.edu/Data/Topics/

The **Minnesota Compass,** a website supported by multiple funders with the goal of making information about a wide range of topics relevant to policymakers more widely available, organizes its contently solely by topic. The site offers many topical options and a broad variety of measures. A key strength of the site is its simplicity, which makes it easy to identify and find information in areas of interest. Each topic area also includes an introductory landing page that includes an overview of the topic and a feed of the most recent estimates or reports related to that subject. In addition, within each topic, there is access to several more categories via a drop down menu (accessed by hovering over the topic).



You are here: MN Compass > Health

OVERVIEW

Goal: All people living in Minnesota will have optimum physical and mental health.

The saying "If you don't have your health, you don't have anything" holds true for our region as well. Quality of life in Minnesota is intrinsically tied to the health of its inhabitants. Individually, robust health makes people feel good physically and mentally,bolsters an optimistic outlook and extends life expectancy. Collectively, we all benefit when our citizens are strong and healthy.

WHAT'S HAPPENING

- The percentage of adult Minnesotans with diabetes doubled between 1995 and 2009. However, when compared to other states, Minnesota has a relatively low percentage of adults with diabetes (6 percent).
- The increase in the obesity rate has become a national public health issue. About 1 in 4 adults in our state was obese in 2009, compared to 1 in 6 in 1995. Minnesotans are about equally likely to be obese as adults across the nation.
- Minnesota ranked sixth best among all states in the percentage of residents under 65 who had health care coverage in 2009. Despite this, nearly 470,000 residents including 80,000 children, did not have health insurance.

MAKING CONNECTIONS

A strong economy depends on the good health of its citizens. Businesses retain a vital and productive workforce, which attracts new economic growth to the region. Health care costs, and their burden to society, are reduced.

REDUCING OBESITY: ACCESS TO HEALTHY FOOD

Learn about effective approaches being used throughout Minnesota to increase access to healthy food.

REDUCING OBESITY: WEIGHING THE EVIDENCE

Obesity in Minnesota is becoming a major health concern. Learn about effective strategies your community can employ to reduce obesity.

Source: http://www.mncompass.org/health/index.php

Highlighting Key Policy-Relevant Information

Given the number of recommended measures for monitoring the ACA's impact and the variety of data sources from which the measures will be generated, there will be numerous possibilities for analysis. It is important that measures be presented and analyzed in a way that highlights key policy-relevant information. There are two components to doing this well: The first involves selecting the appropriate analysis for each measure or set of measures, and the second involves using visual formats or tools to showcase key findings.

For each of the measures a number of different analytic options will be available including measurement over time, comparative analysis by geography (region, national, state-to-state) and comparative analysis between population groups (e.g. race/ethnicity, income, age, insurance coverage status, etc.). Although an interactive website can make it possible to generate a large number of analytic combinations, key content should be highlighted through targeted analysis. Some examples include:

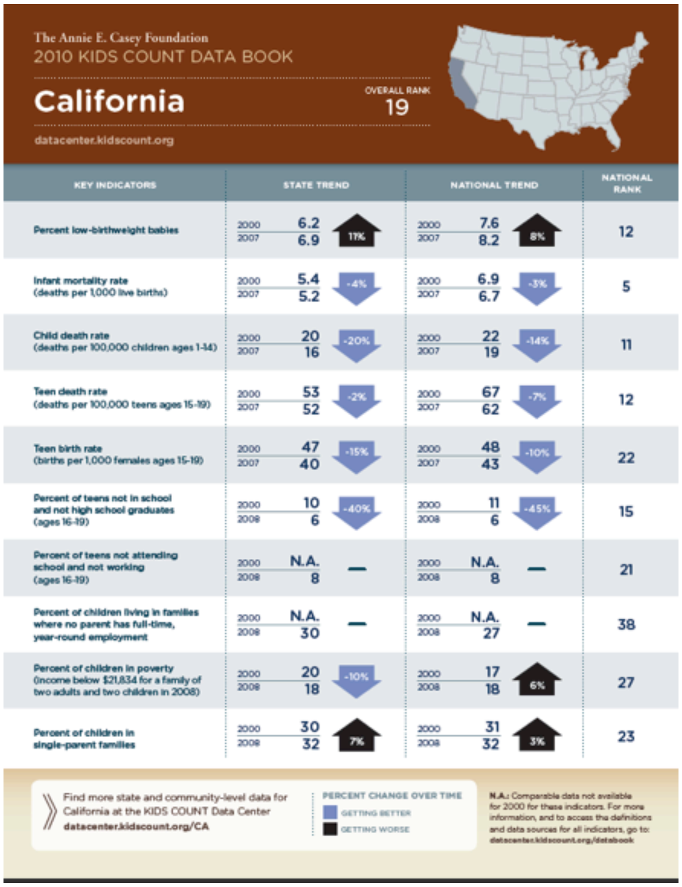
- For all of the measures, trend analysis will be informative and policy-relevant. Since it is likely that the impact of reform will change over time, monitoring and displaying measures over time should be a key priority.
- For measures where disparities are a concern, comparative analysis should be used to highlight those disparities, whether they are related to income, race/ethnicity, geography, or other characteristics.
- For some measures, estimates for specific population groups should be highlighted. For instance, given the unique health care needs of children, it might be useful to highlight the percent of people with a preventive care visit in the past year for specific age categories.
- Some measures are best viewed in a comparative context. In these cases, it will be useful to make available comparisons between California and other states and between California and the United States as a whole.

In some cases the analytic choices will be clear, and in others cases it will be helpful to review preliminary analysis to find and highlight key points of interest.

In addition to providing appropriate analysis by measure and topic there are visual ways to illustrate key points. At the most basic level, the choice of how data are presented (e.g., chart type or map) can be used to highlight key messages. For insurance coverage, differences in estimates between groups are well illustrated by bar graphs, time trends are well illustrated by line graphs, and pie charts are effective at showing differences in characteristics across defined populations. Comparisons across geography are best represented by maps.

Visual tools can also be used to highlight changes over time or disparities between population groups. Bold colors and symbols (e.g. plus/minus, arrows, stars, dials, gauges, etc.) can be used to show when a measure is moving in a desirable direction or when one group is doing better or worse than another. For instance, an arrow or dial could show the percent of people with a preventive care visit in the past year going up or down depending on the trend over time. A plus sign could indicate that the "ESI: Employee contribution to premium" measure is higher in some regions than others. The income group with the highest deductible for single coverage could be highlighted in red.

The Kids Counts project, supported by the Annie E. Casey Foundation, utilizes these types of visual cues in its **Kids Count Data Books.** (http://datacenter.kidscount.org/) Color-coded arrows indicate whether key indicators have gone up or down, and notation within the arrow shows the magnitude of the change.



The Annie E. Casey Foundation
2010 KIDS COUNT DATA BOOK

California

OVERALL RANK
19

datacenter.kidscount.org

KEY INDICATORS	STATE TREND			NATIONAL TREND			NATIONAL RANK
Percent low-birthweight babies	2000 2007	6.2 6.9	11%	2000 2007	7.6 8.2	8%	12
Infant mortality rate (deaths per 1,000 live births)	2000 2007	5.4 5.2	-4%	2000 2007	6.9 6.7	-3%	5
Child death rate (deaths per 100,000 children ages 1-14)	2000 2007	20 16	-20%	2000 2007	22 19	-14%	11
Teen death rate (deaths per 100,000 teens ages 15-19)	2000 2007	53 52	-2%	2000 2007	67 62	-7%	12
Teen birth rate (births per 1,000 females ages 15-19)	2000 2007	47 40	-15%	2000 2007	48 43	-10%	22
Percent of teens not in school and not high school graduates (ages 16-19)	2000 2008	10 6	-40%	2000 2008	11 6	-45%	15
Percent of teens not attending school and not working (ages 16-19)	2000 2008	N.A. 8	—	2000 2008	N.A. 8	—	21
Percent of children living in families where no parent has full-time, year-round employment	2000 2008	N.A. 30	—	2000 2008	N.A. 27	—	38
Percent of children in poverty (income below $21,834 for a family of two adults and two children in 2008)	2000 2008	20 18	-10%	2000 2008	17 18	6%	27
Percent of children in single-parent families	2000 2008	30 32	7%	2000 2008	31 32	3%	23

Find more state and community-level data for California at the KIDS COUNT Data Center **datacenter.kidscount.org/CA**

PERCENT CHANGE OVER TIME
🟦 GETTING BETTER
⬛ GETTING WORSE

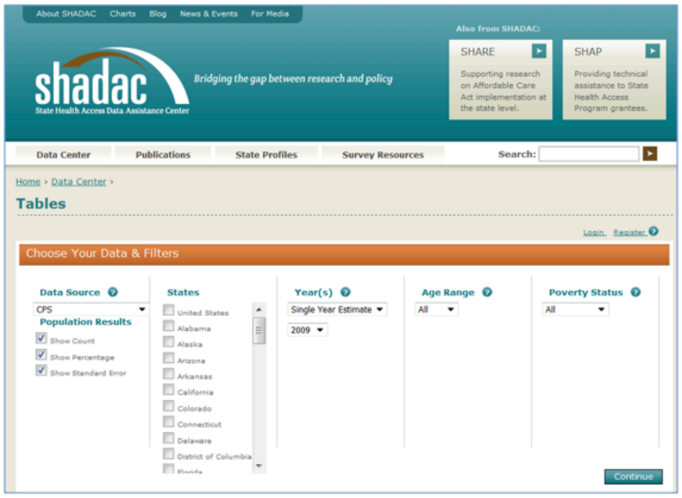
N.A.: Comparable data not available for 2000 for these indicators. For more information, and to access the definitions and data sources for all indicators, go to: **datacenter.kidscount.org/databook**

Source: http://datacenter.kidscount.org/Databook/2010/OnlineBooks/ForMedia/StateProfiles/CA.pdf

Navigating and Viewing the Data

One advantage of creating an interactive website is that it would provide users the option of accessing, interacting with, and viewing the measures (or sets of measures) in a variety of ways. Interactive interfaces come in many forms, but one common form is a table generator that allows the user to choose a measure or measures and years of interest to generate single-year estimates and/or sub-group comparisons. For instance, the measure “percent of employers offering coverage” might be available for multiple years, by several subpopulation breakdowns (employer size, industry, etc.), and in comparison to the United States.

A challenge for developing this type of interactive tool will be that the measures come from a variety of data sources, and each data source will be subject to different limitations related to subpopulation and comparative analysis (depending on data availability and sample size). The **SHADAC Data Center** is a good example of a very simple table generator with limited capabilities for comparison. This is a basic example where the output is limited to tables, but greater functionality can be added to a site in order to generate maps and charts (although this adds complexity to the website design and implementation).



Supporting research on Affordable Care Act implementation at the state level.

Providing technical assistance to State Health Access Program grantees.

Tables

Choose Your Data & Filters

Data Source: CPS

Population Results

☑ Show Count
☑ Show Percentage
☑ Show Standard Error

States

☐ United States
☐ Alabama
☐ Alaska
☐ Arizona
☐ Arkansas
☐ California
☐ Colorado
☐ Connecticut
☐ Delaware
☐ District of Columbia
☐ Florida

Year(s): Single Year Estimate
2009

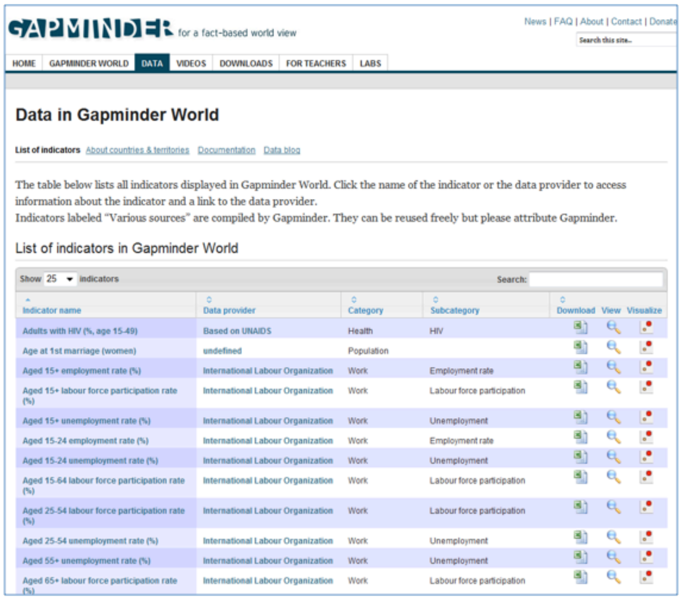
Age Range: All

Poverty Status: All

Source: http://www.shadac.org/datacenter/tables/

Consideration should be given to what is available for download from an interactive site. For instance, some users may want the option of downloading a pdf version of a map or pie chart depicting “percent of physicians accepting new patients” to import into a report or presentation slide, while other users may wish to download an Excel table with these estimates to create their own chart or map or do further analysis. Regardless of the format, the downloaded image or file should contain information about the data source and relevant analytic work so that this information can be properly cited.

Many websites offer great examples of how to provide users flexible access for viewing and utilizing data. A leader in this area is Gapminder, an organization dedicated to producing and disseminating information. Gapminder allows users to download, view and “visualize data” (a function that creates both charts and maps).



Data in Gapminder World

The table below lists all indicators displayed in Gapminder World. Click the name of the indicator or the data provider to access information about the indicator and a link to the data provider.
Indicators labeled “Various sources” are compiled by Gapminder. They can be reused freely but please attribute Gapminder.

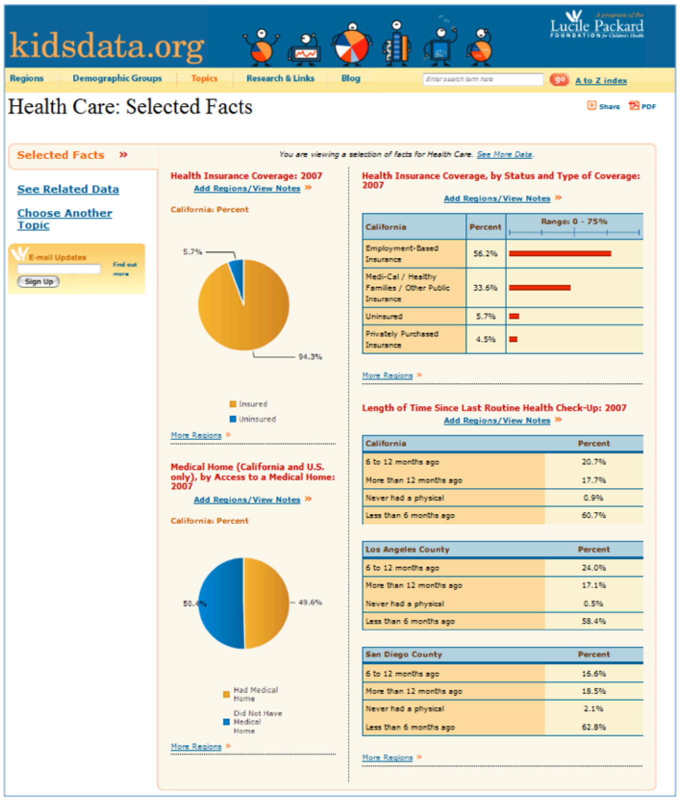
List of indicators in Gapminder World

Indicator name	Data provider	Category	Subcategory	Download	View	Visualize
Adults with HIV (%, age 15-49)	Based on UNAIDS	Health	HIV			
Age at 1st marriage (women)	undefined	Population				
Aged 15+ employment rate (%)	International Labour Organization	Work	Employment rate			
Aged 15+ labour force participation rate (%)	International Labour Organization	Work	Labour force participation			
Aged 15+ unemployment rate (%)	International Labour Organization	Work	Unemployment			
Aged 15-24 employment rate (%)	International Labour Organization	Work	Employment rate			
Aged 15-24 unemployment rate (%)	International Labour Organization	Work	Unemployment			
Aged 15-64 labour force participation rate (%)	International Labour Organization	Work	Labour force participation			
Aged 25-54 labour force participation rate (%)	International Labour Organization	Work	Labour force participation			
Aged 25-54 unemployment rate (%)	International Labour Organization	Work	Unemployment			
Aged 55+ unemployment rate (%)	International Labour Organization	Work	Unemployment			
Aged 65+ labour force participation rate (%)	International Labour Organization	Work	Labour force participation			

Source: http://www.gapminder.org/data/

Minnesota Compass also allows users to view data in a variety of ways. Once the user has chosen a topic and a specific measure, drop down boxes at the top allow users to select different comparisons groups (regions and subpopulation breakdowns) and to select how they view the data (as an online chart or table with notes or as a downloadable file that can be read in a spreadsheet)

Kids Data.org, a website supported by the Lucile Packard Foundation that features data about California children, has many functionalities for navigating among and within measures of interest. Information is organized in a way that allows users to view measures by region, demographic group and topic. Within those groupings, there is a subset of additional options to choose from. Once the user selects a demographic group, topic area or region of interest, a variety of measures are displayed using maps, tables and charts. Another key feature, accessible from the home page, is access to data summaries (in a printable PDF format) for different regions and topics. A data summary example can be found here: http://www.kidsdata.org/datasummaries/default.aspx.



Health Care: Selected Facts

You are viewing a selection of facts for Health Care. See More Data.

Health Insurance Coverage: 2007

Medical Home (California and U.S. only), by Access to a Medical Home: 2007

Health Insurance Coverage, by Status and Type of Coverage: 2007

California	Percent
Employment-Based Insurance	56.2%
Medi-Cal / Healthy Families / Other Public Insurance	33.6%
Uninsured	5.7%
Privately Purchased Insurance	4.5%

Length of Time Since Last Routine Health Check-Up: 2007

California	Percent
6 to 12 months ago	20.7%
More than 12 months ago	17.7%
Never had a physical	0.9%
Less than 6 months ago	60.7%

Los Angeles County	Percent
6 to 12 months ago	24.0%
More than 12 months ago	17.1%
Never had a physical	0.5%
Less than 6 months ago	58.4%

San Diego County	Percent
6 to 12 months ago	16.6%
More than 12 months ago	18.5%
Never had a physical	2.1%
Less than 6 months ago	62.8%

Source: http://www.kidsdata.org/data/topic/dashboard.aspx?cat=51

Documentation

Creating an engaging, simple interface for users is important, but it should not be done at the expense of appropriate data documentation. Though some users may ignore the details regarding the underlying data, these details are an essential component of dissemination, especially when the data may be used to inform policy decisions. The following information should be available for all measures: data source, year of data collection, and measure definition. Where appropriate, confidence intervals or variance estimates (used in testing whether differences in estimates are statistically significant) should also be included. For example, all figures (charts, maps, tables, etc.) should include a title describing the content and year(s) included, and a note citing the data source.

Users should be able to easily view definitions of the measure and terminology, such as through the use of "tool tips" (pop-up windows with explanatory information). In cases where statistically significant differences are calculated, notation and thresholds should be consistent and documented in the table notes. In addition, a "technical documentation" link on the website should discuss the rules used for subpopulation analysis (sample size thresholds), significance testing and other rules that were used to generate the analysis. Finally, since data are sometimes updated after initial release, it is important to make decisions about when and how data will be refreshed and to describe this policy in the documentation for each measure.

Endnotes

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9. Haberkorn J. 2011. "Health Policy Brief: Employers and Health Care Reform." *Health Affairs*, March 8, 2011.
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13. Cohen R., Martinez M., and Ward B. 2010. "Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, 2009." National Center for Health Statistics. State-level estimates of insurance coverage have been published for the largest states each year since 2004.
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23. For example, 42% of Medicaid enrollees reported using a community or government clinic or hospital as a usual source of care in 2009, compared to 23% of the population overall; 75% of people with employment-based coverage reported that their usual source of care was a doctor's

office/HMO/Kaiser clinic, compared to 39% of Medicaid enrollees. (Estimates obtained through askCHIS, http://www.chis.ucla.edu/main/DQ3/geographic.asp, March 16, 2011.)

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30. The California Office of the Patient Advocate publishes the results from surveys of HMO enrollees that include the ability to get timely appointments, but the data represent only a portion of the state's population and are not aggregated across health plans.

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Appendix A: Existing Data Sources for Tracking Health Reform's Impacts

This appendix provides detailed information about existing data sources that could potentially be used to monitor the impacts of health reform in California. We describe several different types of data, including population surveys, employer surveys, data from health care providers, health plans, and public programs (e.g., Medi-Cal, Healthy Families, and county programs for indigent care). The data sources included in our review are summarized in Figure A-1. For each source of data, we compiled technical information, such as how the data are collected and from whom; how complete or representative the data are; whether comparisons can be made to other states and U.S. averages; whether comparisons can be made for regions within California; and whether the data can be used for monitoring trends among specific population groups such as children, people with low incomes, or racial/ethnic groups. We reviewed the data collection instruments (e.g., survey questionnaires), technical documentation for the data sources, and publicly available reports that use the data. For data

***FIGURE A-1.* Existing California and National Data Sources for Tracking the Impacts of Health Reform**

Population Survey Data

- California Health Interview Survey (CHIS)
- Current Population Survey – Annual Social and Economic Supplement (CPS)
- American Community Survey (ACS)
- National Health Interview Survey (NHIS)
- Medical Expenditure Panel Survey – Household Component (MEPS-HC)
- Survey of Income and Program Participation (SIPP)
- Behavioral Risk Factor Surveillance System (BRFSS)
- National Survey of Children's Health (NSCH)
- California Women's Health Survey (CWHS)

Health Care Provider Data

Physicians

- Medical Board of California License Renewal Survey
- American Medical Association (AMA) Physician Masterfile

Other Professionals

- California Board of Registered Nursing Survey of Registered Nurses
- Health Resources and Services Administration (HRSA) National Sample Survey of Registered Nurses (NSSRN)
- Medical Board of California Physician Assistant Committee Licensing Data
- Dental Board of California Healthcare Workforce Survey

Hospitals

- California Office of Statewide Health Planning and Development (OSHPD) Hospital Annual Financial Disclosure Report
- OSHPD Hospital Annual Utilization Data Report
- Medical Information Reporting for California (MIRCal) System
- American Hospital Association (AHA) Survey

Safety Net

- OSHPD Primary Care Clinics Annual Utilization Report
- HRSA Uniform Data System (UDS)
- Indigent Care: County Medical Services Program (CMSP) and Medically Indigent Care Reporting System (MICRS)

Employer Survey Data

- California Employer Health Benefits Survey (CEHBS)
- Medical Expenditure Panel Survey – Insurance Component (MEPS-IC)

Health Plan Data

- California Department of Managed Health Care Data
- California Department of Insurance Data
- California Health Benefits Review Program Annual Enrollment and Premiums Survey

Public Program Data

- Medi-Cal Enrollment and Claims
- Healthy Families Enrollment and Claims

sources that are unique to California, we also conducted key informant interviews with experts who are regular users of the data source or who are responsible for the data collection in order to better understand the data's strengths and weaknesses.

Population Survey Data

Several existing population surveys include questions related to health insurance coverage, health care affordability, and access to services. These surveys vary in their goals, methods, sample size, populations included, and breadth and depth of health care related topics. Table A-1 summarizes key features of these surveys.

The **California Health Insurance Survey (CHIS)** is conducted by the UCLA Center for Health Policy Research. Its primary goal is to monitor the health and health care needs of Californians at both the state and local levels. CHIS includes questions on general health status, specific health conditions, health behaviors, access to and use of health care services, health insurance coverage, demographic and economic characteristics, and other topics. The survey is conducted by telephone and includes a random digit dial landline component, a list component, and a random digit dial cell phone component. In total, each round of CHIS includes responses from about 50,000 households, and the response rate is around 20%. CHIS has been conducted every two years since 2001, with data collection for the 2009 survey cycle completed in September 2010. Beginning with the 2011 survey, CHIS will move to continuous data collection, with new data files available every six months.[1,2]

The **Current Population Survey (CPS)** is a monthly survey of the civilian non-institutionalized population conducted by the U.S. Census Bureau. The primary purpose of the monthly survey is to collect data on labor force participation and unemployment. Data on income and health insurance are collected through the CPS Annual Social and Economic Supplement (ASEC) in February through April of each year. The CPS-ASEC asks about health insurance coverage for the prior calendar year and is combined with information from the main CPS survey on determinants of health insurance coverage such as firm size and other demographic and socioeconomic characteristics. The CPS-ASEC, conducted in person and by telephone, uses an address-based Census sample frame and reaches about 20,000 individuals in 7,000 households in California. Nationally, the CPS-ASEC achieved a response rate of 86% in 2010. Summary reports and public use data files with state identifiers, usually released in early fall, are available about five to six months after data are collected.

The **American Community Survey (ACS)**, also conducted by the U.S. Census Bureau, is a general household survey of the entire population (including persons living in group quarters) that replaced the decennial census long-form. The ACS asks about demographic and socioeconomic characteristics, and a question on current health insurance coverage was added in 2008. This mandatory survey (persons are required to respond under law) samples from the National Master Address File and is conducted monthly by mail, telephone, and in person. The ACS has a response rate of 98% and collects data from about 460,000 Californians in 160,000 households, acquiring the largest sample of any population survey conducted in California or nationally. The Census Bureau releases summary reports and public use data files with state identifiers in the early fall, about eight to nine months after the end of the survey calendar year.

The **National Health Interview Survey (NHIS)** is an in-person survey of the health of the civilian non-institutionalized population and is sponsored by the Centers for Disease Control & Prevention (CDC) National Center for Health Statistics (NCHS). The NHIS, which has been conducted annually for over 50 years, asks about health insurance coverage, health care utilization and access, health conditions and behaviors, and general health status, as well as many demographic and socioeconomic characteristics. With a national response rate of over 80%, drawn from an address-based Census sample frame, the 2004-2006 average annual sample size for California was about 13,000 respondents.[3] Summary reports, with state estimates for the 30 largest states, are released six months after data collection, as are public use data files (without state identifiers). Data files with state-level and other geographic identifiers can be accessed through one of ten U.S. Census Bureau Research Data Centers (RDC) across the country (including two in California) or through a CDC RDC.

The **Medical Expenditure Panel Survey – Household Component (MEPS-HC)**, sponsored by the Agency for Healthcare Research & Quality (AHRQ), is an in-person panel survey that includes several interviews over two full calendar years. Conducted since 1996, the MEPS-HC collects data on health status/conditions, health insurance coverage, access to and utilization of health care services, medical expenditures, and various demographic and socioeconomic characteristics.

The MEPS-HC samples from a subsample of NHIS participants from the previous year and in 2008 had an overall response rate of about 59% for the full year data file. The 2004-2008 average annual sample size for California was just under 5,000 persons.[4] Summary reports, with state estimates for the ten largest states (including California), are released six months after data collection, along with public use data files (without state identifiers). Although the survey is not designed to produce state or local estimates, data files with state-level and other geographic identifiers can be accessed through an AHRQ or Census Bureau RDC.

The **Survey of Income & Program Participation (SIPP)** is a panel survey of the civilian non-institutionalized population that has been conducted by the U.S. Census Bureau since 1984. Data on income and program participation, as well as the determinants of income and program participation, are collected in several waves over 2.5 to four years. The SIPP, which is an in-person and telephone survey, uses an address-based Census sample frame to draw samples of households that are followed throughout the multi-year survey period. In the fourth wave of the 2008 panel, the average monthly sample size in California was just over 8,500 respondents. The national response rate by wave 12 of the 2004 panel was 63%. Data are released periodically and include cross-sectional/ longitudinal reports and public use data files. Beginning in 2004, the SIPP was designed to be representative of the largest states, including California, and the public use data files include state identifiers.

Three other population surveys – the **Behavioral Risk Factor Surveillance System (BRFSS)**, the **National Survey of Children's Health (NSCH)**, and the **California Women's Health Survey (CWHS)** – collect data on a regular basis from segments of the California population. Although these data sources are not well suited to monitoring the impacts of health reform on California's population as a whole, they are included in Table A-1:

- The **Behavioral Risk Factor Surveillance System (BRFSS)** is a state-based survey of the adult civilian non-institutionalized population sponsored by the CDC that has been conducted annually since 1984. The BRFSS inquires about health conditions, risk behaviors, preventive health practices, access to health care, and health insurance coverage.
- The **National Survey of Children's Health (NSCH)**, a survey of the health and well-being of civilian non-institutionalized children under 18, is conducted every four years and is sponsored by the Maternal and Child Health Bureau (MCHB) at the U.S. Department of Health and Human Services, Health Resources & Services Administration (HRSA).
- The **California Women's Health Survey (CWHS)**, which has several sponsors including the California Departments of Health Care Services and Public Health, is an annual telephone survey of civilian non-institutionalized women over age 18 that has been conducted since 1997.

Employer Survey Data

Employer surveys are useful for assessing the availability and characteristics of employer-sponsored health insurance coverage. There are two existing surveys that provide information on employer health benefits in California: the **California Employer Health Benefits Survey (CEHBS)** and the **Medical Expenditure Panel Survey – Insurance Component (MEPS-IC)**, a national survey. The CEHBS is a telephone survey of private sector employers that has been conducted annually since 2000 and is currently sponsored by CHCF; it is comparable to a national survey of employers conducted annually by the Kaiser Family Foundation and the Health Research and Educational Trust (HRET). Employers included in the CEHBS sample are drawn from the Dun & Bradstreet list of business establishments, and the 2009 response rate was 39%, with a total of 805 responses. Summary reports and public use data files are released by December of the survey year. The MEPS-IC, sponsored by the AHRQ, samples private and public sector employers from the Business Register, a list of business establishments maintained by the Census Bureau. In 2009, the MEPS-IC had a response rate of 82% nationally and included a total sample of about 41,000 establishments. Summary reports with detailed state-level tables for private sector employers are released in July of each year following the survey year, and data files are available only through an RDC. See Table A-2 for a summary of key features of employer surveys.

Health Care Provider Data

A wealth of data about health care providers in California is available through a variety of reporting mechanisms, including state and national surveys, licensing databases, and mandatory reporting systems. These data are helpful for evaluating the demographic and practice characteristics of providers; assessing the availability, provision, and financing of health care services; and identifying providers and facilities that help to meet the unique needs of underserved populations.

Physicians. Data on physicians practicing in California can be obtained from a state licensing renewal survey and a national physician database maintained by the American Medical Association (AMA). **The Medical Board of California License Renewal Survey** is a mandatory mail and online survey of physicians (Doctors of Medicine (MDs) only) conducted since 2003 each time a physician's license is renewed (every two years). Periodic research reports and a public database that is updated weekly are available online. The **AMA Physician Masterfile** is a continuously updated database with over one million records on MDs, Doctors of Osteopathy, and medical residents/students. Annual reports and data files are available from the AMA for purchase. Table A-3 provides a summary comparison of these data sources. In addition, the **Area Resource File** published by the Health Resources and Services Administration includes data from the AMA Physician Masterfile aggregated to the county level.

Other health care professionals. Both national and state licensing databases and surveys provide information on registered nurses (RNs), physician assistants (PAs), and dental professionals in California. These data sources are summarized in Table A-4:

- Data on RNs are available through the **California Board of Registered Nursing Survey of Registered Nurses** and **the HRSA National Sample Survey of Registered Nurses (NSSRN).**
- The **Medical Board of California Physician Assistant Committee** and the **Dental Board of California** collect licensing data on physician assistants (PAs) and dental professionals, respectively. The **American Academy of Physician Assistants (AAPA)** and the **American Dental Association (ADA)** also collect national data on member and non-member providers.

Hospitals. Financial and utilization data for California hospitals is collected by the **California Office of Statewide Health Planning and Development (OSHPD)** and by the **American Hospital Association (AHA)**. OSHPD has collected summary level data on California licensed hospitals through mandatory reporting of financial and utilization data since 1974, and has collected patient-level data through the **Medical Information Reporting for California (MIRCal)** system since the 1980s. The Hospital Annual Financial Disclosure Report includes detailed information on capacity, services, utilization, personnel and finances, and it is submitted annually within four months of the end of the hospital's fiscal year. In addition, the Hospital Annual Utilization Report, which includes information on hospital capacity, services, and utilization, is submitted each year in February. These data are made available in both summary reports and public use data files.

Hospitals also submit patient-level information on inpatient discharges, emergency department encounters, and ambulatory surgery encounters. Summary reports are made publicly available, and public use data files are also available. California also supplies these data to the AHRQ's Healthcare Cost and Utilization Project (HCUP), which collects data using a standard format that allows for comparisons across participating states. Currently, 43 states participate in HCUP's inpatient discharge database, and 28 states participate in the emergency department and ambulatory surgery databases.[5]

Cross-state comparisons are also possible with data collected through the **AHA Annual Survey**. The AHA has collected data from member and non-member hospitals on hospitals' capacity, services, utilization, personnel, and finances since 1946. The 2009 survey response rate was approximately 89%, and the total sample includes 6,500 hospitals nationally. Summary reports and data files are available for purchase. Table A-5 summarizes the existing data sources on hospitals.

Safety Net Data

Data on use and financing of California's health care safety net are collected by local, state, and federal agencies. Table A-6 provides a summary comparison of these data sources. Licensed **primary care clinics** in California submit data to **OSHPD** every February on clinic services, utilization, staffing, patient demographics, and finances. Data are publicly available on OSHPD's website shortly after this information is submitted by clinics. Federally Qualified Health Centers **(FQHCs)** receiving funding from HRSA are required to report on clinic services, utilization, staffing, patient demographics, finances, health outcomes, and quality measures through the **Uniform Data System (UDS)**. Indigent care services paid for by counties have historically been reported through two different systems. The **County Medical Services Program (CMSP)** is the mechanism through which 34 mostly rural counties provide care to their medically indigent populations; summary reports of utilization and cost are available through the CMSP website. Until it was discontinued in 2007, the **Medically Indigent Care Reporting System (MICRS)**, run by the California Department of Public Health (CDPH), collected indigent care utilization and cost data from 22 other counties.

Health Plan Data

Information from health plans is useful for tracking enrollment and costs in private insurance products, and also in managed care components of public programs. Data from health plans is collected by three different agencies in California. The **California Department of Managed Health Care (DMHC)** collects enrollment by product line and financial data annually and quarterly from health care service plans – which include licensed Health Management Organizations (HMOs) and certain PPOs - in California. Data on these health plans are available through DMHC's website. DMHC has also recently begun posting premium rate filings on its website. The **California Department of Insurance (CDI)** collects annual and quarterly data from health plans that it regulates, including financial and enrollment data; CDI also posts rate filings from health insurers on its website. Since 2006, the **California Health Benefits Review Program (CHBRP)** has conducted an **Annual Enrollment and Premiums Survey** of the seven largest health plans in California. CHBRP uses these data to determine the size of the population enrolled in privately purchased health plans (non-group and group plans) that must adhere to state mandated benefit regulations and to classify enrollment in these health plans by the size of the employer sponsoring benefits.[6] Reports based on these data are available on CHBRP's website.

State Public Program Data

Enrollment and claims data from state public insurance programs, primarily **Medi-Cal** and **Healthy Families**, are another potentially useful source of data for tracking the impacts of health reform. Medi-Cal is administered by the California Department of Health Care Services (DHCS), which in turn contracts with managed care plans to serve about half of the enrollees in the program; these managed care plans report detailed encounter-level information to DHCS on the care provided to Medi-Cal enrollees. Healthy Families is administered by the Managed Risk Medical Insurance Board (MRMIB), which also contracts with managed care plans to deliver services to the program's enrollees. At the national level, the **Medicaid Statistical Information System (MSIS)** maintained by the Centers for Medicare and Medicaid Services, includes Medicaid enrollment and claims data from all states, and this data could be used for comparison to California.

Table A-1: **Comparison of Population Surveys**

	CHIS 2009	CPS ASEC 2010	ACS 2009	NHIS 2009
Sponsor(s)	UCLA Center for Health Policy Research; CA Depts. of Public Health & Health Care Services	Bureau of Labor Statistics, U.S. Dept. of Labor (conducted by the Census Bureau)	Census Bureau	National Center for Health Statistics, Centers for Disease Control and Prevention
Primary focus	Population health	Labor force participation and unemployment	General household survey, replaced decennial census long form	Population health
Target population	Civilian non-institutionalized population (excludes group quarters)	Civilian non-institutionalized population	Entire population	Civilian non-institutionalized population
Years available	Every other year since 2001	Data on health insurance coverage available since the 1980s	Data on health insurance coverage available since 2008	Annually since 1957
Sample frame	RDD; cell; list	Address-based (Census 2000 sampling frame updated with new construction)	Address-based (National Master Address File)	Address-based (Census 2000 sampling frame updated with new construction)
Data collection mode	Telephone	In-person; telephone	Mail; in-person; telephone	In-person
Response rate[1]	20% (landline)	86%	98%	82%
Sample size in California	49,811 households; 59,938 individuals	6,614 households; 20,190 individuals	164,468 households; 450,615 individuals[2]	12,971 individuals (2004-06 average)[3]
Frequency	Every other year (Annual beginning in 2011)	Annual	Continuous	Annual
Survey period	September 2009 to September 2010	February through April[4]	Monthly	February, May, August, November
Comparability of state estimates to U.S./other states	No	Yes	Yes	Yes
Sub-state geographic analysis possible?	Restricted access	Limited	Yes	Restricted access[5]
Subpopulation analysis within state possible? (e.g., by income, age)	Yes	Yes, but limited[6]	Yes	Restricted access
Timing of data release	3 months after data collected	5-6 months after data collected (early fall)	8-9 months after end of calendar year (fall)	6 months after data collection year
Publicly available data	Summary reports; public use file with some data elements restricted; online tabulator AskCHIS	Summary reports and tables with state estimates; public use file with state identifiers	Summary reports and tables with state and sub-state estimates; public use file with state and sub-state identifiers	Summary reports; limited state estimates; public use file w/o state identifiers; state identifiers w/ restricted access

Notes: [1] Response rates for the national surveys are not state-specific.

[2] The public use file for the 2009 ACS includes a subset of the full sample: 126,596 households and 346,010 individuals.

[3] State-level sample size data from NHIS were obtained from Cohen RA, Makuc DM. State, Regional, and National Estimates of Health Insurance Coverage for People under 65 Years of Age: National Health Interview Survey, 2004-2006. National Health Statistics Reports; no. 1. Hyattsville, MD: National Center for Health Statistics. 2008.

[4] Health insurance estimates from CPS pertain to prior calendar year.

[5] Data files with state and other geographic identifiers may be accessed through a Research Data Center (RDC).

[6] Use of 2- or 3- year averages recommended.

Table A-1, Continued. **Comparison of Population Surveys**

	MEPS-HC 2008	SIPP 2008	BRFSS 2009 (Adult population)	NSCH 2007 (Children)	CA Women's Health Survey 2008
Sponsor	Agency for Healthcare Research & Quality (conducted by Census Bureau)	Census Bureau	Centers for Disease Control and Prevention; individual states (conducted by states)	Health Resources and Services Administration, Maternal and Child Health Bureau (conducted by CDC's NCHS)	California Department of Health Care Services and California Department of Public Health
Primary focus	Health care access, utilization, and cost	Longitudinal data on income and program participation	Population health, risk factors, and health behaviors	Children's health and well-being	Women's health
Target population	Civilian non-institutionalized population	Civilian non-institutionalized population	Adult civilian non-institutionalized population	Non-institutionalized children under age 18	Civilian non-institutionalized women age 18 and over
Years available	Annually since 1996	Multi-year panels since 1984	Annually since 1984	2003, 2007[1]	Annually since 1997
Sample frame	NHIS respondents	Address-based (Census 2000 sampling frame updated with new construction)	RDD (households with landline telephones)	RDD (households with landline telephones)	RDD
Data collection mode	In-person	In-person; telephone	Telephone	Telephone	Telephone
Response rate[2]	59% (full-year)	63% by wave 12 of the 2004 panel	42% (CA)	40% (CA)	49%
Sample size in California	4,800 (2004-2008 average)	8,557 (wave 4 of 2008 panel, average monthly responses)	17,392	1,751	4,977
Frequency	Annual	New panel approx. every 4 years	Annual	Every 4 years	Annual
Survey period	Panel over 2 calendar years	Panel survey over 2.5 to 4 years	January - December	April 2007 to July 2008	January - December
Comparability of state estimates to U.S./other states	Restricted access; limited state estimates published[3]	Yes	Yes	Yes	No
Sub-state geographic analysis possible?	Restricted access	No	Yes	Limited	Yes
Subpopulation analysis within state possible? (e.g., by income, age)	Restricted access	No	Yes	Yes	Yes
Timing of data release	Staggered monthly releases; timing after data collection varies	9 to 12 months after data collection	About 6-7 months after data collected	10 to 12 months after data collected	1 year after data collected
Publicly available data	Summary reports; limited state estimates; public use file w/o state identifiers; state identifiers w/ restricted access	Summary reports; public use files; state identifiers available beginning with 2004 panel	Summary reports w/ state estimates; public use file with state identifiers	Summary reports w/ state estimates; public use file with state identifiers	Summary reports; public use file

Notes:
[1] Designed to alternate on a 2-year rotating schedule with the National Survey of Children with Special Health Care Needs.
[2] Response rates for the national surveys are not state-specific, unless noted otherwise.
[3] Data with state and other geographic identifiers may be accessed through a Research Data Center.

Source: State Health Access Data Assistance Center review of potential data sources

Table A-2. **Comparison of Employer Surveys**

	California Employer Health Benefits Survey 2010	MEPS - IC 2009
Sponsor	California HealthCare Foundation; previously sponsored by other organizations	Agency for Healthcare Research and Quality (conducted by Census Bureau)
Primary focus	Employer-based health insurance availability and characteristics	Employer-based health insurance availability and characteristics
Target population	Private sector employers	Private and public sector employers (state-level estimates published for private employers only)
Years available	2000-2010	1996-2009 (no estimates for 2008)
Sample frame	Dun & Bradstreet list of business establishments	Business Register (list of business establishments maintained by the Census Bureau)
Data collection mode	Telephone	Telephone and mail
Response rate	39% (2009)	82% (national)
Sample size in California	805	41,409 nationally; state-level sample size not available
Frequency	Annual	Annual
Survey period	April to July	May to February
Comparability of state estimates to U.S./other states	Nearly identical to Kaiser Family Foundation's Employer Health Benefits Survey	Yes
Sub-state geographic analysis possible?	Possible, but with caution	Some metro area estimates available
Subgroup analysis possible?	Yes, by firm characteristics such as number of employees, wage levels, full-time/part-time workers, and unionization	Yes, by firm characteristics such as number of employees, wage levels, full-time/part-time workers, and unionization
Timing of data release	December of survey year	July following survey year
Publicly available data	Summary reports and public use file	Summary reports; detailed tables; no public use file but data may be accessed through a Research Data Center

Source: State Health Access Data Assistance Center review of potential data sources

Table A-3. **Comparison of Data Sources: Physician Workforce**

	Medical Board of California License Renewal Survey	AMA Physician Masterfile
Sponsor	Medical Board of California	American Medical Association
Primary focus	Physician demographics and practice characteristics	Physician demographics and practice characteristics
Physicians included	MDs licensed by the State of California	MDs, DOs, residents, and students (includes AMA members and nonmembers)
Years available	Since 2003	Over 50 years
Data collection mode	Mail, online	Mail, online, telephone, and secondary data sources
Frequency	At license renewal (every 2 years)	Continually updated
Comparability of state estimates to U.S./ other states	No	Yes
Sub-state geographic analysis possible?	Yes	Yes
Subgroup analysis within state possible?	Yes	Yes
Timing of data release	Public database updated weekly	Annual
Publicly available data	Periodic research reports; database is available online	Annual statistical report and data file available for purchase

Source: State Health Access Data Assistance Center review of potential data sources

Table A-4. **Comparison of Data Sources: Other Health Care Professionals**

	CA Board of Registered Nursing Survey of Registered Nurses 2008	HRSA National Sample Survey of Registered Nurses 2008	Medical Board of California Physician Assistant Committee Licensing data	Dental Board of California Healthcare Workforce Survey
Sponsor	California Board of Registered Nursing	Health Resources and Services Administration	Medical Board of California	Dental Board of California
Primary focus	Demographics, education, employment	Demographics, education, employment	Certification and training records, information required for licensure	Dental workforce demographics and practice characteristics
Professionals included	Licensed registered nurses in California	Licensed registered nurses	Licensed physician assistants	Licensed dentists, dental assistants, dental hygienists
Years available	1990, 1993, 1997, 2004, 2006, 2008	Since 1977	N/A	Since 2009
Sample frame	Registered nurses - separate samples for active licensees and inactive/lapsed licenses	Licensure databases in each state	N/A	Licensed dental professionals
Data collection mode	Mail and online	Mail, online, or telephone	N/A	N/A
Response rate	54%	62%	N/A	N/A
Number of Responses	5,440 active licensees	33,549	N/A	N/A
Frequency	Every 2 years	Every 4 years	At license renewal	At license renewal
Comparability to U.S./ other states	No	Yes	No	No
Sub-state geographic analysis possible?	Yes	Yes	Yes	Yes
Subgroup analysis within state possible?	Yes	Yes	N/A	Yes
Publicly available data	Summary reports	Summary reports and public use file with state and county level information	Minimal information posted on website	Data available on website

N/A: not applicable

Source: State Health Access Data Assistance Center review of potential data sources

Table A-5. **Comparison of Data Sources: Hospitals**

	Hospital Annual Financial Disclosure Report	Hospital Annual Utilization Report	MIRCal	AHA Annual Survey
Sponsor	California Office of Statewide Health Planning and Development (OSHPD)	California Office of Statewide Health Planning and Development (OSHPD)	California Office of Statewide Health Planning and Development (OSHPD)	American Hospital Association
Primary focus	Hospital capacity, services, utilization, personnel, and finances	Hospital capacity, services, and utilization	Inpatient discharges; emergency department and ambulatory surgery encounters	Hospital capacity, services, utilization, personnel and finances
Facilities included	Licensed hospitals	Licensed hospitals	Licensed hospitals and freestanding ambulatory surgery clinics	Hospitals (AHA members and non-members)
Years available	Since 1974	Since 1974	Inpatient since 1980s; ED and ambulatory surgery since 2005	Since 1946
Frequency	Annual	Annual	Inpatient: semiannual; ED and surgery center: quarterly	Annual
Timing	Within 4 months of fiscal year end	Due February 15 of following year	Inpatient: 3 months after reporting period end; ED and surgery center: 45 days after reporting period end	Reporting for most recently completed fiscal year
Comparability of state estimates to U.S./other states	No	No	Comparable to HCUP databases	Yes
Sub-state geographic estimates possible?	Yes	Yes	Yes	Yes
Subgroup analysis within state possible?	Yes	Yes	Yes	Yes
Publicly available data	Summary reports; public use data	Summary reports; public use data	Summary reports; public data set available upon request	Summary reports and data available for purchase

Source: State Health Access Data Assistance Center review of potential data sources

Table A-6. **Comparison of Data Sources: Health Care Safety Net**

	Primary Care Clinics Annual Utilization Report	HRSA Uniform Data System	Indigent Care
Sponsor	California Office of Statewide Health Planning and Development (OSHPD)	Health Resources and Services Administration	County Medical Services Program and Medically Indigent Care Reporting System (MICRS)
Primary focus	Primary care clinic services, utilization, staffing, patient demographics, and finances	Clinic services, utilization, staffing, patient demographics, finances, health outcomes, and quality measures	Utilization and cost of indigent care services
Reporting entities	Licensed primary care clinics (community and free clinics)	Federally Qualified Health Centers (FQHCs)[1]	Counties (34 through CMSP and 22 through MICRS)
Frequency	Annual	Annual	CMSP ongoing; MICRS discontinued after FY 2007
Timing	Reports due February 15 of following year	Reports due March 31 of following year	Monthly and annual reports available
Comparability of state estimates to U.S./other states	No	Yes	No
Sub-state geographic estimates possible?	Yes	Yes	Yes
Subgroup analysis within state possible?	By patient demographics, income, payer	By patient demographics, income, payer	By type of care and provider
Publicly available data	Summary reports; public use data	Summary reports	Summary reports

Note: [1] FQHCs include clinics receiving funding through several HRSA grant programs: Community Health Centers, Migrant Health Centers, Health Care for the Homeless, and Public Housing Primary Care.

Source: State Health Access Data Assistance Center review of potential data sources

Appendix A Endnotes

1. California Health Interview Survey (CHIS). CHIS 2007 Methodology Report Series. Los Angeles, CA: UCLA Center for Health Policy Research. 2009. Available at: http://www.chis.ucla.edu/methodology.html.
2. Telephone interview with E. Richard Brown and David Grant, January 18, 2011.
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4. Special tabulation provided by AHRQ.
5. Agency for Healthcare Research and Quality. 2010. Databases and Related Tools from the Healthcare Cost and Utilization Project (HCUP). Fact Sheet. AHRQ Publication No. 10-P009-EF, June 2010. Available at http://www.ahrq.gov/data/hcup/datahcup.htm.
6. California Health Benefits Review Program (CHBRP). 2009. Implementation of Senate Bill 1704:California Health Benefits Review Program Analysis of Legislation Mandating or Repealing Health Care Benefits and Services: A Report to the California State Governor and Legislature. Oakland, CA: CHBRP. 09-12.

Appendix B: Strengths and Weaknesses of Data Sources

There is no single data source that is uniformly strong across all of the criteria that we used to assess existing data sources. Table B-1 provides an overview of the relative strengths and weaknesses of the data sources that we reviewed. The discussion below provides more detail about the general strengths and weaknesses of specific data sources.

Population Survey Data

State population surveys are an excellent source of data, and CHIS is no exception. The survey contains both a depth and breadth of health care related questions and is flexible enough to add questions as data needs shift with the changing policy environment.

A major strength of CHIS is its large sample size. Additionally, the survey oversamples certain groups to allow for analysis at the sub-population level (specifically, race/ethnicity and local areas of geography). The CHIS employs strong analytic methods for sampling, weighting and analyzing the data. In general the turnaround time between collection and data release is short (roughly three months), and the data are broadly accessible both through public use files and web-based estimate generators.[1] The CHIS has two major weaknesses: First, like other population-based telephone surveys, CHIS has low response rates. Second, because the survey is unique to California, estimates cannot be directly compared with national averages or to other states.

Data collected through federal population surveys include a wealth of information about health insurance and access to care. Some of these surveys focus primarily on health care issues (e.g. NHIS, MEPS-HC), while others contain only limited health related questions (e.g. ACS, CPS). For instance, NHIS collects contains a breadth of information on health care coverage and is thought to produce the most accurate national estimate of insurance coverage; MEPS-HC is the richest source of data on individual access, use and health expenditures. The CPS contains useful information about firm size and employer sponsored insurance, but there is concern about how respondents interpret the health insurance question and whether the measure represents full year versus a point in time measure. (The survey questions are designed to ask about coverage during the previous calendar year, but research suggests that people report their coverage status at the time of the survey.)

A major strength of federal survey data is the ability to produce state-level estimates that allow for comparison of metrics across states (e.g. CPS, ACS). In some cases, however, state-level estimates can only be produced by accessing this data through a Research Data Center (e.g. NHIS and MEPS-HC surveys). Also, while some federal surveys have sufficient sample to produce state estimates at the subpopulation level, such as by age, income, race/ethnicity, or geographic area within a state, others are more limited.

The infrastructure and resources of the federal government support high quality data collection. The federal population surveys utilize sophisticated survey methodologies, well tested questions, and consistent execution over time; they also achieve high response rates. This allows for fairly consistent measures and the ability to track measures over time. This infrastructure can also be a weakness, however, as adding or modifying the content of federal surveys can be a cumbersome and lengthy process.

In general, the federal survey estimates are fairly easy to access. All of the surveys release summary reports containing state (and in some cases, sub-state) estimates, and public use files are available for most of the surveys. Though most of the public use files contain state identifiers, NHIS and MEPS-HC restrict access to state-level identifiers (state estimates can only be produced through an RDC). A strength of these surveys is that release schedules tend to be consistent, but there are often long lags between data collection and release.

Employer Survey Data

Employer surveys are particularly useful for collecting information about ESI. Employers tend to provide better information about premiums, benefits and eligibility than employees and also provide the most accurate data on ESI offer and employee take-up rates. The CEHBS and MEPS-IC both provide state level estimates on employer-based health insurance availability and characteristics for California and both have been conducted annually for more than 10 years. In addition, both use strong survey methods.

The strengths of MEPS-IC include its high response rate and comparability to other states. Weaknesses include a longer data collection period, a longer lag between data collection and release, and severe limits on data accessibility (there are no public use files, but data can be accessed through RDCs). By contrast, the CEHBS releases summary results and public use files four months after data collection has been completed. In addition, CEHBS is targeted specifically to California and questions can easily be added or modified to respond to policy needs or concerns. Though CEHBS estimates cannot be compared with other state level estimates, they can be compared with the Kaiser/ Health Research & Educational Trust Employer Health Benefits Survey (a widely used and well regarded national survey). A weakness of the CEHBS is a relatively low response rate, when compared with MEPS-IC.

Health Care Provider Data

There is a wide variety of state and national data sources about California health care providers. These include survey data, data collected through the licensure process, and data derived from mandatory state reporting systems. In general, mandatory data collected through a licensure process is more complete and more accurate than survey data. Sometimes, however, data collection is limited to what is needed for re-certification and is quite limited in scope.

A strength of the Medical Board of California's physician license renewal survey is its depth, which includes information on physician demographics, professional certification, hours of practice and location of practice (additional questions are included periodically). The data are publicly available and can be analyzed at a sub-state level. Similar annual data are available from the AMA for purchase. The AMA data can be compared across states, but there are concerns with data quality. Recent research suggests that the AMA Masterfile overestimates the number of physicians in California by 17% and that the problem is greater for primary care physicians.[2]

The data that OHSPD collects from California hospitals has many strengths, including the fact that it is complete (although some hospitals report in a slightly different manner), timely, and accessible. One weakness of the financial data is that there are inconsistencies in how hospitals report within and across spending categories, which affects the ability to make year to year comparisons and comparisons across hospitals. In addition, the fact that not all hospitals are required to report in the same way hinders comparable analysis (e.g., Kaiser hospitals report consolidated financial information). The utilization reports are cleaner, but offer less opportunity for subgroup analysis such as by type of insurance. The AHA survey data are comparable across states but are less complete than the OSHPD data and only available for purchase.

Data on the safety net comes from a variety of data sources (a single set of complete data on the safety net doesn't exist). OSHPD's data from primary care clinics are very accessible but exclude many providers that serve similar populations (such as county clinics). The HRSA Uniform Data System (UDS) is a rich source of data that allows for comparisons to other states, but it is limited to clinics that receive federal funding. Similarly, there is no complete or comparable data source on county indigent care services and cost.

Health Plan Data

There is no single source of health plan data that captures information on the entire insurance market. DMHC and CDI regulate an estimated 84% and 16% of the fully-insured private insurance market, respectively.[3] The data collected by DMHC and CDI are not directly comparable. A strength of the DMHC data is that it is accessible through the Department's website; however, its breadth is limited (there is currently no information on premium volume, although implementation of the ACA's provisions related to medical loss ratios will require more information about premiums). The CDI, on the other hand, collects much more detailed information than DMHC on the plans that it regulates, but this is a much smaller segment of the total market. A strength of the CDI data is that they include information on premiums, both in aggregate and in individual product rate filings. However, the CDI data are relatively difficult to access and analyze, because each company's filing must be accessed individually and the data are not in analyzable form. The CHBRP survey collects data in a way that is comparable across the plans regulated by DMHC and CDI, but the survey includes only the seven largest insurance carriers.

State Public Program Data

Public program enrollment and claims data can be obtained from both Medi-Cal and Healthy Families, and eligibility and enrollment data for both programs are maintained in the Medi-Cal Eligibility Data System (MEDS). The data can be compared to national data from MSIS, but the usefulness of these comparisons is likely limited by differences across states in benefit sets or other program differences. These data can potentially provide a more accurate and detailed picture of enrollment patterns (e.g., interrupted coverage) and use of care for people who have coverage through state public programs than data from other sources; however, there is no comparison available for other types of insurance coverage. Additionally, there is no common repository of claims data for the two programs, and claims data from managed care plans are less complete than fee for service claims.

Table B-1. **Data Source Strengths and Weaknesses**

	STRENGTHS	WEAKNESSES
POPULATION SURVEYS		
California Health Interview Survey (CHIS)	› Large sample size enables local estimates and subpopulation analysis › Breadth and depth of topics covered › Accessibility of data (some variables restricted) › Flexibility to easily add/change questions › Beginning with 2011 survey, estimates available every 6 months	› Low response rate › No comparisons to other states/U.S. › Available only every two years (through 2009)
Current Population Survey Annual Social and Economic Supplement (CPS ASEC)	› Comparisons to other states/U.S. › Address-based sample design ensures high population coverage › High response rate › Detailed information on health insurance coverage › Long time series for trend analysis (with some adjustments)[1] › Accessibility of data	› Limited ability for subpopulation or sub-state geographic analysis › Ambiguity about interpretation of health insurance measure – full year vs. point in time › Breadth of topics: No information on health care access or use
American Community Survey (ACS)	› Nearly complete population coverage (address-based sample, includes group quarters and institutions) › Very high response rate › Large sample enables local estimates and subpopulation analysis › Accessibility of data	› Breadth/depth of relevant topics: single question on health insurance status
National Health Interview Survey (NHIS)	› Breadth/depth of information on health insurance, access to care, use of care, and barriers to care › Address-based sample design ensures high population coverage › High response rate › Subpopulation analysis within state	› Accessibility of data: state-level data only available through Research Data Centers › California sample size not large enough for detailed sub-state geographic analysis
Medical Expenditure Panel Survey Household Component (MEPS-HC)	› Breadth/depth of information on health insurance, access to care, use of care, and expenditures › Ability to track individuals over time (panel survey with multiple waves)	› Accessibility of data: state-level data only available through Research Data Centers › Sample size in California limits ability for subpopulation or sub-state geographic analysis
Survey of Income and Program Participation (SIPP)	› Ability to track individuals over time (panel survey with multiple waves) › Comparisons to other states/U.S. › Accessibility of data	› No sub-state geographic analysis › Sample size in California limits ability for subpopulation analysis
EMPLOYER SURVEY DATA		
California Employer Health Benefits Survey (CEHBS)	› Breadth/depth of information on ESI › Comparison to U.S. averages (through Kaiser Family Foundation/HRET survey) › Timeliness of estimates	› Low response rate compared to MEPS-IC
Medical Expenditure Panel Survey Insurance Component (MEPS-IC)	› Breadth/depth of information on ESI › High response rate › Comparison to other states/U.S.	› Accessibility of data: microdata only through Research Data Centers
PHYSICIANS		
Medical Board of California License Renewal Survey	› Depth of information: hours and location of practice, specialty, demographics › High response rate (mandatory survey) › Accessibility and timeliness of data › Sub-state geographic analysis and analysis by physician characteristics	› Population coverage: excludes DOs › No comparisons to other states/U.S.

	STRENGTHS	WEAKNESSES
AMA Physician Masterfile	› Comparisons to other states/U.S. › Includes both MDs and DOs › Sub-state geographic analysis and analysis by physician characteristics	› Data quality concerns – appears to substantially overestimate the number of practicing physicians in California › Accessibility of data - must be purchased
OTHER HEALTH CARE PROFESSIONALS		
California Board of Registered Nursing Survey	› Detailed information on demographics, training, and employment	› Timeliness – survey conducted once every two years › No comparison to other states/U.S. › Accessibility of data – no public use file
HRSA National Sample Survey of Registered Nurses	› Detailed information on demographics, training, and employment › Comparison to other states/U.S. › Accessibility of data	› Timeliness – survey conducted every four years
Medical Board of California Physician Assistant Committee Licensing Data	› County-level information on number of licensees	› Narrow scope: no information on practice status, hours of patient care, specialty, or practice location
Dental Board of California, Dental Healthcare Workforce Survey	› Depth of information: hours and location of practice, specialty, demographics › Breadth of scope: includes all types of dental professionals	› No comparison to other states/U.S.
HOSPITALS		
Hospital Annual Financial Disclosure Report	› Accessibility and timeliness of data › Analysis is possible at the local, regional, or state level › Depth of information: detailed information on utilization and revenue by payer, including indigent care › High response rate (mandatory reporting)	› Possible consistency problems across hospitals or over time › Not all hospitals submit the same level of detail (e.g., Kaiser hospitals submit consolidated data) – limits and/or complicates comparative analysis › No comparisons to other states/U.S.
Hospital Annual Utilization Report	› Accessibility and timeliness of data › Analysis is possible at the local, regional, or state level › High response rate (mandatory reporting)	› No subgroup analysis – e.g., by payer › No comparisons to other states/U.S.
Medical Information Reporting for California (MIRCal) System	› Accessibility and timeliness of data › Comparable data are available for many states through the Agency for Healthcare Research and Quality's Healthcare Cost and Utilization Project (HCUP) › Analysis is possible at local, regional, or state level › Subgroup analysis by payer, race/ethnicity, age	
AHA Annual Survey	› Analysis possible at the local, regional, or state level › Comparisons to other states and the U.S.	› Less complete response than OSHPD data › Accessibility of data (must be purchased)
SAFETY NET		
Primary Care Clinics Annual Utilization Report	› Accessibility and timeliness of data › Depth of information on patient demographics (income, race/ethnicity, insurance type)	› Population coverage: includes all primary care clinics licensed by the state, but excludes many safety net clinic providers (local government clinics)
HRSA Uniform Data System	› Depth of information on patient demographics (income, race/ethnicity, insurance type) › Comparisons to other states/U.S.	› Population coverage: includes federally funded clinics, but excludes many safety net clinic providers
Indigent Care	› Breadth of information on utilization and cost of indigent care services (other data sources limited to specific settings of care)	› Completeness of data: MICRS discontinued › Consistency of data: variation across counties
HEALTH PLAN DATA		
California Department of Managed Health Care	› Depth of information (enrollment by product line) › Accessibility of data (online database and queries)	› Premium data is very limited › Population coverage: includes data for DMHC regulated plans, but this is only a segment of the population

	STRENGTHS	WEAKNESSES
California Department of Insurance	› Depth of information: Enrollment and financial data in annual statements enables tracking of trends by company; rate filings include data on enrollment and premiums for individual products	› Accessibility of data – company filings available online but not aggregated or in analyzable (e.g., spreadsheet or database) form › Population coverage: includes data for CDI regulated plans, but this is only a segment of the population
California Health Benefits Review Program Annual Enrollment and Premium Survey	› Data consistent and comparable across different types of insurance carriers	› Accessibility of data – summary reports only › Completeness of data – includes only the seven largest carriers
PUBLIC PROGRAM DATA		
Medi-Cal and Healthy Families	› Depth of information – program enrollment and utilization of care for public program enrollees › Comparisons to other states and the U.S.	› No common source of information on enrollment processes – e.g., applications denied › No common repository of claims data across programs › Claims/cost data from managed care programs are less complete than fee for service

[1] SHADAC has developed an enhanced CPS series adjusts for changes in the survey methodology over time

Source: State Health Access Data Assistance Center review of potential data sources

Appendix B Endnotes

1. The “AskCHIS” tabulator can be accessed at http://www.chis.ucla.edu/main/default.asp.
2. Grumbach K, et al. June 2009. Fewer and More Specialized: A New Assessment of Physician Supply in California. California Health Care Foundation. Available at: http://www.chcf.org/publications/2009/06/fewer-and-more-specialized--a-new-assessment-of-physician-supply-in-california.
3. California Health Benefits Review Program (CHBRP). 2010. California Health Benefits Review Program Estimates of Sources of Health Insurance in California, 2010.

Appendix C: Key Informant Interviews

In order to better understand the strengths and weaknesses of data sources that are specific to California, we conducted key informant interviews with experts who are regular users of the data source or who are responsible for the data collection. We are thankful to the following people for sharing their time and expertise:

- E. Richard Brown, University of California Los Angeles Center for Health Policy Research
- Catherine Dower, University of California San Francisco Center for the Health Professions
- David Grant, University of California Los Angeles Center for Health Policy Research
- Kenny Kwong, California Office of Statewide Health Planning and Development
- Lisa Maiuro, Health Management Associates
- Trisha McMahon, Blue Sky Consulting
- Ed Mendoza, California Office of Statewide Health Planning and Development
- Rene Mollow, California Department of Health Care Services
- Matthew Newman, Blue Sky Consulting
- Jeremy Pickreign, National Opinion Research Center at the University of Chicago
- Ron Springarn, California Office of Statewide Health Planning and Development
- Jonathan Teague, California Office of Statewide Health Planning and Development
- Jim Watkins, California Department of Health Care Services
- Heidi Whitmore, National Opinion Research Center at the University of Chicago
- Katy Wilson, Independent Consultant
- Lucien Wulsin, Insure the Uninsured Project
- Kiwon Yoo, Insure the Uninsured Project

Appendix D: List of Acronyms

ACA	Affordable Care Act
ACS	American Community Survey
AHA	American Hospital Association
AHRQ	Agency for Healthcare Research and Quality
AMA	American Medical Association
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
CDI	California Department of Insurance
CDPH	California Department of Public Health
CEHBS	California Employer Health Benefit Survey
CHBRP	California Health Benefits Review Program
CHCF	California HealthCare Foundation
CHIP	Childen's Health Insurance Program
CHIS	California Health Interview Survey
CMSP	County Medical Services Program
CPS	Current Population Survey
CWHS	California Women's Health Survey
DHCS	Department of Health Care Services
DMHC	Department of Managed Health Care
ER	Emergency room
ESI	Employer-sponsored insurance
FQHC	Federally Qualified Health Center
HCUP	Healthcare Cost and Utilization Project
HRET	Health Research and Educational Trust
HRSA	Health Resources and Services Administration
LIHP	Low Income Health Programs
MEDS	Medi-Cal Eligibility Data System
MEPS-HC	Medical Expenditure Panel Survey – Household Component
MEPS-IC	Medical Expenditure Panel Survey – Insurance Component
MICRS	Medically Indigent Care Reporting System
MIRCal	Medical Information Reporting for California
MLR	Medical loss ratio
MRMIB	Managed Risk Medical Insurance Board
MSIS	Medicaid Statistical Information System
NAIC	National Association of Insurance Commissioners
NCHS	National Center for Health Statistics
NHIS	National Health Interview Survey
NSCH	National Survey of Children's Health
NSSRN	National Sample Survey of Registered Nurses
OSHPD	Office of Statewide Healthcare Planning and Development
PQI	Prevention quality indicator
RDC	Research Data Center
RDD	Random digit dial
SHADAC	State Health Access Data Assistance Center
SIPP	Survey of Income and Program Participation
UDS	Uniform Data System

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