ARKANSAS TEFRA-LIKE
Section 1115
Project Number 11W001636

Draft Evaluation Design

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General Background Information

Demonstration Overview

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. The TEFRA Waiver is a cost sharing Medicaid program that enables certain children with a disability to have care in their homes rather than in an institution.

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 was originally approved on October 17, 2002 and implemented on January 1, 2003. Following the initial five-year demonstration period the waiver has continued to be renewed.

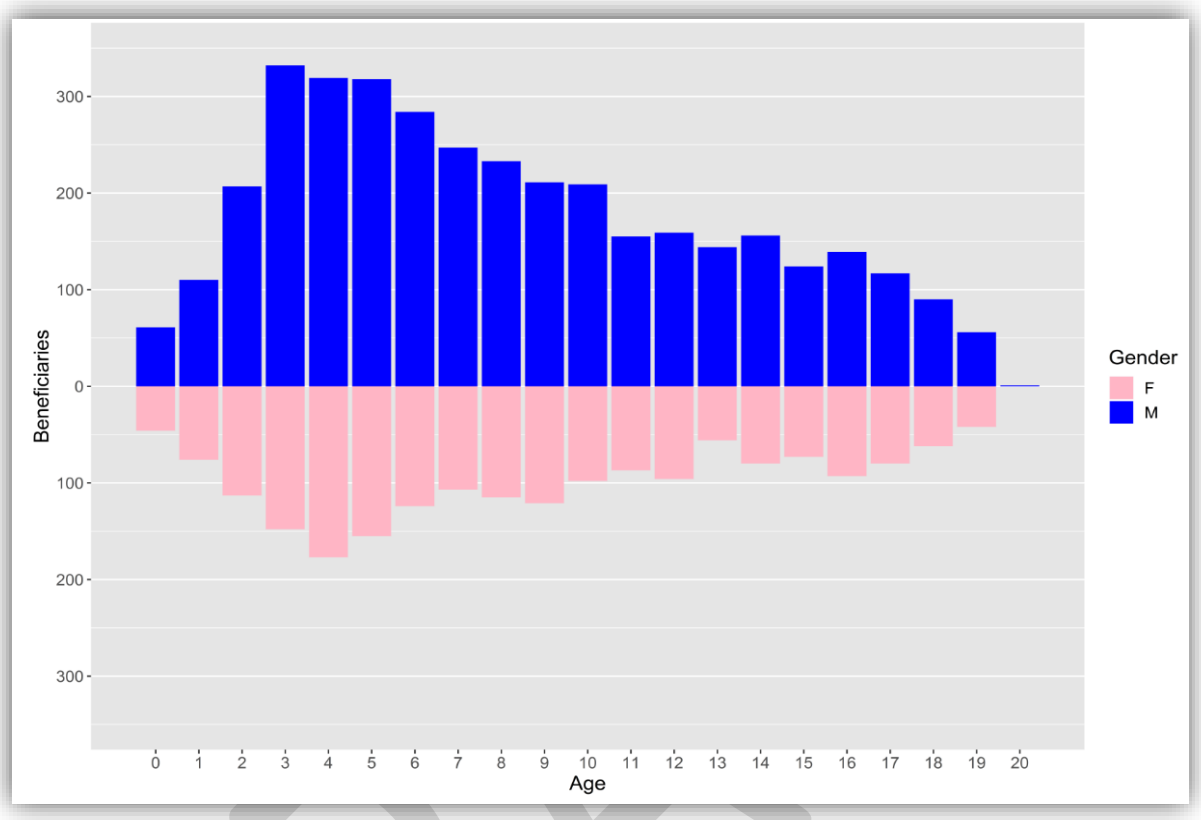
An extension renewal application was submitted to CMS on June 30, 2017 requesting 3 years extension renewal for the TEFRA demonstration waiver. As the review/approval process for the extension renewal application had not been completed by the December 31, 2017 end date of the current May 12, 2015 – December 31, 2017 termination date, CMS approved through April 30, 2018 an extension of the May 12, 2015 – December 31, 2017 renewal period to allow additional time to complete the review/renewal process and complete the Special Terms & Conditions for the new renewal period when it is approved. On October 18, 2017, Arkansas submitted a request to extend the demonstration for a three-year period with no program changes. CMS approved on May 9, 2018 the demonstration extension request for a period of five years, through December 31, 2022 renewal period. The TEFRA extension renewal was approved on May 9, 2018 and will go from May 9, 2018 – December 31, 2022 renewal period.

Understanding TEFRA-Like Population in Arkansas

General Dynamics Information Technology (GDIT) contracted with Division of Medical Services (DMS) to collect and analyze data to produce the TEFRA Draft & Final Evaluation Design, ultimately the TEFRA Evaluation Design Report, which conducted an exploratory analysis on the TEFRA-like population during calendar year (CY) 2016. This analysis was vital in determining relevant hypotheses, research questions and development of Arkansas specific home-grown metrics in the evaluation design for the TEFRA-like population. Also, for applicable evaluation metrics and research questions, GDIT was able to compare to the Medicaid non-TEFRA-like population. Research rates for CY2016 during exploratory analysis are displayed in **Appendix A.**

GDIT identified 5,621 beneficiaries that had at least one TEFRA-like segment during the performance period of CY2016. Also, over 50% of the TEFRA-like population were between the ages of 2 and 10 as of December 31, 2016. Almost two-thirds of the TEFRA-like population were male and remaining females. **Graph 1** below displays beneficiary frequency by age and gender as of December 31, 2016.

Graph 1. TEFRA-Like Beneficiary Frequency by Age and Gender



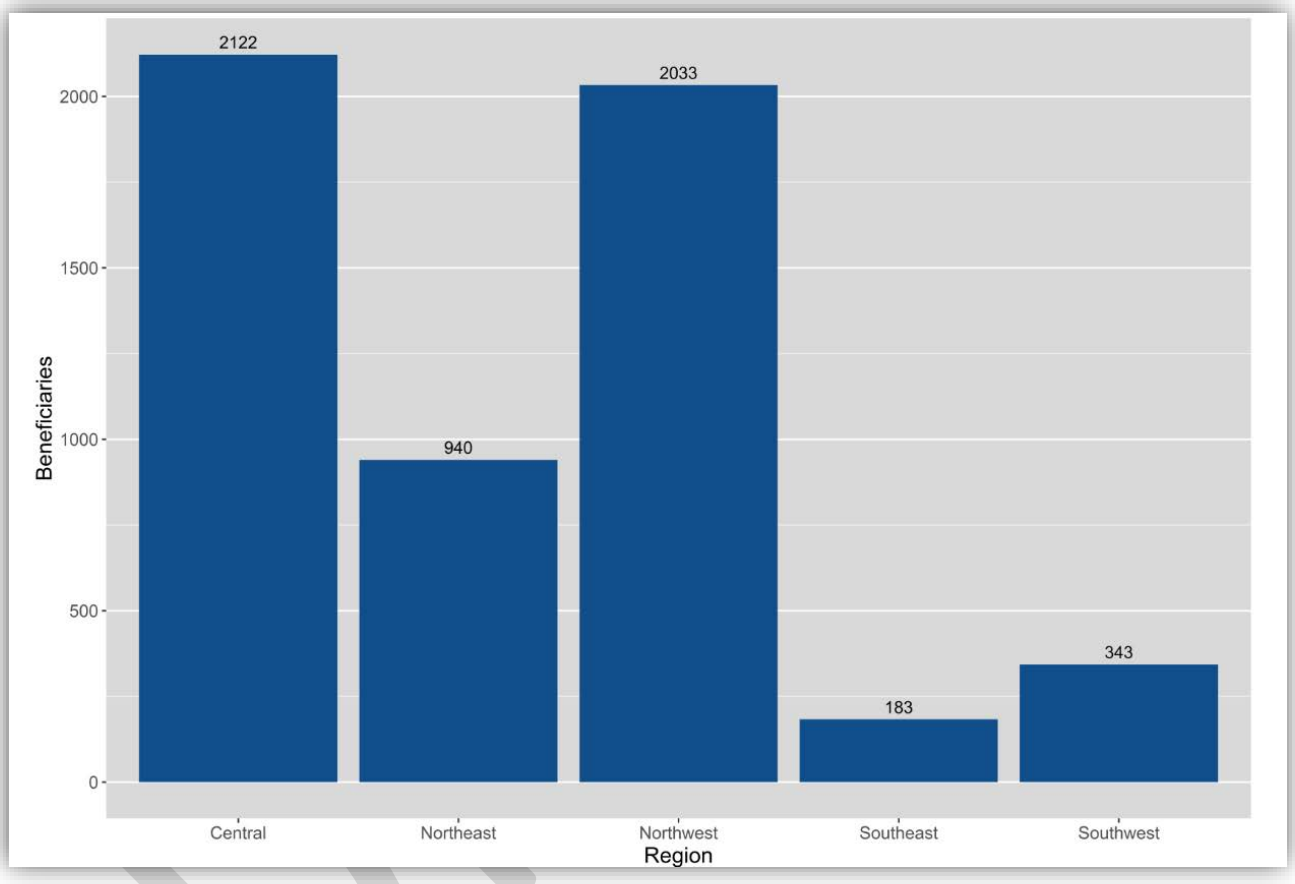
In addition GDIT reviewed the volume of TEFRA-like beneficiaries receiving occupational therapy, physical therapy and speech-language pathology services within CY2016. Findings show that at most 54% of TEFRA-like population had at least one therapy service and majority of beneficiaries were between three to 11 years of age (see **Table 1** below).

Table 1. TEFRA-Like Beneficiary Frequency by Age for Therapy Services

Therapy Services	1 – 2 Years of Age	3 – 6 Years of Age	7 – 11 Years of Age	12 – 15 Years of Age	16 – 18 Years of Age	Total # of TEFRA-Like Beneficiaries
Occupational Therapy	324	1,348	925	334	126	**3,057**
Physical Therapy	305	1,085	692	281	131	**2,494**
Speech Therapy	306	1,311	792	300	105	**2,814**

The majority of TEFRA-like population were of white race at 76% (n = 4,252). For continued demographic review on TEFRA-like Arkansas enrollment, GDIT found over 73% of beneficiaries live in the Northwest and Central regions. **Graph 2** below displays beneficiary frequency by region.

Graph 2. TEFRA-Like Beneficiary Frequency by Region



Longevity of eligibility enrollment under the program indicate that 86% of the TEFRA-like beneficiaries have one continuous TEFRA-like segments. Whereas, 11% of the TEFRA-like beneficiaries have one gap, containing of at least one day, in TEFRA-like coverage.

Demonstration Goals

The waiver and expenditure authorities granted by this demonstration meets the objective of Medicaid to improve access to high-quality, person-centered services that produce positive health outcomes for individuals because it permits Arkansas to continue to provide coverage to children with long-term disabilities, mental illness, or complex medical needs in home-settings instead of more costly institutions.

Arkansas will continue to test the below four goals during the demonstration, which CMS and Arkansas expects will also to continue to promote Medicaid program objectives by:

- ***Goal 1:*** *Ensuring that demonstration enrollees have equal or better access to health services compared to the Medicaid fee-for-service population;*
- ***Goal 2:*** *Ensuring demonstration enrollees have access to timely and appropriate preventive care;*
- ***Goal 3:*** *Ensuring enrollment in the demonstration increases beneficiaries' perceived access to health care services and satisfaction in the quality of care received; and,*
- ***Goal 4:*** *Ensuring premium contributions are affordable, do not create a barrier to health care access, and that the proportion of beneficiaries who experience a lockout period for nonpayment of premiums is relatively low.*

Evaluation Questions and Hypotheses

Hypotheses

The four goals described above showcase the Centers for Medicare and Medicaid Services (CMS) Three-Part Aim of better care for individuals, better health for population and lower costs. The ultimate success of those goals will be evaluated through the hypotheses listed in **Table 2**.

Table 2. Four Goals with Hypotheses

#	Goal	Hypotheses
1	Ensuring that demonstration enrollees have equal or better access to health services compared to the Medicaid fee-for-service population	1.1 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 Non-TEFRA-like) 1.2 The beneficiaries of the Arkansas TEFRA-like demonstration have equal or better proportion of days covered for prescriptions compared to the Medicaid fee-for-service population (Medicaid Non-TEFRA-like)

2	Ensuring demonstration enrollees have access to timely and appropriate preventive care	2.1 The beneficiaries of the Arkansas TEFRA-like demonstration who have minimal or no gaps in health care coverage for timely preventative care compared to the Medicaid fee-for-service population (Medicaid Non-TEFRA-like) 2.2 The percentage of beneficiaries participating in the Arkansas TEFRA-like demonstration who have Third Party Liability (TPL) coverage of appropriate preventive care 2.3 The percentage of beneficiaries participating in the Arkansas TEFRA-like demonstration who have durable medical equipment (DME) coverage
3	Ensuring enrollment in the demonstration increases beneficiaries' perceived access to health care services and satisfaction in the quality of care received	3.1 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
4	Ensuring premium contributions are affordable, do not create a barrier to health care access, and that the proportion of beneficiaries who experience a lockout period for nonpayment of premiums is relatively low	4.1 The proportion of beneficiaries participating in the Arkansas TEFRA-like demonstration who experience a lockout period is less than the proportion expected by the State 4.2 Isolate reasons why Arkansas TEFRA-like beneficiaries' cases were closed to evaluate any barriers to health care access

Evaluation Design Approach

In earlier evaluation design approaches Arkansas analyzed appropriate metrics of quality, access to health care, health outcomes, and beneficiary satisfaction survey results. In learning from previous evaluation design results and experience of the data, Arkansas has value-added components to its current evaluation design plan. For example, Arkansas included specific TEFRA-like home-grown metrics for evaluation approach. TEFRA-like population driver home-grown metrics were developed with oversight from Arkansas' Medical Director. Also, Arkansas will use selected quality and utilization metrics as used in CMS' Core Set of Health Care Quality Measures for Children in Medicaid and CHIP. Analysis

will use data results from national publicly available data for selected quality and utilization metrics. National results will serve as additional points of comparison to indicate the demonstration's success in meeting its goals. Approved survey-bound questions will provide results from Consumer Assessment of Health Care Providers and Systems (CAHPS).

The approach of the evaluation design includes data quality control, parallel or QAed analytical programming and production level results. Demonstration evaluation reports will be released on different intervals as scheduled in accordance with the Special Terms and Conditions (STCs) and listed below in **Table 3**.

Table 3. Demonstration Deliverable Schedule

Deliverable	Date
Demonstration Evaluation Design	
Draft Evaluation Design Plan	Within 120 days after the approval of the demonstration extension
Final Evaluation Design Plan	Within 60 days following receipt of CMS comments on Draft Evaluation Design
Demonstration Evaluation	
Quarterly Monitoring Call & Progress Narrative	First Quarterly Monitoring call and Progress Narrative within 120 days of CMS approval, then on a quarterly basis (i.e., approximately every 90 days)
Annual Monitoring Report	Within 90 days following the end of each demonstration year
Draft Summative Evaluation Report	Within 18 months following the end of this demonstration extension period
Final Summative Evaluation Report	Unless otherwise agreed upon in writing by CMS, the state shall submit the final summative evaluation report within 60 days of receiving comments from CMS on the draft

Methodology

Evaluation Design Methodology

For scheduled reports to CMS, Arkansas will analyze the hypotheses described in **Table 1** and will focus its four goals as listed in the approved STCs document. Each hypothesis will consist of several core

components: (1) research questions or other research items, (2) analytical methods with applicable comparisons, (3) data sources, and (4) evaluation metrics. The research questions or other research items will assist in proving or disproving the hypotheses. The analytic method offers quantitative or qualitative approaches to answer the research questions. The data sources provide what file structures and information to use for each analytic methods. Evaluation metrics include definition description of rates or outcome values. As illustrated in **Appendix A**, each hypothesis includes one or more evaluation metrics, analytical approaches and research rates, if applicable. Whenever achievable, each metric will be in a standardized form and compared against national benchmarks or averages.

The design will exam demonstration's performance on a set of evaluation and satisfaction metrics over accessibility and time. Both cross-sectional and sequential trend analyses will be used, depending on whether the metric is across one point in time or multiple points in time, along with the specific hypothesis being addressed.

Study Group

The study group will include 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.

The study group will include enrolled TEFRA beneficiaries meeting all of the following eligibility criteria:

a) Child must be age 18 or younger;

b) Child must met the Social Security Administration's definition of disability;

c) Child must be a U.S. citizen or qualified alien;

d) Child must have established residency in the state of Arkansas;

e) Child must have a Social Security Number or have applied for one;

f) Child's annual gross countable income must be less than the current Medicaid State Plan income limit established for long-term care services in accordance with section 1902(a)(10)(A)(ii)(V) of the Act (i.e., the child would be Medicaid eligible if institutionalized);

g) Child countable assets do not exceed $2,000 (parent(s) assets are not considered);

h) Child meets the medical necessity requirement for institutional placement, or level of care, or be at risk, in the future, for institutional placement;

i) If eligibility criteria a – h is met, the child must also have access to medical care in the home, it must be deemed appropriate to provide such care outside an institution, and the estimated cost of care in the home must not exceed the estimated cost of care if the child were in an institution.

Comparison Group

A comparison group for select evaluation metrics will consist of Medicaid non-TEFRA-like program beneficiaries. Analyses conducted for comparison group will focus on program level and proportion of beneficiaries affected. Reporting by age subgroups can be also be included. Due to including Medicaid beneficiaries of non-TEFRA-like program, statistically reliable sample size will highly be met. Beneficiaries may be eligible for the Medicaid non-TEFRA-like program if they meet the following criteria:

a) Child must be age 18 or younger;
b) Child must be a U.S. citizen or qualified alien;
c) Child must have established residency in the state of Arkansas;
d) Child must have a Social Security Number or have applied for one;
e) Child must have continuous enrollment of Medicaid non-TEFRA-like program;
f) Not enrolled in TEFRA-like program 12 months prior and post evaluation performance periods

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). Accurate and timely data reporting is essential in order for the TEFRA-like waiver to be successful in achieving its goals of improving overall health care quality while reducing costs. In order to meet this requirement, GDIT will use its own Arkansas Medicaid Data Warehouse, vendor approved priority warehouse system.

Administrative Data

The MMIS data source is used to collect, manage, and maintain Medicaid beneficiary files (i.e., eligibility, enrollment, and demographics) and fee-for-service claims. GDIT will use raw, full sets of Medicaid data, which is provided on a weekly basis consisting of claims, provider, beneficiary, and pharmacy data subject areas. DMS approved contract vendor support allow access to and use of Medicaid data for reporting.

To ensure accurate and complete data, GDIT's Arkansas Medicaid Data Warehouse will provide the pre-snapshot data claims process and will require a minimum three-month lag to allow time for the majority of claims to be processed through the MMIS. GDIT will use fee-for-service claims and follow HEDIS or CMS Core Set national specifications for national metrics. Applicable claim types, such as institutional,

professional, and pharmacy claims will be used to calculate the various evaluation metrics while beneficiary demographic files will be used to assess beneficiary age, gender, and other demographic information. Eligibility files will be used to verify a beneficiary's enrollment in the State's Medicaid programs.

TEFRA Beneficiary Satisfaction Survey & Disenrollee Beneficiary Survey

A consumer survey (such as the Consumer Assessment of Health Care Providers and Systems [CAHPS®]) has been used to assess satisfaction with provided health care services. This instrument can includes 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®) survey vendor. This survey is conducted on an annual basis. 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.

AFMC also conducts a TEFRA Premium Lockout (i.e. TEFRA Disenrollee Beneficiary Survey) which is performed on an annual basis. This additional survey was first conducted in 2018 by AFMC and used to assess the impact of premium contributions by asking additional questions of beneficiaries who were disenrolled from the program. Survey results provided important information about TEFRA premiums and the experiences of those who lost TEFRA coverage. The disenrollee survey looks at the reasons TEFRA beneficiaries were disenrolled and if disenrollment was voluntary. When custodial parents of a TEFRA beneficiary fail to pay TEFRA contribution premiums for three consecutive months, a 10-day advance notice of pending case closure is sent to the custodial parents. If back premium contribution payments are not made within the 10-day window, the TEFRA case is closed. Parents must submit a new application to re-open the TEFRA case and the missed premiums must be paid prior to approval of the new application.

Analyzing Data

The evaluation design will use analyses of univariate and bivariate analyses to test the hypotheses associated with the goals of the TEFRA-like program and related research questions. Univariate analyses will be used to compute metrics such as central tendency (i.e., mean, mode, and median), dispersion (i.e., range, variance, max, min, quartiles and standard deviation) and frequency distributions. In addition to statistical testing such as t-tests, ANOVA, Chi-square test, and regression for comparisons, relationships, causes, and explanations. The below list of research questions and items were considered during the evaluation design development phase.

Do TEFRA-like beneficiaries have

- *recent history of eligibility coverage, to distinguish longevity of program enrollment?*
- *access to care, such as seeing a primary care physician (PCP)?*
- *utilization of care, including preventive, prescription medications and ambulatory care visits (ED and outpatient, where applicable) during the previous 12 months?*
- *barriers to utilization of health care (for closed enrollees, to identify six to 12 months before enrollment) compare to six to 12 months after enrollment?*
- *Third Party Liability (TPL) coverage and or durable medical equipment (DME) coverage?*

Other research items

- *beneficiary satisfaction survey with TEFRA-like waiver*
- *beneficiary disenrollee survey on reasons why TEFRA-like beneficiaries were disenrolled and if disenrollment was voluntary*
- *demographic characteristics such as gender, age, race/ethnicity, and region*
- *prescription costs and general usage to identify average cost per prescription (Rx) per beneficiary*

Goal 1: Ensuring that demonstration enrollees have equal or better access to health services compared to the Medicaid fee-for-service population

DMS's mission statement is, "To ensure that high-quality and accessible healthcare services are provided to citizens of Arkansas who are eligible for Medicaid or Nursing Home Care." Same mission is for the TEFRA-like beneficiaries to have equal or better access to health services vs. the comparison group. Within the first goal, the following two hypotheses will be studied.

1.1 - 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 Non-TEFRA-like)

1.2 - The beneficiaries of the Arkansas TEFRA-like demonstration have equal or better proportion of days covered for prescriptions compared to the Medicaid fee-for-service population (Medicaid Non-TEFRA-like)

Hypothesis 1.1 will compare the access to health care services for beneficiaries in the TEFRA-like demonstration to the beneficiaries in the Medicaid non-TEFRA-like population. In order to evaluate access to health services across all age groups, comparisons will be made using two HEDIS measures, including those for Ambulatory Care - Emergency Department Visits (AMB), and Children and Adolescents' Access to Primary Care Practioners (CAP). In exploratory research, results were calculated and reviewed over several national metrics under the Child Core Set and HEDIS metrics such as 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, Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication, Annual Dental Visit (ADV), and Medication Management for People with Asthma (MMA) but small denominator sizes were not always valid for comparison to Medicaid non-TEFRA-like population.

Hypothesis 1.2 will access if the Arkansas TEFRA-like demonstration have equal or better proportion of days covered for prescriptions compared to the Medicaid fee-for-service population (Medicaid Non-TEFRA-like). Specifically for home-grown metric of proportion of days covered (PDC) on general prescriptions, the percentage of TEFRA beneficiaries with at least 2 prescriptions and who achieved a PDC of at least 50% was developed. Seizure medications were analyzed during initial research on the study group. Results showed almost 10% of TEFRA-like beneficiaries had at least two seizure medications filled during CY2016. The comparison might be interesting to the Medicaid non-TEFRA-like population. In addition, GDIT will analyze the average cost per prescription (Rx) per beneficiary and prescriptions (Rx) per beneficiary per month (PBPM) for the TEFRA-like population.

Hypothesis 1.1 and 1.2 will use a t-test or other applicable bivariate testing to evaluate statistically significant differences between the TEFRA-like demonstration population and the Medicaid non-TEFRA-like population. The analysis will be tested using a significance level of $p < 0.05$.

Goal 2: Ensuring demonstration enrollees have access to timely and appropriate preventive care

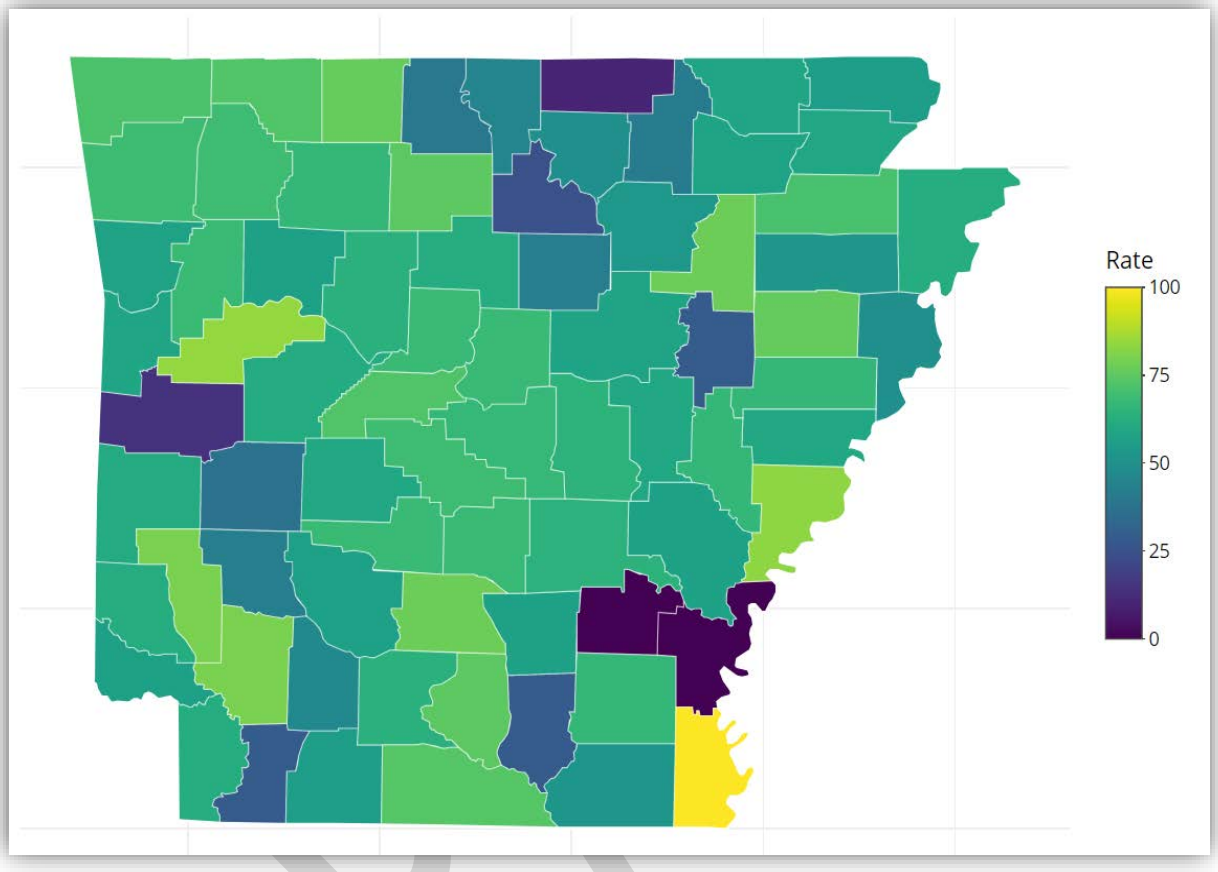
To address if the study group has access to timely and appropriate preventative care, continuous coverage is a key component. The second goal, will report on the following three hypotheses' waiver coverage.

2.1 - The beneficiaries of the Arkansas TEFRA-like demonstration who have minimal or no gaps in health care coverage for timely preventative care compared to the Medicaid fee-for-service population (Medicaid Non-TEFRA-like)
2.2 - The percentage of beneficiaries participating in the Arkansas TEFRA-like demonstration who have Third Party Liability (TPL) coverage of appropriate preventive care
2.3 - The percentage of beneficiaries participating in the Arkansas TEFRA-like demonstration who have durable medical equipment (DME) coverage

Hypothesis 2.1 will detect TEFRA-like beneficiaries who have one to two gaps of minimal health care coverage or no gaps in health care coverage compared to the beneficiaries in the Medicaid non-TEFRA-like population. Comparisons will review the timeliness of preventive care between the study and comparison groups.

Under hypothesis 2.2, the percentage of TEFRA-like beneficiaries who have Third Party Liability (TPL) coverage will be calculated to review the appropriate preventive care coverage. **Graph 3** shows the percentage of TEFRA-like beneficiaries with TPL coverage by county level. Chicot County had the highest rate of TPL coverage for TEFRA-like beneficiaries but was influenced by small denominators. Similar to 2.2, hypothesis 2.3 will study TEFRA-like beneficiaries who have durable medical equipment (DME) services. TEFRA-like beneficiary's primary care physician (PCP) involvement is crucial in determining if DME services are medically necessary and prescribed on a regular basis. Another indication to analyze DME services was found in exploratory analysis of TEFRA-like beneficiaries primary diagnosis groupings. Based on the top primary diagnosis group for medical conditions, *Nutrition Endocrine and Metabolic Disorders* was affecting over 17% of TEFRA-like population. Ranked second behind *Developmental Disorders* primary diagnosis group for behavioral health condition.
Hypothesis 2.1 will use a t-test or other applicable bivariate testing to evaluate statistically significant differences between the TEFRA-like demonstration population and the Medicaid non-TEFRA-like population. The analysis will be tested using a significance level of $p < 0.05$. Hypothesis 2.2 – 2.3 will use univariate analysis to describe and compare the number of TEFRA-like beneficiaries versus, if feasible, Medicaid non-TEFRA-like population.

Graph 3. Percentage of TEFRA-Like beneficiaries with Third Party Liability (TPL) coverage



Goal 3: Ensuring enrollment in the demonstration increases beneficiaries' perceived access to health care services and satisfaction in the quality of care received

Patient satisfaction with the TEFRA-like demonstration program over time will be assessed by analyzing responses to the TEFRA Beneficiary Satisfaction Survey measures. Sequential trend analyses will be used to assess whether beneficiary satisfaction has improved over time or remained the same. The goal is to test whether the observed proportions from the sample differ significantly from the assumed proportions. A chi-square goodness of fit test will be used to test whether the observed proportions for a categorical variable differ from assumed proportions. It will be conducted over three TEFRA beneficiary satisfaction survey domains at different time response intervals. The analysis will be tested using a significance level of $p < 0.05$. Hypothesis 3.1 will address the satisfaction in quality of care involvement.

> 3.1 - 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

TEFRA Beneficiary Satisfaction Survey questions related to access to health care services and quality of care received will be focused into three domains. A composite score will be used from each of the three domains. A composite score domain combines the responses to two or more questions, except for Overall domain, to obtain a single score. The composite domains represent the percentage of beneficiaries who responded favorably. For example, questions scaled as "Never," "Sometimes," "Usually" and "Always," a favorable response represents the proportion of beneficiaries who selected "Usually" or "Always."

- ***Domain 1 - Getting Care Quickly:***
  - *Obtaining care right away for an illness/injury/condition*
  - *Obtaining care when wanted, but not needed right away*
- ***Domain 2 - How Well Doctors Communicate:***
  - *Doctors explaining things in an understandable way to your child*
  - *Doctors listening carefully to you*
  - *Doctors showing respect for what you had to say*
  - *Doctors spending enough time with the child*
- ***Domain 3 - Overall:***
  - *Rating of health care*

Also, under consideration for goal 3 will be comparing CAHPS survey results from ARKids A & B Medicaid population to the TEFRA-like population on similar survey questions.

Goal 4: Ensuring premium contributions are affordable, do not create a barrier to health care access, and that the proportion of beneficiaries who experience a lockout period for nonpayment of premiums is relatively low

The proportion of beneficiaries who experience a lockout or disenrolled will be determined using the results from the TEFRA Disenrollee Survey. Annually, the contractor will calculate the percentage of beneficiaries who experienced a lockout or disenrolled. A bivariate test of 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 analysis will be tested using a significance level of $p < 0.05$. Based on initial estimates, DMS currently expects that 5% 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.

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

4.2 - Isolate reasons why TEFRA-like beneficiaries' cases were closed to evaluate any barriers to health care access

Based upon questions from the TEFRA Disenrollee Survey the following survey questions will be reviewed. This will aid in understanding reasons of disenrollment and if child is receiving health care as needed during closed cases.

- *What was the reason that your child's TEFRA case was closed?*
- *During the period your child's TEFRA was closed, when your child needed care right away, how often did your child get care as soon as he or she needed?*

Methodological Limitations

Detecting methodological limitations was a goal during exploratory analysis, thus Arkansas specific home-grown metrics were derived and calculated as research rates during CY2016. This enabled the evaluation design to include population specific logic which was partly driven based on reviewing the top primary diagnosis grouping listing. Additional provided an opportunity of a clinical review on the primary diagnosis groupings from GDIT team and Arkansas Medical Director. Data limitations were researched but remaining factors can still influence the study and comparison group findings. One limitation of this study is the inability to identify a group for a one to one comparison with the beneficiaries of the TEFRA-like demonstration. As TEFRA-like waiver design, beneficiaries have a medical necessary set of conditions as subset of the existing Medicaid population. It could relay that the TEFRA-like demonstration beneficiaries receive a different level of care and different types of care from other Medicaid beneficiaries. For example, during initial research found that Developmental Disabilities Services (DDS) non-Medicaid eligibility segments were highly overlapped with TEFRA-like eligibility segments. Also with the influence of top primary diagnosis groupings for TEFRA-like beneficiaries, which included conditions of *Emotional Disorders, Congenital Anomalies, ADHD, Anxiety/Nonpsychotic Disorders, Mood Disorders, Nervous System Congenital Anomalies, Cardiac and Circulatory Congenital Anomalies, Adjustment Disorders, and Hereditary and Degenerative Nervous System Conditions* made it challenging to identify a true comparison group. To address this limitation, the comparison group includes the non-TEFRA-like Medicaid population with similar criteria.

Another limitation of the current demonstration was related to small sample sizes for TEFRA Lock-out Beneficiary Survey. Since few beneficiaries experience the lockout period, results could be bias on assessment of beneficiary's experience. For example, only 12 surveys were analyzable from the TEFRA-like population that was determined to be locked out during calendar year 2016. This was addressed in the TEFRA Disenrollee Survey, first year was conducted in 2018 by AFMC. Inclusion criteria for survey eligibility is those beneficiaries who did not have continuous enrollment or were disenrolled at any time prior to specify timeframe. Now the TEFRA-like population includes beneficiary experience with lockouts and access to health care during lockout.

Special Methodological Considerations

Other analytical considerations will be to review the usage of services of occupational therapy, physical therapy and speech-language pathology for both CAHPS survey results for TEFRA-like population. GDIT identified how many TEFRA-like beneficiaries were receiving at least one to at most three therapy services from claims during CY2016 (see **Table 1**.) This could be overlaid to the TEFRA Beneficiary Satisfaction Survey questions of special therapies domain or analyzed separately. Since the majority of beneficiaries were between three to 11 years of age, a breakdown by age could be reviewed.

- ***Domain of special therapies***
  - *Getting speech therapy*
  - *Getting occupational therapy*
  - *Getting physical therapy*

Also, for TEFRA-like beneficiaries needing specialized equipment, DME, a primary diagnosis grouping to identify outlier costs could be derived from claims. In addition, the composite scores on the domain of special equipment and supplies could be assessed over time and verify the influences of these services. A chi-squared test could be used to evaluate whether the proportion of beneficiaries getting specialty items and equipment changes over time.

- ***Domain of special equipment and supplies***
  - *Getting additional specialty items*
  - *Getting special medical equipment*

Independent Entity

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

Evaluation Budget

An estimated total cost for the development and production of the TEFRA-like Evaluation Design Report and the resulting TEFRA-like Evaluation Reports are included in **Table 4.** This includes a breakdown of the estimated cost for staff and administration work, an approximation of cost and overall price to complete the five year TEFRA-like evaluation. Cost includes data cleaning, analyses and the actual production of the evaluation design and evaluation report deliverables.

Table 4. Total TEFRA-Like Analysis Estimated Costs for Five Year Evaluation

Staff/ Work performed	Costs
Evaluation design/protocol	$9,977.73
Data preparation/cleaning	$21,635.37
Data analysis	$74,686.68
Report production	$12,046.21
Project Planning/Management	$5,647.29
Administration	$58,732.92
Estimated total cost	**$182,726.19**

Attachments

Appendix A. TEFRA-Like Demonstration Goals, Hypotheses, Analytical Methods, and Evaluation Metrics

Hypothesis	Analytical Method	Data Source	Evaluation Metric	CY2016 Research Results TEFRA-Like Population
Goal 1: Ensuring that demonstration enrollees have equal or better access to health services compared to the Medicaid fee-for-service population				
1.1 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 Non-TEFRA-like)	Use univariate and bivariate analysis to describe and compare to Medicaid Non-TEFRA-like population	Medicaid beneficiary files and medical claims	- Ambulatory Care - Emergency Department Visits (AMB) - Children and Adolescents' Access to Primary Care Practioners (CAP)	- ED AMB: 27% - CAP: 96% (12 – 24 Months) 87% (25 Months – 6 Yrs.) 92% (7 – 11 Yrs.) 94% (12 – 19 Yrs.)
1.2 The beneficiaries of the Arkansas TEFRA-like demonstration have equal or better proportion of days covered for prescriptions compared to the Medicaid fee-for-service population (Medicaid Non-TEFRA-like)	Use univariate and bivariate analysis to describe and compare to Medicaid Non-TEFRA-like population	Medicaid beneficiary files, medical and pharmacy claims	- Proportion of Days Covered (PDC): Percentage of TEFRA beneficiaries 0 – 18 years of age during the measurement period with at least 2 prescriptions and who achieved a PDC of at least 50%. (General Prescriptions) - Percentage of TEFRA-like beneficiaries taking at least two seizure medications - Average cost per prescription (Rx) per beneficiary	- PDC: 63% - Seizure Medications: 10% - Average cost/Rx/beneficiary: $2,289

			- Prescriptions (Rx) per beneficiary per month (PBPM)	- Rx PBPM: 1.08
Goal 2: Ensuring demonstration enrollees have access to timely and appropriate preventive care				
2.1 The beneficiaries of the Arkansas TEFRA-like demonstration who have minimal or no gaps in health care coverage for timely preventative care compared to the Medicaid fee-for-service population (Medicaid Non-TEFRA-like)	Use univariate and bivariate analysis to describe and compare to Medicaid Non-TEFRA-like population	Medicaid beneficiary files	- Number of beneficiaries of the Arkansas TEFRA-like demonstration who have minimal or no gaps in health care coverage	- TBD
2.2 The percentage of beneficiaries participating in the Arkansas TEFRA-like demonstration who have Third Party Liability (TPL) coverage of appropriate preventive care	Use univariate analysis to describe TEFRA-like population	Medicaid beneficiary files and medical claims	- Percentage of beneficiaries participating in the Arkansas TEFRA-like demonstration who have Third Party Liability (TPL) coverage	- TPL: 65%
2.3 The percentage of beneficiaries participating in the Arkansas TEFRA-like demonstration who have durable medical equipment (DME) coverage	Use univariate analysis to describe TEFRA-like population	Medicaid beneficiary files and medical claims	- Percentage of beneficiaries participating in the Arkansas TEFRA-like demonstration who have durable medical equipment (DME) coverage	- DME: 36%
Goal 3: Ensuring enrollment in the demonstration increases beneficiaries' perceived access to health care services and satisfaction in the quality of care received				
3.1 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	Use bivariate analysis to describe and compare over time to test for independence	TEFRA Beneficiary Satisfaction Survey	- Composite scores across three TEFRA beneficiary satisfaction survey domains	- Domain 1: Getting care quickly 95% (2015), 94% (2016) 93% (2017)

				- Domain 2: How well doctors communicate 94% (2015), 93% (2016) 93% (2017) - Domain 3: Rating of TEFRA 72% (2015), 73% (2016) 71% (2017)
Goal 4: Ensuring premium contributions are affordable, do not create a barrier to health care access, and that the proportion of beneficiaries who experience a lockout period for nonpayment of premiums is relatively low				
4.1 The proportion of beneficiaries participating in the Arkansas TEFRA-like demonstration who experience a lockout period is less than the proportion expected by the State	Use bivariate analysis to describe and compare to expected proportion	TEFRA Beneficiary Satisfaction Survey and TEFRA Disenrollee Beneficiary Survey	- Proportion of beneficiaries participating in the Arkansas TEFRA-like demonstration who experience a lockout period	- TBD
4.2 Isolate reasons why Arkansas TEFRA-like beneficiaries' cases were closed to evaluate any barriers to health care access	Use univariate analysis to describe TEFRA-like population and evaluate any barriers to health care access	TEFRA Disenrollee Beneficiary Survey	- Reasons why Arkansas TEFRA-like beneficiaries' cases were closed	- Top three reasons cases closed during 2017: 1) No longer eligible 2) Other 3) Could not afford premium payment