State of Arkansas

Arkansas TEFRA-like section 1115(a) Medicaid Demonstration Extension Evaluation Design Plan

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Program Background

The Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 gave individual states the option to provide health care benefits to children living with disabilities whose family income was too high to qualify for traditional Medicaid. Sometimes called the Katie Beckett option[1], this program is associated with the child whose experience with viral encephalitis at a young age left her family in financial hardship. If Katie continued receiving treatment at the hospital, she qualified for Supplemental Security Income (SSI) through Medicaid; however, if she were treated at home, her parents' income would make her ineligible for Medicaid. Interestingly, the hospital-based care was six times more than the cost of home-based care. To address the issues associated with this act, President Ronald Reagan and the Secretary of Health and Human Services created a committee to review the regulations and ensure that children with disabilities could receive home-based treatment (the Katie Beckett option), which then recommended Section 134 of the TEFRA.

Before 2002, Arkansas opted to place eligible disabled children in traditional Medicaid by assigning them to a new aid category within its Medicaid State Plan. While this arrangement allowed the children to remain in their homes, it ultimately placed an unsustainable financial burden on the State during a time when budget limitations were becoming more restrictive. To address the financial viability of the program, the State chose to transition the disabled children from traditional Medicaid to a TEFRA-like, 1115 demonstration waiver program.

Section 1115 demonstration waivers are designed to provide services not traditionally covered by Medicaid programs and to expand Medicaid coverage to individuals who otherwise would not be eligible. These waivers facilitate states' approach to innovative service delivery; they are intended to improve patient care while increasing efficiency, lowering costs, and allowing states more flexibility in designing and implementing their programs. These combined elements made the 1115 demonstration waiver a viable solution for continuing to provide services to this special population of Arkansas children.

Using the flexibility available within a demonstration waiver, Arkansas was able to develop and implement a sliding scale premium fee structure based on the family's income, effectively passing a portion of the cost to the eligible child's family. Families with annual incomes of less than $25,000 were exempted from the premium requirement; program eligibility was determined solely on the assets and resources of the child. Arkansas' 1115 TEFRA-like demonstration waiver (the Demonstration) was originally approved in October 2002 and implemented January 1, 2003. Following the initial five-year demonstration period the waiver has continued to be renewed, with the current renewal period ending December 31, 2017.

[1] Hevesi, Dennis. "Katie Beckett, Who Inspired Health Reform, Dies at 34." *The New York Times.* May 22, 2012: http://www.nytimes.com/2012/05/23/us/katie-beckett-who-inspired-health-reform-dies-at-34.html?_r=0. Accessed on August 10, 2015.

The primary goals of this evaluation design are to assess the impact of the Demonstration on the quality and affordability of health care for all children eligible for the program. The evaluation will explore and evaluate the effectiveness of the Demonstration for each research hypothesis, as approved by the Centers for Medicare & Medicaid Services (CMS). As illustrated in Appendix A, each research hypothesis includes one or more evaluation measures. Wherever possible, each measure will be in a standardized form comparable to and compared against national benchmarks.

Included in the evaluation design will be examinations of the Demonstration's performance on a set of outcome and satisfaction measures over time and relative to a comparable population in the Arkansas Medicaid program, where applicable. Each measure will be described in detail and include a description of the numerator and denominator, the sources of data, and the analytic method used to test the hypotheses. Both cross-sectional and sequential trend analyses will be used, depending on whether the measure is across one point in time or multiple points in time, along with the specific research hypothesis being addressed.

Study Population

The study population consists of all beneficiaries covered under Title XIX of the Social Security Act in the State of Arkansas younger than 19 years of age who meet the medical necessity requirement for institutional care, have income that is less than the long-term care Medicaid limit and do not have countable assets greater than $2,000.[2] This study population will be divided into two groups to operationalize the evaluation—i.e., the study group and a comparison group, where appropriate.

Study Group

The study group is the Demonstration group that consists of beneficiaries enrolled in the Arkansas TEFRA-like program. Beneficiaries are eligible for the TEFRA-like program if they meet the following criteria:

- Disabled according to the Social Security Administration definition.
- Younger than 19.
- Residents of Arkansas who have U.S. citizenship or are qualified aliens.
- Have a Social Security number or have applied for one.
- Have an income that is less than the long-term care Medicaid limit (parental income is not considered).
- Have countable assets that do not exceed $2,000 (parental assets are not considered).
- Meet the medical necessity requirement for institutional care.

[2] Coverage and delivery of benefits to eligible members are consistent with section 1902(a)(10)(A)(i)(VIII) of the Act and 42 CFR Section 435.119.

Currently, there are approximately 4,000 children participating in the TEFRA-like program.[3]

Comparison Group

A comparison group for select measures will consist of Medicaid ARKids First-A (ARKids A) program members. ARKids A provides health insurance to children who qualify based on family income level. Analyses conducted with this comparison will focus on cross-sectional analyses. Children may be eligible for the ARKids A program if they meet the following criteria:

- Younger than 19.
- Residents of Arkansas who have U.S. citizenship or are qualified aliens.
- Have a Social Security number or have applied for one.
- Have a family income below the income eligibility limits based on family size and the federal poverty level (FPL).

Data Sources

The Arkansas Division of Medical Services (DMS) and its contractor will use multiple sources of data to assess the research hypotheses. The data collected will include both data from administrative sources and survey-based data. Administrative data sources include information extracted from DMS' Medicaid Management Information System (MMIS) and associated the Decision Support System (DSS), as well as TEFRA-like program data such as results of the premium payment monitoring data.

Administrative Data

MMIS/DSS

The MMIS data source is used to collect, manage, and maintain Medicaid recipient files (i.e., eligibility, enrollment, and demographics) and fee-for-service claims while the DSS is an internal database used by DMS and its contractors to mine, collect, and query MMIS data repositories. DMS and its contractor will work with key data owners to ensure the appropriate data use agreements are in place to obtain the required data. Data sharing agreements will be initiated to allow access to and use of Medicaid claims and encounters, member demographics and eligibility/enrollment, and provider data.

To ensure accurate and complete data, extraction protocols will require a three-month lag to allow time for the majority of claims to be processed through the MMIS. Use of fee-for-service claims will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can affect reported rates. Institutional and professional claims will be used

[3] The number of beneficiaries participating in the TEFRA-like demonstration as of 01/01/2015 – 03/31/2015), as reported in the Quarterly Progress Report to CMS.

to calculate the various outcome measures while member demographic files will be used to assess member age, gender, and other demographic information. Eligibility files will be used to verify a member's enrollment in the State's Medicaid programs. Finally, the provider data files will be used to identify and report results for and by specific practice characteristics.

TEFRA Premium Payment Monitoring Data

The contractor will work with DMS to obtain operational data (i.e., TEFRA premium payment monitoring data) collected during the ongoing maintenance and monitoring of Arkansas' TEFRA-like program. These data will be used to identify key financial information, including family income of the TEFRA-like beneficiaries and monthly premium payment amounts. Additionally, data obtained from this source will be used to identify beneficiaries who experienced a lockout period.

TEFRA Beneficiary Satisfaction Survey

A consumer survey (such as the Consumer Assessment of Health Care Providers and Systems [CAHPS®[4]]) will be used to assess satisfaction with provided health care services. These instruments can be adapted by including specific survey items designed to elicit information that addresses research hypotheses regarding the financial burden of the program and access to medical equipment and medical therapies.

On a regular basis, the TEFRA Beneficiary Satisfaction Survey (TEFRA survey) has been conducted by the Arkansas Division of Medical Services (DMS) in collaboration with the Arkansas Foundation for Medical Care (AFMC), a National Committee for Quality Assurance (NCQA) Certified Healthcare Effectiveness Data and Information Set (HEDIS®[5]) survey vendor. The TEFRA survey is based on the CAHPS Medicaid child survey and covers topics such as getting care quickly, how well doctors communicate, and access to care, among others.

All beneficiaries in the TEFRA-like demonstration waiver will be included in the analyses. For analyses that require results from the TEFRA survey, all survey respondents will be included. The TEFRA survey will follow a traditional NCQA sampling strategy—1,650 beneficiaries will be randomly selected from the MMIS. To be eligible for the study, beneficiaries must be enrolled in the program for at least six months, with no more than one 30-day gap in enrollment. Selected beneficiaries will receive an introduction letter explaining the survey two weeks prior to the first survey mailing. The surveys will be mailed with a postage-paid return envelope and cover letter. Ten days later a reminder postcard will be sent to beneficiaries who have not responded. One month after the initial mailing, a second survey will be sent to those beneficiaries who have not responded. A reminder postcard also will follow the second survey.

[4] CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).
[5] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

Analysis Plan

This evaluation will use widely accepted statistical methods to test hypotheses addressing the quality of care received by the TEFRA-like demonstration beneficiaries and the effect of the lockout policy on the TEFRA-like demonstration beneficiaries. The evaluation will use the best available data and control populations as appropriate, and will discuss the limitations of the data and how they may affect the results.

The primary analytic methods incorporated in this evaluation to assess the research hypotheses are the Z-test, the chi-squared test, and a sequential trend tests. The Z-test will be used for cross-sectional comparisons between two populations or for sequential, cross-sectional comparisons (two points in time) of the same population. A Z-test differs from the more traditional t-test in that it is applied when entire populations are studied. Since all beneficiaries in the TEFRA-like demonstration will be included in the analyses, a Z-test statistic represents the most appropriate statistical test to measure change. A chi-squared test will be used in select measures to evaluate whether patients' perceptions of the financial burden of the Demonstration is independent of family income bracket.

Sequential trend analysis will be conducted using traditional linear regression to assess measure rates changes over time. The measure rate will serve as the dependent variable, while time is used as the independent variable. A measure rate will be categorized as improving if the beta coefficient for the independent variable (time) is positive and the *p* value is less than 0.05. The measure rate will be categorized as not having changed if the *p* value is greater than 0.05.

Hypothesis 1: The beneficiaries of the Arkansas TEFRA-like demonstration have equal or better access to health services compared to the Medicaid fee-for-service population (Medicaid ARKids First A).

Methodology

It is important for all children to have access to appropriate health care services. The goal of Hypothesis 1 is to ensure that beneficiaries of the TEFRA-like demonstration program have equal or better access to those services available to children in a traditional Medicaid program. Hypothesis 1 will compare the access to health care services for beneficiaries in the TEFRA-like demonstration to the beneficiaries in the Medicaid ARKids First A program. In order to evaluate access to health services across all age groups, comparisons will be made using several HEDIS measures, including those for immunizations, well-child visits, and dental visit.

Hypothesis 1 will be assessed using a two-sample Z-test to evaluate statistically significant differences between the TEFRA-like demonstration population and the traditional Medicaid population. The analysis will be tested using a significance level of $p < 0.05$.

Outcome Measures

The measures included in this analysis are presented in Table 1. (See Appendix A for detailed measure specifications.)

Table 1: Hypothesis 1 Measures

Measure Name
Childhood Immunization Status (Combo 2)
Childhood Immunization Status (Combo 3)
Immunizations for Adolescents (Combo 1)
Well-Child Visits in the First 15 Months of Life
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life
Adolescent Well-Care Visits
Annual Dental Visits

Hypothesis 2: Access to timely and appropriate preventive care remained the same or improved over time for beneficiaries of the Arkansas TEFRA-like demonstration.

Methodology

Hypothesis 2 tests whether access to timely and appropriate preventive care has improved or remained the same for the TEFRA-like demonstration beneficiaries over time. This research will be limited to the beneficiaries participating in the TEFRA-like demonstration.

To evaluate changes over time, Hypothesis 2 will use traditional linear regression to determine whether TEFRA-like demonstration beneficiaries' access to timely preventive care improved or remained the same. The measure rate will serve as the dependent variable while time will be used as the independent variable. A measure rate will be categorized as improving if the beta coefficient for the independent variable (time) is positive and the *p* value is less than 0.05. The measure rate will be categorized as not having changed if the *p* value is greater than 0.05.

Outcome Measures

The measures included in this analysis are presented in Table 2. (See Appendix A for detailed measure specifications.)

Table 2: Hypothesis 2 Measures

Measure Name
Childhood Immunization Status (Combo 2)
Childhood Immunization Status (Combo 3)
Immunizations for Adolescents (Combo 1)
Well-Child Visits in the First 15 Months of Life
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life

Measure Name
Adolescent Well-Care Visits
Annual Dental Visits

Hypothesis 3: Enrollment in the TEFRA-like demonstration has improved the patient experience for program beneficiaries by increasing the patients' access to health care services.

Methodology

This hypothesis tests whether beneficiaries in the TEFRA-like demonstration program experienced improved access to health care services after joining the program —i.e., improved ability to see a primary care provider (PCP), improved ability to get medication, and improved ability to get urgent care. Respondents of the TEFRA Beneficiary Satisfaction Survey will incorporate CAHPS-like questions to capture respondents' experience and ease with getting services before and after joining the Demonstration. A chi-squared test will be used to compare the proportion of respondents stating they had a "big or small problem" obtaining these services in the six months prior to enrolling in the program compared to the six months after enrolling in the program. The contractor will use a two-sided chi-squared test to determine whether the *p* value is greater than or equal to 0.05.

Outcome Measures

The measures included in this analysis are presented in Table 3. (See Appendix A for detailed measure specifications.)

Table 3: Hypothesis 3 Measures

Measure Name
Ability to see PCP pre-TEFRA
Ability to see PCP post-TEFRA
Ability to get medication pre-TEFRA
Ability to get medication post-TEFRA
Ability to get urgent care pre-TEFRA
Ability to get urgent care post-TEFRA

Hypothesis 4: Patient satisfaction for the quality of care received by the beneficiaries in the Arkansas TEFRA-like demonstration has remained the same or improved over time.

Methodology

Patient satisfaction with the TEFRA-like demonstration program over time will be assessed by analyzing responses to the TEFRA Beneficiary Survey measures. Sequential trend analyses will be used to assess whether beneficiary satisfaction has improved over time or remained the same. Traditional linear regression will be used using the measure rate as the

dependent variable and the year of the survey as the independent variable. The rate will be identified as having improved if the beta coefficient for the independent variable (year) is positive and the *p* value is less than 0.05, while a *p* value greater than 0.05 will identify no change in satisfaction.

Outcome Measures

The measures included in this analysis are presented in Table 4. (See Appendix A for detailed measure specifications.)

Table 4: Hypothesis 4 Measures

Measure Name
Ability to see PCP post-TEFRA
Ability to get medication post-TEFRA
Ability to get urgent care post-TEFRA
Rating of TEFRA
Getting Care Quickly: Obtaining care right away for an illness/injury/condition
Getting Care Quickly: Obtaining care when wanted, but not needed right away
How Well Doctors Communicate: Doctors explaining things in an understandable way to your child
How Well Doctors Communicate: Doctors listening carefully to you
How Well Doctors Communicate: Doctors showing respect for what you had to say
How Well Doctors Communicate: Doctors spending enough time with the child

Hypothesis 5: The proportion of beneficiaries participating in the TEFRA-like demonstration who experience a lockout period is less than the proportion expected by the State.

Methodology

The proportion of beneficiaries who experience a lockout will be determined using the TEFRA-like demonstration premium payment monitoring data. Annually, the contractor will calculate the percentage of beneficiaries who experienced a lockout. A one-sample Z-test for proportions will be used to determine whether the proportion of beneficiaries who experience a lockout significantly differs from the proportion of beneficiaries expected to experience the lockout. The Z-test will be two-sided with an alpha = 0.05. Based on initial estimates, DMS currently expects that 5 percent of the beneficiaries will experience a lockout. However, based on actual implementation and program numbers, DMS may alter the expected proportion prior to the analysis.

Outcome Measures

The measures included in this analysis are presented in Table 5. (See Appendix A for detailed measure specifications.)

Table 5: Hypothesis 5 Measures

Measure Name
Proportion of beneficiaries who experience the lockout

Supplemental Analyses

Additionally, with the renewal of the TEFRA-like demonstration, the contractor will incorporate several supplemental analyses designed to highlight the impact of the program's lockout mechanism. Specifically, the supplemental analyses will address the following lockout-related study questions:

1. Does the proportion of TEFRA-like demonstration beneficiaries experiencing the lockout differ significantly by monthly premium or family income?
2. Does the proportion of beneficiaries experiencing the lockout differ significantly by the financial burden of the monthly premium?
3. What health care needs were unmet during a beneficiary's lockout period, and what were the reason(s) they were unable to make the monthly premium payment to maintain eligibility?
4. During the lockout period, were there health care needs that the beneficiary was able to get covered through other means? If so, what were those needs and by what means were they able to resolve them?

A chi-squared test will be used to evaluate whether the proportion of beneficiaries experiencing a lockout differed significantly by a beneficiary's monthly premium or by income level. Chi-squared tests also will be used to determine if the proportion of beneficiaries experiencing a lockout varied significantly based on the financial burden of the monthly premium. The contractor will use information collected from the TEFRA Beneficiary Survey to obtain Demonstration participants' perceptions of the financial burden of the premium payments. The possible responses will be based on CAHPS standardized response categories. All chi-squared tests will be two-sided and conducted with an alpha = 0.05.

To collect information on the reasons that beneficiaries did not make the monthly premium contributions and what health care needs were unmet during program ineligibility, the contractor will conduct a consumer survey on beneficiaries who experienced the lockout. DMS will work with its selected survey vendor to implement an appropriate survey methodology for this sub-population. Timing, sampling, and survey methodology will be defined upon selection of a vendor. The consumer surveys will address study questions such as:

- What factors contributed to beneficiaries not paying their monthly premium?
- What health care needs went unmet when beneficiaries were ineligible for the TEFRA-like demonstration due to nonpayment of their premiums?
- During the lockout period, were there health care needs that the beneficiary was able to get covered through other means? If so, what were those needs and by what means were they able to resolve them?

The results of the survey will be analyzed qualitatively to categorize response patterns and identify overall themes responsible for beneficiaries' experiences. Since this type of survey has not been conducted in the past, it will be for informational purposes only and for limited qualitative analyses.

Based on the State's experience from the first quarter of 2015, it is expected that approximately 4.4 percent (n=177) of the TEFRA-like demonstration beneficiaries will experience the lockout each quarter. To test each hypotheses with a 95 percent confidence and a 5 percent margin of error, 63 completed surveys will be required each quarter. Assuming a 40 percent response rate, based on the existing TEFRA Beneficiary Satisfaction Survey, it is estimated that approximately 90 beneficiaries who experience the lockout each quarter will be sampled. The selected survey vendor, in conjunction with DMS, will determine the final sample sizes based on the approved sampling methodology and population.

Study Limitations

Although every effort has been taken to ensure the scientific rigor of this evaluation design, it is important to understand factors that affect the strength of reported results. These limitations are addressed through methodological controls but remaining factors can still influence study findings. One limitation of this study is the inability to identify a group for a true comparison with the beneficiaries of the TEFRA-like demonstration. As a specialized subset of the existing Medicaid population, it is likely that the TEFRA-like demonstration beneficiaries receive a different level of care and different types of care from other Medicaid beneficiaries. This difference makes it difficult to select a matched group for comparisons. For example, TEFRA-like demonstration beneficiaries may be less likely to have true well-child visits because they are seeing their doctors more often for other issues. To address this limitation, the following analysis used measures (e.g., the immunization measures) that are more universal and independent of clinical status or visit type. Additionally, the analysis plans incorporate sequential trend analyses, which evaluates the performance of TEFRA-like demonstration beneficiaries over time as opposed to cross-sectional analyses, which require a comparison group.

Another limitation of the current study is associated with the assessment of beneficiary experience with the Demonstration's lockout period. Since few beneficiaries experience the lockout, results are susceptible bias. Moreover, since beneficiary experience with lockouts is not currently collected in the TEFRA Beneficiary Satisfaction Survey, a new data collection method will be required to obtain insight into beneficiary's experience. The contractor will use consumer surveys to address small numbers of affected beneficiaries.

Statewide Initiatives

In order to ensure the analyses and results are robust, the selected contractor will work with the DMS staff to identify any State initiatives, programs, or projects that overlap with this evaluation. Currently, the State does not anticipate that any other projects or initiatives will impact this evaluation. However, if future activities are implemented that intersect with the analyses being performed for this project, the State will evaluate the potential impact to ensure that effects of the TEFRA-like demonstration can be isolated from the other statewide initiatives.

Reporting

Following its evaluation of the Arkansas TEFRA-like section 1115 demonstration and subsequent synthesis of the results, DHS and its evaluation contractor will prepare a report of the findings and how the results compare to the research hypotheses. Both the interim annual reports and the final summative evaluation report will be produced in alignment with the Special Terms and Conditions (STCs) and the schedule of deliverables listed in Table 6.

Table 6: Schedule of Deliverables

Deliverable	Date
Demonstration Evaluation Design	
DMS submits draft TEFRA-like demonstration evaluation design to CMS	9/9/2015
DMS submits final TEFRA-like demonstration evaluation design to CMS	Within 60 days of receipt of CMS comments
Demonstration Evaluation	
Quarterly: DMS implements the evaluation design and report progress of Demonstration to CMS	60 days after the quarter
Annually: DMS implements the evaluation design and report progress of Demonstration to CMS	90 days after the end of the demonstration year
DMS submits interim evaluation report to CMS	6/30/2016
DMS submits preliminary final evaluation report to CMS	60 days after the end of the demonstration
DMS submits Final Evaluation Report to CMS	120 days after receipt of CMS comments

Each evaluation report will present findings in a clear, accurate, concise, and timely manner. At a minimum, all written reports will include the following four sections: Executive Summary, Demonstration Description, Study Design, and Findings and Conclusions. Specifically, the reports will address the following:

1) The **Executive Summary** will state, concisely, the goals for the Demonstration, the evaluation questions and hypotheses tested in the report, and updates on questions and hypotheses scheduled for future reports. In presenting the key findings, analytic results will be placed in the context of policy-relevant implications and recommendations.

2) The **Demonstration Description** section will focus on history, evolution, and programmatic goals and strategies of the Demonstration. The section succinctly will

trace the development of the program from the recognition of need to the present degree of implementation.

3) The **Study Design** section will contain much of the new information in the report. Its five sections will include evaluation design with the five research hypotheses, supplemental analyses, and associated measures, along with the type of study design; impacted populations and stakeholders; data sources that include data collection field, documents, and collection agreements; analysis techniques with controls for differences in groups or with other State interventions, including sensitivity analyses when conducted; and limitations for the study.

4) The **Findings and Conclusions** section will be a summary of the key findings and outcomes. The section will summarize the health care experiences of the beneficiaries who participate in the Demonstration, along with the successes, challenges, and lessons learned from the continuation of the Demonstration.

Independent Entity

Based on State protocols, DMS will follow established policies and procedures to acquire an independent entity or entities to conduct the TEFRA-like demonstration evaluation. The State will either undertake a competitive procurement for the evaluator or will contract with entities that have an existing contractual relationship with the State. An assessment of potential contractors' experience, knowledge of State programs and populations, and resource requirements will determine selection of the final candidate, including steps to identify and/or mitigate any conflicts of interest.

Appendix A: Outcome Measures

Table 7: Outcome Measures for TEFRA-like Demonstration Evaluation

Measure	NQF Number	Description with numerator and denominator	Measure Source	Measure Steward	TEFRA-like Beneficiaries Baseline Value[1]	Sampling Methodology
HEDIS Measures						
Childhood Immunization Status (Combo 2)[2]	0038	The percentage of children 2 years of age who received the appropriate number of doses of the diphtheria, tetanus, and acellular pertussis (DTaP); polio (IPV); measles, mumps, and rubella (MM); H influenza type B; hepatitis B; and chicken pox vaccines. The denominator is all children who turned age 2 during the measurement year, except those with a contraindication to any specific vaccine. The numerator is all children who received appropriate number of doses of the diphtheria, tetanus, and acellular pertussis (DTaP); polio (IPV); measles, mumps, and rubella (MM); H influenza type B; hepatitis B; and chicken pox vaccines.	Core Set of Children's Health Care Quality Measures for Medicaid and CHIP	NCQA	67.37%	All TEFRA-like and ARKids A beneficiaries
Childhood Immunization Status (Combo 3)[2]	0038	The percentage of children 2 years of age who received the appropriate number of doses of the diphtheria, tetanus, and acellular pertussis (DTaP); polio (IPV); measles, mumps, and rubella (MM); H influenza type B; hepatitis B; chicken pox; and pneumococcal conjugate vaccines. The denominator is all children who turned age 2 during the measurement year, except those with a contraindication to any specific vaccine. The numerator is all children who received appropriate number of doses of the diphtheria, tetanus, and acellular pertussis (DTaP); polio (IPV); measles, mumps, and rubella (MM); H influenza type B; hepatitis B; chicken pox; and pneumococcal conjugate vaccines	Core Set of Children's Health Care Quality Measures for Medicaid and CHIP	NCQA	64.21%	All TEFRA-like and ARKids A beneficiaries

Measure	NQF Number	Description with numerator and denominator	Measure Source	Measure Steward	TEFRA-like Beneficiaries Baseline Value[1]	Sampling Methodology
Immunizations for Adolescents (Combo 1)[2]	1407	The percentage of adolescents who turned 13 years of age during the measurement year and have received the meningococcal vaccine and the tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or the tetanus, diphtheria toxoids vaccine (Td). The denominator is all adolescents who turned 13 during the measurement year, except those with a contraindication to any specific vaccine. The numerator is all children who received both the meningococcal vaccine and either the tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or the tetanus, diphtheria toxoids vaccine (Td).	Core Set of Children's Health Care Quality Measures for Medicaid and CHIP	NCQA	26.94%	All TEFRA-like and ARKids A beneficiaries
Well-Child Visits in the First 15 Months of Life[2]	1392	The percentage of children who turned 15 months old during the measurement year and who had 0, 1, 2, 3, 4, 5, or 6 or more well-child visits in the first 15 months of life. The denominator is all children who turned 15 months old during the measurement year. For this measure, seven indicators are calculated so there are seven numerators, each corresponding to the number of children who received 0, 1, 2, 3, 4, 5, or 6 or more well-child visits in the first 15 months of life.	Core Set of Children's Health Care Quality Measures for Medicaid and CHIP	NCQA	12.24% (6+ visits)	All TEFRA-like and ARKids A beneficiaries
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life[2]	1516	The percentage of children 3-6 years old during the measurement year who had at least one well-child visit. The denominator is all children 3-6 as of the last day of the measurement year. The numerator is all children who had a well-child visit.	Core Set of Children's Health Care Quality Measures for Medicaid and CHIP	NCQA	27.48%	All TEFRA-like and ARKids A beneficiaries

Measure	NQF Number	Description with numerator and denominator	Measure Source	Measure Steward	TEFRA-like Beneficiaries Baseline Value[1]	Sampling Methodology
Adolescent Well-Care Visits[2]	NA	The percentage of beneficiaries 12-21years old who had at least one well-care visit during the measurement year. The denominator is all beneficiaries 12-21 years old as of the last day of the measurement year. The numerator is all beneficiaries 12-21 years old who had at least one comprehensive well-care visit.	Core Set of Children's Health Care Quality Measures for Medicaid and CHIP	NCQA	31.79%	All TEFRA-like and ARKids A beneficiaries
Annual Dental Visits[2]	1388	The percentage of beneficiaries 2-21 years old who had at least one dental visit during the measurement year. The denominator is all beneficiaries 2-21 years old. The numerator is all beneficiaries 12-21 years old who had at least one dental visit during the measurement year.	HEDIS	NCQA	33.49%	All TEFRA-like and ARKids A beneficiaries
TEFRA Beneficiary Satisfaction Survey Measures						
Ability to See PCP Pre-TEFRA[3]	NA	The percentage of survey respondents who reported a big or small problem in seeing a personal doctor or nurse pre-TEFRA. The denominator is all respondents to the pre-TEFRA survey question, "How much of a problem, if any, was it for your child to see a personal doctor or nurse?" The numerator is all survey respondents who responded "big or small problem."	TEFRA Beneficiary Satisfaction Survey	AFMC	21.79%	All TEFRA Beneficiary Satisfaction Survey respondents
Ability to See PCP Post-TEFRA[4]	NA	The percentage of survey respondents who reported a big or small problem in seeing a personal doctor or nurse post-TEFRA. The denominator is all respondents to the post-TEFRA survey question, "How much of a problem, if any, was it for your child to see a personal doctor or nurse?" The numerator is the survey respondents who responded "big or small problem."	TEFRA Beneficiary Satisfaction Survey	AFMC	6.37%	All TEFRA Beneficiary Satisfaction Survey respondents

Measure	NQF Number	Description with numerator and denominator	Measure Source	Measure Steward	TEFRA-like Beneficiaries Baseline Value[1]	Sampling Methodology
Ability to Get Medication Pre-TEFRA[3]	NA	The percentage of survey respondents who reported a big or small problem in getting their child's prescription medication pre-TEFRA. The denominator is all respondents to the pre-TEFRA survey question, "How much of a problem, if any, was it to get your child's prescription medication?" The numerator is all respondents who responded "big or small problem."	TEFRA Beneficiary Satisfaction Survey	AFMC	30.99%	All TEFRA Beneficiary Satisfaction Survey respondents
Ability to Get Medication Post-TEFRA[4]	NA	The percentage of survey respondents who reported a big or small problem in getting their child's prescription medication post-TEFRA. The denominator is all respondents to the post-TEFRA survey question, "How much of a problem, if any, was it to get your child's prescription medication?" The numerator is all survey respondents who responded "big or small problem."	TEFRA Beneficiary Satisfaction Survey	AFMC	12.46%	All TEFRA Beneficiary Satisfaction Survey respondents
Ability to Get Urgent Care Pre-TEFRA[3]	NA	The percentage of survey respondents who reported a big or small problem in getting their child to get urgent care pre-TEFRA. The denominator is all respondents to the pre-TEFRA survey question, "How much of a problem, if any, was it for your child to get urgent care?" The numerator is all survey respondents who responded "big or small problem."	TEFRA Beneficiary Satisfaction Survey	AFMC	20.22%	All TEFRA Beneficiary Satisfaction Survey respondents
Ability to Get Urgent Care Post-TEFRA[4]	NA	The percentage of survey respondents who reported a big or small problem in getting their child urgent care post-TEFRA. The denominator is all survey respondents to the post-TEFRA survey question, "How much of a problem, if any, was it for your child to get urgent care?" The numerator is the survey respondents who responded "big or small problem."	TEFRA Beneficiary Satisfaction Survey	AFMC	3.73%	All TEFRA Beneficiary Satisfaction Survey respondents

Measure	NQF Number	Description with numerator and denominator	Measure Source	Measure Steward	TEFRA-like Beneficiaries Baseline Value[1]	Sampling Methodology
Rating of TEFRA[5]	NA	The percentage of survey respondents who rated their TEFRA experience as an 8 or higher on a scale from 0 to 10. The denominator is all respondents who answered the survey question. The numerator is the respondents who responded with an 8, 9, or 10.	TEFRA Beneficiary Satisfaction Survey	AFMC	76.80%	All TEFRA Beneficiary Satisfaction Survey respondents
Getting Care Quickly: Obtaining care right away for an illness/injury/condition[5]	NA	The percentage of survey respondents who reported "Usually" or "Always" receiving care right away when their child had an illness, injury, or condition. The denominator is all respondents who answered the survey question. The numerator is all respondents who answered that they had "Usually" or "Always" received care right away for an illness, injury, or condition,	TEFRA Beneficiary Satisfaction Survey	AFMC	97.54%	All TEFRA Beneficiary Satisfaction Survey respondents
Getting Care Quickly: Obtaining care when wanted, but not needed right away[5]	NA	The percentage of survey respondents who reported they were "Usually" or "Always" able to get an appointment at a doctor's office or clinic as soon as needed. The denominator is all respondents who answered the survey question. The numerator is all respondents who answered that they "Usually" or "Always" obtained an appointment when needed.	TEFRA Beneficiary Satisfaction Survey	AFMC	93.13%	All TEFRA Beneficiary Satisfaction Survey respondents
How Well Doctors Communicate: Doctors explaining things in an understandable way to your child[5]	NA	The percentage of survey respondents who reported their doctors or health care providers "Usually" or "Always" explained things in a way that their child could understand. The denominator is all respondents who answered the survey question. The numerator is all respondents who responded that their health care providers "Usually" or "Always" explained things in a way that their child could understand.	TEFRA Beneficiary Satisfaction Survey	AFMC	86.71%	All TEFRA Beneficiary Satisfaction Survey respondents

Measure	NQF Number	Description with numerator and denominator	Measure Source	Measure Steward	TEFRA-like Beneficiaries Baseline Value[1]	Sampling Methodology
How Well Doctors Communicate: Doctors listening carefully to you[5]	NA	The percentage of survey respondents who reported their doctors or health care providers "Usually" or "Always" listened carefully to them. The denominator is all respondents who answer the surveyed question. The numerator is all respondents who responded that their health care providers "Usually" or "Always" listened carefully to them.	TEFRA Beneficiary Satisfaction Survey	AFMC	96.93%	All TEFRA Beneficiary Satisfaction Survey respondents
How Well Doctors Communicate: Doctors showing respect for what you had to say[5]	NA	The percentage of survey respondents who reported their doctors or health care providers "Usually" or "Always" showed respect for what they had to say. The denominator is all respondents who answered the survey question. The numerator is all respondents who responded that their health care providers "Usually" or "Always" showed respect for what they had to say.	TEFRA Beneficiary Satisfaction Survey	AFMC	97.47%	All TEFRA Beneficiary Satisfaction Survey respondents
How Well Doctors Communicate: Doctors spending enough time with the child[5]	NA	The percentage of survey respondents who reported their doctors or health care providers "Usually" or "Always" spent enough time with their child. The denominator is all respondents who answered the survey question. The numerator is all respondents who responded that their health care providers "Usually" or "Always" spent enough time with their child.	TEFRA Beneficiary Satisfaction Survey	AFMC	92.51%	All TEFRA Beneficiary Satisfaction Survey respondents
Financial burden of premium payment[6]	NA	The percentage of survey respondents who reported that TEFRA premium payments were "a big financial burden." The denominator is all respondents who answered the survey question regarding the financial burden of premium payments. The numerator is all respondents who responded that premium payments were "a big financial burden."	TEFRA Beneficiary Satisfaction Survey	AFMC	12.80%	All TEFRA Beneficiary Satisfaction Survey respondents

Measure	NQF Number	Description with numerator and denominator	Measure Source	Measure Steward	TEFRA-like Beneficiaries Baseline Value[1]	Sampling Methodology
TEFRA-like Premium Payment Monitoring Data Measures						
Proportion of beneficiaries who experience the lockout[7]	NA	The proportion of beneficiaries who experience the lockout during the measurement period. The denominator is all TEFRA beneficiaries. The numerator is the TEFRA beneficiaries who experienced a lockout during the measurement period.	TEFRA premium payment monitoring data system	DMS	4.42%[8]	All TEFRA beneficiaries

[1] Baseline values are based on SFY2013 values from the 2014 TEFRA Waiver Evaluation Report.
[2] Measures will be used to assess Hypotheses 1 and 2.
[3] Measures will be used to assess Hypothesis 3.
[4] Measures will be used to assess Hypotheses 3 and 4.
[5] Measures will be used to assess Hypotheses 4.
[6] Measure will be used to assess the supplemental analyses.
[7] Measure will be used to assess Hypotheses 5.
[8] The proportion of beneficiaries who experience the lockout is based on the time period 01/01/2015–03/31/2015.