

KanCare 2.0 Evaluation Design

Revised per CMS feedback

January 17, 2020

Table of Contents

KanCare 2.0 Evaluation Design

A. General Background Information	1
B. Evaluation Questions and Hypotheses	2
KanCare 2.0 Demonstration Goal	2
KanCare 2.0 Demonstration Hypotheses	2
KanCare 2.0 Demonstration Evaluation Questions	2
C. Evaluation Design Methodology	5
a. Methodology for the Evaluation of the Service Coordination Strategy	11
b. Methodology for the Evaluation of OneCare Kansas	14
c. Methodology for the Evaluation of Hypothesis 1	18
d. Methodology for the Evaluation of Hypothesis 2	21
e. Methodology for the Evaluation of Hypothesis 3	24
f. Methodology for the Evaluation of Hypothesis 4	28
g. SUD Evaluation	28
h. Monitoring of the Overall KanCare 2.0 Performance Measures	28
i. DSRIP Evaluation	29
D. Methodological Limitations	29
E. Special Methodological Considerations	31
Appendices	32
Appendix 1: Logic Model for KanCare 2.0 Demonstration	33
Appendix 2: Detailed Summary of Performance Measures	34
Appendix 3: Detailed Discussion of Data Sources	48
Attachments	52
Attachment 1: Independent Evaluator	53
Attachment 2: Evaluation Budget	54
Attachment 3: Timeline and Major Milestones	55
References	56

Table of Contents

KanCare 2.0 Evaluation Design

List of Tables and Figures

Tables:

Table B1.	Evaluation Questions for Examination of Overall Service Coordination Among KanCare 2.0 Demonstration Members.....	3
Table B2.	Evaluation Questions for Examination of the KanCare 2.0 Hypotheses	3
Table C1.	Design for the Evaluation of the KanCare 2.0 Demonstration.....	6

Figures

Figure 1.	Evaluation Design for the KanCare 2.0 Service Coordination Strategy.....	13
Figure 2.	Evaluation Design for the OneCare Kansas Program	17
Figure 3.	Evaluation Design for the KanCare 2.0 Value-Based Provider Incentive Program Strategy ...	21
Figure 4.	Evaluation Design for the Intervention Providing Employment or Independent Living Supports through Service Coordination to the KanCare 2.0 Members Living in the Community and Receiving Behavioral Health Services or HCBS Services in the PD, I/DD, and TBI Waiver Programs.....	24
Figure 5.	Evaluation Design for the Telehealth Services Strategy.....	28

A. General Background Information

KanCare, the Kansas statewide mandatory Medicaid managed care program, was implemented January 1, 2013, under authority of a waiver through Section 1115 of the Social Security Act. The initial demonstration was approved for five years, and the Centers for Medicare and Medicaid Services (CMS) approved a one-year extension on October 13, 2017. The State submitted the Section 1115 demonstration renewal application for the KanCare program, titled “KanCare 2.0,” in December 2018.¹ CMS approved the renewal of the KanCare 2.0 demonstration for the period of January 1, 2019 through December 31, 2023.² The KanCare Evaluation Design was submitted within 180 days of the CMS approval, as required. The CMS review of the evaluation design was received November 18, 2019. This updated evaluation design submission incorporates modifications recommended by CMS.³

KanCare 2.0 is an integrated managed care Medicaid program that serves the State of Kansas through a coordinated approach. KanCare is operating concurrently with the State’s Section 1915(c) HCBS waivers, and together they provide the authority necessary for the State to require enrollment of almost all Medicaid members (including the aged, people with disabilities, and some individuals who are dually eligible). The KanCare managed care delivery system provides state plan and HCBS waiver services to Medicaid recipients statewide.⁴

The original goals of the KanCare demonstration focused on providing integrated and whole-person care, creating health homes, preserving or creating a path to independence, and establishing alternative access models with an emphasis on home and community-based services (HCBS). Building on the success of the current KanCare demonstration, the goal for KanCare 2.0 is to help Kansans achieve healthier, more independent lives by coordinating services and supports for social determinants of health and independence in addition to traditional Medicaid and Children’s Health Insurance Program (CHIP) benefits.¹ KanCare 2.0 aims to improve integration and coordination of care across the healthcare spectrum. Services related to social determinants of *health* include addressing safe housing; food sources; educational, economic, and job opportunities; access to health care services; transportation options; community-based resources in support of community living; and opportunities for recreational and leisure-time activities. Services that address social determinants of *independence* are tailored to an individual’s vision for their life, including areas such as career, community participation and contribution, and social/emotional connections. Strategies to achieve the enhanced goals of KanCare 2.0 include service coordination, the OneCare Kansas (OCK) program, value-based models and purchasing strategies, increasing employment and independent living supports, and telehealth (e.g., telemedicine, telemonitoring, and telementoring) services.

KanCare 2.0 will expand upon care coordination to provide service coordination, which is a comprehensive, holistic, integrated approach to person centered care.¹ It allows for maximum access to supports by coordinating and monitoring all of an individual’s care (acute, behavioral health, and LTSS) through direct interventions, provider referrals, and linkages to community resources. Case management, disease management, discharge planning, and transition planning are also elements of service coordination.

OCK is a care management service model, based on the health home model, where all professionals involved in a member’s care communicate with one another so that the member’s medical and behavioral health and social service needs are addressed in a comprehensive manner. The coordination of a member’s care is done through a dedicated care manager who oversees and coordinates access to all of the services a member requires in order to optimize member health.

Value-based models and purchasing strategies will include provider payment and/or innovative delivery system design methods between MCOs and their contracted providers, as well as the pay-for-performance (P4P) program between the State and contracted MCOs. Also, in 2021, the Delivery System Reform Incentive Payment (DSRIP) program will transition to an Alternative Payment Model (APM) approach, shifting from DSRIP project-based metrics to APM

provider-based quality and outcome metrics. Similar to the DSRIP program, the APM approach will require that providers meet or exceed predetermined quality and outcome improvements to receive incentive payments.¹ Increasing employment-related services in KanCare 2.0 includes the Employment Support Pilot. The pilot will provide access to pre-employment services for individuals that are ineligible for, or less likely to seek, existing post-employment services and benefits. The two disability groups served by the pilot are individuals with a behavioral health condition who are eligible for Supplemental Security Income (SSI) or Social Security Disability Insurance (SSDI) and individuals eligible for a Home and Community Based Services (HCBS) wait list or waiver and who are SSI eligible only. Services will include supported employment, personal assistant services, assistive technology, pre-vocational services (if not able to access Vocational Rehabilitation [VR] service), transportation, and independent living skill building.

B. Evaluation Questions and Hypotheses

KanCare 2.0 Demonstration Goal

The goal for KanCare 2.0 is to help Kansans achieve healthier, more independent lives by coordinating services and supports for social determinants of health and independence in addition to traditional Medicaid benefits.⁴

KanCare 2.0 Demonstration Hypotheses

1. Value-based models and purchasing strategies will further integrate services and eliminate the current silos between physical health services and behavioral health services, leading to improvements in quality, outcomes, and cost-effectiveness.
2. Increasing employment and independent living supports for members who have disabilities or behavioral health conditions, and who are living and working in the community, will increase independence and improve health outcomes.
3. Use of telehealth (e.g., telemedicine, telemonitoring, and telementoring) services will enhance access to care for KanCare members living in rural and semi-urban areas. Specifically:
 - a. Telemedicine will improve access to services such as speech therapy.
 - b. Telemonitoring will help members more easily monitor health indicators such as blood pressure or glucose levels, leading to improved outcomes for members who have chronic conditions.
 - c. Telementoring can pair rural and semi-urban healthcare providers with remote specialists to increase the capacity for treatment of chronic, complex conditions.
4. Removing payment barriers for services provided in Institutions for Mental Diseases (IMDs) for KanCare members will result in improved beneficiary access to substance use disorder (SUD) treatment services. The evaluation question and methodology are described in the SUD-specific evaluation design, *KanCare 2.0 Section 1115 Substance Use Disorder (SUD) Demonstration Evaluation Design* (submitted separately), in accordance with the first research question noted in Table B.1 of Appendix B of CMS's *Evaluation Design Guidance for Section 1115 Demonstrations for Beneficiaries with Serious Mental Illness/Serious Emotional Disturbance and Substance Abuse Disorders*.⁵

KanCare 2.0 Demonstration Evaluation Questions

As the focus of the evaluation is to examine whether the KanCare 2.0 Demonstration achieved its objectives, the proposed evaluation questions are developed in alignment with the demonstration's goal and hypotheses (Tables B1 and B2).

Table B1 describes two evaluation questions. The **first evaluation question** will examine the effectiveness of the overall **Service Coordination Strategy** of the KanCare 2.0 demonstration that is designed to enhance the quality of care and health outcomes and to reduce cost of care. A **quasi-experimental evaluation design** will be used to assess this question. The evaluation design for the overall **Service Coordination Strategy** of KanCare 2.0 demonstration will include an intervention group and appropriate comparison groups. The Intervention Group will include members who met a health risk assessment (HRA) threshold and received service coordination (excluding those members who opted for the OneCare Kansas program). These members in the pre-intervention period will serve as the Comparison Group 1, whereas KanCare 2.0 members who scored 3 to 5 points below the HRA threshold and received traditional care instead of service coordination will serve as the Comparison Group 2. The Comparison Group 2 will also include KanCare 2.0 members who met the HRA threshold but opted not to receive service coordination and received traditional care. The further details of the evaluation design are described in the Methodology section.

The **second evaluation question** will evaluate the effectiveness of the **OneCare Kansas** program of KanCare 2.0 demonstration, a new Medicaid option based on the health home model. This program will be offered to KanCare 2.0 members with chronic conditions and is designed to apply a comprehensive and intense method of care coordination that will integrate and coordinate all services and supports to treat the “whole person” across the life span. A **quasi-experimental evaluation design** will be used to assess this question. The evaluation of the **OneCare Kansas** program of KanCare 2.0 demonstration will include an intervention group and appropriate comparison groups. The Intervention Group will include eligible members for the OneCare Kansas program who opted to participate in the program and received core services of the program. These members in the pre-intervention period will serve as the Comparison Group 1. The KanCare 2.0 members eligible for the OneCare Kansas program who did not opt to participate in the program and received traditional care will constitute the Comparison Group 2. Further details of the evaluation design are described in the Methodology section.

Table B1. Evaluation Questions for Examination of Overall Service Coordination Among KanCare 2.0 Demonstration Members	
1)	Did the Service Coordination Strategy of integrating physical and behavioral health services provided to KanCare members improve quality of care, health and cost outcomes ?
2)	Did the OneCare Kansas program that implements comprehensive and intense method of care coordination improve the quality of care, health and cost outcomes ?

Table B2 describes evaluation questions related to **four hypotheses of the KanCare 2.0 demonstration**. Depending upon the availability of appropriate comparison groups for the evaluation of these hypotheses, the **quasi-evaluation designs (with comparison groups)** and **non-experimental designs (without comparison groups)** will be applied for the evaluation of these hypotheses. The further details of the evaluation designs are described in the Methodology section.

Table B2. Evaluation Questions for Examination of the KanCare 2.0 Hypotheses	
KanCare 2.0 Hypotheses	Evaluation Questions
Hypothesis 1: Value-based models and purchasing strategies will further integrate services and eliminate the current silos between physical health services and behavioral health services, leading to improvements in quality, outcomes, and cost-effectiveness.	1) Did the Value-Based Provider Incentive Program increase integration and reduce silos between physical and behavioral health services provided to KanCare members?
	2) Did the Value-Based Provider Incentive Program for integration between physical and behavioral health services improve quality of care, health, and cost outcomes ?

Table B2. Evaluation Questions for Examination of the KanCare 2.0 Hypotheses (Continued)	
KanCare 2.0 Hypotheses	Evaluation Questions
<p>Hypothesis 2: Increasing employment and independent living supports for members who have disabilities or behavioral health conditions, and who are living and working in the community, will increase independence and improve health outcomes.</p>	<p>1) Did provision of supports for employment and independent living to the KanCare 2.0 members with disabilities and behavioral health conditions who are living in the community improve their independence and health outcomes?</p>
<p>Hypothesis 3: The use of telehealth (e.g., telemedicine, telemonitoring, and telementoring) services will enhance access to care for KanCare members living in rural and semi-urban areas. Specifically:</p> <ul style="list-style-type: none"> a. Telemedicine will improve access to services such as speech therapy. b. Telemonitoring will help members more easily monitor health indicators such as blood pressure or glucose levels, leading to improved outcomes for members who have chronic conditions. c. Telementoring can pair rural and semi-urban healthcare providers with remote specialists to increase the capacity for treatment of chronic, complex conditions. 	<p>1) Did use of telemedicine services increase over the five-year period for KanCare members living in rural or semi-urban areas?</p>
	<p>2) Did use of the tele-monitoring services increase over the five-year period for KanCare members with chronic conditions living in rural or semi-urban areas?</p>
	<p>3) Evaluation question related to telementoring: Data sources for describing the baseline and five-year status of the use of telementoring to pair rural and semi-urban healthcare providers with remote specialists are currently not known; therefore, the related evaluation question and design will be developed later.</p>
	<p>4) Did use of telemedicine increase access to services over the five-year period for KanCare members living in rural or semi-urban areas?</p>
<p>Hypothesis 4: Removing payment barriers for services provided in Institutions for Mental Diseases (IMDs) for KanCare members will result in improved beneficiary access to substance use disorder (SUD) treatment services.</p>	<p>1) Did removing payment barriers for services provided in IMDs for KanCare members improve members' access to substance use disorder (SUD) treatment services. (See SUD-specific Evaluation Design)⁶</p>

[Logic Model for KanCare 2.0 Demonstration](#)

See Appendix 1.

C. Evaluation Design Methodology

The detailed proposed methodologies for the evaluation of the Service Coordination Strategy, the OneCare Kansas program, and three KanCare 2.0 hypotheses are described in this section and summarized in Table C1. The proposed evaluation methodology for the KanCare 2.0 Hypothesis 4 is also summarized in Table C1, though a more detailed proposed methodology for this hypothesis is described in a separate evaluation design for the *KanCare 2.0 Section 1115 SUD Demonstration*.⁶

The present evaluation methodology is designed to meet the standards of scientific rigor that will assist in obtaining statistically valid and reliable evaluation results. The focus of the evaluation is to examine the effectiveness of demonstration strategies and policies on achievement of the goal of helping Medicaid members to live healthier, more independent lives by coordinating services and supports for social determinants of health and independence in addition to traditional Medicaid benefits. Where possible, measures are developed according to recognized measures from sources such as: *Adult Core Set*⁷ measures, including *Healthcare Effectiveness Data and Information Set*[®] (HEDIS) measures,⁸ stewarded by the National Committee for Quality Assurance (NCQA) and endorsed by the National Quality Forum (NQF).

The two final appendices to this evaluation design incorporate enhanced discussion on the performance measures and data sources that will be used for the evaluation of the KanCare 2.0 program. **Appendix 2** offers tables providing more detailed summaries of the performance measures in Table C1, including measure name, steward, numerator, denominator, unit of measure, and data source. **Appendix 3** offers tables providing further details on the data sources of the evaluation, including data source name, type of data provided by data source, description of data source, efforts for cleaning/validation of data, and quality/limitation of data source.

This area intentionally left blank

Table C1. Design for the Evaluation of the KanCare 2.0 Demonstration				
Evaluation Question	Outcome Measures	Sample or Population Subgroups to be Compared	Data Sources	Analytic Methods
Overall Service Coordination				
<p>1. Did the <i>Service Coordination Strategy</i> of integrating physical and behavioral health services provided to KanCare members improve quality of care, health, and cost outcomes?</p>	<ul style="list-style-type: none"> • Annual Dental Visit (HEDIS) • Adults’ Access to Preventive/ Ambulatory Health Services (HEDIS) • Adolescent Well-Care Visits (HEDIS) • Follow-Up After Hospitalization for Mental Illness (HEDIS) • Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (HEDIS) • Antidepressant Medication Management (HEDIS) • ED visits, observation stays, or inpatient admissions for following conditions (Administrative): <ul style="list-style-type: none"> ○ Diabetic Ketoacidosis/ Hyperglycemia, or ○ Acute severe asthma, or ○ Hypertensive crisis, or ○ Fall injuries, or ○ SUD, or ○ Mental health issues • Outpatient or professional claims for following conditions (Administrative): <ul style="list-style-type: none"> ○ Diabetic retinopathy, or ○ Influenza, or ○ Pneumonia, or ○ Shingles • Emergency department visits overall (Administrative) • Inpatient Utilization (IPU)— General Hospitalization/Acute Care, excluding maternity admissions. 	<p>Intervention Group: All members who met an HRA threshold based on health screening scores and received service coordination (excluding those who opted for the OneCare Kansas program).</p> <p>Comparison Group 1: Above mentioned members in pre-intervention period.</p> <p>Comparison Group 2: All members who received health screening score 3 to 5 points below the HRA threshold and received traditional care instead of service coordination, as well as the members who met an HRA threshold but opted not to receive service coordination.</p> <p>Potential Subgroups: Members with specific chronic conditions, members with specific behavioral conditions, & members receiving HCBS services.</p>	<ul style="list-style-type: none"> • Medicaid Management Information System (MMIS) Encounter database; • MMIS Eligibility and Enrollment database. • MCOs’ Member-level case management data systems. 	<p>Comparative Interrupted Time Series Evaluation Design</p>

This area intentionally left blank

Table C1. Design for the Evaluation of the KanCare 2.0 Demonstration (Continued)				
Evaluation Question	Outcome Measures	Sample or Population Subgroups to be Compared	Data Sources	Analytic Methods
Overall Service Coordination (Continued)				
2. Did the <i>OneCare Kansas</i> program, by implementing comprehensive and intense method of care coordination, improve the quality of care, health, and cost outcomes?	<p>Quantitative Measures:</p> <ul style="list-style-type: none"> • Same as above. <p>Qualitative Measures:</p> <ul style="list-style-type: none"> • Learning needs identified by the OneCare Kansas Learning Collaborative. • Processes to address the learning needs identified by the OneCare Kansas Learning Collaborative. • Factors that facilitated the implementation of the OneCare Kansas program to achieve its goal. • Barriers encountered in implementation of the OneCare Kansas program. • Processes to further improve the quality of OneCare Kansas program. • Observations about why this program was able to succeed or why it did not meet its goals. 	<p>Intervention Group: All members eligible for OneCare Kansas program who opted to participate in the program and received its core services.</p> <p>Comparison Group 1: Above mentioned members in pre-intervention period.</p> <p>Comparison Group 2: All members eligible for OneCare Kansas program who opted not to participate in the program and received traditional care.</p> <p>Potential Subgroups: Members with severe bipolar disorder; members with paranoid schizophrenia; & members with asthma.</p>	<ul style="list-style-type: none"> • MMIS Encounter database. • MMIS Eligibility and Enrollment database. • OneCare Kansas members' eligibility & participation database. • MCOs' Member-level case management data systems. • OneCare Kansas Learning Collaborative reports. 	Comparative Interrupted Time Series Evaluation Design
Hypothesis 1				
<p>1. Did the <i>Value-Based Provider Incentive Program</i> increase integration and reduce silos between physical and behavioral health services provided to KanCare members?</p> <p>2. Did the <i>Value-Based Provider Incentive Program</i> for integration between physical and behavioral health services improve quality of care, health, and cost outcomes provided to the KanCare members?</p>	<p>Potential list (to be finalized according to the specific programs):</p> <p>Quantitative Measures:</p> <ul style="list-style-type: none"> • Same as above. • Identification of Alcohol and Other Drug Services (HEDIS) • Follow-Up Care for Children Prescribed ADHD Medication (HEDIS) • Use of Opioids at High Dosage (HEDIS) • Use of Opioids from Multiple Providers (HEDIS) • Mental Health Utilization (HEDIS) • MCO-specified measures on effectiveness of their value-based provider incentive programs (to be determined) 	<p>Intervention Group: All members seen by the providers who participated in the <i>Value-Based Provider Incentive Program</i> will serve as the Intervention Group.</p> <p>Comparison Group 1: Above-mentioned members in the pre-intervention period.</p> <p>Comparison Group 2: All members seen by the providers who did not participate in the <i>Value-Based Provider Incentive Program</i>.</p> <p>Potential Subgroups: Rural-urban groups, other identified subgroups.</p>	<ul style="list-style-type: none"> • MCOs' administrative databases on Value-Based Provider Incentive Programs. • Medicaid Management Information System (MMIS) Encounter database. • MMIS Eligibility and Enrollment database. • MCOs' Member-level case management data systems. 	Comparative Interrupted Time Series Evaluation Design

Table C1. Design for the Evaluation of the KanCare 2.0 Demonstration (Continued)				
Evaluation Question	Outcome Measures	Sample or Population Subgroups to be Compared	Data Sources	Analytic Methods
Hypothesis 1 (Continued)				
	<p>Qualitative Measures:</p> <ul style="list-style-type: none"> • Factors that facilitated the implementation of the Value-Based Provider Incentive Program. • Barriers encountered in implementing the Value-Based Provider Incentive Program. • Recommendations to further improve Value-Based Provider Incentive Program. • Recommendations to remove barriers encountered in the implementation of the Value-Based Provider Incentive Program. <p>Observations about why this program was able to succeed or why it did not meet its goals.</p>		<ul style="list-style-type: none"> • MCO databases/tables for Value-based Provider Incentive Programs performance measures. • Online provider survey. • Key informant interviews of the providers. 	
Hypothesis 2				
1. Did provision of supports for employment and independent living to the KanCare 2.0 members with disabilities and behavioral health conditions who are living in the community improve their independence and health outcomes?	<p>Final list of outcomes will be determined based on data availability:</p> <ul style="list-style-type: none"> • Current employment status • # of members who felt they were employed based on their skills and knowledge (If employed) • Increased stable housing – # of addresses member lived in the past year (and assess type of housing). • Decreased current legal problem (e.g., probation, parole, arrests) • # of days living in the community • # of members worried about paying bills • Decreased ED visits • Decreased inpatient hospitalizations 	<p>Study population: Members living in the community and receiving behavioral health services or HCBS services in the Physical Disability, Intellectual or Developmental Disability, and Brain Injury waiver programs who opted to receive service coordination and were identified as potentially needing employment or independent living supports. Target Intervention Group: Study population members who received employment or independent living supports through KanCare 2.0 service coordination.</p>	<ul style="list-style-type: none"> • MMIS Encounter database; • MMIS Eligibility and Enrollment database; • MCOs Member-level case management data systems (including HRA questionnaire). 	Pretest-Posttest Design with Nonequivalent Groups

Table C1. Design for the Evaluation of the KanCare 2.0 Demonstration (Continued)				
Evaluation Question	Outcome Measures	Sample or Population Subgroups to be Compared	Data Sources	Analytic Methods
Hypothesis 2 (Continued)				
		<p>Comparison Group: Study population members who did not receive supports through KanCare 2.0 service coordination.</p> <p>Potential subgroups: Members receiving behavioral health services; members receiving HCBS services in the PD, I/DD, & BI waiver programs.</p>		
Hypothesis 3				
<p>1. Did use of telemedicine services increase over the five-year period for KanCare members living in rural or semi-urban areas?</p> <p>2. Did use of the telemonitoring services increase over the five-year period for KanCare members with chronic conditions living in rural or semi-urban areas?</p> <p>3. Evaluation question related to the telemonitoring: Evaluation question and design will be developed later</p>	<p>Quantitative Measures:</p> <p>Telemedicine:</p> <ul style="list-style-type: none"> • % of telemedicine services received by the members living in rural or semi-urban areas. • # of receiving sites for telemedicine services in rural or semi-urban areas <p>• % of members living in rural or semi-urban areas who received telemedicine services</p> <p>Telemonitoring:</p> <ul style="list-style-type: none"> • % of members living in rural or semi-urban areas who received telemonitoring services • # of telemonitoring services provided to members living in rural or semi-urban areas (total number and by types of service or claims) • # of providers monitoring health indicator data transmitted to them by the members living in rural or semi-urban counties receiving telemonitoring services • Other measures (TBA) 	<p>Intervention Group: All members living in the rural or semi-urban areas and the providers who participated in the telehealth strategies.</p> <p>No Comparison Group.</p> <p>Potential Subgroups: Telemedicine and/or telemonitoring service type; provider specialty type; specific chronic conditions; & geographic regions of the state</p>	<ul style="list-style-type: none"> • MMIS Encounter database. • MMIS Eligibility and Enrollment database. • Other data sources for measures (will be identified later). 	<p>Non-experimental method (One-Group Pretest–Posttest Design)</p>

Table C1. Design for the Evaluation of the KanCare 2.0 Demonstration (Continued)				
Evaluation Question	Outcome Measures	Sample or Population Subgroups to be Compared	Data Sources	Analytic Methods
Hypothesis 3 (Continued)				
4. Did use of telemedicine increase access to services over the five-year period for KanCare members living in rural or semi-urban areas?	<ul style="list-style-type: none"> • # of paid claims with selected procedure codes, stratified by area, mode of delivery, and service type. • # of members with selected diagnosis (e.g., speech-language pathology) per 1,000 members. <p>Qualitative Measures:</p> <ul style="list-style-type: none"> • Factors that facilitated the use of telemedicine and/or telemonitoring services for the Medicaid members. • Barriers encountered in using telemedicine and/or telemonitoring services for the Medicaid members. • Recommendations about how to further improve the use of telemedicine and/or telemonitoring services. • Recommendations about how to remove barriers encountered in using telemedicine and/or telemonitoring services. • Observations about why the use of telemedicine and/or telemonitoring services succeeded or did not succeed in increasing the access to care for the Medicaid members in rural and semi-rural areas. 	<p>Area Strata: rural, semi-urban, urban counties. Mode Strata: telehealth, in-person. Service Type Strata: e.g., speech-language pathology, audiology, primary care, behavioral health.</p>	<ul style="list-style-type: none"> • MMIS Encounter database. • Online provider survey and/or key-informant interviews with the providers who submitted claims for telemedicine and/or telemonitoring services. 	<p>Trending analysis; Independence of variables (Pearson’s chi-square); Homogeneity of odd ratios (Breslow-Day)</p>
Hypothesis 4				
1. Did removing payment barriers for services provided in IMDs for KanCare members improve member access to SUD treatment services.	<ul style="list-style-type: none"> • Number of IMDs providing SUD services. • Number of geographic locations (by region/ county) for SUD treatment in IMDs. • Number of admissions with SUD treatment services in IMDs. • Average length of stay for SUD treatment services within IMDs. 	<p>The evaluation will focus on examining increased availability of IMD facilities providing SUD treatment services over the five-year period. No Intervention or Comparison groups will be examined.</p>	<ul style="list-style-type: none"> • Provider Network Report • MMIS encounter data • Provider licensing data • MCO utilization reports 	<p>Non-experimental method (descriptive data)</p>

a. Methodology for the Evaluation of the Service Coordination Strategy

Evaluation Question

Did the **Service Coordination Strategy** of integrating physical and behavioral health services provided to KanCare members **improve quality of care, health, and cost outcomes**?

Demonstration Strategy

The **Service Coordination Strategy** implements health risk assessments (HRA), needs assessments, and development and implementation of plans of service (POS) or person-centered service plans (PCSP) among KanCare 2.0 members who meet HRA thresholds based on health screening scores.

Evaluation Design

Comparative Interrupted Time Series Evaluation Design will be used to examine the evaluation question.

To conduct *Comparative Interrupted Time Series* analysis, KanCare 2.0 members who met the HRA threshold based on health screening scores and received service coordination (excluding those who opted for the OneCare Kansas program) will serve as the **Intervention Group**. The program members in the pre-intervention period will serve as the **Comparison Group 1**. The design will also include **Comparison Group 2** that will be comprised of KanCare 2.0 members who received a health screening score 3 to 5 points below the threshold and received traditional care, as well as members who met the HRA threshold but opted not to receive service coordination and received traditional care. Outcome data for pre- and post-intervention periods will be compared to examine whether pre-post intervention change differed between these groups or not. This comparison will assist in examining whether the intervention changed the level of outcome or if it also impacted the long-term trend.

Target and Comparison Population

Study Population: KanCare 2.0 members who met the HRA threshold or had scores 3-5 points below the HRA threshold based on health screening scores.

Intervention Group: KanCare 2.0 members who met the HRA threshold based on health screening scores and received service coordination (e.g., HRA, needs assessments, and development and implementation of the POS or PCSP) will constitute the Intervention Group (excluding those who opted for the OneCare Kansas program). Their post-intervention outcome data for the period of five years will be examined (2019 through 2023).

Comparison Group 1: Above-mentioned members in the pre-intervention period will serve as the Comparison Group 1. The pre-intervention outcome data for the period of three years will be examined (2016 through 2018).

Comparison Group 2: This group will include: 1) KanCare 2.0 members whose health screening scores were 3-5 points below the HRA threshold and who received traditional care instead of service coordination; and 2) KanCare 2.0 members who met the HRA threshold but opted not to receive service coordination and received traditional care. The outcome data for the pre- and post-intervention periods for this group will be compared (pre-intervention period: 2016–2018; post-intervention period: 2019–2023).

Potential Subgroups:

In addition to assessing evaluation measures in overall Intervention and Comparison Groups described above, subgroup analyses will also be conducted within these groups to identify the benefit of the *Service Coordination Strategy* on any specific subpopulation group.

Subgroup analyses will be conducted among the following subpopulation groups depending upon the availability of sufficient sample size (members among Intervention and Comparison groups with the following conditions):

- Members with specific chronic conditions;
- Members with specific behavioral health conditions; and
- Members receiving HCBS services.

Evaluation Period

The total evaluation period will be 2016 through 2023.

Pre-Intervention Period: 2016–2018; and Post-Intervention Period: 2019–2023.

Evaluation Measures

The following outcomes will be assessed among Intervention and Comparison Groups to examine the evaluation question:

- Annual Dental Visit (ADV) (HEDIS measure – Quality of Care outcome)
- Adults’ Access to Preventive/Ambulatory Health Services (AAP) (HEDIS measure – Quality of Care outcome)
- Adolescent Well-Care Visits (AWC) (HEDIS measure – Quality of Care outcome)
- Follow-Up After Hospitalization for Mental Illness (FUH) (HEDIS measure – Quality of Care outcome)
- Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET) (HEDIS measure – Quality of Care outcome)
- Antidepressant Medication Management (AMM) (HEDIS measure – Quality of Care/Adherence outcome)
- ED visits, observation stays, or inpatient admissions for following conditions (Administrative measure – Health outcome)
 - Diabetic Ketoacidosis/Hyperglycemia, or
 - Acute severe asthma, or
 - Hypertensive crisis, or
 - Fall injuries, or
 - SUD, or
 - Mental health issues
- Outpatient or professional claims for following conditions (Administrative measure – Health outcome):
 - Diabetic retinopathy, or
 - Influenza, or
 - Pneumonia, or
 - Shingles
- Emergency department visits (Administrative measure – Cost outcome)
- Inpatient Utilization (IPU), excluding maternity admissions (HEDIS measure – Cost outcome)

See **Table A2.1** within **Attachment 2** for enhanced discussion of these measures.

Data Sources

The following data sources will be used to collect data to determine outcomes of the Service Coordination Strategy:

- MMIS Encounter database;
- MMIS Eligibility and Enrollment database; and
- MCOs’ Member-level case management data systems.

See **Table A3.1** within **Appendix 3** for enhanced discussion of these data sources.

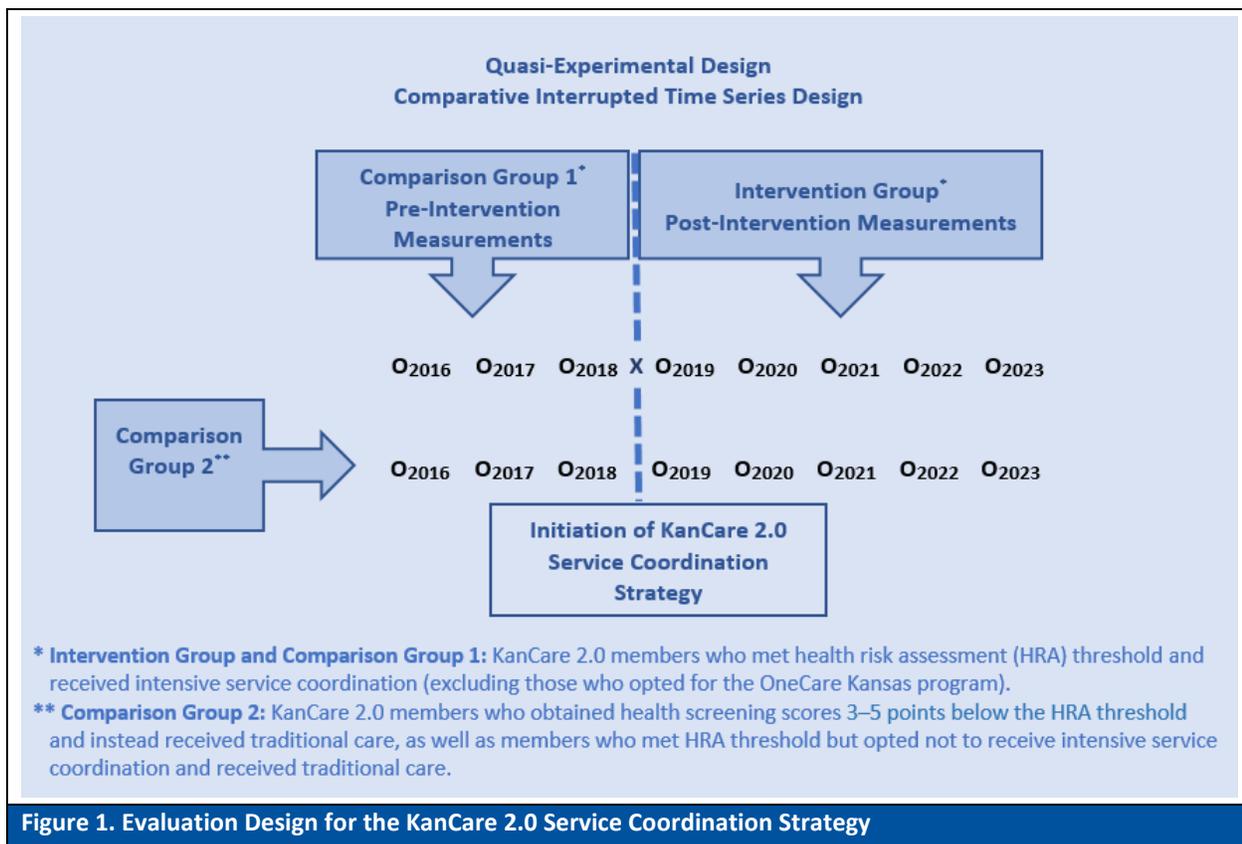
Analytic Methods

The entire eligible populations for the Intervention and Comparison Groups will be included in the study, and any pre- and post-intervention changes will be examined. If samples are needed, then power calculations will be completed to ensure validity of the findings.

The following analytical methods will be used to examine the evaluation question:

- Data obtained from various sources will be reviewed for missing values, inconsistent patterns, and outliers to ensure quality and appropriateness of data for analyses required by the evaluation design.
- For statistical procedures, a final dataset with all required variables will be created by merging data from various sources.
- Descriptive statistics will examine homogeneity of the demographic characteristics of the members in Intervention and Comparison Group 2.
- Trend analysis will be conducted using statistical tests such as a Mantel-Haenszel chi-square test with $p < .05$ indicating statistical significance.
- Comparative interrupted time series analysis will be conducted using aggregate data collected for equally-spaced intervals before and after the intervention. A time series of selected outcomes of interest will be used to establish underlying trends and examined to see if these trends are “interrupted” by the intervention at known points in time (longitudinal effects of intervention), through regression modelling. The covariates such as age, gender, and multimorbidity will also be included in the regression models to adjust for the confounding factors. If needed, adjustment will also be done for other appropriate confounding factors. The methodological issues related to the analytical method such as autocorrelation will be assessed by examining the plot of residuals and the partial autocorrelation function. Sensitivity analyses will be done to test the impact of a varying range of model assumptions, such as different lags and types of impact models.
- Subgroup analyses using above-mentioned statistical procedures will be conducted for subpopulation groups (members with specific chronic conditions, members with specific behavioral conditions, and members receiving HCBS services). These subgroup analyses will depend on availability of sufficient sample sizes.

Design for the evaluation of the Service Coordination Strategy is summarized in Figure 1.



b. Methodology for the Evaluation of OneCare Kansas

Evaluation Question

Did the **OneCare Kansas** program, by implementing comprehensive and intense method of care coordination, **improve the quality of care, health, and cost outcomes?**

Demonstration Strategy

The **OneCare Kansas** program will provide coordination of physical and behavioral care with long term services and supports for KanCare members with chronic conditions, like diabetes, asthma, or mental illness. The program will be an opt-in program for adults and children. The program expands upon medical home models to include links to community and social supports. OneCare Kansas will use a “team of health professionals” approach of the health home model. In this model, the three KanCare managed care organizations (MCOs) will serve as the Lead Entities (LEs) for OCK and will contract with community providers to be OneCare Kansas Partners (OCKPs). The OCKPs will provide all OCK services, and the MCO will not provide any direct services in this model.⁹ All the caregivers involved in a OneCare Kansas member’s health will communicate with one another for addressing all needs of the patient in a comprehensive manner.¹⁰ OneCare Kansas will provide six core services that include comprehensive care management, care coordination, health promotion, comprehensive transitional care (including appropriate follow-up) from inpatient to other settings, members and family support, and referral to community and social support services.¹¹

Evaluation Design

Comparative Interrupted Time Series Evaluation Design will be used to examine the evaluation question.

To conduct *Comparative Interrupted Time Series* analysis, KanCare 2.0 members eligible for OneCare Kansas and opted to participate in the program and received core services of the program will serve as the **Intervention Group**. The program members in the pre-intervention period will serve as the **Comparison Group 1**. KanCare 2.0 members eligible for OneCare Kansas who did not opt to participate in the program and received traditional care instead of the OneCare Kansas services will constitute the **Comparison Group 2**. Outcome data for the pre- and post-intervention periods will be compared to examine whether pre-post intervention change differed between these groups or not. This comparison will assist in examining whether the intervention changed the level of outcome or if it also impacted the three-year trend.

Target and Comparison Population

Study Population: KanCare 2.0 members eligible for the OneCare Kansas program.

Intervention Group: KanCare 2.0 members eligible for the OneCare Kansas program who opted to participate in the program and received its core services will constitute the Intervention Group. The post-intervention outcome data for the period of four years will be examined (2020 through 2023). Please note, the length of post-intervention period will depend on the start date of the program. Currently, the program start date is planned as January 1, 2020.

Comparison Group 1: Program members in the pre-intervention period will serve as the Comparison Group 1. The pre-intervention outcome data for the period of three years will be examined (2016 through 2019). The pre-intervention period will depend on the start date of the program.

Comparison Group 2: KanCare 2.0 members eligible for the OneCare Kansas program who did not opt to participate in the program and received traditional care will serve as the Comparison Group 2. The outcome data for the pre- and post-intervention periods for this group will be compared with the Intervention Group data (pre-intervention period: 2016–2019; post-intervention period: 2020–2023). The pre- and post-intervention period will depend on the start date of the OneCare Kansas program.

Potential Subgroups:

In addition to assessing evaluation measures in overall Intervention and Comparison Groups described above, subgroup analyses will also be conducted within these groups to identify the benefit of the OneCare Kansas program on any specific subpopulation group.

Subgroup analyses will be conducted among the following subpopulation groups depending upon the availability of sufficient sample size (members among the Intervention and Comparison groups with the following conditions):

- Members with severe bipolar disorder,
- Members with Paranoid Schizophrenia, and
- Members with asthma that are also at risk for developing:
 - Diabetes
 - Hypertension
 - Kidney Disease (not including Chronic Kidney Disease Stage 4 and ESRD)
 - Cardiovascular Disease
 - COPD
 - Metabolic Syndrome
 - Mental Illness (not including Paranoid Schizophrenia and Severe Bipolar Disorder)
 - Substance Use Disorder
 - Morbid Obesity (body weight 100lbs over normal body weight, BMI greater than 40, or BMI over 31 with obesity-related health problems)
 - Tobacco Use or exposure to second hand smoke

Evaluation Period

The tentative evaluation period will be 2016 through 2023.

Pre-Intervention Period: 2016–2019; and Post-Intervention Period: 2020–2023.

Please note, the pre- and post-intervention period will depend on the start date of the OneCare Kansas program.

Evaluation Measures

The following quantitative outcomes will be examined among Intervention and Comparison Groups to examine the evaluation question (tentative list, as it will depend on the final selection of chronic conditions to constitute eligibility criteria for the program):

- Annual Dental Visit (ADV) (HEDIS measure – Quality of Care outcome)
- Adults’ Access to Preventive/Ambulatory Health Services (AAP) (HEDIS measure – Quality of Care outcome)
- Adolescent Well-Care Visits (AWC) (HEDIS measure – Quality of Care outcome)
- Follow-Up After Hospitalization for Mental Illness (FUH) (HEDIS measure – Quality of Care outcome)
- Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET) (HEDIS measure – Quality of Care outcome)
- Antidepressant Medication Management (AMM) (HEDIS measure – Quality of Care outcome)
- ED visits, observation stays, or inpatient admissions for the following conditions (Administrative measure – Health outcome)
 - Diabetic Ketoacidosis/Hyperglycemia, or
 - Acute severe asthma, or
 - Hypertensive crisis, or
 - Fall injuries, or
 - SUD, or
 - Mental health issues
- Outpatient or professional claims for following conditions (Administrative measure – Health outcome):
 - Diabetic retinopathy, or
 - Influenza, or
 - Pneumonia, or
 - Shingles

- Emergency department visits (Administrative measure – Cost outcome)
- Inpatient admissions (IPU), excluding maternity admissions (HEDIS measure – Cost outcome)

In addition to the quantitative measures, qualitative information will be collected twice during the evaluation period (mid-year and the last year of the evaluation period) from the OneCare Kansas Learning Collaborative that will include KDHE, MCOs, OCK partners (OCKPs), and Association partners. The Learning Collaborative process will identify evolving learning needs, as well as ways to address those needs, allowing for continual quality improvement of the OCK system. This information will be categorized to examine similar and dissimilar themes to further understand the program.

Following is the potential list of qualitative measures:

- Learning needs identified by the OneCare Kansas Learning Collaborative.
- Processes to address the learning needs identified by the OneCare Kansas Learning Collaborative.
- Factors that facilitated the implementation of the OneCare Kansas program to achieve its goal.
- Barriers encountered in implementation of the OneCare Kansas program.
- Recommendations regarding how the quality of the OneCare Kansas program can be further improved.
- Observations why this program was able to succeed or why it did not meet its goals.

Additional qualitative measures will be examined based on the themes identified from the information obtained from the OneCare Kansas Learning Collaborative members.

See **Table A2.2** and **Table A2.3** within **Appendix 2** for enhanced discussion of these measures.

Data Sources

The following data sources will be used to collect data to determine outcomes of the Service Coordination Strategy:

- MMIS Encounter database
- MMIS Eligibility and Enrollment database
- OneCare Kansas members' eligibility and participation database
- MCOs' Member-level case management data systems.
- OneCare Kansas Learning Collaborative reports

See **Table A3.1** within **Appendix 3** for enhanced discussion of these data sources.

Analytic Methods

The entire eligible populations for the intervention and comparison groups will be included in the study, and any pre- and post-intervention changes will be examined. If samples are needed, then power calculations will be done to ensure validity of the findings.

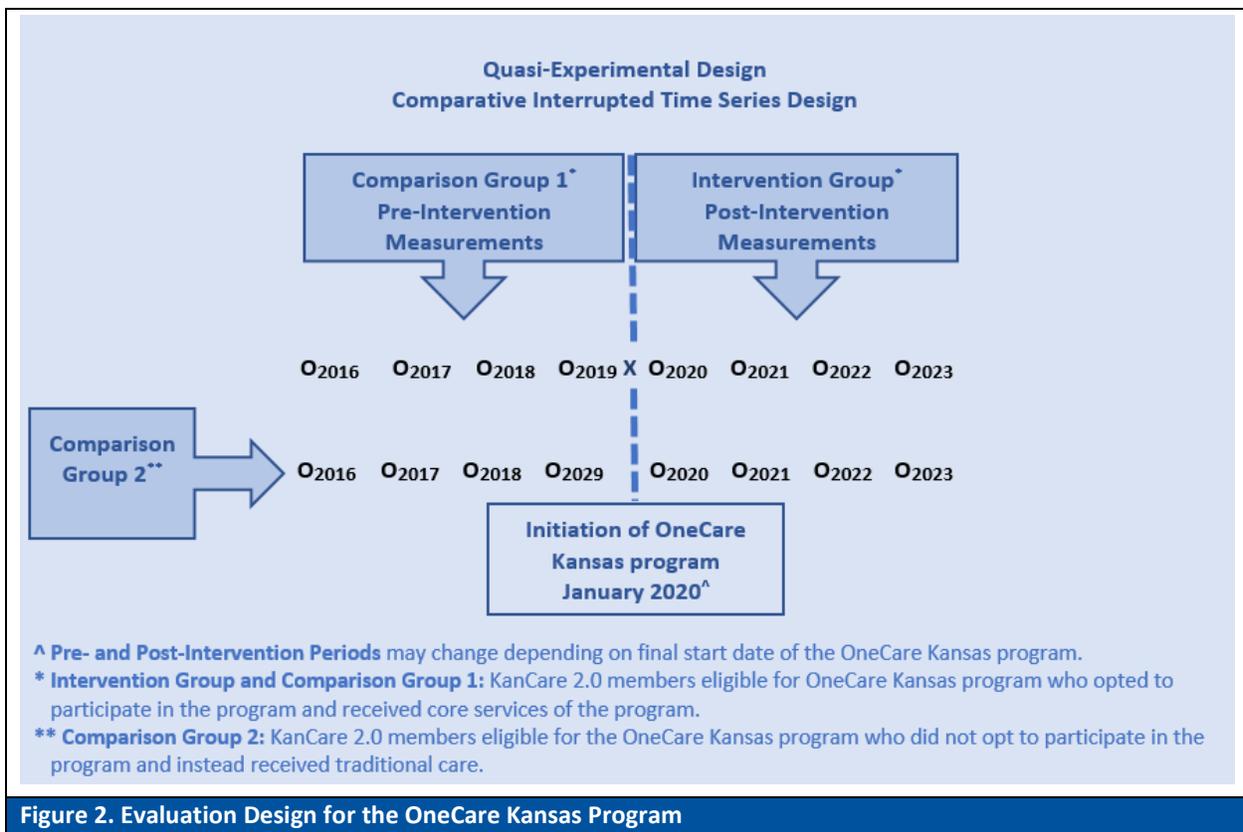
The following analytical methods will be used to examine the evaluation question:

- Data obtained from various sources will be reviewed for missing values, inconsistent patterns, and outliers to ensure quality and appropriateness of the data for analyses required by the evaluation design.
- For statistical procedures, a final dataset with all required variables will be created by merging data from various sources.
- Descriptive statistics will examine homogeneity of the demographic characteristics of the members in the Intervention and Comparison Group 2.
- Trend analysis will be conducted using statistical tests such as a Mantel-Haenszel chi-square test with $p < .05$ indicating statistical significance.
- Comparative interrupted time series analysis will be conducted using aggregate data collected for equally spaced intervals before and after the intervention. A time series of selected outcomes of interest will be used to establish underlying trends and examined to see if these trends are "interrupted" by the intervention at known points in

time (longitudinal effects of intervention), through regression modelling. The covariates such as age, gender, and multimorbidity will be included in the regression models to adjust for the confounding factors. If needed, adjustment will also be done for other appropriate confounding factors. The methodological issues related to the analytical method such as autocorrelation will be assessed by examining the plot of residuals and the partial autocorrelation function. Sensitivity analyses will be done to test the impact of varying range of model assumptions, such as different lags, and types of impact models.

- Subgroup analyses using above-mentioned statistical procedures will be conducted for subpopulation groups (members with severe bipolar disorder, members with paranoid schizophrenia, and members with asthma and at risk for at least one other chronic condition). These subgroup analyses will depend on availability of sufficient sample sizes.
- Qualitative data analysis techniques will be used to analyze qualitative data collected through OneCare Kansas Learning Collaborative sessions/reports. The steps for qualitative data analysis will include: **getting familiar with the data** by looking for basic observations or patterns; **revisiting research objectives** to identify the questions that can be answered through the collected data; **developing a framework** (coding and indexing) to identify broad ideas, concepts, behaviors, or phrases, and assign codes for structuring and labeling data; **identifying themes, patterns, and connections** to answer research questions, and finding areas that can be explored further (Content and Narrative analyses); and **summarization of the qualitative information** to add to the overall evaluation results.

The design for the evaluation of the OneCare Kansas program is summarized in Figure 2.



c. Methodology for the Evaluation of Hypothesis 1

Evaluation Questions

- Did the **Value-Based Provider Incentive Program** increase integration and reduce silos between physical and behavioral health services provided to KanCare members?
- Did the **Value-Based Provider Incentive Program** for integration between physical and behavioral health services **improve quality of care, health, and cost outcomes?**

Demonstration Strategy

A **Value-Based Provider Incentive Program** for integration between physical health and behavioral health services designed by the MCOs will be used to engage providers to implement physical and behavioral health service coordination (value-based purchasing strategy).

Evaluation Design

Comparative Interrupted Time Series Evaluation Design will be used to examine the evaluation questions for Hypothesis 1.

To evaluate the effect of the *Value-Based Provider Incentive Program* on the quality of care, health, and cost outcomes, *Comparative Interrupted Time Series* analysis will be conducted, in which KanCare 2.0 members seen by the providers who participated in the program will serve as the **Intervention Group**.

The program members in the pre-intervention period will serve as the **Comparison Group 1**. KanCare 2.0 members seen by the providers who did not participate in the *Value-Based Provider Incentive Program* will serve as the **Comparison Group 2**. The pre- and post-intervention outcome data will be examined to assess whether changes differed between Intervention and Comparison Groups. This comparison will assist in examining whether the intervention changed the level of outcome or if it also changed the long-term trend.

Target and Comparison Population

Intervention Group: KanCare 2.0 members seen by the providers who participated in the *Value-Based Provider Incentive Program* promoting physical and behavioral health service coordination will constitute the Intervention Group. Their post-intervention outcome data for the period of five years will be examined (2019 through 2023).

Comparison Group 1: Program members in the pre-intervention period will serve as the Comparison Group 1. The pre-intervention outcome data for the period of three years will be examined (2016 through 2018).

Comparison Group 2: KanCare 2.0 members seen by the providers who did not participate in the *Value-Based Provider Incentive Program* will serve as the Comparison Group 2. The outcome data for the pre- and post-intervention periods for this group will be compared with the Intervention Group data. The pre-intervention period will be comprised of 2016 through 2018 (as data allows). The post-intervention period will be comprised of 2019 through 2023.

Potential Subgroups:

The Intervention and Comparison Groups will be examined to identify potential subpopulation groups, such as rural-urban subgroups. In addition to assessing evaluation measures in overall Intervention and Comparison Groups, subgroup analyses will also be conducted to identify the benefit of the *Value-Based Provider Incentive Program* among identified subpopulation groups (depending on availability of sufficient sample size).

Evaluation Period

The total evaluation period will be 2016 through 2023.

Pre-Intervention Period: 2016–2018; and Post-Intervention Period: 2019–2023.

Evaluation Measures

Following is the potential list of quantitative outcomes to examine the evaluation questions (**final list will be based on specific value-based provider incentive programs implemented by the MCOs**):

- Annual Dental Visit (ADV) (HEDIS measure – Quality of Care outcome)
- Adults’ Access to Preventive/Ambulatory Health Services (AAP) (HEDIS measure – Quality of Care outcome)
- Adolescent Well-Care Visits (AWC) (HEDIS measure – Quality of Care outcome)
- Follow-Up After Hospitalization for Mental Illness (FUH) (HEDIS measure – Quality of Care outcome)
- Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET) (HEDIS measure – Quality of Care outcome)
- Antidepressant Medication Management (AMM) (HEDIS measure – Quality of Care/Adherence outcome)
- Identification of Alcohol and Other Drug Services (IAD) (HEDIS measure – Quality of Care outcome)
- Follow-Up Care for Children Prescribed ADHD Medication (ADD) (HEDIS measure – Quality of Care outcome)
- Use of Opioids at High Dosage (UOD) (HEDIS measure – Quality of Care outcome)
- Use of Opioids from multiple providers (UOP) (HEDIS measure – Quality of Care outcome)
- Mental Health Utilization (MPT) (HEDIS measure – Quality of Care and Health outcome)
- ED visits, observation stays, or inpatient admissions for following conditions (Administrative measure – Health outcome):
 - Diabetic Ketoacidosis/Hyperglycemia, or
 - Acute severe asthma, or
 - Hypertensive crisis, or
 - Fall injuries, or
 - SUD, or
 - Mental health issues
- Outpatient or professional claims for following conditions (Administrative measure – Health outcome):
 - Diabetic retinopathy, or
 - Influenza, or
 - Pneumonia, or
 - Shingles
- Emergency department visits (Administrative measure – Cost outcome)
- Inpatient admission (IPU), excluding maternity admissions (HEDIS measure – Cost outcome)
- MCO-specified measure on effectiveness of their value-based purchasing program on increasing physical and behavioral health service integration (to be determined)

In addition to the above-mentioned quantitative outcome measures, the qualitative information will also be collected twice during the evaluation period (mid-year and the last year of the evaluation period) to further assess whether the *Value-Based Provider Incentive Program* increased the integration between physical and behavioral services. The qualitative information will be collected by designing and conducting an online provider survey and/or key-informant interviews with the providers participating in the *Value-Based Provider Incentive Program*. The online survey will be designed using Survey Monkey software and will include open-ended questions. The survey questions will collect information from the providers on the facilitators and barriers related to the implementation of the *Value-Based Provider Incentive Program*. In addition, providers will be asked to provide recommendations for removing barriers and to further strengthen the program to make it successful in achieving its goals. The survey responses will be categorized to examine similar and dissimilar themes and finding areas that can be further explored through key informant interviews of the providers. Key informant interviews will be conducted from a random sample of the providers participating in the *Value-Based Provider Incentive Program* to collect in-depth information to assess the reasons why this program succeeded or why it did not meet its goals.

Following is the potential list of qualitative measures:

- Factors that facilitated the implementation of the Value-Based Provider Incentive Program.
- Barriers encountered in implementing the Value-Based Provider Incentive Program.

- Recommendation about how to further improve the Value-Based Provider Incentive Program.
- Recommendations about how to remove barriers encountered in the implementation of the Value-Based Provider Incentive Program.
- Observations regarding why this program was able to succeed or why it did not meet its goals.

Additional qualitative measures will be examined based on the themes identified from the survey and Key informant interviews.

See **Table A2.4** and **Table A2.5** within **Appendix 2** for enhanced discussion of these measures.

Data Sources

The following data sources will be used for the evaluation of Hypothesis 1:

- MCOs' administrative databases on *Value-Based Provider Incentive Programs*,
- MMIS Encounter database,
- MMIS Eligibility and Enrollment database,
- MCOs' member-level case management data systems,
- MCO databases/tables for *Value-based Provider Incentive Program* performance measures,
- Online provider survey to collect qualitative information from the providers participating in the *Value-Based Provider Incentive Program*, and
- Key informant interviews from a sample of the providers participating in the *Value-Based Provider Incentive Program*.

See **Table A3.1** within **Appendix 3** for enhanced discussion of these data sources.

Analytic Methods

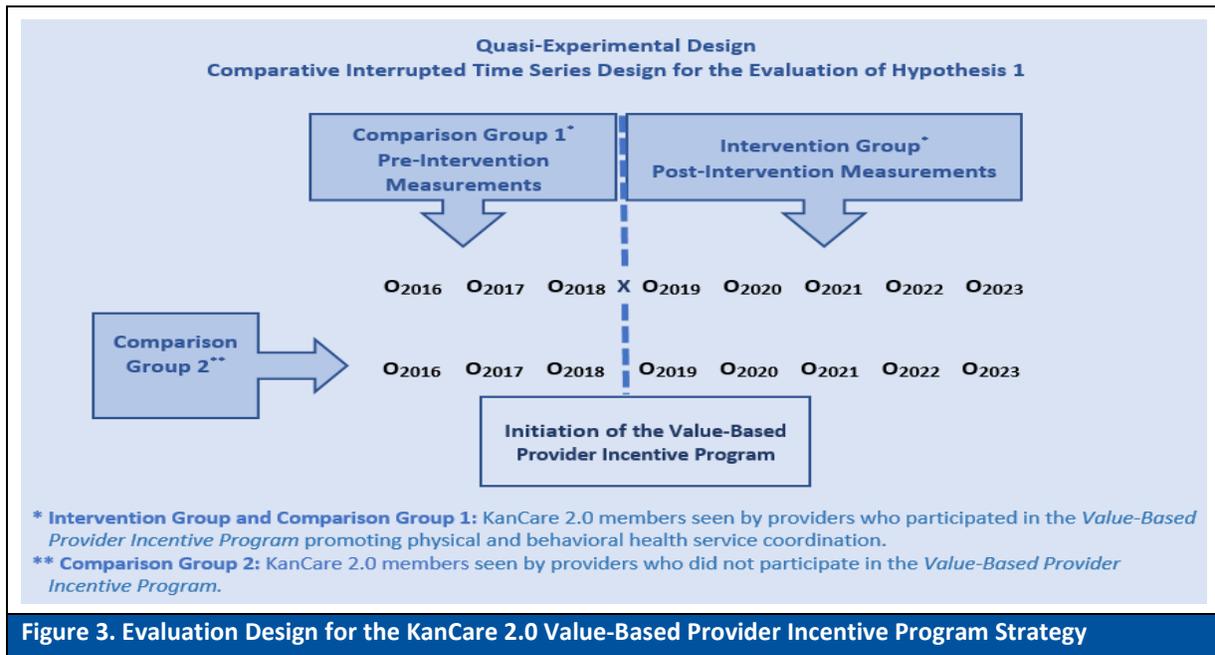
The entire eligible population for the intervention and comparison groups will be included in the study and any pre- and post-intervention changes will be examined. If samples are needed, then power calculations will be done to ensure validity of the findings.

The following analytical methods will be used to examine the evaluation questions:

- Data obtained from various sources will be reviewed for missing values, inconsistent patterns, and outliers to ensure quality and appropriateness of the data for analyses required by the evaluation design.
- For statistical procedures, a final dataset with all required variables will be created by merging data from various sources.
- Descriptive statistics will examine homogeneity of the demographic characteristics of the members in the Intervention Group and Comparison Group 2.
- Trend analysis will be conducted using statistical tests such as a Mantel-Haenszel chi-square test with $p < .05$ indicating statistical significance.
- Comparative interrupted time series analysis will be conducted using aggregate data collected for equally spaced intervals before and after the intervention. A time series of selected outcomes of interest will be used to establish underlying trends and examined to see if these trends are "interrupted" by the intervention at known points in time (longitudinal effects of intervention), through regression modelling. The covariates such as age, gender, and multimorbidity will be included in the regression models to adjust for the confounding factors. If needed, adjustment will also be done for other appropriate confounding factors. The methodological issues related to this analytical method such as autocorrelation will be assessed by examining the plot of residuals and the partial autocorrelation function. Sensitivity analyses will be done to test the impact of varying range of model assumptions, such as different lags and types of impact models.

- Subgroup analyses using above-mentioned statistical procedures will be conducted for identified subpopulation groups (such as rural-urban groups). These subgroup analyses will depend on availability of sufficient sample sizes.
- Qualitative data analysis techniques will be used to analyze qualitative data collected through online survey and key informant interviews of the providers participating in the *Value-Based Provider Incentive Program*. The steps for qualitative data analysis will include: **getting familiar with the data** by looking for basic observations or patterns; **revisiting research objectives** to identify the questions that can be answered through the collected data; **developing a framework** (coding and indexing) to identify broad ideas, concepts, behaviors, or phrases, and assign codes for structuring and labeling data; **identifying themes, patterns, and connections** to answer research questions, and finding areas that can be explored further (Content and Narrative analyses); and **summarization of the qualitative information** to add to the overall evaluation results.

The design for the evaluation of the Hypothesis 1 is summarized in Figure 3.



d. Methodology for the Evaluation of Hypothesis 2

Evaluation Question

Did provision of supports for employment and independent living to the KanCare 2.0 members with disabilities and the behavioral health conditions who are living in the community improve their independence and health outcomes?

Demonstration Strategy

Employment or independent living supports will be provided through KanCare 2.0 service coordination to the members who are living in the community and receiving behavioral health services or HCBS services in the Physical Disability (PD), Intellectual or Developmental Disability (I/DD), and Brain Injury (BI) waiver programs.

Evaluation Design

Pretest–Posttest Design with Nonequivalent Groups will be used to examine the evaluation question.

The Intervention and Comparison Groups will be derived from the study population. The study population will include members living in the community and receiving behavioral health services or HCBS services in the PD, I/DD, and BI waiver programs who opted to receive service coordination and were potentially needing employment or independent living supports, as indicated through a set of KanCare 2.0 health screening and HRA questions. The members from this

study population who received employment or independent living supports will constitute the **Intervention Group**. The members from the study population who did not receive employment or independent living supports will constitute the **Comparison Group**.

The outcome data for both groups obtained from the health screening and HRA conducted in 2019, as well as the 2019 encounter database will constitute the pre-test data. The 2020–2023 outcome data for both groups will constitute the post-test data. Pre- and post-test data for two groups will be compared.

Target and Comparison Population

Study Population: KanCare 2.0 members living in the community and receiving behavioral health services or HCBS services in the PD, I/DD, and BI waiver programs who opted for service coordination and were identified through a set of KanCare 2.0 health screening and HRA questions as potentially needing employment or independent living supports.

Intervention Group: Members in the study population receiving employment or independent living supports (as identified by billing procedure codes) through KanCare 2.0 service coordination will serve as the Intervention Group.

Comparison Group: Members in the study population not receiving employment or independent living supports through KanCare 2.0 service coordination will serve as the Comparison Group.

Potential Subgroups:

In addition to assessing evaluation measures in overall Intervention and Comparison Groups described above, subgroup analyses will be conducted within these groups to identify the benefit of the provision of employment or independent living supports among any specific subpopulation group.

Subgroup analyses will be conducted among the following subpopulation groups depending upon the availability of sufficient sample size (members among Intervention and Comparison groups in following subgroups):

- Members receiving behavioral health services,
- Members on HCBS wait lists, and
- Members receiving HCBS services in the PD, I/DD, and BI waiver programs.

Evaluation Period

The total evaluation period will be 2019 through 2023.

Pre-Intervention Period: 2019; and Post-Intervention Period: 2020–2023.

Evaluation Measures

The following outcomes will be assessed among Intervention and Comparison Groups to examine the evaluation question (Final list of outcomes will be determined based on data availability):

- Current employment status
- Number of members who felt they were employed based on their skills and knowledge (if employed)
- Number of members with stable housing – number of addresses member lived in the past year;
- Current legal problems (e.g., probation, parole, arrests)
- Number of days in the community
- Number of members who worried about paying bills
- ED visits
- Inpatient hospitalizations

See **Table A2.6** within **Appendix 2** for enhanced discussion of these measures.

Data Sources

The following data sources will be used for the evaluation of Hypothesis 2:

- MMIS Encounter database
- MMIS Eligibility and Enrollment database
- MCOs' member-level case management data systems.

See **Table A3.1** within **Appendix 3** for enhanced discussion of these data sources.

Analytic Methods

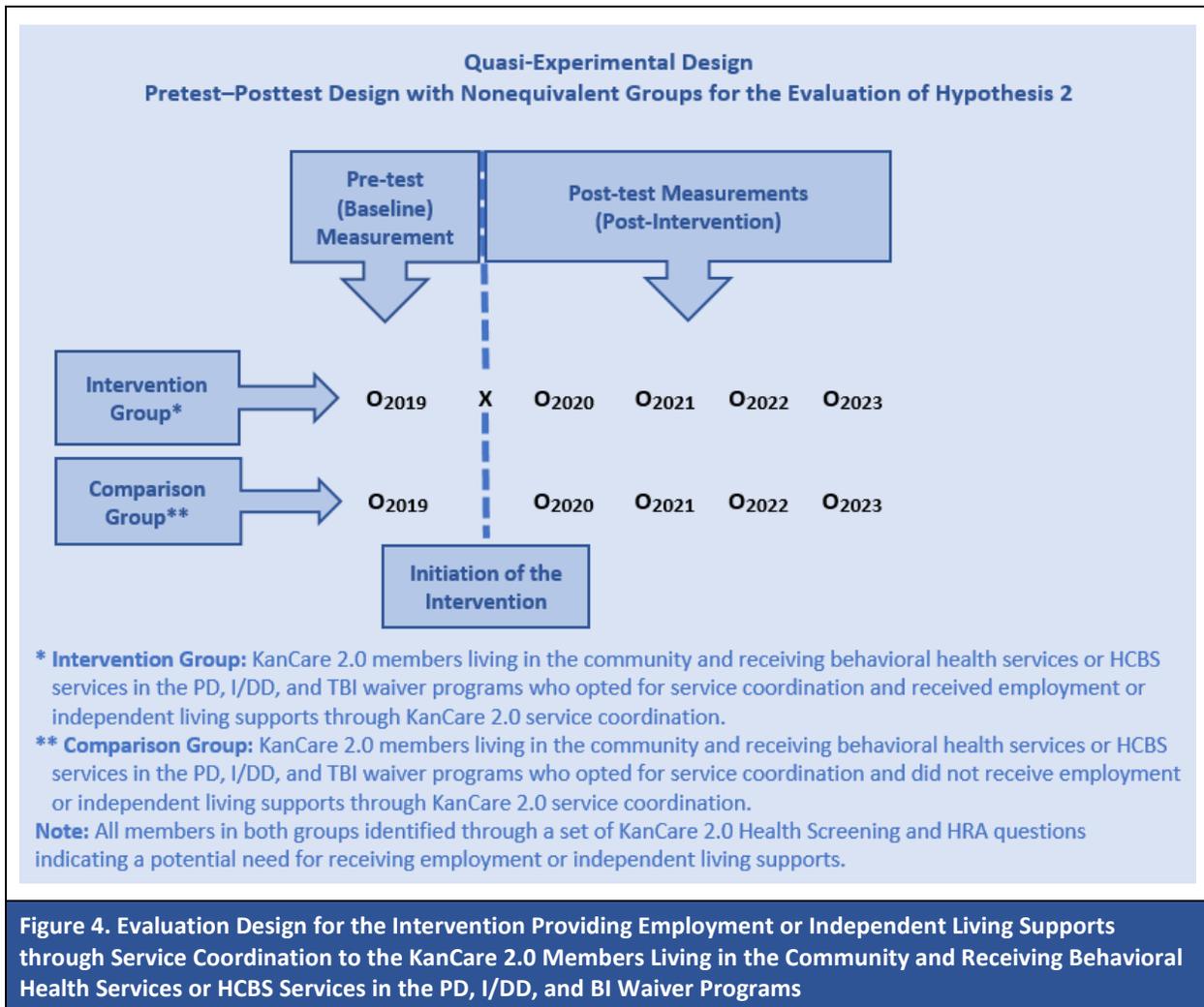
The entire eligible population for the Intervention and Comparison Groups will be included in the study, and any baseline and post-intervention changes will be examined. If samples are needed, then power calculations will be done to ensure validity of the findings.

The following analytical methods will be used to examine the evaluation questions:

- Data obtained from various sources will be reviewed for missing values, inconsistent patterns, and outliers to ensure quality and appropriateness of the data for analyses required by the evaluation design.
- For statistical procedures, a final dataset with all required variables will be created by merging data from various sources.
- Descriptive statistics will examine homogeneity of the demographic characteristics of the members in the Intervention Group and Comparison Group.
- Five-year trends for the outcomes will be examined using statistical tests such as a Mantel-Haenszel chi-square test with $p < .05$ indicating statistical significance.
- Difference-in-differences (DID) statistical techniques will be used to analyze pre- and post-test data. By applying DID techniques, the impact of providing employment and independent living supports to the members will be measured as the pre-post difference in an outcome for the Intervention Group minus the pre-post difference for the Comparison Group. Assuming *parallel trends*, the amount by which outcomes changed in the Comparison Group over time is the amount by which outcomes in the Intervention Group would have changed over time in the absence of intervention. Given the differences in observed outcomes at the baseline, a similar pre-post difference in the post-intervention period would be considered normal. The additional difference between the Intervention and Comparison Groups (treatment effect) will be attributable to the intervention.
- Subgroup analyses using above-mentioned statistical procedures will be conducted for subpopulation groups (members receiving behavioral health services; members on HCBS wait lists; members receiving HCBS services in the PD, I/DD, and BI waiver programs). These subgroup analyses will depend on availability of sufficient sample sizes.

This area intentionally left blank

The design for the evaluation of the Hypothesis 2 is summarized in Figure 4.



e. Methodology for the Evaluation of Hypothesis 3

Evaluation Questions

- Did use of telemedicine services increase over the five-year period for KanCare members living in rural or semi-urban areas?
- Did use of telemonitoring services increase over the five-year period for KanCare members with chronic conditions living in rural or semi-urban areas?
- Evaluation question related to the telemonitoring: Data sources are currently not known to describe the baseline and 5-year status for the use of telemonitoring pairing rural and semi-urban healthcare providers with remote specialists to increase the capacity for treatment of chronic, complex conditions, therefore the related evaluation question and design will be developed later.
- Did use of telemedicine increase access to services over the five-year period for KanCare members living in rural or semi-urban areas?

Demonstration Strategies

The State has asked KanCare 2.0 managed care organizations to utilize telehealth solutions in designing, establishing, and maintaining provider networks and to develop models to expand use and effectiveness of telehealth strategies, including telemedicine, telemonitoring, and telementoring, with a focus on enhancing access to services in rural or

semi-urban areas, access to behavioral health services, and support chronic pain management interventions.¹ The State document for MCOs titled “Kansas Medicaid Managed Care Request for Proposal for KanCare 2.0” has described telemedicine, telemonitoring, and telementoring as follows (pp. 106–107):¹²

- a) **“Telemedicine:** *The State is interested in positively impacting member access by exploring telemedicine strategies that expand the full scope of practice by connecting network providers with members at distant sites for purposes of evaluation, diagnosis, and treatment through two-way, real time interactive communication. such projects can greatly enhance access, save time, money and improve outcomes in communities with limited access to health care.”* The state has defined telemedicine as “connecting participating providers with members at distant sites for purposes of evaluation, diagnosis, and treatment through two-way, real time interactive communication.”
- b) **“Telemonitoring:** *Technologies that target specific disease type (i.e. congestive heart failure) or high utilizers of health services, particularly ER services and medication regimen management. Technologies are available that measure health indicators of patients in their homes and transmit the data to an overseeing Provider. The provider, who might be a physician, nurse, social worker, or even a non-clinical staff member, can filter patient questions and report to a clinical team as necessary. The goal would be to reduce admission, ER utilization and improve overall health of the member.”*
- c) **“Telementoring:** *Technologies such as the Project ECHO model to connect community PCPs with specialists remotely located to provide consultations, grand rounds, education, and to fully extend the range of care available within a community practice. The State is also interested in ways that the use of telementoring can attract and retain providers in rural health shortage areas. This could include creating learning and joint consultation strategies that may make working in more isolated environments or practices more attractive.”*

Evaluation Design

The demonstration strategies related to the three components of Hypothesis 3 will be developed during the five-year period by the MCOs as per State’s guidelines and approval; currently no appropriate comparison group is available. Therefore, the **Non-experimental method (One-Group Pretest–Posttest Design)** will be used to examine the evaluation questions 1, 2, and 3 for Hypothesis 3. The evaluation design will include baseline and cross-year comparisons of the selected evaluation measures among the members living in rural or semi-urban areas who received telehealth strategies (**Intervention Group**). Assessment of trends over time will also be conducted.

The fourth evaluation question is designed to determine if the number of services received is increased by telehealth or if in-person visits are converted to telehealth visits with no overall increase in frequency or level of care received. The State approved a set of speech-language pathology or audiology codes for telehealth delivery effective January 1, 2019. Service delivery trends for these codes, and other codes approved for telehealth during the demonstration, will be monitored and comparisons between rural, semi-urban and urban rates studied. Trends for other services available by telehealth prior to 2018 will also be analyzed, but the impact of telehealth on access to services may already be established. Increase in access to evaluation services may lead to an increase in diagnosis of related conditions. Thus, number of members diagnosed with speech-language and audiology pathological conditions will be analyzed.

Target and Comparison Population

Target Population: KanCare 2.0 members living in the rural or semi-urban areas will constitute the target population.

Intervention Group: The members who received telehealth strategies (telemedicine and telemonitoring strategies) will constitute the intervention group.

Comparison Group: As described above, the **evaluation design will not include comparison group**. If it is possible to apply the *Pretest–Posttest Design with Non-Equivalent Comparison Groups* for any of the telehealth strategies implemented by the MCOs, then an appropriate comparison group with pre- and post-intervention data will be selected.

Potential Subgroups:

Subgroup analyses will also be conducted to identify the benefit of the use of telemedicine and/or telemonitoring services in any specific subgroup. The subgroups, depending upon the availability of sufficient sample size, will be based on:

- Telemedicine and/or telemonitoring service type,
- Provider specialty type,
- Specific chronic conditions, and
- Geographic regions of the state (Western, Central, Eastern regions).

Evaluation Period

The baseline year will depend on the start dates of the implementation of telemedicine and telemonitoring strategies. The evaluation period will be comprised of the intervention start year through 2023.

Evaluation Measures

The following quantitative performance measures for the members living in the rural and semi-urban areas will be assessed to examine the evaluation questions:

Telemedicine:

- Percentage of telemedicine services received by the members living in the rural or semi-urban areas. Potential stratification by service, specialty type, or diagnosis.
- Number and percentage of receiving sites for telemedicine services in the rural and semi-urban areas. Potential stratification by service, specialty type, or diagnosis.
- Number and percentage of members living in the rural or semi-urban areas who received telemedicine services. Potential stratification by service, specialty type, or diagnosis.
- Number of paid claims with selected procedure codes, stratified by area, mode of delivery, and provider specialty.
- Number of members with selected diagnosis (e.g., speech-language pathology) per 1,000 members.

Telemonitoring:

- Number and percentage of members living in the rural and semi-urban areas who received telemonitoring services. Potential stratification by service, specialty type, or diagnosis.
- Number of telemonitoring services provided to members living in the rural and semi-urban areas.
- Number of providers monitoring health indicator data transmitted to them by the members receiving telemonitoring services.
- Other appropriate measures related to specific telemonitoring strategies implemented for the members living in the rural and semi-urban areas (to be determined).

In addition to the above-mentioned quantitative outcome measures, qualitative information will be collected twice during the evaluation period (mid-year and the last year of the evaluation period) through an online provider survey and/or key-informant interviews with the providers who submitted claims for telemedicine and/or telemonitoring services. The online survey will be designed using Survey Monkey software and will include open-ended questions. The survey questions will collect information from the providers on the facilitators and barriers related to the use telemedicine and telemonitoring services, and whether the use of these services improved access to care among Medicaid members living in rural and semi-urban areas. In addition, providers will be asked to provide recommendations for removing barriers to increasing the use of these services and improving the access to care among Medicaid members. The survey responses will be categorized to examine similar and dissimilar themes and to find areas that can be further explored through key informant interviews of the providers. Key informant interviews will be conducted from a random sample of these providers to collect in-depth information regarding why the use of these services succeeded or did not succeed in increasing the access to care among Medicaid members in rural and semi-rural areas.

Following is the potential list of qualitative measures that will be examined:

- Factors facilitating the use of telemedicine and/or telemonitoring services for the Medicaid members.
- Barriers encountered in using telemedicine and/or telemonitoring services for the Medicaid members.

- Opinions about how to further improve the use of telemedicine and/or telemonitoring services.
- Opinion about how to remove barriers encountered in using telemedicine and/or telemonitoring services.
- Reasons why the use of telemedicine and/or telemonitoring services succeeded or did not succeed in increasing the access to care for the Medicaid members in rural and semi-rural areas.

Additional qualitative measures will be examined based on the themes identified from the survey and key informant interviews.

See **Table A2.7** and **Table A2.8** within **Appendix 2** for enhanced discussion of these measures.

Data Sources

The following data sources will be used for the evaluation of Hypothesis 3:

- MMIS Encounter database,
- MMIS Eligibility and Enrollment database,
- Other appropriate data sources for measures identified later in accordance with specific telehealth strategies,
- Online provider survey to collect qualitative information from the providers using telemedicine and telemonitoring services (identified through claims submitted for telemedicine and telemonitoring services), and
- Key informant interviews from a sample of the providers using telemedicine and telemonitoring services (identified through claims submitted for telemedicine and telemonitoring services).

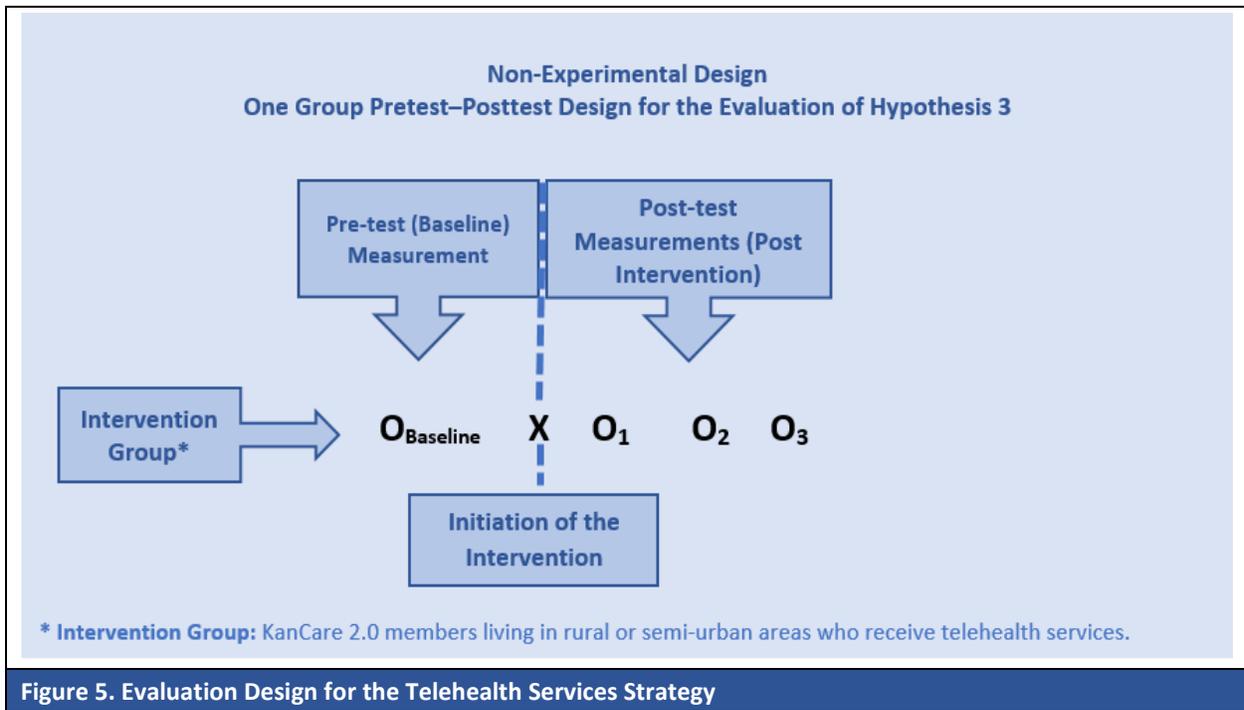
See **Table A3.1** within **Appendix 3** for enhanced discussion of these data sources.

Analytic Methods

The following analytical methods will be used to assess the evaluation questions:

- Data obtained from various sources will be reviewed for missing values, inconsistent patterns, and outliers to ensure quality and appropriateness of the data for analyses required by the evaluation design.
- For statistical procedures, a final dataset with all required variables will be created by merging data from various sources.
- Descriptive statistics will examine demographic characteristics of the members.
- The descriptive statistics (e.g., numbers and percentages or rates) of the selected evaluation measures will be calculated for baseline and subsequent years of the evaluation period.
- Appropriate statistical tests such as Fisher’s Exact and Pearson chi-square tests with $p < .05$ will be used to compare percentages or rates for the baseline and subsequent years.
- Absolute improvement will be examined by comparing percentages or rates for the baseline year and most recent year (as per availability of data).
- Trend analysis will be conducted using statistical tests such as a Mantel-Haenszel chi-square test with $p < .05$ indicating significance.
- Difference of differences between subgroups will be tested using Breslow-Day tests for homogeneity of the odds ratio.
- Subgroup analyses using appropriate statistical procedures will also be conducted for subpopulation groups (telemedicine and/or telemonitoring service type; provider specialty type; specific chronic conditions; and geographic regions of the state). These subgroup analyses will depend on availability of sufficient sample sizes.
- Qualitative data analysis techniques will be used to analyze qualitative data collected through online survey and key informant interviews of the providers using telemedicine and/or telemonitoring services. The steps for qualitative data analysis will include: **getting familiar with the data** by looking for basic observations or patterns; **revisiting research objectives** to identify the questions that can be answered through the collected data; **developing a framework** (coding and indexing) to identify broad ideas, concepts, behaviors, or phrases, and assign codes for structuring and labeling data; **identifying themes, patterns, and connections** to answer research questions, and finding areas that can be explored further (Content and Narrative analyses); and **summarization of the qualitative information** to add to the overall evaluation results.

The design for the evaluation of the Hypothesis 3 is summarized in Figure 5.



f. Methodology for the Evaluation of Hypothesis 4

Evaluation Questions

Did removing payment barriers for services provided in Institutions for Mental Diseases (IMDs) for KanCare members improve beneficiary access to substance use disorder (SUD) treatment services.

Demonstration Strategy

The Kansas Medicaid IMD Exclusion has been removed allowing IMDs to bill for SUD treatment services with the expectation that access to SUD services will increase for members with behavioral health conditions.

Evaluation Design

As per CMS recommendation, evaluation of Hypothesis 4 will be conducted as part of the SUD Evaluation Design.⁶

g. SUD Evaluation

A separate evaluation design for the *KanCare 2.0 Section 1115 SUD Demonstration* is being developed to evaluate the approved Implementation Plan.^{6,13} This evaluation is in accordance with the CMS document, “SUD, Section 1115 Demonstration Evaluation Design, Technical Assistance,” provided March 6, 2019.¹⁴

h. Monitoring of the Overall KanCare 2.0 Performance Measures

The final Evaluation of the KanCare Demonstration conducted for the first six years of the program (2013–2018) identified areas for improvement. The following potential performance measures related to a few of these areas will be monitored during the period of 2019 through 2023:

- Prenatal and Postpartum Care (HEDIS measure)
- Comprehensive Diabetes Care (HEDIS Measure)
- Smoking and Tobacco Cessation (CAHPS Measure)

- Improved ability to handle daily life and deal with crisis (MH Survey)
- Social and Community Engagement (HCBS CAHPS)

See **Table A2.9** within **Appendix 2** for enhanced discussion of these measures.

Data Sources

- HEDIS data from MCOs
- Consumer Assessment of the Healthcare Providers and Systems (CAHPS) Survey
- Mental Health Survey
- HCBS CAHPS Survey (potential data source)

See **Table A3.2** within **Appendix 3** for enhanced discussion of these data sources.

Analytical Methods

- The descriptive statistics (e.g., percentages or rates) of the selected evaluation measures will be calculated for baseline and subsequent years of the evaluation period.
- Comparison of the percentages or rates for the baseline year with the subsequent years will be done by applying appropriate statistical tests such as Fisher’s Exact and Pearson chi-square tests with $p < .05$ indicating statistical significance.
- Absolute improvement will be examined by comparing percentages or rates for the baseline years with the most recent year (as per availability of data).
- Trend analysis will be conducted using statistical tests such as a Mantel-Haenszel chi-square test with $p < .05$ indicating significance.

i. DSRIP Evaluation

The Delivery System Reform Incentive Payment (DSRIP) program was implemented in 2015 and extends through 2020. In January 2021, an Alternate Payment Model (APM) program will replace DSRIP. The DSRIP evaluation plan, submitted to CMS separately, reflects an additional two years of DSRIP assessment and a final overall evaluation summary. Also, the evaluation report for 2020 will summarize the activities KDHE has completed throughout the state meeting with a wide range of stakeholders to define the APM goals and metrics to be implemented in 2021 through 2023. The APM evaluation plan, including specific metrics, will be developed and submitted to CMS by the end of 2020.

D. Methodological Limitations

Due to state-wide implementation of the KanCare 2.0 Demonstration, the evaluation of overall strategies (Service Coordination Strategy and OneCare Kansas program) and four hypotheses is limited by the lack of true comparison groups. All Medicaid clients in the state are subject to participation in the Demonstration. As a result, the evaluation design included comparisons among members in the Intervention and Comparison Groups (without true external comparison groups); therefore, the pre- and post-test evaluation design or comparisons to baselines may suggest overall improvements in outcomes due to the demonstration and observed associations may not imply causality due to a specific intervention. To address this limitation, the **Comparative Interrupted Time Series Evaluation Design** will be used for the evaluation of Overall Strategies (Service Coordination Strategy and OneCare Kansas program) and Hypothesis 1. This will provide a possibility to assess causal inference between interventions and outcomes for these evaluations. The **Pretest–Posttest Design with Nonequivalent Groups Design** will be used for the evaluation of Hypothesis 2. This will also provide a possibility to assess causal inference.

As the demonstration strategies related to the three components of the Hypothesis 3 will be developed during the five-year period by the MCOs (subject to State guidelines and approval) and appropriate comparison group is currently not available, **Non-experimental method (One-Group Pretest–Posttest Design)** will be used to examine the evaluation questions. This will limit the ability to assess any causal relationship between the use of telehealth services and access or health outcomes among members living in rural or semi-urban areas.

Due to changes in the data system, pre-demonstration data on the participating members’ characteristics and outcomes will not be used. Therefore, **Non-experimental methods (descriptive data)** will be used for conducting the evaluation of Hypothesis 4. Only descriptive data will be examined for assessing the evaluation question; therefore, association between the intervention and improved beneficiary access to SUD treatment services within IMDs cannot be assessed.

The use of administrative claims and encounters data sources can be a limitation. These data sources are designed and collected for billing purposes but will be used in the evaluation to determine changes in access to services, quality of care, and health outcomes. However, most of the measures selected for assessment of the evaluation questions are validated and widely used for this purpose. While administrative data might be able to identify key cases and statistical trends, these are usually limited in providing detailed health and health behavior information, thus making it difficult to obtain information on possible covariates. Also, due to the use of population-level data, the effect size of measured differences represents true differences; however, this may or may not correspond to meaningful changes at the intervention or program levels.

Data lag also causes a challenge in measuring and reporting change in a timely manner. This can affect the availability of data for conducting the evaluation for the entire five-year period of the demonstration.

As evaluation is based on five-year period, the definitions and specifications of the evaluation measures, policies for data collection, and infrastructure of the data sources may change during the evaluation period, thus leading to unavailability of appropriate data for the analysis of multiple pre- and post- intervention evaluation points needed for comparative interrupted time series and one group pretest-posttest designs.

Comparison group options using members who are the members of the intervention’s target population will be applied, therefore, there is a possibility of encountering methodological issues (such as selection bias due to differences in the characteristics of members opting-in for the participation in the intervention and those not opting-in, spillover effects, multiple treatment threats due to other interventions, effect of confounding variables, inadequate statistical power, and multiple comparisons issue) that will require application of appropriate techniques.^{15,16} Appropriate techniques will be applied to address these issues as much as possible.

To have an adequate number of members in the Intervention and comparison groups for the evaluation of overall service coordination strategies (Service Coordination Strategy and OneCare Kansas program) and Hypothesis 1, the entire eligible population for the intervention and comparison groups will be included in the study, and pre- and post-intervention changes will be examined. However, if the eligible population is very large, then samples of eligible members with power calculations may be used to ensure validity of the findings.

Over the five-year period, eligibility for receiving Medicaid services may change for some members and they may not be the part of Intervention or Comparison Groups. Also, during subsequent years, some members may opt in or opt out of the interventions. This issue will be monitored and addressed accordingly by applying appropriate techniques (Intent-to-treat analysis; exclusion from analysis, etc.).

E. Special Methodological Considerations

MCOs are in the process of developing strategies for the implementation of the value-based provider incentive program. Therefore, final evaluation design and measures may need modifications based on specific aspects of the program.

MCOs have not yet developed specific strategies for the use of telehealth services and an appropriate comparison group cannot be currently be identified, therefore, a rigorous scientific design with additional comparison group (such as a comparative interrupted time series design) could not be used for the evaluation of Hypothesis 3. As mentioned above, a less rigorous non-experimental method (One-Group Pretest–Posttest Design) will be used. This will limit the ability to examine any causal relationship between use of telehealth services and access or health outcomes among members.

As mentioned above, due to data system changes, pre-demonstration data will not be used limiting the ability to compare pre- and post-intervention outcomes, a scientifically rigorous design could not be used for the evaluation of Hypothesis 4. For this evaluation, only descriptive data will be examined over the demonstration period.

This area intentionally left blank

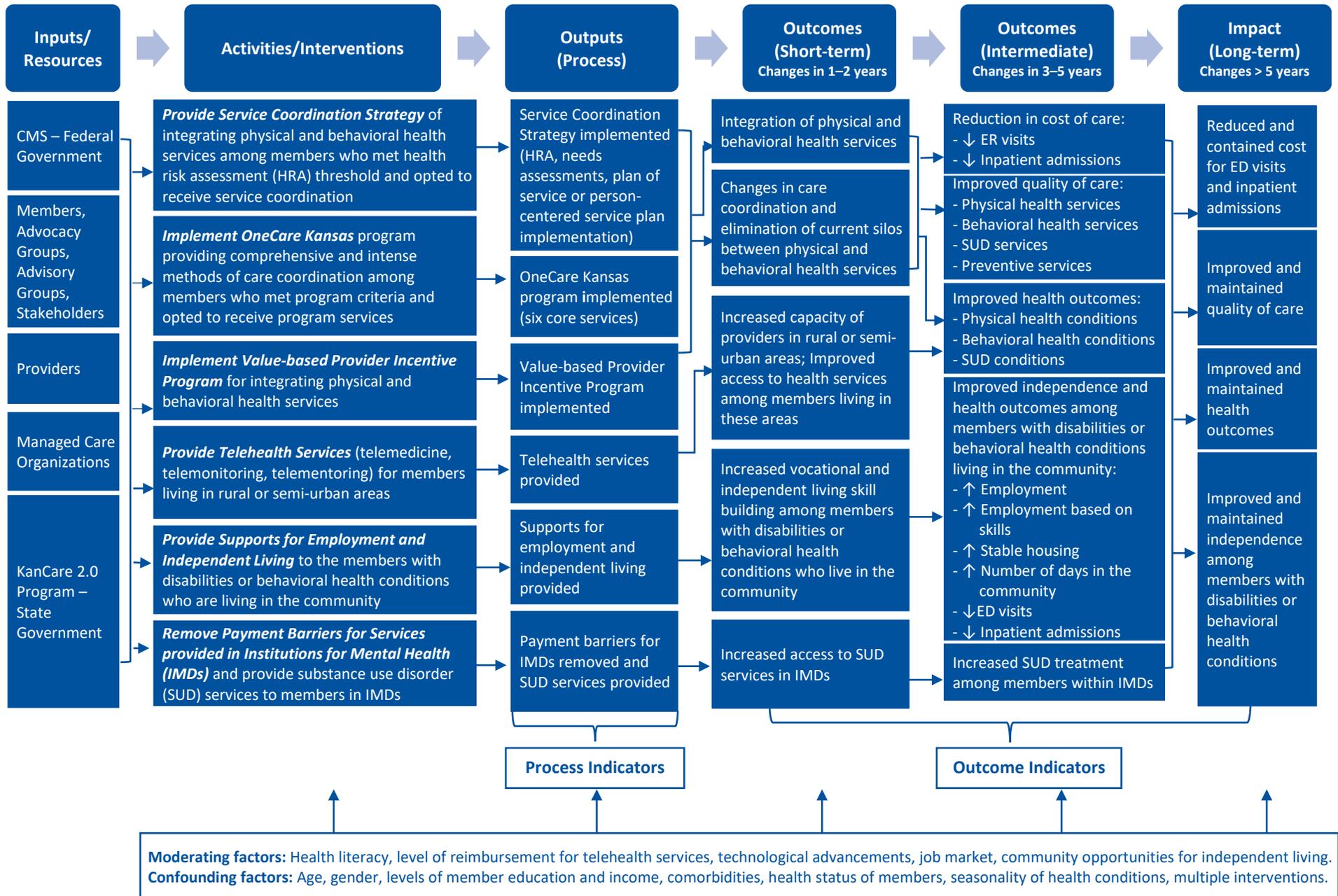
Appendices

Appendix 1: Logic Model for KanCare 2.0 Demonstration

Appendix 2: Detailed Summary of Performance Measures

Appendix 3: Detailed Discussion of Data Sources

Appendix 1: Logic Model for KanCare 2.0 Demonstration



Appendix 2: Detailed Summary of Performance Measures

Table A2.1. Detailed Summary of Performance Measures for Service Coordination Strategy					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
Annual Dental Visit (ADV) Percentage of members, 2–20 years, who had one or more dental visit with a dental practitioner during the measurement year.	NCQA	Medicaid members 2–20 years of age.	Members 2–20 years of age who had one or more dental visit with a dental practitioner during the measurement year.	Percentage	Medicaid Management Information System (MMIS) Encounter database; MMIS Eligibility and Enrollment database; MCOs' member-level case management data systems.
Adults' Access to Preventive/ Ambulatory Health Services (AAP) Percentage of Medicaid members 20 years & older who had an ambulatory or preventive care visit during the measurement year.	NCQA	Medicaid members 20 years & older.	Members 20 years & older who had one or more ambulatory or preventive care visits during the measurement year.	Percentage	Same as above.
Adolescent Well-Care Visits (AWC) Percentage of Medicaid members, 12–21 years, who had at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year.	NCQA	Medicaid members 12–21 years of age.	Members, 12–21 years, who had at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year.	Percentage	Same as above.
Follow-Up After Hospitalization for Mental Illness (FUH) Percentage of discharges for members, 6 years & older, who were hospitalized for treatment of selected mental illness or intentional self-harm diagnoses & who had a follow-up visit with a mental health practitioner within 7 days after discharge.	NCQA	Medicaid members, 6 years & older, who were hospitalized for treatment of selected mental illness or intentional self-harm diagnoses.	A follow-up visit with a mental health practitioner within 7 days of discharge.	Percentage	Same as above.
Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET) Percentage of adolescent and adult members with a new episode of alcohol or other drug (AOD) abuse or dependence who received: <ul style="list-style-type: none"> • Initiation of AOD treatment: % of members who initiate a treatment through inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth or medication treatment within 14 days of the diagnosis. • Engagement of AOD treatment: % of members who initiated treatment and who are engaged in ongoing AOD treatment within 34 days of the initiation visit. 	NCQA	Initiation: Members who were diagnosed with a new episode of AOD abuse or dependence during the first 10½ months of the measurement year. Engagement: Members who were diagnosed with a new episode of AOD during the first 10½ months of the measurement year.	Initiation: Members who began initiation of AOD treatment within 14 days of the index episode start date (IESD). Engagement: Members who began initiation of AOD treatment within 14 days of IESD & had two or more engagement visits within 34 days after the date of the initiation visit. [Engagement visits will be defined as per HEDIS administrative specifications].	Initiation: Percentage Engagement: Percentage	Same as above.
Denominators and numerators will be defined and calculated as per <i>Healthcare Effectiveness Data and Information Set®</i> (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. Performance Measures: Measures will be calculated for Intervention & Comparison Groups designed for the evaluation of <i>Service Coordination</i> strategy.					

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.1. Detailed Summary of Performance Measures for Service Coordination Strategy (Continued)					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
<p>Antidepressant Medication Management (AMM) Percentage of members, 18 years and older, who were treated with antidepressant medication, had a diagnosis of major depression & who remained on an antidepressant medication treatment:</p> <ul style="list-style-type: none"> • Effective Acute Phase Treatment: Percentage of members who remained on an antidepressant medication for at least 84 days (12 weeks). • Effective Continuation Phase Treatment: Percentage of members who remained on an antidepressant medication for at least 180 days (6 months). 	NCQA	<p>Effective Acute Phase Treatment: Medicaid members, 18 years and older, who were treated with antidepressant medication, had a diagnosis of major depression. [Eligible population for denominator will be defined as per HEDIS administrative specifications].</p> <p>Effective Continuation Phase Treatment: Same as above.</p>	<p>Effective Acute Phase Treatment: Medicaid members, 18 years and older, who were treated with antidepressant medication for at least 84 days (12 weeks), beginning on the Index prescription Start Date (IPSD) through 114 days after IPSD.</p> <p>Effective Continuation Phase Treatment: Medicaid members, 18 years and older, who were treated with antidepressant medication for at least 180 days (6 months), beginning on IPSD through 231 days after IPSD.</p>	Percentage	MMIS Encounter database; MMIS Eligibility and Enrollment database; MCOs Member-level case management data systems.
<p>ED visits, observation stays, or inpatient admissions per 1,000 member-months for following conditions</p> <ul style="list-style-type: none"> • Diabetic Ketoacidosis/ Hyperglycemia, or • Acute severe asthma, or • Hypertensive crisis, or • Fall injuries, or • SUD, or • Mental health issues 	N/A	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	Number (#) of ED visits, observation stays, or inpatient admissions for diabetic ketoacidosis /hyperglycemia, or acute severe asthma, or hypertensive crisis, or fall injuries, or substance use disorder, or mental health issues.	1,000 member-months	Same as above.
<p>Outpatient or professional claims for following conditions:</p> <ul style="list-style-type: none"> • Diabetic retinopathy, or • Influenza, or • Pneumonia, or • Shingles 	N/A	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	# of Outpatient or professional claims for diabetic retinopathy, or influenza, or pneumonia, or shingles.	1,000 member-months	Same as above.
<p>Emergency department visits per 1,000 member-months</p>	N/A	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	# of ED visits during the measurement period.	1,000 member-months	Same as above.
<p>Inpatient Utilization—General Hospitalization/Acute Care (IPU), excluding maternity admissions</p>	NCQA	Members, 18 years & older enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	# of acute inpatient discharges (excluding discharges for maternity admissions) during the measurement period.	Days per 1,000 member-months	Same as above.

Denominators and numerators will be defined and calculated as per *Healthcare Effectiveness Data and Information Set®* (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. Performance Measures: Measures will be calculated for the Intervention and Comparison Groups designed for the evaluation of *Service Coordination Strategy*.

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.2. Detailed Summary of Quantitative Performance Measures for OneCare Kansas Program					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
Annual Dental Visit (ADV) Percentage of Medicaid members, 2–20 years, who had one or more dental visit with a dental practitioner during the measurement year.	NCQA	Medicaid members 2–20 years of age.	Members 2–20 years of age who had one or more dental visit with a dental practitioner during the measurement year.	Percentage	MMIS Encounter database; MMIS Eligibility and Enrollment database; OneCare Kansas members’ eligibility & participation database; MCOs Member-level case management data systems.
Adults’ Access to Preventive/Ambulatory Health Services (AAP) Percentage of Medicaid members 20 years & older who had an ambulatory or preventive care visit during the measurement year.	NCQA	Medicaid members 20 years & older.	Members 20 years & older who had one or more ambulatory or preventive care visits during the measurement year.	Percentage	Same as above.
Adolescent Well-Care Visits (AWC) Percentage of Medicaid members, 12–21 years, who had at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year.	NCQA	Medicaid members 12–21 years of age.	Members, 12–21 years, who had at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year.	Percentage	Same as above.
Follow-Up After Hospitalization for Mental Illness (FUH) Percentage of discharges for members, 6 years & older, who were hospitalized for treatment of selected mental illness or intentional self-harm diagnoses & who had a follow-up visit with a mental health practitioner within 7 days after discharge.	NCQA	Medicaid members, 6 years & older, who were hospitalized for treatment of selected mental illness or intentional self-harm diagnoses.	A follow-up visit with a mental health practitioner within 7 days of discharge.	Percentage	Same as above.
Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET) Percentage of adolescent and adult members with a new episode of alcohol or other drug (AOD) abuse or dependence who received: <ul style="list-style-type: none"> • Initiation of AOD treatment: Percentage of members who initiate a treatment through inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth or medication treatment within 14 days of the diagnosis. • Engagement of AOD treatment: Percentage of members who initiated treatment and who are engaged in ongoing AOD treatment within 34 days of the initiation visit. 	NCQA	Initiation: Members who were diagnosed with a new episode of AOD abuse from January 1 – November 13 of the measurement year. Engagement: Members who were diagnosed with a new episode of AOD from January 1 – November 13 of the measurement year.	Initiation: Members who began initiation of AOD treatment within 14 days of the index episode start date (IESD). Engagement: Members who began initiation of AOD treatment within 14 days of IESD & had two or more engagement visits within 34 days after the date of the initiation visit. [Engagement visits will be defined as per HEDIS administrative specifications].	Initiation: Percentage Engagement: Percentage	Same as above.
Denominators and numerators will be defined and calculated as per <i>Healthcare Effectiveness Data and Information Set®</i> (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. Performance Measures: Measures will be calculated for the Intervention and Comparison Groups designed for the evaluation of <i>OneCare Kansas</i> program.					

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.2. Detailed Summary of Quantitative Performance Measures for OneCare Kansas Program (Continued)					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
<p>Antidepressant Medication Management (AMM) Percentage of members, 18 years and older, who were treated with antidepressant medication, had a diagnosis of major depression & who remained on an antidepressant medication treatment:</p> <ul style="list-style-type: none"> • Effective Acute Phase Treatment: Percentage of members who remained on an antidepressant medication for at least 84 days (12 weeks). • Effective Continuation Phase Treatment: Percentage of members who remained on an antidepressant medication for at least 180 days (6 months). 	NCQA	<p>Effective Acute Phase Treatment: Medicaid members, 18 years and older, who were treated with antidepressant medication, had a diagnosis of major depression. [Eligible population for denominator will be defined as per HEDIS administrative specifications.]</p> <p>Effective Continuation Phase Treatment: Same as above.</p>	<p>Effective Acute Phase Treatment: Medicaid members, 18 years and older, who were treated with antidepressant medication for at least 84 days (12 weeks), beginning on the Index prescription Start Date (IPSD) through 114 days after IPSD. Effective Continuation Phase Treatment: Medicaid members, 18 years and older, who were treated with antidepressant medication for at least 180 days (6 months), beginning on IPSD through 231 days after IPSD.</p>	Percentage	(MMIS Encounter database; MMIS Eligibility and Enrollment database; OneCare Kansas members' eligibility & participation database; MCOs' member-level case management data systems.
<p>ED visits, observation stays, or inpatient admissions per 1,000 member-months for following conditions (Administrative):</p> <ul style="list-style-type: none"> • Diabetic Ketoacidosis/ Hyperglycemia, or • Acute severe asthma, or • Hypertensive crisis, or • Fall injuries, or • SUD, or • Mental health issues 	N/A	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	Number (#) of ED visits, observation stays, or inpatient admissions for diabetic ketoacidosis /hyperglycemia, or acute severe asthma, or hypertensive crisis, or fall injuries, or substance use disorder, or mental health issues.	1,000 member-months	Same as above.
<p>Outpatient or professional claims for following conditions:</p> <ul style="list-style-type: none"> • Diabetic retinopathy, or • Influenza, or • Pneumonia, or • Shingles 	N/A	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	# of Outpatient or professional claims for diabetic retinopathy, or influenza, or pneumonia, or shingles.	1,000 member-months	Same as above.
<p>Emergency department visits per 1,000 member-months</p>	N/A	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	# of ED visits during the measurement period.	1,000 member-months	Same as above.
<p>Inpatient Utilization—General Hospitalization/Acute Care (IPU), excluding maternity admissions.</p>	NCQA	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	# of acute inpatient discharges (excluding discharges for maternity admissions) during the measurement period.	Days per 1,000 member-months	Same as above.

Denominators and numerators will be defined and calculated as per *Healthcare Effectiveness Data and Information Set®* (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. Performance Measures: Measures will be calculated for the Intervention and Comparison Groups designed for the evaluation of OneCare Kansas program.

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.3. Detailed Summary of Qualitative Performance Measures for OneCare Kansas Program			
Performance Measure	Steward	Unit of Measure	Data Source
Learning needs identified by the OneCare Kansas Learning Collaborative.	N/A	Similar and dissimilar themes based on content and narrative analyses	OneCare Kansas Learning Collaborative reports.
Processes to address the learning needs identified by the OneCare Kansas Learning Collaborative.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Factors that facilitated the implementation of the OneCare Kansas program to achieve its goal.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Barriers encountered in implementation of the OneCare Kansas program.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Recommendations about how the quality of OneCare Kansas program can be further improved.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Observations why this program was able to succeed or why it did not meet its goals.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Additional qualitative measures will be examined based on the themes identified from the information obtained from the OneCare Kansas Learning Collaborative members.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Qualitative data will be collected through OneCare Kansas Learning Collaborative reports. Qualitative data analysis procedures will be applied.			

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.4. Detailed Summary of Quantitative Performance Measures for KanCare 2.0 Hypothesis 1 – Value-Based Provider Incentive Program					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
<p>Annual Dental Visit (ADV) Percentage of Medicaid members, 2–20 years, who had one or more dental visit with a dental practitioner during the measurement year.</p>	NCQA	Medicaid members 2–20 years of age.	Members 2–20 years of age who had one or more dental visit with a dental practitioner during measurement year.	Percentage	MCOs’ administrative databases on Value-Based Provider Incentive Programs; MMIS Encounter database; MMIS Eligibility and Enrollment database; MCOs’ member-level case management data systems; MCO databases/ tables for Value-based Provider Incentive Programs performance measures.
<p>Adults’ Access to Preventive/Ambulatory Health Services (AAP) Percentage of Medicaid members 20 years & older who had an ambulatory or preventive care visit during the measurement year.</p>	NCQA	Medicaid members 20 years & older.	Members 20 years & older who had one or more ambulatory or preventive care visits during the measurement year.	Percentage	Same as above.
<p>Adolescent Well-Care Visits (AWC) Percentage of Medicaid members, 12–21 years, who had at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year.</p>	NCQA	Medicaid members 12–21 years of age.	Members, 12–21 years, who had at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year.	Percentage	Same as above.
<p>Follow-Up After Hospitalization for Mental Illness (FUH) Percentage of discharges for members, 6 years & older, who were hospitalized for treatment of selected mental illness or intentional self-harm diagnoses & who had a follow-up visit with a mental health practitioner within 7 days after discharge.</p>	NCQA	Medicaid members, 6 years & older, who were hospitalized for treatment of selected mental illness or intentional self-harm diagnoses.	A follow-up visit with a mental health practitioner within 7 days of discharge.	Percentage	Same as above.
<p>Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET) Percentage of adolescent and adult members with a new episode of alcohol or other drug (AOD) abuse or dependence who received:</p> <ul style="list-style-type: none"> • Initiation of AOD treatment: Percentage of members who initiate a treatment through inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth or medication treatment within 14 days of the diagnosis. • Engagement of AOD treatment: Percentage of members who initiated treatment and who are engaged in ongoing AOD treatment within 34 days of the initiation visit. 	NCQA	<p>Initiation: Members who were diagnosed with a new episode of AOD abuse or dependence during the first 10% months of the measurement year.</p> <p>Engagement: Members who were diagnosed with a new episode of AOD during the first 10% months of the measurement year.</p>	<p>Initiation: Members who began initiation of AOD treatment within 14 days of the index episode start date (IESD). Engagement: Members who began initiation of AOD treatment within 14 days of IESD & had two or more engagement visits within 34 days after the date of the initiation visit. [Engagement visits defined as per HEDIS administrative specifications].</p>	<p>Initiation: Percentage</p> <p>Engagement: Percentage</p>	Same as above.
Denominators and numerators will be defined and calculated as per <i>Healthcare Effectiveness Data and Information Set®</i> (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. Performance Measures: Measures will be calculated for the Intervention and Comparison Groups designed for the evaluation of Hypothesis 1.					

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.4. Detailed Summary of Quantitative Performance Measures for KanCare 2.0 Hypothesis 1 – Value-Based Provider Incentive Program (Continued)					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
<p>Antidepressant Medication Management (AMM) Percentage of members, 18 years and older, who were treated with antidepressant medication, had a diagnosis of major depression & who remained on an antidepressant medication treatment:</p> <ul style="list-style-type: none"> • Effective Acute Phase Treatment: Percentage of members who remained on an antidepressant medication for at least 84 days (12 weeks). • Effective Continuation Phase Treatment: Percentage of members who remained on an antidepressant medication for at least 180 days (6 months). 	NCQA	<p>Effective Acute Phase Treatment: Medicaid members, 18 years and older, who were treated with antidepressant medication, had a diagnosis of major depression. [Eligible population for denominator will be defined as per HEDIS administrative specifications].</p> <p>Effective Continuation Phase Treatment: Same as above.</p>	<p>Effective Acute Phase Treatment: Medicaid members, 18 years and older, who were treated with antidepressant medication for at least 84 days (12 weeks), beginning on the Index prescription Start Date (IPSD) through 114 days after IPSD.</p> <p>Effective Continuation Phase Treatment: Medicaid members, 18 years and older, who were treated with antidepressant medication for at least 180 days (6 months), beginning on IPSD through 231 days after IPSD.</p>	Percentage	MCOs' administrative databases on Value-Based Provider Incentive Programs; MMIS Encounter database; MMIS Eligibility and Enrollment database; MCOs Member-level case management data systems; MCO databases/tables for Value-based Provider Incentive Programs performance measures.
<p>ED visits, observation stays, or inpatient admissions per 1,000 member-months for following conditions:</p> <ul style="list-style-type: none"> o Diabetic Ketoacidosis/ Hyperglycemia, or o Acute severe asthma, or o Hypertensive crisis, or o Fall injuries, or o SUD, or o Mental health issues 	N/A	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	Number (#) of ED visits, observation stays, or inpatient admissions for diabetic ketoacidosis /hyperglycemia, or acute severe asthma, or hypertensive crisis, or fall injuries, or substance use disorder, or mental health issues.	1,000 member-months	Same as above.
<p>Outpatient or professional claims for following conditions:</p> <ul style="list-style-type: none"> o Diabetic retinopathy, or o Influenza, or o Pneumonia, or o Shingles 	N/A	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	# of Outpatient or professional claims for diabetic retinopathy, or influenza, or pneumonia, or shingles.	1,000 member-months	Same as above.
<p>Emergency department visits per 1,000 member-months</p>	N/A	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	# of ED visits during the measurement period.	1,000 member-months	Same as above.
<p>Inpatient Utilization—General Hospitalization/Acute Care (IPU), excluding maternity admissions.</p>	NCQA	Members, 18 years & older, enrolled in Medicaid for at least one month (30 consecutive days) during the measurement period.	# of acute inpatient discharges (excluding discharges for maternity admissions) during the measurement period.	Days per 1,000 member-months	Same as above.
Denominators and numerators will be defined and calculated as per Healthcare Effectiveness Data and Information Set® (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. Performance Measures: Measures will be calculated for the Intervention and Comparison Groups designed for the evaluation of Hypothesis 1.					

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.4. Detailed Summary of Quantitative Performance Measures for KanCare 2.0 Hypothesis 1 – Value-Based Provider Incentive Program (Continued)					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
<p>Identification of Alcohol and Other Drug Services (IAD) Percentage of members with an alcohol and other drug (AOD) claim who received chemical dependency services during the measurement year.</p>	NCQA	Medicaid members with an AOD diagnosis during the measurement year.	Medicaid members with an AOD diagnosis who received a specific AOD-related service including inpatient, intensive outpatient or partial hospitalization, outpatient or medication treatment, ED visit, telehealth, or any service during the measurement year.	Percentage	MCOs’ administrative databases on Value-Based Provider Incentive Programs; MMIS Encounter database; MMIS Eligibility and Enrollment database; MCOs’ member-level case management data systems; MCO databases/tables for Value-based Provider Incentive Programs performance measures.
<p>Follow-Up Care for Children Prescribed ADHD Medication (ADD) Percentage of children newly prescribed ADHD medication who had at least 3 follow-up care visits within 10-month period:</p> <ul style="list-style-type: none"> • Initiation Phase: Percentage of members 6–12 years as of IPSD with an ambulatory prescription dispensed for ADHD medication, who had one follow-up visit with practitioner with prescribing authority during 30-day Initiation Phase. • Continuation & Maintenance (C&M) Phase: Percentage of members 6–12 years as of IPSD with an ambulatory prescription dispensed for ADHD medication, who remained on medication for at least 210 days and in addition to a visit in Initiation Phase, had at least two follow-up visits with practitioner within 270 days (9 months) after Initiation Phase ended. 	NCQA	<p>Initiation Phase: Children 6–12 years as of IPSD, with an ambulatory prescription dispensed for ADHD medication, and continually enrolled in Medicaid (120 days before IPSD through 30 days after IPSD).</p> <p>C&M Phase: Children 6–12 years as of IPSD, continually enrolled in Medicaid (120 days before IPSD through 300 days after IPSD) with an ambulatory prescription dispensed for ADHD medication, & who remained on medication for at least 210 days.</p>	<p>Initiation Phase: Eligible members with an outpatient, intensive outpatient or partial hospitalization follow-up visit with practitioner with prescribing authority within 30 days after the IPSD.</p> <p>C&M Phase: Eligible members with an outpatient, intensive outpatient or partial hospitalization follow-up visit with practitioner with prescribing authority within 30 days after the IPSD and at least two follow-up visits on different dates of service with any practitioner, from 31-300 days (9 months) after IPSD.</p>	Percentage	Same as above.
<p>Use of Opioids at High Dosage (HDO) Proportion of members, 18 years and older, who received prescription opioids at a high dosage (average morphine milligram equivalent dose [MME] ≥90) for ≥15 total days during measurement period.</p>	NCQA	<p>Medicaid members, 18 years and older, who met following criteria:</p> <ul style="list-style-type: none"> • Two or more opioid dispensing events on different dates of service; and • ≥15 total days covered by opioids. 	Number of members whose average MME was ≥90 during treatment period.	Percentage	Same as above.
<p>Denominators and numerators will be defined and calculated as per Healthcare Effectiveness Data and Information Set® (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. Performance Measures: Measures will be calculated for the Intervention and Comparison Groups designed for the evaluation of Hypothesis 1.</p>					

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.4. Detailed Summary of Quantitative Performance Measures for KanCare 2.0 Hypothesis 1 – Value-Based Provider Incentive Program (Continued)					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
Use of Opioids from multiple providers (UOP) Proportion of members, 18 years and older, receiving prescription opioids for ≥15 days during measurement period who received opioids from multiple providers. • Multiple Prescribers: Proportion of members receiving prescriptions for opioids from four or more different providers during the measurement year.	NCQA	Medicaid members, 18 years and older, who met following criteria: <ul style="list-style-type: none"> • Two or more opioid dispensing events on different dates of service; and • ≥15 total days covered by opioids. 	Members who received prescriptions for opioids from four or more different providers during the measurement year	Percentage	MCOs’ administrative databases on Value-Based Provider Incentive Programs; MMIS Encounter database; MMIS Eligibility and Enrollment database; MCOs’ member-level case management data systems; MCO databases/ tables for Value-based Provider Incentive Program performance measures.
Mental Health Utilization (MPT) Percentage of members receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, ED, telehealth, or any service) during the measurement year.	NCQA	Medicaid members with a diagnosis of mental illness during the measurement year.	Members who received mental health services) during the measurement year.	Percentage	Same as above
MCO-specified measures on effectiveness of their value-based purchasing program on increasing physical and behavioral health service integration. To be Determined (TBD)	TBD	TBD	TBD	TBD	MCO measured data.
Denominators and numerators will be defined and calculated as per Healthcare Effectiveness Data and Information Set® (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. Performance Measures: Measures will be calculated for the Intervention and Comparison Groups designed for the evaluation of Hypothesis 1.					

Table A2.5. Detailed Summary of Qualitative Performance Measures for KanCare 2.0 Hypothesis 1 – Value-Based Provider Incentive Program			
Performance Measure	Steward	Unit of Measure	Data Source
Factors that facilitated the implementation of the Value-Based Provider Incentive Program.	N/A	Similar and dissimilar themes based on content and narrative analyses	Online provider survey and key informant interviews of the providers participating in the <i>Value-Based Provider Incentive Program</i> .
Barriers encountered in implementing the Value-Based Provider Incentive Program.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Recommendations about ways to further improve the Value-Based Provider Incentive Program.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Recommendations about ways to remove barriers encountered in the implementation of the Value-Based Provider Incentive Program.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Observations why this program was able to succeed or why it did not meet its goals.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Additional qualitative measures based on the themes identified from the survey and Key informant interviews.	N/A	Similar and dissimilar themes based on content and narrative analyses	Same as above.
Qualitative data will be collected through online provider survey and/or key-informant interviews with the providers participating in the Value-Based Provider Incentive Program. Qualitative data analysis procedures will be applied.			

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.6. Detailed Summary of Performance Measures for KanCare 2.0 Hypothesis 2 – Provision of Supports for Employment & Independent Living to the Members with Disabilities and the Behavioral Health Conditions who are Living in the Community					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
Current employment status.	N/A	Study Population (members living in the community & receiving behavioral health services or HCBS services in the PD, I/DD, and BI waiver programs who opted for service coordination & potentially needing employment or independent living supports).	Members in study population who are currently employed.	Percentage	MMIS Encounter database; MMIS Eligibility and Enrollment database; MCOs' member-level case management data systems.
Percentage of members who felt they were employed based on their skills and knowledge (if employed).	N/A	Members in study population who are currently employed.	Members who are currently employed & felt they were employed based on their skills and knowledge.	Percentage	Same as above.
Percentage of members with stable housing – number of addresses member lived in the past year.	N/A	Members in study population.	Members with one or two addresses in the past year.	Percentage.	Same as above.
Current legal problems (e.g., probation, parole, arrests).	N/A	Members in study population.	Members with no current legal problems.	Percentage	Same as above.
Number of days in the community.	N/A	N/A	Average # of days members live in the community.	Days in the community	Same as above.
Percentage of members who worried about paying bills.	N/A	Members in study population.	Members who worried about paying bills.	Percentage	Same as above.
ED visits per 1,000 member-months.	N/A	Members in study population (enrolled in Medicaid for at least 30 consecutive days during the measurement period).	# of ED visits during the measurement period.	1,000 member-months	Same as above.
Inpatient hospitalizations (excluding discharges for maternity admissions) per 1,000 member-months.	N/A	Members in study population (enrolled in Medicaid for at least 30 consecutive days during the measurement period).	# of acute inpatient discharges during the measurement period.	1,000 member-months	Same as above.
Study Population includes members living in the community & receiving behavioral health services or HCBS services in the PD, I/DD, and BI waiver programs who opted for service coordination & potentially needing employment or independent living supports.					

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.7. Detailed Summary of Quantitative Performance Measures for KanCare 2.0 Hypothesis 3 – Use of Telehealth Services (Telemedicine; Telemonitoring)					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
Telemedicine					
Percentage of telemedicine services received by the members living in the rural or semi-urban areas (potential stratification by service, specialty type, or diagnosis).	N/A	Medicaid members living in the rural or semi-urban areas.	Number (#) of telemedicine services received by the members living in the rural or semi-urban areas.	Percentage	MMIS Encounter database; MMIS Eligibility and Enrollment database.
Number of receiving sites for telemedicine services in the rural and semi-urban areas. (potential stratification by service, specialty type, or diagnosis).	N/A	N/A	# of receiving sites for telemedicine services in the rural and semi-urban areas.	Sites	Same as above.
Percentage of members living in the rural or semi-urban areas who received telemedicine services (potential stratification by service, specialty type, or diagnosis).	N/A	Medicaid members living in the rural or semi-urban areas.	Medicaid members living in the rural or semi-urban areas who received telemedicine services.	Percentage	Same as above.
Number of paid claims with selected procedure codes (stratified by area, mode of delivery, and provider specialty).	N/A	N/A	Number of paid claims with selected procedure codes.	Paid claims	Same as above.
Number of members with selected diagnosis (e.g., speech-language pathology) per 1,000 members.	N/A	Medicaid members living in the rural or semi-urban areas.	Number of members with selected diagnosis (e.g., speech-language pathology).	1,000 members	Same as above.
Telemonitoring					
Percentage of members living in the rural and semi-urban areas who received telemonitoring services (stratification by service, specialty type, or diagnosis).	N/A	Medicaid members living in the rural or semi-urban areas.	Medicaid members living in the rural or semi-urban areas who received telemonitoring services.	Percentage	Same as above.
Number of telemonitoring services provided to members living in the rural and semi-urban areas.	N/A	N/A	# of telemonitoring services received by the members living in the rural or semi-urban areas.	Telemonitoring services	Same as above.
Number of providers monitoring health indicator data transmitted to them by the members receiving telemonitoring services.	N/A	N/A	# of providers monitoring health indicator data transmitted to them by the members receiving telemonitoring services.	Providers	Same as above.
Other appropriate measures related to specific telemonitoring strategies implemented for the members living in the rural and semi-urban areas.	To be determined (TBD)	TBD	TBD	TBD	TBD
Other appropriate data sources for measures will be identified later in accordance with specific telehealth strategies.					

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.8. Detailed Summary of Qualitative Performance Measures for KanCare 2.0 Hypothesis 3 – Use of Telehealth Services (Telemedicine; Telemonitoring)			
Performance Measure	Steward	Unit of Measure	Data Source
Factors that facilitated the use of telemedicine and/or telemonitoring services for the Medicaid members.	N/A	Similar and dissimilar themes based on content and narrative analyses.	Online provider survey and/or key-informant interviews with the providers who submitted claims for telemedicine and/or telemonitoring services.
Barriers encountered in using telemedicine and/or telemonitoring services for the Medicaid members.	N/A	Similar and dissimilar themes based on content and narrative analyses.	Online provider survey and/or key-informant interviews with the providers who submitted claims for telemedicine and/or telemonitoring services.
Recommendations about how to further improve the use of telemedicine and/or telemonitoring services.	N/A	Similar and dissimilar themes based on content and narrative analyses.	Online provider survey and/or key-informant interviews with the providers who submitted claims for telemedicine and/or telemonitoring services.
Recommendations about how to remove barriers encountered in using telemedicine and/or telemonitoring services.	N/A	Similar and dissimilar themes based on content and narrative analyses.	Online provider survey and/or key-informant interviews with the providers who submitted claims for telemedicine and/or telemonitoring services.
Observations why the use of telemedicine and/or telemonitoring services succeeded or did not succeed in increasing the access to care for the Medicaid members in rural and semi-rural areas.	N/A	Similar and dissimilar themes based on content and narrative analyses.	Online provider survey and/or key-informant interviews with the providers who submitted claims for telemedicine and/or telemonitoring services.
Additional qualitative measures based on the themes identified from the survey and key informant interviews.	N/A	Similar and dissimilar themes based on content and narrative analyses.	Online provider survey and/or key-informant interviews with the providers who submitted claims for telemedicine and/or telemonitoring services.
Qualitative data will be collected through online provider survey and/or key-informant interviews with the providers who submitted claims for telemedicine and/or telemonitoring services. Qualitative data analysis procedures will be applied.			

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.9. Detailed Summary of Performance Measures for Monitoring of Overall KanCare 2.0 Program					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
<p>Prenatal and Postpartum Care (PPC) Percentage of deliveries of live births on or between October 8 of the year prior to measurement year and October 7 of the measurement year:</p> <ul style="list-style-type: none"> • Timeliness of Prenatal Care: Percentage of deliveries that received a prenatal care visit in the first trimester, on or before the enrollment start date or within 42 days of enrollment in the organization. • Postpartum Care: Percentage of deliveries that had a postpartum visit on or between 7 & 84 days after delivery. 	NCQA	Number (#) of deliveries of live births on or between October 8 of the year prior to measurement year and October 7 of the measurement year among women continually enrolled in Medicaid.	<ul style="list-style-type: none"> • A prenatal care visit in the first trimester, on or before the enrollment start date or within 42 days of enrollment. • A postpartum care visit on or between 7 and 84 days after delivery. 	Percentage	MCO HEDIS data.
<p>Comprehensive Diabetes Care (CDC) Percentage of members 18-75 years of age with diabetes (type 1 and type 2) who had each of the following:</p> <ul style="list-style-type: none"> • Hemoglobin A1c (HbA1c) testing; • HbA1c poor control (>9.0%); • HbA1c control (<8.0%); • Eye exam (retinal) performed; • Medical attention for Nephropathy; • BP control (<140/90 mm Hg). 	NCQA	Members 18-75 years of age with diabetes (type 1 and type 2) enrolled in Medicaid during the measurement year.	<p>HbA1c testing: A HbA1c test performed during the measurement year.</p> <p>HbA1c poor control (>9.0%): Most recent HbA1c level is >9.0% or is missing a result, or if test was not done during the measurement year.</p> <p>HbA1c control (<8.0%): Most recent HbA1c level is <8.0%.</p> <p>Eye exam (retinal) performed: A retinal or dilated eye exam by eye care professional in the measurement year or a negative retinal or dilated eye exam in the year prior to measurement year or bilateral eye enucleation any time during the member’s history through December 31 of the measurement year.</p> <p>Medical attention for Nephropathy: a nephropathy screening or monitoring test or evidence of nephropathy documented.</p> <p>BP control (<140/90 mm Hg): a member with most recent reading of BP <140/90 mm Hg taken during outpatient visit or a nonacute inpatient encounter during the measurement year.</p>	Percentage	Same as above.
Denominators and numerators will be defined and calculated as per Healthcare Effectiveness Data and Information Set® (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. HEDIS Measures: Measures will be calculated for the eligible KanCare 2.0 population and associated strata. CAHPS, MH and HCBS-CAHPS Survey measures will be calculated for eligible KanCare 2.0 population.					

Appendix 2: Detailed Summary of Performance Measures (Continued)

Table A2.9. Detailed Summary of Performance Measures for Monitoring of Overall KanCare 2.0 Program (Continued)					
Performance Measure	Steward	Denominator	Numerator	Unit of Measure	Data Source
<p>Smoking and Tobacco Cessation Measure is based on the following Consumer Assessment of the Healthcare Providers and Systems (CAHPS) Survey questions:</p> <ul style="list-style-type: none"> Do you now smoke cigarettes or use tobacco: every day, some days, or not at all? <p>If response is “every day” or “some days”:</p> <ul style="list-style-type: none"> In the last 6 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan? In the last 6 months, how often was medication recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? In the last 6 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? 	N/A	Number of survey respondents who currently smoke cigarettes or use tobacco every day or some days.	<p>Advice to quit smoking or using tobacco by a doctor or other health provider: Current smokers who always/usually receive the advice.</p> <p>Medication recommended or discussed by a doctor or health provider to assist with quitting smoking or using tobacco: Current smokers to whom a doctor or health provider always/usually/sometimes recommended or discussed medication.</p> <p>Doctor or health provider discussed or provided methods and strategies other than medication to assist with quitting smoking or using tobacco: Current smokers with whom a doctor or health provider always/usually/sometimes discussed or provided methods and strategies other than medication.</p>	Percentage	CAHPS Survey.
<p>Improved ability to handle daily life and deal with crisis Measure is based on the following Mental Health (MH) Survey questions:</p> <p>Youth: As a direct result of the services my child and/or family received:</p> <ul style="list-style-type: none"> My child is better at handling daily life. My child is better to cope when things go wrong. <p>Adults: As a direct result of the services I received:</p> <ul style="list-style-type: none"> I deal effectively with daily problems. I am better able to deal with crisis. 	N/A	Number of survey respondents with responses “Strongly Agree,” “Agree,” “Disagree,” or “Strongly Disagree.”	<p>My child is better at handling daily life: Number of responses marked “Strongly Agree” or “Agree.”</p> <p>My child is better to cope when things go wrong: Number of responses marked “Strongly Agree” or “Agree.”</p> <p>I deal effectively with daily problems: Number of responses marked “Strongly Agree” or “Agree.”</p> <p>I am better able to deal with crisis: Number of responses marked “Strongly Agree” or “Agree.”</p>	Percentage	MH Survey.
<p>Social and Community Engagement Measure is based on the following HCBS – CAHPS Survey questions:</p> <ul style="list-style-type: none"> Ability to get together with family who live nearby; Ability to get together with friends who live nearby; Ability to do things in the community; Have enough help from staff to do things in the community; Decided what to do with your time each day; Decided when to do things each day. 	N/A	Number of eligible survey respondents.	<ul style="list-style-type: none"> Ability to get together with family who live nearby: Number of responses marked “Always” Ability to get together with friends who live nearby: Number of responses marked “Always” Ability to do things in the community: Number of responses marked “Always” Have enough help from staff to do things in the community: Number of responses marked “Yes” Decided what to do with your time each day: Number of responses marked “Yes” Decided when to do things each day: Number of responses marked “Yes” 	Percentage	HCBS – CAHPS Survey.
Denominators and numerators will be defined and calculated as per Healthcare Effectiveness Data and Information Set® (HEDIS) 2020 Technical Specifications for Health Plans, NCQA, 2019. HEDIS Measures will be calculated for the KanCare 2.0 population and associated strata. CAHPS, MH and HCBS-CAHPS Survey measures will be calculated for eligible KanCare 2.0 population.					

Appendix 3: Detailed Discussion of Data Sources

Table A3.1. Detailed Discussion of Data Sources for KanCare 2.0 Evaluation Design (Service Coordination Strategy; OneCare Kansas program; Hypothesis 1, Hypothesis 2 and Hypothesis 3)				
Data Source	Type of Data Provided by the Data Source	Description of Data Source	Efforts for Cleaning/Validation of Data	Quality/Limitations of Data Source
Medicaid Management Information System (MMIS) Encounter database.	Claims and Encounters.	Encounter/claims data submitted to the State by MCOs used to support HEDIS® and HEDIS®-like performance, Medication Assisted Treatment, service utilization, and cost metrics for all enrollees.	<ul style="list-style-type: none"> • MMIS member demographics, enrollment, & encounter data obtained from the database will be reviewed for missing values, duplicate values, inconsistent patterns, & outliers to ensure quality & appropriateness of data for analyses of performance measures required by the evaluation design. • Encounter data related pay-for-performance metrics are validated annually by KFMC as a part of their validation of all pay-for-performance metrics. • For applying statistical procedures for analysis of performance measures, a final dataset with all required variables will be created by merging data variables obtained from the MMIS database with data from other data sources. 	<ul style="list-style-type: none"> • Encounters submitted to the State by MCOs are records of the billed claims MCOs receive from providers for service payment. Administrative claims and encounter data are routinely used in HEDIS and other performance measurement. These data sources will be used in the evaluation to determine changes in access to services, quality of care, and health outcomes. Most of the measures selected for assessment of the evaluation questions are validated and widely used for this purpose. • Data are generally considered complete if one quarter is allowed for claims processing and encounter submission. • There are known gaps in MCO submission of pharmacy encounters. • There is known inconsistency in the population of the MCO claim status field for zero-dollar paid claims.
MMIS Eligibility and Enrollment database.	Medicaid Eligibility & Enrollment data.	Eligibility & enrollment detail for Medicaid members used to determine enrollee aid category and stratify data into subgroups.	<ul style="list-style-type: none"> • Data variables obtained from MMIS Eligibility and Enrollment database will be merged with data from other data sources to create a final database for applying statistical procedures for analysis of performance measures. 	<ul style="list-style-type: none"> • Enrollment records include beginning and end dates for eligibility periods. • MCOs receive updated MMIS Eligibility and Enrollment data daily.
MCOs' member-level case management data systems.	Administrative data on health screening scores & service coordination.	Member-level data maintained by MCOs within their specific case management data systems.	<ul style="list-style-type: none"> • Data on health screening scores & service coordination obtained from the MCOs will be reviewed for missing values, duplicate values, inconsistent patterns, and outliers to ensure quality and appropriateness of data. The data will be used for creation of intervention and comparison groups, as well as for analyses of performance measures required by the evaluation design. • Data variables obtained from MCOs' member-level case management data systems will be merged with data from other data sources to create a final database for applying statistical procedures for analysis of performance measures. 	<ul style="list-style-type: none"> • In the first year, MCOs are establishing the health screening and service coordination strategies; the database may not capture information on all members. • MCOs have different case management systems, which may be a barrier to aggregating data.
Data Sources will provide data for creation of intervention and comparison groups, stratification into subgroups, and calculation of denominators & numerators of the performance measures for implementation of one or multiple components of KanCare Evaluation Design.				

Appendix 3: Detailed Discussion of Data Sources (Continued)

Table A3.1. Detailed Discussion of Data Sources for KanCare 2.0 Evaluation Design (Service Coordination Strategy; OneCare Kansas program; Hypothesis 1, Hypothesis 2 and Hypothesis 3) – Continued				
Data Source	Type of Data Provided by the Data Source	Description of Data Source	Efforts for Cleaning/Validation of Data	Quality/Limitations of Data Source
OneCare Kansas eligibility & participation database.	Administrative data on OneCare Kansas eligibility and participation.	Eligibility and participation details for KanCare 2.0 members for the OneCare Kansas program used for determining groups.	<ul style="list-style-type: none"> Record counts will be trended to assess data completeness. Data variables obtained from database will be merged with data from other data sources to create a final database for applying statistical procedures for analysis of performance measures. 	<ul style="list-style-type: none"> In the first year, the OneCare Kansas program will be establishing the data collection system and the database may not capture all information for members.
OneCare Kansas Learning Collaborative reports	Qualitative data will be collected from the OneCare Kansas Learning Collaborative.	The Learning Collaborative reports will provide information on evolving learning needs for continual quality improvement of OneCare Kansas system. Learning Collaborative will include multiple program components to support provider implementation of OneCare Kansas program.	<ul style="list-style-type: none"> Information from the OneCare Kansas Learning Collaborative reports will be reviewed for completeness and clarity. Themes will be identified to understand learning needs of the partners and ways to improve the quality of program. 	<ul style="list-style-type: none"> Over the five-year period, changes may occur in the collection process for the report information.
MCOs' administrative databases on Intervention and comparison Provider Incentive Programs.	Data on providers participating and not participating in the Intervention and comparison Provider Incentive Program	MCOs' administrative databases providing detailed provider data for identification of providers participating and not participating in the Intervention and comparison Provider Incentive Program for creation of the intervention & comparison groups & for subgroup stratification.	<ul style="list-style-type: none"> Record counts will be trended to assess data completeness. Data variables obtained from database will be merged with data from other data sources to create a final database for applying statistical procedures for analysis of performance measures. 	<ul style="list-style-type: none"> In the first year, MCOs are establishing the Intervention and comparison Provider Incentive Program and the database may not capture information on all members. MCOs have different case management systems, which may be a barrier to aggregating data.
MCO databases/tables for the intervention and comparison Provider Incentive Program performance measures.	MCO measured effectiveness measures for intervention and comparison Provider Incentive Programs.	MCO databases/tables providing data for performance measures assessing effectiveness of the intervention and comparison Provider Incentive Programs.	<ul style="list-style-type: none"> Data validation will be a responsibility of the MCOs. Data variables obtained from MCO databases/tables for intervention and comparison Provider Incentive Program performance measures will be merged with data from other data sources to create a final database for applying statistical procedures for analysis of performance measures. 	<ul style="list-style-type: none"> Each MCO may have different provider incentives, metrics, and reporting periods. This may prevent aggregation of results across MCOs.
Online provider survey of the providers participating in intervention and comparison Provider Incentive Programs.	Qualitative data to understand the facilitating factors & barriers and recommendations from providers to make the program successful in achieving its goal.	Online provider survey will be conducted to collect qualitative information from the providers participating in the intervention and comparison Provider Incentive Programs.	<ul style="list-style-type: none"> Information from the online provider survey will be reviewed for completeness & clarity. Themes will be identified to understand facilitating factors & barriers and ways make the program successful in achieving its goal. 	<ul style="list-style-type: none"> Low response rate of the survey is a potential barrier to evaluation. Three MCOs may not start the program at the same time, therefore all providers may not have same amount of time and experience with the program. This may cause complexity in identifying similar and dissimilar themes from the survey data.
Data Sources will provide data for creation of intervention and comparison groups, stratification into subgroups, and calculation of denominators & numerators of the performance measures for implementation of one or multiple components of KanCare Evaluation Design.				

Appendix 3: Detailed Discussion of Data Sources (Continued)

Table A3.1. Detailed Discussion of Data Sources for KanCare 2.0 Evaluation Design (Service Coordination Strategy; OneCare Kansas program; Hypothesis 1, Hypothesis 2 and Hypothesis 3) – Continued				
Data Source	Type of Data Provided by the Data Source	Description of Data Source	Efforts for Cleaning/Validation of Data	Quality/Limitations of Data Source
Key informant interviews from a sample of the providers participating in the intervention and comparison Provider Incentive Programs.	Qualitative data to explore reasons why this program succeeded or why it did not meet its goals.	Key informant interviews will explore further in-depth the themes identified through the provider survey to assess the reasons why this program succeeded or why it did not meet its goals.	<ul style="list-style-type: none"> Information from the key informant interviews will be reviewed for completeness & clarity. The in-depth information on the themes identified through provider interviews will be summarized. 	<ul style="list-style-type: none"> Few providers may participate in the interviews. Three MCOs may not start the program at the same time, therefore all providers may not have same amount of time and experience with the program. This may cause complexity in identifying similar and dissimilar themes from the survey data.
Appropriate data sources for measures identified later in accordance with specific telehealth strategies	TBD	TBD	TBD	TBD
Online Provider Survey to collect qualitative information from the providers using telemedicine &/or telemonitoring services	Qualitative data on facilitators & barriers in using telemedicine &/or telemonitoring services & how the use of these services increases access to care in rural or semi-urban areas.	Online Provider Survey will be conducted to collect qualitative information on facilitators & barriers encountered by the providers in using telemedicine &/or telemonitoring services among members living in rural or semi-urban areas; & how the use of these services increases the access to care in rural or semi-urban areas.	<ul style="list-style-type: none"> Information from the Online Provider Survey will be reviewed for completeness & clarity. Themes will be identified to understand facilitating factors & barriers and ways make the program successful in achieving its goal. 	<ul style="list-style-type: none"> Few providers may participate in the survey. Time consuming process. As providers may not start using telemedicine &/or telemonitoring services at the same time, therefore may not have same amount of time and experience in using these services. This may cause complexity in identifying similar and dissimilar themes from the survey data.
Key informant interviews from a sample of the providers using telemedicine &/or telemonitoring services	Qualitative data to explore reasons why use of telemedicine &/or telemonitoring was succeeded or not succeeded in increasing the access to care.	Key Informant interviews will explore further in-depth the themes identified through provider survey to assess the reasons why telemedicine &/or telemonitoring was succeeded or not succeeded in increasing the access to care.	<ul style="list-style-type: none"> Information from the key informant interviews will be reviewed for completeness & clarity. The in-depth information on the themes identified through provider interviews will be summarized. 	<ul style="list-style-type: none"> Inadequate number of providers participating in the survey. Time-consuming process. As all three MCOs may not start the program at the same time, therefore all providers may not have same amount of time and experience with the program. This may cause complexity in exploring in-depth information of the program.
Data Sources will provide data for creation of intervention and comparison groups, stratification into subgroups, and calculation of denominators & numerators of the performance measures for implementation of one or multiple components of KanCare Evaluation Design.				

Appendix 3: Detailed Discussion of Data Sources (Continued)

Table A3.2. Detailed Discussion of Data Sources for Monitoring of the Overall KanCare 2.0 Performance Measures				
Data Source	Type of Data Provided by the Data Source	Description of Data Source	Efforts for Cleaning/Validation of Data	Quality/Limitations of Data Source
HEDIS data from MCOs.	Data for HEDIS performance measures.	Member-level detail tables for HEDIS measures submitted by the MCOs.	<ul style="list-style-type: none"> • Comparison of numerator and denominator counts to NCQA-certified compliance audit results. • Files provide numerator and denominator values for stratified HEDIS results. • The MCOs subcontract with HEDIS Certified Auditors to validate their HEDIS data for NCQA submission. • KFMC subcontracts with a different HEDIS Certified Auditor to conduct validation of MCO HEDIS data; CMS validation protocols are followed. 	<ul style="list-style-type: none"> • Data Quality is closely monitored by the MCOs and EQRO. • MCOs use NCQA Certified HEDIS software to calculate HEDIS measures and submit data to NCQA as part of their NCQA accreditation requirement. • Data become available seven months after the measurement year. This can affect the availability of data for conducting the evaluation for the entire five-year period of the demonstration.
Consumer Assessment of the Healthcare Providers and Systems (CAHPS) Survey	Member survey data	Survey results on consumer reported experiences with healthcare. Member-level data are not available.	<ul style="list-style-type: none"> • Validated by KFMC following CMS protocols. • Trend analysis will be performed. 	<ul style="list-style-type: none"> • MCOs use NCQA Certified CAHPS vendors to conduct the survey and submit data to NCQA as part of their NCQA accreditation requirement. • Member-level results are not available.
Mental Health Survey	Member survey data	Member-level data are available.	<ul style="list-style-type: none"> • Trend analysis will be performed. 	<ul style="list-style-type: none"> • Member-level data are available. However, sample sizes restrict subgroup analysis.
HCBS– CAHPS Survey	Member survey data	Member-level data are available.	<ul style="list-style-type: none"> • Trend analysis will be performed. 	<ul style="list-style-type: none"> • Member-level data are available. However, sample sizes restrict subgroup analysis.
HEDIS Measures will be calculated for the KanCare 2.0 population and associated strata. CAHPS, MH and HCBS-CAHPS Survey measures will be calculated for eligible KanCare 2.0 population.				

Attachments

Attachment 1: Independent Evaluator

Attachment 2: Evaluation Budget

Attachment 3: Timeline and Major Milestones

Attachment 1: Independent Evaluator

KDHE has arranged to contract with the Kansas External Quality Review Organization (EQRO), Kansas Foundation for Medical Care (KFMC), to conduct the evaluation of KanCare 2.0 at the level of detail needed to research the approved hypotheses. They have agreed to conduct the demonstration evaluation in an independent manner in accord with the CMS-approved draft Evaluation Design. KFMC has over 45 years of demonstrated success in carrying out both Federal and State healthcare quality related contracts. They have provided healthcare quality improvement, program evaluation, review, and other related services including the following:

- Kansas Medicaid Managed Care EQRO since 1995 (over 24 years).
- CMS quality improvement organization (QIO) or QIO-Like entity since 1982 (38 years).
- Utilization Review/Independent Review Organization for the Kansas Insurance Department since 2000 (19 years) and for five other states.

KFMC is accredited as an Independent Review Organization (IRO) through URAC (formerly known as the Utilization Review Accreditation Commission). The URAC Accreditation process is a rigorous, independent evaluation, ensuring that organizations performing IRO services are free from conflicts of interest and have established qualifications for reviewers. Furthermore, through their sub-contract with the Great Plains Quality Innovation Network (a prime CMS contractor), KFMC submits an annual Organizational Conflict of Interest (OCI) certificate to CMS. KFMC considers ethics and compliance an integral part of all their business decisions and the services they provide. The KFMC Corporate Compliance Program supports the commitment of KFMC to conduct its business with integrity and to comply with all applicable Federal and State regulations, including those related to organizational and personal conflicts of interest. The KFMC compliance program ensures potential, apparent, and actual organizational and personal conflicts of interest (PCI) will be identified, resolved, avoided, neutralized, and/or mitigated.

Prior to entering into any contract, KFMC evaluates whether the identified entity or the work presents an actual, potential, or apparent OCI with existing KFMC contracts. KFMC will not enter into contracts that are an OCI. If it is undetermined whether the new work could be a conflict of interest with their EQRO and independent evaluation responsibilities, KFMC will discuss the opportunity with KDHE, to determine whether a conflict would exist. In some cases, an approved mitigation strategy may be appropriate.

All Board members, managers, employees, consultants and subcontractors receive education regarding conflicts of interest and complete a CMS developed PCI Disclosure Form. Disclosures include the following:

- Relationships with Insurance Organizations or Subcontractor of Insurance Organizations
- Relationships with Providers or Suppliers Furnishing Health Services Under Medicare
- Financial Interests in Health Care Related Entities
- Investments in Medical Companies, Healthcare or Medical Sector Funds
- Governing Body Positions

This area intentionally left blank

Attachment 2: Evaluation Budget

Job Description	Description of Services	FTE	Cost
Researchers: <ul style="list-style-type: none"> Epidemiologist Consultant (MBBS, PhD, MPH) Senior Health Data Analyst (PhD, MA) 	<ul style="list-style-type: none"> Work with State and MCOs defining and developing measures (>65 measures with multiple indicators each). Work with State and MCOs on data collection tools, databases, and reports. Obtain data; review for missing values, inconsistent patterns, and outliers to ensure quality and appropriateness of data. Create final dataset for each measure merging data from various sources. Examine homogeneity of the demographic characteristics of the members in Intervention and Comparison Group 2 for applicable study. Conduct analysis according to the design, including trend, comparison, and regression analysis as appropriate. Interpret analysis at least annually and create interim and summative reports. 	.93	\$120,000
Analyst and Programmers <ul style="list-style-type: none"> Quality Review Analyst (RN) Programmer 	<ul style="list-style-type: none"> Assists Researchers with steps noted above. Assist with case record review as needed, ensuring inter-rater-reliability. DSRIP evaluation. 	.29	\$35,680
Contract and Project Managers: <ul style="list-style-type: none"> EQRO Director (RN, BSN, MSW, CCEP) Project Manager (LMSW) 	<ul style="list-style-type: none"> Work with State and MCOs defining and developing measures. Work with State and MCOs on data collection tools, databases, and reports. Oversee evaluation operations and timelines to ensure deliverables are met. Provider routine monthly or quarterly updates to KDHE regarding evaluation progress. Assist with interpretation of data findings. Assist with interim and summation report writing. Facilitate communications with the Researchers, State, and MCOs as needed. Assist with case record review as needed, ensuring inter-rater-reliability. DSRIP evaluation. 	.13	\$22,681
Project Specialist <ul style="list-style-type: none"> Administrative support Data entry 	<ul style="list-style-type: none"> Provide administrative support for report development and submission. Assist with data abstraction or data entry as needed/appropriate. 	.13	\$11,495
Total Annual Cost: *Evaluation time period; July 2019 through June 2025 (6 years); June 2025 is the due date of Draft Summative Evaluation Report, 18 months after the end of the demonstration date of December 2023.		1.5	\$189,856

Attachment 3: Timeline and Major Milestones

Deliverable/Activity	Due Date(s)
Initiate meetings with EQRO/State/MCOs to finalize study measures, determining data sources.	July 31, 2019
Conduct meetings at least quarterly (more frequently in first year) with EQRO/State/MCOs to review and discuss data sources, reports, and findings.	To be determined
Quarterly update of KanCare 2.0 Evaluation progress.	August 31; November 30; February 28; May 31
Annual progress report of KanCare 2.0 Evaluation and key findings.	By April 1
Draft Interim Evaluation Report, in accordance with Attachment N (Preparing the Evaluation Report) of the STCs, will discuss evaluation progress and findings to date.	One year prior to the end of the demonstration (December 2022), or with renewal application (to be determined)
Final Interim Evaluation Report.	60 days after receipt of CMS comments
Draft Summative Evaluation Report in accordance with Attachment N of the STCs.	18 months from the end of the demonstration (June 2025)
Final Summative Evaluation Report.	60 calendar days after receipt of CMS comments

This area intentionally left blank

References

1. Kansas Department of Health & Environment. *KanCare 2.0 Section 1115 Demonstration Renewal Application: Final Submission to CMS*. Topeka, KS: KDHE; 2018. Submitted December 20, 2017. [https://www.kancare.ks.gov/docs/default-source/about-kancare/kancare-renewal-forums/kancare-renewal/kancare-2-0-demonstration-renewal-application-\(002\).pdf?sfvrsn=76194a1b_4](https://www.kancare.ks.gov/docs/default-source/about-kancare/kancare-renewal-forums/kancare-renewal/kancare-2-0-demonstration-renewal-application-(002).pdf?sfvrsn=76194a1b_4).
2. Mayhew M. *Approval letter for KanCare 2.0 Section 1115 Demonstration* (Proj. No. 11-W-00283/7). Baltimore, MD: CMS; 2018. https://www.kancare.ks.gov/docs/default-source/policies-and-reports/section-1115-waiver-comments/ks-kancare-2-0-approval-letter-final-to-ks.pdf?sfvrsn=9ed84c1b_
3. Trieger M. *CMS Review: Kansas “KanCare 2.0” Section 1115 Demonstration Evaluation Design (without SUD & DSRIP)*. Baltimore, MD: CMS; 2019.
4. Kansas Department of Health & Environment. *KanCare 2.0 Quality Management Strategy*. https://www.kancare.ks.gov/docs/default-source/policies-and-reports/quality-measurement/kancare-2-0---quality-mgmt-strategy_final-cms-submission.pdf?sfvrsn=25484d1b_4. Topeka, KS: KDHE; 2018.
5. Centers for Medicare & Medicaid Services. *Evaluation Design Guidance for Section 1115 Demonstrations for Beneficiaries with Serious Mental Illness/Serious Emotional Disturbance and Substance Abuse Disorders*. Baltimore, MD: CMS; 2019.
6. Kansas Department for Aging and Disability Services. *Section 1115 Substance Use Disorder (SUD) Demonstration: Evaluation Design*. Topeka, KS: KDADS. Under development as of January 16, 2020.
7. Centers for Medicare & Medicaid Services. *Core Set of Adult Health Care Quality Measures for Medicaid (Adult Core Set): Technical Specifications and Resource Manual for Federal Fiscal Year 2019 Reporting*. Baltimore, MD: CMS; 2019.
8. National Committee for Quality Assurance. *HEDIS® 2020 Volume 2: Technical Specifications for Health Plans*. Washington, DC: NCQA; 2019.
9. Kansas Department of Health & Environment. *OneCare Kansas (OCK) Program Manual*. Ver 2019-1. Topeka, KS: KDHE; draft under development as of November 15, 2019. https://www.kancare.ks.gov/docs/default-source/providers/ock/draft-onecare-kansas-program-manual.pdf?sfvrsn=242e4c1b_12
10. Kansas Department of Health & Environment. *OneCare Kansas: Contracted OneCare Kansas Partners*. KanCare Website. <https://www.kancare.ks.gov/providers/onecare-ks-providers/contracted-onecare-kansas>. Topeka, KS: KDHE; 2019.
11. Kansas Department of Health & Environment. *What does OneCare Kansas mean for hospitals and other providers?* https://www.kancare.ks.gov/docs/default-source/providers/ock/hospitals-and-other-providers-1-15-19dg.pdf?sfvrsn=a4fe4c1b_10. Topeka, KS: KDHE; 2019.
12. State of Kansas. *Kansas Medicaid Managed Care Request for Proposal for KanCare 2.0* (Bid Event No. EVT0005464). Topeka, KS: Kansas Department of Administration; 2017.
13. Kansas Department for Aging and Disability Services. *Section 1115 Substance Use Disorder (SUD) Demonstration: Implementation Plan*. Topeka, KS: KDADS. Submitted June 14, 2019; approved August 07, 2019.
14. Centers for Medicare & Medicaid Services. *Substance Use Disorder (SUD) Section 1115 Demonstration Evaluation Design – Technical Assistance*. Baltimore, MD: CMS; 2019.
15. Contreary K, Bradley K, Chao S. *Best practices in causal inference for evaluations of Section 1115 eligibility and coverage demonstrations*. Washington, DC: Mathematica Policy Research; 2018.
16. Reschovsky JD, Heeringa J, Colby M. *Selecting the best comparison group and evaluation design: a guidance document for state Section 1115 demonstration evaluations*. Washington, DC: Mathematica Policy Research; 2018.