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REVIEW OF EXISTING DATA SOURCES TO ASSESS THE IMPACTS OF THE AFFORDABLE CARE ACT MEDICAID EXPANSIONS:

WORKING PAPER

April 2012

Office of the Assistant Secretary for Planning and Evaluation

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The ASPE Offices that were involved in this project were the Office of Disability, Aging and Long-Term Care Policy (DALTCP) and the Office of Health Policy (HP).

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This report was completed in January 2012. A related ASPE report released in July 2012 will be of interest to readers: ***Affordable Care Act Data Enhancements Brief***, which describes modifications made to HHS surveys to assess the implementation and outcomes of the Affordable Care Act. The Brief will be available at http://aspe.hhs.gov/hsp/12/surveyenhancements/ib.shtml.

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ACRONYMS

ACS	American Community Survey
AHA	American Hospital Association
AHRQ	Agency for Healthcare Research and Quality
AMA	American Medical Association
ARF	area resource file
ASEC	Annual Social and Economic Supplement
ASPE	HHS Office of the Assistant Secretary for Planning and Evaluation
BRFSS	Behavioral Risk Factor Surveillance System
CDC	HHS Centers for Disease Control and Prevention
CHC	community health center
CMS	HHS Centers for Medicare and Medicaid Services
CPS	Current Population Survey
EHR	electronic health record
EMR	electronic medical record
ESPC	Environmental scanning and program characteristics
FPL	federal poverty level
FQHC	Federally Qualified Health Center
HCUP	Healthcare Cost and Utilization Project
HHS	U.S. Department of Health and Human Services
HRSA	Health Resources and Services Administration
MEPS	Medical Expenditure Panel Survey
MEPS-HC	Medical Expenditure Panel Survey--Household Component
MSIS	Medicaid Statistical Information System
N-SSATS	National Survey of Substance Abuse Treatment Services
NAMCS	National Ambulatory Medical Care Survey
NAPH	National Association of Public Hospitals and Healthcare Systems
NCHS	CDC National Center for Health Statistics
NEDS	National Emergency Department Sample
NHAMCS	National Hospital Ambulatory Medical Care Survey
NHANES	National Health and Nutrition Examination Survey
NHDS	National Hospital Discharge Survey
NHIS	National Health Interview Survey

NIS	National Inpatient Sample
NSDUH	National Surveys on Drug Use and Health
SAMHSA	HHS Substance Abuse and Mental Health Services Administration
SHADAC	State Health Access Data Assistance Center
SIPP	Survey of Income and Program Participation
SNAP	Supplemental Nutrition Assistance Program
SSI	Supplemental Security Income
TANF	Temporary Assistance for Needy Families
TEDS	Treatment Episode Data Set
TEDS-A	Treatment Episode Data Set-Admission
UDS	Uniform Data System
USOC	usual source of care
WIC	Women, Infants and Children supplemental food program

1. INTRODUCTION AND SCOPE

The Patient Protection and Affordable Care Act (Affordable Care Act), signed into law in March 2010, is expected to have extensive and wide-ranging impacts on health insurance coverage and access to health care in the United States, especially for the low-income uninsured. Beginning in 2014, people with incomes at or below 138% of federal poverty level (FPL) will be eligible for Medicaid; although the impacts will vary by state, this represents a significant expansion of the Medicaid program.[1] Other major changes in the Affordable Care Act, such as the individual responsibility requirement, will also have impacts on the Medicaid-eligible population (as well as the population more broadly). In addition, the Affordable Care Act provides funding to expand the availability of services through community health centers (CHCs) and support for a range of initiatives aimed at ensuring sufficient access to care for Medicaid enrollees.[2]

The purpose of this report is to describe and assess existing data sources that could be used to evaluate the impacts of the Affordable Care Act on the Medicaid-eligible population. This data scan is one component of a larger project to design an evaluation of the Affordable Care Act's impacts on this population.

The data scan and data needs assessment component of this project has four primary goals:

- Identifying existing data sources that potentially can be used to evaluate the impacts of the Affordable Care Act on Medicaid-eligible populations.
- Assessing the strengths and weaknesses of existing data sources with regard to the specific research questions that will be the focus of the evaluation.
- Assessing the strengths and weaknesses of existing data sources with regard to the specific populations and provider groups of interest for the evaluation.
- Identifying gaps in existing data available for the evaluation.

The data scan builds on previous work to assess how existing data sources might be used to monitor and understand the impacts of the Affordable Care Act over time.[3]

[1] Other non-financial eligibility criteria, such as citizenship and immigration status, must also be met. The law expands Medicaid eligibility to 133% of poverty, with a standard 5% income disregard, which makes the effective eligibility level 138% of poverty.

[2] For example, Medicaid payment rates for primary care services by primary care providers will be increased to the Medicare payment level in 2013 and 2014, with the full cost of the difference paid by the Federal Government.

[3] Sonier, J., and E. Lukanen. 2011. A Framework for Tracking the Impacts of the Affordable Care Act in California. Minneapolis, MN: State Health Access Data Assistance Center.

For this project, it is particularly important to identify data sources that can support state-level estimates in addition to national estimates, so that state-specific factors can be taken into account in evaluating the Affordable Care Act's impacts. For example, it will be important to understand the impact of the different decisions that states will make about Medicaid benefit levels, outreach strategies, provider payment rates, and other issues that could influence the Affordable Care Act's impacts within a state. In addition, there is substantial variation across states in current eligibility for public coverage and in how health care is delivered to low-income populations, and this variation will need to be taken into account in an evaluation of the Affordable Care Act's impacts.

Consistent with the focus of the evaluation design, the data scan focuses primarily on data sources that support the evaluation of impacts on individuals. Provider-related data sources are included as well, with a focus on ways that these data sources can be used to assess the accessibility of services for Medicaid-eligible populations.

Table 1 provides a list of the data sources that were included in the data scan.[4] The table includes eight national population surveys, seven provider surveys, and four sources of administrative data from providers that are collected on a regular basis and that are expected to continue to be available in the future. For each source of data, we compiled technical information, including how the data are collected and from whom; how complete or representative the data are for the populations of interest; and what level of geography is available for analysis. We reviewed the data collection instruments (e.g., survey questionnaires), technical documentation for the data sources, and publicly available reports that use the data. We also consulted with data users, the agencies that collect the data, or both as needed to understand the strengths and weaknesses of the data.

Several data sources were considered but not included in the list of data sources in Table 1. Among the most important of these were Medicaid claims data, multipayer claims databases, and Medicaid administrative data (such as enrollment data). A key reason that these data sources were excluded is that, by definition, the Medicaid databases do not include the population that will be made newly eligible for Medicaid in 2014 under the Affordable Care Act and currently eligible individuals who have not enrolled in Medicaid; similarly, multipayer claims databases are also likely of limited usefulness for this purpose (because most of the population that is expected to gain Medicaid coverage as a result of the Affordable Care Act lacks health insurance, their use of health care would not show up in a claims database). As a result, these sources cannot be used to understand what happened to the populations of interest as a result of the Medicaid eligibility expansion. In addition, analysis of claims data is extremely resource intensive and was determined to be outside of the scope of the evaluation design.

Because of the importance of timely data for evaluating the impacts of the Affordable Care Act's Medicaid expansions, Table 1 also excludes population surveys

[4] The data scan also included sources of information on state policy choices. These data sources are reviewed separately in a later section of this report.

that are conducted less than annually. In addition, a number of states conduct regular health insurance surveys that could potentially be used to assess the impacts of Affordable Care Act on Medicaid-eligible populations within a given state; however, many of the state surveys are not conducted annually. Furthermore, a key focus of this evaluation is to determine how variations *across* states in pre and post-2014 policy decisions influence the Affordable Care Act's impacts. Although these state-specific surveys can have tremendous value in understanding within-state impacts, they are generally not useful for cross-state comparisons.

Finally, in addition to an assessment of the existing data available to assess Affordable Care Act's impacts on Medicaid-eligible populations and health care providers generally, the data scan focuses on specific population groups and provider types of interest. These groups were identified by the Office of the Assistant Secretary for Planning and Evaluation (ASPE) as being of particular interest for the evaluation design. For individuals, the specific population groups of interest include people in extreme poverty (defined as having family income at or below 50% of FPL) and people with substance use disorders or mental illness.[5] With regard to health care providers, the analysis focuses on emergency departments, CHCs, public hospitals, and other providers that serve the targeted vulnerable populations (e.g., community mental health centers).

TABLE 1. Data Sources Included in Review

Population Surveys	Provider Surveys
American Community Survey (ACS) Current Population Survey (CPS) 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 Health and Nutrition Examination Survey (NHANES) National Survey on Drug Use and Health (NSDUH)	**Hospitals** National Hospital Ambulatory Medical Care Survey (NHAMCS) National Hospital Discharge Survey (NHDS) American Hospital Association (AHA) annual survey National Association of Public Hospitals and Healthcare Systems (NAPH) survey **Physicians** National Ambulatory Medical Care Survey (NAMCS) American Medical Association (AMA) Physician Masterfile **Substance Abuse Treatment Providers** National Survey of Substance Abuse Treatment Services (N-SSATS)
Administrative Data	
Healthcare Cost and Utilization Project (HCUP) Medicare cost reports Uniform Data System (UDS) Treatment Episode Data Set (TEDS)	

[5] The chronically homeless population was also included on the original list of specific populations of interest for this project; however, we were unable to identify any existing data sources suitable for evaluating the impacts of the Medicaid expansion on this population. Conducting new data collection is beyond the scope of this project.

2. REVIEW OF EXISTING DATA SOURCES

As a first step in conducting the data scan, we identified key outcomes of interest for evaluating the impacts of the Affordable Care Act on individuals and health care providers. Having this list of key outcome indicators allowed us to refine the scope of the data scan and ensure that the data scan is targeted appropriately to the anticipated goals of the evaluation. The list of outcome indicators for impacts on individuals is presented in Table 2, and the provider-related outcomes of interest are shown in Table 3.

Impacts on Individuals

For purposes of evaluating the impacts of Affordable Care Act on Medicaid-eligible populations, the data sources included in our review were the ACS, CPS, NHIS, MEPS, SIPP, BRFSS, NHANES, and NSDUH. The appendix to this report provides detailed information about each of these surveys.

A key issue in assessing the usefulness of the different surveys for evaluating the Affordable Care Act's impacts on Medicaid-eligible populations is sample size for the various population groups of interest. As shown in Table 4, the surveys vary quite a bit in this regard. The ACS has the largest sample size, with nearly 335,000 non-elderly adults at or below 138% of poverty included in the 2010 public use file. At the other end of the spectrum, the NHANES public use file for calendar years 2009 and 2010 combined includes only 1,770 observations for this group, and 380 observations at or below 50% of poverty.[6] Many of the surveys have fairly limited sample sizes for the extreme poverty group. Although a common way of addressing this limitation is to combine data from multiple years, using this strategy would have negative impacts on the timeliness of the evaluation.

Only one data source, the NSDUH, has data that are specific and comprehensive enough on substance abuse and mental illness to be useful for purposes of evaluating the Affordable Care Act's impacts on this population. As shown in Table 4, however, sample sizes for the low-income population with substance abuse or dependence are limited (1,146 in 2010), as are sample sizes for mental illness and low income (1,113 in 2010).[7]

[6] In addition, there is a substantial amount of missing data for the continuous poverty variable in the NHANES public use file.

[7] As noted in the table, the NSDUH sample sizes actually use an income cutoff of 100% of poverty because the public use file does not allow for more detailed income categories. Thus, actual sample sizes for the population groups of interest are likely somewhat larger in the full file.

The surveys also vary substantially in their inclusion of questions that allow for identification of the outcomes of interest described earlier. Tables 5-11 illustrate which of the outcome indicators of interest are available from each of the population surveys included in our review. **ACS** and **CPS** are among the most commonly used sources of information on health insurance coverage (Table 5), particularly for state estimates. The measures of health insurance coverage differ between the two surveys--ACS is a point in time measure, and the CPS question is about full-year insurance status (although many analysts interpret the CPS measure to be more similar to a point in time measure[8]). Both ACS and CPS include only limited questions related to the other outcome indicators of interest. The Census Bureau has recently added questions about financial burden of health care to the CPS (Table 8) and is considering changes to the CPS health insurance questions to collect information about point in time coverage status and number of months of coverage by type during the year. Both ACS and CPS include information about participation in other government programs (Table 10) and many of the demographic and control variables of interest (Table 11). CPS also has a general health status question (Table 9).

CPS interviews the same individuals at multiple points in time: in 4 consecutive months, then 8 months without an interview, and again for 4 consecutive months. As a result, around half the sample in the CPS Annual Social and Economic Supplement (ASEC--the supplement to the CPS that collects health insurance information) each year was also interviewed in the previous year. This feature of the CPS ASEC presents both opportunities and challenges with regard to evaluating the Affordable Care Act's impacts. A potential advantage is the ability to follow individuals over a 2-year period; however, the overlapping samples also complicate the analysis of changes over time. For state-level estimates, it is typically recommended to use 2-year or 3-year averages from CPS to ensure adequate sample size; for purposes of the evaluation, this means that a state-level analysis using CPS could not be available in as timely a way as an analysis from a survey with larger state sample (such as ACS).

Because they are specifically designed as in-depth health surveys, **NHIS** and **MEPS** contain a wealth of information on the indicators of interest that ACS and CPS do not; however, NHIS and MEPS have much more limited sample sizes and both allow access to state identifiers only through a Research Data Center. Each includes substantial detail and depth on health insurance coverage and type (Table 5), health care access and use (Table 6), and the financial burden of health care (Table 8). MEPS is more detailed than NHIS in terms of patient experience (Table 7) and health outcomes (Table 9), whereas NHIS has more detail than MEPS on participation in other government programs (Table 10). Both surveys include most of the demographic and control variables of interest (Table 11).

[8] Davern, M., G. Davidson, J. Ziegenfuss, et al. 2007. A Comparison of the Health Insurance Coverage Estimates from Four National Surveys and Six State Surveys: A Discussion of Measurement Issues and Policy Implications. Final report for HHS/ASPE, Task 7.2. Minneapolis, MN: University of Minnesota. Available at: http://www.shadac.org/files/shadac/publications/ASPE_FinalRpt_Dec2007_Task7_2_rev.pdf.

As a panel survey, MEPS has the advantage of potentially being used to understand the impacts of the Affordable Care Act on specific individuals over time; however, its usefulness for this purpose will be limited by its sample size for the income groups of interest (Table 4). **SIPP** is also a panel survey, and it has a substantially larger sample size for the income groups of interest for this project (Table 4). Whereas MEPS enrolls a new panel each year, the SIPP enrolls a new panel only once about every 4 years--the 2008 panel is currently scheduled to finish at the end of 2013. The Census Bureau is planning to change the data collection frequency for SIPP to an annual data collection, with the first interview of the 2014 panel collecting data from the beginning of 2013 through the interview month.[9] Thus, the 2014 SIPP panel could potentially be used to track the impacts of the Affordable Care Act on Medicaid-eligible populations for the first few years after implementation. With the exception of the health insurance measures, however, other current SIPP content related to the outcomes of interest for this project is fairly limited--it includes some measures of health care access and use, as well as unmet need (Table 6) and some of the measures related to financial burden (Table 8).

A key strength of the **BRFSS** is the fact that it produces state-level estimates; however, its measure of health insurance coverage indicates only whether a person is insured at the time of the survey, with no specific information about the type of health insurance coverage.[10] This is a significant weakness in terms of this project's goal of identifying the impacts of changes in Medicaid coverage. In addition, the income measure in the BRFSS is relatively imprecise, and BRFSS includes only a limited number of the outcomes of interest--some measures of access/use and unmet need (Table 6), as well as key health outcome measures (Table 9). Furthermore, the content of the core survey that is conducted by all states varies from year to year; other topics are included in optional modules that are fielded by a subset of states, and some states also add their own questions to the survey.[11] Although some of the indicators of interest, such as health insurance status and unmet need because of cost, are collected as part of the core survey each year, other indicators such as mammograms and Pap smears are not (these are typically collected every other year in the core survey). Finally, although substantial efforts are made to ensure that the data are comparable across states, cross-state comparisons using the BRFSS may be complicated by the fact that there is variation in survey fielding across states.

NHANES is a very in-depth health survey, but its sample size is much more limited than any of the other national population surveys. A key strength of NHANES is its focus on clinical measures and its ability to identify undiagnosed and untreated conditions (Table 9). Relative to the other health surveys (NHIS and MEPS), however, it has much less depth in terms of outcomes of interest for evaluating the Affordable Care

[9] Personal communication with Jason Fields, Census Bureau, March 2012.

[10] This discussion includes only the BRFSS core survey and optional modules. It should be noted, however, that some states ask add-on questions that collect more detail about health insurance type.

[11] Detailed information about the years of data collection for specific measures is available at http://apps.nccd.cdc.gov/BRFSSQuest/index.asp.

Act's impact on Medicaid-eligible populations--particularly health insurance coverage (Table 5), health care access/use (Table 6), and financial burden (Table 8).

Finally, as noted earlier, the **NSDUH** is the only survey with specific and comprehensive measures of substance abuse and mental illness. The NSDUH's questions about substance use and mental illness are based on specific diagnostic criteria for substance abuse or dependence and mental disorders, in contrast to the more general sets of questions on these issues in other population surveys. NSDUH also includes measures of health insurance coverage (Table 5), some measures of health care access and use, unmet need for substance abuse/mental health services (Table 6), some financial burden measures (Table 8), and some measures of health outcomes (Table 9), as well as information about participation in other public programs (Table 10) and demographic information (Table 11).

Data Gaps--Impacts on Individuals

With few exceptions (medical home indicators, difficulty reaching a provider by phone, receipt of all needed care and drugs in Table 6; satisfaction with care in Table 7; and indicators related to homelessness in Table 11), the outcome indicators of interest are available from at least one of the population surveys included in the data scan. A key tradeoff for the analysis of impacts on individuals will be sample size and depth of survey content. The larger surveys that currently allow for state-level estimates--ACS, CPS, and BRFSS--all have limited information on many of the outcome indicators of interest.

For in-depth measurement of topics such as access to services and unmet need that are not addressed in the larger surveys, a few strategies are possible. Multiple years of data could be combined from existing surveys that include these questions (primarily NHIS and MEPS); however, this approach will involve tradeoffs in terms of timeliness of the evaluation and in measuring state-specific impacts. Alternatively, new questions could be added to the existing surveys with large sample sizes, or sample sizes in the existing health surveys could be expanded to allow for more state-specific estimates. MEPS is currently the only survey with measures of patient experience and detailed measures of cost, and it has among the most in-depth measures of health outcomes. Because there are significant time lags in availability of the MEPS data (see Appendix Table A-1a and Table A-1b), the option to combine multiple years of data for the evaluation is one for which tradeoffs in timeliness will need to be carefully considered.

For the extreme poverty group, the tradeoff between survey depth and sample size will be particularly difficult. Even with multiple years of data, the in-depth health surveys will still have fairly limited sample size, and it may be necessary to combine several years of data to perform a meaningful analysis.

Impacts on Providers

Our review of data sources for impacts on providers included sources for hospitals, physicians, CHCs, and substance abuse treatment facilities. Data sources reviewed for hospitals include the NHAMCS, the AHA annual survey, NHDS, data on inpatient and emergency room use from the HCUP databases, Medicare cost reports submitted annually to the Centers for Medicare and Medicaid Services (CMS), and the NAPH annual member survey. For physicians and clinics, the data sources included the NAMCS and the AMA Physician Masterfile. CHC data sources included NAMCS and the UDS reports submitted to the Health Resources and Services Administration (HRSA) each year by CHCs receiving federal funding. Finally, data sources reviewed for substance abuse treatment facilities included the TEDS and the N-SSATS. Detailed descriptions of each data source are included in the appendix to this report.

Table 12a and Table 12b summarize the availability of the indicators of interest for provider impacts from each data source. For purposes of this project, the **NHAMCS** data on indicators of interest is limited to volume of substance abuse and mental health treatment services and emergency department visits. The **AHA** data is more complete, with information about payer mix, financial margins, and both capacity and utilization of substance abuse/mental health treatment services and emergency departments. The **NHDS** and **HCUP** data are fairly limited, with volume of substance abuse/mental health treatment services (and emergency department visits in HCUP) and charges by payer. Data of interest from hospital **Medicare cost reports** are limited to patient mix by payer and financial margins. Finally, the **NAPH** survey data include information on payer mix, financial margins, and emergency department volume. None of the data sources includes information on measures of willingness to accept Medicaid patients.

The unit of analysis is an important issue to consider in evaluating the usefulness of NHAMCS and NHDS data for purposes of evaluating the Affordable Care Act's impacts on hospitals. These surveys are designed to produce a representative sample of *patient visits,* not of *individual providers*. As such, the number of hospitals that are included in the survey is small (365 and 205 hospitals in 2009 for NHAMCS and NHDS, respectively). If the desired unit of analysis is the hospital, these surveys may not be a good choice of data source. However, they may be very useful for other purposes--for example, to examine how hospital utilization patterns are changing.

For physicians, **NAMCS** includes an indicator of willingness to accept new Medicaid patients compared with patients from other payer sources, as well as information on payer mix. Similar to the NHAMCS and NHDS, the intended unit of analysis in NAMCS is the patient visit, and the data are of limited usefulness for provider-level analysis; however, the NAMCS is larger (1,293 physicians participated in 2009) and the supplemental mail survey is designed to produce state-level estimates on limited topics. The **AMA** data do not include any of the indicators of interest for this project.

With regard to CHCs, the **NAMCS** data include some indication of willingness to accept new Medicaid patients, but the number of CHCs included in the NAMCS sample is small (104 CHCs in 2009, with up to three providers per CHC). The **UDS** data include information on payer mix and financial margins, as well as staffing to provide substance abuse and mental health treatment services, social support services, and outreach services.

For substance abuse services, the **TEDS** data provide some information on volume of substance abuse services, although reporting is limited to providers that receive federal and state funding. **N-SSATS** includes information on payment types accepted, but no specific question about willingness to accept new patients by payer type; it also includes information about substance abuse treatment capacity and utilization.

Data Gaps--Impacts on Providers

With regard to hospitals, none of the available data sources included information on any of the measures of willingness to accept Medicaid patients. In addition, availability of indicators that may affect willingness to accept Medicaid is also limited: only the **AHA** and **NAPH** surveys include information on actual payer mix (although some other sources have information on charges or patient mix); in addition, availability of information on financial margins is limited to these two sources and Medicare cost reports. None of the data sources reviewed includes information on Medicaid payment rates relative to other payers. Finally, with regard to evidence of expanded, new, or terminated programs, several sources can provide evidence of changes in volume of services provided, but only the AHA data can be used to track changes in provider capacity.

For other types of providers, more information is available about willingness to accept Medicaid patients, but the information is still limited. Only NAMCS and UDS include information about payer mix, and information on financial margins is available only from UDS. Finally, the information about changes in service volume or capacity is also quite limited from non-hospital providers--indicators related to substance abuse are available from UDS and N-SSATS, and UDS includes some additional indicators related to social support services and outreach. None of the data sources includes information on Medicaid payment rates relative to other payers.

TABLE 2. Outcome Indicators for Impacts on Individuals	
Topic	**Indicators**
Health insurance coverage	For individuals and family units: point in time coverage, by type of coverage; "ever during the year" coverage, by type of coverage; length of time covered during the year, by type of coverage; intermittent coverage/churning during the year, by type of coverage
Health care access and use	
Usual source of care (USOC)	Whether the individual has a USOC; type of place for USOC; characteristics of USOC; whether the individual has a personal doctor or health care provider; USOC medical home indicators; USOC night/weekend hours; difficulty reaching USOC after hours, in person, or by telephone
Use of health care services	Use of services by type of visit/provider; use of service by type of care (e.g., vaccinations, preventive care); substance abuse counseling/treatment; mental health services; receipt of recommended preventive care/counseling services (blood cholesterol check, blood pressure check, blood tested for high blood sugar, mammogram, Pap test, flu shot, counseling on benefits of diet/exercise, counseling on risks of smoking)
Unmet need/barriers to care/ease of obtaining care	Any unmet need for care; specific types of unmet need; unmet need due to cost; unmet need due to provider capacity/availability; ability to get care as soon as needed; ability to get routine appointments when needed; ability to get needed tests or treatments; ability to see necessary specialist; got all needed care; got all needed drugs; difficulty finding a doctor who would see you; told by doctor's office/clinic that they wouldn't accept you as new patient; told by doctor's office/clinic that they wouldn't accept your type of health insurance
Patient experience	Communication; respect; adequacy of time spent; perception of quality of care received; satisfaction with care
Cost and affordability	
Total medical cost	Total health care spending; spending by type of service; spending by payer
Out of pocket cost	Out of pocket premiums (total and as percentage of income); out of pocket health care costs (total and as percentage of income)
Financial strain	Financial strain (owe money for medical bills, borrowed money or skipped bills to pay medical bills, refused treatment because of medical debt)
Health outcomes	
Health status	Self-reported health status (general, physical, and mental health); number of days of good physical health; number of days of poor mental health; number of days impaired by poor physical/mental health; screens positive for depression
Undiagnosed or untreated health conditions	Undiagnosed conditions (e.g., hypertension, high cholesterol, diabetes); untreated/unmanaged conditions; untreated depression
Health behaviors	Diet, physical activity
Potentially preventable or avoidable health care utilization	Hospital re-admissions; preventable or avoidable emergency department visit; hospital stay for ambulatory care sensitive condition
Receipt of other government assistance	Cash assistance: Temporary Assistance for Needy Families, Supplemental Security Income; food assistance: Supplemental Nutrition Assistance Program, Women, Infants and Children; housing assistance
Demographic and control variables	Income; functional limitations; body mass index/obesity; condition specific measures (e.g., diabetes, asthma); educational attainment; work status; marital status/living arrangement; age; race/ethnicity; language; birthplace/citizenship; type/stability of housing arrangement; ever been homeless or had to "double up"; presence of car

TABLE 3. Outcome Indicators for Impacts on Providers	
Topic	**Indicators**
Willingness to accept Medicaid patients	Accepts all Medicaid patients Accepts previous enrollees, but not new enrollees Not accepting new Medicaid patients, but accepting new private patients
Indicators that may affect willingness to accept Medicaid	Payer mix Medicaid payment rates (e.g., relative to Medicare) Margins/financial status
Evidence of expanded, new, or terminated programs	Substance abuse and mental health treatment programs Emergency department visits Social support services Outreach

TABLE 4. Survey Sample Sizes for Key Groups of Interest, Population Age 19-64							
	Total	**Income at or Below 138% FPL**	**Income at or Below 50% FPL**	**Substance Dependence or Abuse**	**Substance Dependence or Abuse and Income Below 138% FPL**	**Mental Illness**	**Mental Illness and Income Below 138% FPL**
ACS 2010	1,806,189	334,642	110,658	N/A	N/A	N/A	N/A
CPS 2011	121,520	23,368	7,115	N/A	N/A	N/A	N/A
NHIS 2010	54,177 full file; 21,396 sample adults	13, 349 full file; 5,811 sample adults	3,471 full file; 1,684 sample adults	N/A	N/A	N/A	N/A
MEPS 2009	21,596	5,502	1,415	N/A	N/A	N/A	N/A
SIPP 2010[a]	52,524	11,593	4,019	N/A	N/A	N/A	N/A
BRFSS 2010[b]	292,502	55,539	16,545	N/A	N/A	N/A	N/A
NHANES 2009-2010	4,861	1,770	380	N/A	N/A	N/A	N/A
NSDUH 2010[c]	33,847	~6,700	N/A	4,849	~1,146	4,169	~1,113

SOURCES: State Health Access Data Assistance Center (SHADAC) tabulations from public use files for ACS, CPS, NHIS, MEPS, SIPP, BRFSS, and NHANES. NSDUH counts obtained using online data analysis tool at http://www.icpsr.umich.edu/icpsrweb/SAMHDA/sdatools/resources.

ACS = American Community Survey; BRFSS = Behavioral Risk Factor Surveillance System; CPS = Current Population Survey; FPL = federal poverty level; MEPS = Medical Expenditure Panel Survey; N/A = not available; NHANES = National Health and Nutrition Examination Survey; NHIS = National Health Interview Survey; NSDUH = National Survey on Drug Use and Health; SIPP = Survey of Income and Program Participation.

a. Sample sizes are for Wave 6 of the 2008 SIPP panel. Income is estimated using the first month in each rotation group in Wave 6.
b. Estimated based on categorical income and household size.
c. Income measure in NSDUH public use file is below 100% of poverty. Substance dependence or abuse indicator is for alcohol OR illicit drug dependence OR abuse in the past year. Mental illness indicator is for serious or moderate mental illness in the past year.

TABLE 5. Measures of Health Insurance Coverage from Population Surveys								
	ACS 2011	**CPS ASEC 2011**	**NHIS 2011**	**MEPS 2009**	**SIPP 2008 Panel**	**BRFSS 2011**	**NHANES 2009-10**	**NSDUH 2010**
Point in time coverage type								
Individual, by type of coverage	X		X	X	X	insured/ uninsured	X	X
Family unit, by type of coverage	X		X	X	X			
"Ever during the year" coverage type								
Individual, by type of coverage		all coverage types except uninsured	ever uninsured	X	X		ever uninsured	ever uninsured
Family unit, by type of coverage		all coverage types except uninsured	ever uninsured	X	X			
Length of time during year by coverage type								
Individual, by type of coverage		uninsured all year; # of months covered by Medicaid	length of time uninsured	X	X			length of time uninsured
Family unit, by type of coverage		uninsured all year; # of months covered by Medicaid	length of time uninsured	X	X			
Intermittent coverage/churning during year								
Individual, by type of coverage		for Medicaid, # of months covered	ever uninsured; if covered all year, same coverage type all year?*	X	X		ever uninsured	ever uninsured
Family unit, by type of coverage		for Medicaid, # of months covered	ever uninsured; if covered all year, same coverage type all year?*	X	X			

SOURCE: State Health Access Data Assistance Center (SHADAC) review of survey questionnaires.

ACS = American Community Survey; BRFSS = Behavioral Risk Factor Surveillance System; CPS ASEC = Current Population Survey Annual Social and Economic Supplement; MEPS = Medical Expenditure Panel Survey; NHANES = National Health and Nutrition Examination Survey; NHIS = National Health Interview Survey; NSDUH = National Survey on Drug Use and Health; SIPP = Survey of Income and Program Participation.

*Question about same coverage type for all of past year was added in 2011.

TABLE 6. Measures of Health Care Access and Use from Population Surveys								
	ACS 2011	**CPS ASEC 2011**	**NHIS 2011**	**MEPS 2009**	**SIPP 2008 Panel**	**BRFSS 2011**	**NHANES 2009-10**	**NSDUH 2010**
Usual source of care								
Usual source of care			X	X			X	
Type of place for usual source of care			X	X			X	
Characteristics of usual source of care								
Personal doctor/provider				X		X		
Medical home indicators								
Night/weekend hours				X				
Difficulty reaching after hours				X				
Difficulty reaching in person								
Difficulty reaching by phone				X				
Health care use								
By type of visit/provider			X	X	X		X	X
By type of care (e.g., vaccinations, preventive care)			X	X				
Substance abuse counseling/treatment				X				X
Mental health services			X	X			X	X
Receipt of recommended preventive care/counseling								
Blood cholesterol checked			X	X		X	X	
Blood pressure checked			X	X				
Blood tested for high blood sugar			X	X		state option	X	
Mammogram			X	X		state option		
Pap smear			X	X		state option		
Flu shot			X	X		X		
Benefits of diet/exercise			X	X				
Risks of smoking			X	X				

TABLE 6 (*continued*)								
	ACS 2011	**CPS ASEC 2011**	**NHIS 2011**	**MEPS 2009**	**SIPP 2008 Panel**	**BRFSS 2011**	**NHANES 2009-10**	**NSDUH 2010**
Unmet need/barriers to care/ease of obtaining care								
Any unmet need*			X	X	X			
Specific types of unmet need				dental, Rx	dental			substance abuse/mental health
Unmet need due to cost			X	X		X		substance abuse/mental health
Unmet need due to provider capacity/availability								X
Ability to get care as soon as needed				X				
Ability to get routine appointments when needed				X				
Ability to get needed tests or treatments				X				
Ability to see necessary specialist				X				
Got all needed care								
Got all needed drugs								
Difficulty finding a doctor who would see you			X^					
Told by dr office/clinic that that wouldn't accept you as new patient			X^					
Told by dr office/clinic that wouldn't accept your type of health insurance			X^					

SOURCE: State Health Access Data Assistance Center (SHADAC) review of survey questionnaires.

ACS = American Community Survey; BRFSS = Behavioral Risk Factor Surveillance System; CPS ASEC = Current Population Survey Annual Social and Economic Supplement; MEPS = Medical Expenditure Panel Survey; NHANES = National Health and Nutrition Examination Survey; NHIS = National Health Interview Survey; NSDUH = National Survey on Drug Use and Health; SIPP = Survey of Income and Program Participation.

*Unmet need defined as care not received (does not include delayed care).
^ Question added in 2011.

TABLE 7. Measures of Patient Experience from Population Surveys								
	ACS 2011	**CPS ASEC 2011**	**NHIS 2011**	**MEPS 2009**	**SIPP 2008 Panel**	**BRFSS 2011**	**NHANES 2009-10**	**NSDUH 2010**
Patient experience								
Communication				X				
Respect				X				
Adequacy of time spent				X				
Perception of quality of care received				X				
Satisfaction with care								

SOURCE: State Health Access Data Assistance Center (SHADAC) review of survey questionnaires.

ACS = American Community Survey; BRFSS = Behavioral Risk Factor Surveillance System; CPS ASEC = Current Population Survey Annual Social and Economic Supplement; MEPS = Medical Expenditure Panel Survey; NHANES = National Health and Nutrition Examination Survey; NHIS = National Health Interview Survey; NSDUH = National Survey on Drug Use and Health; SIPP = Survey of Income and Program Participation.

TABLE 8. Measures of Cost and Affordability from Population Surveys								
	ACS 2011	**CPS ASEC 2011**	**NHIS 2011**	**MEPS 2009**	**SIPP 2008 Panel**	**BRFSS 2011**	**NHANES 2009-10**	**NSDUH 2010**
Cost								
Total health care spending				X				
Spending by type of service				X				
Spending by payer				X				
Burden of health care spending on individual and family								
Out of pocket premiums:								
Total		X	X*	X	X			
As percentage of income		X	X	X	X			
Out of pocket health care costs:								
Total		individual and family	family	individual and family	individual and family			Individual--mental health
As percentage of income		X	X	X	X			X
Financial strain (owe money for medical bills, borrowed money or skipped bills to pay medical bills, refused treatment because of medical debt)			family**					

SOURCE: State Health Access Data Assistance Center (SHADAC) review of survey questionnaires.

ACS = American Community Survey; BRFSS = Behavioral Risk Factor Surveillance System; CPS ASEC = Current Population Survey Annual Social and Economic Supplement; MEPS = Medical Expenditure Panel Survey; NHANES = National Health and Nutrition Examination Survey; NHIS = National Health Interview Survey; NSDUH = National Survey on Drug Use and Health; SIPP = Survey of Income and Program Participation.

*People covered by private insurance at the time of the survey
**Question added in 2011

TABLE 9. Measures of Health Outcomes from Population Surveys								
	ACS 2011	**CPS ASEC 2011**	**NHIS 2011**	**MEPS 2009**	**SIPP 2008 Panel**	**BRFSS 2011**	**NHANES 2009-10**	**NSDUH 2010**
Self-reported health status:								
General health		X	X	X	X	X	X	X
Physical health								
Mental health				X				
Number of days of good physical health				X		X	X	
Number of days of poor mental health				X		X	X	
Number of days impaired by poor physical or mental health				X		X	X	
Screens positive for depression			X			state option	X	X
Undiagnosed conditions (hypertension, high cholesterol, diabetes, etc.)							X	substance abuse/mental health
Untreated/unmanaged conditions (hypertension, high cholesterol, diabetes, etc.)							X	substance abuse/mental health
Untreated depression							X	X
Diet/physical activity			physical activity only			both	both	
Hospital re-admissions				X				
Preventable/avoidable emergency department visit				X				
Hospital stay for ambulatory care sensitive condition				X				

SOURCE: State Health Access Data Assistance Center (SHADAC) review of survey questionnaires.

ACS = American Community Survey; BRFSS = Behavioral Risk Factor Surveillance System; CPS ASEC = Current Population Survey Annual Social and Economic Supplement; MEPS = Medical Expenditure Panel Survey; NHANES = National Health and Nutrition Examination Survey; NHIS = National Health Interview Survey; NSDUH = National Survey on Drug Use and Health; SIPP = Survey of Income and Program Participation.

TABLE 10. Measures of Participation in Other Government Programs from Population Surveys								
	ACS 2011	**CPS ASEC 2011**	**NHIS 2011**	**MEPS 2009**	**SIPP 2008 Panel**	**BRFSS 2011**	**NHANES 2009-10**	**NSDUH 2010**
Cash assistance:								
TANF	X	X	X	X	X		X	X
SSI	X	X	X	X	X		X	X
Food assistance:								
SNAP	X	X	X	X	X		X	X
WIC		X	X		X		X	
Housing assistance		X	X		X			

SOURCE: State Health Access Data Assistance Center (SHADAC) review of survey questionnaires.

ACS = American Community Survey; BRFSS = Behavioral Risk Factor Surveillance System; CPS ASEC = Current Population Survey Annual Social and Economic Supplement; MEPS = Medical Expenditure Panel Survey; NHANES = National Health and Nutrition Examination Survey; NHIS = National Health Interview Survey; NSDUH = National Survey on Drug Use and Health; SIPP = Survey of Income and Program Participation; SNAP = Supplemental Nutrition Assistance Program; SSI = Supplemental Security Income; TANF = Temporary Assistance for Needy Families; WIC = Women, Infants and Children.

TABLE 11. Demographic and Control Variables for Impacts on Individuals from Populations Surveys								
	ACS 2011	**CPS ASEC 2011***	**NHIS 2011**	**MEPS 2009**	**SIPP 2008 Panel**	**BRFSS 2011**	**NHANES 2009-10**	**NSDUH 2010**
Income	X	X	X	X	X	X	X	X
Functional limitations	X	X	X	X	X	X	X	
Body mass index/obesity			X	X		X	X	
Condition specific measures (e.g., diabetes, asthma)			X	X	X**	X	X	X
Educational attainment	X	X	X	X	X	X	X	X
Work status	X	X	X	X	X	X	X	X
Marital status/living arrangement	X	X	X	X	X	X	X	X
Age	X	X	X	X	X	X	X	X
Race/ethnicity	X	X	X	X	X	X	X	X
Language	X			X	X		X	
Birthplace/citizenship	X	X	X	X	X		X	X
Type/stability of housing arrangement	own/rent; tenure at current address; moved in past year	own/rent; moved in past year	own/rent		own/rent; moved since last interview; evicted in past year***	own/rent	own/rent; tenure at current address	moved in past year
Ever been homeless								
Ever had to “double up”								
Presence of car	X				X			

SOURCE: State Health Access Data Assistance Center (SHADAC) review of survey questionnaires.

ACS = American Community Survey; BRFSS = Behavioral Risk Factor Surveillance System; CPS = Current Population Survey; MEPS = Medical Expenditure Panel Survey; NHANES = National Health and Nutrition Examination Survey; NHIS = National Health Interview Survey; NSDUH = National Survey on Drug Use and Health; SIPP = Survey of Income and Program Participation.

*Some of the CPS measures are included in the basic monthly survey rather than in the Annual Social and Economic Supplement.
**Questions asked for people with functional or work limitations in Wave 6 of 2008 panel.
***Eviction questions in Wave 6 of 2008 panel.

TABLE 12a. Provider Measures--Hospitals						
	Acute Care Hospitals					Safety Net Hospitals
	NHAMCS	AHA	NHDS	HCUP	Medicaid Cost Report	NAPH
Willingness to accept Medicaid patients						
Accepts all Medicaid patients						
Accepts previous enrollees, but not new enrollees						
Not accepting new Medicaid patients, but accepting new private patients						
Indicators that may affect willingness to accept Medicaid						
Payer mix	patient mix	X	patient mix and charges	patient mix and charges	patient mix	X
Medicaid payment rates (e.g., relative to Medicare)						
Margins/financial status		X			X	X
Evidence of expanded, new, or terminated programs across various provider types						
Substance abuse and mental health treatment programs	X**	X	X**	X**		
Emergency department visits	X**	X		X**		X**
Social support services						
Outreach strategies						

SOURCE: State Health Access Data Assistance Center (SHADAC) review of survey questionnaires.

AHA = American Hospital Association; HCUP = Healthcare Cost and Utilization Project; NAPH = National Association of Public Hospitals and Health Systems; NHAMCS = National Hospital Ambulatory Medical Care Survey; NHDS = National Hospital Discharge Survey.

**Evidence of service utilization, but no information on provider capacity.

TABLE 12b. Provider Measures--Physicians, Community Health Centers, and Substance Abuse Treatment Facilities						
	Physicians		Community Health Centers		Substance Abuse Treatment Facilities	
	NAMCS	AMA	NAMCS	UDS	TEDS	N-SSATS
Willingness to accept Medicaid patients						
Accepts all Medicaid patients	accepting any new Medicaid patients		accepting any new Medicaid patients			*
Accepts previous enrollees, but not new enrollees						*
Not accepting new Medicaid patients, but accepting new private patients	X		X			*
Indicators that may affect willingness to accept Medicaid						
Payer mix	X		X	X	patient mix	
Medicaid payment rates (e.g., relative to Medicare)						
Margins/financial status				X		
Evidence of expanded, new, or terminated programs across various provider types						
Substance abuse and mental health treatment programs				X	incomplete**^	X
Emergency department visits						
Social support services				X		
Outreach strategies				X		

SOURCE: State Health Access Data Assistance Center (SHADAC) review of survey questionnaires.

AMA = American Medical Association Physician Masterfile; NAMCS = National Ambulatory Medical Care Survey; N-SSATS = National Survey of Substance Abuse Treatment Services; TEDS = Treatment Episode Data Set; UDS = Uniform Data System reports submitted to the Health Resources and Services Administration.

*Includes information on payment types accepted but not willingness to accept new patients.
**Evidence of service utilization, but no information on provider capacity.
^TEDS data do not provide a complete picture of substance abuse and mental health treatment services, because only providers that receive federal and state funding are required to report.

3. STATE POLICY CHOICES

The Affordable Care Act's impacts on individuals and providers will be influenced by states' policy choices, such as decisions about Medicaid benefit levels, outreach strategies, and provider reimbursement rates. Table 13 presents a list of key policy choices that will be important to track in order to understand how states' decisions are influencing the Affordable Care Act's impacts on individuals and providers. The table also includes ongoing data sources that track the relevant information, to the degree that they currently exist.

In some cases, the variables of interest relate to specific policy decisions that states must make to implement the Affordable Care Act. For example, states will need to decide what benefits are covered in Medicaid benchmark plans and whether to establish a Basic Health Plan. Because these decisions will be made in the future, no existing data source describes them. This information could be obtained by modifying existing data sources (see below) or through new data collection. Much of this information will be available to CMS through states' amendments to their Medicaid state plans; in addition, the Affordable Care Act specifically requires states to report to the Secretary of Health and Human Services (HHS) each year on their outreach activities. It would be helpful if this information were reported in a standardized way that can be easily accessed by the evaluation team.

For the policy variables where data are currently available, the data come from several sources. The first of these sources is existing HHS public reporting. For example, data about Medicaid managed care is currently available through **CMS Medicaid Managed Care Enrollment Reports**, and HHS already publishes information about **Federal Medical Assistance Percentages** and **Disproportionate Share Hospital Allotments**. A second major source of existing data about state policy decisions is the annual 50-state survey conducted by the **Kaiser Commission on Medicaid and the Uninsured and the Georgetown University Center for Children and Families**.[12] This survey collects detailed information about Medicaid eligibility rules, enrollment and renewal procedures, and cost-sharing practices. Finally, information about the numbers of health care providers by type is available from various sources, including the **AHA annual survey** and **AMA Physician Masterfile** described earlier in this report; these provider data are also available aggregated to the county level through the **Area Resource File (ARF)** made available by HRSA, although the ARF data are not available in as timely a way as the source data. Similar to the ARF, CMS's **Environmental Scanning and Program Characteristics (ESPC) Database** aggregates state-level information from a variety of sources on the characteristics of state Medicaid programs and a variety of other factors from existing publicly available

[12] Heberlein, M., T. Brooks, J. Guyer, S. Artiga, and J. Stephens. 2011. Holding Steady, Looking Ahead: Annual Findings of a 50-State Survey of Eligibility Rules, Enrollment and Renewal Procedures, and Cost Sharing Practices in Medicaid and CHIP, 2010–2011. Washington, DC: Kaiser Commission on Medicaid and the Uninsured.

data sources. An advantage of the ESPC database is that it aggregates relevant information into a single database; a disadvantage, however, is that it lags behind the availability of the source data.

TABLE 13. State Policy Control Variables	
Indicator	**Existing Data Sources**
Policy variables for evaluating individual impacts	
Outreach	
Funding for outreach	
Outreach strategies	
Outreach through other programs (e.g., SNAP)	
Outreach to parents of children in Medicaid	
Enrollment	
State efforts to simplify enrollment and renewal processes	Kaiser/Georgetown survey*
State commitment to enrolling new population and keeping them enrolled	
Benefit package	
Benefits covered in benchmark plans	N/A--future policy decision
State choice to establish Basic Health Plan	N/A--future policy decision
Integration of Medicaid with health insurance exchanges	
Ease of transitions between Medicaid and exchange	N/A--future policy decision
Purchasing and provider policies	
Reimbursement rates and policies	
Safety net investments	
Managed care	CMS Medicaid Managed Care Enrollment Reports
Disproportionate Share Hospital	
Policy variables for evaluating provider impacts	
Medicaid matching rates	Federal Medical Assistance Percentages published annually by HHS
Medicaid disproportionate share allotments	Fiscal Year Disproportionate Share Hospital Allotments published annually by HHS
Medicaid enrollment	Medicaid Statistical Information System (MSIS); CMS-64 reports
Medicaid managed care enrollment	CMS Medicaid Managed Care Enrollment Reports
Number of Medicaid managed care plans	CMS Medicaid Managed Care Enrollment Reports
Number of each provider type in state	Area Resource File (source data from AHA, AMA, etc.)
Medicaid eligibility before the Affordable Care Act	Kaiser/Georgetown survey*

AHA = American Hospital Association; AMA = American Medical Association; CMS = Centers for Medicare and Medicaid Services; HHS = Department of Health and Human Services; N/A = not applicable; SNAP = Supplemental Nutrition Assistance Program.

*Annual 50-state survey of Medicaid eligibility, enrollment and renewal procedures, and cost-sharing practices in Medicaid and the Children's Health Insurance Program. The survey is conducted jointly by the Kaiser Commission on Medicaid and the Uninsured and the Georgetown University Center for Children and Families.

4. CONCLUSIONS

A wealth of existing information available from national surveys and administrative data systems can provide the foundation for a fairly comprehensive evaluation of the impacts of the Affordable Care Act on Medicaid-eligible populations. Furthermore, there are many opportunities to leverage the extensive and sophisticated existing data collection infrastructure to address some of the important gaps in the available information.

This report was completed in January 2012. A related ASPE report released in July 2012 will be of interest to readers: ***Affordable Care Act Data Enhancements Brief***, which describes modifications made to HHS surveys to assess the implementation and outcomes of the Affordable Care Act. The Brief will be available at http://aspe.hhs.gov/hsp/12/surveyenhancements/ib.shtml.

APPENDIX

This appendix provides detailed information on each of the data sources included in the data scan. Appendix Table A-1a and Table A-1b summarize and compare the population surveys, Appendix Table A-2a and Table A-2b provide information on the provider surveys, and Appendix Table A-3 describes the administrative data sources.

Population Surveys

The **American Community Survey (ACS)**, conducted annually 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 includes questions 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, by telephone, and in person. The ACS has a response rate of 98% and collects data from about 4.4 million people in 1.75 million households (the public use files include data from about 3 million and 1.2 million individuals and households, respectively). The Census Bureau releases summary reports and public use data files with state identifiers in the early fall each year, about 8-9 months after the end of the survey calendar year. Analysis using the full ACS file requires Census Bureau approval and must be performed in a Research Data Center.

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 ASEC in February through April of each year. The CPS ASEC asks about health insurance coverage for the prior calendar year and can be combined with information from the main CPS survey on other demographic and socioeconomic characteristics as well as with other information associated with health insurance coverage, such as firm size. The CPS, conducted in person and by telephone, uses an address-based census sample frame and surveyed about 205,000 individuals in 75,000 households in 2011. Nationally, the CPS achieved a response rate of 84% in 2011. Summary reports and public use data files with state identifiers, usually released in early fall, are available about 5-6 months after data are collected; with regard to timeliness of information, however, it is important to remember that the health insurance estimates refer to the previous 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 and Prevention's (CDC) National Center for Health Statistics (NCHS). The NHIS, which uses an address-based census sample frame, has been conducted

annually for more than 50 years. It 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. Within each household, separate household and family questionnaires are asked; in addition, one “sample adult” and one “sample child” are randomly selected from each family to complete the more in-depth sample adult and sample child questionnaires. With a national response rate of over 79% for the family questionnaire and 61% for the sample adult questionnaire in 2010, the NHIS public use file for 2010 includes information about nearly 90,000 individuals from the family questionnaire and more than 27,000 completed sample adult interviews. Summary reports, with state estimates for the 30 largest states, are released 6 months after data collection, as are public use data files (without state identifiers). Use of data files with state-level and other geographic identifiers requires NCHS approval, and the files must be accessed through a Research Data Center.

The **Medical Expenditure Panel Survey--Household Component (MEPS-HC),** sponsored by the Agency for Healthcare Research and 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 and 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 2009 had an overall response rate of about 57% for the full-year data file. For 2009, the MEPS-HC full-year data file includes nearly 37,000 individuals. Summary reports, with state estimates for the ten largest states, are released 6 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 Research Data Center for approved projects.

The **Survey of Income and 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 4 years (however, some panels have been shorter because of budget constraints). 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 multiyear survey period. About 88,000 individuals responded to the sixth wave of the 2008 panel (conducted from May through August 2010). In Wave 1 of the 2008 panel, the national response rate was about 81%; about 16% of original respondents had been lost through Wave 6. Data are released about 9-13 months after collection. Although the SIPP is not designed to be representative within states, the public use data files do include state identifiers.

The **Behavioral Risk Factor Surveillance System (BRFSS)** is a state-based survey of the adult civilian non-institutionalized population that has been conducted

annually since 1984. Sponsored by the CDC along with the 50 states and United States territories, the BRFSS inquires about health conditions, risk behaviors, preventive health practices, access to health care, and health insurance coverage. The BRFSS is a stratified random digit dial telephone survey of landline telephones (although the survey is experimenting with cell phones, these data are not yet included in public use files). In 2010, the BRFSS surveyed more than 450,000 adults across the 50 states and in United States territories. The response rate varies by state, with a median of about 36% in 2010 (ranging from 19% to 57%). The public use files, which include state identifiers, are released about 5 months after the end of the survey year.

The **National Health and Nutrition Examination Survey (NHANES)** is conducted by the CDC's NCHS using an address-based sample, with year-round data collection. NHANES has been conducted annually since 1999. This survey of the civilian non-institutionalized population collects information about population health, and it includes a medical examination component in addition to an in-person interview. NHANES oversamples several population groups, including Hispanic, Black, and low-income people, as well as those aged 60 and older. NHANES surveys about 5,000 people each year, with a response rate of about 77% in 2009-2010. Public use files are released biennially; the most recent file with 2009-2010 data was released in September 2011.

Finally, the **National Survey on Drug Use and Health (NSDUH)**, conducted annually since 1990, is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). NSDUH, a survey of the civilian non-institutionalized population age 12 and older, focuses on issues related to drug and alcohol use and abuse or dependence as well as mental health. The survey is conducted in person, with a large self-administered component. The survey oversamples young people (ages 12-17 and 18-25), with more than 68,000 responses and a response rate of 66% in 2010. Public use data files for 2010 were released in December 2011. Although the public use data files do not include state identifiers, the survey is designed to support direct estimates for the eight largest states; SAMHSA uses small area estimation techniques to publish estimates for all states.

Provider Surveys

Hospitals

The **National Hospital Ambulatory Medical Care Survey (NHAMCS)**, conducted by the CDC's NCHS annually since 1992, is a survey of ambulatory care services provided in hospital outpatient departments, hospital emergency rooms, and ambulatory surgery centers (freestanding ambulatory surgery centers were included beginning in 2010). Hospitals are selected to participate in the survey using a multistage sampling design based on geography. Data about participating facilities are collected through in-person interviews, and data on patient visits are collected through patient record abstraction. In 2009, the hospital response rate was 90%, and data were collected on about 35,000 emergency department visits and 33,500 outpatient department visits at

365 hospitals. Public use data files for 2009 were released in July 2011. The survey is not designed to produce state-level estimates and the public use data do not include state identifiers, but it is possible to use state data in a Research Data Center for an approved project.

The **National Hospital Discharge Survey (NHDS)**, also conducted by the NCHS, focuses on inpatient hospitalizations. Its sample design is similar to the NHAMCS; data are collected either through hospital submission of Uniform Hospital Discharge Data Set files (also called the UB-04 administrative database) or through manual data abstraction. The NHDS has been conducted annually since 1965. In 2009, the survey achieved a hospital response rate of 79% and collected data on over 162,000 inpatient discharges from 205 hospitals. The 2009 public use data, released in April 2011, include geographic identifiers for census region but not state. The **NHAMCS** and **NHDS** are being integrated into a new **National Hospital Care Survey,** which will collect complete UB-04 data from participating facilities (rather than a sample, as in the past), as well as personal identifiers to allow linking of multiple records for an individual.

The **American Hospital Association (AHA) Annual Survey** has collected data from member and non-member hospitals on hospitals' capacity, services, utilization, personnel, and finances annually since 1946. The survey is sent to all United States hospitals each year, including all ownership types (e.g., federal, state, non-profit, for-profit) and all primary service types (e.g., general, specialty). Data are collected through online and mail responses. The 2010 survey response rate was approximately 76%, and the database for 2010 includes a total of 6,334 hospitals. Summary reports and data files are available for purchase. Currently, the data are released once each year (typically in October); however, in the future AHA plans to make new data available on a rolling basis to database subscribers.

The **National Association of Public Hospitals and Health Systems (NAPH)** conducts an annual survey of its members to collect data on capacity, utilization, patient characteristics, and financing at its member hospitals. The data are collected through an online survey; in 2009 the response rate was 95% (92 of 97 hospitals). The most recent data available are for 2009, released in December 2010. There is no public use file, but data for each participating hospital are published in an annual report.

Other Health Care Providers

The **National Ambulatory Medical Care Survey (NAMCS)** is an annual survey sponsored by CDC's NCHS. The survey collects data on ambulatory care services provided by office-based physicians; for participating CHCs, the survey collects data from both physician and non-physician practitioners. NAMCS has been conducted annually since 1989, and CHCs have been included since 2006. The sample for NAMCS is constructed using a multistage design that is based on geography and stratified by physician specialty. Data are collected through in-person interviews of physicians (62% response rate in 2009) and patient record abstraction. The 2009 public use data were released in May 2011, and the data file includes information on 32,281

patient office visits to 1,293 physicians. The survey is not designed to produce state-level estimates and the public use file does not include state identifiers, but it is possible to use the state information for an approved project in a Research Data Center; similarly, data on non-physician visits to CHCs are available only through a Research Data Center. Beginning in 2010, NAMCS has also conducted a supplemental mail survey of physicians, also stratified by geography and physician specialty. The supplemental survey has a larger sample size of physicians but a more limited scope; its focus is primarily on issues related to electronic medical record systems, but it also includes information on payer mix and whether a physician is accepting new patients, by payer.

The **American Medical Association (AMA) Physician Masterfile** is a continuously updated database with over 875,000 records on medical doctors, doctors of osteopathy, and medical residents and students. The database includes information on physician demographics and practice characteristics. Data are collected by mail, online, by telephone, and from secondary data sources. Annual reports and data files are available for purchase from the AMA and include state and substate geographic identifiers. (In addition, the **ARF** published by HRSA includes counts of physicians from the AMA Physician Masterfile aggregated to the county level.)

The **National Survey of Substance Abuse Treatment Services (N-SSATS)** is an annual survey of all known providers of substance abuse treatment in the United States, conducted by SAMHSA. The survey, conducted via mail, online, and by telephone, collects information about the characteristics of substance abuse treatment providers. In 2010, more than 13,000 providers participated in the survey, for a response rate of about 87%. The survey collects information about the number of clients being served at a specific point in time (the last weekday in March each year). The public data file for 2010, released in December 2011, includes national, regional, state, and substate geographic identifiers.

Administrative Data

The **Healthcare Cost and Utilization Project (HCUP)** is a database of inpatient discharges and emergency department and ambulatory surgery encounters assembled by AHRQ from state-level databases. The state databases are submitted to AHRQ voluntarily by states, hospital associations, and private data organizations. Currently, 44 states submit inpatient data, and 29 states submit emergency department and ambulatory surgery center data. AHRQ uses these data to construct a National Inpatient Sample (NIS) and National Emergency Department Sample (NEDS), representing a 20% sample of total visits. The most recent year available for the NIS and NEDS is 2009, released in May 2011 and October 2011, respectively. The national samples are not designed to be state representative, but complete state files are available separately (through either a central distributor or directly from the organization that submits data to AHRQ). The state databases are made available more quickly than the national

inpatient and emergency department samples; the 2010 state databases were released in September 2011.

Hospitals that participate in Medicare are required to file annual **Medicare cost reports**; the primary purpose of these reports is for reconciliation and settlement of Medicare payments, but the reports also include information about facility characteristics, utilization, costs, and charges. Reports are due 150 days after the end of a hospital's fiscal year. The data are publicly available through a frequently updated public database. The database includes information at the hospital level.

The **Uniform Data System (UDS)** is a reporting system for Federally Qualified Health Centers (FQHCs) that receive funding from HRSA. The UDS report includes information on services available, utilization, staffing, patient demographics, finances, health outcomes, and quality measures. Beginning with calendar year 2011 (for reports that will be submitted in early 2012), FQHC lookalikes (centers that meet all of the eligibility requirements but do not receive federal funding) will also submit UDS reports. Reports are submitted in mid-February of each year for the previous calendar year. There are no public use data, but summary reports that aggregate the data to the state and national levels are publicly available.

For substance abuse treatment, the **Treatment Episode Data Set (TEDS)**, sponsored by SAMHSA, collects patient-level information on admissions to substance abuse treatment facilities. The data are collected by states from facilities that receive state and federal funds to provide alcohol and drug treatment services. All states report a core data set, with a supplementary data set of Affordable Care Act's impacts, such as health insurance and income information, is included in the supplementary data set). Public data sets are made available annually and include state identifiers; the most recent available data file, for 2009, was released in June 2011.

TABLE A-1a. Population Surveys: ACS, CPS ASEC, NHIS, and MEPS				
	ACS 2010	**CPS ASEC 2011**	**NHIS 2010**	**MEPS 2009**
Sponsor	U.S. Census Bureau	U.S. Census Bureau	National Center for Health Statistics, Centers for Disease Control and Prevention	Agency for Healthcare Research and Quality
Target population	Entire U.S. population	Civilian non-institutionalized population	Civilian non-institutionalized population	Civilian non-institutionalized population
Primary focus	General household survey, replaced decennial census long form	Labor force participation and unemployment	Population health	Health care access, utilization, and cost
Sample frame and design	Address-based multistage sample stratified by geography	Address-based multistage sample stratified by geography	Address-based multistage sample stratified by geography. Oversamples Black, Hispanic, and Asian populations.	Sample drawn from NHIS respondents with additional oversampling of low-income households. A new 2-year panel is selected each year.
Data collection mode	Mail, telephone, and in-person interviews	In-person and telephone interviews	In-person interviews	In-person interviews with follow-up data collection from medical providers
Sample size (number of individuals)	4,368,578	204,983	89,976 total; 27,157 completed in-depth “sample adult” questionnaire	36,855
Response rate	97.5%	83.8%	Family: 78.7%; sample adult: 60.8%	57.2%
Frequency and survey period	Annually since 2000; conducted year-round. Health insurance questions were first asked in 2008.	Annually since 1948; currently conducted February through April. Health insurance questions were added in the 1980s.	Annually since 1957; conducted year-round.	Annually since 1996; conducted year-round.
Data availability and timeliness	Public use file includes a subset of responses--3,003,411 individuals in 2010. Data for 2010 were released in October 2011.	Public use file from 2011 ASEC, with health insurance estimates for calendar year 2010, released in September 2011	Public use file from 2010 released in June 2011. Quarterly data available through Research Data Centers (January through June 2011 file was made available in December 2011).	Full-year consolidated file for 2009 released in November 2011
Levels of geography in public use data	National, state, and substate	National, state, and some substate	National and Census region	National and Census region
Supports state estimates?	Yes	Yes	Limited, and available for analysis only through Research Data Centers*	Limited, and available for analysis only through Research Data Centers

TABLE A-1a (*continued*)				
	ACS 2010	**CPS ASEC 2011**	**NHIS 2010**	**MEPS 2009**
Costs of acquiring/using data	Moderate, because of large data file size	Low	Low for public use data; higher for analyses requiring Research Data Centers	Relatively high due to longitudinal design and survey complexity; higher for analyses requiring Research Data Centers

SOURCES:

American Community Survey (ACS): U.S. Census Bureau, *American Community Survey Accuracy of the Data (2010);* State Health Access Data Assistance Center (SHADAC) tabulations from public use file.

Current Population Survey Annual Social and Economic Supplement (CPS ASEC): U.S. Census Bureau, *Source and Accuracy of Estimates for Income, Poverty, and Health Insurance Coverage in the United States: 2010*; SHADAC tabulations from public use file.

National Health Interview Survey (NHIS): National Center for Health Statistics, *Data File Documentation, National Health Interview Survey, 2010.* June 2011; Chris Moriarty, "The National Health Interview Survey: Changes Due to the Affordable Care Act, and Plans for a Future Online Analytic System," University of Minnesota seminar, October 19, 2011.

Medical Expenditure Panel Survey (MEPS): Agency for Healthcare Research and Quality, *MEPS HC-129 2009 Full Year Consolidated Data File*, November 2011.

*Beginning in 2011, increased sample size for the NHIS will enable reliable state estimates in about 25 states (previously 18-20 states). Future sample size expansions, dependent on funding availability, could enable estimates for 37-42 states.

TABLE A-1b. Population Surveys: SIPP, BRFSS, NHANES, and NSDUH				
	SIPP 2008 Panel	**BRFSS 2010**	**NHANES 2009-2010**	**NSDUH 2010**
Sponsor	U.S. Census Bureau	Centers for Disease Control and Prevention; states and territories	National Center for Health Statistics, Centers for Disease Control and Prevention	Substance Abuse and Mental Health Services Administration
Target population	Civilian non-institutionalized population	Civilian non-institutionalized population age 18 and older	Civilian non-institutionalized population	Civilian non-institutionalized population age 12 and older
Primary focus	Longitudinal data on income and program participation	Population health, risk factors, and health behaviors	Population health and nutrition	Drug and alcohol use and abuse/dependence; mental health
Sample frame and design	Address-based multistage sample stratified by geography. Oversamples low-income populations. 2008 panel planned for 16 waves through 2013.	Stratified sample of landline telephone numbers (specifics vary by state)	Address-based multistage sample stratified by geography. Oversamples Hispanic, age 60+, Black, and low-income populations.	Address-based multistage sample stratified by geography. Oversamples age 12-17 and age 18-25.
Data collection mode	In-person and telephone interviews	Telephone interviews	In-person interviews and physical examinations	In-person interview with self-administered component
Sample size (number of individuals)	88,150	451,075	About 5,000 each year; 2009-2010 data file includes 10,537 observations	68,487
Response rate	80.6% of eligible housing units in Wave 1 of 2008 panel; 16.2% of original respondents lost through Wave 6	Varies by state (19.3%-57.4%, median 35.8%)	77.4% of screened sample	66.3% (overall weighted response rate)
Frequency and survey period	Multiyear panels since 1984; conducted year-round	Annually since 1984; most states collect data year-round	Annually since 1999; conducted year-round	Annually since 1990; conducted year-round
Data availability and timeliness	Some questions of interest are in topical modules that are not included in each wave. Core data released about 9 months after data collection; topical modules released about 13 months after data collection.	Public use file for 2010 released in May 2011	Public use data released biennially; some data accessible only in NCHS Research Data Centers. 2009–2010 data released in September 2011.	Public use files released annually; some data restricted. 2010 data released in December 2011.
Levels of geography in public use data	National and state	National and state	National only	National only
Supports state estimates?	Not designed to produce state estimates	Yes	No	Direct estimates for eight largest states; small area estimation techniques used to publish estimates for all states

TABLE A-1b (*continued*)				
	SIPP 2008 Panel	**BRFSS 2010**	**NHANES 2009-2010**	**NSDUH 2010**
Costs of acquiring/using data	Relatively high because of longitudinal design and survey complexity	Low	Low for public use file; higher for restricted data	Low

SOURCES:

Survey of Income and Program Participation (SIPP): U.S. Census Bureau, Source and Accuracy Statement for the Survey of Income and Program Participation 2008 Wave 1 to Wave 6 Public Use Files, July 2011; SIPP Users' Guide Sample Design and Interview Procedures, 2009. Sample size from State Health Access Data Assistance Center (SHADAC) tabulations of the Wave 6 public use file, number of interviewees in the first month of Wave 6.

Behavioral Risk Factor Surveillance System (BRFSS): Centers for Disease Control and Prevention (CDC), *2010 BRFSS Documentation Overview;* CDC, *Behavioral Risk Factor Surveillance System 2010 Summary Data Quality Report*, version #1, revised May 2, 2011.

National Health and Nutrition Examination Survey (NHANES): CDC, *NHANES 2009-2010 Public Data General Release File Documentation*, http://www.cdc.gov/nchs/nhanes/nhanes2009-2010/generaldoc_f.htm, accessed December 14, 2011.

National Survey on Drug Use and Health (NSDUH): Substance Abuse and Mental Health Services Administration (SAMHSA), *Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings*. NSDUH Series H-41, HHS Publication No. (SMA) 11-4658. Rockville, MD: SAMHSA, 2011; RTI International, *2010 National Survey on Drug Use and Health Public Use File Codebook*, October 27, 2011.

TABLE A-2a. Provider Surveys--Hospitals				
	Acute Care Hospitals			Safety Net Hospitals
	NHAMCS 2009*	NHDS 2009*	AHA Annual Survey 2010	NAPH 2009
Sponsor	National Center for Health Statistics, Centers for Disease Control and Prevention	National Center for Health Statistics, Centers for Disease Control and Prevention	American Hospital Association	National Association of Public Hospitals and Health Systems
Primary focus	Ambulatory care services provided in hospital emergency and outpatient departments and ambulatory surgery centers	Inpatient hospital utilization	Hospital characteristics, utilization, staffing, and finances	Characteristics of public safety net hospitals
Sample frame and design	Multistage sample design to select geography units, hospitals within selected geographies, units within hospitals, and patient visits within selected units. Excludes federal hospitals, hospital units of institutions, and hospitals with fewer than six staffed beds.	Multistage sample design to select geography units, hospitals within geography units, and inpatient discharges within hospitals	Survey of all U.S. hospitals	NAPH members
Data collection mode	In-person interviews of facilities and patient record abstraction	Acquisition of Uniform Hospital Discharge Data Set files or manual data abstraction	Online and mail	Online
Sample size	34,942 emergency department visits and 33,551 outpatient department visits at 365 hospitals	162,151 discharges from 205 hospitals	6,334 hospitals	92 hospitals
Response rate	89.7% (hospital)	79% (hospital)	76%	94.8%
Frequency and survey period	Annually since 1992; data collected year-round	Annually since 1965; data collected year-round	Annually since 1946; survey is conducted during the first half of the calendar year (data collected for a hospital's most recently completed fiscal year)	Annually
Data availability and timeliness	2009 public use data released in July 2011	2009 public use data released in April 2011	2010 survey data released in October 2011. Beginning in 2012, subscribers will be able to access new data on a rolling basis.	2009 survey results published December 2010; no public use data

TABLE A-2a. (*continued*)				
	Acute Care Hospitals			Safety Net Hospitals
	NHAMCS 2009*	NHDS 2009*	AHA Annual Survey 2010	NAPH 2009
Level of geography in public use data	National only	National and census region	National, state, local, and individual hospitals	No public use data, but report includes national totals and individual hospitals
Supports state estimates?	No, but possible to use state data in Research Data Centers	No	Yes	No
Cost of acquiring/using data	Low	Low	Moderate. Approximately $8,000 per year to purchase data; requires licensing agreement.	Not available

SOURCES:
National Hospital Ambulatory Care Medical Survey (NHAMCS): National Center for Health Statistics (NCHS), *2009 NHAMCS Micro-data File Documentation*.
National Hospital Discharge Survey (NHDS): NCHS, *National Hospital Discharge Survey 2009 Public Use Data File Documentation*, March 2011; NCHS, "NAMCS and NHAMCS Restricted Data Available at the NCHS Research Data Center," http://www.cdc.gov/nchs/data/ahcd/Availability_of_NAMCS_and_NHAMCS_Restricted_Data.pdf.
American Hospital Association (AHA): AHA Survey Database Fiscal Year 2010 Public File Layout and Code Descriptions; personal communication with Sara Beazley, senior information specialist at AHA, January 2012.
National Association of Public Hospitals and Health Systems (NAPH): NAPH, *America's Public Hospitals and Health Systems, 2009*, December 2010.

*NHAMCS and NHDS are being integrated into a new National Hospital Care Survey.

TABLE A-2b. Provider Surveys--Physicians, Community Health Centers, and Substance Abuse Treatment Facilities				
	Physicians		Community Health Centers	Substance Abuse Treatment Facilities
	NAMCS 2009	AMA Physician Masterfile	NAMCS 2009	N-SSATS 2010
Sponsor	National Center for Health Statistics, Centers for Disease Control and Prevention	American Medical Association	National Center for Health Statistics, Centers for Disease Control and Prevention	Substance Abuse and Mental Health Services Administration
Primary focus	Ambulatory care services provided by office-based physicians	Physician demographics and practice characteristics	Ambulatory care services provided at CHCs by office-based physicians and non-physician practitioners	Facilities and providers treating substance abuse disorders
Sample frame and design	Multistage sample design to select geography units, physicians within selected geographies stratified by specialty, and patient visits within physician practices. Includes non-federal office-based physicians who are primarily engaged in direct patient care.	AMA database of medical doctors, doctors of osteopathy, residents, and medical students (includes AMA members and non-members)	List of physicians and non-physician practitioners at 104 selected CHCs; selection of up to three providers per CHC	All known providers of substance abuse treatment in the U.S. are included in the survey
Data collection mode	In-person interviews of physicians and patient record abstraction. Supplemental mail survey on EMR/EHR systems.	Mail, online, telephone, and secondary data sources	In-person interviews of physicians and patient record abstraction. Supplemental mail survey on EMR/EHR systems.	Mail, online, and telephone
Sample size	32,281 patient office visits to 1,293 physicians*	Approximately 875,000 records in database	3,590 visits to physicians	13,339 facilities
Response rate	62.4% (physicians)	N/A	74.7% (physicians)	86.7%
Frequency and survey period	Annually since 1989; data collected year-round	Established in 1906; continually updated	CHCs included in NAMCS since 2006; data collected year-round	Annually since 1995 (except 2001); client counts are at a point in time (last weekday in March). Survey conducted between March and October.
Data availability and timeliness	2009 public use data released in May 2011	Continually updated	2009 public use data released in May 2011. Includes physicians at CHCs but not non-physician practitioners--full CHC file available for use only at Research Data Centers.	2010 public use data released in December 2011
Level of geography in public use data	National and census region	National, census region, state, and substate	National and census region	National, regional, state, and substate

TABLE A-2b (*continued*)				
	Physicians		**Community Health Centers**	**Substance Abuse Treatment Facilities**
	NAMCS 2009	**AMA Physician Masterfile**	**NAMCS 2009**	**N-SSATS 2010**
Supports state estimates?	No, but possible to use state data in Research Data Centers. Supplemental mail survey supports state estimates.*	Yes	No, but possible to use state data in Research Data Centers. Supplemental mail survey supports state estimates.	Yes
Cost of acquiring/using data	Low	Available for purchase through several licensed vendors; cost varies	Low	Low

SOURCES: NAMCS--National Center for Health Statistics, 2009 NAMCS Micro-data File Documentation. NCHS, "NAMCS and NHAMCS Restricted Data Available at the NCHS Research Data Center," http://www.cdc.gov/nchs/data/ahcd/Availability_of_NAMCS_and_NHAMCS_Restricted_Data.pdf; personal communication with Sandra Decker, December 2011; CDC web page for NAMCS participants, http://www.cdc.gov/nchs/ahcd/namcs_participant.htm. American Medical Association (AMA): Medical Marketing Service, Inc. data file layout. National Survey of Substance Abuse Treatment Services (N-SSATS): Inter-University Con+B14sortium for Political and Social Research, "National Survey of Substance Abuse Treatment Services (N-SSATS), 2010"; Substance Abuse and Mental Health Data Archive, "National Survey of Substance Abuse Treatment Services (N-SSATS), 2010: Codebook."

*The National Ambulatory Medical Care Survey (NAMCS) sample size has been substantially increased in recent years, to about 4,700 office-based providers in 2011; further sample size increases are planned for 2012. The NAMCS supplemental mail survey is primarily about EMR/EHR systems, but also includes questions about payer mix and whether a provider is accepting new patients. Beginning with 2010 data, the mail supplement supports state estimates, and it has a 64% response rate. The supplemental mail survey is stratified by geography and physician specialty. EMR/EHR = electronic medical record/electronic health record; N/A = not applicable.

TABLE A-3. Administrative Data Sources				
	Acute Care Hospitals		Community Health Centers	Substance Abuse Treatment Facilities
	HCUP 2009, 2010	Medicare Cost Reports	UDS	TEDS
Sponsor	Agency for Healthcare Research and Quality	Centers for Medicare and Medicaid Services	Bureau of Primary Health Care, Health Resources and Services Administration	Substance Abuse and Mental Health Services Administration
Primary focus	Inpatient discharges; emergency department and ambulatory surgery encounters	Information needed for reconciliation and settlement of Medicare payments; also includes facility characteristics, utilization, costs, and charges	CHC patient demographics, services provided, staffing, clinical indicators, utilization, and financial data	Admissions to substance abuse treatment facilities
Data collection	State databases are submitted voluntarily by states, hospital associations, and private data organizations. NIS and NEDS are created from the state databases, representing a 20% sample of community hospitals and emergency departments.	Medicare-certified providers submit annual cost reports to a fiscal intermediary; due 150 days after the end of the reporting year	Reports submitted by grantees under section 330 of the Public Health Service Act, including CHCs, migrant health centers, Health Care for the Homeless grantees, public housing primary care grantees. FQHC look-alikes added for CY2011 reports.	Data collected by states from facilities receiving state and federal funds to provide alcohol and drug treatment services. Supplementary data set including health insurance and income data is not reported by all states.
Frequency	Annually. NIS since 1988; NEDS since 2006. Historical data vary by state.	Annually; data available beginning with 1996 hospital fiscal years	Annually, due by February 15 each year.	States encouraged to report monthly. Public data sets are annual, beginning in 1992.
Data availability and timeliness	2009 NIS released in May 2011. 2009 NEDS released in October 2011. 2010 state databases released in September 2011.	Data files updated frequently	No public use data, but national and state summary reports are available	2009 data file released in June 2011
Level of geography in public data files	National, census region, state; hospital for some states. Number of states participating varies by data type: inpatient (44), emergency department (29), and ambulatory surgery center (29).	Individual facilities	N/A	National, census region, state, and some substate

TABLE A-3. Administrative Data Sources				
	Acute Care Hospitals		Community Health Centers	Substance Abuse Treatment Facilities
	HCUP 2009, 2010	Medicare Cost Reports	UDS	TEDS
Supports state estimates?	National samples not designed to be state representative; complete state files available separately	Yes	Yes	Yes, for reporting facilities; however, scope is incomplete
Cost of acquiring/using data	High. Data files are very large, and purchasing state databases can be very costly. Data use agreement and training required.	High, because of size and complexity of data files	Not publicly available	Moderate, due to large file size

SOURCES:

Healthcare Cost and Utilization Project (HCUP): Agency for Healthcare Research and Quality (AHRQ), "Introduction to the HCUP Nationwide Inpatient Sample (NIS) 2009," May 2011; AHRQ, "Introduction to the HCUP Nationwide Emergency Department Sample (NEDS) 2009," September 2011; AHRQ, "Fact Sheet: Databases and Related Tools from the Healthcare Cost and Utilization Project (HCUP)," revised March 2011.

Medicare Cost Reports: Centers for Medicare and Medicaid Services (CMS), Provider Reimbursement Manual; CMS, "Cost Reports: General Information," http://www.cms.gov/CostReports/Downloads/CRGeneralInfo.pdf, accessed December 17, 2011.

Uniform Data Set (UDS): Bureau of Primary Health Care, "BPHC Uniform Data System Manual," November 23, 2011.

Treatment Episode Data Set (TEDS): Substance Abuse and Mental Health Services Administration (SAMHSA), "TEDS--Treatment Episode Data Set," http://wwwdasis.samhsa.gov/webt/information.htm, accessed December 17, 2011; SAMHSA, Office of Applied Studies, "Treatment Episode Data Set--Admissions (TEDS-A)--Concatenated, 1992 to 2009," ICPSR Study No. 25221; SAMHSA, Office of Applied Studies, "Treatment Episode Data Set--Admissions (TEDS-A)--Concatenated, 1992 to 2009, Part 4: 2005 to 2009 Codebook"; SAMHSA, "Treatment Episode Data Set (TEDS) State Instruction Manual," February 2010.

CHC = community health center; FQHC = federally qualified health center; NEDS = National Emergency Department Sample; NIS = National Inpatient Sample.

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