

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop S2-01-16
Baltimore, Maryland 21244-1850



Children and Adults Health Programs Group

MAR 24 2014

Mr. Andy Allison
Director
Arkansas Department of Human Services
700 Main Street
Little Rock, AR 72201

Dear Mr. Allison:

The Centers for Medicare & Medicaid Services (CMS) is approving Arkansas' proposed evaluation design for the Section 1115 Demonstration titled Arkansas Health Care Independence Program (Private Option) (Project Number 11-W-00287/6) received on February 20, 2014.

You may now post the approved evaluation design on the state Medicaid website pursuant to paragraph 75 of the Special Terms and Conditions (STCs).

Per paragraph 70 of the STCs, Arkansas is required to provide a budget for evaluation activities. CMS requests to receive this additional information within 30 days of this approval. Your project officer for this demonstration is Ms. Leila Ashkeboussi. She is available to answer any questions concerning your section 1115 demonstration. Ms. Ashkeboussi's contact information is:

Centers for Medicare & Medicaid Services
Center for Medicaid and CHIP Services
Mail Stop S2-02-26
7500 Security Boulevard
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Official communications regarding program matters should be sent simultaneously to Mr. Bill Brooks, Associate Regional Administrator for the Division of Medicaid and Children's Health in the Dallas Office. Mr. Brooks' contact information is as follows:

Mr. Bill Brooks
Associate Regional Administrator
Division of Medicaid and Children Health Operations
1301 Young St., Ste. 833
Dallas, TX 75202

Page 2 – Andy Allison

We look forward to continuing to partner with you and your staff on the Arkansas Private Option demonstration.

Sincerely,

A large black rectangular redaction box covering the signature of Diane T. Gerrits.

Diane T. Gerrits
Director
Division of State Demonstrations and Waivers

cc:

Cindy Mann, CMCS
Eliot Fishman, CMCS
Bill Brooks, ARA, Region VI
Vanessa Sammy, CMCS
Andrea Casart, CMCS



Arkansas Health Care Independence
Program ("Private Option")
Proposed Evaluation for
Section 1115 Demonstration Waiver

February 20, 2014

ACHI is a nonpartisan, independent, health policy center that serves as a catalyst to improve the health of Arkansans.



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Proposed Evaluation for Section 1115 Demonstration Waiver

The State of Arkansas is implementing a novel approach to expanding coverage for individuals newly eligible for Medicaid under the Patient Protection and Affordable Care Act (PPACA). Through a Section 1115 demonstration waiver, the State will utilize premium assistance to secure private health coverage offered on the newly formed individual health insurance marketplace (the Marketplace) to individuals who are ages 19–64 years with incomes at or below 138 percent of the federal poverty level (FPL). As of April 2013, the **Health Care Independence Program** (HCIP), as it is formally known, was projected to enroll approximately 211,000 people.¹ While this projection only included individuals who were currently without insurance, it is also likely that there will be some individuals who are insured but meet the requirements and may therefore enroll.

Authorized by the Arkansas Health Care Independence Act of 2013, the HCIP premium assistance approach is commonly referred to as the “Private Option.” This approach is designed to achieve equal access, network availability, quality of care, and opportunities for improved outcomes for HCIP enrollees (i.e., those who would be eligible for traditional, fee-for-service Medicaid through PPACA expansion) when compared with their privately insured counterparts. The waiver demonstration for use of the premium assistance approach through the state’s new Health Insurance Marketplace (“the Marketplace”) established by the PPACA requires an evaluation to characterize the experience and determine the impact of this new coverage strategy.

While not the only purpose, the core purpose of the evaluation is to support a cost-effectiveness determination. To determine whether or not the Arkansas HCIP is cost effective, the totality of both initial and longer-term costs and other impacts for HCIP enrollees, such as improvements in service delivery and health outcomes, will be compared with cost, service measures, and health outcomes that would have been expected for the same enrollees in the traditional Medicaid program.

1. Background

Arkansas is a largely rural state with significant health care challenges including high health-risk burdens; low median family income; high rates of uninsured individuals; and limited provider capacity, particularly in non-urban areas of the state. Arkansas’s Medicaid program currently has one of the most stringent eligibility thresholds in the nation, largely limiting coverage to the aged, disabled, and parents with extremely low incomes and limited assets.

Arkansas is implementing the Marketplace through a state–federal partnership model with the state conducting plan management and consumer outreach and education. There are seven distinct Marketplace service areas across the state; within each area two to four carriers have committed to offer qualified health plans (QHPs). HCIP authorizing legislation provides for the use of PPACA funds for premium assistance and requires all Marketplace participating carriers to enroll newly eligible HCIP adults in their QHP offerings.

Working closely with the Division of Medicaid Services within the Arkansas Department of Human Services, the Arkansas Insurance Department has issued guidance and directives to achieve plan offerings that conform to Centers for Medicaid and Medicare Services (CMS) and Center for

¹ The Arkansas Center for Health Improvement. *Arkansas Medicaid Program Analysis*. April 2013. Accessed at <http://www.achi.net/HCR%20Docs/130408%20Poster%20-%20enrollees%20final.pdf> on October 15, 2013.

Consumer Information and Insurance Oversight (CCIIO) requirements for plan actuarial value, cost-sharing reductions, benefit components, and reporting requirements.

2. Section 1115 Waiver: The Health Care Independence Act

The U.S. Supreme Court’s June 2012 ruling² allowed states to decide whether or not to extend Medicaid benefits to their citizens who qualify under PPACA expansion. Members of the Arkansas 89th General Assembly took a bipartisan approach to this prospect and crafted a unique proposal that will use federal Medicaid funding to provide health care benefits to individuals eligible under the PPACA expansion. These individuals will receive coverage via private insurance plans offered through the Marketplace. Commonly known as the “Private Option,” the Health Care Independence Act³ and its accompanying appropriation was passed by the required three-fourths majority vote in both the Arkansas House and Senate and signed into law by Governor Mike Beebe on April 23, 2013.

The act calls on the Arkansas Department of Human Services (DHS) to explore program design options that reform Arkansas Medicaid so that it is a fiscally sustainable, cost-effective, personally responsible, and opportunity-driven program using competitive and value-based purchasing to:

- maximize the available service options;
- promote accountability, personal responsibility, and transparency;
- encourage and reward healthy outcomes and responsible choices; and
- promote efficiencies that will deliver value to the taxpayers.

Arkansas DHS has secured approval of a waiver demonstration application submitted to the U.S. Department of Health and Human Services specifically designed to implement the act’s requirements.⁴

Expanding the existing state Medicaid program to nearly all individuals with incomes at or below 138 percent of the federal poverty level (FPL), as set out in the PPACA, would have presented several challenges for Arkansas. First, the newly eligible adults are likely to have frequent income fluctuations that lead to changes in eligibility. In fact, studies indicate that more than 35 percent of adults will experience a change in eligibility within six months of their eligibility determination.⁵ Without carefully crafted policy and operational interventions, these frequent changes in eligibility could lead to:

- coverage gaps during which individuals lack any health coverage, even though they are eligible for coverage under Title XIX or Advanced Payment Tax Credits (collectively, along with CHIP, “Insurance Affordability Programs” or “IAPs”) and/or
- disruptive changes in benefits, provider networks, premiums, and cost-sharing as individuals transition from one IAP to another.

² 567 U.S. ____ (2012).

³ The Arkansas Health Care Independence Act of 2013, Act 1497, Act 1498.

⁴ Arkansas Department of Health and Human Services. *Health Care Independence (aka Private Option) 1115 Waiver-FINAL*. Accessed at <https://www.medicaid.state.ar.us/Download/general/comment/FinalHCIWApp.pdf> on September 24, 2013.

⁵ Fleming C. Frequent Churning Predicted Between Medicaid and Exchanges. *Health Affairs*. February 2011. Accessed at <http://healthaffairs.org/blog/2011/02/04/frequent-churning-predicted-between-medicaid-and-exchanges/> on September 24, 2013.

In addition, if the traditional Medicaid program were expanded to include all individuals with incomes at or below 138 percent FPL, Arkansas would have increased its state Medicaid program population by nearly 40 percent. The state’s existing network of participating fee-for-service Medicaid providers is already at capacity. As a result, Arkansas would have been faced with the challenge of increasing providers’ capacity to serve Medicaid beneficiaries to ensure adequate access to care.

In short, absent the federal waiver to implement the act, a traditional Medicaid expansion would rely on the existing Medicaid delivery system and perpetuate an inadequately coordinated approach to patient care for those newly eligible under the PPACA. While reforms associated with the Arkansas Payment Improvement Initiative (www.paymentinitiative.org) are designed to address the quality and cost of care in Medicaid and the private market, these reforms do not include increased payment rates needed to expand provider access for the 250,000 new adults who will enroll through the expansion.

A. HCIP Eligibility⁴

The act extends coverage to newly eligible individuals who meet the following requirements:

- Adults between the ages of 19 and 65 years.
- A U.S. citizen or qualified, documented alien.
- Those not otherwise eligible for Medicaid under current eligibility requirements, such as those who are disabled, children, dual eligible, or are parents earning less than 17 percent FPL.
- Those not enrolled in Medicare.
- Those not incarcerated.

Essentially, the expansion is to childless adults earning between 1 percent and 138 percent of the FPL or parents who earn between 17 percent and 138 percent of the FPL.

B. HCIP Funding and Costs³

The act allows the program to continue in perpetuity during the period of the waiver that has been submitted by the Arkansas DHS but is contingent upon annual appropriations by the Arkansas General Assembly. The waiver has been approved by U.S. DHHS for 2014–2016. The costs of the program are shared by the federal government through provisions of the PPACA. In years 2014–2016 the federal share will be 100%, followed by 95%, 94%, 93%, and 90% in years 2017, 2018, 2019, and 2020 and beyond, respectively. The state will provide the additional funding beginning in 2017.

In ACHI’s comparison of options for extending health insurance coverage to low-income Arkansans, the impact of the Health Care Independence Act on the state and federal budgets were estimated as follows.⁶

State budget:

- State general revenue obligations will be reduced by ~\$40 million per year due to avoided uncompensated care.⁶

⁶ Arkansas Center for Health Improvement. *Options for Extending Health Care Coverage to Low-Income Arkansans*. Little Rock, AR: ACHI, 2013. Available at <http://www.achi.net/HCR%20Docs/130403%20Comparison%20final.pdf>, accessed September 25, 2013.

- State spending will increase by \$47 million in FY15 with 100% federal support and \$275 million in FY20 at 10% state/90% federal match requirement for expansion population.⁷
- Additional premium tax revenue over the first 10 years of the Private Option will generate \$436 million.⁷
- The net impact on the state budget is a favorable \$670 million over 10 years.⁷

Federal budget:

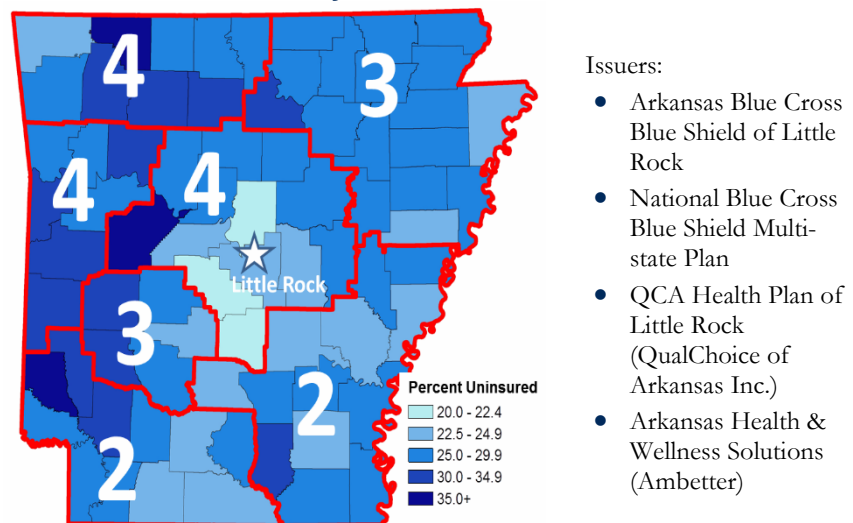
- The federal government will benefit from ~\$1.1 billion per year in new taxes and Medicare payment reductions.⁸
- The increase in federal costs for expansion and ongoing Medicaid is projected at \$1.59 billion in FY15 and \$2.35 billion in FY20.⁶
- The net impact on the federal budget approaches neutrality over 10 years (not including economic stimulant effects).⁶

C. Private Plans Available to Arkansans

The act requires the state to take an integrated and market-based approach to covering low-income Arkansans by offering new coverage opportunities, stimulating market competition, and offering alternatives to the existing Medicaid program.³

An early benefit of this approach can be found in the number of private insurance companies who have expressed their intention to offer plans across the state (Figure 1).⁹ As a result, Arkansas citizens living in each region of the state will have a choice of plans from at least two companies.¹⁰ In comparison, neighboring Mississippi had 36 counties without a single plan offered through its health insurance marketplace and has only two participating insurance

Figure 1: Number of Issuers Offering Individual Plans by Service Area



⁷ Optumas. *Newly Eligible Cost Model Intervention Comparison for Arkansas*. [Actuarial Analysis]. March 2013.

⁸ Price C and Saltzman E. *The Economic Impact of the Affordable Care Act in Arkansas*. RAND Corporation, January 2013. Web March 31, 2013.

⁹ Talk Business. *Only Four Insurance Carriers Could Qualify for Arkansas Exchange*. August 2013. Accessed at <http://talkbusiness.net/2013/08/only-four-insurance-carriers-could-qualify-for-arkansas-exchange/> on September 24, 2013.

¹⁰ Arkansas Insurance Department. *Bulletin No. 3B-2013*. June 2013. Accessed at <http://www.insurance.arkansas.gov/Legal/Bulletins/3B-2013.pdf> on September 24, 2013.

companies.¹¹

D. Arkansas’ HCIP Proposal⁴

The Private Option is crafted to address the provider capacity and care coordination issues noted above. By using premium assistance to purchase qualified health plans (QHPs) offered in the Health Insurance Marketplace, Arkansas will promote continuity of coverage and expand provider access, while improving efficiency and accelerating multi-payer cost-containment and quality-improvement efforts. Further, it is expected that by providing a source of payment to an estimated 250,000 currently uninsured citizens, an economic impetus will be created that will lead to an increase in the supply of health care services available, particularly in currently underserved areas counties. In fact, a recent study⁸ sponsored by ACHI and conducted by the RAND Corporation indicated that full implementation of expanded coverage under the PPACA would result in a \$550 million annual increase in Arkansas’s gross domestic product and the creation of 6,200 jobs, with the majority of this impact accruing to rural Arkansas where the uninsured rates are relatively higher.

Continuity of Coverage

For households with members eligible for coverage under Title XIX or the Health Insurance Marketplace as well as those who have income fluctuations that cause their eligibility to change year to year, the act will create continuity of health plans and provider networks. Households can stay enrolled in the same plan regardless of whether their coverage is subsidized through Medicaid, CHIP (after year one), or Advanced Payment Tax Credits.

Rational Provider Reimbursements and Improved Provider Access

Arkansas’s network of providers serving existing Medicaid beneficiaries has fundamental limitations restricting capacity to serve individuals newly eligible under the ACA. First, Arkansas Medicaid’s reimbursement rates are generally lower than Medicare or commercial payers, causing some providers to forgo participation in the program and others to “cross-subsidize” their Medicaid patients by charging more to private insurers. Second, due to restrictive eligibility limitations except for children, pregnant women, the dual eligible population, and select services (e.g., family planning), the Medicaid network for adult services has capacity limitations. The act’s intent through the use of QHPs is to expand provider access for the newly eligible adult population and reduce the need for providers to cross-subsidize. Through the HCIP, the state expects to avoid inflationary pressure on existing Medicaid rates to establish required access and provide deflationary relief in the Marketplace by reducing cross-subsidization.

Integration and Efficiency

Arkansas is taking an integrated and market-based approach to covering Arkansans, rather than relying on a system for insuring lower-income families that is separate and duplicative. The transition to private markets under this program is an efficient way to capitalize on the enhanced market competition and to cover Arkansans who often have income fluctuations.

¹¹ Harkey C. *Federal Health Insurance Exchange will Exclude 36 Mississippi Counties from Tax Breaks*. July 2013. Accessed at <http://www.wdam.com/story/22757086/federal-health-insurance-exchange-will-exclude-36-mississippi-counties-from-tax-breaks> on September 24, 2013.

"All Payer" Health Care Reform

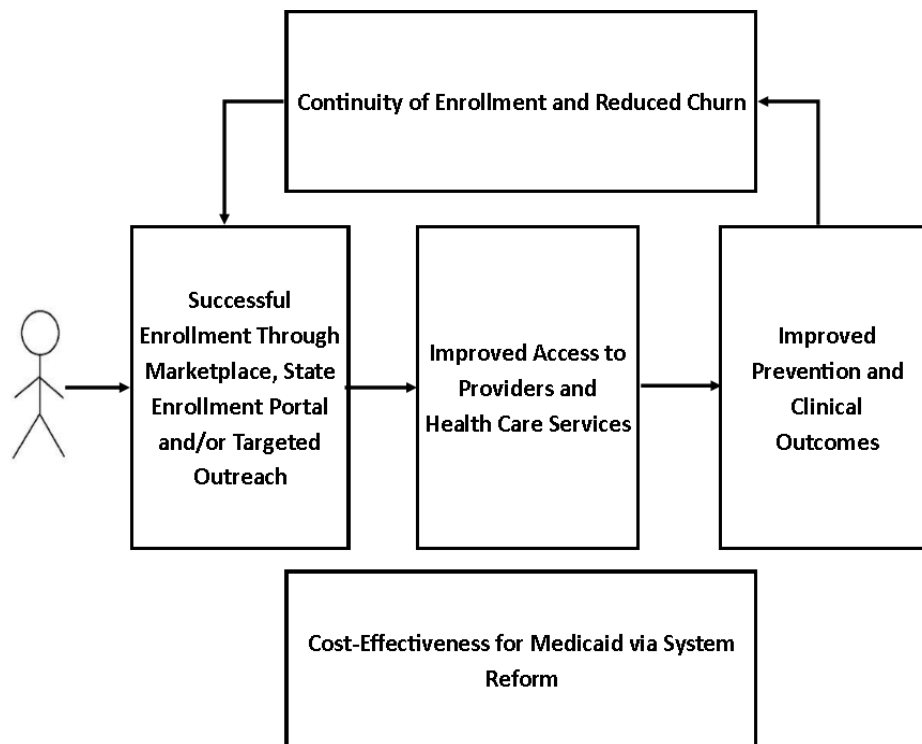
Arkansas is at the forefront of payment innovation and delivery system reform, and the Health Care Independence Act will accelerate and leverage the state’s Arkansas Health Care Payment Improvement Initiative by increasing the number of carriers participating in the effort, and the number of privately insured Arkansans who benefit from a direct application of these reforms.

3. Evaluation Strategy

A. Goals and Objectives

The HCIP programmatic goals and objectives include successful enrollment, enhanced access, improved quality of care and clinical outcomes, and enhanced continuity of coverage and care at times of reenrollment and income fluctuation. These goals and objectives must be achieved within a cost-effective framework for the Medicaid program compared with what would have occurred if the state had provided coverage for the same expansion group in Arkansas Medicaid’s traditional fee-for-service delivery system.

Figure 2: Arkansas Demonstration Waiver Evaluation Logic Model



New enrollees will successfully enroll through the Marketplace, state enrollment portal, and targeted outreach efforts (e.g., Supplemental Nutrition Assistance Program participant engagement). Compared with what would have been in a traditional Medicaid expansion, HCIP enrollees will receive coverage that improves access to providers and health care services by using carrier networks with provider reimbursements under deflationary pressure, thereby reducing payment differentials between Medicaid and privately insured individuals. Through this improved access, newly eligible HCIP individuals will receive more appropriate care including prevention, chronic disease management, and therapeutic interventions leading to better clinical outcomes. At times of reenrollment and/or changes in family income, individuals will have a greater ability to continue

coverage with the same carrier and clinical relationships with the same providers, which will lead to more seamless transitions and continuity of care. Finally, the enhancements to HCIP clients’ experiences described above will be assessed to determine the cost effectiveness of the HCIP demonstration waiver for Medicaid and the broader impact on the health care system.

B. Hypotheses

Research questions of interest identified in the development and approval process for the HCIP waiver include those examining the goals of improving access, improving care and outcomes, reducing churning, and lowering costs. Appendix 1 provides a table that includes a description of each of the original 12 hypotheses outlined in STC #70 that have been re-organized into the following four categories:

1. **HCIP beneficiaries will have equal or better *access to health care* compared with what they would have otherwise had in the Medicaid fee-for-service system over time.** Access will be evaluated using the following measures:
 - a. Use of primary care and specialty physician services, including analysis of provider networks
 - b. Use of emergency room services (including emergent and non-emergent use)
 - c. Potentially preventable emergency department and hospital admissions
 - d. EPSDT benefit access for young, eligible adults
 - e. Non-emergency transportation access

2. **HCIP beneficiaries will have equal or better *care and outcomes* compared with what they would have otherwise had in the Medicaid fee-for-service system over time.** Health care and outcomes will be evaluated using the following measures:
 - a. Use of preventive and health care services
 - b. Experience with the care provided
 - c. Use of emergency room services* (including emergent and non-emergent use)
 - d. Potentially preventable emergency department and hospital admissions*

3. **HCIP beneficiaries will have better *continuity of care* compared with what they would have otherwise had in the Medicaid fee-for-service system over time.** Continuity will be evaluated using the following measures:
 - a. Gaps in insurance coverage
 - b. Maintenance of continuous access to the same health plans
 - c. Maintenance of continuous access to the same providers

4. **Services provided to HCIP beneficiaries will prove to be *cost effective*.** Cost effectiveness will be evaluated using findings above in combination with the following costs determinations:
 - a. Administrative costs for the HCIP beneficiaries, including those who become eligible for Marketplace coverage
 - b. Overall premium costs in the Marketplace

- c. Cost for covering HCIP beneficiaries compared with costs expected for covering the same expansion group in Arkansas fee-for-service Medicaid

** The outcomes of interest and evaluation approaches associated with hypotheses 2c and 2d are shared with 1b and 1c. They are listed here, but will not be replicated throughout the rest of this document to avoid redundancy.*

C. Metrics and Data Available

The following sets of metrics will be used throughout the evaluation. Appendix 2 provides a detailed description of each candidate metric including the original definition from the original sources (arranged by source across Appendices 2A, 2B, 2C, and 2D). Appendix 3 provides a table with a complete list of each selected metric with the targeted set of hypotheses it will support.

While these metrics will be the main set for consideration, further refinement is expected after the contractor is selected and preliminary data become available. For example, as a first step the analytic team will need to generate power analyses based on the enrolled populations after the first and second year of the HCIP to determine whether or not there are sufficient sample sizes to support the use of disease specific and age specific metrics. It is anticipated that there will be a core set of measures selected from this larger group that will be used to answer a majority of the questions, while additional measures will be used to supplement these findings. These details will be examined in consultation with the study team and CMS upon initial examination of the enrolled populations and the data available at the start of the evaluation in year 2.

Enrollment

We anticipate enrollment data to be available for HCIP, subsidized tax credit, and full-cost participants in the Marketplace. In addition to enrollment numbers, the method of enrollment—Federally Facilitated Marketplace (FFM), state-based portal, or outreach (e.g., SNAP enrollment)—and the geographic location of enrollees will provide information on the success of outreach and enrollment efforts across the state. Indicators considered for monitoring include the following:

- Total and subgroup enrollment within carrier (e.g., market penetration)
- Total and subgroup enrollment within each plan (e.g., plan differentiation)
- Total and subgroup enrollment within each method of entry (e.g., enrollment path)
- Total and subgroup enrollment within each market (e.g., geographic uptake variation)

At reenrollment, both the proportion of enrollees who are maintained in HCIP and those who successfully transition coverage as a result of family income changes (either into FFM or from the FFM) will be of key interest. Conversely, those who fail to transition and contribute to “churn”—the discontinuity of coverage due to income eligibility for various programs—will also be monitored as these are the cases that the HCIP is explicitly designed to minimize. Transitions across coverage periods will result in maintenance within the same plan or intentional decisions to change plans. Importantly, the demonstration will assess these types of transitions not only across plan year but also as individuals transition across the 138 percent FPL line into and out of Medicaid eligibility. Orderly transitions based on individual choice are expected and would not indicate a negative event. Disruptions in coverage at transition points are the basis for hypotheses related to continuity and churn. Potential indicators of interest for development and use include the following:

- **Continuity:** Maintenance of enrollment within program, within plan, and across re-enrollment periods without disruption of coverage

- **Reduced churn:** Maintenance of enrollment between programs (e.g., FFM vs. HCIP), within plan, and across re-enrollment periods without disruption of coverage

These data will primarily be used to address hypotheses related to continuity of care.

Medicaid Adult Core Set

The Medicaid Adult Core Set is a set of health quality measures identified by CMS in partnership with the Agency for HealthCare Research and Quality (AHRQ)

(<http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/Medicaid-Adult-Core-Set-Manual.pdf>). We will use this as our base set of health indicator measures for the evaluation and supplement with additional indicators to address additional hypotheses. See Appendix 2A for a detailed description of each metric.

HEDIS

The Healthcare Effectiveness Data and Information Set (HEDIS) is one of the most widely used sets of health care performance measures by health plans in the United States to compare how well plans perform in quality of care, access to care, and patient experience with the health plan and plan physicians. National benchmarks and both national and regional thresholds for HEDIS measures and HEDIS/CAHPS survey results are used to score health plans annually. The National Committee for Quality Assurance (NCQA) develops and maintains the measurement set annually.

For the purposes of this evaluation, we propose a subset of candidate measures from HEDIS that include quality of care, access to care, and patient experience measures. See Appendix 2B for definitions of selected metrics and Appendix 3 for a complete list of candidate metrics and their corresponding hypotheses.

CAHPS

Nationwide experience with the Consumer Assessment of Health Plan Survey (CAHPS) has led to important new insights into patient experiences with care both for the Medicaid and the commercially insured populations. Various CAHPS surveys are available that ask consumers and patients to report on their experiences with health care and cover important topics including quality of care, access to care, and experience with care. Surveys are available in the public domain.

The Arkansas Foundation for Medical Care is the current contractor that collects CAHPS for the Arkansas Medicaid program every two years. They use the CAHPS 5.0H Medicaid Adult survey version. These surveys contain the following categories of metrics that could be used for the current evaluation (see Appendix 2C and 2D for background on CAHPS and Appendix 3 for the candidate list of CAHPS metrics and corresponding hypotheses):

- Access to and availability of services
- Consistency of care providers and networks
- Use of primary and specialty care services
- Experience with care

For the purpose of this evaluation, CAHPS will be collected in the second quarter of demonstration year 2 (DY2) and DY3. A stratified sampling procedure will be used to ensure representative participants from each of the geographic regions of the state, as well as age and insurance groups (i.e., traditional Medicaid vs. HCIP).

D. Design Approaches

We propose four strategic approaches to address the hypotheses within this evaluation. These approaches will utilize different comparison groups, metrics, and statistical methods to address the research questions. Importantly, the state is stimulating major health system reform through its multi-payer payment improvement initiative consisting of patient-centered medical homes, payments for episodes of care, and development of health homes for targeted populations. Efforts to isolate the effect of the demonstration from other market transition issues will require thoughtful consideration. In addition, risk adjustment for both family income and health care burden will be a challenge to isolating the effects of HCIP throughout the evaluation. Modeling may be required using family income as a variable to control for relationships associated with financial status. Use of the health plan risk mitigation strategies of HHS—determination of plan eligibility or obligations under the risk corridor, reinsurance, or risk adjustment methodologies—could provide an avenue for developing more robust modeling controlling for confounding factors that could influence outcomes.

The following sections provide information about each of the four major approaches, including the proposed comparison group(s), metrics, and statistical methods. See Appendix 4 for a table of all hypotheses with corresponding candidate metrics and design approaches.

D1. Statewide Comparisons

This approach will compare all individuals in the HCIP to individuals enrolled in traditional Medicaid, controlling for region and individual demographics. Arkansas Medicaid identifies individuals as eligible for services in conjunction with the state’s DHS county offices or District Social Security Offices.¹² The Social Security Administration automatically sends Supplemental Security Income (SSI) recipient information to DHS. The restricted eligibility for this program depends on age, income, and assets. Traditionally, the only adults who could qualify for Medicaid were the elderly, disabled, pregnant women, and parent/caretakers with incomes up to 17 percent FPL. Most people who qualify for Medicaid are typically in one or more of the following categories:

- Age 65 and older
- Under the age of 19
- Blind
- Pregnant
- The parent or the relative who is the caretaker of a child with an absent, disabled, or unemployed parent
- Living in a nursing home
- Under age 21 and in foster care
- In medical need of certain home- and community-based services
- Persons with breast or cervical cancer
- Disabled, including the working disabled

In comparison with the HCIP enrollees, individuals enrolled in the traditional Medicaid program will have much stricter income requirements and, in many cases, more complex health care needs. Statistical considerations will need to account for these differences.

¹² Allison A. *Arkansas Medicaid Program Overview-SFY 2012*. Little Rock, AR. Dept of Health and Human Services-Medicaid. 2013.

There will be four major metric groups used with this approach (see Appendix 4 for the complete list of candidate metrics by approach). First, enrollment data will be used to assess the continuity of access to providers and plans. CAHPS data will also be used to assess consistency of care and access to primary and specialty services, as well as the use of services and patient experiences of care. Transportation and claims data will be combined to assess the use of non-emergency transportation services. Lastly, claims data will be used following the CMS Adult Core Reporting guidelines and HEDIS indicators definitions to examine utilization and quality/outcome measures.

Statistical Analysis

A series of multivariate regression models will be fitted for each metric (see Appendix 4). Each model will include a dummy variable “program type” to test the comparison between traditional Medicaid and HCIP. In quasi-experimental studies (i.e., non-randomized experiments) such as the current evaluation, it is important for research designs to control for important differences between the treatment and comparison groups that may affect the dependent variables but are confounding the observed effect of the independent variable of interest. One way to do this is through the use of covariates. Covariates will include, but are not limited to, age, gender, race and ethnicity (where available), known health conditions, income, and geographic region. We will also test the interaction between income and program type to examine moderation effects, particularly given the known differences in income level between the traditional Medicaid program and the newly enrolled beneficiaries in the HCIP. Another way to control for unmeasured variables is to incorporate an instrumental variable into models to account for unobserved variable bias. With this method it is often difficult to identify an appropriate instrumental variable, so this approach will have to be considered in light of available data. The contracted research team will explore the appropriate use of such instrumental variables to control for bias, if possible. To test the hypothesis of “equal or better than,” for each metric the models will look for either a non-significant parameter estimate on program type (indicating equal outcomes) or a parameter estimate that favors the HCIP group based on a one-sided statistical test. All statistical tests will be performed with the probability of a Type I error of $\alpha=0.05$.

D2. Subgroup Pre–Post Comparisons

There are two important subgroups that will allow for a longitudinal pre-post research design: youth ages 17–18 who qualify for the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program and women with breast or cervical cancer. Prior to the HCIP, individuals in these subgroups were part of the traditional Medicaid program. With the implementation of HCIP, these individuals will now be provided insurance coverage through premium assistance.

For the EPSDT group we propose identifying a group of youth ages 17–18 during 2012 and 2013 who were enrolled in the traditional Medicaid program, and who upon turning 19 years of age will be eligible to enroll in HCIP. Estimates from 2011 suggest that across this two-year time frame approximately 12,000 youth will qualify for EPSDT services in this age group.

The second subgroup will be women with breast or cervical cancer. In Arkansas, a program called BreastCare provides free breast and cervical cancer screenings and treatment for Arkansas women ages 40–64 years who have no health insurance coverage and who have a household income at or below 200% FPL. During FY2012, this program served more than 12,000 women, 230 of whom were diagnosed with breast or cervical cancer and received treatment. Starting in 2014, women receiving treatment will be served through the HCIP rather than traditional Medicaid. The purpose of this analysis will be to evaluate the continuity of specialty services for women while they were in traditional Medicaid, and compare that with their continuity of services once enrolled in HCIP. It

may also be possible to compare continuity of care across this transition, though it is hypothesized that increased network access may provide opportunities for enrollees to select different providers that they did not previously have access to.

Statistical Analysis

Multiple regression models similar to those used for D1 (above) will be used with this group. In this case, however, models will include a dummy variable of “time” to test whether or not differences in outcomes can be attributed to the transition between the traditional Medicaid program and the HCIP, where Time 1 (omitted category) will include outcomes associated with enrollment in traditional Medicaid while Times 2, 3, and possibly 4 would be associated with HCIP enrollment. While we intend to use the same control covariates as D1 (above), considerations of sample size will need to be made particularly for the BreastCare program. In this case, a limited set of covariates including age and geographic region may be utilized to maximize power.

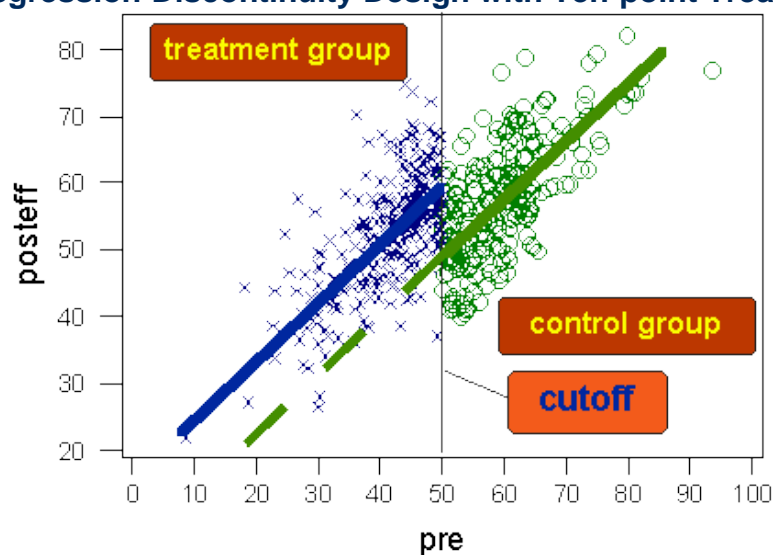
D3. Regression Discontinuity Analysis

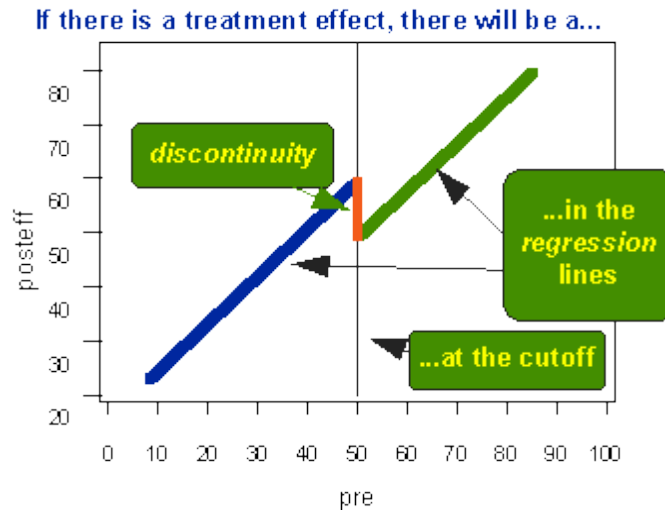
In cases where random assignment to treatment and control groups is not feasible, comparisons can be done by examining subgroups of individuals based on scores just above or below a cutoff value of a predetermined variable. The assumption is that such individuals with similar scores may not differ significantly on the characteristics of interest, even though the cut point places the individuals into different treatment groups. Consider, for example, grade school students enrolled in a summer enrichment program based on mathematics test scores. Those who score 59% or below are enrolled in the summer program, while students scoring at 60% or above do not.

For illustration, consider what the outcome might look like if the program had a positive effect on future mathematics scores. For simplicity, assume that the program, which only enrolls people who score below a certain level, had a constant effect which raised each participant’s outcome measure by ten points.

The dashed line (Figure 3) shows what we would expect the treated group’s regression line to look like if the program had no effect. A program effect is suggested when we observe a “jump” or **discontinuity** in the regression lines at the cutoff point.

Figure 3: Regression-Discontinuity Design with Ten-point Treatment Effect





For the case of Arkansas’ HCIP, there are two groups for which this method can be applied. First are low-income parents at the threshold of 17% FPL. Those parents with incomes less than 17% FPL will receive traditional Medicaid benefits, while parents above 17% FPL will enroll in the HCIP. By selecting parents at the threshold (10–17% FPL vs. 18–25% FPL), we can use a regression discontinuity (RD) design to compare metrics.

The second RD group will comprise individuals newly eligible for coverage who will participate in a screening process to determine if they have sufficient medical needs to warrant retention in the traditional Medicaid program. The HCIP authorizing legislation directs DHS to identify those individuals who have exceptional medical needs for whom coverage through the Marketplace is determined to be impractical, overly complex, or would undermine continuity or effectiveness of care and to retain them in the traditional Medicaid program. Because no previous claims history or diagnostic roster is available, identification of these individuals will require use of a prospective medical frailty screener.

In consultation with health status and exceptional needs measurement experts at the University of Michigan and the Agency for Healthcare Research and Quality, Arkansas has developed a screening process that seeks to identify the top 10 percent most medically needy to be included in this population—such as individuals who would benefit from long-term services and supports and targeted outreach and care coordination through the state’s emerging health home program and Community First Choice state plan option. The final screener consists of 12 questions that will provide self-reported information; responses will be scored and calibrated to estimate the population who will be retained in the traditional Medicaid program. Downstream refinements to the screener algorithm will occur as data accumulates and individual screening results are compared with actual utilization patterns.

There are two stages to the screening process. At the first stage, individuals with significant limitations for daily living and other “automatic” triggers will be identified. The second stage involves a weighted set of indicators from the remaining set of questions that will be used to identify a cut point around which decisions will be made about eligibility. This cut point provides a unique opportunity to employ regression discontinuity techniques with the individuals who are screened during the second stage.

Statistical Analysis

For each outcome measure that we have selected for evaluation, we regress the posttest scores, Y , on the modified pretest X (X =pretest scores minus the cutoff point), the treatment variable Z , and all higher-order transformations and interactions. The regression coefficient associated with the Z term (i.e., the group membership variable) is the estimate of the main effect of the program. If there is a vertical discontinuity at the cutoff it will be estimated by this coefficient.

D4. Provider Network Adequacy

A major set of hypothesis grounded in Arkansas’ use of premium assistance through the Health Insurance Marketplace is that by utilizing the delivery system available to the privately enrolled individuals in the marketplace the availability and accessibility of both primary care and specialists will exceed that of a more traditional Arkansas Medicaid expansion. By purchasing health insurance offered on the newly established Health Insurance Marketplace and utilizing private sector provider networks and their established payment rates, traditional barriers to equitable health care including limited specialist participation and provider availability will be minimized. In fact, as deployed, providers will not be able to differentiate privately insured individuals supported by Medicaid premium assistance (e.g., those earning $\leq 138\%$ FPL), those supported by tax credits (139%–400% FPL), or those earning above 400% FPL purchasing from the carriers offering on the exchange.

45 CFR § 156.230 requires that Qualified Health Plans (QHPs) “...maintain a network that is sufficient in number and types of providers, including providers that specialize in mental health and substance abuse services, to assure that all services will be accessible without unreasonable delay.” The Arkansas Insurance Department has developed the following network adequacy targets and data submission requirements to ensure adequacy of provider networks in QHPs offered in the Federally-Facilitated Marketplace (FFM, or “Marketplace”).

The Arkansas Insurance Department at the recommendation of the Marketplace Plan Management Advisory Committee is developing network adequacy requirements (see Appendix 5) to be reported by participating carriers on an annual basis. Utilizing geomapping techniques the recommendation, which follows qualified health plan accreditation requirements, requires stratification of network participating information as follows:

- **Primary Care:** GeoAccess maps must be submitted demonstrating a 30-mile or 30-minute coverage radius from each general/family practitioner or internal medicine provider, and each family practitioner/pediatrician. Maps should also show providers accepting new patients. Dental carriers are not required to submit separate categories, but should include only non-specialists in this requirement.
- **Specialty Care:** GeoAccess maps must be submitted demonstrating a 60-mile or 60-minute coverage radius from each category of specialist (see list of categories below). Maps should also show providers accepting new patients. Specialists should be categorized according to the list below. (Dental carriers do not need to categorize specialists.)
 - Cardiologists
 - Endocrinologists
 - Home Health Agencies
 - Hospitals*
 - Obstetricians
 - Oncologists
 - Ophthalmologists

- Psychiatric and State Licensed Clinical Psychologist
- Pulmonologists
- Rheumatologists
- Skilled Nursing Facilities
- Urologists

**Hospitals types should be categorized according to hospital licensure type in Arkansas.*

- **Mental Health/Behavioral Health/Substance Abuse (MH/BH/SA):** GeoAccess maps must be submitted demonstrating a 45-mile or 45-minute coverage radius from MH/BH/SA providers for each of the categories below. Maps should also show providers accepting new patients.
 - Psychiatric and State Licensed Clinical Psychologist
 - Other (submit document outlining provider or facility types included)
- **Essential Community Providers (ECP):** GeoAccess maps must be submitted demonstrating a 30-mile or 30-minute coverage radius from ECPs for each of the categories below. The provider types included in each of the categories align with federal guidelines for ECP providers, with the addition of school-based providers included in the “Other ECP” category.
 - Family Planning Provider
 - Federally Qualified Health Center
 - Hospital
 - Indian Provider
 - Other ECP
 - Ryan White Provider

To evaluate and compare the differences in access and availability by each of the provider types above for the networks of Medicaid demonstration participants compared with the traditional Medicaid network, geomapping efforts for adult patients in the traditional Medicaid would be replicated to enable comparisons of networks available through the Marketplace and those through traditional Medicaid provider panels. In addition serial examinations of primary care, specialists, and select providers within carrier networks will enable examinations of access continuity for primary care and specialists that compare the traditional Medicaid provider networks with the provider networks evidenced through the HCIP.

E. Approach for Test of Cost Effectiveness

The Arkansas Demonstration proposes to enhance care received by Medicaid beneficiaries through the use of premium assistance to purchase private coverage from QHPs on the Arkansas Health Insurance Marketplace. Opportunities for enhanced access to primary care and specialty networks, continuity in insurance coverage and provider relationships, improved preventive and chronic care management, enhanced patient experiences in care and improved outcomes are described above. In addition, by nearly doubling the number of individuals who will enroll in QHPs through the Marketplace, the Demonstration is expected to encourage carrier entry, expanded service areas, and competitive pricing in the Marketplace, thereby enabling QHP carriers to better leverage economies of scale to drive pricing down even further.

However, core requirements of the Demonstration are to evaluate the cost effectiveness of utilizing Medicaid funds to procure insurance coverage through premium assistance at scale in the new

Health Insurance Marketplace. The proposed approach summarizes existing knowledge of available comparison groups, anticipated data, and a summary of methodological considerations compiled by staff from the office of the Assistant Secretary for Planning and Evaluation (ASPE) and based on input from Arkansas’ waiver team; conversations between Arkansas, ASPE, and CMS.

The approaches represented recognize the expectation for Arkansas to undertake a robust evaluation to adequately test health outcomes and financial implications of Medicaid coverage expansion through premium assistance, as well as the need to accommodate certain limitations (e.g., comparison groups and data availability). We represent below the requirements, the current approach, challenges identified, anticipated uncertainties, and potential future policy implications. For the purpose of this Evaluation Plan, we have limited approaches to those for which the state can assure available data to the selected external contractor. Given the potential value of comparison with another state, the evaluation team will continue to explore this possibility with CMS guidance. Currently, CMS is exploring making available utilization data from another state to support secondary analyses. Should these data become available, the evaluation team will explore with CMS what analyses could reasonably be undertaken. Findings and key challenges will be shared in the summative evaluation report.

E1. Cost Effectiveness Requirement – STC #68

“While not the only purpose of the evaluation, a core purposes of the waiver evaluation is to support a determination as to whether a preponderance of evidence about the Arkansas Private Option Demonstration using premium assistance, when considered in its totality, demonstrates cost effectiveness taking into account both initial and longer-term costs and other effects such as improvements in service delivery and health outcomes.

- a. The evaluation will explore and explain through developed evidence the effectiveness of the demonstration for each hypothesis, including total costs in accordance with the evaluation design as approved by CMS.
- b. Included in the evaluation will be examinations using a robust set of measures of provider access and clinical quality measures under the Private Option Demonstration compared to a comparable population in Medicaid fee-for-service.
- c. The State will compare total costs under the Private Option Demonstration to costs under a traditional Medicaid expansion. This will include an evaluation of provider rates, healthcare utilization and associated costs, and administrative expenses over time.
- d. The State will compare changes in access and quality to associated changes in costs in the Private Option. To the extent possible, component contributions to changes in access and quality and their associated levels of investment in Arkansas will be determined and compared to improvement efforts undertaken in other delivery systems.”

E2. Recommended Approach

The proposed methodology was selected from among a range of analytic options to best address the real-world circumstances under which Arkansas’ premium assistance waiver is being demonstrated. Of particular importance, Arkansas has not previously expanded Medicaid with full benefits for the target population under its traditional fee-for-service population; coverage has been limited to either individuals with extreme needs (e.g., the disabled) or those experiencing extreme poverty (e.g., parents of children in families earning at or below 17% FPL). Thus, the lack of directly comparable information will require quasi-experimental methods to address the absence of randomized

enrollment and to recognize existing limits on available data for preferred comparison groups (i.e., matched populations from similar states following a different path to expansion/no expansion). Thus, data availability, research design, and outcome (both cost and effectiveness) measures were considered simultaneously; an effort is underway to understand, before the program is implemented, the analytic framing for the evaluation.

A cost-effectiveness analysis (CEA) of the HCIP Private Option in Arkansas versus enrollment in the regular Medicaid fee-for-service (FFS) program has several important dimensions:¹³

- Perspective and length of follow-up
- Measurement of costs
- Measurement of effectiveness (e.g., continuity in coverage, provider access, health outcomes, quality of coverage, patient experiences)
- Control group identification when randomization is not possible
- Methods for obtaining estimates
- Accounting for uncertainty

Each issue is discussed briefly below.

Perspective and Length of Follow-up

A societal perspective (including net costs to the Marketplace and any out-of-pocket beneficiary costs) would be most comprehensive. However, for policy-making purposes, conducting the analysis from the Medicaid perspective may be sufficient to determine whether in its totality the evaluation demonstrates cost effectiveness (i.e., is either cost saving or attains increases in outcomes that are worth any increase in cost). For simplicity, the remainder of this document will focus on estimation of key components of the incremental cost-effectiveness ratio (ICER) from the Medicaid payer perspective:

$$[\text{Eq. 1}] \quad ICER = \frac{(COST_{HCIP} - COST_{Control})}{(EFFECT_{HCIP} - EFFECT_{Control})}$$

where *EFFECT* reflects some health outcome that is not easily quantified in monetary terms. Because the goal is to provide immediate feedback to Arkansas and CMS, the ICER can be initially estimated for the first year of program enrollment. As future years are included, discounting (translating of future costs and benefits into current values) would be required.

It is important to note that in many CEAs, a single value measure of effectiveness (e.g. quality-adjusted life years, life years saved, etc.) is used to calculate the ICER. For HCIP, there will be numerous potential measures of effectiveness. Thus, there are at least two choices: find some methods for combining the various effectiveness measures into a single metric, or make more qualitative judgments about the overall balance of the incremental effectiveness measures relative to incremental costs.

¹³ Gold MR, Siegel JE, Russell LB, and Weinstein MC. Cost-effectiveness in health and medicine: The report of the Panel on Cost-effectiveness in Health and Medicine. New York: Oxford University Press; 1996.

Costs

Medicaid will pay the QHP premium each month for each person with an income between 18% and 138% of the FPL (except for people who are determined to be medically needy). This premium could include the QHP’s administrative costs plus the expected average age-adjusted service cost per enrollee for the plan chosen. Subject to further consideration of the accuracy of the premium to reflect these costs (discussed in more detail below), the premium provides an easy way to measure the costs of the HCIP to Medicaid for the first year of the program. For the control group (also discussed later), Arkansas will also estimate the Medicaid administrative cost per enrollee (avoided claims administration, oversight, appeals, program integrity, and other) and use claims to measure the service costs. Therefore, the numerator of the ICER is:

$$[\text{Eq. 2}] \quad \text{COST}_{\text{HCIP}} - \text{COST}_{\text{Control}} = \text{Premium}_{\text{HCIP}} - (\text{Medicaid Admin Costs} + \text{Medicaid FFS Claim Payments})_{\text{Control}}$$

The components in Eq. 2 would be summed over all HCIP enrollees and control persons for the first year of the program.

The extent to which the HCIP premium accurately represents the average cost of the HCIP individuals depends on how well the Marketplace predicts service use. The state will rely on its actuaries to develop an accurate representation of HCIP premium costs for each year of the Private Option. Considerations include the following:

- Premiums set in advance for one year may be greater or less than actual experience; actual experience could lead to increases or decreases in premiums in future years.
- The state is entitled to repayment from carriers for premiums exceeding claims cost plus administration, subject to the minimum loss ratio in effect in the Marketplace, and this calculation and restitution will occur in Year 2 for claims costs and premiums incurred in Year 1.
- While the premiums depend on the experience of *all* Marketplace enrollees (not just HCIP), obtaining claims from the Marketplace for the HCIP enrollees as well as the premiums for the second year of the Marketplace will enable a more nuanced analysis of the financial experience for Medicaid during the first year of the HCIP as well as an understanding of the extent to which the second-year experience may be different.

If the incremental difference in costs (Eq. 2) is negative, then on average the HCIP program is cost saving; if the incremental difference is positive, then the HCIP may be cost effective if the program also increased some health outcome measure (e.g., health status, access, experiences) such that the increase in outcome is worth the increase in cost to the Medicaid program. However, even if HCIP is estimated to be cost saving on average for the first year, uncertainty in this estimate should be considered because the estimate is based on a particular group of enrollees in the first year. More specifically, it is unlikely that the HCIP would be 100% certain to be cost saving, so Arkansas might consider cost effectiveness using some estimated measure of effect.

In anticipation of a need to assess the overall balance of the incremental effectiveness measures relative to incremental costs across multiple facets of the Arkansas Demonstration, we propose the following analytic application of potential incremental outcomes for subgroup and total program assessments. As arrayed, three different options for measured effects (improved, no change, degraded) and costs (net decrease, no change, net increase) are anticipated for modeled options (see Figure 4). We anticipate findings resulting in segment A and B as optimal outcomes, D and E as

acceptable outcomes, C warranting policy discussion of the “value” of observed improvements, and results in segment F–I as negative outcomes. As referenced above and described below, different effects principally tested will include a variety of hypotheses for exploration within the Arkansas Demonstration.

Figure 4: Potential Incremental Outcomes for Subgroup and Total Program Assessments

		Cost		
		Lower Net Cost	No Cost Change	Higher Net Cost
Effect	Improved	A	B	C
	No Change	D	E	F
	Degraded	G	H	I

Effects (Health Outcomes)

Standard and single-value measures of health outcome for economic evaluation, such as quality-adjusted life years, may not be feasible for assessment of the HCIP, especially because mortality differences would not likely be detectable within the first year of the program for this population. In this case, the effectiveness measures are appropriately related to the quality of insurance coverage provided in the Marketplace relative to the traditional Medicaid program. Therefore, a variety of measures might be used including those related to continuity of coverage, health status, access, utilization, and enrollee experiences. Another consideration is which measures can reasonably be expected to be affected by coverage over the time horizon for the project. Measures of utilization or process measures of care quality might be observed in a one-year time frame, but impacts on health status measures would likely take longer. One possible measure of effect that might be relevant to the Medicaid program would be reductions in potentially avoidable readmissions. Although the actual cost of hospitalizations is reflected in the numerator of the ICER, hospitalizations involve many unmeasured costs (e.g., pain, discomfort, lost work time, etc.), so reduction in inappropriate/avoidable hospital use is generally beneficial and reflective of health status improvements.¹⁴ Among the characteristics that will be considered in selecting effectiveness measures are the following:

- There is general agreement they measure important aspects of quality for insurance coverage.
- They are likely to be affected by new coverage within a reasonable time frame.
- Data to calculate them will be available at reasonable intervals for both treatment and control groups.

With these criteria in mind, the state will plan to select a representative number of outcomes measures to include in tests of cost effectiveness. These measures will be drawn from those vetted for inclusion in the evaluation of experiences in care, effectiveness of care, utilization, and provider network. Candidate indicators for consideration in testing select hypotheses include the following.

¹⁴ Stearns SC, Rozier RG, Kranz AM, Pahel BT, and Quinonez RB. Cost-effectiveness of Preventive Oral Health Care in Medical Offices for Young Medicaid Enrollees. *Pediatrics & Adolescent Medicine*. 2012;166(10): 945-51.

Hypothesis 4a: Fewer gaps in enrollment, improved continuity of care, and resultant lower administrative costs

For this hypothesis, candidate metrics include the following:

1. Enrollment metrics (AR Medicaid Eval 9 and 10) to be generated from cross-year carrier and Medicaid enrollment inclusive of re-enrollment and transitions of enrollment across the 138% FPL threshold (e.g., gaps in enrollment coverage)
2. Continuity and accessibility metrics (AR Medicaid Eval 03-08) to be generated from cross-year carrier and Medicaid network provider information for both primary care providers and specialty providers operationalized as a positive event (expanded accessibility, greater PCP/specialty access, greater inferred continuity in PCP attachment) and maintained accessibility across participation years
3. Administrative costs as discussed above from identification and categorization of costs attributed to the state Medicaid plan, incorporated into carrier management, and otherwise required for a traditional Medicaid expansion

Hypothesis 4b: Reduced premium costs in the Marketplace and increased quality of care

Arkansas’ Demonstration Waiver incorporated anticipated changes in the Marketplace as a result of Medicaid premium assistance including stabilization of the actuarial risk pool in the private health insurance exchange, deflationary pressure through reduced cost-shifting for Medicaid underpayments to providers, increased plan competition resulting in increased participant choice, and finally enhanced quality of care due to active clinical and network management by private carriers.

1. As discussed above, Marketplace characteristics (e.g., carrier competition, premium costs, actuarial stability) will be operationalized through performance characteristics of the Arkansas Marketplace.
2. Access, quality of care, and patient experiences as previously discussed for both regression discontinuity analyses and statewide assessments will be employed for assessments of quality of care (directionality as appropriate for specific metrics). Total costs of the HCIP will include actual premiums and consider a sensitivity assessment based upon the actuarial projections included in the Demonstration Waiver (e.g., costs private plans would have paid without premium assistance, costs projected for HCIP, costs of additional reductions with maturation of the Arkansas Exchange Marketplace).

Hypothesis 4c: Overall costs for covering beneficiaries

While no comparison group exists to enable measurement of the hypothetical costs of covering the entire expansion population in Arkansas’ traditional fee-for-service Medicaid program, original actuarial modeling developed by Optumas employed in waiver development and shared with CMS; planned assessments of experienced quality and costs above; and actual premium costs and concurrent Medicaid costs for DY1, DY2, and DY3 will enable estimates for comparison of total program costs of the Demonstration and alternative hypothetical Medicaid expansion. Subgroup comparisons for delivery costs for

care will be employed building upon cost-effectiveness analyses above. The following are candidate metrics:

1. Statewide projections for delivery costs for care will be modeled building off of sub-group comparisons and modeling efforts to estimate required provider rates for comparable access under expansion assumptions regarding access requirements.
2. Comparison of cost-estimates to actuarial modeling inclusive of sensitivity analyses are anticipated to provide a bounded range of comparative costs between the Arkansas Demonstration and an Arkansas traditional Medicaid expansion.

Control Group Identification and Methods for Obtaining Estimates

HCIP enrollment will not be randomized but instead will occur automatically for all persons with incomes of 18%–138% FPL who were not previously eligible for Medicaid and who are not identified as “high need” based on the medical needs screener. A set of different control groups and analytic methods may be considered to get estimates of the effect of HCIP for different components of the Medicaid population. For example, regression discontinuity methods^{15,16,17} could be used to estimate costs and effects for HCIP and control for enrollees at two different thresholds for Hypothesis 4a:

- HCIP enrollees who score close to (but just below) the high-need cutoff (e.g., persons who score in the 80th–90th percentiles of the predicted risk scores) could be compared with the high-need enrollees who are placed in regular Medicaid FFS because they score in the 90th–100th percentiles of the predicted risk scores. (Note: people who qualify automatically for the high-need Medicaid FFS due to characteristics such as specific disabilities will automatically be enrolled in the treatment group, so no controls can be identified among HCIP enrollees; therefore, these FFS enrollees should not be included in the control group.)
- HCIP enrollees who are relatively low income (e.g., 18%–25% FPL) could be compared with Medicaid FFS enrollees just below the low-income threshold (e.g., 10%–17% FPL).

While estimates of the ICER for these two groups would not reflect the effect of HCIP for the full set of HCIP enrollees, they would provide useful estimates for two important and potentially high-cost groups (medically needy and/or extremely low income). The precision of the estimate will depend on the number of people whose high-need measure or income qualify them to be in the analysis (either HCIP treatment or FFS control); it will be possible to estimate 95% confidence intervals for the estimates, but small samples would limit the value/precision of the estimates. Hypotheses 4b and 4c will extract from regression discontinuity approaches applied in hypothesis 4a but also require Arkansas Exchange Marketplace cost information in addition to comparative exchange information from states without premium assistance.

It would be desirable, of course, to get an estimate of HCIP for the rest of the Medicaid expansion population (e.g., people not previously eligible for Medicaid who are at 26%–138% FPL and have a predicted risk score of <80%). Given lack of randomization, the control group would need to come

¹⁵ Hahn J, Todd P, and Van der Klaauw W. Identification and Estimation of Treatment Effects with a Regression-Discontinuity Design. *Econometrica*. 2001;69(1): 201-09.

¹⁶ Trochim WMK. The Regression-Discontinuity Design in Health Evaluation. *Research Methodology: Strengthening Causal Interpretations of Nonexperimental Data*. 1990.

<http://www.socialresearchmethods.net/research/RD/RD%20in%20Health.pdf>.

¹⁷ Sechrest L, Perrin E, and Bunker J. USDHHS, Agency for Health Care Policy and Research, Washington, D.C. <http://www.socialresearchmethods.net/research/RD/RD%20in%20Health.pdf>.

from another state (either one that previously expanded Medicaid coverage or is currently expanding coverage under PPACA); because Arkansas is using a FFS approach rather than managed care for Medicaid beneficiaries outside the Demonstration, the control state(s) should also use a FFS rather than managed care approach. Georgia, Oklahoma, and Alabama are potential Medicaid FFS states that could be included, while Missouri, Tennessee, and Kentucky are not likely candidates because they utilize a Medicaid managed care approach. To do the analyses, person-level enrollment and claims data from an appropriate control state would need to be obtained, as it seems unlikely that administrative reports would be sufficient to identify the experience for the control patients. Even with these data, it might be necessary to use a statistical approach, such as propensity score matching,^{18,19} to identify whether the Medicaid enrollees from the comparison state would have been in the HCIP (e.g., unless the control state has information similar to Arkansas’s high-need screener); however, the data available to use this approach may be limited. In total, the potential for bias in the estimated impact from this comparison might be much greater than for the estimates obtained for the high-need and low-income groups using the regression discontinuity approach; however, the estimate might provide some sort of bound or improved understanding of the possible full impact of HCIP enrollment.

Potential Statistical Methods

The choice of statistical methods must be consistent with data availability and choices for the comparison groups. As described above, one set of comparisons for this evaluation may involve individuals close to the thresholds that assign them either to traditional Medicaid or HCIP. The appropriate statistical technique for these situations is known as regression discontinuity designs or RDD. Regression discontinuity analysis applies to situations in which candidates are selected for treatment based on whether their value for a numeric rating exceeds a designated threshold or cut-point. Under an RDD, the effect of an intervention can be estimated as the difference in mean outcomes between treatment and comparison group units, adjusting statistically for the relationship between the outcomes and the variable used to assign units to the intervention, typically referred to as the “forcing” or “assignment” variable (see section D3, above, for more detail on the RDD method).

Accounting for Uncertainty in Estimates

Because the estimates of costs and effects are based on first-year HCIP enrollees and control Medicaid enrollees, the estimates of both the numerator and the denominator of the ICER are subject to sources of uncertainty that are likely correlated. The uncertainty arises because the group of enrollees in one year may differ from groups of enrollees in future years. Methods have been established to address uncertainty in estimates of cost effectiveness.^{20,21} For example, the analysis can generate bootstrap replications of the estimates of the ICER; these replications can be used to construct a cost-effectiveness acceptability curve (CEAC) that depicts the probability that HCIP is cost effective at different levels of willingness to pay for an avoidable hospitalization averted.

¹⁸ Guo S. and Fraser M. *Propensity score analysis: statistical methods and applications*. Thousand Oaks, CA. 2010.

¹⁹ Rosenbaum PR. and Rubin DB. The Central Role of the Propensity Score in Observational Studies for Causal Effects. *Biometrika*. 1983;70(1): 41-55.

²⁰ Briggs AH, O'Brien BJ, and Blackhouse G. Thinking outside the box: Recent advances in the analysis and presentation of uncertainty in cost-effectiveness studies. *Annual Review of Public Health*. 2002;23: 377-401.

²¹ Chaudhary MA and Stearns SC. Estimating confidence intervals for cost-effectiveness ratios: An example from a randomized trial. *Statistics in Medicine*. 1996;15(13):1447-58.

4. Evaluation Implementation Strategy, Timeline, & Budget

A. Independent Evaluation

An independent third party will be selected, after applicable state procurement, selection, and contracting procedures have been performed, to conduct the interim (DY2) and final (DY3) evaluations. The third party selected for the evaluation will be screened to assure independence and freedom from conflict of interest. The assurance of such independence will be a required condition by the state in awarding the evaluation effort to a third party. The selection of this independent evaluator will be based on their demonstrated capacity to conduct rigorous evaluations similar to the current proposal, qualification of proposed staff, and evidence of the ability to meet project objectives within the proposed timeline and budget.

The evaluation will meet all standards of leading academic institutions and academic journal peer review, as appropriate for each aspect of the evaluation, including standards for the evaluation design, conduct, interpretation, and reporting of findings. Among the characteristics of rigor that will be met for the interim and final evaluations are use of best available data and controls for and reporting of the limitations of data and their effects on results and the generalizability of results. Treatment and control or comparison groups will be used, and appropriate methods will be used to account and control for confounding variables. The evaluation design and interpretation of findings will include triangulation of various analyses, wherein conclusions are informed by all results with a full explanation of the analytic limitations and differences.

B. Data Availability

Arkansas has developed and continues to develop strategies to secure needed data inclusive of enrollment, claims, and consumer experience related to the demonstration. We anticipate developing the required data components in concert with the evolution of the HCIP demonstration. For example, we anticipate outreach and enrollment to be a focus in DY1, improved access and utilization in DY2, and clinical outcomes in DY3; re-enrollment and elimination of churn to be an ongoing assessment following DY1; and cost-effectiveness to be a critical DY3 determination.

The Arkansas Insurance Department (AID) has issued guidance that carriers will be required to submit claims for the Marketplace experience inclusive of the demonstration participants—initially required reporting by the end of quarter 1 in DY2 for DY1 experience and on a quarterly basis thereafter. The submission process will utilize the X12 standards (www.X12.org) in eligibility files and medical claims, and the National Council for Prescription Drug Programs Standards in Pharmacy Claims files (see Appendix 6 for more information). These claims data will be the basis for development of access, utilization, and clinical quality indicators from established and accepted national metrics.

The Division of Medicaid Services (DMS) within the Arkansas Department of Human Services has historic and will have temporal claims data for existing Medicaid enrollees. In addition, DMS conducts the CAHPS with Arkansas Medicaid enrollees on a semi-annual basis.

CMS is exploring availability of additional state data from a comparable state to be used for comparison. If these data become available, the evaluation team will work with CMS to include these data in the evaluation.

C. Timeline

Table 1 provides a proposed timeline for the work of this evaluation. It is anticipated that the hired contractor will use this general timeline to create a more thorough timeline and workplan once they are hired. Though the Demonstration is scheduled for 3 years, we have included a Year 4 in this evaluation proposal to encompass all the required reports that will be submitted subsequent to DY3. The three major pieces of work include the recruitment and hiring of an independent evaluation team, the collection and analysis of data, and the submission of reports.

We propose three major reports and 13 enrollment reports to be completed. The enrollment reports will include information about enrollment patterns, reenrollment patterns, and retention patterns throughout DY1–4. We also propose to include an implementation update at the conclusion of DY1 that will consist of quarterly enrollment updates, market area assessments, and any “transition to market” issues identified through the implementation of HCIP. We anticipate these findings will not only be needed for any programmatic or technical modifications in Arkansas’s program but also beneficial should other states pursue a similar Medicaid expansion.

The Interim Evaluation Report will be completed as stipulated in STC 70 after completion of DY2. This report will include findings from data collected including two years of enrollment data, two years of geomapping data, one year of CAHPS data (collected during DY2), and two years of claims data. The Final Evaluation Report will be submitted after completion of DY3. It will include three years of enrollment, geomapping, and claims data, as well as two years of CAHPS data.

The Interim Evaluation Report, Draft and Final Summative Evaluation Reports will follow the outline and included components in STC 70.

Table 1. Proposed Project Timeline

	DY 1 (2014)				DY 2 (2015)				DY 3 (2016)				DY 4 (2017)										
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4							
Reports:																							
Enrollment		U		U					U			U				U							
Reenrollment					U				U						U								
Retention					U				U						U								
Implementation Update					R																		
Interim Report										R													
Final Draft Report															R								
Final Summary Report																R							
Data Collection & Analysis:																							
Enrollment	X	X	X	X	X	X			X	X	X	X	X	X									
Geomapping					X	*	*	*		X	*	*	*		X	*	*	*					
CAHPS						X	X	X	*	*	*	*		X	X	X	*	*	*	*			
Carrier Claims						X	*	*	X	*	*	X	*	*	X	*	*	X	*	*	X	*	*

U=Non-required Update
R=Required Report
X=Data Collection
*=Data Analysis

D. Budget

To be determined after the scope of the analytic proposal is approved.

5. Supplemental Hypotheses and Future Policy Implications

Additional questions of policy relevance are of interest; however, they are outside of the scope of STC #68 that requires examination of the Arkansas Demonstration in comparison with what would have happened under a traditional Medicaid expansion. These questions will be important completely frame the experience and understanding generated by the first major use of premium expansion through the new health insurance exchanges to cover low-income Americans. We anticipate framing these questions, securing supplemental funding, and conducting appropriate research to capture the experience and learning opportunities of the Arkansas Demonstration.

These policy-relevant questions include both questions of global significance to the Medicaid program and health care system that will inform future policies about safety-net providers, workforce needs, specialty availability, population health impact, and marketplace stabilization. As a poor state with poor health status and outcomes combined with high rates of the uninsured, Arkansas may serve as an incubator to evaluate the following questions.

- By using premium assistance to purchase private health insurance on behalf of low-income Americans, how equitable was the access, outcomes, and experiences between Medicaid beneficiaries and their private-sector counterparts (regression discontinuity above and below 138% FPL)?
- Where differences exist in access, outcomes, and experiences of Medicaid beneficiaries and their private-sector counterparts, what are plausible causes and potential policy solutions?
- How did Arkansas expansion of health insurance affect a change on population health indicators compared with sister states with similar risk profiles who elected to delay implementation?
- If Arkansas’ Demonstration proves to advantage the health insurance exchange and the Medicaid program through system improvements, actuary risk-pool stability, and/or deflationary pressure on premiums, what are the indirect long-term benefits of a more efficient market and stable risk pool to the federal treasury through lower expenditures on advanced premium tax credits?
- How did Arkansas’ use of Supplemental Nutrition Assistance Program eligibility contribute to the stability of the risk pool compared with self-initiated enrollment of newly eligible beneficiaries?
- How did providers—both primary care and specialists—react to a major reduction in the numbers of the uninsured and receipt of equivalent payment rates for beneficiaries in the exchange marketplace? Did private-sector providers relocate over time or find alternative delivery strategies to highly concentrated areas of uncompensated care caused by the lack of insurance?
- How did safety-net providers—federally qualified health centers, rural health centers, critical access hospitals, educational institutions—fare under Medicaid expansion utilizing premium assistance through commercial carriers?

These and additional policy-relevant questions will be identified through the implementation experience of the Arkansas Demonstration Waiver. As other states consider Medicaid expansion through the use of premium assistance, both replication of Arkansas’s approach and minor variations on coverage strategies could enable multi-state collaborative and cross-state comparisons. We anticipate additional opportunities for exploration outside of the scope of the Demonstration Waiver terms and conditions and welcome exploration, development, and pursuit of funding opportunities to support these analyses.

6. Appendices

Appendix 1: Arkansas Evaluation Hypotheses: Proposed & Original Crosswalk

Appendix 2: Proposed Measure Descriptions and Definitions

- A. Selected Measures from Initial Core Set of Health Care Quality Measures for Adults Enrolled in Medicaid
- B. Selected Measures from Healthcare Effectiveness Data and Information Set (HEDIS) 2014
- C. Consumer Assessment of Healthcare Providers and Systems Survey—Health Plan 5.0
- D. Consumer Assessment of Healthcare Providers and Systems Survey—Supplemental Items 4.0

Appendix 3: HCIP Waiver Evaluation Planning: State’s Medicaid Reporting Measures

Appendix 4: Candidate Metrics by Approach

Appendix 5: Arkansas Insurance Department Network Adequacy Guidelines and Targets

Appendix 6: Arkansas Insurance Department Requirements for Qualified Health Plan Certification in the Arkansas Federally-Facilitated Partnership Exchange

Appendix 1

Arkansas Evaluation Hypotheses: Proposed & Original Crosswalk

ACHI is a nonpartisan, independent, health policy center that serves as a catalyst to improve the health of Arkansans.



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Appendix 1

Arkansas Evaluation Hypotheses: Proposed & Original Crosswalk

Arkansas Proposed Evaluation Hypotheses	Arkansas Original Terms and Conditions Hypotheses (Section 8, STC 70, #1)
<p>1—Access</p> <ul style="list-style-type: none"> a. Use of PCP/specialist b. Non-emergent ER use c. Preventable ER d. EPSDT e. Non-emergency transportation 	<ul style="list-style-type: none"> i. Premium Assistance beneficiaries will have equal or better access to care, including primary care and specialty physician networks and services. iii. Premium Assistance beneficiaries will have lower non-emergent use of emergency room services. vii. Premium Assistance beneficiaries will have lower rates of potentially preventable emergency department and hospital admissions. ix. Premium Assistance beneficiaries who are young adults eligible for EPSDT benefits will have at least as satisfactory and appropriate access to these benefits. x. Premium Assistance beneficiaries will have appropriate access to non-emergency transportation.
<p>2—Care/outcomes</p> <ul style="list-style-type: none"> a. Preventive and health care services b. Experience c. Non-emergent ER use* d. Preventable ER* 	<ul style="list-style-type: none"> ii. Premium Assistance beneficiaries will have equal or better access to preventive care services. viii. Premium Assistance beneficiaries will report equal or better experience in the care provided. iii. Premium Assistance beneficiaries will have lower non-emergent use of emergency room services. vii. Premium Assistance beneficiaries will have lower rates of potentially preventable emergency department and hospital admissions.
<p>3—Continuity</p> <ul style="list-style-type: none"> a. Gaps in coverage b. Continuous access to same health plans c. Continuous access to same providers 	<ul style="list-style-type: none"> iv. Premium Assistance beneficiaries will have fewer gaps in insurance coverage. v. Premium Assistance beneficiaries will maintain continuous access to the same health plans, and will maintain continuous access to providers.

Arkansas Proposed Evaluation Hypotheses	Arkansas Original Terms and Conditions Hypotheses (Section 8, STC 70, #1)
<p>4—Cost effectiveness</p> <ul style="list-style-type: none"> a. Admin costs b. Reduce premiums c. Comparable costs 	<ul style="list-style-type: none"> vi. Premium Assistance beneficiaries, including those who become eligible for Exchange Marketplace coverage, will have fewer gaps in plan enrollment, improved continuity of care, and resultant lower administrative costs. xi. Premium Assistance will reduce overall premium costs in the Exchange Marketplace and will increase quality of care. xii. The cost for covering Premium Assistance beneficiaries will be comparable to what the costs would have been for covering the same expansion group in Arkansas Medicaid fee-for-service in accordance with STC 68 on determining cost effectiveness and other requirements in the evaluation design as approved by CMS.

** The outcomes of interest and evaluation approaches associated with hypotheses 2c and 2d are shared with 1b and 1c.*

Appendix 2

Proposed Measure Descriptions and Definitions

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Appendix 2A—Selected Measures from Initial Core Set of Health Care Quality Measures for Adults Enrolled in Medicaid

Measure 1: Flu Shots for Adults Ages 50 to 64

National Committee for Quality Assurance

A. DESCRIPTION

A rolling average represents the percentage of Medicaid enrollees ages 50 to 64 that received an influenza vaccination between September 1 of the measurement year and the date when the CAHPS 5.0H adult survey was completed.

Guidance for Reporting:

- This measure uses a rolling two-year average to achieve a sufficient number of respondents for reporting. First-year data collection will generally not yield enough responses to be reportable.

B. ELIGIBLE POPULATION

Age	50 to 64 years as of September 1 of the measurement year.
Continuous enrollment	The measurement year.
Allowable gap	No more than one gap of enrollment of up to 45 days during the measurement year.
Current enrollment	Currently enrolled at the time the survey is completed.

C. QUESTIONS INCLUDED IN THE MEASURE

Question		Response Choices
H16	Have you had a flu shot since September 1, YYYY? ^a	Yes No Don't know

^aYYYY = the measurement year (2012 for the survey fielded in 2013).

D. CALCULATION OF MEASURE

A rolling average is calculated using the following formula.

$$\text{Rate} = (\text{Year 1 Numerator} + \text{Year 2 Numerator}) / (\text{Year 1 Denominator} + \text{Year 2 Denominator})$$

If the denominator is less than 100, a measure result of NA is assigned. If the denominator is 100 or more, a rate is calculated. If the state did not report results in the prior year (Year 1), but reports results for the current year and achieves a denominator of 100 or more (Year 2), a rate is calculated; if the denominator is less than 100, the rate is not reported.

Denominator: The number of Medicaid enrollees with a Measure Eligibility Flag of “Eligible” who responded “Yes” or “No” to the question “Have you had a flu shot since September 1, YYYY?”

Numerator: The number of Medicaid enrollees in the denominator who responded “Yes” to the question “Have you had a flu shot since September 1, YYYY?”

Measure 2: Breast Cancer Screening

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of Medicaid-enrolled women ages 42 to 69 that received a mammogram to screen for breast cancer.

Guidance for Reporting:

- This measure applies to Medicaid enrollees ages 42 to 69. For purposes of Medicaid Adult Core Set reporting, states should calculate and report this measure for two age groups (as applicable): ages 42 to 64 and ages 65 to 69.
- Include all paid, suspended, reversed, pending, and denied claims.

B. ELIGIBLE POPULATION

Age	Women ages 42 to 69 as of December 31 of the measurement year.
Continuous enrollment	The measurement year and the year prior to the measurement year.
Allowable gap	No more than a 1-month gap in coverage.
Anchor date	December 31 of the measurement year.
Benefit	Medical.
Event/diagnosis	None.

C. ADMINISTRATIVE SPECIFICATION

Denominator: The eligible population.

Numerator: One or more mammograms during the measurement year or the year prior to the measurement year. A woman had a mammogram if a submitted claim/encounter contains any code in Table 3.1.

Table 3.1. Codes to Identify Breast Cancer Screening

CPT	HCPCS	ICD-9-CM Procedure	UB Revenue
77055-77057	G0202, G0204, G0206	87.36, 87.37	0401, 0403

Table 3.2. Codes for Identifying Exclusions

Description	CPT	ICD-9-CM Procedure
Bilateral mastectomy		85.42, 85.44, 85.46, 85.48
Unilateral mastectomy	19180, 19200, 19220, 19240, 19303-19307	85.41, 85.43, 85.45, 85.47
Bilateral modifier (a bilateral procedure performed during the same operative session)	50, 09950	
Right side modifier	RT	
Left side modifier	LT	

D. ADDITIONAL NOTES

This measure evaluates primary screening. Do not count biopsies, breast ultrasounds, or MRIs because they are not appropriate methods for primary breast cancer screening.

Measure 3: Cervical Cancer Screening

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of Medicaid-enrolled women ages 24 to 64 that received one or more Pap tests to screen for cervical cancer.

Guidance for Reporting:

- Include all paid, suspended, reversed, pending, and denied claims.

B. ELIGIBLE POPULATION

Age	Women ages 24 to 64 as of December 31 of the measurement year.
Continuous enrollment	The measurement year.
Allowable gap	No more than a 1-month gap in coverage.
Anchor date	December 31 of the measurement year.
Benefit	Medical.
Event/diagnosis	None.

C. ADMINISTRATIVE SPECIFICATION

Denominator: The eligible population.

Numerator: One or more Pap tests during the measurement year or the two years prior to the measurement year. A woman had a Pap test if a submitted claim/encounter contains any code in Table 4.1.

Table 4.1. Codes to Identify Cervical Cancer Screening

CPT	HCPCS	ICD-9-CM Procedure	UB Revenue	LOINC
88141-88143, 88147, 88148, 88150, 88152-88155, 88164-88167, 88174, 88175	G0123, G0124, G0141, G0143- G0145, G0147, G0148, P3000, P3001, Q0091	91.46	0923	10524-7, 18500-9, 19762-4, 19764-0, 19765-7, 19766-5, 19774-9, 33717-0, 47527-7, 47528-5

Table 4.2. Codes to Identify Exclusions

Description	CPT	ICD-9-CM Diagnosis	ICD-9-CM Procedure
Hysterectomy	51925, 56308, 57540, 57545, 57550, 57555, 57556, 58150, 58152, 58200, 58210, 58240, 58260, 58262, 58263, 58267, 58270, 58275, 58280, 58285, 58290-58294, 58548, 58550-58554, 58570-58573, 58951, 58953, 58954, 58956, 59135	618.5, 752.43, V67.01, V76.47, V88.01, V88.03	68.4-68.8

D. ADDITIONAL NOTES

Lab results that indicate the sample contained “no endocervical cells” may be used if a valid result was reported for the test.

Exclusions (optional)

Refer to Administrative Specification for exclusion criteria. Exclusionary evidence in the medical record must include a note indicating a hysterectomy with no residual cervix. The hysterectomy must have occurred by December 31 of the measurement year. Documentation of “complete,” “total,” or “radical” abdominal or vaginal hysterectomy meets the criteria for hysterectomy with no residual cervix.

Documentation of a “vaginal pap smear” in conjunction with documentation of “hysterectomy” meets exclusion criteria, but documentation of hysterectomy alone does not meet the criteria because it does not indicate that the cervix was removed.

Measure 4: Plan All-Cause Readmission Rate

National Committee for Quality Assurance

A. DESCRIPTION

For Medicaid enrollees age 18 and older, the number of acute inpatient stays during the measurement year that were followed by an acute readmission for any diagnosis within 30 days and the predicted probability of an acute readmission. Data are reported in the following three categories:

- Count of Index Hospital Stays (IHS) (denominator)
- Count of 30-Day Readmissions (numerator)
- Average Adjusted Probability of Readmission (rate)

Guidance for Reporting:

- This measure applies to Medicaid enrollees age 18 and older. For purposes of Medicaid Adult Core Set reporting, states should calculate and report this measure for two age groups (as applicable): ages 18 to 64 and age 65 and older.
- Include all paid, suspended, pending, and denied claims.
- This measure requires risk adjustment. Risk adjustment tables for Medicare and commercial populations are posted at <http://www.ncqa.org>. There are no standardized risk adjustment tables for Medicaid. States reporting this measure should describe the method they used for risk adjustment weighting and calculation of the adjusted probability of readmission. Appendix A provides additional information on risk adjustment methods in the non-Medicaid population.

B. DEFINITIONS

IHS	Index hospital stay. An acute inpatient stay with a discharge on or between January 1 and December 1 of the measurement year. Exclude stays that meet the exclusion criteria in the denominator section.
Index Admission Date	The IHS admission date.
Index Discharge Date	The IHS discharge date. The index discharge date must occur on or between January 1 and December 1 of the measurement year.
Index Readmission Stay	An acute inpatient stay for any diagnosis with an admission date within 30 days of a previous Index Discharge Date.
Index Readmission Date	The admission date associated with the Index Readmission Stay.
Classification Period	365 days prior to and including an Index Discharge Date.

C. ELIGIBLE POPULATION

Age	Age 18 and older as of the Index Discharge Date.
Continuous Enrollment	365 days prior to the Index Discharge Date through 30 days after the Index Discharge Date.
Allowable Gap	No more than one gap in enrollment of up to 45 days during the 365 days prior to the Index Discharge Date and no gap during the 30 days following the Index Discharge Date.
Anchor Date	Index Discharge Date.
Benefit	Medical.
Event/ Diagnosis	An acute inpatient discharge on or between January 1 and December 1 of the measurement year. The denominator for this measure is based on discharges, not Medicaid enrollees. Include all acute inpatient discharges for Medicaid enrollees who had one or more discharges on or between January 1 and December 1 of the measurement year. The state should follow the steps below to identify acute inpatient stays.

D. Denominator: The eligible population.

Numerator: At least one acute readmission for any diagnosis within 30 days of the Index Discharge Date.

E. ADDITIONAL NOTES

States may not use Risk Assessment Protocols to supplement diagnoses for calculation of the risk adjustment scores for this measure. The PCR measurement model was developed and tested using only claims-based diagnoses and diagnoses from additional data sources would affect the validity of the models as they are currently implemented in the specification.

Measure 5: Diabetes Short-Term Complications Admission Rate

Agency for Healthcare Research and Quality

A. DESCRIPTION

The number of discharges for diabetes short-term complications per 100,000 Medicaid enrollees age 18 and older.

Guidance for Reporting:

- This measure applies to Medicaid enrollees age 18 and older. For purposes of Medicaid Adult Core Set reporting, states should calculate and report this measure for two age groups (as applicable): ages 18 to 64 and age 65 and older.

B. ELIGIBLE POPULATION

Member months	All member months for Medicaid enrollees age 18 and older as of the 30 th day of the month.
Continuous enrollment	There is no continuous enrollment requirement.
Allowable gap	There is no gap in coverage requirement.
Anchor date	There is no anchor date.

C. ADMINISTRATIVE SPECIFICATION

Denominator: Medicaid enrollees age 18 and older.

Numerator: All discharges with ICD-9-CM principal diagnosis code for short-term complications (ketoacidosis, hyperosmolarity, coma).

Include ICD-9-CM diagnosis codes:

- 25010 DM KETO T2, NT ST UNCNTRLD
- 25011 DM KETO T1, NT ST UNCNTRLD
- 25012 DM KETOACD UNCONTROLD
- 25013 DM KETOACD UNCONTROLD
- 25020 DMII HPRSM NT ST UNCNTRL
- 25021 DMI HPRSM NT ST UNCNTRLD
- 25022 DMII HPROMLR UNCONTROLD
- 25023 DMI HPROMLR UNCONTROLD
- 25030 DMII O CM NT ST UNCNTRLD
- 25031 DMI O CM NT UNCNTRLD
- 25032 DMII OTH COMA UNCONTROLD
- 25033 DMI OTH COMA UNCONTROLD

Exclusions

- Transfer from a hospital (different facility)
- Transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- Transfer from another health care facility
- With missing gender (SEX = missing), age (AGE = missing), quarter (DQTR = missing), year (YEAR = missing), principal diagnosis (DX1 = missing), or county (PSTCO = missing)
- MDC 14 (pregnancy, childbirth, and puerperium)

Measure 6: Chronic Obstructive Pulmonary Disease (COPD) Admission Rate

Agency for Healthcare Research and Quality

A. DESCRIPTION

The number of discharges for chronic obstructive pulmonary disease (COPD) per 100,000 Medicaid enrollees age 18 and older.

Guidance for Reporting:

- This measure applies to Medicaid enrollees age 18 and older. For purposes of Medicaid Adult Core Set reporting, states should calculate and report this measure for two age groups (as applicable): ages 18 to 64 and age 65 and older.

B. ELIGIBLE POPULATION

Member months	All member months for Medicaid enrollees age 18 and older as of the 30 th day of the month.
Continuous enrollment	There is no continuous enrollment requirement.
Allowable gap	There is no gap in coverage requirement.
Anchor date	There is no anchor date.

C ADMINISTRATIVE SPECIFICATION

Denominator: Medicaid enrollees age 18 and older.

Numerator: All non-maternal discharges with an ICD-9-CM principal diagnosis code for COPD. Select codes appearing in the primary diagnosis position must be accompanied by a secondary diagnosis of COPD.

Include ICD-9-CM COPD diagnosis codes:

- 4660 ACUTE BRONCHITIS*
- 490 BRONCHITIS NOS*
- 4910 SIMPLE CHR BRONCHITIS
- 4911 MUCOPURUL CHR BRONCHITIS
- 49120 OBST CHR BRONC W/O EXAC
- 49121 OBS CHR BRONC W(AC) EXAC

- 4918 CHRONIC BRONCHITIS NEC
- 4919 CHRONIC BRONCHITIS NOS
- 4920 EMPHYSEMATOUS BLEB
- 4928 EMPHYSEMA NEC
- 494 BRONCHIECTASIS
- 4940 BRONCHIECTAS W/O AC EXAC
- 4941 BRONCHIECTASIS W AC EXAC
- 496 CHR AIRWAY OBSTRUCT NEC

*Must be accompanied by a secondary diagnosis code of COPD.

Exclusions

- Transfer from a hospital (different facility)
- Transfer from a skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- Transfer from another health care facility
- With missing gender (SEX = missing), age (AGE = missing), quarter (DQTR = missing), year (YEAR = missing), principal diagnosis (DX1 = missing), or county (PSTCO = missing)
- MDC 14 (pregnancy, childbirth, and puerperium)

Measure 7: Congestive Heart Failure (CHF) Admission Rate

Agency for Healthcare Research and Quality

A. DESCRIPTION

The number of discharges for congestive heart failure (CHF) per 100,000 Medicaid enrollees age 18 and older.

Guidance for Reporting:

- This measure applies to Medicaid enrollees age 18 and older. For purposes of Medicaid Adult Core Set reporting, states should calculate and report this measure for two age groups (as applicable): ages 18 to 64 and age 65 and older.

B. ELIGIBLE POPULATION

Member months	All member months for Medicaid enrollees ages 18 and older as of the 30 th day of the month.
Continuous enrollment	There is no continuous enrollment requirement.
Allowable gap	There is no gap in coverage requirement.
Anchor date	There is no anchor date.

C. ADMINISTRATIVE SPECIFICATION

Denominator: Medicaid enrollees age 18 and older.

Numerator: All discharges with ICD-9-CM principal diagnosis code for CHF.

ICD-9-CM Diagnosis Codes (Discharges after September 30, 2002):

39891 RHEUMATIC HEART FAILURE
4280 CONGESTIVE HEART FAILURE
4281 LEFT HEART FAILURE
42820 SYSTOLIC HRT FAILURE NOS OCT02-
42821 AC SYSTOLIC HRT FAILURE OCT02-
42822 CHR SYSTOLIC HRT FAILURE OCT02-
42823 AC ON CHR SYST HRT FAIL OCT02-
42830 DIASTOLC HRT FAILURE NOS OCT02-
42831 AC DIASTOLIC HRT FAILURE OCT02-
42832 CHR DIASTOLIC HRT FAIL OCT02-
42833 AC ON CHR DIAST HRT FAIL OCT02-
42840 SYST/DIAST HRT FAIL NOS OCT02-
42841 AC SYST/DIASTOL HRT FAIL OCT02-
42842 CHR SYST/DIASTL HRT FAIL OCT02-
42843 AC/CHR SYST/DIA HRT FAIL OCT02-
4289 HEART FAILURE NOS

ICD-9-CM Diagnosis Codes (Discharges before September 30, 2002):

40201 MAL HYPERT HRT DIS W CHF
40211 BENIGN HYP HRT DIS W CHF
40291 HYPERTEN HEART DIS W CHF
40401 MAL HYPER HRT/REN W CHF
40403 MAL HYP HRT/REN W CHF/RF
40411 BEN HYPER HRT/REN W CHF
40413 BEN HYP HRT/REN W CHF/RF
40491 HYPER HRT/REN NOS W CHF
40493 HYP HT/REN NOS W CHF/RF

Exclusions

- Transfer from a hospital (different facility)
- Transfer from a skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- Transfer from another health care facility
- With missing gender (SEX = missing), age (AGE = missing), quarter (DQTR = missing), year (YEAR = missing), principal diagnosis (DX1 = missing), or county (PSTCO = missing)

- MDC 14 (pregnancy, childbirth, and puerperium) With a cardiac procedure code

With a cardiac procedure code-

ICD-9-CM Cardiac Procedure Codes:

0050 IMPL CRT PACEMAKER SYS OCT02-

0051 IMPL CRT DEFIBRILLAT OCT02-

0052 IMP/REP LEAD LF VEN SYS OCT02-

0053 IMP/REP CRT PACEMKR GEN OCT02-

0054 IMP/REP CRT DEFIB GENAT OCT02-

0056 INS/REP IMPL SENSOR LEAD OCT06-

0057 IMP/REP SUBCUE CARD DEV OCT06-

0066 PTCA OCT06-

1751 IMPLANTATION OF RECHARGEABLE CARDIAC CONTRACTILITY MODULATION [C
CM], TOTAL SYSTEM OCT09-

1752 IMPLANTATION OR REPLACEMENT OF CARDIAC CONTRACTILITY MODULATION [C
CM] RECHARGEABLE PULSE, GENERATOR ONLY OCT09-

3500 CLOSED VALVOTOMY NOS

3501 CLOSED AORTIC VALVOTOMY

3502 CLOSED MITRAL VALVOTOMY

3503 CLOSED PULMON VALVOTOMY

3504 CLOSED TRICUSP VALVOTOMY

3510 OPEN VALVULOPLASTY NOS

3511 OPN AORTIC VALVULOPLASTY

3512 OPN MITRAL VALVULOPLASTY

3513 OPN PULMON VALVULOPLASTY

3514 OPN TRICUS VALVULOPLASTY

3520 REPLACE HEART VALVE NOS

3521 REPLACE AORT VALV-TISSUE

3522 REPLACE AORTIC VALVE NEC

3523 REPLACE MITR VALV-TISSUE

3524 REPLACE MITRAL VALVE NEC

3525 REPLACE PULM VALV-TISSUE

3526 REPLACE PULMON VALVE NEC

3527 REPLACE TRIC VALV-TISSUE

3528 REPLACE TRICUSP VALV NEC

3531 PAPILLARY MUSCLE OPS

3532 CHORDAE TENDINEAE OPS
3533 ANNULOPLASTY
3534 INFUNDIBULECTOMY
3535 TRABECUL CARNEAE CORD OP
3539 TISS ADJ TO VALV OPS NEC
3541 ENLARGE EXISTING SEP DEF
3542 CREATE SEPTAL DEFECT
3550 PROSTH REP HRT SEPTA NOS
3551 PROS REP ATRIAL DEF-OPN
3552 PROS REPAIR ATRIA DEF-CL
3553 PROST REPAIR VENTRIC DEF
3554 PROS REP ENDOCAR CUSHION
3555 PROS REP VENTRC DEF-CLOS OCT06-
3560 GRFT REPAIR HRT SEPT NOS
3561 GRAFT REPAIR ATRIAL DEF
3562 GRAFT REPAIR VENTRIC DEF
3563 GRFT REP ENDOCAR CUSHION
3570 HEART SEPTA REPAIR NOS
3571 ATRIA SEPTA DEF REP NEC
3572 VENTR SEPTA DEF REP NEC
3573 ENDOCAR CUSHION REP NEC
3581 TOT REPAIR TETRAL FALLOT
3582 TOTAL REPAIR OF TAPVC
3583 TOT REP TRUNCUS ARTERIOS
3584 TOT COR TRANSPOS GRT VES
3591 INTERAT VEN RETRN TRANSP
3592 CONDUIT RT VENT-PUL ART
3593 CONDUIT LEFT VENTR-AORTA
3594 CONDUIT ARTIUM-PULM ART
3595 HEART REPAIR REVISION
3596 PERC HEART VALVULOPLASTY
3598 OTHER HEART SEPTA OPS
3599 OTHER HEART VALVE OPS
3601 PTCA-1 VESSEL W/O AGENT
3602 PTCA-1 VESSEL WITH AGNT
3603 OPEN CORONRY ANGIOPLASTY

3604 INTRACORONRY THROMB INFUS
3605 PTCA-MULTIPLE VESSEL
3606 INSERT OF COR ART STENT OCT95-
3607 INS DRUG-ELUT CORONRY ST OCT02-
3609 REM OF COR ART OBSTR NEC
3610 AORTOCORONARY BYPASS NOS
3611 AORTOCOR BYPAS-1 COR ART
3612 AORTOCOR BYPAS-2 COR ART
3613 AORTOCOR BYPAS-3 COR ART
3614 AORTCOR BYPAS-4+ COR ART
3615 1 INT MAM-COR ART BYPASS
3616 2 INT MAM-COR ART BYPASS
3617 ABD-CORON ART BYPASS OCT96-
3619 HRT REVAS BYPS ANAS NEC
362 ARTERIAL IMPLANT REVASC
363 OTH HEART REVASCULAR
3631 OPEN CHEST TRANS REVASC
3632 OTH TRANSMYO REVASCULAR
3633 ENDO TRANSMYO REVASCULAR OCT06-
3634 PERC TRANSMYO REVASCULAR OCT06-
3639 OTH HEART REVASULAR
3691 CORON VESS ANEURYSM REP
3699 HEART VESSLE OP NEC
3731 PERICARDIECTOMY
3732 HEART ANEURYSM EXCISION
3733 EXC/DEST HRT LESION OPEN
3734 EXC/DEST HRT LES OTHER
3735 PARTIAL VENTRICULECTOMY
3736 EXCISION OR DESTRUCTION OF LEFT ATRIAL APPENDAGE (LAA) OCT08-
3741 IMPLANT PROSTH CARD SUPPORT DEV OCT06
375 HEART TRANSPLANTATION (NOT VALID AFTER OCT 03)
3751 HEART TRANPLANTATION OCT03-
3752 IMPLANT TOT REP HRT SYS OCT03-
3753 REPL/REP THORAC UNIT HRT OCT03-
3754 REPL/REP OTH TOT HRT SYS OCT03-
3755 REMOVAL OF INTERNAL BIVENTRICULAR HEART REPLACEMENT SYSTEM OCT08

3760 IMPLANTATION OR INSERTION OF BIVENTRICULAR EXTERNAL HEART ASSIST SYSTEM OCT08
3761 IMPLANT OF PULSATION BALLOON
3762 INSERTION OF NON-IMPLANTABLE HEART ASSIST SYSTEM
3763 REPAIR OF HEART ASSIST SYSTEM
3764 REMOVAL OF HEART ASSIST SYSTEM
3765 IMPLANT OF EXTERNAL HEART ASSIST SYSTEM
3766 INSERTION OF IMPLANTABLE HEART ASSIST SYSTEM
3770 INT INSERT PACEMAK LEAD
3771 INT INSERT LEAD IN VENT
3772 INT INSERT LEAD ATRI-VENT
3773 INT INSEK LEAD IN ATRIUM
3774 INT OR REPL LEAD EPICAR
3775 REVISION OF LEAD
3776 REPL TV ATRI-VENT LEAD
3777 REMOVAL OF LEAD W/O REPL
3778 INSEK TEAM PACEMAKER SYS
3779 REVIS OR RELOCATE POCKET
3780 INT OR REPL PERM PACEMKR
3781 INT INSERT 1-CHAM, NON
3782 INT INSERT 1-CHAM, RATE
3783 INT INSERT DUAL-CHAM DEV
3785 REPL PACEM W 1-CHAM, NON
3786 REPL PACEM 1-CHAM, RATE
3787 REPL PACEM W DUAL-CHAM
3789 REVISE OR REMOVE PACEMAK
3794 IMPLT/REPL CARDDEFIB TOT
3795 IMPLT CARDIODEFIB LEADS
3796 IMPLT CARDIODEFIB GENATR
3797 REPL CARDIODEFIB LEADS
3798 REPL CARDIODEFIB GENRATR

Measure 8: Adult Asthma Admission Rate

Agency for Healthcare Research and Quality

A. DESCRIPTION

The number of discharges for asthma in adults per 100,000 Medicaid enrollees age 18 and older.

Guidance for Reporting:

- This measure applies to Medicaid enrollees age 18 and older. For purposes of Medicaid Adult Core Set reporting, states should calculate and report this measure for two age groups (as applicable): ages 18 to 64 and age 65 and older.

B. ELIGIBLE POPULATION

Member months	All member months for Medicaid enrollees age 18 and older as of the 30 th day of the month.
Continuous enrollment	There is no continuous enrollment requirement.
Allowable gap	There is no gap in coverage requirement.
Anchor date	There is no anchor date.

C. ADMINISTRATIVE SPECIFICATION

Denominator: Medicaid enrollees age 18 and older.

Numerator: All non-maternal discharges for enrollees age 18 and older with an ICD-9-CM principal diagnosis code of asthma.

Include ICD-9-CM diagnosis codes:

- 49300 EXT ASTHMA W/O STAT ASTH
- 49301 EXT ASTHMA W STATUS ASTH
- 49302 EXT ASTHMA W ACUTE EXAC OCT00-
- 49310 INT ASTHMA W/O STAT ASTH
- 49311 INT ASTHMA W STAT ASTH
- 49312 INT ASTHMA W ACUTE EXAC OCT00-
- 49320 CH OB ASTH W/O STAT ASTH
- 49321 CH OB ASTHMA W STAT ASTH
- 49322 CH OBS ASTH W ACUTE EXAC OCT00-
- 49381 EXERCISE IND BRONCHOSPASM OCT03-
- 49382 COUGH VARIANT ASTHMA OCT03-
- 49390 ASTHMA W/O STATUS ASTHM

49391 ASTHMA W STATUS ASTHMAT

49392 ASTHMA W ACUTE EXACERBTN OCT00-

Exclusions

- Transfer from a hospital (different facility)
- Transfer from a skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- Transfer from another health care facility
- With missing gender (SEX = missing), age (AGE = missing), quarter (DQTR = missing), year (YEAR = missing), principal diagnosis (DX1 = missing), or county (PSTCO = missing)
- MDC 14 (pregnancy, childbirth, and puerperium) With any diagnosis code of cystic fibrosis and anomalies of the respiratory system

ICD-9-CM Cystic Fibrosis and Anomalies of the Respiratory System Diagnosis Codes:

27700 CYSTIC FIBROS W/O ILEUS

27701 CYSTIC FIBROSIS W ILEUS

27702 CYSTIC FIBROS W PUL MAN

27703 CYSTIC FIBROSIS W GI MAN

27709 CYSTIC FIBROSIS NEC

51661 NEUROEND CELL HYPRPL INF

51662 PULM INTERSTITL GLYCOGEN

51663 SURFACTANT MUTATION LUNG

51664 ALV CAP DYSP W VN MISALIGN

51669 OTH INTRST LUNG DIS CHLD

7421 ANOMALIES OF AORTIC ARCH

7483 LARYNGOTRACH ANOMALY NEC

7484 CONGENITAL CYSTIC LUNG

7485 AGENESIS OF LUNG

74860 LUNG ANOMALY NOS

74861 CONGEN BRONCHIECTASIS

74869 LUNG ANOMALY NEC

7488 RESPIRATORY ANOMALY NEC

7489 RESPIRATORY ANOMALY NOS

7503 CONG ESOPH FISTULA/ATRES

7593 SITUS INVERSUS

7707 PERINATAL CHR RESP DIS

Measure 9: Follow-Up After Hospitalization for Mental Illness

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of discharges for Medicaid enrollees age 21 and older that were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner. Two rates are reported:

- Percentage of discharges for which the enrollee received follow-up within 30 days of discharge
- Percentage of discharges for which the enrollee received follow-up within 7 days of discharge

Guidance for Reporting:

- In the original HEDIS specification, the eligible population for this measure includes patients age 6 and older as of the date of discharge. The Medicaid Adult Core Set measure has an eligible population of adults age 21 and older. States should calculate and report the two rates listed above for each of the two age groups (as applicable): ages 21 to 64 and age 65 and older.
- Include all paid, suspended, pending, reversed, and denied claims.

B. DEFINITION

Mental Health Practitioner A practitioner who provides mental health services and meets any of the following criteria:

- An MD or doctor of osteopathy (DO) who is certified as a psychiatrist or child psychiatrist by the American Medical Specialties Board of Psychiatry and Neurology or by the American Osteopathic Board of Neurology and Psychiatry; or, if not certified, who successfully completed an accredited program of graduate medical or osteopathic education in psychiatry or child psychiatry and is licensed to practice patient care psychiatry or child psychiatry, if required by the state of practice.
- An individual who is licensed as a psychologist in his/her state of practice.
- An individual who is certified in clinical social work by the American Board of Examiners; who is listed on the National Association of Social Worker’s Clinical Register; or who has a master’s degree in social work and is licensed or certified to practice as a social worker, if required by the state of practice.

C. ELIGIBLE POPULATION

Age	Age 21 and older as of date of discharge.
Continuous enrollment	Date of discharge through 30 days after discharge.
Allowable gap	No gaps in enrollment.
Anchor date	None.
Benefit	Medical and mental health (inpatient and outpatient).

<p>Event/diagnosis</p>	<p>Discharged alive from an acute inpatient setting (including acute care psychiatric facilities) with a principal mental health diagnosis (Table 13.1) on or between January 1 and December 1 of the measurement year. Use only facility claims to identify discharges with a principal mental health diagnosis. Do not use diagnoses from professional claims to identify discharges.</p> <p>The denominator for this measure is based on discharges, not enrollees. If enrollees had more than one discharge, include all discharges on or between January 1 and December 1 of the measurement year.</p> <p>Mental health readmission or direct transfer: If the discharge is followed by readmission or direct transfer to an acute facility for a mental health principal diagnosis (Tables 13.1 and 13.2) within the 30-day follow-up period, count only the readmission discharge or the discharge from the facility to which the member was transferred. Although re-hospitalization might not be for a selected mental health disorder, it is probably for a related condition. Exclude both the initial discharge and the readmission/direct transfer discharge if the readmission/direct transfer discharge occurs after December 1 of the measurement year.</p> <p>Exclude discharges followed by readmission or direct transfer to a nonacute facility for a mental health principal diagnosis (Tables 13.1 and 13.2) within the 30-day follow-up period. These discharges are excluded from the measure because readmission or transfer may prevent an outpatient follow-up visit from taking place. Refer to Table 13.3 for codes to identify nonacute care.</p> <p>Non-mental health readmission or direct transfer: Exclude discharges in which the enrollee was transferred directly or readmitted within 30 days after discharge to an acute or nonacute facility for a non-mental health principal diagnosis. This includes an ICD-9-CM Diagnosis code or DRG code other than those in Tables 13.1 and 13.2. These discharges are excluded from the measure because rehospitalization or transfer may prevent an outpatient follow-up visit from taking place.</p>
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Table 13.1. Codes to Identify Mental Health Diagnosis ICD-9-

<p>CM Diagnosis</p>
<p>295–299, 300.3, 300.4, 301, 308, 309, 311–314</p>

Table 13.2. Codes to Identify Inpatient Services MS—DRG

<p>876, 880-887; exclude discharges with ICD-9-CM Principal Diagnosis code 317-319</p>

Table 13.3. Codes to Identify Nonacute Care

Description	HCCPS	UB Revenue	UB Type of Bill	POS
Hospice		0115, 0125, 0135, 0145, 0155, 0650, 0656, 0658, 0659	81x, 82x	34
SNF		019x	21x, 22x, 28x	31, 32
Hospital transitional care, swing bed or rehabilitation			18x	
Rehabilitation		0118, 0128, 0138, 0148, 0158		
Respite		0655		
Intermediate care facility				54
Residential substance abuse treatment facility		1002		55
Psychiatric residential treatment center	T2048, H0017-H0019	1001		56
Comprehensive inpatient rehabilitation facility				61
Other nonacute care facilities that do not use the UB revenue or type of bill codes for billing (e.g., ICF, SNF)				

D. ADMINISTRATIVE SPECIFICATION

Denominator: The eligible population.

Numerators:

30-Day Follow-Up

An outpatient visit, intensive outpatient encounter, or partial hospitalization (Table 13.4) with a mental health practitioner within 30 days after discharge. Include outpatient visits, intensive outpatient encounters or partial hospitalizations that occur on the date of discharge.

7-Day Follow-Up

An outpatient visit, intensive outpatient encounter, or partial hospitalization (Table 13.4) with a mental health practitioner within 7 days after discharge. Include outpatient visits, intensive outpatient encounters or partial hospitalizations that occur on the date of discharge.

Table 13.4. Codes to Identify Visits

CPT		HCPCS	
Follow-up visits identified by the following CPT or HCPCS codes must be with a mental health practitioner			
90804-90815, 98960-98962, 99078, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99383-99387, 99393-99397, 99401-99404, 99411, 99412, 99510		G0155, G0176, G0177, G0409-G0411, H0002, H0004, H0031, H0034-H0037, H0039, H0040, H2000, H2001, H2010-H2020, M0064, S0201, S9480, S9484, S9485	
CPT		POS	
Follow-up visits identified by the following CPT/POS codes must be with a mental health practitioner			
90801, 90802, 90816-90819, 90821-90824, 90826-90829, 90845, 90847, 90849, 90853, 90857, 90862, 90870, 90875, 90876	WITH	03, 05, 07, 09, 11, 12, 13, 14, 15, 20, 22, 24, 33, 49, 50, 52, 53, 71, 72	
99221-99223, 99231-99233, 99238, 99239, 99251-99255	WITH	52, 53	
UB Revenue			
The organization does not need to determine practitioner type for follow-up visits identified by the following UB revenue codes			
0513, 0900-0905, 0907, 0911-0917, 0919			
Visits identified by the following revenue codes must be with a mental health practitioner or in conjunction with a diagnosis code from Table 13.1			
0510, 0515-0517, 0519-0523, 0526-0529, 0982, 0983			

E. ADDITIONAL NOTES

There may be different methods for billing intensive outpatient encounters and partial hospitalizations. Some methods may be comparable to outpatient billing, with separate claims for each date of service; others may be comparable to inpatient billing, with an admission date, a discharge date and units of service. Where billing methods are comparable to inpatient billing, each unit of service may be counted as an individual visit. The unit of service must have occurred during the required time frame for the rate (e.g., within 30 days after discharge or within 7 days after discharge).

Measure 10: Annual HIV/AIDS Medical Visit

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of Medicaid enrollees age 18 and older with a diagnosis of HIV/AIDS and with at least two medical visits during the measurement year, with a minimum of 90 and 180 days between each visit.

Guidance for Reporting:

- This measure applies to Medicaid enrollees age 18 and older. For purposes of Medicaid Adult Core Set reporting, states should calculate and report this measure for two age groups (as applicable): ages 18 to 64 and age 65 and older.
- Include all paid, suspended, pending, reversed, and denied claims.

B. DEFINITION

Medical Visit	Any visit with a health care professional who provides routine primary care for the patient with HIV/AIDS (may be a primary care physician, OB/GYN, pediatrician or infectious diseases specialist).
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C. ADMINISTRATIVE SPECIFICATION

Denominator: All enrollees age 18 and older with a diagnosis of HIV/AIDS (Table 16.1).

Table 16.1. Codes to Identify HIV/AIDS

Description	ICD-9-CM Diagnosis
HIV-AIDS	042, V08

Numerator 1: Enrollees with at least two medical visits (Table 16.2) during the measurement year, with a minimum of 90 days between each visit.

Numerator 2: Enrollees with at least two medical visits (Table 16.2) during the measurement year, with a minimum of 180 days between each visit.

Table 16.2. Codes to Identify Medical Visits

Description	CPT
Medical Visits	99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99381, 99382, 99383, 99384, 99385, 99386, 99387, 99391, 99392, 99393, 99394, 99395, 99396, 99397, 99241, 99242, 99243, 99244, 99245

Measure 11: Comprehensive Diabetes Care: LDL-C Screening

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of Medicaid enrollees ages 18 to 75 with diabetes (type 1 and type 2) who had a LDL-C screening test.

Guidance for Reporting:

- This measure is based on the original HEDIS specification that includes multiple diabetes care indicators. Only the LDL screening indicator is included in this measure.
- This measure applies to Medicaid enrollees ages 18 to 75. For purposes of Medicaid Adult Core Set reporting, states should calculate and report this measure for two age groups (as applicable): ages 18 to 64 and ages 65 to 75.
- Include all paid, suspended, pending, reversed, and denied claims.

B. ELIGIBLE POPULATION

Age	Ages 18 to 75 as of December 31 of the measurement year.
Continuous enrollment	The measurement year.
Allowable gap	No more than 1-month gap in coverage.
Anchor date	December 31 of the measurement year.
Benefit	Medical.
Event/diagnosis	<p>There are two ways to identify Medicaid enrollees with diabetes: by pharmacy data and by claim/encounter data. The organization must use both methods to identify the eligible population, but an enrollee only needs to be identified by one method to be included in the measure. Medicaid enrollees may be identified as having diabetes during the measurement year or the year prior to the measurement year.</p> <p>Pharmacy data. Medicaid enrollees who were dispensed insulin or oral hypoglycemics/antihyper-glycemics during the measurement year or year prior to the measurement year on an ambulatory basis (Table 18.1).</p> <p>Claim/encounter data. Medicaid enrollees who had two face-to-face encounters, in an outpatient setting or nonacute inpatient setting, on different dates of service, with a diagnosis of diabetes (Table 18.2), or one face-to-face encounter in an acute inpatient or ED setting, with a diagnosis of diabetes, during the measurement year or the year prior to the measurement year. The state may count services that occur over both years. Refer to Table 18.3 for codes to identify visit type.</p>

Table 18.1. Prescriptions to Identify Medicaid Enrollees with Diabetes

Description	Prescription
Alpha-glucosidase inhibitors	Acarbose Miglitol
Amylin analogs	Pramlintide
Antidiabetic combinations	Glimepiride-pioglitazone Glimepiride-rosiglitazone Glipizide-metformin Glyburide-metformin Linagliptin-metformin Metformin-pioglitazone Metformin-rosiglitazone Metformin-saxagliptin Metformin-sitagliptin Saxagliptin Sitagliptin-simvastatin
Insulin	Insulin aspart Insulin aspart-insulin aspart protamine Insulin detemir Insulin glargine Insulin glulisine Insulin inhalation Insulin isophane beef-pork Insulin isophane human Insulin isophane-insulin regular Insulin lispro Insulin lispro-insulin lispro protamine Insulin regular human Insulin zinc human
Meglitinides	Nateglinide Repaglinide
Miscellaneous antidiabetic agents	Exenatide Linagliptin Liraglutide Metformin-repaglinide Sitagliptin
Sulfonylureas	Acetohexamide Chlorpropamide Glimepiride Glipizide Glyburide Tolazamide Tolbutamide
Thiazolidinediones	Pioglitazone Rosiglitazone

Note: Glucophage/metformin is not included because it is used to treat conditions other than diabetes; members with diabetes on these medications are identified through diagnosis

codes only.

Table 18.2. Codes to Identify Diabetes

Description	ICD-9-CM Diagnosis
Diabetes	250, 357.2, 362.0, 366.41, 648.0

Table 18.3. Codes to Identify Visit Type

Description	CPT	UB Revenue
Outpatient	99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456	051x, 0520-0523, 0526-0529, 057x-059x, 082x-085x, 088x, 0982, 0983
Nonacute inpatient	99304-99310, 99315, 99316, 99318, 99324-99328, 99334-99337	0118, 0128, 0138, 0148, 0158, 019x, 0524, 0525, 055x, 066x
Acute inpatient	99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291	010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x, 021x, 072x, 080x, 0987
ED	99281-99285	045x, 0981

C. ADMINISTRATIVE SPECIFICATION

Denominator: The eligible population.

Numerator: An LDL-C test performed during the measurement year, as identified by claim/encounter or automated laboratory data. Use any code listed in Table 18.4.

The state may use a calculated or direct LDL for LDL-C screening and control indicators.

Table 18.4. Codes to Identify LDL-C Screening

CPT	CPT Category II	LOINC
80061, 83700, 83701, 83704, 83721	3048F, 3049F, 3050F	2089-1, 12773-8, 13457-7, 18261-8, 18262-6, 22748-8, 39469-2, 49132-4, 55440-2, 69419-0

Table 18.5. Codes to Identify Exclusions

Description	ICD-9-CM Diagnosis
Polycystic ovaries	256.4
Steroid induced	249, 251.8, 962.0
Gestational diabetes	648.8

Measure 12: Comprehensive Diabetes Care: Hemoglobin A1c Testing

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of Medicaid enrollees ages 18 to 75 with diabetes (type 1 and type 2) who had a hemoglobin A1c (HbA1c) test.

Guidance for Reporting:

- This measure is based on the original HEDIS specification that includes multiple diabetes care indicators. Only the HbA1c testing indicator is included in this measure.
- This measure applies to Medicaid enrollees ages 18 to 75. For purposes of Medicaid Adult Core Set reporting, states should calculate and report this measure for two age groups (as applicable): ages 18 to 64 and ages 65 to 75.
- Include all paid, suspended, pending, reversed, and denied claims.

B. ELIGIBLE POPULATION

Age	Ages 18 to 75 as of December 31 of the measurement year.
Continuous enrollment	The measurement year.
Allowable gap	No more than 1-month gap in coverage.
Anchor date	December 31 of the measurement year.
Benefit	Medical.
Event/diagnosis	<p>There are two ways to identify Medicaid enrollees with diabetes: by pharmacy data and by claim/encounter data. The state must use both methods to identify the eligible population, but an enrollee only needs to be identified by one method to be included in the measure. Medicaid enrollees may be identified as having diabetes during the measurement year or the year prior to the measurement year.</p> <p>Pharmacy data. Medicaid enrollees who were dispensed insulin or oral hypoglycemics/antihyper-glycemics during the measurement year or year prior to the measurement year on an ambulatory basis (Table 19.1).</p> <p>Claim/encounter data. Medicaid enrollees who had two face-to-face encounters, in an outpatient setting or nonacute inpatient setting, on different dates of service, with a diagnosis of diabetes (Table 19.2), or one face-to-face encounter in an acute inpatient or ED setting, with a diagnosis of diabetes, during the measurement year or the year prior to the measurement year. The state may count services that occur over both years. Refer to Table 19.3 for codes to identify visit type.</p>

Table 19.1. Prescriptions to Identify Medicaid Enrollees with Diabetes

Description	Prescription
Alpha-glucosidase inhibitors	Acarbose Miglitol
Amylin analogs	Pramlintide
Antidiabetic combinations	Glimepiride-pioglitazone Glimepiride-rosiglitazone Glipizide-metformin Glyburide- metformin Linagliptin-metformin Metformin-pioglitazone Metformin-rosiglitazone Metformin-saxagliptin Metformin-sitagliptin Saxagliptin Sitagliptin-simvastatin
Insulin	Insulin aspart Insulin aspart-insulin aspart protamine Insulin detemir Insulin glargine Insulin glulisine Insulin inhalation Insulin isophane beef-pork Insulin isophane human Insulin isophane-insulin regular Insulin lispro Insulin lispro-insulin lispro protamine Insulin regular human Insulin zinc human
Meglitinides	Nateglinide Repaglinide
Miscellaneous antidiabetic agents	Exenatide Linagliptin Liraglutide Metformin-repaglinide Sitagliptin
Sulfonylureas	Acetohexamide Chlorpropamide Glimepiride Glipizide Glyburide Tolazamide Tolbutamide
Thiazolidinediones	Pioglitazone Rosiglitazone

Note: Glucophage/metformin is not included because it is used to treat conditions other than diabetes; members with diabetes on these medications are identified through diagnosis codes only.

Table 19.2. Codes to Identify Diabetes

Description	ICD-9-CM Diagnosis
Diabetes	250, 357.2, 362.0, 366.41, 648.0

Table 19.3. Codes to Identify Visit Type

Description	CPT	UB Revenue
Outpatient	99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456	051x, 0520-0523, 0526-0529, 057x-059x, 082x-085x, 088x, 0982, 0983
Nonacute inpatient	99304-99310, 99315, 99316, 99318, 99324-99328, 99334-99337	0118, 0128, 0138, 0148, 0158, 019x, 0524, 0525, 055x, 066x
Acute inpatient	99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291	010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x, 021x, 072x, 080x, 0987
ED	99281-99285	045x, 0981

C. ADMINISTRATIVE SPECIFICATION

Denominator: The eligible population.

Numerator: An HbA1c test performed during the measurement year, as identified by claim/encounter or automated laboratory data. Use any code listed in Table 19.4.

Table 19.4. Codes to Identify HbA1c Tests

CPT	CPT Category II	LOINC
83036, 83037	3044F, 3045F, 3046F	4548-4, 4549-2, 17856-6, 59261-8, 62388-4, 71875-9

Table 19.5. Codes to Identify Exclusions

Description	ICD-9-CM Diagnosis
Polycystic ovaries	256.4
Steroid induced	249, 251.8, 962.0
Gestational diabetes	648.8

Measure 13: Antidepressant Medication Management

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of Medicaid enrollees age 18 and older with a diagnosis of major depression that were newly treated with antidepressant medication, and remained on an antidepressant medication treatment. Two rates are reported:

- **Effective Acute Phase Treatment.** The percentage of newly diagnosed and treated Medicaid enrollees who remained on an antidepressant medication for at least 84 days (12 weeks)
- **Effective Continuation Phase Treatment.** The percentage of newly diagnosed and treated Medicaid enrollees who remained on an antidepressant medication for at least 180 days (6 months)

Guidance for Reporting:

- This measure applies to Medicaid enrollees age 18 and older. For purposes of Medicaid Adult Core Set reporting, states should calculate and report the two rates listed above for each of the two age groups (as applicable): ages 18 to 64 and age 65 and older.
- Include all paid, suspended, pending, reversed, and denied claims.

B. DEFINITIONS

Intake Period	The 12-month window starting on May 1 of the year prior to the measurement year and ending on April 30 of the measurement year.
IESD	Index Episode Start Date. The earliest encounter during the Intake Period with any diagnosis of major depression and a 90-day (3-month) Negative Medication History. For an inpatient (acute or nonacute) claim/encounter, the IESD is the date of discharge. For a direct transfer, the IESD is the discharge date from the facility to which the enrollee was transferred.
IPSD	Index Prescription Start Date. The earliest prescription dispensing date for an antidepressant medication during the period of 30 days prior to the IESD (inclusive) through 14 days after the IESD (inclusive).
Negative Medication History	A period of 90 days (3 months) prior to the IPSD when the enrollee had no pharmacy claims for either new or refill prescriptions for an antidepressant medication.
Treatment Days	The actual number of calendar days covered with prescriptions within the specified 180-day (6-month) measurement interval. For Effective Continuation Phase Treatment, a prescription of 90 days (3 months) supply dispensed on the 151st day will have 80 days counted in the 231-day interval.

C. ELIGIBLE POPULATION

Age	Age 18 and older as of April 30 of the measurement year.
Continuous enrollment	90 days (3 months) prior to the IESD through 245 days after the IESD.
Allowable gap	No more than 1-month gap in coverage.
Anchor date	IESD.
Benefits	Medical and pharmacy.
Event/diagnosis	Follow the steps below to identify the eligible population which should be used for both rates.

Table 20.1. Codes to Identify Major Depression

Description	ICD-9-CM Diagnosis
Major depression	296.20-296.25, 296.30-296.35, 298.0, 311

Table 20.2. Codes to Identify Visit Type

Description	CPT	HCPCS	UB Revenue
ED	99281-99285		045x, 0981
Outpatient, intensive outpatient and partial hospitalization	90804-90815, 98960-98962, 99078, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99510	G0155, G0176, G0177, G0409-G0411, H0002, H0004, H0031, H0034-H0037, H0039, H0040, H2000, H2001, H2010-H2020, M0064, S0201, S9480, S9484, S9485	0510, 0513, 0515-0517, 0519-0523, 0526-0529, 0900, 0901, 0902-0905, 0907, 0911-0917, 0919, 0982, 0983
		CPT	POS
	90801, 90802, 90816-90819, 90821-90824, 90826-90829, 90845, 90847, 90849, 90853, 90857, 90862, 90870, 90875, 90876, 99221-99223, 99231-99233, 99238, 99239, 99251-99255	WITH	03, 05, 07, 09, 11, 12, 13, 14, 15, 20, 22, 24, 33, 49, 50, 52, 53, 71, 72

D. ADMINISTRATIVE SPECIFICATION

Denominator: The eligible population.

Numerator 1: Effective Acute Phase Treatment

- At least 84 days (12 weeks) of continuous treatment with antidepressant medication (Table 20.3) during the 114-day period following the IPSD (inclusive). The continuous treatment allows gaps in medication treatment up to a total of 30 days during the 114-day period. Gaps can include either washout period gaps to change medication or treatment gaps to refill the same medication

- Regardless of the number of gaps, there may be no more than 30 gap days. Count any combination of gaps (e.g., two washout gaps of 15 days each, or two washout gaps of 10 days each and one treatment gap of 10 days)

Table 20.3. Antidepressant Medications

Description	Prescription		
Miscellaneous antidepressants	Bupropion	Vilazodone	
Monoamine oxidase inhibitors	Isocarboxazid Phenelzine	Selegiline Tranylcypromine	
Phenylpiperazine antidepressants	Nefazodone	Trazodone	
Psychotherapeutic combinations	Amitriptyline-chlordiazepoxide Amitriptyline-perphenazine	Fluoxetine-olanzapine	
SSNRI antidepressants	Desvenlafaxine Duloxetine	Venlafaxine	
SSRI antidepressants	Citalopram Escitalopram	Fluoxetine Fluvoxamine	Paroxetine Sertraline
Tetracyclic antidepressants	Maprotiline	Mirtazapine	
Tricyclic antidepressants	Amitriptyline Amoxapine Clomipramine	Desipramine Doxepin Imipramine	Nortriptyline Protriptyline Trimipramine

Numerator 2: Effective Continuation Phase Treatment

- At least 180 days (6 months) of continuous treatment with antidepressant medication (Table 20.3) during the 231-day period following the IPSD (inclusive). Continuous treatment allows gaps in medication treatment up to a total of 51 days during the 231-day period. Gaps can include either washout period gaps to change medication or treatment gaps to refill the same medication
- Regardless of the number of gaps, gap days may total no more than 51. Count any combination of gaps (e.g., two washout gaps, each 25 days or two washout gaps of 10 days each and one treatment gap of 10 days)

E. ADDITIONAL NOTES

There may be different methods for billing intensive outpatient encounters and partial hospitalizations. Some methods may be comparable to outpatient billing, with separate claims for each date of service; others may be comparable to inpatient billing, with an admission date, a discharge date and units of service. Where billing methods are comparable to inpatient billing, each unit of service may be counted as an individual visit. The unit of service must have occurred during the required time frame for the rate (e.g., during the Intake Period).

Measure 15: Adherence to Antipsychotics for Individuals with Schizophrenia

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of Medicaid enrollees ages 19 to 64 with schizophrenia that were dispensed and remained on an antipsychotic medication for at least 80 percent of their treatment period.

Guidance for Reporting:

- Include all paid, suspended, pending, reversed, and denied claims.

B. DEFINITIONS

IPSD	Index prescription start date. The earliest prescription dispensing date for any antipsychotic medication between January 1 and September 30 of the measurement year.
Treatment Period	The period of time beginning on the IPSD through the last day of the measurement year.
PDC	Proportion of days covered. The number of days a member is covered by at least one antipsychotic medication prescription, divided by the number of days in the treatment period.
Oral Medication Dispensing Event	One prescription of an amount lasting 30 days or less. To calculate dispensing events for prescriptions longer than 30 days, divide the days supply by 30 and round down to convert. For example, a 100-day prescription is equal to three dispensing events. Multiple prescriptions for different medications dispensed on the same day are counted as separate dispensing events. If multiple prescriptions for the same medication are dispensed on the same day, use the prescription with the longest days supply. Use the Drug ID to determine if the prescriptions are the same or different.
Long-Acting Injections Dispensing Event	Injections count as one dispensing event. Multiple J codes or NDCs for the same or different medication on the same day are counted as a single dispensing event.

<p>Calculating Number of Days Covered for Oral Medications</p>	<p>If multiple prescriptions for the same or different oral medications are dispensed on the same day, calculate number of days covered by an antipsychotic medication (for the numerator) using the prescription with the longest days supply.</p> <p>If multiple prescriptions for different oral medications are dispensed on different days, count each day within the treatment period only once toward the numerator .</p> <p>If multiple prescriptions for the same oral medication are dispensed on different days, sum the days supply and use the total to calculate the number of days covered by an antipsychotic medication (for the numerator). For example, if three antipsychotic prescriptions for the same oral medication are dispensed on different days, each with a 30-day supply; sum the days supply for a total of 90 days covered by an oral antipsychotic (even if there is overlap).</p> <p>Use the drug ID provided on the NDC list to determine if the prescriptions are the same or different.</p>
<p>Calculating Number of Days Covered for Long-Acting Injections</p>	<p>Calculate number of days covered (for the numerator) for long-acting injections using the days-supply specified for the medication in Table 21.1. For multiple J Codes or NDCs for the same or different medications on the same day, use the medication with the longest days supply. For multiple J Codes or NDCs for the same or different medications on different days with overlapping days supply, count each day within the treatment period only once toward the numerator.</p>

C. ELIGIBLE POPULATION

Age	Ages 19 to 64 as of December 31 of the measurement year.
Continuous enrollment	The measurement year.
Allowable gap	No more than 1-month gap in coverage.
Anchor date	December 31 of the measurement year.
Benefits	Medical and pharmacy.
Event/ diagnosis	Follow the steps below to identify the eligible population.

D. ADMINISTRATIVE SPECIFICATION

Denominator: The eligible population.

Numerator: The number of Medicaid enrollees who achieved a PDC of at least 80 percent for their antipsychotic medications (Table 21.1) during the measurement year.

Measure 16: Postpartum Care Rate

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year that had a postpartum visit on or between 21 and 56 days after delivery.

Guidance for Reporting:

- This measure applies to both Medicaid and CHIP enrolled females that meet the measurement eligibility criteria.
- Include all paid, suspended, pending, reversed, and denied claims.

B. DEFINITIONS

Pre-Term	A neonate whose birth occurs through the end of the last day of the 37th week (259th day) following the onset of the last menstrual period.
Post-Term	A neonate whose birth occurs from the beginning of the first day of the 43rd week (295th day) following the onset of the last menstrual period.
Start Date of the Last Enrollment Segment	For women with a gap in enrollment during pregnancy, the last enrollment segment is the enrollment start date during the pregnancy that is closest to the delivery date.

C. ELIGIBLE POPULATION

Age	None specified.
Continuous enrollment	43 days prior to delivery through 56 days after delivery.
Allowable gap	No allowable gap during the continuous enrollment period.
Anchor date	Date of delivery.
Event/diagnosis	Delivered a live birth on or between November 6 of the year prior to the measurement year and November 5 of the measurement year. Include women who delivered in a birthing center. Refer to Tables 26.1 and 26.2 for codes to identify live births. Multiple births. Women who had two separate deliveries (different dates of service) between November 6 of the year prior to the measurement year and November 5 of the measurement year should be counted twice. Women who had multiple live births during one pregnancy should be counted once in the measure.

D. ADMINISTRATIVE SPECIFICATION

Denominator:

Follow the first two steps below to identify the eligible population.

Numerator:

Postpartum Care

A postpartum visit (Table 26.3) for a pelvic exam or postpartum care on or between 21 and 56 days after delivery.

The practitioner requirement only applies to the Hybrid Specification. The enrollee is compliant if any code from Table 26.3 is submitted.

Table 26.3. Codes to Identify Postpartum Visits

CPT	CPT Category II	HCPCS	ICD-9-CM Diagnosis	ICD-9-CM Procedure	UB Revenue	LOINC
57170, 58300, 59400*, 59410*, 59430, 59510*, 59515*, 59610*, 59614*, 59618*, 59622*, 88141-88143, 88147, 88148, 88150, 88152-88155, 88164-88167, 88174, 88175, 99501	0503F	G0101, G0123, G0124, G0141, G0143- G0145, G0147, G0148, P3000, P3001, Q0091	V24.1, V24.2, V25.1, V72.3, V76.2	89.26, 91.46	0923	10524-7, 18500-9, 19762-4, 19764-0, 19765-7, 19766-5, 19774-9, 33717-0, 47527-7, 47528-5

Note: Generally, these codes are used on the date of delivery, not on the date of the postpartum visit, so this code may be used only if the claim form indicates when postpartum care was rendered.

E. ADDITIONAL NOTES

When counting postpartum visits, include visits with physician assistants, nurse practitioners, midwives and registered nurses if a physician cosignatory is present, if required by state law.

Services that occur over multiple visits count toward this measure as long as all services are within the time frame established in the measure. Ultrasound and lab results alone should not be considered a visit; they must be linked to an office visit with an appropriate practitioner in order to count for this measure.

A Pap test alone is acceptable for the Postpartum Care rate. A colposcopy alone is not numerator compliant for the rate.

The intent is that a visit is with a PCP or OB/GYN. Ancillary services (lab, ultrasound) may be

Appendix 2B—Selected Measures from Healthcare Effectiveness Data and Information Set (HEDIS) 2014

Measure: Persistence of Beta-Blocker Treatment after a Heart Attack

Origin: HEDIS 2014

Description:

The percentage of members 18 years of age and older during the measurement year who were hospitalized and discharged alive from July 1 of the year prior to the measurement year to June 30 of the measurement year with a diagnosis of AMI and who received persistent beta-blocker treatment for six months after discharge.

Numerator

A 180-day course of treatment with beta-blockers.

Identify all members in the denominator population whose dispensed days supply is ≥ 135 days in the 180 days following discharge. Persistence of treatment for this measure is defined as at least 75 percent of the days supply filled.

Denominator

The eligible population.

Measure: Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)

Origin: HEDIS 2014

Description:

The percentage of members 19-64 years of age during the measurement year with schizophrenia who were dispensed and remained on an antipsychotic medication for at least 80% of their treatment period.

The percentage of discharges for which the member received follow-up within 30 days of discharge.

The percentage of discharges for which the member received follow-up within 7 days of discharge.

Numerator

The number of members who achieved a PDC of at least 70% for their antipsychotic medications during the measurement year.

Denominator

The eligible population.

Measure: Annual Monitoring for Patients on Persistent Medications (MPM)

Origin: HEDIS 2014

Description:

The percentage of members 18 years of age and older who received at least 180 treatment days of ambulatory medication therapy for a select therapeutic agent during the measurement year and at least one therapeutic monitoring event for the therapeutic agent in the measurement year. For each product line, report each of the four rates separately and as a total rate.

Annual monitoring for members on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARB).

Annual monitoring for members on digoxin.

Annual monitoring for members on diuretics.

Annual monitoring for members on anticonvulsants.

Total rate (the sum of the four numerators divided by the sum of the four denominators).

Numerators

Annual monitoring for members on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARB)

- At least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year. Any of the following during the measurement meet criteria:
 - A lab panel test
 - A serum potassium test **and** a serum creatinine test
 - A serum potassium test **and** a blood urea nitrogen test
- Note: The tests do not need to occur on the same service date, only within the measurement year.

Annual monitoring for members on Digoxin

- At least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year. Any of the following during the measurement meet criteria:
 - A lab panel test
 - A serum potassium test **and** a serum creatinine test
 - A serum potassium test **and** a blood urea nitrogen test
- Note: The tests do not need to occur on the same service date, only within the measurement year.

Annual monitoring for members on Diuretics

- At least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year. Any of the following during the measurement meet criteria:
 - A lab panel test
 - A serum potassium test **and** a serum creatinine test

- A serum potassium test **and** a blood urea nitrogen test
- Note: The tests do not need to occur on the same service date, only within the measurement year.

Annual monitoring for members on Anticonvulsants

- At least one drug serum concentration level monitoring test for the prescribed drug during the measurement year as identified by the following value sets:
 - Members prescribed phenobarbital must have at least one drug serum concentration for phenobarbital
 - Members prescribed carbamazepine must have at least one drug serum concentration for carbamazepine
 - Members prescribed phenytoin must have at least one drug serum concentration for phenytoin
 - Members prescribed valproic acid or divalproex sodium must have at least one drug serum concentration for valproic acid

Measure: Adults’ Access to Preventive/Ambulatory Health Services (AAP)

Origin: HEDIS 2014

Description:

The percentage of members 20 years and older who had an ambulatory or preventive care visit. The organization reports three separate percentages for each product line.

Medicaid and Medicare members who had an ambulatory or preventive care visit during the measurement year.

Commercial members who had an ambulatory or preventive care visit during the measurement year or the two years prior to the measurement year.

Numerator

Medicaid and Medicare: One or more ambulatory or preventive care visits during the measurement year.

Commercial: One or more ambulatory or preventive care visits during the measurement year or the two years prior to the measurement year.

Use the following value sets to identify ambulatory or preventive care visits:

- Ambulatory Visits Value Set
- Other Ambulatory Visits Value Set

Denominator

The eligible population (report each age stratification separately).

Measure: Frequency of Selected Procedures (FSP)

Origin: HEDIS 2014

Description:

This measure summarizes the utilization of frequently performed procedures that often show wide regional variation and have generated concern regarding potentially inappropriate utilization.

Selected Procedures

Tonsillectomy

- With or without adenoidectomy. Do not report adenoidectomy performed alone.

Bariatric weight loss surgery

- Report the number of bariatric weight loss surgeries.

Hysterectomy

- Report abdominal and vaginal hysterectomy separately.

Cholecystectomy

- Report open and laparoscopic cholecystectomy separately.

Back surgery

- Report all spinal fusion and disc surgery, including codes relating to laminectomy with and without disc removal

Percutaneous Coronary Intervention (PCI)

- Report all PCIs performed separately. Do not report PCI or cardiac catheterization performed in conjunction with a CABG in the PCI rate or the cardiac catheterization rate; report only the CABG.

Cardiac Catheterization

- Report all cardiac catheterizations performed separately. Do not report a cardiac catheterization performed in conjunction with a PCI in the cardiac catheterization rate; report only the PCI.
- Do not report PCI or cardiac catheterization performed in conjunction with a CABG in the PCI rate or the cardiac catheterization rate; report only the CABG.

Coronary Artery Bypass Graft (CABG)

- Report each CABG only once for each date of service per patient, regardless of the number of arteries involved or the number or types of grafts involved.
- Do not report PCI or cardiac catheterization performed in conjunction with a CABG in the PCI rate or the cardiac catheterization rate; report only the CABG.

Prostatectomy

- Report the number of prostatectomies.

Total Hip Replacement

- Report the number of total hip replacements.

Total Knee Replacement

- Report the number of total knee replacements.

Carotid Endarterectomy

- Report the number of carotid endarterectomies.

Mastectomy

- Report the number of mastectomies. Report bilateral mastectomy procedures as two procedures, even if performed on the same date

Lumpectomy

- Report the number of lumpectomies. Report multiple lumpectomies on the same date of service as one lumpectomy procedure per patient.
- Note: Calls abandoned within 30 seconds and calls sent directly to voicemail remain in the measure and are noncompliant for the numerator.

Measure: Ambulatory Care (AMB)

Origin: HEDIS 2014

Description:

This measure summarizes utilization of ambulatory care in the following categories:

Outpatient Visits

ED Visits

Outpatient Visits

Count multiple codes with the same practitioner on the same date of service as a single visit. Count visits with different practitioners separately (count visits with different providers on the same date of service as different visits). Report services without regard to practitioner type, training, or licensing.

ED Visits

Count each visit to an ED that does not result in an inpatient encounter once, regardless of the intensity or duration of the visit. Count multiple ED visits on the same date of service as one visit. Identify ED visits using either of the following:

- An ED visit
- A procedure code with an ED place of service code

Exclusions (required)

The measure does not include mental health or chemical dependency services. Exclude claims and encounters that indicate the encounter was for mental health or chemical dependency.

Note

This measure provides a reasonable proxy for professional ambulatory encounters. It is neither a strict accounting of ambulatory resources nor an effort to be all-inclusive.

Measure: Inpatient Utilization – General Hospital/Acute Care (IPU)

Origin: HEDIS 2014

Description:

This measure summarizes utilization of acute inpatient care and services in the following categories:

Total inpatient

Maternity

Surgery

Medicine

Product Lines

Report the following tables for each applicable product line:

- Table IPU-1a Total Medicaid
- Table IPU-1b Medicaid/Medicare Dual-Eligibles
- Table IPU-1c Medicaid—Disabled
- Table IPU-1d Medicaid—Other Low Income
- Table IPU-2 Commercial—by Product or Combined HMO/POS
- Table IPU-3 Medicare

Appendix 2C

Consumer Assessment of Healthcare Providers and Systems Survey

Health Plan 5.0

ACHI is a nonpartisan, independent, health policy center that serves as a catalyst to improve the health of Arkansans.



1401 West Capitol Avenue
Suite 300, Victory Building
Little Rock, Arkansas 72201
www.achi.net

Consumer Assessment of Healthcare Providers and Systems Survey

Selected measures from the CAHPS 5.0 Health Plan survey are being used according to the Agency for Healthcare Research and Quality’s protocol. The survey is attached.

CAHPS[®] Health Plan Surveys

Version: Adult Commercial Survey 5.0

Language: English

Notes

- **Release of 5.0 version:** The CAHPS Health Plan Surveys were updated in the Spring of 2012. The updates are limited to minor changes to the wording of several items and a change in the placement of one item. These edits reflect the CAHPS Consortium's most recent findings from testing of related survey instruments. For specific information about the updates to this survey, please read **CAHPS Health Plan Surveys: Overview of the Questionnaires**, which is available at <https://www.cahps.ahrq.gov/Surveys-Guidance/HP/Get-Surveys-and-Instructions.aspx>.
- **Supplemental items:** Survey users may add questions to this survey. A document with supplemental items developed by the CAHPS Consortium and descriptions of major item sets are available in the **Health Plan Surveys and Instructions** (<http://www.cahps.ahrq.gov/Surveys-Guidance/HP/Get-Surveys-and-Instructions.aspx>).



Instructions for Front Cover

- Replace the cover of this document with your own front cover. Include a user-friendly title and your own logo.
- Include this text regarding the confidentiality of survey responses:

Your Privacy is Protected. All information that would let someone identify you or your family will be kept private. {VENDOR NAME} will not share your personal information with anyone without your OK. Your responses to this survey are also completely **confidential**. You may notice a number on the cover of the survey. This number is used **only** to let us know if you returned your survey so we don't have to send you reminders.

Your Participation is Voluntary. You may choose to answer this survey or not. If you choose not to, this will not affect the health care you get.

What To Do When You're Done. Once you complete the survey, place it in the envelope that was provided, seal the envelope, and return the envelope to [INSERT VENDOR ADDRESS].

If you want to know more about this study, please call XXX-XXX-XXXX.

Instructions for Format of Questionnaire

Proper formatting of a questionnaire improves response rates, the ease of completion, and the accuracy of responses. The CAHPS team's recommendations include the following:

- If feasible, insert blank pages as needed so that the survey instructions (see next page) and the first page of questions start on the right-hand side of the questionnaire booklet.
- Maximize readability by using two columns, serif fonts for the questions, and ample white space.
- Number the pages of your document, but remove the headers and footers inserted to help sponsors and vendors distinguish among questionnaire versions.

Find additional guidance in **Preparing a Questionnaire Using the CAHPS Health Plan Survey**, which is available at <https://www.cahps.ahrq.gov/Surveys-Guidance/HP/Get-Surveys-and-Instructions.aspx>.

Survey Instructions

Answer each question by marking the box to the left of your answer.

You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

- Yes → **If Yes, go to #1 on page 1**
 No

1. Our records show that you are now in {INSERT HEALTH PLAN NAME}. Is that right?

¹ Yes → **If Yes, go to #3**
² No

2. What is the name of your health plan?

Please print: _____

Your Health Care in the Last 12 Months

These questions ask about your own health care. Do **not** include care you got when you stayed overnight in a hospital. Do **not** include the times you went for dental care visits.

3. In the last 12 months, did you have an illness, injury, or condition that **needed care right away** in a clinic, emergency room, or doctor's office?

¹ Yes
² No → **If No, go to #5**

4. In the last 12 months, when you **needed care right away**, how often did you get care as soon as you needed?

¹ Never
² Sometimes
³ Usually
⁴ Always

5. In the last 12 months, did you make any appointments for a **check-up or routine care** at a doctor's office or clinic?

¹ Yes
² No → **If No, go to #7**

6. In the last 12 months, how often did you get an appointment for a **check-up or routine care** at a doctor's office or clinic as soon as you needed?

¹ Never
² Sometimes
³ Usually
⁴ Always

7. In the last 12 months, **not** counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?

None → **If None, go to #10**
 1 time
 2
 3
 4
 5 to 9
 10 or more times

8. Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?

- 0 Worst health care possible
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10 Best health care possible

9. In the last 12 months, how often was it easy to get the care, tests, or treatment you needed?

- ¹ Never
² Sometimes
³ Usually
⁴ Always

Your Personal Doctor

10. A personal doctor is the one you would see if you need a check-up, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?

- ¹ Yes
² No → **If No, go to #17**

11. In the last 12 months, how many times did you visit your personal doctor to get care for yourself?

- None → **If None, go to #16**
 1 time
 2
 3
 4
 5 to 9
 10 or more times

12. In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?

- ¹ Never
² Sometimes
³ Usually
⁴ Always

13. In the last 12 months, how often did your personal doctor listen carefully to you?

- ¹ Never
² Sometimes
³ Usually
⁴ Always

14. In the last 12 months, how often did your personal doctor show respect for what you had to say?

- ¹ Never
² Sometimes
³ Usually
⁴ Always

15. In the last 12 months, how often did your personal doctor spend enough time with you?

- ¹ Never
² Sometimes
³ Usually
⁴ Always

16. Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?

- 0 Worst personal doctor possible
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10 Best personal doctor possible

Getting Health Care From Specialists

When you answer the next questions, do **not** include dental visits or care you got when you stayed overnight in a hospital.

17. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 12 months, did you make any appointments to see a specialist?

- ¹ Yes
² No → **If No, go to #21**

18. In the last 12 months, how often did you get an appointment to see a specialist as soon as you needed?

- ¹ Never
² Sometimes
³ Usually
⁴ Always

19. How many specialists have you seen in the last 12 months?

- None → **If None, go to #21**
 1 specialist
 2
 3
 4
 5 or more specialists

20. We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?

- 0 Worst specialist possible
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 Best specialist possible

Your Health Plan

The next questions ask about your experience with your health plan.

21. In the last 12 months, did you get information or help from your health plan’s customer service?

- ¹ Yes
- ² No → **If No, go to #24**

22. In the last 12 months, how often did your health plan’s customer service give you the information or help you needed?

- ¹ Never
- ² Sometimes
- ³ Usually
- ⁴ Always

23. In the last 12 months, how often did your health plan’s customer service staff treat you with courtesy and respect?

- ¹ Never
- ² Sometimes
- ³ Usually
- ⁴ Always