

# Issue BRIEF

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## Databases to Track Use of Preventive Services After Implementation of the Affordable Care Act<sup>1</sup>

Many preventive services are underutilized, and demographic and geographic disparities in preventive service use are significant.

Research has shown that use of certain clinical preventive services can reduce population morbidity and mortality.<sup>2</sup> For example, health screenings for serious conditions such as cancer allow providers to diagnose cancer early in its course, improving the chance of successful treatment. Immunizations reduce the burden of infectious disease by protecting vaccinated individuals and contributing to community-wide disease protection. Finally, screenings combined with counseling can help individuals modify behaviors and lifestyle choices that make them vulnerable to serious acute health problems (such as sexually transmitted infections [STIs]) or chronic diseases (such as heart disease and diabetes).<sup>3</sup> Despite their proven value, many of the preventive services recommended by the U.S. Preventive Services Task Force<sup>4</sup> are underutilized, and demographic and geographic disparities in preventive service use are significant.<sup>5,6</sup>

Recognizing that the lack of insurance,<sup>7</sup> discontinuous coverage,<sup>8</sup> and cost-sharing<sup>9,10</sup> for preventive services have contributed to their underuse, improving access to prevention was a major goal of the Patient Protection and Affordable Care Act (ACA) enacted in 2010. The ACA requires commercial non-grandfathered group health plans and group and individual health insurance issuers to cover certain preventive services without cost-sharing. This provision—covering a wide range of preventive services for adults, women (including pregnant women), and children<sup>11</sup>—is intended to improve the use of recommended preventive services and reduce the disparities in prevention that contribute to disparities in population health.

This issue brief provides an overview of databases that could be used to study changes in the use of preventive services among populations that are privately insured or enrolled in Medicaid. We consider medical claims databases that are known to have been used to study the use of preventive services—including MarketScan®, the Group Health Research Institute Database, and the IMS LifeLink™ databases. We then consider databases that, based on our limited review, have not been used to study preventive services use but (with noted exceptions) contain the attributes necessary for tracking preventive service use. These include the FAIR Health National Private Health Insurance

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Claims Database, state All-Payer Claims Databases, the Healthcare Cost Institute Database, the HealthCore Integrated Research Database, and the Optum™ Database. Finally, we consider survey databases—including the Medical Expenditure Panel Survey, the Behavioral Risk Factor Surveillance System, the National Health Interview Survey, and the National Ambulatory Medical Care Survey and National Hospital Ambulatory Medical Care Survey—that could be used to study the use of preventive services and the advantages and limitations of these data. We describe the utility of each database for monitoring use of selected preventive services over time and across insurance plan types, paying particular attention to databases that enable users to track preventive service use over time and across vulnerable subpopulations. Table 1 summarizes some of the important characteristics of each database for the purpose of studying change in the use of preventive services.

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## APPROACH

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To capture potential sources of data that are outside of our preliminary inventory, Mathematica conducted a review of the published and grey literature on health services use, preventive services use, and use of specific preventive services spanning multiple disciplines and research databases. The literature search performed for this issue brief targeted work that focuses on data that could be employed to track preventive service use. The literature we identified is representative of private medical claims prior to the enactment of the ACA. The most common preventive services tracked in the literature are cancer screenings for adults. We found fewer citations for reports using claims to track preventive services for children and physician counseling related to behavior change or risk reduction.

The results of this literature search, organized in three sections, are presented in the Bibliography. The first section contains examples of references to literature that employed the databases in the issue brief to study the use of preventive services. The second section contains references to literature that employed databases that can be used to track preventive service use, but does not focus on preventive service use. The third section contains references to literature that focuses on the effect of health insurance coverage and demographic characteristics on preventive service use; these studies typically use privileged data from unspecified sources (for example, from a large firm).

In addition, the project team consulted with subject matter experts at Mathematica to obtain further information about the databases and supplemented that information by researching

the databases directly and contacting database administrators when necessary.

## DATABASES IDENTIFIED

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A database that is useful for the purpose of tracking changes in preventive service use over time and across insurance types must include the following specific elements:

- **Utilization measures.** It must include measures of preventive service utilization, either current procedural terminology (CPT) codes or self-reports. Diagnosis codes or International Classification of Diseases (ICD-9) codes for well patients can also be useful for identifying claims for preventive services, especially well visits.
- **Demographic data.** It must include information about the demographic characteristics of enrollees or survey participants, at a minimum both age and gender (corresponding to recommended schedules of preventive services). In addition, having information about race, Hispanic origin, income, education level, geographic location, and employment status would enable researchers to determine the effect of the ACA on preventive service utilization across key subpopulations. Socio-demographic data elements are also helpful to confirm whether the database is nationally representative and to develop sample weights if necessary. Most medical claims databases include only age, gender, and geo-codes.
- **Data on nonusers.** If a medical claims database, it must contain both claims-level data and enrollment-level data that include plan members who do not use medical services in order to compute rates of preventive service use.

This issue brief provides an overview of databases that could be used to study changes in the use of preventive services among insured populations, including those who are privately insured or enrolled in Medicaid.

**Table 1. Comparison of key databases for analyzing trends in privately insured use of preventive services**

	Public availability	Years available	Data release lag time	Population	Demographic variables	Geo-codes—patient	Geo-codes—place of service	CPT codes	Group vs. individual plan	Links to literature
<b>CLAIMS DATA</b>										
<b>MarketScan®</b>	No	1995–present	3–6 months	Large group (employer-sponsored)	Age, gender, employment status, industry	Yes – state, MSA, 3-digit zip	Yes – state, MSA, 3-digit zip	Yes	No	<a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a>
<b>IMS LifeLink™</b>	No	2006–present	3–4 months	National commercially insured	Age, gender	Yes – 3-digit zip	Region	Yes	Yes	<a href="#">5</a> <a href="#">6</a>
<b>GHRI</b>	No	1990–present	Unknown	Privately insured – Washington and Idaho	Age, gender	Yes	Yes	Yes	Yes	<a href="#">7</a>
<b>State APCDs with data release policies</b>										<a href="#">Data Request Link</a>
<i>Colorado</i>	No	2012–present	Unknown	Publicly and privately insured residents of state	Race, Hispanic origin, gender, age	Yes – zip	Yes – zip	Yes	No	<a href="#">State APCD Website</a>
<i>Maine</i>	No	2003–present	4–6 months	Publicly and privately insured residents of state	Race, Hispanic origin, gender, age	Yes – zip	Yes	Yes	Yes	<a href="#">State APCD Website</a>
<i>Massachusetts</i>	No	2009–2012	2 years	Publicly and privately insured residents of state	Race, Hispanic origin, gender, age	Yes – zip	Yes	Yes	Yes	<a href="#">State APCD Website</a>
<i>New Hampshire</i>	No	2005–present	1 year	Publicly and privately insured residents of state	Race, Hispanic origin, gender, age	Yes – zip	Yes – zip	Yes	Yes	<a href="#">State APCD Website</a>
<i>Vermont</i>	No	2007–present	Unknown	Publicly and privately insured residents of state	Age, gender	Yes – zip (restricted)	Yes – zip	Yes	Yes	<a href="#">State APCD Website</a>
<b>FAIR Health</b>	No	2002–present	Unknown	Privately insured	Age, gender	No	Yes – 3-digit zip	Yes	Yes	n/a
<b>Health Care Cost Institute</b>	No	2007–present	3–6 months	Privately and publicly insured	Age, gender	Yes – CBSA	Yes – CBSA	Yes	Yes	n/a
<b>HealthCore</b>	No	2006–present	2 months	Privately insured	Age, gender	Yes	Yes	Yes	Yes	n/a
<b>Optum™</b>	No	2005–present	3 months	UnitedHealth insured	Age, gender	Yes	Yes	Yes	No – All group	n/a
<b>Blue Health Intelligence Part of IMS PharMetrics Plus™</b>	No	2004–present	45 days	Blue Health insured	Age, gender	Yes – 3-digit zip	Yes	Yes	Yes	n/a
<b>SURVEY DATA</b>										
<b>Medical Expenditure Panel Survey Household Component</b>	Yes	1996–2012	1–2 years	National survey	Age, gender, race, Hispanic origin, education level, employment status, wages	Yes – restricted access	No	Self-report	Yes	<a href="#">8</a> <a href="#">9</a> <a href="#">10</a> <a href="#">11</a> <a href="#">12</a> <a href="#">13</a> <a href="#">14</a>
<b>Behavioral Risk Factor Surveillance System</b>	Yes	1984–2013	8 months	National (weights) (18 and over)	Age, gender, race, Hispanic origin, education level, family income, employment status	Yes – state	No	Self-report	Yes	<a href="#">15</a> <a href="#">16</a> <a href="#">17</a> <a href="#">18</a>
<b>National Health Interview Survey</b>	Yes	1997–2013	8 months	National (weights)	Age, gender, race, Hispanic origin, education level, family income, employment status	Yes – restricted access	No	Self-report	Yes	<a href="#">19</a> <a href="#">20</a> <a href="#">21</a> <a href="#">22</a>
<b>Health and Retirement Survey</b>	Yes	1992–2012	2 years	National (weights)	Age, gender, race, Hispanic origin, education level, family income, employment status	Yes – restricted access	No	Self-report	Yes	<a href="#">23</a>

Denotes databases have not been used to study the utilization of preventive services in the literature. Papers that use these databases to track other services are listed in the bibliography. 3

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• **Insurance status and source of coverage.**

For researchers interested in understanding whether financing prompts changes in service use, the database must include information about health insurance status when the service is used. Further information differentiating between public (Medicare, Medicaid, or CHIP) and private health insurance plans, the source of private insurance if any (large group, small group, or individually purchased), and the type of insurance plan (for example, high-deductible, health maintenance organization [HMO], preferred provider organization [PPO]) can also be useful to explore how different coverage plans or delivery systems might affect preventive service use.

The following sections review several large claims databases and several national population surveys that are potentially useful for tracking preventive service use. They have the essential elements identified above—enrollees’ age, gender, and CPT codes as well as geo-codes; some also identify whether enrollees are enrolled in group or individual coverage. Although the national survey data are weighted to be representative of the population as a whole and often contain socio-demographic information that is useful in defining particular populations of interest, some do not report CPT codes (instead relying on respondent recall) and may not identify the individual’s geographic location even at the state level. In contrast, claims databases generally contain demographic and relatively specific geo-coding for users (if not for all enrollees). However, some claims databases represent a convenience sample, and estimates derived from these databases may have limited external validity.

### **CLAIMS DATABASES USED TO STUDY PREVENTIVE SERVICE USE**

**MarketScan®.** The MarketScan® databases contain claims data from small, medium, and large employers as well as a number of enrollees covered by individually purchased health plans. These databases do not allow for comparisons between group and individual health plans. MarketScan® is proprietary and requires an application and licensing fees to use the data. The databases are based on a large convenience sample that is mostly concentrated in large urban areas. Annual MarketScan® files are available from 1995 on, and annual data are released with a six-month lag from the end

of the year. Standard update files are released quarterly but may lack the completeness of the annual release files. Like many medical claims databases, the MarketScan® files contain limited demographic information. For each enrollee, the database includes age, gender, the policyholder’s employment status, relationship of the enrollee to the policyholder, geographic location (state and metropolitan statistical area [MSA]) and the industry in which the policyholder works. It also includes information about the location of service and the type of provider seen. CPT codes are reported for all medical services performed.

The MarketScan® databases have been used to study trends in preventive service use. For example, Zhu and Wang (2014) used the MarketScan® Commercial Claims and Encounters database to study the effect of the ACA provision on the use of flu shots, mammography screening, and office visits for preventive care. Owusu-Edusei et al. (2013) used the database to monitor costs and use of screening for STIs among adolescents. Tsai et al. (2014) used it to study the use of preventive care office visits by adolescents.

### **IMS LifeLink™/Blue Health Intelligence.**

The IMS PharMetrics Plus™ and IMS LifeLink™ Health Plan Claims databases are proprietary commercial claims databases owned and licensed by IMS Health. The PharMetrics Plus™ database includes claims for more than 150 million individuals from approximately 100 health plans across the United States. It is nationally representative of the commercially insured population of the United States based on age and gender. The database includes ICD-9 and CPT codes, as well as enrollees’ gender, age, region of service and residence, and three-digit zip code. Enrollment and claims data are available from 2006 to the present. As of January 2013, the data differentiate between group and individual health plans. Data are updated with a three-to-four-month lag. The PharMetrics Plus™ database is only licensed to pharmaceutical clients and is currently not available to researchers.

The IMS LifeLink™ Health Plan Claims database includes claims for more than 73 million individuals from approximately 80 health plans across the United States. It is nationally representative of the commercially insured population of the United States based on age and gender. The database includes ICD-9 and CPT codes, as well as enrollees’ gender,

Databases used to track changes in preventive service use must include utilization measures, demographic data, data on nonusers, insurance status, and source of coverage.

[Some] databases contain CPT codes and health insurance information that would make them suitable for tracking the use of a variety of medical services.

age, and region. Enrollment and claims data are available from 2001 to the present, but are more reliable and robust in more recent years. The data do not differentiate between plans purchased individually and those purchased through a group, but do include data about insurance product type (for example, HMO or PPO) and payer type (for example, commercial or self-insured). IMS LifeLink™ licenses the Health Plan Claims database to researchers.

IMS recently partnered with Blue Health Intelligence (BHI) to include the BHI secure claims database in the LifeLink™ data products. BHI is an independent licensee of the Blue Cross Blue Shield Association. It maintains a proprietary claims database drawn from the Blue health plans, including 40 to 50 million current members and 150 million members over 10 years. Data are available from 2004 to the present, and the database is updated monthly with a 45-day lag. Patient-level data include ICD-9 and CPT codes as well as three-digit zip codes. The BHI database also identifies large group plans, small group plans, and individual plans. BHI will license out de-identified data or will perform the analysis if identifiers are needed.

**Group Health Research Institute (GHRI) Database.** Group Health Cooperative is a managed care organization in Washington State and Idaho, with more than 600,000 insured members. The Group Health Research Institute has access to the plan's claims and enrollment files for research purposes. The GHRI database includes claims data from 1990 to the present and has information on CPT codes, diagnosis codes (ICD-9), age, and gender. The database distinguishes between group and individually purchased plans. GHRI is also able to include additional information from providers' electronic health records in the database. GHRI does not license its database to researchers, but will collaborate on research in accordance with its research goals and standards. The GHRI database has been used to track longitudinal adherence to screening for colorectal cancer (Fenton et al. 2010).

## OTHER CLAIMS DATABASES

The following databases contain CPT codes and health insurance information that would make them suitable for tracking the use of a variety of medical services. However, we did not identify studies that used these databases to examine use of preventive services.

**State All-Payer Claims Databases (APCDs).** These are large-scale databases that collect medical, pharmaceutical, and dental claims from both public and private insurers. State APCDs aid governmental and nongovernmental research efforts. Eleven states (Colorado, Kansas, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, Oregon, Tennessee, Utah, and Vermont) have implemented APCDs. Currently, these states' databases are not standardized: each state APCD captures a different set of variables, uses different definitions, and has a different data structure.

Only five states make their APCDs available to researchers who are not employed by (or contracted to) the state: Colorado, Maine, Massachusetts, New Hampshire, and Vermont. They all collect enrollee-level data that include age, gender, and geographic location as well as CPT and IDC-9/ICD-10 codes. All except the Vermont APCD also contain information on race and Hispanic origin; all but Colorado distinguish between claims associated with group versus individual health plans. States have their own data request application processes consistent with their statutes. In general, these processes require prospective users to complete an application form and data use agreement (DUA).

**FAIR Health.** FAIR Health is a national not-for-profit organization that was created as part of the settlement between United HealthGroup, Inc., and the state of New York. Its purpose is to create an independently administered database that allows consumers to determine expected medical costs. The FAIR Health National Private Health Insurance Claims (NPIC) database includes more than 16 billion billed charges for medical and dental procedures performed in the United States from 2002 to the present, associated with private payers that include health plans, insurance carriers, and third-party administrators.<sup>12</sup> The NPIC database represents more than 160 million covered lives.

The NPIC data identify the patient's age and gender, and plan type;<sup>13</sup> claims contain CPT codes as well as provider type and zip code. However, because the NPIC data do not include an enrollment file, they omit information identifying plan members who do not use medical services. In addition, the data do not include unique patient identifiers, so it is not possible to track individual patients over time. Also, although the NPIC includes geo-coded

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claims from all 50 states, the data are not necessarily representative of the population.

The NPIC database has not yet been widely used. FAIR Health began licensing researchers to use the data in 2012; the licensing process involves submitting an application and paying a licensing fee. To date, research using NPIC data largely has focused on health services prices.

The NPIC database might be useful for monitoring the use of preventive services over time, but only if the researcher assumes that the data: (1) contain claims for most or all of the same covered lives over time, or that service users represent a consistent and vast majority of the insured population; and (2) are representative of the population of interest. It might be possible to weight NPIC data to nationally representative estimates of service users (for example, by weighting to users in a representative household survey that measures service use, such as those discussed below), but without basic demographic information about nonusers, the NPIC data alone are not useful for tracking service use.

#### **Healthcare Cost Institute (HCCI).**

HCCI is a nonprofit, nonpartisan research institute that has developed a database with medical claims data for more than 50 million Americans. The data are contributed by four large carriers (Aetna, United Healthcare, Kaiser Permanente, and Humana) and contain the universe of claims from 2007 to the present.

The HCCI data appear to be suitable for tracking preventive services use—that is, the enrollment data identify enrollees' age and gender, contain core-based statistical area (CBSA)-level geographic identifiers, and distinguish between group and individual coverage. The claims data include standard ICD-9 and CPT codes, as well as the provider's CBSA. HCCI licenses the database to researchers and releases claims data in a timely manner (generally within six months of the end of the calendar year).

#### **HealthCore Integrated Research**

**Database.** This database contains claims from the Wellpoint network, which covers 14 states. Data are available from 2006 to the present and uploaded monthly with a two-month lag for validation (as of September 16, 2014, data through June 2014 were available). It seems likely that this database could be used to track

preventive service use; the enrollment data include age and gender information and geo-codes, and indicate whether the individual is enrolled in individual or group coverage. The claims data include ICD-9 and CPT codes. HealthCore does not license its data but will collaborate on projects with other organizations.

**Optum™ Database.** The Optum™ database is a proprietary commercial claims database; the data are contributed by United Healthcare. As of 2012, the database contained claims for 12.6 million group-insured members from January 1, 2005, to the present.

The Optum™ data would support tracking of preventive service use over time, but only for employees and dependents enrolled in group coverage. The enrollee data (for all enrollees) include age and gender information; the claims data include CPT and ICD-9 codes.

Optum™ will license its data to researchers and also collaborate on projects. Data are uploaded monthly with a three-month lag for validation. As of September 17, 2014, data through June 2014 were available.

## **SURVEY DATABASES**

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Several public-use survey databases can be used to produce nationally representative estimates of preventive service use. These surveys include a rich set of demographic variables that generally do not appear in claims databases and allow for analysis of key subpopulations. However, for survey respondents that have more than one type of coverage concurrently or sequentially during the year, these surveys might not distinguish services covered by a specific type of health plan (for example, individual versus group coverage, or an HMO versus a PPO) as accurately as a claims database. For respondents who are uninsured for part of the year, the surveys may not differentiate between services used while uninsured, while insured but paying down a deductible, or while insured without cost-sharing.

The national surveys described below include data on the use of selected preventive services as well as health insurance coverage information. Detailed information about the location of survey respondents is generally not available in public use data files but can be obtained using restricted access data through the National Center for Health Statistics Research Data Center.

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### **Medical Expenditure Panel Survey Household Component (MEPS-HC).**

Conducted annually since 1996, MEPS-HC is a nationally representative survey that uses an overlapping panel design. Respondents are interviewed five times over two years. MEPS-HC collects information about access to and use of medical care, including the following types of preventive services: routine well visit, cholesterol screening, blood pressure screening, oral health screening, weight screening, cervical cancer screening, colorectal cancer screening, breast cancer screening, immunizations, and tobacco cessation counseling.

The MEPS-HC can be useful for studying the impact of the ACA on the use of preventive services. It contains detailed health insurance and demographic information, as well as information on respondents' age, gender, race, Hispanic origin, education level, marital status, employment status, and wages. Respondents' location is identified only by geographic region; state or sub-state codes are unavailable in the public use data.

The MEPS-HC has been used to study the use of preventive services. Vaidya et al. (2012) compared patterns of service use across gender. Bustamante et al. (2010) used the MEPS-HC to study the use of adult preventive services among Latinos. Romaine and Bell (2010) used the MEPS to determine the effect of medical homes on preventive care for children. Jerant et al. (2013) used the MEPS to study whether obtaining health insurance leads to increases in the use of preventive services.

### **Behavioral Risk Factor Surveillance System (BRFSS).**

Managed by the Centers for Disease Control, the BRFSS is administered annually at the state level. All participating states administer a core set of questions. In addition, each state may choose to administer a number of optional survey modules.

The BRFSS tracks self-reported use of preventive practices as well as risky health behaviors in the U.S. adult population. The data include extensive socio-demographic information (age, gender, race, Hispanic origin, education level, income, and employment status), state identifiers, and self-reported use of preventive health services. Services included in the core survey include well visits (adult), Pap test, mammography, physical breast exam, colonoscopy or sigmoidoscopy, blood pressure screening, immunizations,

cholesterol screening, diet counseling, aspirin use to prevent heart disease, and HIV tests. Diabetes screening is included in an optional module. The survey records respondents' reports of the approximate time since each service was last obtained. Although the BRFSS indicates whether the respondent has group or individual health insurance coverage at the time of questioning, it does not indicate whether the respondent obtained the preventive service while insured or whether the service was covered by a specific plan.

The BRFSS has been used to study use of preventive services. For examples, see Cokkinides et al. (2011), Wherry (2013), and Saloner et al. (2014).

### **National Health Interview Survey**

**(NHIS).** Administered annually by the CDC's National Center for Health Statistics, the NHIS contains data on individuals living in 30,000 to 40,000 households and noninstitutional group living quarters. Data are available from 1997 through 2013.

Data are collected at the household, family, and individual levels. A core questionnaire obtains information about the household (such as family income) as well as demographic and health data for each family member—including age, gender, race, Hispanic origin, education level, and employment status. Respondents' location is identified only by geographic region in the public use data.

One adult and one child in each household are randomly selected to complete more-detailed questionnaires. The sample adult and child surveys record whether any of 12 types of preventive services were obtained within a year of the interview: a well visit (sample child survey), a Pap test, a mammogram, a colon cancer test, diet counseling, immunizations, blood pressure screening, cholesterol screening, diet and exercise counseling, STI prevention counseling, STI screening, and smoking cessation counseling. The sample adult and child records also distinguish between group and individually purchased private health coverage at the time of questioning—but the NHIS does not indicate whether the respondent was covered at the time of service use or whether the service was covered.

The NHIS has been used to study the use of certain preventive services. For example, Holmes (2012) used the survey to determine whether the burden of caring for dependents is correlated

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with mammography use patterns. Newransky (2014) used the NHIS to study the relationship between socioeconomic status and demographic characteristics and the use of Pap tests.

**National Ambulatory Medical Care Survey (NAMCS)/National Hospital Ambulatory Medical Care Survey (NHAMCS).**

NAMCS and NHAMCS are administered to a nationally representative sample of health care facilities in the United States and collect information on the provision and use of medical care, including preventive services. Both surveys contain data on patients' age, gender, race, and Hispanic origin; both include ICD-9 and CPT codes, as well as region-level geo-codes, and both are nationally representative.

Neither NHAMCS nor NAMCS captures information about nonusers. However, because both surveys are nationally representative, it might be possible to infer nonusers from Census or other population data to calculate rates of service use across the population and by population subcategory. Both surveys identify the expected source of payment (Medicare, Medicaid, or private health insurance) for services used (and, therefore, identify coverage at the time of service use and expected coverage for the specific service), but neither distinguishes group from individual private coverage.

**Health and Retirement Survey (HRS).**

Administered by the University of Michigan, the HRS is a longitudinal panel survey of Americans over age 50. The HRS has been conducted every two years since 1992. It obtains information on respondents' income, wealth, employment, health insurance, health status, and health care expenditures. The HRS data contain detailed socioeconomic and demographic information, as well as detailed information about Medicare and private health insurance coverage, including whether private coverage (if any) is purchased individually or through an employer. Geo-coded data are available at the census tract level, but only to restricted access users. The survey asks about preventive service use in the following categories: blood pressure screening, diabetes screening, immunizations, cholesterol screening, mammography screening, Pap test, and prostate exam.

The HRS has been used to study the relationship between intermittent health insurance coverage and the use of preventive services (Sudano et al. 2003).

**OTHER RESOURCES**

Finally, we identified two additional databases that might be used to track preventive services, but are limited in availability or the scope of preventive services considered:

- The Kaiser Family Foundation conducts an annual Survey of Employer Health Benefits and maintains claims and electronic health record databases for Kaiser Permanente, an integrated health system in California. However, Kaiser does not provide access to its databases. Kaiser does contract with other researchers and organizations and licenses its data to IMS as part of the LifeLink™ databases.
- The National Survey of Family Growth (NSFG) can be used to track fertility and health in the United States. The NSFG contains detailed information about sexual health including birth control use as well as testing and treatment for STIs. These data might be used to track women's health-related preventive services. Currently, 2006–2010 NSFG data are available and a new wave covering 2011–2015 is in progress.

**SUMMARY**

Several databases might be suitable to track changes in preventive service use subsequent to implementation of the ACA. These include several private claims databases, such as the APCDs in several states, the HCCI database, the HealthCore data, and the Optum™ database. Each of these claims databases contains all the attributes needed for measuring differences in preventive service use over time; all but the Optum™ database (which includes only group enrollees and claims) allow analysis across the group and individual health insurance markets. The HCCI database, which contains data from all 50 states and multiple private payers, might be weighted to produce nationally representative estimates. Several APCDs are representative of the insured population statewide and in smaller geographic areas.

Some national surveys also can be useful for monitoring certain preventive services across group and individual health plans. Such surveys—including the MEPS-HC, BRFSS, NHIS, and HRS—include rich information about respondents' socio-demographic characteristics, although they may not indicate whether the respondent was insured when

Several databases might be suitable to track changes in preventive service use subsequent to implementation of the ACA.



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a service was used, whether the service was covered, or where the respondent resides. Nevertheless, the public use files from these surveys are easily obtained and could be useful for preliminary or supplemental analysis.

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## ENDNOTES

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<sup>11</sup> For a full listing of preventive services to be offered with no cost-sharing, see: <https://www.healthcare.gov/what-are-my-preventive-care-benefits/>

<sup>12</sup> Data contributors are not identified, but they consistently exclude Blue Cross and Blue Shield companies.

<sup>13</sup> Plan type is coded as: Deductible, Managed Care, Medicaid, Medicare, Point of Service, Workers Compensation, HMO, PPO, or Individual. Although 70 percent of observations in the database include values for plan type, there are fields with overlapping categories (for example, HMO and managed care) that data contributors may report inconsistently.

