OKLAHOMA
Health Care Authority

SoonerCare Section 1115 Waiver Evaluation

INTERIM EVALUATION
DEMONSTRATION YEARS 24 – 26 (CY 2019 – 2021)

Prepared by the Pacific Health Policy Group for:

State of Oklahoma
Oklahoma Health Care Authority

MAY 2023

INDEPENDENT EVALUATION

The independent evaluation of the SoonerCare Demonstration was conducted by The Pacific Health Policy Group (PHPG). PHPG is solely responsible for the analysis and findings presented in this report.

PHPG wishes to acknowledge the cooperation of the Oklahoma Health Care Authority in obtaining the necessary data for completion of the evaluation. PHPG also wishes to acknowledge the contributions of the OHCA's (CAHPS®) surveyor, Health Management Program vendor and Health Access Networks in providing data for the evaluation.

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COMMONLY-USED ABBREVIATIONS & ACRONYMS

ABD	Aged, Blind, Disabled
AHRQ	Agency for Healthcare Quality and Research
BRFSS	Behavioral Risk Factor Surveillance System
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CEM	Coarsened Exact Matching
CMS	Centers for Medicare and Medicaid Services
FPL	Federal Poverty Level
HAN	Health Access Network
HMP	Health Management Program
IO	Insure Oklahoma
IO-ESI	Insure Oklahoma – Employer Sponsored Insurance
IO-IP	Insure Oklahoma – Individual Plan
ITS	Interrupted Time Series
MCO	Managed Care Organization
MEG	Medicaid Eligibility Group
MMIS	Medicaid Management Information System
NCQA	National Committee for Quality Assurance
NHIS	National Health Interview Survey
OHCA	Oklahoma Health Care Authority
OSU	Oklahoma State University
OU	Oklahoma, University of
PCCM	Primary Care Case Management
PCMH	Patient Centered Medical Home
PCP	Primary Care Provider
PHCC	Partnership for Healthy Central Communities
PHE	Public Health Emergency
PMPM	Per Member Per Month
SDOH	Social Determinants of Health

A. EXECUTIVE SUMMARY

Introduction

Medicaid is the largest health insurer in the state of Oklahoma. In December 2021, the program provided coverage to over 1,175,000 Oklahomans, out of a total population of approximately four million (29 percent). In 2020 (the most recent year available), the program covered approximately 28,000 births out of 50,000 statewide (56 percent).

The Oklahoma Health Care Authority (OHCA), Oklahoma's Single State Agency for Medicaid, administers SoonerCare, the State's Section 1115(a) Research and Demonstration waiver (11-W-00048/6). The Demonstration originally was approved to begin operations in January 1996 and has continued through multiple renewal periods. The findings presented in this interim evaluation report are for Demonstration Years 24 – 26 (January 1, 2019 – December 31, 2021).

SoonerCare Choice Program

The OHCA's overarching goals for the SoonerCare Choice program are to meet the health care needs of Oklahomans through provision of high quality, accessible and cost-effective care. During the evaluation period, the OHCA sought to achieve these goals through two beneficiary-centered initiatives: Health Access Networks (HANs) and the SoonerCare Health Management Program (HMP).

The Demonstration operates statewide under an enhanced Primary Care Case Management (PCCM) model in which the OHCA contracts directly with primary care providers to serve as patient centered medical homes (PCMHs) for SoonerCare Choice members. These providers serve as the foundation for both the HAN and HMP initiatives.

SoonerCare Health Access Networks

SoonerCare Health Access Networks are non-profit, administrative entities that work with affiliated providers to coordinate and improve the quality of care provided to SoonerCare Choice members. The HANs employ care managers to provide telephonic and in-person care management and care coordination to SoonerCare Choice members with complex health care needs who are enrolled with affiliated PCMH providers. The HANs also work to establish new initiatives to address complex medical, social and behavioral health issues. For example, the HANs have implemented evidence-based protocols for care management of Aged, Blind Disabled (ABD) members with, or at risk for, complex/chronic health conditions, as well as Temporary Assistance for Needy Families (TANF) and related members with asthma and diabetes, among other conditions.

The OHCA contracts with three HANs: University of Oklahoma (OU) Sooner HAN; Partnership for Healthy Central Communities (PHCC) HAN; and Oklahoma State University (OSU) HAN. The HANs began operations in 2010 with combined enrollment of approximately 25,000. In December 2021, enrollment exceeded 300,000.

SoonerCare Health Management Program

The SoonerCare Health Management Program (HMP) is an initiative under the Demonstration developed to offer care management to SoonerCare Choice members most at-risk for chronic disease and other adverse health events. The program is administered by the OHCA and is managed by a vendor selected through a competitive procurement. The program is authorized to operate statewide.

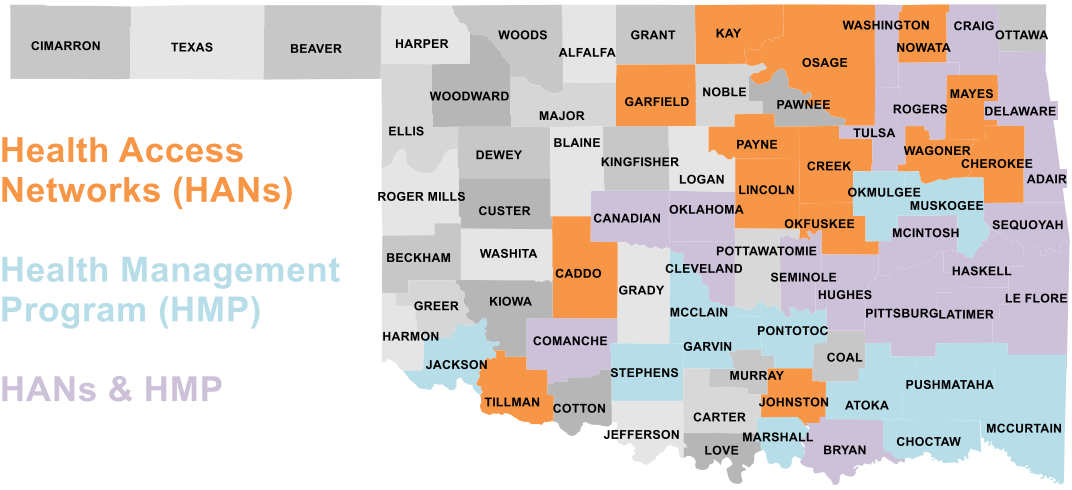
The SoonerCare HMP serves SoonerCare Choice beneficiaries ages four through 63 who have one or more chronic illness and are at high risk for adverse outcomes and increased health care expenditures. The program is holistic, rather than disease-specific, but prominent conditions of members in the program include asthma, cardiovascular disease, chronic obstructive pulmonary disorder, diabetes, heart failure and hypertension.

The SoonerCare HMP was implemented in 2008 and has evolved over time. Under its current model, registered nurse health coaches are embedded at primary care practice sites, where they work closely with practice staff and provide care coordination and health education to participating members. Some health coaches are dedicated to a single practice with one or more providers while others are shared between multiple practice sites within a geographic area. A smaller portion of SoonerCare HMP beneficiaries receive telephonic or in-home health coaching. Enrollment fluctuated during the current Demonstration period, rising from 4,864 in 2019 to 7,152 in 2020 before dropping back to 6,292 in 2021.

HAN and HMP Service Areas

Exhibit ES-1 below identifies the counties with one or more HAN-affiliated PCMH providers in December 2021, as well as counties in which one or more HMP health coaches was embedded in a PCMH practice. Forty-five out of 77 counties had one or both programs in operation and serving beneficiaries at the conclusion of the three-year waiver period. (Map does not depict counties with telephonic-only HMP beneficiaries; PCMH program operates in all 77 counties.)

Exhibit ES-1 – HAN and HMP Counties (December 2021)



Retroactive Eligibility

The SoonerCare Demonstration also includes a waiver of retroactive eligibility for a portion of the SoonerCare population. The waiver has been a component of SoonerCare since the program's inception. At the start of the current Demonstration period, the population subject to the waiver was reduced, with several Medicaid Eligibility Groups (MEGs) becoming newly-eligible for retroactive coverage, leaving the Parent/Caretaker MEG as the primary group still subject to the waiver.

Evaluation Scope and Methodology

Hypotheses and Measures

The SoonerCare evaluation was organized around a series of hypotheses related to the OHCA's goals for the Demonstration. The hypotheses were tested through analysis of over 80 discrete performance measures (some with multiple components).

The evaluation was structured to isolate, as much as possible, the discrete impact of the HAN and HMP initiatives on program access, quality and cost effectiveness. This was accomplished by stratifying SoonerCare Choice members into three population segments for applicable measures: members enrolled with a SoonerCare HAN PCMH; members enrolled in the SoonerCare HMP; and other SoonerCare Choice members (comparison group). Similarly, for the retroactive eligibility portion of the evaluation, members were stratified into two groups: those subject to the waiver and those receiving retroactive coverage.

Comparison group members were identified using a statistical technique known as coarsened exact matching (CEM). The CEM analysis controlled for age, gender, aid category (ABD and other), place of residence (urban or rural) and (where applicable) health status.

The evaluation used a combination of analytical techniques, as determined by best available data and the presence or absence of a valid comparison group. The evaluation employed nationally-validated measures where appropriate, including: Healthcare Effectiveness Data and Information Set (HEDIS®) and Consumer Assessment of Healthcare Providers and Systems (CAHPS®) survey data. The HEDIS data set included population-level preventive care measures, as well as measures specific to five prevalent chronic conditions among HMP members and the portion of HAN membership receiving care management: asthma, coronary artery disease, chronic obstructive pulmonary disease, diabetes and hypertension. The HEDIS data set also included several behavioral health measures.

The evaluation used State-specific measures where a national measure did not exist (e.g., data on enrollment or PCMH status). HEDIS measures were calculated using administrative (paid claims) data extracted from the OHCA's Medicaid Management Information System (MMIS).

Exhibit ES-2 on the following page summarizes key evaluation hypotheses and measure types by evaluation domain.

Exhibit ES-2 – Evaluation Hypothesis Areas and Measures

Hypothesis Area / Measure Count by Type	Demonstration Population: HAN (Total Population)	HAN (Care Managed Subgroup)	HMP	Retroactive Eligibility
Accessible Care				
HEDIS Preventive Care Measures	*2 measures*	*2 measures*		
CAHPS Survey Access Measures	*2 measures*		*2 measures*	*3 measures*[1]
Other (Qualitative) Measures			*1 measure*	*2 measures*
High Quality Care				
HEDIS Chronic Care Measures	*17 measures*	*13 measures*	*15 measures*	
CAHPS Survey Quality of Care Measures	*6 measures*		*6 measures*	
Other (Qualitative) Measures	*4 measures*	*1 measure*	*3 measures*	
Cost Effective Care				
Utilization Measures (Paid Claims Analysis)	*2 measures*	*2 measures*	*3 measures*	
Per Member Per Month Expenditure Measure	*1 measure*	*1 measure*	*1 measure*	

[1] Retroactive eligibility survey included questions from several nationally-validated instruments, including CAHPS.

COVID-19 Public Health Emergency

The COVID-19 Public Health Emergency (PHE) substantially disrupted health care utilization patterns during two of the three years addressed in the interim evaluation. The use of treatment and comparison groups for the majority of measures helped to mitigate the impact of the PHE on findings, to the extent both populations were exposed to the same disruptions in care (e.g., unavailability of office appointments for routine care needs).

The suspension of Most Title XIX disenrollments during the PHE directly affected the portion of the retroactive eligibility evaluation related to enrollment continuity. Descriptive statistics are provided in the interim evaluation but no conclusions can be drawn for the period falling under the PHE.

Medicaid Expansion

On June 30, 2020, Oklahoma voters passed State Question 802, to expand Medicaid eligibility no later than July 1, 2021 to adults ages 19-64 whose income is 138 percent (133 percent with a five percent disregard) of the federal poverty level or lower. The OHCA established a new Adult Medicaid Eligibility Group and began to accept applications in June 2021 for an enrollment effective date of July 1, 2021. The expansion population was added to SoonerCare Choice in September 2021 through an amendment to the Demonstration.

The majority of evaluation measures report findings on an annualized basis and exclude beneficiaries who fail to meet continuous enrollment requirements. The expansion population therefore is not represented in the interim evaluation but will be a component of the summative evaluation.

Evaluation Findings

Comparison Group Measures

Findings are presented below for the subset of measures evaluated using the comparison group methodology (Quantitative Measures). Results were calculated for each of the individual years of the evaluation and also were pooled to present a three-year average. The difference in results for "treatment" (HMP, HAN or persons subject to the retroactive eligibility waiver) and comparison groups then were tested for statistical significance ($p<0.05$). Three-year pooled results served as the basis for findings.

Health Access Networks

Exhibit ES-3 below summarizes results for the SoonerCare HAN population in total. As it illustrates, the population in total was not favorably differentiated from the comparison group. This outcome was not surprising, as the great majority of the HAN population receives the same level of care management as other SoonerCare Choice members; both groups rely on their PCMH provider for primary care and specialist referrals. Although the HANs receive a monthly capitation for all members, the OHCA's expectation is that the funds will be targeted to care management of members with complex/chronic conditions.

Exhibit ES-3 - HAN (Total) Members versus Comparison Group

DOMAIN/Research Area	Demonstration Population Outperformed Comparison Group	Comparison Group Outperformed Demonstration Population	No Statistically Significant Difference
HAN (TOTAL) – Access to Care		● ●	● ●
HAN (TOTAL) – Quality of Care	● ● ● ● ● ●	● ● ● ● ●	● ● ● ● ● ● ● ● ● ● ● ●
HAN (TOTAL) – Cost Effectiveness		● ●	●

To isolate the impact of the HANs on members with the greatest needs, PHPG obtained records of the subset receiving care management during the Demonstration period. This averaged about 4,000 members per year. The same measures were evaluated, except in cases where the population size was too small to produce reliable results.

Exhibit ES-4 below summarizes results for the SoonerCare HAN Care Managed population. The Care Managed population showed more favorable differentiation from its comparison group than did the HAN population in total[2].

[2] Each "treatment" group is matched to a unique comparison group. That is, the HAN total comparison group is not identical to the HAN Care Managed comparison group.

Exhibit ES-4 - HAN (Care Managed) Members versus Comparison Group

DOMAIN/Research Area	Demonstration Population Outperformed Comparison Group	Comparison Group Outperformed Demonstration Population	No Statistically Significant Difference
HAN (CARE MANAGED) – Access to Care	● ●		
HAN (CARE MANAGED) – Quality of Care	● ● ● ●		● ● ● ● ● ● ● ● ●
HAN (CARE MANAGED) – Cost Effectiveness	●	●	●

Health Management Program

Exhibit ES-5 below summarizes results for the SoonerCare HMP population. As it illustrates, the population was favorably differentiated from the comparison group on a majority of measures.

Exhibit ES-5 - HMP Members versus Comparison Group

DOMAIN/Research Area	Demonstration Population Outperformed Comparison Group	Comparison Group Outperformed Demonstration Population	No Statistically Significant Difference
HMP – Access to Care	● ●		
HMP – Quality of Care	● ● ● ● ● ● ● ● ● ● ● ●	● ●	● ● ● ● ● ● ●
HMP – Cost Effectiveness	● ● ● ●		

Retroactive Eligibility

Exhibit ES-6 below summarizes results for the population subject to the retroactive eligibility waiver. As it illustrates, the population was favorably differentiated from the comparison group on both quantitative measures for which there was a statistically significant difference.

Exhibit ES-6 – Retroactive Eligibility Waiver Members versus Comparison Group

DOMAIN/Research Area	Demonstration Population Outperformed Comparison Group	Comparison Group Outperformed Demonstration Population	No Statistically Significant Difference
RETROACTIVE ELIGIBILITY – Access to Care	● ●		● ● ●

Additional Analyses

The Demonstration populations were stratified into urban and rural subgroups for measures with sufficient data to support a substate analysis. No pattern was observed; for some measures the urban subgroup outperformed the rural subgroup and for others the rural subgroup outperformed the urban.

The SoonerCare HAN and HMP programs existed in the prior three-year Demonstration period, and a subset of measures also was evaluated for the prior period, making available data for a six-year trend analysis. As with the urban/rural analysis, no consistent pattern was observed; some measures showed an upward trend while others either were flat or trended downward.

National data is available for a subset of HEDIS and CAHPS measures. Demonstration population results were compared to national benchmarks, defined as the 50th percentile of reporting states. In all instances, the SoonerCare rate exceeded the benchmark rate. (Caution: the benchmark population characteristics were not matched to Demonstration members to minimize differences in the populations. The data is presented in the body of the report for informational purposes only.)

Summative Evaluation

The interim evaluation presents results for the first three years of the five-year Demonstration period. A portion of the three years overlapped with the COVID-19 PHE. Results should be treated as preliminary and subject to anomalies introduced by the PHE.

Findings for the summative evaluation will be reported following completion of the five-year Demonstration. The summative evaluation results will offer a more complete profile of the Demonstration's performance with respect to advancing the OHCA's goal of offering accessible, high quality and cost-effective care.

B. GENERAL BACKGROUND INFORMATION

Medicaid is the largest health insurer in the state of Oklahoma. In December 2021, the program provided coverage to over 1,175,000 Oklahomans, out of a total population of approximately four million (29 percent). In 2020 (the most recent year available), the program covered approximately 28,000 births out of 50,000 statewide (56 percent)[3].

The Oklahoma Health Care Authority (OHCA), Oklahoma's Single State Agency for Medicaid, administers SoonerCare, the State's Section 1115(a) Research and Demonstration waiver (11-W-00048/6). The Demonstration originally was approved to begin operations in January 1996 and has continued through multiple renewal periods. The findings presented in this interim evaluation report are for Demonstration Years 24 – 26 (January 1, 2019 – December 31, 2021).

1. *Demonstration Goals and Issues to Address*

The OHCA's overarching goals for the SoonerCare Demonstration are to meet the health care needs of Oklahomans through provision of high quality, accessible and cost-effective care.

The SoonerCare Demonstration was implemented in 1996 to address concerns regarding access and quality of care in a fiscally prudent manner. In the period leading-up to the Demonstration, the State experienced an economic downturn and was forced to reduce benefits and provider reimbursement to meet its obligations under Title XIX.

Access and quality-of-care both suffered, as the number of participating providers declined and beneficiaries were forced to seek primary care in emergency rooms or, in the case of adults, forego care altogether due to benefit limits. The program also lacked any formal care management structure, leaving beneficiaries with chronic conditions to navigate the health care system on their own.

The State responded to this crisis through creation of a new Medicaid agency, the Oklahoma Health Care Authority (OHCA) and through development of the SoonerCare program under Section 1115 Demonstration authority. As described in more detail below, SoonerCare operates as a managed care system by contracting with Patient Centered Medical Homes (PCMH) and arranging for care management of high risk/high need members through Health Access Networks (HANs) and the SoonerCare Health Management Program (HMP).

[3] Source for Medicaid enrollment and births is the Oklahoma Health Care Authority. Source for total population and births is US Census Bureau.

2. Demonstration Name and Timeframe

The SoonerCare Demonstration (Project Number 11-W-0048/6) was approved originally for a five-year period commencing on January 1, 1996[4]. The Demonstration has received multiple extensions since expiration of the original five-year authority.

On August 31, 2018, CMS granted a 64-month extension for the period August 31, 2018 – December 31, 2023. The OHCA is requesting another extension of the Demonstration, to begin on January 1, 2024.

In accordance with Section 1115 Demonstration Special Terms and Conditions, states requesting an extension must submit an Interim Evaluation of the program along with the extension application. This report constitutes the SoonerCare Interim Evaluation and addresses the first three years of the current extension period, from January 1, 2019 – December 31, 2021.

(Although the current extension formally began on August 31, 2018, many of the evaluation measures, such as those using Healthcare Effectiveness and Data Information Set (HEDIS®) specifications, are calculated on a calendar year basis. Data and findings for the months of September 2018 – December 2018 already were included in the Summative Evaluation report for the prior Demonstration period.)

3. Description of the Demonstration

The OHCA was established to oversee the program's transition to managed care and implement and administer the SoonerCare Demonstration. The program initially included children in mandatory Medicaid State Plan Medicaid Eligibility Groups (MEGs), pregnant women and Section 1931[5] low-income families. SoonerCare members were enrolled in "SoonerCare Plus" risk-based managed care organizations (MCOs) in the State's three largest metropolitan areas (Oklahoma City, Tulsa and Lawton), while members in the remainder of the State were enrolled in a primary care case management (PCCM) model. In its original design, the "SoonerCare Choice" PCCM model included a partial capitation payment to cover primary care services and office-based laboratory and radiology services.

The Oklahoma managed care environment was relatively immature in the program's early years. The OHCA faced ongoing challenges attracting a sufficient number of licensed health plans to ensure price competition and beneficiary choice in the metropolitan areas. In 2003, the OHCA discontinued SoonerCare Plus and expanded the SoonerCare Choice model statewide. The OHCA also modified the SoonerCare Choice model by transitioning to payment of a per member per

[4] The Demonstration's formal name is "SoonerCare". However, Oklahoma uses the same title for its entire Medicaid program. To distinguish the populations, the Demonstration managed care model also is known as "SoonerCare Choice", while Medicaid beneficiaries not enrolled in managed care are referred to as "SoonerCare Traditional" and "SoonerPlan" (family planning benefits-only population).

[5] Refers to Section 1931 of the Social Security Act, which was added through the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 and created a new category of Medicaid eligibility for low-income parents. It requires states to cover at least those parents with incomes below 1996 state Aid to Families with Dependent Children (AFDC) income thresholds, regardless of whether they receive cash assistance.

month (PMPM) age-adjusted case management fee coupled with fee-for-service payment of medical claims.

The Demonstration has continued to evolve and expand significantly over the years. The program's covered populations and major components during the current evaluation period are described below. They include the core SoonerCare Choice program, Insure Oklahoma, Health Access Networks and the SoonerCare Health Management Program.

Covered Populations (Populations Impacted by the Demonstration)

SoonerCare Choice

At the outset of the evaluation period, the SoonerCare Demonstration covered children in mandatory state plan groups, pregnant women and Aged, Blind and Disabled (ABD) members who are not dually-eligible and not receiving long term care, as well as 1931 low-income families and IV-E Foster Care or Adoption Assistance children, the latter with voluntary enrollment. In accordance with Oklahoma Senate Bill 741, the OHCA also serves individuals in need of breast or cervical cancer treatment and children with disabilities addressed under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA).

The Demonstration operates statewide under an enhanced Primary Care Case Management (PCCM) model in which the OHCA contracts directly with primary care providers to serve as patient centered medical homes for Title XIX SoonerCare Choice members. Patient centered medical home (PCMH) providers receive monthly care coordination payments for each beneficiary on their panels[6].

SoonerCare beneficiaries are not required to select a PCMH as a condition of eligibility. Beneficiaries are counted as part of SoonerCare Choice if and when they enroll with a PCMH.

Insure Oklahoma Premium Assistance Program

The Oklahoma Legislature in 2004 passed SB 1546, authorizing the OHCA to develop a subsidized insurance program for qualifying employees of participating small businesses, and their spouses, as well as other qualifying low-income adults not eligible for Medicaid. The program, originally known as O-EPIC and later as Insure Oklahoma (IO), was approved by CMS as a Health Insurance Flexibility and Affordability (HIFA) waiver amendment in September 2005.

IO includes two participation tracks: Employer Sponsored Insurance (IO-ESI) and Individual Plan (IO-IP). Under IO-ESI, the OHCA pays a portion of the health insurance premium for qualifying employees at participating small businesses.

During 2019 and 2020, the program was open to qualifying Oklahomans with household incomes up to 200 percent of the federal poverty level, who worked at an eligible business enrolled in IO-ESI, and Oklahomans making between 48 percent and 100 percent of the federal poverty level who were unemployed, working disabled or had qualifying income (O-IP population).

[6] The terms "member" and "beneficiary" are used interchangeably throughout the report.

Individuals in the IO-IP program, other than American Indians, were responsible for health insurance premiums up to four percent of their monthly gross household income. (In accordance with Oklahoma Administrative Code 317:45-9-4 and 317:45-11-24, American Indians providing documentation of tribal citizenship are exempt from premium payments.)

Medicaid Expansion (July 2021)

On June 30, 2020, Oklahoma voters passed State Question 802, to expand Medicaid eligibility no later than July 1, 2021 to adults ages 19-64 whose income is 138 percent (133 percent with a five percent disregard) of the federal poverty level or lower. The OHCA established a new Adult Medicaid Eligibility Group and began to accept applications in June 2021 for an enrollment effective date of July 1, 2021.

The OHCA also transitioned automatically to Medicaid those Insure Oklahoma enrollees who qualified for Medicaid under the expansion[7]. The transition included all IO-IP enrollees and the portion of the IO-ESI population with incomes below 138 percent of FPL. Insure Oklahoma continues to provide coverage to persons with incomes between 138 and 200 percent of FPL enrolled in the IO-ESI portion of the program[8].

The expansion population was added to SoonerCare Choice in September 2021 through an amendment to the Demonstration. Like other SoonerCare beneficiaries, expansion beneficiaries are not required to select a PCMH as a condition of eligibility. Beneficiaries are counted as part of SoonerCare Choice if and when they enroll with a PCMH.

The majority of evaluation measures report findings on an annualized basis and exclude beneficiaries who fail to meet continuous enrollment requirements. The evaluation population therefore is not represented in the interim evaluation but will be a component of the summative evaluation.

COVID-19 Public Health Emergency (March 2020)

The COVID-19 pandemic was declared a national public health emergency (PHE) on March 13, 2020. In response, Congress on March 18, 2020 enacted HR 6201, the Families First Coronavirus Response Act, which the President signed into law on the same day.

Section 6008 of the Act provided for a temporary increase in the Medicaid Federal Medical Assistance Percentage (FMAP). The higher FMAP was contingent on the suspension of involuntary disenrollment from Medicaid under most circumstances, until the end of the emergency.

[7] IO members who are eligible for Medicaid solely due to the suspension of disenrollments under the COVID-19 PHE remain in the IO program pending cessation of the PHE.

[8] The approved evaluation design includes a domain for Insure Oklahoma, with three enrollment-related measures. The formal evaluation measures are omitted from the report, in recognition of the program's planned discontinuation. Enrollment data instead is included in this section for informational purposes only.

This provision had a significant impact on Medicaid enrollment nationally, including in Oklahoma, which received approval for its initial Section 1135 waiver application[9] on March 24, 2020. It also had implications for the retroactive eligibility component of the SoonerCare Demonstration evaluation, as discussed in Section F (Results).

Title XIX Populations not Covered under the Demonstration

The SoonerCare Demonstration covers the majority of Oklahoma Medicaid beneficiaries but does not encompass the entire program. There are two non-Demonstration categories: SoonerCare Traditional and SoonerPlan. The SoonerCare Traditional population includes Medicare-Medicaid beneficiaries, long-term care beneficiaries and several smaller MEGs; it also includes persons eligible for the Demonstration who have not enrolled with a PCMH. SoonerPlan includes persons receiving family planning services only.

Enrollment Trends

Oklahoma Medicaid enrollment grew substantially during the period covered by the evaluation, both as a result of the Medicaid expansion and the suspension of most involuntary disenrollments during the COVID-19 PHE. Overall, the SoonerCare Choice population grew in size from 525,486 in January 2019 to 775,077 in December 2021 (47.5 percent increase).

The IO population grew from 18,754 in January 2019 to a peak of 40,867 in June 2021, before implementation of Medicaid expansion. IO enrollment in December 2021 was down to 10,576.

Exhibit B – 1 on the following page depicts monthly enrollment for the SoonerCare Choice and IO populations from January 2019 to December 2021[10].

[9] This waiver type is being used by CMS to grant states flexibilities in responding to the PHE.

[10] Source for Exhibits B-1 and B-2: OHCA monthly enrollment reports. https://oklahoma.gov/ohca/research/fast-facts-archives.html

Exhibit B-1 – SoonerCare Choice and Insure Oklahoma Population Monthly Enrollment

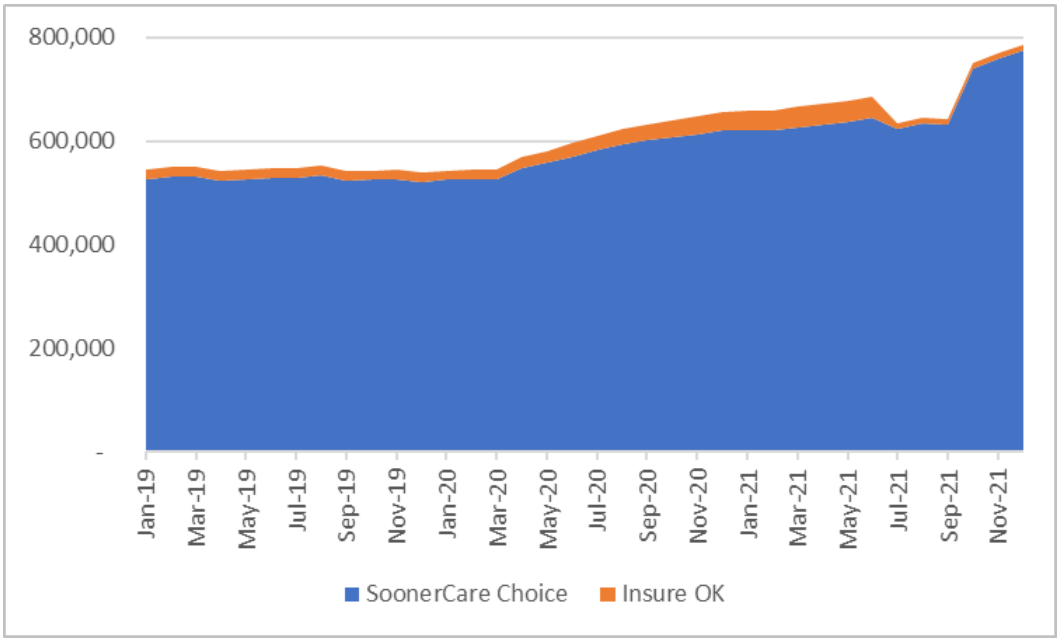


Exhibit B – 2 below presents enrollment numbers and percentages for the total SoonerCare program (all MEGs) in January 2019 and December 2021. The SoonerCare Traditional population includes Medicare-Medicaid dual eligible beneficiaries, long term care recipients and several smaller MEGs. It also includes persons who are eligible to select a PCMH but who have not yet done so.[11]

Exhibit B-2 – Enrollment Distribution – All SoonerCare

Population	January 2019 Enrollment	Percent of Total	December 2021 Enrollment	Percent of Total
SoonerCare Choice	525,486	67.7%	775,077	65.9%
Insure Oklahoma	18,754	2.4%	10,576	0.9%
Sub-Total Managed Care	*544,240*	*69.1%*	*785,653*	*66.8%*
SoonerCare Traditional	231,784	29.9%	390,014	33.2%
Total	**776,024**	**100.0%**	**1,175,667**	**100.0%**

There were 231,046 Medicaid expansion beneficiaries in December 2021. They are included within the SoonerCare Choice and SoonerCare Traditional categories, based on their PCMH status.

[11] Oklahoma also offers a family planning-only benefit to qualifying post-partum women ("SoonerPlan program"). SoonerPlan enrollment is not included in the exhibit.

SoonerCare Service Delivery and Care Management Models

The SoonerCare Demonstration offers all beneficiaries the opportunity to select a medical home for primary care and management of other medical and social needs. A portion of these medical homes are aligned with Health Access Networks (HANs) that provide practice support and care management to certain beneficiaries with, or at risk for, complex/chronic health conditions.

The OHCA also operates the SoonerCare Health Management Program, which provides care management to certain beneficiaries with, or at risk for, complex/chronic health conditions whose medical homes are not aligned with a HAN.

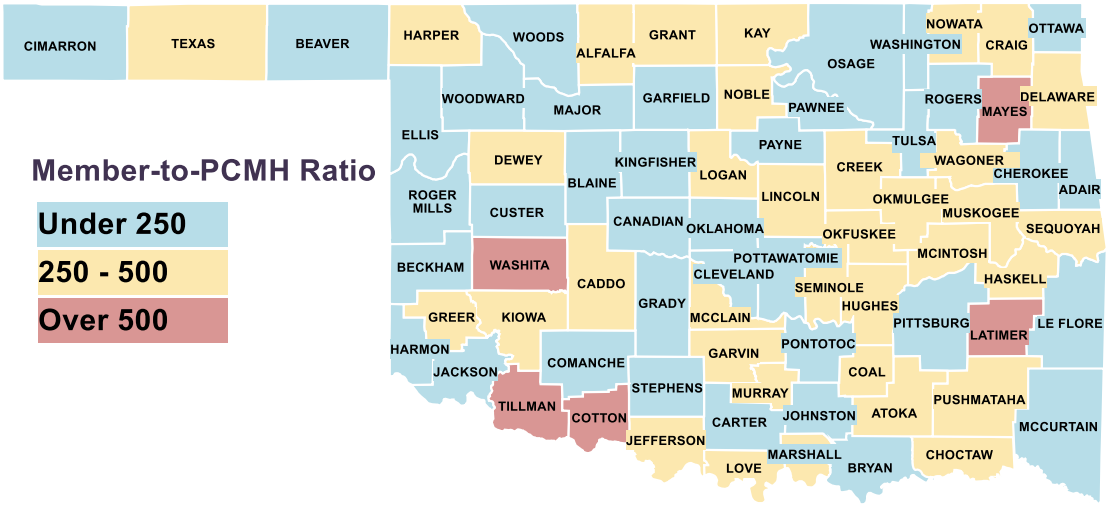
The Demonstration delivery models are described in more detail below.

Patient Centered Medical Homes

In January 2009, the OHCA enhanced the existing PCCM system through introduction of a Patient Centered Medical Home model for SoonerCare Choice beneficiaries. Under this model, beneficiaries actively choose a medical home from a network of contracted primary care providers. (PCMH contracts are offered to all Medicaid-enrolled primary care providers.)

In most counties, there is at least one PCMH provider for every 500 beneficiaries. Exhibit B – 3 below presents Member-to-PCMH ratios by county as of June 2022.

Exhibit B-3 – Member-to-PCMH Ratios by County



There are three PCMH participation levels, or "tiers": entry level, advanced and optimal. All three tiers include standards for care management, quality improvement and access, with the standards becoming more stringent in the higher tiers. For example, entry level medical homes must provide at least 20 hours of office time per week, while advanced medical homes must offer at least 30 hours and optimal medical homes must offer at least 30 hours plus four hours of evening or weekend availability.

Medical homes are paid monthly care coordination payments for each beneficiary on their panel. The payments vary by practice type (children only, adults only or children and adults) and tier. In 2022, the fees ranged from $3.63 to $8.82 per member per month (see Exhibit B-4 below). (Tribal and FQHC providers receive distinct payments that are not age- or tier-based.) Providers also are eligible to receive "SoonerExcel" payments for meeting pre-defined quality targets.

Exhibit B-4 - PCMH Payments by Practice Type and Tier (PMPM)

Practice Type	Entry Level	Advanced	Optimal
Adults Only	$5.08	$6.63	$8.82
Children and Adults	$4.39	$5.73	$7.61
Children Only	$3.63	$4.73	$6.28

Health Access Networks

SoonerCare Health Access Networks are non-profit, administrative entities that work with affiliated providers to coordinate and improve the quality of care provided to SoonerCare Choice members. The HANs receive a nominal $5.00 per member per month (PMPM) payment[12].

The SoonerCare Special Terms and Conditions specify that each HAN must:

- Be organized for the purpose of restructuring and improving the access, quality, and continuity of care to SoonerCare beneficiaries;
- Ensure patients access to all levels of care, including primary, outpatient, specialty, certain ancillary services, and acute inpatient care, within a community or across a broad spectrum of providers across a service region or the State;
- Submit a development plan to the State detailing how the network will reduce costs associated with the provision of health care services to SoonerCare enrollees, improve access to health care services, and enhance the quality and coordination of health care services to SoonerCare beneficiaries;
- Offer core components of electronic medical records, improved access to specialty care, telemedicine, and expanded quality improvement strategies; and,
- Offer care management/care coordination to persons with complex health care needs as specified in the state-HAN provider agreement.

[12] The HANs pay a portion of the state match, and are capped on the number of beneficiaries for which they can be paid the fee, making the average effective payment less than $5.00.

Most SoonerCare HAN members receive care coordination, if needed, through their HAN-affiliated PCMH provider. In this respect, they do not differ from other members enrolled with a non-HAN PCMH.

The HANs each employ care managers (primarily registered nurses) to assist members with, or at risk for complex or chronic health care needs, such as asthma or diabetes. Candidates for care management may be identified through analysis of paid claims data, electronic health record reviews or provider referrals. Care management can be telephonic or in-person and can encompass both clinical and social service needs.

The OHCA contracts with three HANs: University of Oklahoma (OU) Sooner HAN; Partnership for Healthy Central Communities (PHCC) HAN; and Oklahoma State University (OSU) HAN. The HANs began operations in 2010 with combined enrollment of approximately 25,000. In December 2021, enrollment exceeded 300,000.

The two larger HANs are affiliated with universities and originated in Tulsa. They both gradually expanded geographically during the waiver period by adding new practices outside of their initial service areas. Most of the expansion was to the east and south. Central Communities is a grassroots organization based in Canadian County, which is to the west of Oklahoma City. Exhibit B-5 below presents HAN service areas by county.

Exhibit B-5 – HAN Service Areas by County

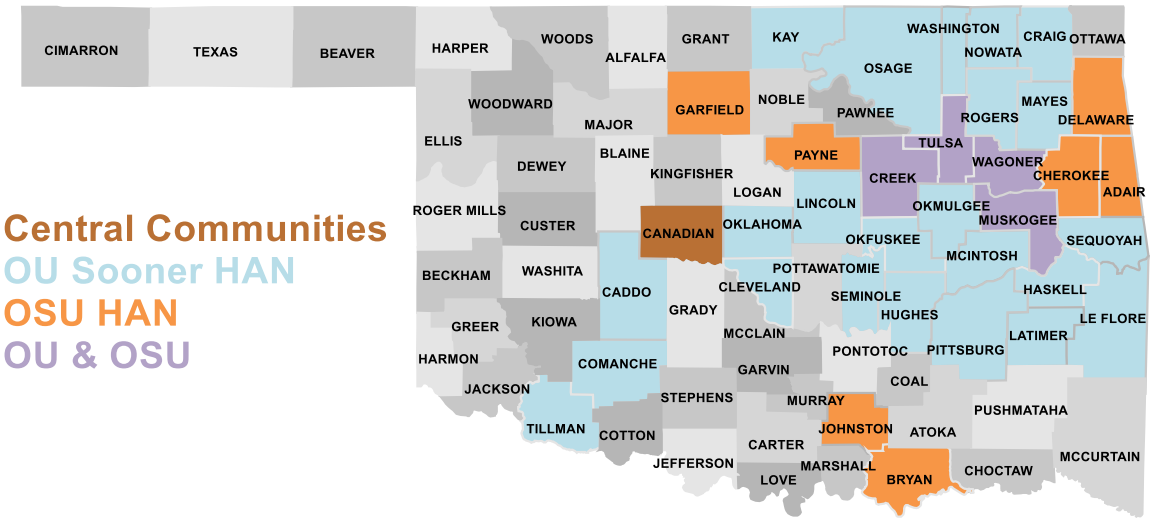


Exhibit B-6 on the following page presents total HAN enrollment by year, as well as enrollment for the cohort receiving care management. (Some members received care management across two or more years.)

Exhibit B-6 – HAN Enrollment by Year[13]

Enrollment Type	2019	2020	2021
Total	156,853	194,805	312,855
Care Managed	3,037	3,511	4,192

SoonerCare Health Management Program

The SoonerCare Health Management Program (HMP) is an initiative under the Demonstration developed to offer care management to SoonerCare Choice members most at-risk for chronic disease and other adverse health events. The program is administered by the OHCA and is managed by a vendor selected through a competitive procurement. The program is authorized to operate statewide.

The SoonerCare HMP serves SoonerCare Choice beneficiaries ages four through 63 who have one or more chronic illness and are at high risk for adverse outcomes and increased health care expenditures. The program is holistic, rather than disease-specific, but prominent conditions of members in the program include asthma, cardiovascular disease, chronic obstructive pulmonary disorder, diabetes and hypertension.

The SoonerCare HMP was implemented in 2008 and has evolved over time. During its first five years, individuals were stratified into two levels of care, with the highest-risk segment placed in "Tier 1" and the remainder in "Tier 2." Prospective participants were contacted and "enrolled" in their appropriate tier. After enrollment, participants were "engaged" through initiation of care management activities. Tier 1 participants received face-to-face nurse care management while Tier 2 participants received telephonic nurse care management. The OHCA sought to provide services at any given time to about 1,000 members in Tier 1 and about 4,000 members in Tier 2.

As the contractual period for the first generation SoonerCare HMP was nearing its end, the OHCA began the process of examining how the program could be enhanced for the benefit of both members and providers. The OHCA observed that a significant amount of the nurse care managers' time was being spent on outreach and scheduling activities, particularly for Tier 1 participants. The OHCA also observed that nurse care managers tended to work in isolation from primary care providers, although coordination did improve somewhat in the program's later years, as documented in provider survey results.

To enhance beneficiary identification and participation, as well as coordination with primary care providers, the OHCA elected to replace centralized nurse care management services with registered nurse health coaches embedded at primary care practice sites. The health coaches would work closely with practice staff and provide coaching services to participating members. Health coaches either could be dedicated to a single practice with one or more providers or shared between multiple practice sites within a geographic area. This change took effect with implementation of the "second generation" SoonerCare HMP in 2013.

[13] Combined enrollment for all three HANs. Count reflects members enrolled for the entire calendar year, consistent with the methodology used for analysis of HEDIS measures.

In addition to health coaching, the SoonerCare HMP incorporates Practice Facilitation into each location with an embedded health coach. A practice facilitator nurse assesses the office's existing processes related to care of patients with chronic conditions. The practice facilitator then undertakes education and academic detailing appropriate to the office's needs before deployment of the health coach. Practice facilitators also in some cases provide assistance to practices without embedded health coaches.

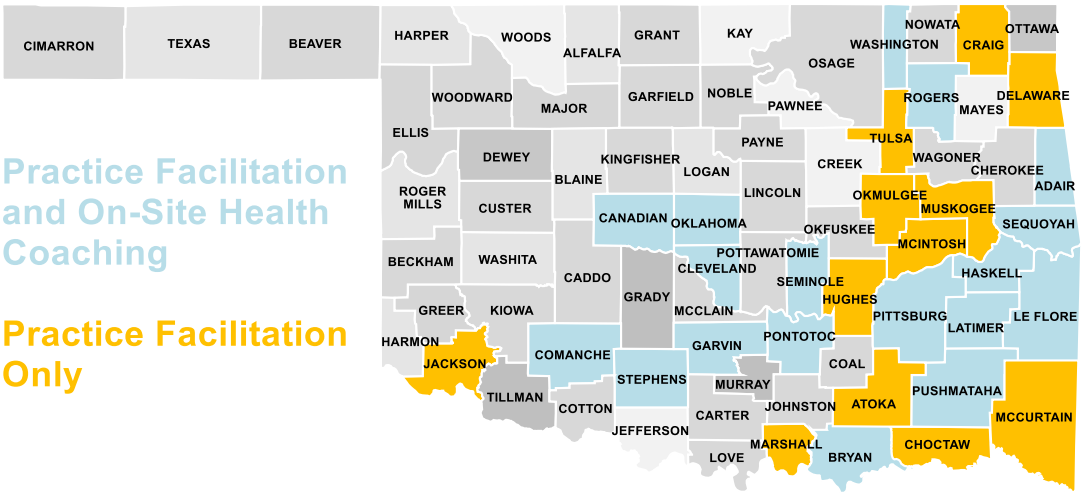
In 2014, the OHCA authorized its vendor to resume telephonic case management (health coaching) and, in limited cases, care coordination in members' homes. Telephonic health coaches would focus their efforts on engaging new members, actively pursuing members needing assistance with care transitions and serving high risk members not assigned to a primary care provider with an embedded coach. The majority of health coaching would continue to occur through the embedded health coaches at provider offices.

The OHCA also implemented a Pain Management program within HMP in 2015. The OHCA authorized its vendor to hire practice facilitators and substance use resource specialists dedicated to improving the effectiveness of providers caring for members with chronic pain and opioid drug use. The Pain Management staff assist providers with implementation of a chronic pain management toolkit and principles of proper prescribing. These staff members work both with offices that have an embedded health coach and offices that do not.

In 2019, the OHCA entered into a new five-year contract with the HMP vendor. The contract promoted value-based purchasing concepts through payment withholds to be earned back by meeting quality-related performance benchmarks. The contract also allowed for program expansion under all three health coaching modalities.

Exhibit B-7 below identifies the counties with SoonerCare HMP office-embedded health coaches, practice facilitators or both. (Counties with telephonic-only care management are not highlighted.)

Exhibit B-7 – HMP On-Site Health Coaches and Practice Facilitators by County

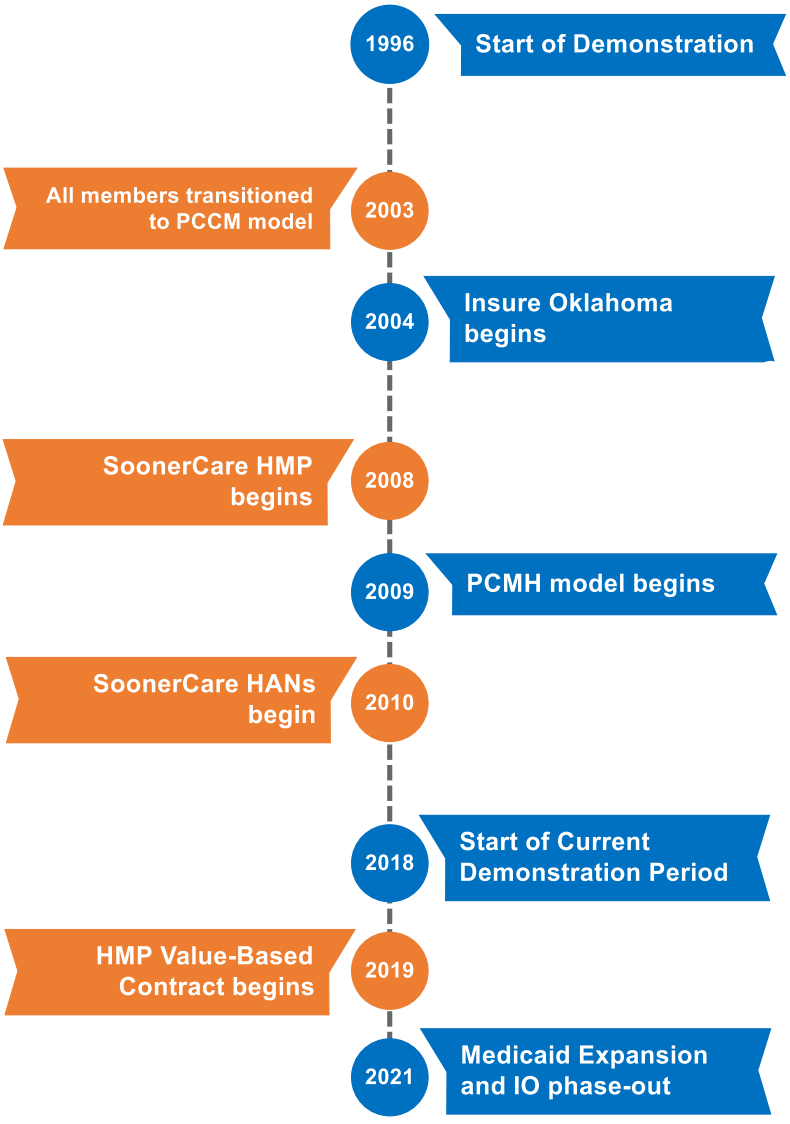


SoonerCare HMP enrollment fluctuated during the current Demonstration period. Enrollment in 2019 was 4,864. It grew to 7,152 in 2020 before dropping to 6,292 in 2021[14]. (Some members received care management across two or more years.)

Summary of Major Events

Exhibit B – 8 below presents a timeline summarizing major events affecting enrollment and service delivery during the Demonstration.

Exhibit B-8 – SoonerCare Milestones



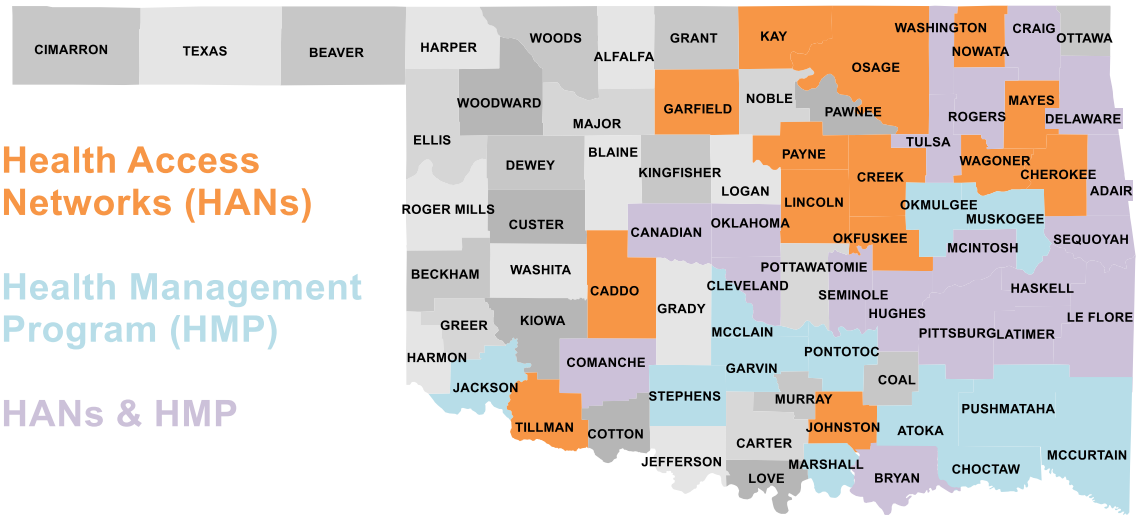
[14] Count of members enrolled in SoonerCare for the entire year (consistent with the methodology used for evaluation of HEDIS measures) and in SoonerCare HMP for at least three months of the year.

Alignment of Care Management Initiatives

The OHCA's objective is to align PCMH, HAN, SoonerCare HMP and internal care management activities, such that all SoonerCare Choice members with complex/chronic conditions have access to care management. This is part of a broader strategy under the SoonerCare Demonstration to advance managed care principles and a statewide Quality Improvement Program through complementary initiatives.

Exhibit B-9 below identifies the counties in which the SoonerCare HMP, SoonerCare HAN or both programs operate. The SoonerCare HMP also provides telephonic care management to SoonerCare Choice members in other counties throughout the State.

Exhibit B-9 – SoonerCare HAN and HMP Operations, by County



The evaluation includes questions and hypotheses related to the two major SoonerCare Choice care management systems. The evaluation design incorporates access, quality, health outcome and cost effectiveness measures relevant to each system.

As discussed further in the methodology section, the evaluation relies primarily on analysis of SoonerCare HMP and SoonerCare HAN performance against a comparison group selected from the non-HMP/non-HAN SoonerCare Choice population.

The SoonerCare HAN analysis presents results both for the HAN population at large ("HAN total") and the cohort receiving care management ("HAN Care Managed"). The HAN Care Managed subgroup is broken-out because the HAN total population is undifferentiated in its model-of-care from the non-HAN population.

Retroactive Eligibility

The SoonerCare Demonstration also includes a waiver of retroactive eligibility for a portion of the SoonerCare population. The waiver has been a component of SoonerCare since the Demonstration's inception.

At the start of the current Demonstration period, the population subject to the waiver was reduced, with several groups becoming newly-eligible for retroactive coverage. Exhibit B-10 below identifies the status of populations subject to the waiver in the prior and current Demonstration periods. In the current period, no children or pregnant women are subject to the retroactive eligibility waiver.

Exhibit B-10 – Demonstration Retroactive Eligibility Waiver Populations

Population	Subject to Waiver in Prior Demonstration Period	Subject to Waiver in Current Demonstration Period
Pregnant women and infants under 1 1902(a)(10)(A)(i)(IV)	*Yes*	*No*
Children 1 – 5 1902(a)(10)(A)(i)(VI)	*Yes*	*No*
Children 6 – 18 1902(a)(10)(A)(i)(VII)	*Yes*	*No*
IV-E Foster Care or Adoption Assistance children	*Yes*	*No*
1931 low-income families	*Yes*	*Yes*
Targeted low-income child	*Yes*	*No*
Infants under age 1 through CHIP Medicaid expansion	*Yes*	*No*
Children 1 – 5 through CHIP Medicaid expansion	*Yes*	*No*
Children 6 – 18 through CHIP Medicaid expansion	*Yes*	*No*
Non-IV-E foster care children under age 21 in State or tribal custody	*Yes*	*No*
Non-disabled low-income workers and spouses ages 19 – 64 (IO IP)	*Yes*	*Yes*
Working disabled adults ages 19 – 64 (IO IP)	*Yes*	*Yes*
Full-time college students ages 19 – 22 (IO IP)	*Yes*	*Yes*
Foster parents ages 19 – 64 (IO IP)	*Yes*	*Yes*
Qualified employees of not-for-profit businesses ages 19 – 64 (IO IP)	*Yes*	*Yes*

The retroactive eligibility evaluation also uses the comparison group method to evaluate the waiver's impact on enrollment patterns and health outcomes.

4. Changes to the Demonstration

The principal change to the Demonstration during the current period occurred through the expansion of Medicaid to adults ages 19-64 whose income is 138 percent (133 percent with a five percent disregard) of the federal poverty level or lower. The expansion resulted in substantial growth to the Medicaid program.

Enrollment into the expansion MEG began in July 2021, six months prior to the end of the three-year period addressed in the interim evaluation. Expansion beneficiaries were offered the opportunity to select a PCMH provider under SoonerCare Choice starting in September 2021.

The majority of the measures in the evaluation design specify that an individual must be enrolled continuously for longer than six months to be included in the analysis. Except where noted in the report, the expansion population is not a component of the evaluation.

The summative evaluation report will include two complete years of data for the expansion population. The analysis will be stratified, as appropriate, to identify any differences between the expansion and traditional Medicaid populations.

5. Population Groups Impacted by the Demonstration

The Demonstration includes the majority of Oklahoma's Medicaid/CHIP population[15]. In addition to the groups identified in Exhibit B-10, the Demonstration includes the populations presented below in Exhibit B-11. These populations received retroactive eligibility during the period covered in the evaluation, as well as the prior Demonstration period.

As discussed, the expansion population is excluded from the interim evaluation, except where noted, due to its short period of enrollment.

Exhibit B-11 – Other Demonstration Populations

Population	FPL and/or other Qualifying Criteria
SSI recipients	Up to SSI limit
Pickle amendment	Up to SSI limit
Early widows/widowers	Up to SSI limit
Disabled adult children (DACs)	Up to SSI limit
1619(b) population	SSI for unearned income and income limit
Aged, blind and disabled	From SSI up to and including 100% FPL
Eligible but not receiving cash assistance	Up to SSI limit
Individuals receiving only optional State supplements	100% SSI FBR + $41 (SSP)
Breast and cervical cancer prevention and treatment	Up to and including 185% FPL
TEFRA children under 19 years of age without creditable coverage	Disabled according to SSA definition, with gross personal income at or below 200% FPL
New Adult Group (Medicaid Expansion)	Adults ages 19-64 whose income is 138 percent (133 percent with a five percent disregard) of the federal poverty level or lower

[15] The major exclusions are residents of long term care facilities, 1915c waiver recipients, persons dually-eligible for Medicare/Medicaid and persons receiving less than full Title XIX benefits.

C. EVALUATION QUESTIONS AND HYPOTHESES

1. *Quantifiable Targets for Improvement*

The SoonerCare Demonstration's goals focus on improving access and quality of care, while controlling costs. The Demonstration seeks to accomplish these goals through advancement of managed care principles, including enhanced primary care and effective care management of members with, or at risk for, complex/chronic conditions. The Demonstration Special Terms and Conditions include questions and hypotheses selected to evaluate the program's performance in the three goal areas (Access, Quality and Cost Effectiveness).

The CMS-approved evaluation design identifies measures for each of the evaluation questions and hypotheses that can be expressed as numerical values and can be tracked on a longitudinal basis. The OHCA's target is to document improvement in the trendline, either upward or downward, depending on the specific measure.

The Driver Diagrams presented on the following page in Exhibits C-1 and C-2 illustrate the relationship between the OHCA's overall goals for SoonerCare Choice and the primary and secondary drivers for achieving these goals.

As depicted in the diagrams, the SoonerCare HAN and HMP care management programs serve as the platforms, or primary drivers, for achieving Demonstration aims with respect to access/quality (Exhibit C-1) and cost effectiveness (Exhibit C-2).

Both programs are supported by secondary drivers related to changes in preventive/primary care access, utilization of emergency room and inpatient services, provider payment systems and enrollment continuity (for beneficiaries who are subject to the retroactive eligibility waiver).

Exhibit C-1 – Driver Diagram (Access and Quality)

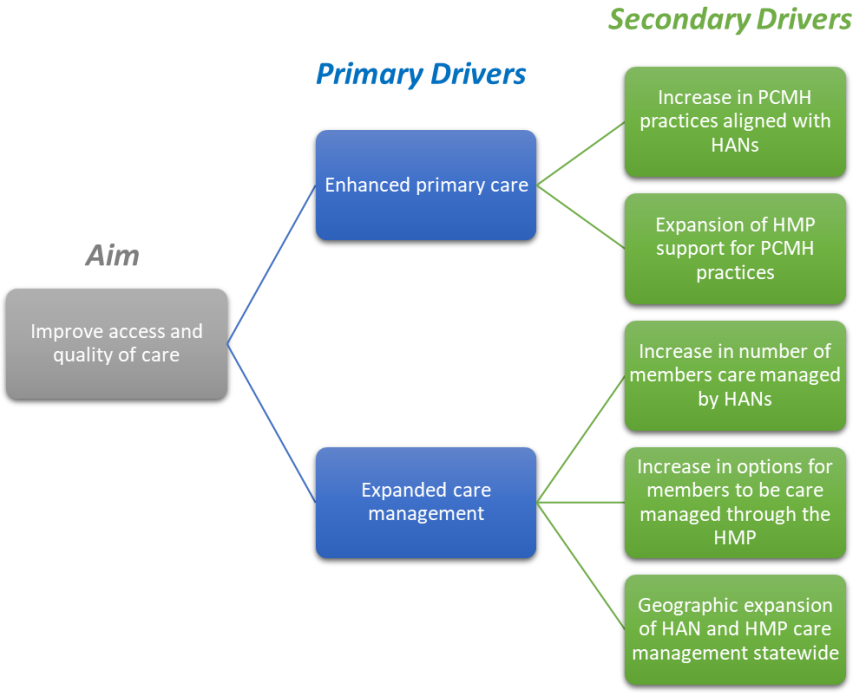
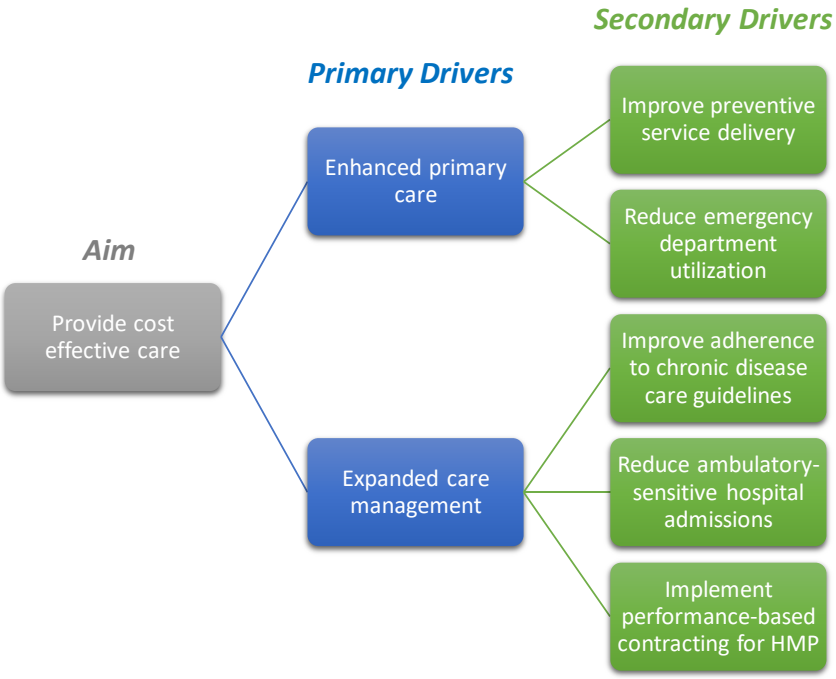


Exhibit C-2 – Driver Diagram (Cost Effectiveness)



2. Demonstration Hypotheses

The Demonstration was evaluated through testing of hypotheses related to the HANs, HMP and waiver of retroactive eligibility. Specifically:

1. Evaluation of Health Access Networks

    a. *Impact on Costs:* The implementation and expansion of the HANs will reduce costs associated with the provision of health care services to SoonerCare beneficiaries served by the HANs;

    b. *Impact on Access:* The implementation and expansion of the HANs will improve access to and the availability of health care services to SoonerCare beneficiaries served by the HANs;

    c. *Impact on Quality and Coordination:* The implementation and expansion of the HANs will improve the quality and coordination of health care services to SoonerCare beneficiaries served by the HANs, with specific focus on the populations at greatest risk, including those with one or more chronic illness; and

    d. *Impact on PCMH Program:* The implementation and expansion of the HANs will enhance the State's Patient Centered Medical Home program by making HAN care management support and practice enhancement available to more providers, as documented through an evaluation of PCP profiles that incorporates a review of utilization, disease guideline compliance and cost.

2. Evaluation of the Health Management Program

    a. *Impact on Enrollment Figures:* The implementation of the HMP, including health coaches and practice facilitation, will result in an increase in enrollment, as compared to baseline;

    b. *Impact on Access to Care:* Incorporating health coaches into primary care practices will result in increased contact with HMP beneficiaries by the PCP (measured through claims encounter data), as compared to baseline, when care management occurred via telephonic or face-to-face contact with a nurse care manager;

    c. *Impact on Identifying Appropriate Target Population:* The implementation of the HMP, including health coaches and practice facilitation, will result in a change in the characteristics of the beneficiary population enrolled in the HMP (as measured through claims data to identify characteristics such as disease burden and co-morbidity) compared to baseline[16];

[16] The wording of this hypothesis was retained from earlier evaluation periods and refers to the HMP's transition to practice-embedded health coaches. This transition happened several years prior the period being evaluated in

d. *Impact on Health Outcomes:* Use of disease registry functions by the health coach will improve the quality of care delivered to beneficiaries, as measured by changes in performance on the initial set of Health Care Quality Measures for Medicaid-Eligible Adults or CHIPRA Core Set of Children's Healthcare Quality Measures;

e. *Impact on Cost/Utilization of Care - ER:* Beneficiaries using HMP services will have fewer ER visits, as compared to beneficiaries not receiving HMP services (as measured through claims data);

f. *Impact on Cost/Utilization of Care - Hospital:* Beneficiaries using HMP services will have fewer admissions and readmissions to hospitals, compared to beneficiaries not receiving HMP services (as measured through claims data);

g. *Impact on Satisfaction/Experience with Care:* Beneficiaries using HMP services will have high satisfaction and will attribute improvement in health status (if applicable) to the HMP[17]; and

h. *Impact on Effectiveness of Care:* Per member per month health expenditures for members enrolled in HMP will be lower than would have occurred absent their participation in nurse care management.

3. Evaluation of Retroactive Eligibility Waiver: The evaluation will support the hypothesis that the waiver of retroactive eligibility is an appropriate feature of the program, as measured by:

a. *Impact on Access to Care:* Eliminating retroactive eligibility will increase the likelihood of enrollment and enrollment continuity;

b. *Impact on Quality of Care – Health Status at Enrollment:* Eliminating retroactive eligibility will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of retroactive eligibility; and

c. *Impact on Quality of Care – Health Outcomes:* Through greater continuity of coverage, health outcomes will be better for those subject to retroactive eligibility waivers compared to other Medicaid beneficiaries who have access to retroactive eligibility.

this report. PHPG focused on the appropriateness of the enrolled population over the three years but did not seek to do a look-back to the original HMP population, which was enrolled in 2008-2009.

[17] The SoonerCare STCs state, "Beneficiaries using HMP services will have higher satisfaction compared to beneficiaries not receiving HMP services (as measured through CAHPS survey data)." The OHCA's CAHPS surveyor is not able to identify HMP members within the larger survey universe. PHPG therefore added evaluation-designated CAHPS survey questions to its targeted survey instrument to collect data for this hypothesis.

Alignment of Demonstration Goals and Hypotheses

The OHCA's overarching goals for SoonerCare Choice are to provide accessible, high quality and cost-effective care to SoonerCare Choice beneficiaries. The research questions answered by testing Demonstration hypotheses align with these goals, as illustrated in Exhibit C-3 below.

Exhibit C-3 – Alignment of Goals and Hypotheses

Goal	Demonstration Component	Hypothesis/Research Question(s)
Health Access Networks		
Accessible Care	Health Access Network	Will the implementation and expansion of the HANs improve access to and the availability of health care services to SoonerCare beneficiaries served by the HANs?
High Quality Care	Health Access Networks	Will the implementation and expansion of the HANs improve the quality and coordination of health care services to SoonerCare beneficiaries served by the HANs, including those with one or more chronic illness? Will the implementation and expansion of the HANs enhance the State's Patient Centered Medical Home program by making HAN care management support and practice enhancement available to more providers (as documented through an evaluation of PCP profiles that incorporates a review of utilization, disease guideline compliance and cost)? Will beneficiaries enrolled with a HAN PCMH provider have higher satisfaction, compared to beneficiaries enrolled with a non-HAN PCMH (as measured through Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey data)?

Goal	Demonstration Component	Hypothesis/Research Question(s)
Cost Effectiveness	Health Access Networks	Will the implementation and expansion of the HANs reduce cost associated with provision of health care services to SoonerCare beneficiaries served by the HANs?
Health Management Program		
Accessible Care	Health Management Program	Will implementation of the HMP, including health coaches and practice facilitation, result in an increase in enrollment, as compared to baseline? Will incorporating health coaches into primary care practices result in increased contact with HMP beneficiaries by the PCP (measured through claims encounter data), as compared to baseline, when care management occurred (exclusively) via telephonic or face-to-face contact with a nurse care manager?
High Quality Care	Health Management Program	Will implementation of the HMP result in a change in the characteristics of the beneficiary population enrolled in the HMP (as measured through population characteristics, including disease burden and co-morbidity obtained through claims and algorithms) compared to baseline? Will the use of disease registry functions by the health coach (along with other coaching activities) improve the quality of care delivered to beneficiaries, as measured by changes in performance on the initial set of Health Care Quality Measures for Medicaid-Eligible Adults or CHIPRA Core Set of Children's Healthcare Quality Measures? Will beneficiaries using HMP services have high satisfaction and attribute improvement in health status (if applicable) to the HMP?

Goal	Demonstration Component	Hypothesis/Research Question(s)
Cost Effectiveness	Health Management Program	Will ER and hospital utilization for members enrolled in the HMP be lower than would have occurred absent their participation? Will per member per month health expenditures for members enrolled in the HMP be lower than would have occurred absent their participation?
Waiver of Retroactive Eligibility		
Accessible Care	Enrollment	Do eligible people subject to retroactive eligibility waivers enroll in Medicaid at the same rate as other eligible people who have access to retroactive eligibility? Do eligible people subject to retroactive eligibility waivers continue enrollment at the same rate as other eligible people who have access to retroactive eligibility? Do eligible people subject to retroactive eligibility waivers who disenroll have shorter enrollment gaps than eligible people who have access to retroactive eligibility?
High Quality Care	Health Status	Do newly-enrolled beneficiaries subject to retroactive eligibility waivers have higher self-assessed health status than eligible people who have access to retroactive eligibility? Do eligible people subject to retroactive eligibility waivers have better health outcomes than eligible people who have access to retroactive eligibility?

Promotion of Title XIX Objectives

The Affordable Care Act (ACA) included provisions for Medicaid related to quality of care and delivery systems. Specifically, the ACA anticipates that, "improvements will be made in the quality of care and the manner in which that care is delivered, while at the same time reducing costs."[18]

The SoonerCare Demonstration promotes these ideals through the overarching goals of providing accessible, high quality and cost-effective care to SoonerCare Choice beneficiaries. The evaluation methodology presented in the next section is designed to measure the Demonstration's performance in achieving these goals.

[18] https://www.medicaid.gov/about-us/program-history/index.html

D. EVALUATION METHODOLOGY

1. *Evaluation Design*

Overview

The SoonerCare Choice evaluation was conducted in accordance with an evaluation design approved by CMS in November 2019. A copy of the final approved design measure set is included as Appendix 1[19].

The OHCA and evaluator (PHPG) relied on CMS guidance for developing robust research methods, intended to isolate the impact of the Demonstration on covered populations. The retroactive eligibility component of the design adhered to specific guidance released by CMS for use by states with retroactive eligibility waivers, to ensure comparability of findings across Demonstrations.

The purpose of the evaluation was to establish whether a causal relationship exists between enrollment in one of the SoonerCare Choice care management programs and between SoonerCare eligibility policy and outcomes related to access, quality and cost effectiveness. The evaluation design sought to establish or rule out such a relationship through a mixed methods approach. This included comparing outcomes between the "treatment" group and a counterfactual in the form of a comparison group chosen to match the treatment group on demographic and health status characteristics. It also included time series analysis, descriptive statistics and qualitative data collection to support quantitative findings.

The SoonerCare Choice evaluation uses best available data, including nationally-validated measures developed by HEDIS and the Agency for Healthcare Research and Quality (AHRQ). It also includes nationally-validated survey questions from the Consumer Assessment of Healthcare Providers and Systems (CAHPS), Behavioral Risk Factor Surveillance System (BRFSS) and National Health Interview Survey (NHIS). The evaluation uses State-specific measures where a national measure does not exist.

A portion of the HEDIS measure set also is part of CMS' schedule of Core Set Measures for children and adults. CMS publishes an annual report of Core Set Measure data for reporting states and identifies the median (50th percentile) rate across states for each measure. PHPG included the 50th percentile rate for the published 2020 measure set, where available, as a point of comparison to the Oklahoma data.

States use varying methods to collect Core Set data (i.e., analysis of administrative (paid claims)-only versus a "hybrid" combination of administrative and medical record data); the demographic make-up of states also differ significantly. Caution therefore should be exercised when comparing

[19] The narrative portion of the approved design is largely replicated in Sections B – D and so is not presented again in the Appendix. The full evaluation design document is available as a component of the Demonstration Special Terms and Conditions posted on the OHCA website at OK SoonerCare 1115 Demo STCs 1.31.22.pdf (oklahoma.gov)

national and Oklahoma rates. The comparison is presented for informational purposes only and not as a formal component of the evaluation.

The National Committee for Quality Assurance (NCQA) publishes national Medicaid Quality Compass scores (rates) for CAHPS measures, using data provided by reporting Medicaid health plan products. Where available, PHPG compared SoonerCare CAHPS findings to the Medicaid Quality Compass scores, using the NCQA 2021 Medicaid health plan Quality Compass dataset, as presented by the OHCA's CAHPS survey vendor in its published reports. PHPG selected the median (50th percentile) as the comparison benchmark.

Caution also should be exercised when reviewing benchmark data as Core Set and CAHPS benchmark population characteristics were not matched to the OHCA groups. The data again is presented for informational purposes only.

CMS Guidance for Enhancement of Approved Evaluation Design

The SoonerCare Choice evaluation design for the current Demonstration period was approved by CMS before development of the summative evaluation report for the prior Demonstration period (2016 – 2018). CMS granted the OHCA's request for its evaluator to use the updated design for 2016 – 2018 summative evaluation to the extent practicable.

The 2019 – 2023 evaluation design included the same three domains (SoonerCare HAN, SoonerCare HMP and retroactive eligibility) but contained a more comprehensive set of measures than in the originally-approved design for the earlier period. It also incorporated statistical techniques favored by CMS for ensuring analytical rigor.

As part of its subsequent review of the 2016 – 2018 summative evaluation report, CMS made recommendations for modifying and enhancing the evaluation methodology prior to its application to the current Demonstration period. The OHCA and its evaluator incorporated the recommendations into the design whenever feasible. This included modifying the approach for evaluating treatment and comparison group characteristics and adding geographic stratification (urban/rural) to the statewide-level analysis. The full set of CMS recommendations are included behind the approved design document in Appendix 1 and are referred to, as applicable, in the body of the report.

Treatment of Retired HEDIS Measures

The approved evaluation design included several HEDIS measures that subsequently were retired by the HEDIS steward, NCQA. In circumstances where NCQA identified a replacement measure, the replacement has been used where feasible. These measures are noted in the report.

Retired measures for which NCQA continued to provide the necessary supporting data specifications are included in the interim evaluation but may be discontinued prior to the summative evaluation if the supporting specifications are no longer available.

Other Deviations from Approved Evaluation Design

PHPG omitted the Insure Oklahoma evaluation domain from Section F (Results) in view of the program's substantial transition to the Medicaid expansion MEG. The enrollment data instead is included in Section B (General Background Information) of the report.

PHPG modified a portion of the retroactive eligibility waiver to account for the suspension of most disenrollments during the PHE. PHPG also modified a small number of measures for which better data was available than called for in the evaluation design.

The SoonerCare HMP evaluation design included an Interrupted Time Series analysis to assess the impact of a new vendor contract, with enhanced health coaching requirements, on member outcomes. The PHE disrupted the vendor's ability to utilize fully all health coaching modalities (i.e., in-office and in-home coaching). PHPG did not conduct the ITS portion of the evaluation but did complete the treatment-comparison group component.

Similarly, the retroactive eligibility evaluation design included an ITS analysis for MEGs subject to the waiver before 2020 and covered for retroactive expenses starting in 2020[20]. The suspension of most disenrollments under the PHE prevented PHPG from performing the ITS analysis.

All of the measure-specific deviations are noted where they occur within Section F (Results). The deviations also are summarized in a table at the end of Appendix 1.

COVID-19 Public Health Emergency

In August 2020, CMS released a technical assistance document addressing implications of the COVID-19 PHE on Section 1115 Demonstration evaluations. The OHCA and PHPG reviewed the guidance and incorporated it into the evaluation as applicable.

The technical assistance document addresses changes in billing codes resulting from expansion of telehealth services during the PHE. Oklahoma already permitted telehealth visits prior to the PHE and, while telehealth activity increased significantly, the billing codes included in the analysis of service utilization and expenditures did not change.

The document provides options to states with respect to selecting an evaluation base year, if the original base year fell into the PHE period. The SoonerCare interim evaluation covers calendar years 2019 – 2021. The COVID-19 PHE began in March 2020, leaving calendar year 2019 unaffected by the pandemic. (Although calendar year 2019 serves as a base year for the current Demonstration period, trended data for calendar years 2016 – 2018 also is presented for measures that were evaluated in the prior Demonstration period.)

The document addresses challenges in assessing and interpreting trends that include the period affected by the PHE. As recommended by CMS, the evaluation report discusses the implications of the COVID-19 PHE where applicable to findings.

[20] The revised standards were included in the STCs for 2019 – 2023 but the changes were not implemented in the MMIS until 2020.

2. Target and Comparison Populations

SoonerCare HAN and HMP Component of Evaluation

The Demonstration evaluation target populations are SoonerCare HAN (total and Care Managed subgroup) and HMP members. With very few exceptions, the two populations do not overlap; the OHCA reviews enrollment data monthly to identify and resolve any instances of members being co-enrolled in both programs.

The evaluation was structured to isolate, as much as possible, the discrete impact of the HAN and HMP initiatives with respect to access, quality and cost effectiveness. This was accomplished by stratifying SoonerCare Choice members into the following population segments for applicable measures: members enrolled with a SoonerCare HAN PCMH (both total and Care Managed); members enrolled in the SoonerCare HMP; and SoonerCare Choice members not enrolled in either program or in any other SoonerCare program offering care management[21] (unmanaged comparison group).

All of the populations were sufficient in size to be evaluated in isolation. The HAN total population averaged 221,500 members; the HAN Care Managed subset averaged 3,580 members per year; and the HMP population averaged 6,100 members per year. The comparison group exceeded 300,000 members in each year of the evaluation.

The SoonerCare HAN population in total closely resembles the comparison group population in terms of demographics. HAN members are primarily non-disabled children, pregnant women, parents and members with disabilities who are not eligible for Medicare.

The SoonerCare HAN Care Managed and HMP populations include a higher percentage of adults and persons eligible due to Aged, Blind or Disabled (ABD) status[22] than the comparison group population. Coarsened exact matching was used to account for differences between the care managed populations and the comparison group. (See below and Methodology section for more detail on the comparison group method and matching process.)

The evaluation encompassed the entire universe of SoonerCare Choice members, with the exception of certain member surveys (CAHPS and program-specific surveys). These were conducted on a randomly-selected representative sample of SoonerCare HAN, HMP and comparison group members. (For other member surveys, attempts were made to contact 100 percent of the population. See Member Survey Methods below for more detail.)

[21] Excluded populations consisted of SoonerCare Choice members enrolled in the OHCA's internal care management program known as the "Chronic Care Unit" (CCU), which serves a similar population to the SoonerCare HMP and is open to members without access to the HMP, and SoonerCare Choice members enrolled with a PCMH provider who received practice facilitation through the HMP and had an embedded health coach. The practice facilitation beneficiaries were excluded on the presumption that their PCMH practice benefited from instruction on enhanced care management techniques which may have been applied to their treatment.

[22] The SoonerCare Choice Demonstration does not include persons dually eligible for Medicare and Medicaid. The ABD population enrolled in the Demonstration is Medicaid only.

Comparison Group Method

All SoonerCare Choice members should have access to preventive services through their PCMH, regardless of whether they receive additional care management through the SoonerCare HAN or HMP. An in-state comparison group method therefore was used for calculation of HEDIS rates across the three populations. This included both population-wide preventive measures and preventive care measures specific to various chronic health conditions.

The comparison group method also was used for evaluating CAHPS ratings among the three populations, with some limitations. The OHCA and its CAHPS vendor were able to stratify survey results between respondents affiliated with a HAN PCMH and all others. The evaluation of CAHPS results for the HAN portion of the evaluation was conducted at this population level, rather than for the subset of HAN members receiving care management.

The OHCA and its CAHPS vendor were not able to identify SoonerCare HMP survey respondents, if any. PHPG instead included a subset of CAHPS survey questions on its targeted survey of SoonerCare HMP members and evaluated the responses against the same comparison group used for the HAN evaluation. Findings should be interpreted with caution given the possible inclusion of SoonerCare HMP members in the broader CAHPS survey universe[23].

Finally, the comparison group method was used to evaluate the cost effectiveness of the HAN and HMP models versus the population not enrolled in either program. This included evaluation of inpatient hospital utilization, ER utilization and per member per month expenditures.

Member Survey Methods

The evaluation assessed member satisfaction with access to care and care management, including the member's perception of care management's impact on health status, through a combination of CAHPS and targeted surveys.

The OHCA's CAHPS contractor surveyed a random sample of SoonerCare Choice beneficiaries; the contractor and OHCA identified SoonerCare HAN respondents within the response universe and provided beneficiary de-identified data to PHPG for the evaluation.

PHPG attempted to conduct a baseline telephone survey on 100 percent of newly-enrolled HMP participants and a six-month follow-up survey on 100 percent of baseline respondents.

PHPG conducted a targeted telephone survey of SoonerCare HAN Care Managed members to document their satisfaction with HAN activities related to social determinants of health (SDOH). Each of the HANs furnished PHPG with a database of members who had received care management during the current evaluation period. PHPG used database filters and key word searches of care manager notes to identify members with SDOH needs. PHPG attempted to contact 100 percent of these members to complete the survey.

[23] SoonerCare HMP members comprise less than two percent of the SoonerCare Choice population. Their representation in the survey universe was considered unlikely to be more than a handful of respondents.

PHPG also conducted a targeted telephone/mail survey of HAN-affiliated PCMH providers to document their satisfaction with HAN activities related to practice enhancement. PHPG attempted to contact 100 percent of the providers identified by the HANs as having received practice enhancement assistance, either specific to care management of patients with complex/chronic health conditions or for raising their PCMH tier assignment to a higher level. Due to the low sample size and response rate, the survey results should be treated as qualitative in nature.

In addition, PHPG conducted a targeted baseline telephone survey of a random sample of newly-enrolled SoonerCare Choice beneficiaries subject to the waiver of retroactive eligibility and a comparison group not subject to the waiver. PHPG attempts to reach 100 percent of baseline survey respondents for follow-up surveys conducted at regular intervals (twelve-months, eighteen-months and twenty-four months). The survey tracks changes in respondent physical and behavioral health status, in accordance with the methodology recommended by CMS in its document: Appendix to Eligibility & Coverage Evaluation Guidance: Retroactive Eligibility Waivers.

Retroactive Eligibility Waiver Component of Evaluation

The evaluation of the waiver of retroactive eligibility is distinct from the other portions of the design. As noted, the approved evaluation design incorporated measures recommended by CMS to all states with retroactive eligibility waivers.

In addition to the survey measures discussed above, the approved design contains a series of measures related to enrollment tenure and coverage gaps, for which members subject to the waiver of retroactive eligibility are to be evaluated against a comparison group of members not subject to the waiver. The design also includes an interrupted time series analysis of members subject to the waiver prior to the current Demonstration period but no longer subject to the waiver as of March 2019.

The emergence of the COVID-19 PHE and resultant suspension of most eligibility-related disenrollments in early 2020 eliminated the normal enrollment churn experienced by Medicaid programs. Enrollment statistics for both populations (treatment and comparison groups) are included in the report but no conclusions are offered based on the trend lines. PHPG will report findings for the post-PHE period in accordance with the evaluation design in the summative evaluation report.

Building upon and Expanding Earlier Demonstration Evaluation Findings

The SoonerCare model in the current period is a continuation of the model in place during the prior Demonstration period (calendar years 2016 – 2018). As discussed earlier, the approved evaluation design for the current Demonstration period also was used, to the extent practicable, for the evaluation of the prior period. However, the approved design was modified and enhanced in accordance with CMS recommendations, following completion of the Summative evaluation report for the prior period.

The modifications included refinements to the initial paid claims extract from the OHCA Medicaid Management Information System, to ensure the universe included only beneficiaries eligible for

SoonerCare Choice[24], as well as a change to the matching methodology used for selection of comparison groups. In addition, the HAN portion of the evaluation was expanded to include a targeted analysis of the HAN Care Managed subgroup, to better isolate the impact of the HAN program on the enrolled population. The prior period evaluation examined only the HAN population in total[25].

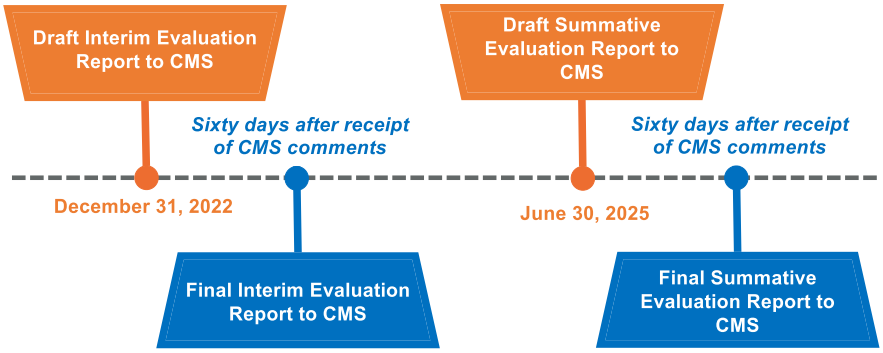
These changes made it necessary to use calendar year 2019 as the base year for the evaluation. However, the SoonerCare HMP population was evaluated in both Demonstration periods using many of the same measures. Where available, trended data for the SoonerCare HMP program is presented for the entire six-year period of calendar years 2016 – 2021[26].

3. Evaluation Period

The Demonstration period addressed in the interim evaluation is calendar years 2019 – 2021. This also served as the default time period for evaluation measures, with calendar year 2019 serving as the base year. The summative evaluation report will address calendar years 2019 – 2023 and will be issued in accordance with Demonstration Special Terms and Conditions.

Exhibit D-1 below presents a deliverable schedule for the interim and summative evaluation reports.

Exhibit D-1 – Evaluation Deliverable Schedule



[24] The paid claims/eligibility extract for the 2016 – 2018 evaluation included all beneficiaries with a "Title XIX" designation who belonged to one of the Demonstration MEGs. The 2019 – 2021 extract excluded beneficiaries who lacked a secondary "SoonerCare Choice" designation (a separate field in the MMIS). PHPG applied the additional filter in consultation with the OHCA to ensure the data universe erred on the side of only containing beneficiaries who were enrolled in SoonerCare Choice.

[25] The HAN Care Managed subgroup also is included within the analysis of the HAN total population. The subgroup represents approximately two percent of the total.

[26] PHPG examined six-year trend lines on a measure-by-measure basis and excluded this data for any measures that appeared to be affected by the refinement of the claims/eligibility extract and matching methods between Demonstration periods. These were isolated within the CAD and COPD measures and, in all cases, showed a greater than expected improvement from 2018 to 2019.

Evaluation Measures

Demonstration evaluation measures are listed below, by evaluation component and hypothesis/question. Exhibits D-2 through D-8 present the measures and their sources (e.g., HEDIS or CAHPS), as applicable. Appendix 1 (approved evaluation design) contains detailed specifications for each measure.

Evaluation of Health Access Networks – Access to Care

HAN performance in improving access to care was evaluated through the research question and measures presented below in Exhibit D-2.

Exhibit D-2 – HAN Access to Care Measures

Hypothesis/Research Question(s)	Measures	Source
Will the implementation and expansion of the HANs improve access to and the availability of health care services to SoonerCare beneficiaries served by the HANs?	• Children and adolescents' access to PCPs – 12 months to 19 years	HEDIS
	• Adults' access to preventive/ambulatory health services	HEDIS
	• Getting needed care – children and adults	CAHPS

Evaluation of Health Access Networks – Quality of Care

HAN performance in improving quality of care was evaluated through the research questions and measures presented below in Exhibit D-3.

Exhibit D-3 – HAN Quality of Care Measures

Hypothesis/Research Question(s)	Measures	Source
Will the implementation and expansion of the HANs improve the quality and coordination of health care services to SoonerCare beneficiaries served by the HANs, including those with one or more chronic illness?	• Number of HAN members engaged in care management • Asthma measures ○ Asthma medication ratio-5 to 18[27] ○ Asthma medication ratio-19 to 64 • Cardiovascular measures ○ Persistence of beta-blocker treatment after a heart attack ○ Cholesterol management for patients with cardiovascular conditions – LDL-C test • COPD measures ○ Use of spirometry testing in the assessment and diagnosis of COPD ○ Pharmacotherapy management of COPD exacerbation – 14 days ○ Pharmacotherapy management of COPD exacerbation – 30 days • Diabetes measures[28] ○ Percentage of members who had LDL-C test ○ Percentage of members who had retinal eye exam performed ○ Percentage of members who had Hemoglobin A1c (HbA1c) testing ○ Percentage of members who received medical attention for nephropathy	OHCA HEDIS (all remaining measures, except as noted)

[27] The approved evaluation design included two asthma HEDIS measures which have been retired: Use of appropriate medications for people with asthma and medication management for people with asthma – 75 percent. PHPG replaced these measures with a successor measure, asthma medication ratio.
[28] The approved evaluation design included an additional diabetes measure that has been retired: Percentage of members prescribed angiotensin converting enzyme inhibitors or angiotensin receptor blockers (ACE/ARB therapy).

Hypothesis/Research Question(s)	Measures	Source

Will the implementation and expansion of the HANs improve the quality and coordination of health care services to SoonerCare beneficiaries served by the HANs, including those with one or more chronic illness? *Continued*	• Hypertension measures[29]
	  ○ Percentage of members who had LDL-C test
	  ○ Percentage of members prescribed ACE/ARB therapy
	  ○ Percentage of members prescribed diuretics
	• Mental Health measures[30]
	  ○ Follow-up after hospitalization for mental illness – 7 days
	  ○ Follow-up after hospitalization for mental illness – 30 days	

Will the implementation and expansion of the HANs enhance the State's Patient Centered Medical Home program by making HAN care management support and practice enhancement available to more providers, as documented through an evaluation of PCP profiles that incorporates a review of utilization, disease guideline compliance and cost?	• Number and percentage of HAN-affiliated members aligned with a PCMH who has attained the highest level of OHCA accreditation[31,32]	OHCA

[29] The approved evaluation design included an additional hypertension measure that has been retired: Percentage of members prescribed ACE/ARB therapy or diuretics with annual medication monitoring.
[30] Measures are "HEDIS-like", as the HEDIS specifications are based on counts of discharges and not unique member counts and the 1115 evaluation is based on a unique member count of those members with discharges, to accommodate minimum HAN and HMP enrollment tenures.
[31] The SoonerCare STCs use the term "accreditation". The OHCA typically uses the term "tier designation" to distinguish SoonerCare PCMH standards from those of national accrediting bodies. The two terms are used interchangeably in the report.
[32] The 2019 – 2023 evaluation design approved by CMS (and adopted by the OHCA to the extent practical for the 2016 – 2018 evaluation) defined this measure using PCMH counts by tier, rather than beneficiary counts. However, the largest HAN provides care primarily through university clinics and reports its network data at the clinic, rather than practitioner level. Beneficiary counts were selected as a more accurate measure.

Hypothesis/Research Question(s)	Measures	Source
Will beneficiaries enrolled with a HAN PCMH provider have higher satisfaction, compared to beneficiaries enrolled with a non-HAN PCMH?	• Rating of health care – children and adults • Rating of health plan – children and adults • Rating of personal doctor – children and adults	CAHPS (first three measures)
	• Rating of assistance with SDOH	PHPG targeted survey

Evaluation of Health Access Networks – Cost Effectiveness

HAN cost effectiveness was evaluated through the research question and measures presented below in Exhibit D-4.

Exhibit D-4 – HAN Cost Effectiveness Measures

Hypothesis/Research Question(s)	Measures	Source
Will the implementation and expansion of the HANs reduce cost associated with provision of health care services to SoonerCare beneficiaries served by the HANs?	• Emergency room utilization • Hospital admissions • Per member per month health expenditures	OHCA (MMIS)

Evaluation of Health Management Program – Access to Care

HMP performance in improving access to care was evaluated through the research questions and measures presented in Exhibit D-5.

Exhibit D-5 – HMP Access to Care Measures

Hypothesis/Research Question(s)	Measures	Source
Will the implementation of the HMP, including health coaches and practice facilitation, result in an increase in enrollment, as compared to baseline?	• Number of HMP beneficiaries engaged in health coaching	OHCA
Will incorporating health coaches into primary care practices result in increased contact with HMP beneficiaries by the PCP (measured through claims encounter data), as compared to baseline, when care management occurred (exclusively) via telephonic or face-to-face contact with a nurse care manager?	• Children and adolescents' access to PCPs – 12 months to 19 years • Adults' access to preventive/ambulatory health services[33]	HEDIS

[33] The approved evaluation design included a simple measure of PCMH contacts. PHPG replaced this measure with the two HEDIS preventive care measures in order to maximize use of validated measures and to align with the HAN Access to Care evaluation.

Evaluation of Health Management Program – Quality of Care

HMP performance in improving quality of care was evaluated through the research questions and measures presented below in Exhibit D-6.

Exhibit D-6 – HMP Quality of Care Measures

Hypothesis/Research Question(s)	Measures	Source
Will the implementation of the HMP result in a change in characteristics of the beneficiary population enrolled in the HMP (as measured through population characteristics, including disease burden and co-morbidity obtained through claims and algorithms) as compared to baseline?	• Number of chronic conditions • Percentage of members with physical/behavioral health co-morbidities	OHCA (MMIS)

Will the use of disease registry functions by the health coach (along with other coaching activities) improve the quality of care delivered to beneficiaries, as measured by changes in performance on the initial set of Health Care Quality Measures for Medicaid-Eligible Adults or CHIPRA Core Set of Children's Healthcare Quality Measures?[34]	• Asthma measures
	  ○ Asthma medication ratio-5 to 18[35]
	  ○ Asthma medication ratio-19 to 64
	• Cardiovascular (CAD and heart failure) measures
	  ○ Persistence of beta-blocker treatment after a heart attack
	  ○ Cholesterol management for patients with cardiovascular conditions – LDL-C test
		HEDIS (all measures, except as noted)

[34] The approved evaluation included four Agency for Healthcare Research and Quality (AHRQ) hospital utilization measures (COPD or asthma in older adults admission rate; asthma in younger adults' admission rate; heart failure admission rate; and diabetes short-term complications admission rate). PHPG determined there were too few cases to evaluate reliably and excluded the measures from the analysis. PHPG will re-examine the measures for the summative evaluation.

[35] The approved evaluation design included two asthma HEDIS measures which have been retired: Use of appropriate medications for people with asthma and medication management for people with asthma – 75 percent. PHPG replaced these measures with a successor measure, asthma medication ratio.

Hypothesis/Research Question(s)	Measures	Source
Will the use of disease registry functions by the health coach (along with other coaching activities) improve the quality of care delivered to beneficiaries, as measured by changes in performance on the initial set of Health Care Quality Measures for Medicaid-Eligible Adults or CHIPRA Core Set of Children's Healthcare Quality Measures? *continued*	• COPD measures ○ Use of spirometry testing in the assessment and diagnosis of COPD ○ Pharmacotherapy management of COPD exacerbation – 14 days ○ Pharmacotherapy management of COPD exacerbation – 30 days • Diabetes measures[36] ○ Percentage of members who had LDL-C test ○ Percentage of members who had retinal eye exam performed ○ Percentage of members who had Hemoglobin A1c (HbA1c) testing ○ Percentage of members who received medical attention for nephropathy • Hypertension measures[37] ○ Percentage of members who had LDL-C test ○ Percentage of members prescribed ACE/ARB therapy ○ Percentage of members prescribed diuretics • Mental Health measures ○ Follow-up after hospitalization for mental illness – 7 days ○ Follow-up after hospitalization for mental illness – 30 days • Opioid measures ○ Use of opioids at high dosage in persons without cancer ○ Concurrent use of opioids and benzodiazepines	

[36] The approved evaluation design included an additional diabetes measure that has been retired: Percentage of members prescribed angiotensin converting enzyme inhibitors or angiotensin receptor blockers (ACE/ARB therapy).

[37] The approved evaluation design included an additional hypertension measure that has been retired: Percentage of members prescribed ACE/ARB therapy or diuretics with annual medication monitoring.

Hypothesis/Research Question(s)	Measures	Source

Will the use of disease registry functions by the health coach (along with other coaching activities) improve the quality of care delivered to beneficiaries, as measured by changes in performance on the initial set of Health Care Quality Measures for Medicaid-Eligible Adults or CHIPRA Core Set of Children's Healthcare Quality Measures? *continued*	• Social Determinants of Health
	  ○ Member awareness and use of available SDOH assistance (targeted member survey)
	  ○ Member satisfaction with SDOH assistance (targeted member survey)
		PHPG (targeted survey)

Will beneficiaries using HMP services have high satisfaction and attribute improvement in health status (if applicable) to the HMP?	• Overall satisfaction with health coach • Overall satisfaction with HMP • Change in health status (self-reported) • Contribution of HMP to improved health status (if applicable)	PHPG (targeted survey)

Evaluation of Health Management Program – Cost Effectiveness

HMP cost effectiveness was evaluated through the research questions and measures presented below in Exhibit D-7.

Exhibit D-7 – HMP Cost Effectiveness Measures

Hypothesis/Research Question(s)	Measures	Source
Will beneficiaries using HMP services have fewer ER visits compared to beneficiaries not receiving HMP services?	• Emergency room utilization	OHCA (MMIS)
Will beneficiaries using HMP services have fewer (admissions and) readmissions compared to beneficiaries not receiving HMP services?	• Hospital admission rate • Hospital readmission rate	OHCA (MMIS)
Will per member per month expenditures health for members enrolled in HMP be lower than would have occurred absent their participation?	• Per member per month expenditures[38]	OHCA (MMIS)

[38] The approved evaluation design included an additional step to calculate total expenditures inclusive of HMP administrative expenses. Telligen health coach FTE costs are reported to the OHCA but the health coaches perform a variety of tasks. In addition to direct care management, the health coaches also are responsible for supporting the practices in which they are embedded and for providing short term assistance to patients referred by the PCMH provider but not enrolled formally into the program. Health coaches also have administrative, documentation and reporting duties. PHPG will collaborate with the OHCA and vendor for the summative evaluation report to isolate direct care management activities/costs and activities/costs of other personnel supporting the health coaches (e.g., resource specialists) to allow for an accurate accounting of relevant administrative expenses.

Evaluation of Retroactive Eligibility Waiver

The appropriateness of the waiver of retroactive eligibility and its impact on beneficiary enrollment patterns and health status was evaluated through the research question and measures presented below in Exhibit D-8.

Exhibit D-8 – Retroactive Eligibility Waiver Appropriateness

Hypothesis/Research Question(s)	Measures	Source
Do eligible people subject to the retroactive eligibility waivers enroll in Medicaid at the same rate as other eligible people who have access to retroactive eligibility?[39]	• The number of individuals enrolled in Medicaid by eligibility group, by quarter • The number of new enrollees in Medicaid by eligibility group, by quarter • Probability of remaining enrolled in Medicaid for 12-, 18- 24-consecutive months, by eligibility group • Number of months with Medicaid coverage (average tenure)	OHCA (eligibility system)
Do beneficiaries subject to retroactive eligibility waivers who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries who have access to retroactive eligibility?	• Possibility of re-enrolling in Medicaid after a gap in coverage of six months • Number of months without Medicaid coverage, up to six months	OHCA (eligibility system)
Do newly-enrolled beneficiaries subject to a waiver of retroactive eligibility have higher self-assessed health status than other newly-enrolled beneficiaries who have access to retroactive eligibility?	• Beneficiary self-reported health status; reported prior year utilization	PHPG (targeted survey)

[39] The approved evaluation design included a measure of the probability of completing the renewal process, by eligibility group. PHPG was unable to obtain data for this measure for the interim evaluation. If data becomes available it will be included in the summative evaluation report.

Hypothesis/Research Question(s)	Measures	Source
Do beneficiaries subject to the retroactive eligibility waiver have better health outcomes than other beneficiaries who have access to retroactive eligibility?	• Beneficiary self-reported health status; healthy days • Change in physical and mental health status, measured at baseline and at 12, 18 and 24 months	PHPG (targeted survey)

4. Data Sources

The SoonerCare evaluation was conducted using a variety of data sources, including eligibility/paid claims data and beneficiary and provider survey data.

Eligibility and Paid Claims Data

PHPG analysts were granted access to the OHCA MMIS and worked directly with eligibility and paid claims data for calculation of HEDIS rates, utilization trends and PMPM health expenditures. PHPG has worked within the OHCA MMIS for over a decade and performs routine quality checks to validate the completeness of the claims data, including comparison of month-to-month variance in expenditures by category-of-service, to identify and research potential data gaps. PHPG uses data smoothing and similar techniques to close gaps, if necessary.

PHPG also accounts for incurred but not received (IBNR) claims when performing utilization and expenditure calculations. The paid claims data for calendar years 2019 – 2021 was extracted in July 2022, making it unnecessary to apply claims completion factors to the data in this instance.

CAHPS Survey

The evaluation included CAHPS 5.0H survey data collected by the OHCA's contracted CAHPS surveyor, which uses a combined, mail/telephone/internet protocol to maximize response rates. The OHCA and surveyor furnished PHPG with respondent de-identified child and adult CAHPS data; the data included flags for respondents whose PCMH providers were affiliated with a HAN.

PHPG used the data to evaluate beneficiary responses to CAHPS questions, stratified by HAN enrollment status. Although the CAHPS surveyor conducted the surveys, PHPG was solely responsible for calculating and reporting the stratified results.

The most recently-published child and adult SoonerCare CAHPS reports, as well as archived reports, are posted on the OHCA's website[40]. The reports describe the surveyor's methodology in greater detail and provide complete survey findings.

Targeted Surveys

PHPG also conducted targeted surveys of beneficiaries and providers to capture data for evaluation measures in the SoonerCare HAN, SoonerCare HMP and retroactive eligibility components of the evaluation. The survey instrument used for the retroactive eligibility component of the evaluation included nationally-validated questions from CAHPS, BRFSS and NHIS, as recommended by CMS in its evaluation design guidance. PHPG's survey unit conducted all surveys by telephone, although providers also were given the option of completing and returning hard copies of the surveys.

[40] http://www.okhca.org/research.aspx?id=87

5. Analytic Methods

Overview

The evaluation data analysis consists of both exploratory and descriptive strategies and incorporates univariate, bi-variate, and multi-variate techniques. The analysis applied statistical and/or logical techniques to describe, summarize, and compare data within the State and across time.

Descriptive statistics are used to illustrate the basic features of the data and what they depict, and to provide simple summaries about the sample and the measures. They also are used to provide summaries about members and their outcomes.

An exploratory data analysis was employed to compare many variables in the search for organized patterns. Data was analyzed as rates, proportions, frequencies, and measures of central tendency, and/or qualitatively analyzed for themes. Where available, results are compared to national benchmarks for informational purposes only.

As appropriate, analytic methods included t-test, ANOVA, and coarsened exact matching with weighted t-test. These methods were used for comparing sample and population proportions and means against each other, specifically where one group had received treatment/intervention and another had not. (See below for additional detail on the coarsened exact matching procedure.)

T-tests and ANOVA are appropriate when granular (member-level) data is not available, but population-level proportions, means and standard deviations are, the outcome variable is continuous, and the objective is to determine whether the proportion or mean of a certain outcome variable of interest is significantly different between two or more groups. T-tests allow for comparison of proportions or means between two groups whereas ANOVA allows this to be done for more than two groups.

The analysis was performed both at a statewide level and stratified into urban and rural subgroups, subject to sample size limitations. The urban subgroup consists of the counties comprising the greater Oklahoma City, Tulsa, and Lawton metropolitan areas; the rural subgroup consists of the remainder of the State.

The traditionally accepted significance level ($p \leq 0.05$) was used for all comparisons.

Coarsened Exact Matching

Coarsened exact matching applies the concept that multiple covariates (e.g., gender, age) and specific characteristics (e.g., urban versus rural or presence/absence of a medical condition such as asthma or diabetes) may be salient covariates for determining health outcomes.

The analysis universe includes various archetypes of individuals with combinations of properties (e.g., female, under age 18, urban). The relative frequency of a particular archetype will vary

between the treatment and potential comparison group populations. To match and normalize the two populations more effectively, bins or coarsened values are constructed (e.g., coarsening into age cohorts, such as under21 – 30, 31 – 40 etc.) and used for the matching step.

Final weights then are determined by assigning a weight of 0 to all unmatched (comparison group and treatment) observations and a weight of 1 to all matched treatment observations. Matched comparison observations are given a positive weight (either fractional or greater than or equal to 1) such that the bin/archetype distribution of the comparison group (matched observations) can match that of the treatment group (matched observations).

The formula is as follows:

$$weight = \frac{\frac{treatment_n}{comparison_n}}{\frac{comparison_{total}}{treatment_{total}}}$$

Where:

> *$Treatment_{total}$ and $Comparison_{total}$ represent the total number of matched observations in the treatment and comparison groups, respectively; and*
>
> *Treatment and comparison represent the number of matched $treatment_n$ and $comparison_n$ groups, respectively, that belong to archetype (or bin) n (i.e., a specific combination/bin of attributes).*

The weight value is later applied in the t-test to ensure, when comparing the sample means, that the observations are appropriately weighted.

Controlling for Member Characteristics

The design relies on measures that by nature include participants with attributes that are highly correlated. For example, many measures focus on a specific diagnosis, medication, age band or treatment condition. The inclusion and exclusion criteria for each measure limits the variability of beneficiary characteristics that are observed in the data.

As part of the analysis, and based on the viability of the sample size, the evaluation controls for the following member demographic characteristics: age, gender, urban/rural status, aid category code and, for a subset of measures, claims history (prior year cost), using the following covariates for coarsened exact matching to produce weights:

$$Group \sim Age + Gender + Urban/Rural + ABD_{year} + ClaimsHistory_{year}$$

For geography (urban/rural), members were classified using the same parameters as for geographic stratification. The urban subgroup consisted of the counties comprising the greater Oklahoma City, Tulsa, and Lawton metropolitan areas; the rural subgroup consisted of the remainder of the State.

For aid category, members were classified either as Aged, Blind or Disabled (ABD) without Medicare or non-ABD (all others). (ABD members with Medicare are not part of the Demonstration.)

Claims history was included as a variable for HAN Care Managed and HMP utilization and expenditure measures, to better approximate the characteristics of these two populations. This was done by replicating the method used to identify candidates for care management. Both programs use data analytics that rely on claims history as one basis for selecting candidates for enrollment. (Health status/claims history was not considered for HEDIS measures because HEDIS specifications serve an equivalent purpose at the diagnosis code level. Health status/claims history was not available for survey or retroactive eligibility measures that employed matching.)

Average PMPM claim costs were calculated for each SoonerCare Choice member with 12 months of enrollment in a year. The calculation was performed separately for members in 2018, 2019, 2020 and 2021. The PMPM value representing the 95th percentile of cost within each year was identified, i.e., the PMPM value that was higher than the value for 95 percent of members that year.

Matching for each year of the evaluation (2019 – 2021) then was performed on the basis of prior year claim costs, with members in the 95th percentile identified as care management candidates. That is, the care management candidate flag for 2019 was applied based on member costs in 2018 (if the member also was enrolled in 2018); the 2020 flag was applied based on member costs in 2019; and the 2021 flag was applied based on member costs in 2020. Members also were flagged if actually recruited into care management in a given year without the percentile threshold, to account for those without prior year history and those enrolled on another basis, such as diagnosis.

Report appendices labeled “Covariate Balance Tables” provide CEM data, both pre- and post-matching. The post-matching data presents characteristics of the beneficiaries included in the related t-test analysis. Age is shown in years (e.g., 39.5 years of age). Other variables are binary, with the results expressed as a value between 0 and 1. For example, the urban/rural variable classifies members residing in rural areas as “1” and urban areas as “0”. The reported value signifies the percent of members with the characteristic designated with a “1” (e.g., an urban/rural value of 0.255 indicates that 25.5 percent of the members reside in a rural area).

Survey Samples

The sample size for the CAHPS survey was determined by the OHCA’s CAHPS survey vendor. For all non-CAHPS beneficiary surveys, a repeated measures power analysis was used to determine the appropriate sample size. Effect size estimates used in the power calculation were based on the effect size of prior surveys of a similar nature conducted in the State by PHPG. The attrition rate of the same surveys from prior periods also was used to estimate the necessary sample size.

Isolating Effects of the Demonstration

The SoonerCare Choice Demonstration operates under managed care principles, with PCMH providers, SoonerCare HANs and the HMP performing key managed care functions. SoonerCare Choice members are not co-enrolled for care management in the HAN and HMP, making the populations within these programs unique in their composition.

The evaluation is designed to isolate the effects of the SoonerCare HANs and HMP from other activities through creation of a comparison group comprised of members not enrolled in either program (but still enrolled with a non-HAN affiliated PCMH).

6. Other Additions

None.

E. METHODOLOGICAL LIMITATIONS

The SoonerCare Choice evaluation was designed to yield accurate and actionable findings but does have methodological limitations, most of which are inherent to the Section 1115 Demonstrations. These include:

- *Lack of true experimental control groups* – The evaluation design includes a comparison group that serves as a reasonable proxy for the two target populations. However, it is not a true experimental control group. PHPG used coarsened exact matching, as feasible, to maximize the validity of the comparison group for the evaluation.

- *SoonerCare HMP child/adolescent HEDIS measures* – The SoonerCare HMP beneficiary population is significantly older than the general SoonerCare population; fewer than 10 percent of HMP beneficiaries are children/adolescents versus 65 percent of the general population. The small universe of HMP beneficiaries under the age of 21 posed challenges when calculating rates for diagnosis-specific pediatric measures. PHPG identified the affected measures within the body of the report.

- *Reliance on administrative data* – HEDIS measures account for a significant portion of the evaluation measure set. The OHCA calculates HEDIS rates using administrative data, which limits the accuracy of measures that require a hybrid method to capture fully beneficiary/provider activity. PHPG accounted for this limitation to the extent practicable by selecting measures that can be calculated accurately using administrative data.

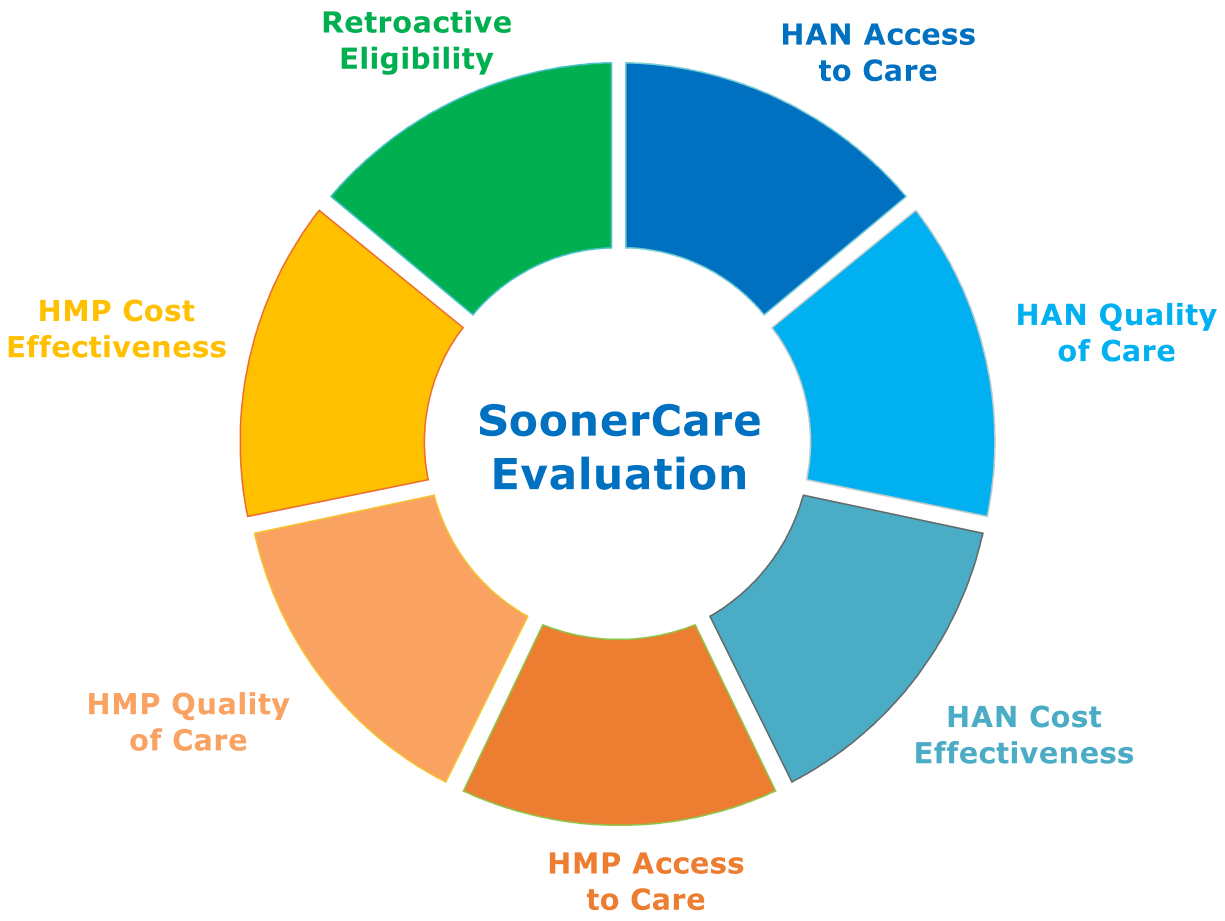
Caution should be exercised when interpreting results. The evaluation examined initiatives (HAN and HMP) and policies (retroactive eligibility) that were implemented prior to 2019. The findings, while descriptive, should not be interpreted as causal evidence for the impact of this Demonstration.

The evaluation also includes a large number of statistical significance tests. In any such test, there is the potential for a "false positive" finding; the large number of tests raises the possibility that one or more findings is due to chance.

In addition to these inherent limitations, the presence of the COVID-19 Public Health Emergency substantially disrupted health care utilization patterns during two of the three years addressed in the interim evaluation. The use of treatment and comparison groups for the majority of measures helps to mitigate the impact of the PHE on findings, to the extent both populations were exposed to the same disruptions in care (e.g., unavailability of office appointments for routine care needs).

The suspension of Most Title XIX disenrollments during the PHE directly affected the portion of the retroactive eligibility evaluation related to enrollment continuity. Descriptive statistics are provided in the interim evaluation but no conclusions can be drawn for the period falling under the PHE.

F. RESULTS



Introduction

The results of the SoonerCare Choice evaluation are organized by hypothesis/research question. Findings are presented for each measure pertaining to a hypothesis/research question, followed by summary results across all measures. Supporting data for statistical analyses are included in report appendices, as noted within the narrative.

The SoonerCare HAN portion of the evaluation includes findings for the total HAN-aligned population ("HAN total") and, where available, for the subset of HAN members enrolled in care management ("HAN Care Managed"). The distinction is important, as the HAN total population is largely undifferentiated from the non-HAN population. Both groups receive primary care and referral services through their PCMH provider; the sole point of difference is the provider's status as affiliated or not affiliated with a SoonerCare HAN. The HAN Care Managed population is

differentiated in that its members receive additional support with clinical and social service needs through enrollment with a SoonerCare HAN care manager, usually a registered nurse.

The SoonerCare HAN and HMP evaluations present statewide data for all measures. The evaluations also stratify results into urban and rural geographic subgroups, where possible.

The majority of the SoonerCare HAN and HMP measures are reported for each of three years of the evaluation. The individual year results also are pooled to present a three-year average. Statistical significance for the three-year average results were calculated through application of Fisher's Combined Probability Test.

Caution should be exercised when reviewing individual year results and year-over-year changes, particularly with respect to chronic care HEDIS measures, where substantial variance may in part be an artifact of small treatment group population sizes. This applies in particular to the HAN Care Managed and HMP populations. The three-year pooled data is the most robust test of statistical significance between treatment and comparison group populations.

Conversely, a small number of population-level measures, such as for HEDIS preventive care, are susceptible to findings of statistical significance despite small absolute differences in rates between the treatment and comparison group. This applies in particular to the HAN total population and its comparison group.

A portion of the SoonerCare HAN and HMP measures also were evaluated in the previous Demonstration period (calendar years 2016 – 2018). Six-year trend lines for the treatment group are presented where available[41]. Comparison group trendlines are not included due to a change in the matching methodology from the previous period[42].

National benchmarks exist for a portion of the SoonerCare HAN and HMP HEDIS and CAHPS measures. These are presented where available. The HEDIS benchmark is the 50th percentile rate of the CMS 2020 Core Measure Set. The CAHPS benchmark is the 50th percentile rate among Medicaid health plans as reported in the NCQA 2021 Medicaid health plan Quality Compass dataset. Benchmark population characteristics were not matched to the treatment groups; the data is presented for informational purposes only.

The COVID-19 PHE overlapped with two of the three years of the evaluation. Caution should be exercised when reviewing findings due to the PHE's disruptive effect on the health care delivery system.

[41] See footnote 26.

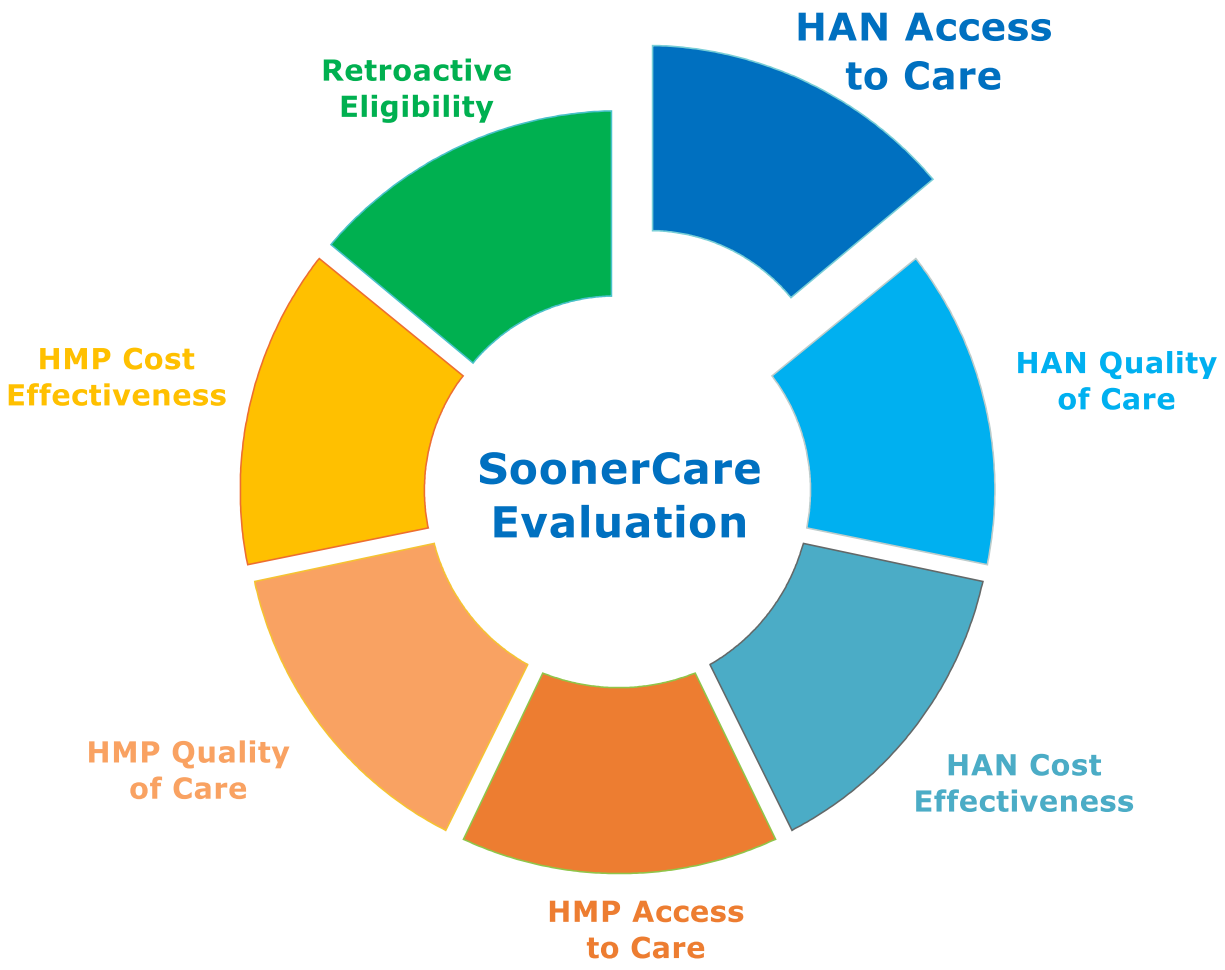
[42] Propensity Score Matching was used for the 2106 – 2018 evaluation. Coarsened Exact Matching was used for the 2019 – 2021 evaluation.

Supporting Appendices

Supporting data for narrative findings is included in a series of report appendices. Exhibit F-1 below identifies the contents within each appendix. The appendices specific to each analysis are identified again at the start of the individual results sections.

Exhibit F-1 – Supporting Appendices for Results

Appendix	Applies to	Contents
Appendix 2	HAN Analysis	CEM covariate balance tables (pre- and post-matching) for HEDIS, utilization and expenditure measures (2019 – 2021)
Appendix 3	HAN Analysis	Statistical significance test results (p<.005) for HEDIS, utilization and expenditure measures (2019 – 2021 and three-year pooled data)
Appendix 4	HAN Analysis	CEM covariate balance tables (pre- and post-matching) for CAHPS measures
Appendix 5	HAN Analysis	Statistical significance test results for CAHPS measures (HAN and comparison group)
Appendix 6	HAN Analysis	HAN member SDOH targeted survey instrument (HAN and comparison group)
Appendix 7	HAN Analysis	HAN-aligned PCMH targeted survey instrument
Appendix 8	HMP Analysis	CEM covariate balance tables (pre- and post-matching) for CAHPS measures (HMP and comparison group)
Appendix 9	HMP Analysis	Statistical significance test results for CAHPS measures (HMP and comparison group)
Appendix 10	HMP Analysis	CEM covariate balance tables (pre- and post-matching) for HEDIS, utilization and expenditure measures (2019 – 2021)
Appendix 11	HMP Analysis	Statistical significance test results (p<.005) for HEDIS, utilization and expenditure measures (2019 – 2021 and three-year pooled data)
Appendix 12	HMP Analysis	HMP member targeted survey instrument (SDOH section only)
Appendix 13	Retroactive Eligibility Analysis	Retroactive eligibility analysis survey instrument
Appendix 14	Retroactive Eligibility Analysis	CEM covariate balance tables (pre- and post-matching) for survey measures
Appendix 15	Retroactive Eligibility Analysis	Statistical significance test results for retroactive survey measures (population subject to waiver and comparison group)


HAN Access to Care
HAN Quality of Care
HAN Cost Effectiveness
HMP Access to Care
HMP Quality of Care
HMP Cost Effectiveness
Retroactive Eligibility
SoonerCare Evaluation

1. SoonerCare HAN Access to Care

Overview

The research question for this evaluation component asks: Will the implementation and expansion of the HANs improve access to and the availability of health care services to SoonerCare beneficiaries served by the HANs?

The OHCA, through its contracts with SoonerCare Health Access Networks, requires the HANs to promote improved access to care as part of advancing broader principles of managed care. The OHCA monitors HAN contractual compliance through a quarterly reporting process under which the HANs provide documentation on staffing and updates on activities related to improving access and quality of care. The HANs also submit annual reports summarizing the prior year's activities.

The required access activities include, among others:

- Ensuring access to physical health specialty care for beneficiaries with a HAN-affiliated PCMH;
- Ensuring behavioral health network adequacy and availability; and
- Generating care gap lists for the HAN and/or PCMH to use in identifying beneficiaries who are due for a primary care visit or are potential candidates for care management based on underlying health needs.

HAN Access to Care Measures

Exhibit F-2 on the following page presents the HAN access to care measures and identifies:

- Data sources
- Subgroups evaluated (if any)
- Presence or absence of a national benchmark
- Presence or absence of comparative data from the prior Demonstration period

Supporting Appendices

Appendix 2 contains CEM covariate balance tables for HEDIS measures. Appendix 3 contains statistical significance test results for HEDIS measures. Appendix 4 contains CEM covariate balance tables for CAHPS measures. Appendix 5 contains statistical significance tests results for CAHPS measures.

Exhibit F-2 - HAN Access to Care Measures - Overview

Measures	Source	HAN Care Managed Subgroup	Geographic Subgroups	National Benchmark	Prior Period Data
Children and adolescents' access to PCPs – 12 months to 19 years Percentage of beneficiaries 12 months to 19 years of age who had a visit with a PCP during the measurement year.	HEDIS	***Yes***	***Yes***	No	No[43]
Adults' access to preventive/ambulatory health services Percentage of beneficiaries 20 years of age and older who had an ambulatory or preventive care visit in the measurement year.	HEDIS	***Yes***	***Yes***	No	***Yes***
Getting Needed Care – children and adults Percentage of beneficiaries (adults and parents/caretakers of children) who reported "always" getting needed care. "Getting Needed Care" is a composite measure consisting of two questions, the first of which asks about getting necessary care, tests or treatment[44] and the second of which asks about getting appointments with specialists as soon as needed[45]. The composite is a simple average of the individual measure percentages.	CAHPS	No	No	***Yes***	***Yes***

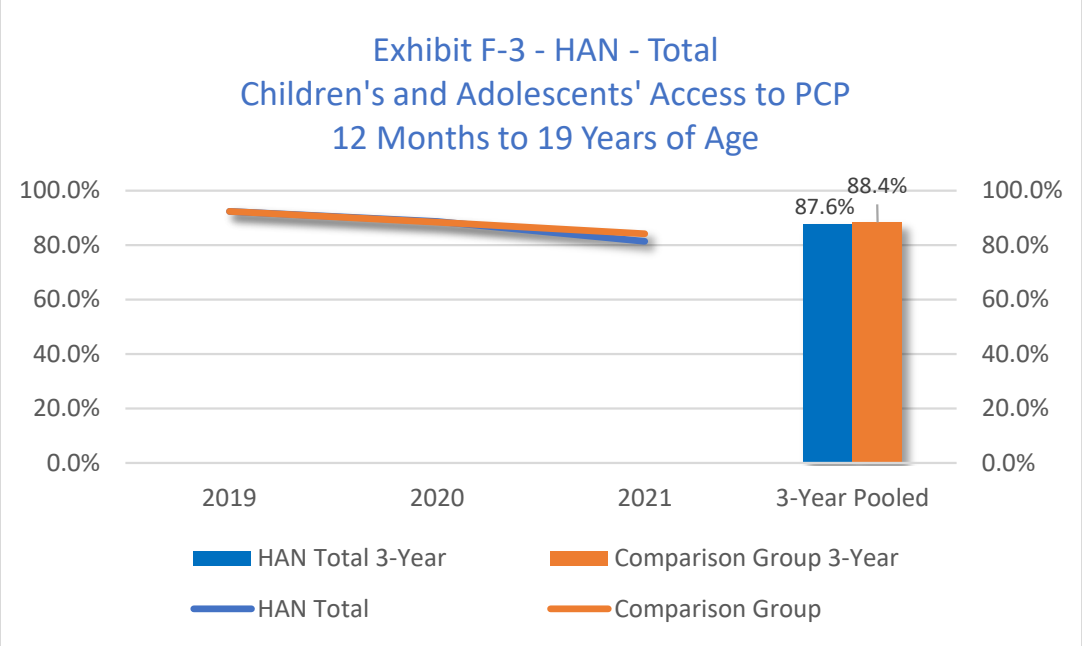
Methodology detail and sample sizes also are included at the bottom of exhibits containing the results of statistical significance tests between treatment (Demonstration) and comparison group populations.

[43] Consolidated measure for 12 months to 19 years introduced for the HAN portion of the evaluation in current period. Prior period reported multiple age cohorts.
[44] In the last 6 months, how often was it easy to get the care, tests, or treatment you (your child) needed?
[45] In the last 6 months, how often did you (your child) get an appointment to see a specialist as soon as you needed?

Children and Adolescents' Access to PCPs – 12 Months to 19 Years

Findings – HAN Total Population

Approximately 88 percent of HAN total members and comparison group members were compliant on this measure across the three years (Exhibit F-3). The compliance rate for both populations declined from 2019 to 2021.



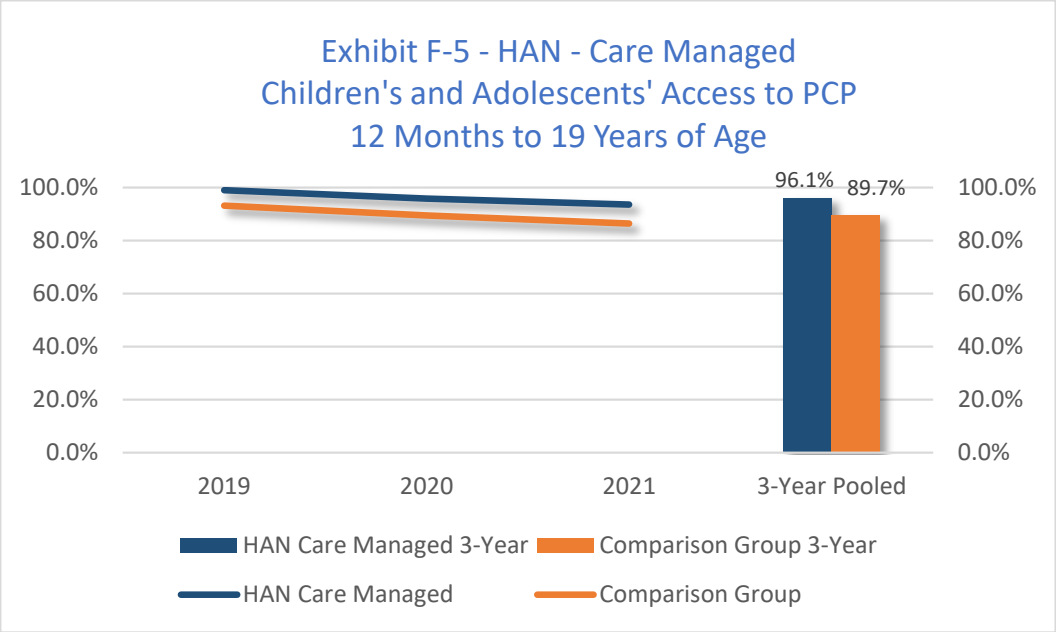
The difference between the HAN beneficiary and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-4)[46].

Exhibit F-4 – HAN (Total) – Children's & Adolescents' Access to PCP – 12 Months to 19 Years				
	2019	2020	2021	3-Year Pooled
HAN (Total)	92.5%	88.7%	81.5%	87.6%
Comparison Group	92.4%	88.5%	84.3%	88.4%
Difference	0.1%‡	0.2%‡	(2.8%)‡	(0.8%)‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 115,344 CG – 170,615	HAN-T – 139,861 CG – 212,741	HAN-T – 180,406 CG – 235,907	HAN-T – 435,611 CG – 619,263
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

[46] The finding of statistical significance despite the small percentage difference is an artifact of the large population sizes for both groups.

Findings – HAN Care Managed Population

Approximately 96 percent of HAN Care Managed members and 90 percent of comparison group members were compliant on this measure across the three years (Exhibit F-5). The compliance rate for both populations declined from 2019 to 2021.



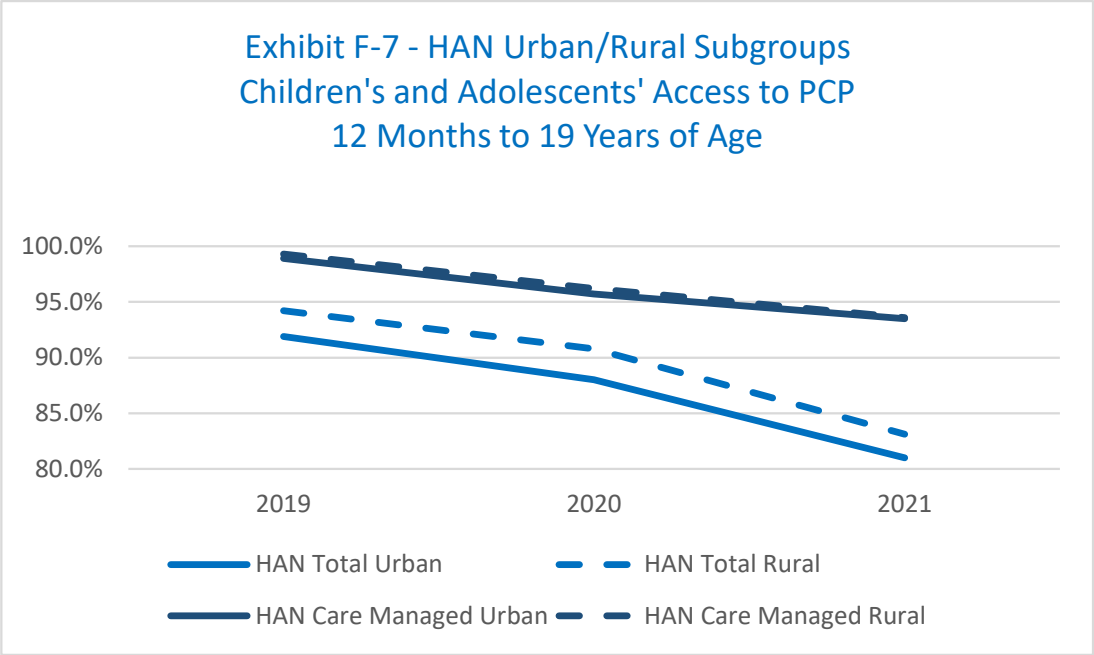
The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-6).

Exhibit F-6 – HAN (Care Managed) – Children & Adolescents' Access to PCP – 12 Months to 19 Years

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	99.0%	95.8%	93.5%	96.1%
Comparison Group	93.2%	89.4%	86.4%	89.7%
Difference	5.8%‡	6.4%‡	7.1%‡	6.4%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 1,372 CG – 166,749	HAN-CM – 1,812 CG – 212,007	HAN-CM – 2,492 CG – 230,752	HAN-CM – 5,676 CG – 609,508
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup compliance rate was slightly higher than the urban subgroup rate; both trended downward from 2019 to 2021. The HAN Care Managed urban and rural subgroup compliance rates were very similar; both also trended downward (Exhibit F-7).



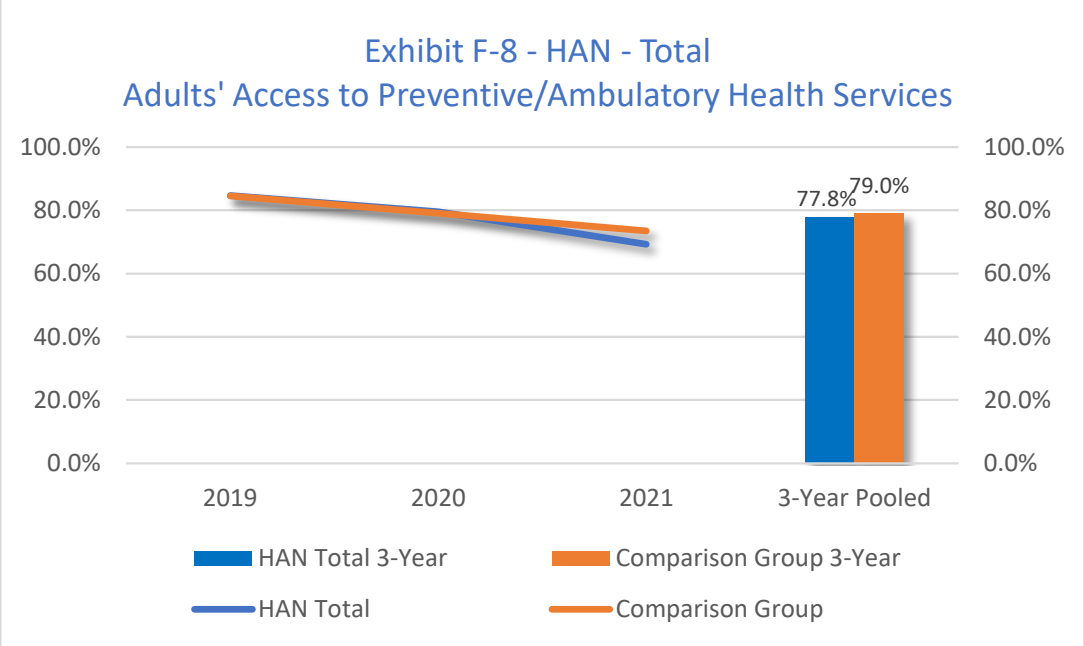
Note: Y-axis does not begin at 0.

	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	91.9%	88.0%	81.0%
	Rural	94.2%	90.8%	83.1%
HAN (Care Managed)	**Urban**	98.9%	95.7%	93.5%
	Rural	99.3%	96.2%	93.6%

Adults' Access to Preventive/Ambulatory Health Services

Findings – HAN Total Population

Approximately 78 percent of HAN total members and 79 percent of comparison group members were compliant on this measure across the three years (Exhibit F-8). The compliance rate for both populations declined from 2019 to 2021.



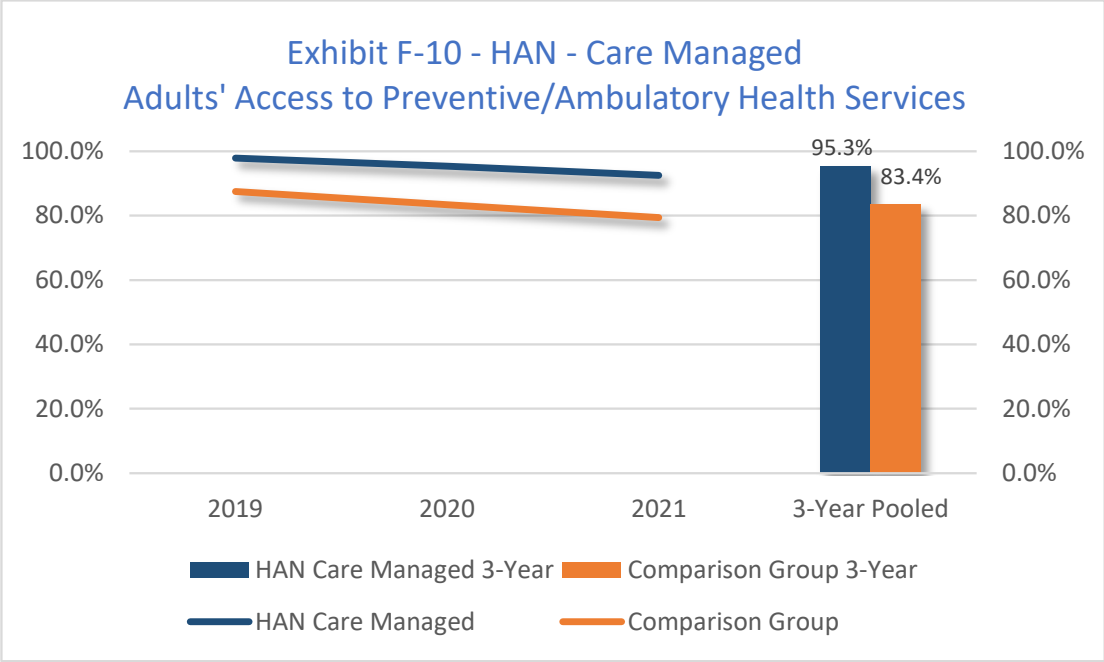
The difference between the HAN total and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-9)[47].

Exhibit F-9 – HAN (Total) – Adults' Access to Preventive/Ambulatory Health Services				
	2019	2020	2021	3-Year Pooled
HAN (Total)	84.6%	79.5%	69.3%	77.8%
Comparison Group	84.5%	79.1%	73.5%	79.0%
Difference	0.1%‡	0.4%‡	(4.2%)‡	(1.2%)‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 15,262 CG – 27,393	HAN-T – 19,239 CG – 40,178	HAN-T – 56,182 CG – 46,053	HAN-T – 90,683 CG – 113,624
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

[47] The finding of statistical significance despite the small percentage difference is an artifact of the large population sizes for both groups.

Findings – HAN Care Managed Population

Approximately 95 percent of HAN Care Managed members and 83 percent of comparison group members were compliant on this measure across the three years (Exhibit F-10). The compliance rate for both populations declined from 2019 to 2021.



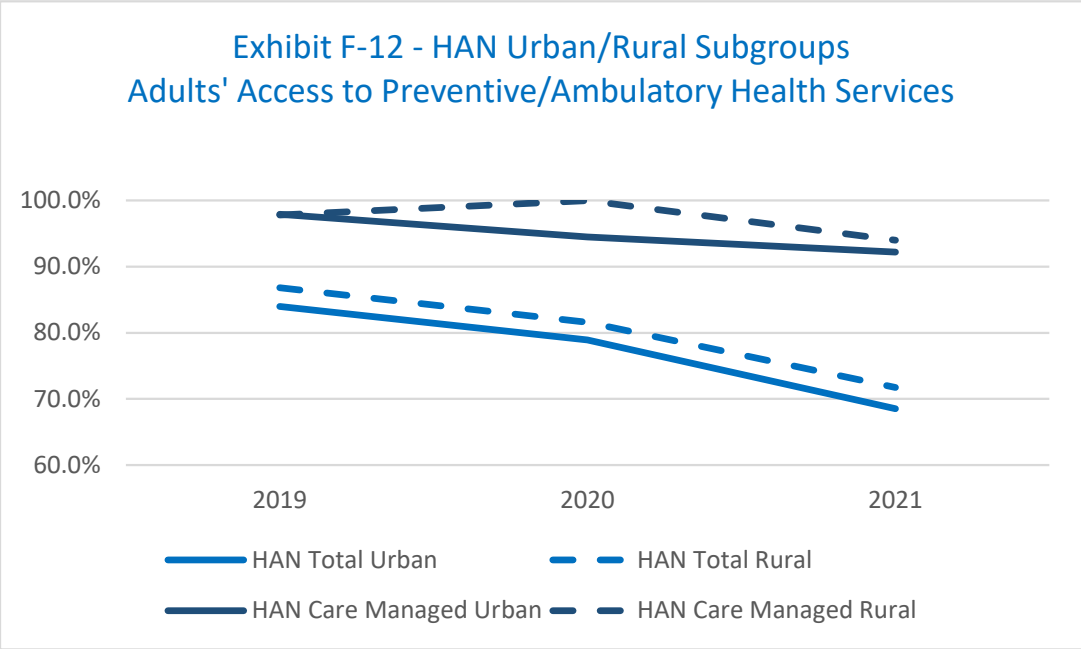
The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-11).

Exhibit F-11 – HAN (Care Managed) – Adults' Access to Preventive/ Ambulatory Health Services

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	97.9%	95.4%	92.5%	95.3%
Comparison Group	87.5%	83.4%	79.4%	83.4%
Difference	10.4‡	12.0%‡	13.1%‡	11.9%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 466 CG – 23,747	HAN-CM – 495 CG – 33,622	HAN-CM – 749 CG – 43,101	HAN-CM – 1,710 CG – 100,470
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban and rural subgroups recorded similar compliance rates; both trended downward from 2019 to 2021. The HAN Care Managed urban and rural subgroups also recorded similar compliance rates and also trended downward, with the exception of the rural subgroup rate from 2019 to 2020 (Exhibit F-12).

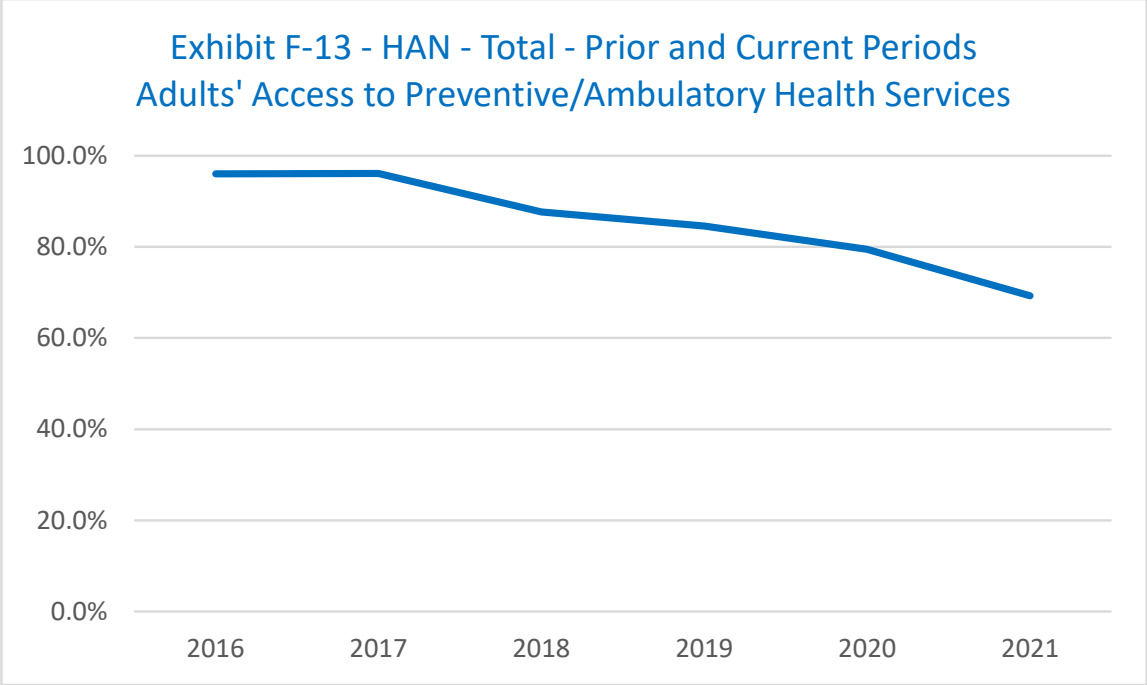


Note: Y-axis does not begin at 0.

	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	84.0%	78.9%	68.5%
	Rural	86.8%	81.6%	71.7%
HAN (Care Managed)	**Urban**	97.9%	94.5%	92.2%
	Rural	97.8%	100.0%	94.0%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate declined from 96 percent in 2016 to approximately 69 percent in 2021 (Exhibit F-13). (Note that 2020 and 2021 include the period affected by the COVID-19 PHE.)

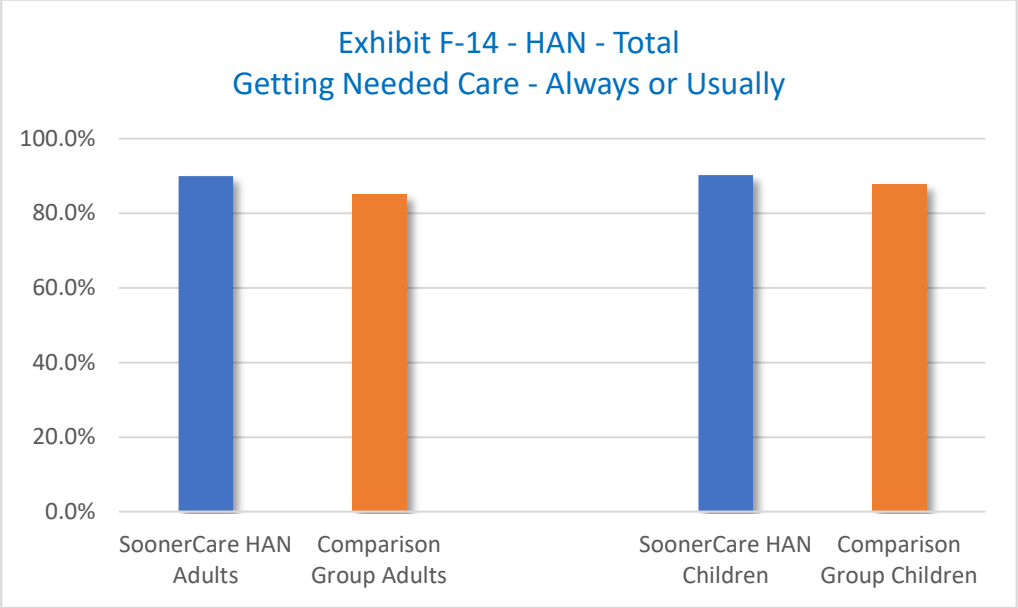


	2016	2017	2018	2019	2020	2021
HAN (Total)	96.0%	96.1%	87.7%	84.6%	79.5%	69.3%

Getting Needed Care – Children and Adults

Findings – HAN Total Population

Ninety percent of HAN adult members and approximately 85 percent of comparison group adult members reported always or usually being able to get needed care[48]. Approximately 90 percent of parents/caretakers of HAN child members and 88 percent of comparison group parents/caretakers reported always or usually being able to get needed care for their children (Exhibit F-14).



The difference between the HAN total and comparison group rates was not statistically significant for either group (Exhibit F-15).

Exhibit F-15 – HAN (Total) – Getting Needed Care – Percent Responding Always or Usually

	Adults	Children
HAN (Total)	90.0%	90.2%
Comparison Group	85.1%	87.8%
Difference	4.9%	2.4%

‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)

Sample Sizes	Adults	HAN-T - 33 CG – 213	Parents/Caretakers of Children	HAN-T - 283 CG – 668

Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.

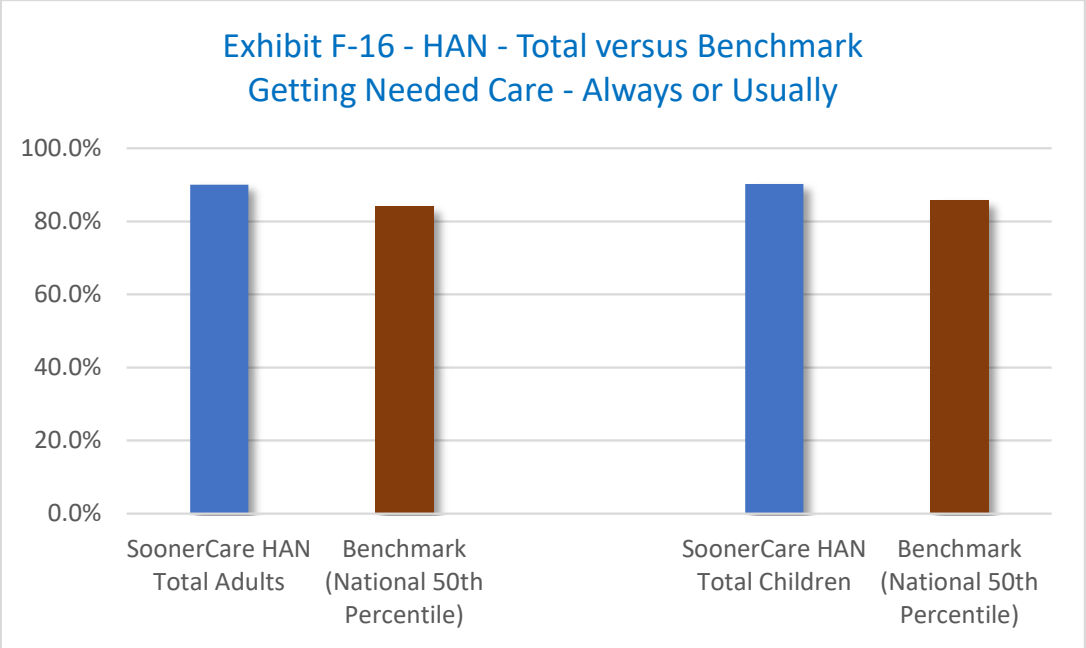
[48] Composite measure (simple average) of two CAHPS survey questions: In the last six months, how often was it easy to get the care, tests or treatment you (your child) needed? In the last 6 months, how often did you (your child) get an appointment to see a specialist as soon as you needed?

Findings – HAN Total Population and National Benchmark

The rate for SoonerCare HAN adults exceeded the 2021 national benchmark rate by approximately six percentage points.

The rate for SoonerCare HAN children exceeded the 2021 national benchmark rate by approximately five percentage points (Exhibit F-16).

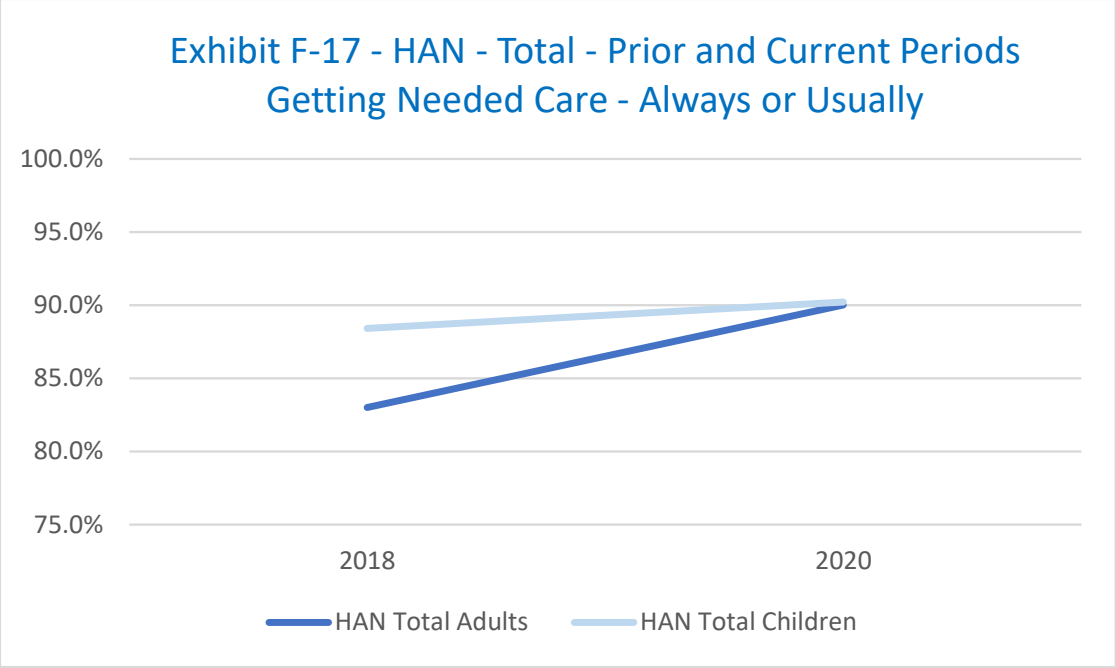
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Adult	Benchmark	HAN Child	Benchmark
HAN (Total)	90.0%	84.1%	90.2%	85.7%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was calculated for the HAN total population in the 2018 CAHPS survey period. The percentage responding always or usually increased by seven percentage points among adults and approximately two percentage points among parents/caretakers of children (Exhibit F-17).



Note: Y-axis does not begin at 0.

	HAN Adult 2018	HAN Adult 2020	HAN Child 2018	HAN Child 2020
HAN (Total)	83.0%	90.0%	88.4%	90.2%

HAN Access to Care – Summary

The SoonerCare HAN total and comparison group populations differed by a statistically significant amount on the two HEDIS preventive care measures, with the comparison group outperforming the HAN beneficiary population. The 2019 to 2021 trend for both measures was downward.

The SoonerCare HAN Care Managed member and comparison group populations also differed by a statistically significant amount on the two HEDIS preventive care measures, with the HAN population outperforming the comparison group. The 2019 to 2021 trend for both measures again was downward.

There was no statistically significant difference between the SoonerCare HAN total member and comparison group populations with respect to the CAHPS Getting Needed Care measure (Exhibit F-18).

Exhibit F-18 – HAN Access to Care Measures – Summary

Measures	HAN Total versus Comparison Group	HAN 2019-2021 Trend	HAN Care Managed versus Comparison Group	HAN Care Managed 2019 – 2021 Trend
Children and adolescents' access to PCPs – 12 months to 19 years				
Adults' access to preventive/ambulatory health services				
Getting needed care – children				
Getting needed care – adults				

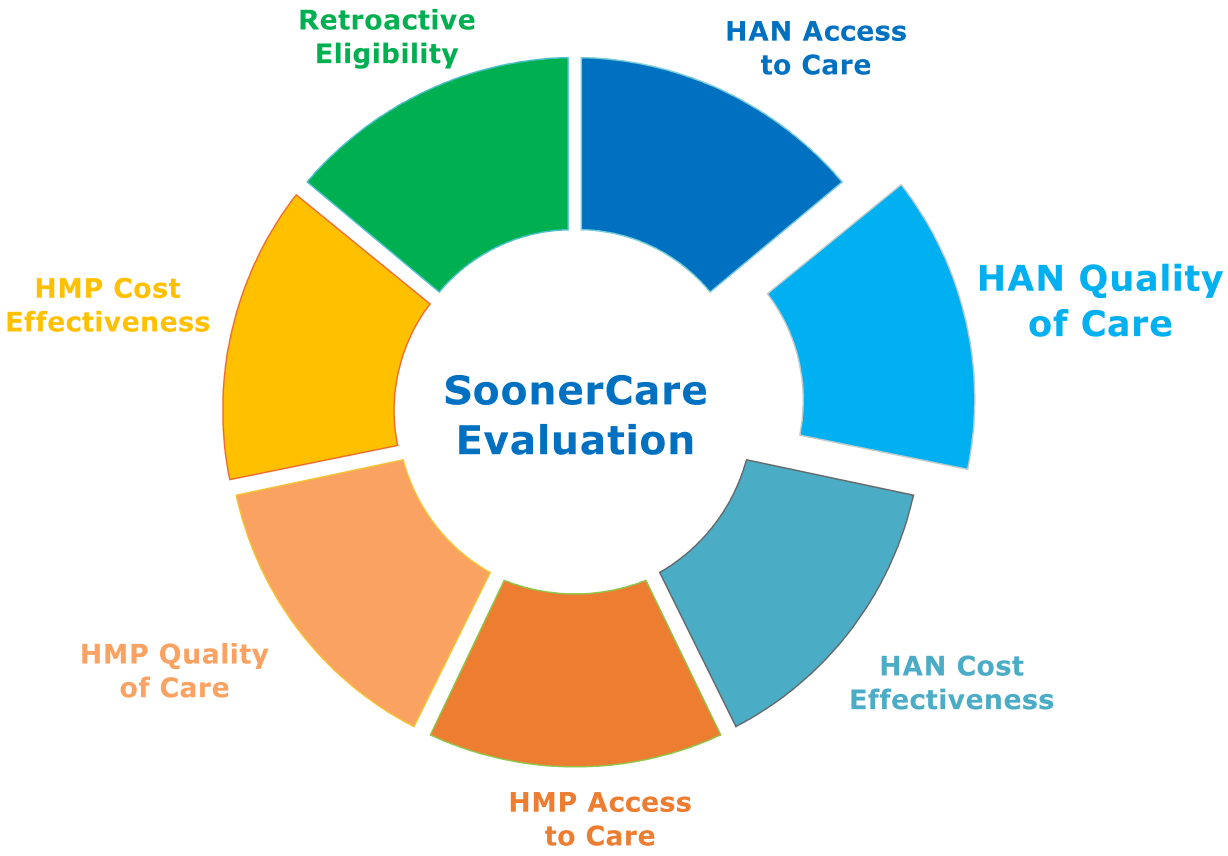
 HAN exceeds comparison group by a statistically significant amount (3-year pooled)

 No statistically significant difference (3-year pooled)

 Comparison group exceeds HAN by a statistically significant amount (3-year pooled)

 2019 – 2021 trend is upward

 2019 – 2021 trend is downward


Retroactive Eligibility
HAN Access to Care
HAN Quality of Care
HAN Cost Effectiveness
HMP Access to Care
HMP Quality of Care
HMP Cost Effectiveness
SoonerCare Evaluation

2. HAN Quality of Care

Overview

The OHCA, through its contracts with SoonerCare Health Access Networks, requires the HANs to promote improved quality of care by assisting affiliated PCMH providers to obtain higher levels of accreditation[49] and by undertaking care coordination/management of beneficiaries' "complex health care needs". The complex health care needs population includes individuals who are frequent users of the emergency room, individuals enrolled in the Medicaid pharmacy lock-in program and others with targeted chronic conditions, such as asthma and diabetes, and/or social service needs presenting potential barriers to care (social determinants of health).

Care management is defined to encompass outreach, follow-up and education to members and affiliated providers. Required activities include, among others:

- Providing education and care management to beneficiaries who are frequent users of the emergency room;
- Providing care coordination and care management to beneficiaries with complex/chronic conditions, such as persons with asthma or diabetes;
- Undertaking care management initiatives to improve health outcomes for targeted populations; and
- Establishing multi-disciplinary care management teams and engaging affiliated PCMH providers in discharge planning and care management initiatives.

HAN Quality of Care Measures

Exhibit F-19 on the following page presents the HAN access to care measures and identifies:

- Data sources
- Subgroups evaluated (if any)
- Presence or absence of a national benchmark
- Presence or absence of comparative data from the prior Demonstration period

Supporting Appendices

Appendix 2 contains CEM covariate balance tables for HEDIS measures. Appendix 3 contains statistical significance test results for HEDIS measures. Appendix 4 contains CEM covariate balance tables for CAHPS measures. Appendix 5 contains statistical significance tests results for CAHPS measures. Appendix 6 contains the HAN member SDOH targeted survey instrument. Appendix 7 contains the HAN-aligned PCMH targeted survey instrument.

[49] As described earlier, the SoonerCare PCMH program includes three tiers with escalating participation requirements related to access (e.g., office hours) and patient care management (e.g., contacting patients after an emergency room visit): 1 – Entry; 2 – Advanced; and 3 – Optimal.

Exhibit F-19 - Quality of Care Measures - Overview

Measures	Source	HAN Care Managed Subgroup	Geographic Subgroups	National Benchmark	Prior Period Data
Number of HAN beneficiaries engaged in care management Number of HAN members engaged in care management at any point during the measurement year.	OHCA	***Yes***	No	No	No
Asthma – Medication Ratio Percentage of members ages 5 to 18 and 19 to 64 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medication of 0.50 or greater during the measurement year.	HEDIS	***Yes***	***Yes***	***Yes***	***Yes***
Cardiovascular – Persistence of Beta Blocker Treatment after a Heart Attack Percentage of members 18 years of age and older during the measurement year who were hospitalized and discharged from July 1 of the year prior to the measurement year to June 30 of the measurement year with a diagnosis of AMI and who received persistent beta-blocker treatment for six months after discharge.	HEDIS	***Yes***	***Yes***	No	No
Cardiovascular – Cholesterol Management for Patients with Cardiovascular Conditions – LDL-C Test Percentage of members 18 to 75 years of age with cardiovascular disease who had an LDL-C test during the measurement year.	HEDIS	***Yes***	***Yes***	No	No
COPD – Use of Spirometry Testing in the Assessment and Diagnosis of COPD Percentage of members 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.	HEDIS	***Yes***	***Yes***	No	No

Measures	Source	HAN Care Managed Subgroup	Geographic Subgroups	National Benchmark	Prior Period Data
COPD – Pharmacotherapy Management of COPD Exacerbation – 14 Days and 30 Days Percentage of COPD exacerbations for members 40 years of age and older who had an acute inpatient discharge or emergency room visit on or between January 1 to November 30 of the measurement year and who were dispensed a systemic corticosteroid (or there was evidence of an active prescription) within 14 days of the event and within 30 days of the event.	HEDIS	***Yes***	***Yes***	No	No
Diabetes – Percentage of Members who had LDL-C Test Percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had LDL-C performed.	HEDIS	***Yes***	***Yes***	No	***Yes***
Diabetes – Percentage of Members who had Retinal Eye Exam Performed Percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had retinal eye exam performed.	HEDIS	***Yes***	***Yes***	No	***Yes***
Diabetes - Percentage of Members who had Hemoglobin A1c (HbA1c) Testing Percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had Hemoglobin A1c (HbA1c) testing performed.	HEDIS	***Yes***	***Yes***	No	***Yes***
Diabetes - Percentage of Members who Received Medical Attention for Nephropathy Percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who received medical attention for nephropathy.	HEDIS	***Yes***	***Yes***	No	***Yes***
Hypertension – Percentage of Members who had LDL-C Test Percentage of members 18 years of age and older with hypertension who had an LDL-C test performed.	HEDIS	***Yes***	***Yes***	No	***Yes***

Measures	Source	HAN Care Managed Subgroup	Geographic Subgroups	National Benchmark	Prior Period Data
Hypertension – Percentage of Members Prescribed ACE/ARB Therapy Percentage of members 18 years of age and older with hypertension who were prescribed angiotensin converting enzyme inhibitors or angiotensin receptor blockers (ACE/ARB therapy).	HEDIS	***Yes***	***Yes***	No	***Yes***
Mental Health – Follow-up after Hospitalization for Mental Illness – 7 Days and 30 Days Percentage of members 6 to 20 years of age and 21 years and older who were hospitalized for treatment of selected mental illness or intentional self-harm diagnoses and who had a follow-up visit with a mental health practitioner within seven days after discharge and within 30 days after discharge.	HEDIS-like[50]	No[51]	***Yes***	***Yes***	***Yes***
Rating of Assistance with SDOH – Children and Adults Rating of importance of help and satisfaction, among HAN members receiving assistance with social determinants of health (SDOH)	PHPG Targeted Survey	***Yes***	No	No	No
Rating of Healthcare – Children and Adults Rating of health care (or child's health care) in the last six months, using a scale from 0 to 10, where "0" represented the worst possible health care and "10" the best possible health care.	CAHPS	No	No	***Yes***	***Yes***

[50] Measures are "HEDIS-like", as the HEDIS specifications are based on counts of discharges and not unique member counts and the 1115 evaluation is based on a unique member count of those members with discharges, to accommodate minimum HAN and HMP enrollment tenures.
[51] Insufficient population size to perform 7-day or 30-day analysis.

Measures	Source	HAN Care Managed Subgroup	Geographic Subgroups	National Benchmark	Prior Period Data
Rating of Health Plan – Children and Adults Rating of health plan (or child's health plan) in the last six months, using a scale from 0 to 10, where "0" represented the worst possible health plan and "10" the best possible health plan.	CAHPS	No	No	***Yes***	***Yes***
Rating of Personal Doctor – Children and Adults Rating of personal doctor (or child's personal doctor) in the last six months, using a scale from 0 to 10, where "0" represented the worst possible doctor and "10" the best possible doctor.	CAHPS	No	No	***Yes***	***Yes***
PCMH Accreditation Number and percentage of HAN-affiliated members aligned with a PCMH who has attained the highest level of OHCA accreditation[52].	OHCA MMIS	No	No	No	***Yes***
PCMH Provider Satisfaction – Practice Support Provider satisfaction with HAN practice support activities	PHPG Targeted Survey	No	No	No	No
PCMH Provider Satisfaction – Chronic Disease Guidelines PCMH provider adoption of chronic care disease guidelines (self-reported)	PHPG Targeted Survey	No	No	No	No

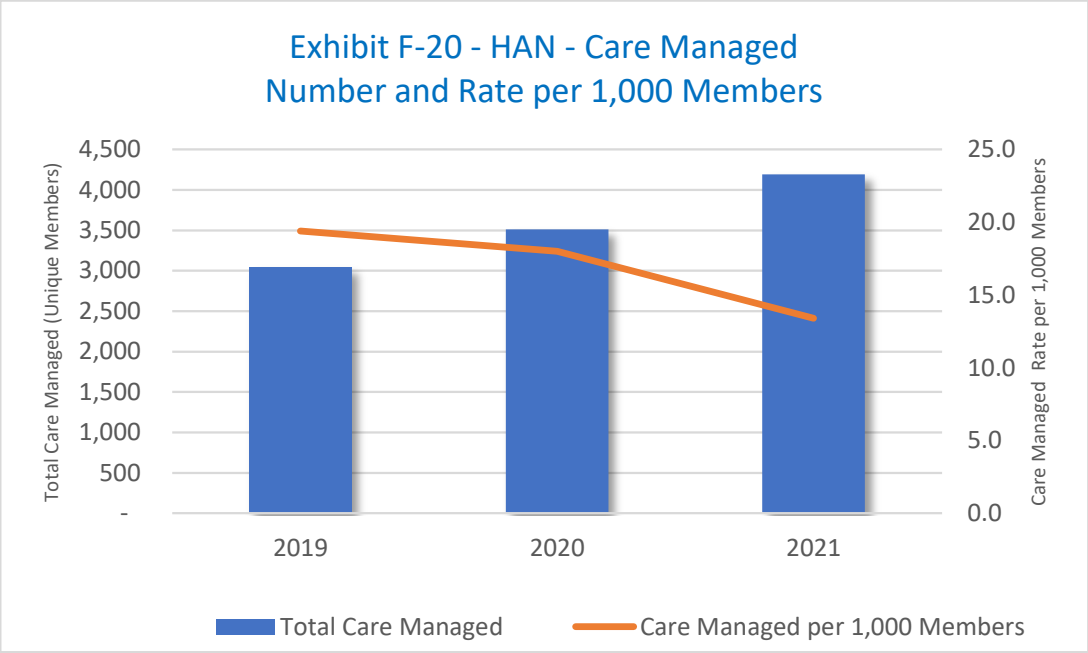
Methodology detail and sample sizes also are included at the bottom of exhibits containing the results of statistical significance tests between treatment (Demonstration) and comparison group populations.

[52] The approved evaluation design description is for a simple count of providers by tier. The results instead are being reported based on HAN membership within each tier, to more accurately measure the relative importance of each tier within the HAN structure. (Practices in higher tiers, on average, are larger and serve more members.)

Number of HAN Beneficiaries Engaged in Care Management

Findings – HAN Care Managed Population

The absolute number of SoonerCare HAN members engaged in care management increased from 2019 to 2021, while the rate per 1,000 members declined. Total HAN enrollment approximately doubled during the three-year period, which contributed to the decline in rate per 1,000 members (Exhibit F-20).

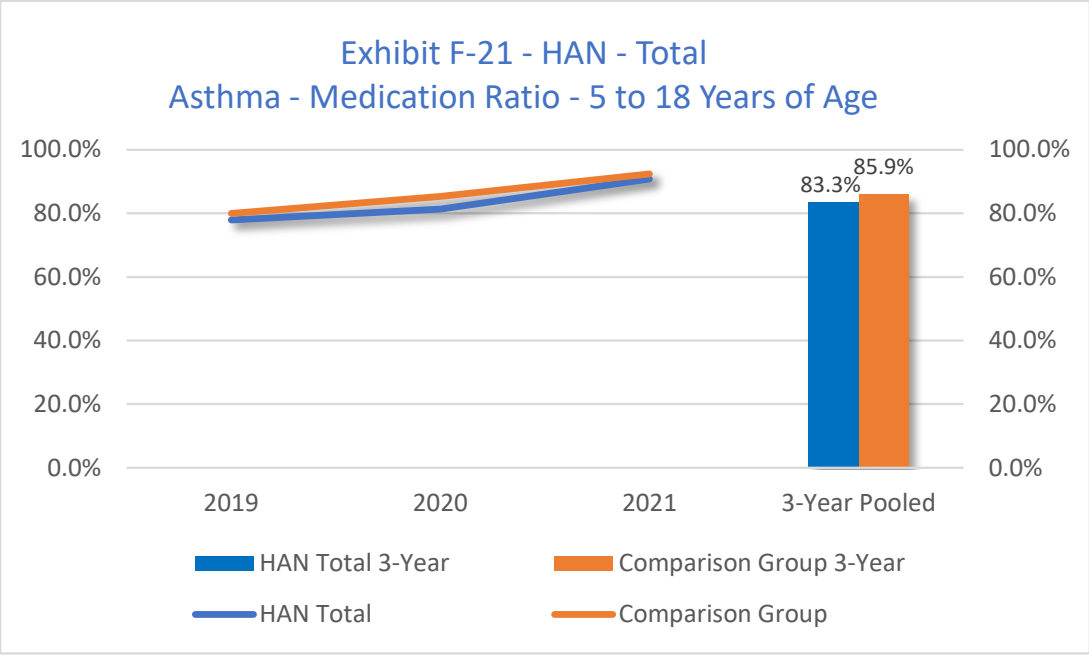


	2019	2020	2021
Total Care Managed	3,037	3,511	4,192
Care Managed per 1,000 Members	19.4	18.0	13.4

Asthma – Medication Ratio – Ages 5 to 18

Findings – HAN Total Population

Approximately 83 percent of HAN total members and 86 percent of comparison group members were compliant on this measure across the three years (Exhibit F-21). The compliance rate for both populations rose from 2019 to 2021.



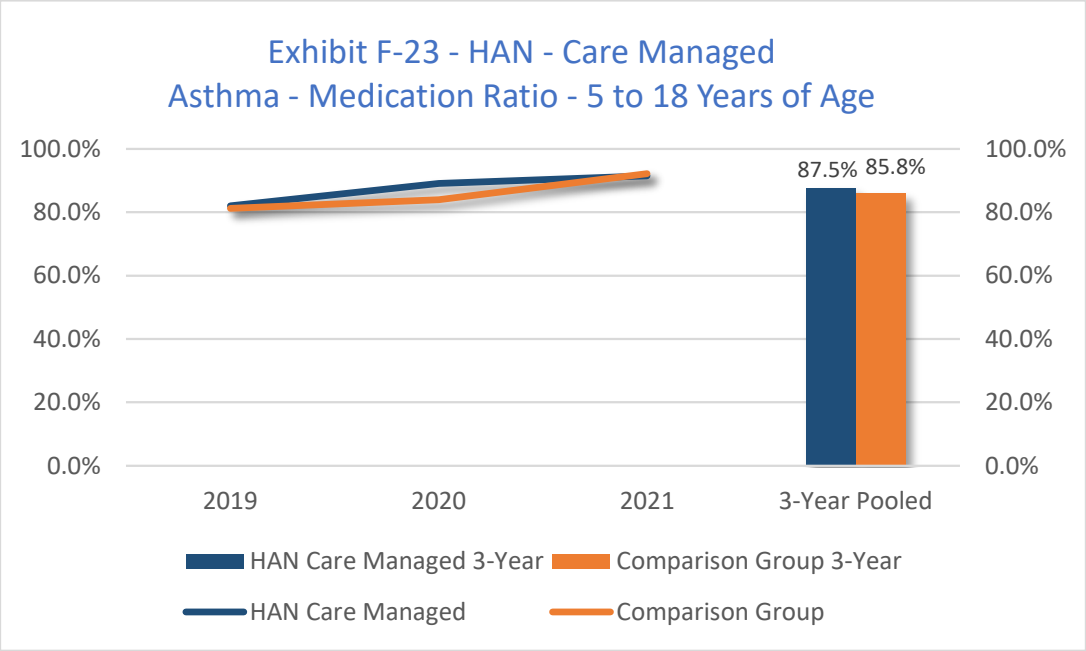
The difference between the HAN total and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-22).

Exhibit F-22 – HAN (Total) – Asthma – Medication Ratio – 5 to 18 Years of Age

	2019	2020	2021	3-Year Pooled
HAN (Total)	77.9%	81.3%	90.8%	83.3%
Comparison Group	80.0%	85.3%	92.4%	85.9%
Difference	(2.1%)‡	(4.0%)‡	(1.6%)‡	(2.6%)‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 4,231 CG – 6,363	HAN-T – 5,018 CG – 7,748	HAN-T – 6,528 CG – 8,752	HAN-T – 15,777 CG – 22,864
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 88 percent of HAN Care Managed members and approximately 86 percent of comparison group members were compliant on this measure across the three years (Exhibit F-23). The compliance rate for both populations rose from 2019 to 2021.



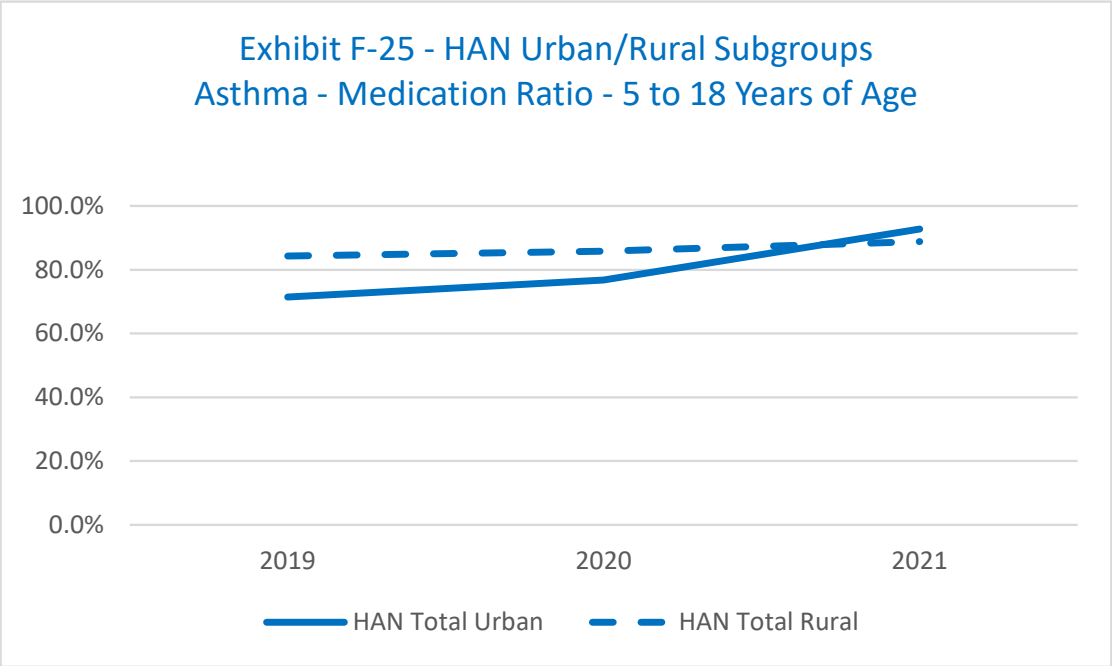
The difference between the HAN Care Managed and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-24).

Exhibit F-24 – HAN (Care Managed) – Asthma – Medication Ratio – 5 to 18 Years of Age

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	82.0%	89.1%	91.5%	87.5%
Comparison Group	81.2%	84.0%	92.2%	85.8%
Difference	0.8%	5.1%	(0.7%)	1.7%
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 43 CG – 6,197	HAN-CM – 54 CG – 7,716	HAN-CM – 75 CG – 8,752	HAN-CM – 171 CG – 22,665
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban rate in 2019 and 2020, while the urban subgroup rate exceeded the rural rate in 2021. Both subgroups trended upward from 201 to 2021 (Exhibit F-25).



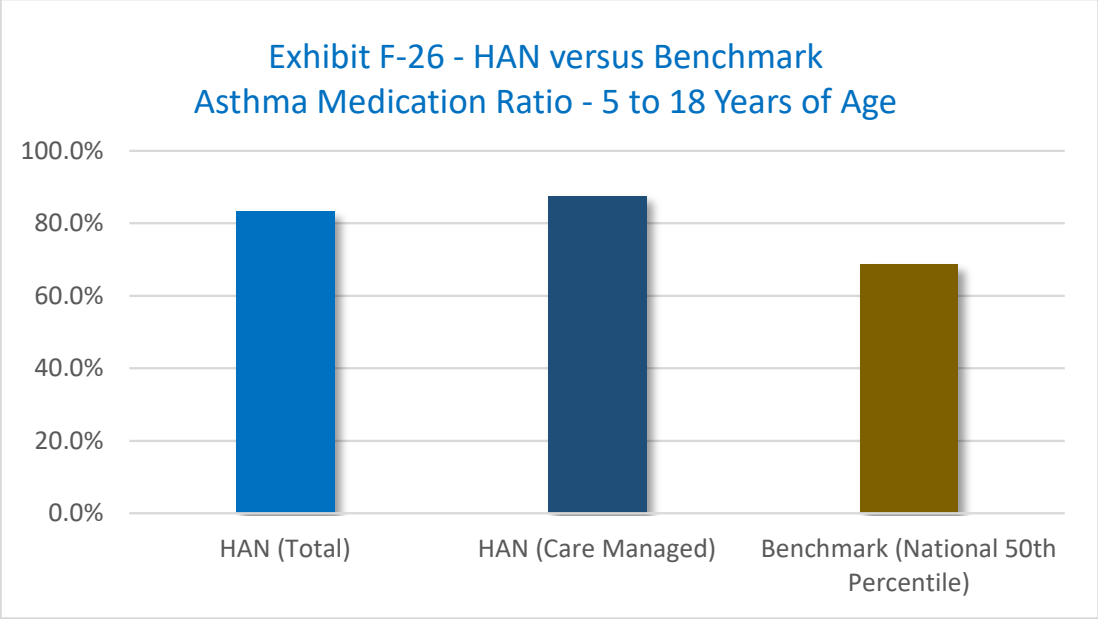
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	71.5%	76.8%	92.8%
	Rural	84.3%	85.8%	88.8%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Findings – HAN Total and Care Managed Populations and National Benchmark

The three-year pooled rate for the SoonerCare HAN total population exceeded the national benchmark rate by approximately 15 percentage points. The three-year pooled rate for the SoonerCare HAN Care Managed population exceeded the national benchmark rate by approximately 19 percentage points (Exhibit F-26).

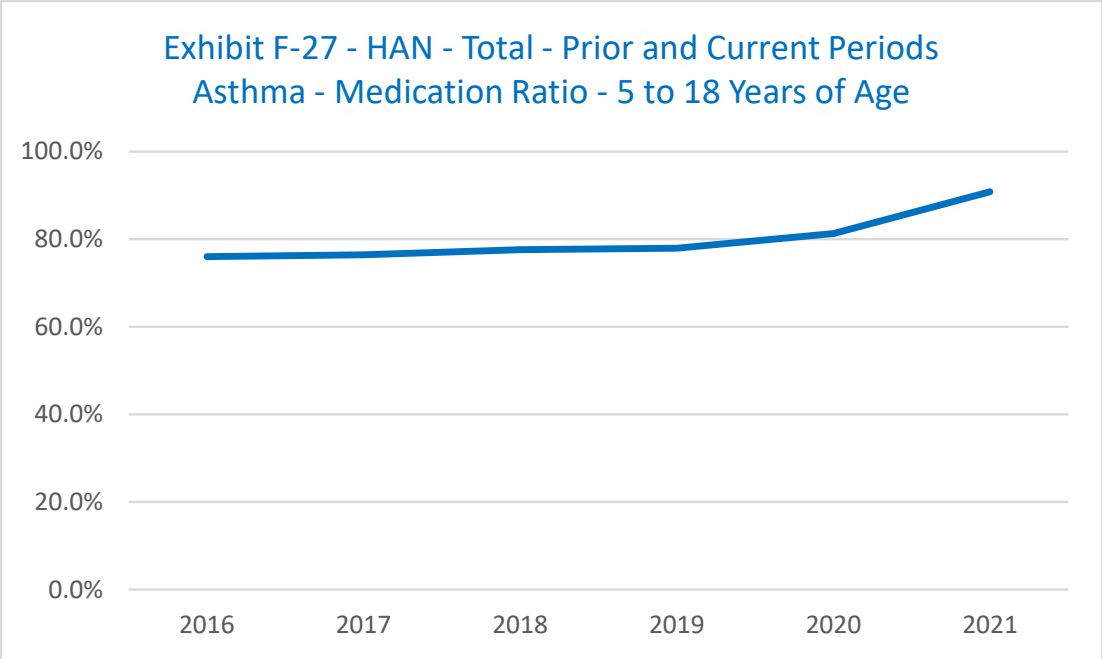
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Total	HAN Care Managed	Benchmark
Compliance Rate	83.3%	87.5%	68.6%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate rose from 76 percent 2016 to approximately 91 percent in 2021 (Exhibit F-27).

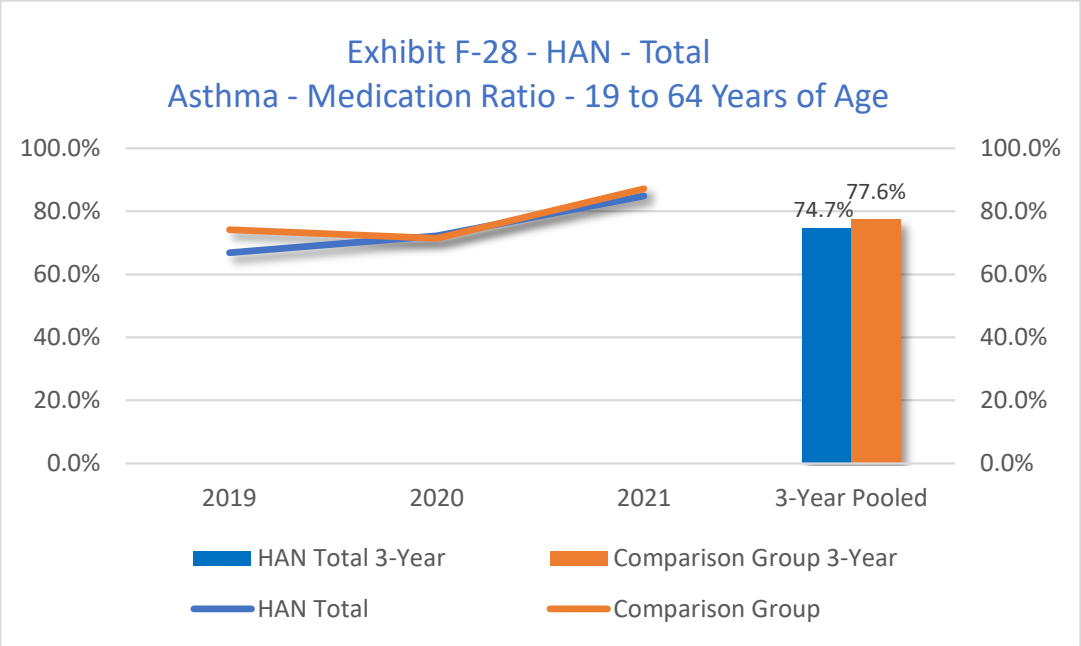


	2016	2017	2018	2019	2020	2021
HAN (Total)	76.0%	76.4%	77.6%	77.9%	81.3%	90.8%

Asthma – Medication Ratio – Ages 19 to 64

Findings – HAN Total Population

Approximately 75 percent of HAN total members and approximately 78 percent of comparison group members were compliant on this measure across the three years (Exhibit F-28). The compliance rate for the HAN total population rose from 2019 to 2021. The compliance rate for the comparison group declined from 2019 to 2020 and rose from 2020 to 2021.



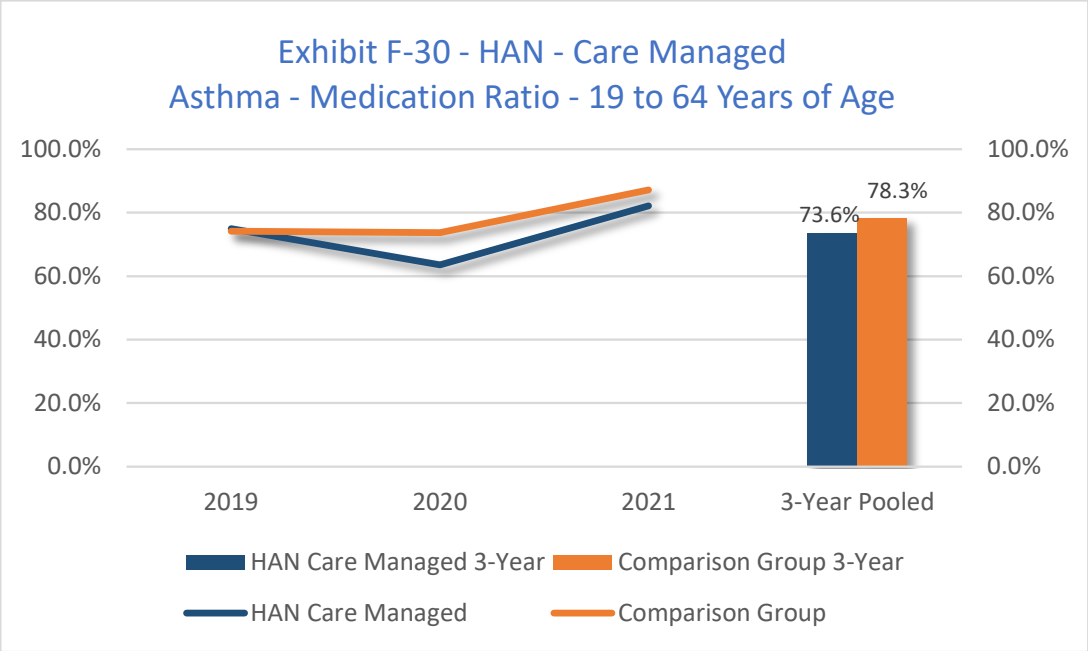
The difference between the HAN total and comparison group compliance rates was statistically significant in 2019 and 2021. It also was statistically significant for the three-year pooled data (Exhibit F-29).

Exhibit F-29 – HAN (Total) – Asthma – Medication Ratio – 19 to 64 Years of Age

	2019	2020	2021	3-Year Pooled
HAN (Total)	66.9%	72.2%	84.9%	74.7%
Comparison Group	74.1%	71.4%	87.2%	77.6%
Difference	(7.2%)‡	0.8%	(2.3%)‡	(2.9%)‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 803 CG – 1,392	HAN-T – 1,127 CG – 2,313	HAN-T – 3,258 CG – 2,848	HAN-T – 5,188 CG – 6,553
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 74 percent of HAN Care Managed members and 78 percent of comparison group members were compliant on this measure across the three years (Exhibit F-30.) The compliance rate for both populations declined from 2019 to 2020 and rose from 2020 to 2021.



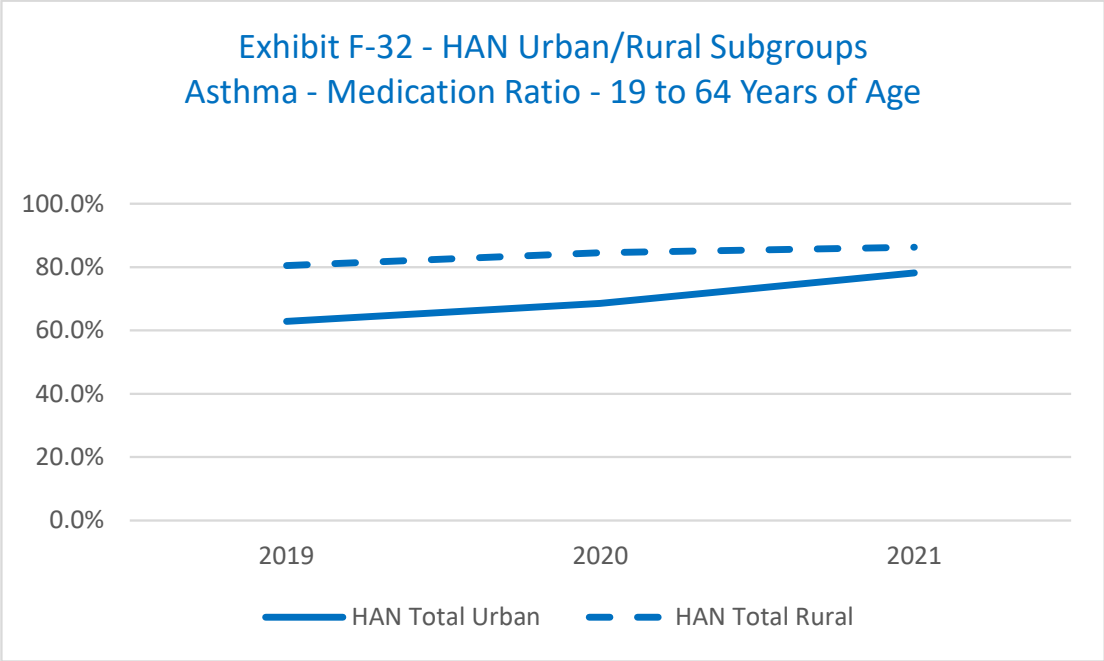
The difference between the HAN Care Managed and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-31).

Exhibit F-31 – HAN (Care Managed) – Asthma – Medication Ratio – 19 to 64 Years of Age

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	75.0%	63.6%	82.1%	73.6%
Comparison Group	74.0%	73.9%	87.1%	78.3%
Difference	1.0%	(10.3%)	(5.0%)	(4.7%)
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 24 CG – 1,161	HAN-CM – 26 CG – 1,987	HAN-CM – 40 CG – 2,621	HAN-CM – 90 CG – 5,769
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban rate in all three years. The compliance rate for both subgroups trended upward from 2019 to 2021 (Exhibit F-32).



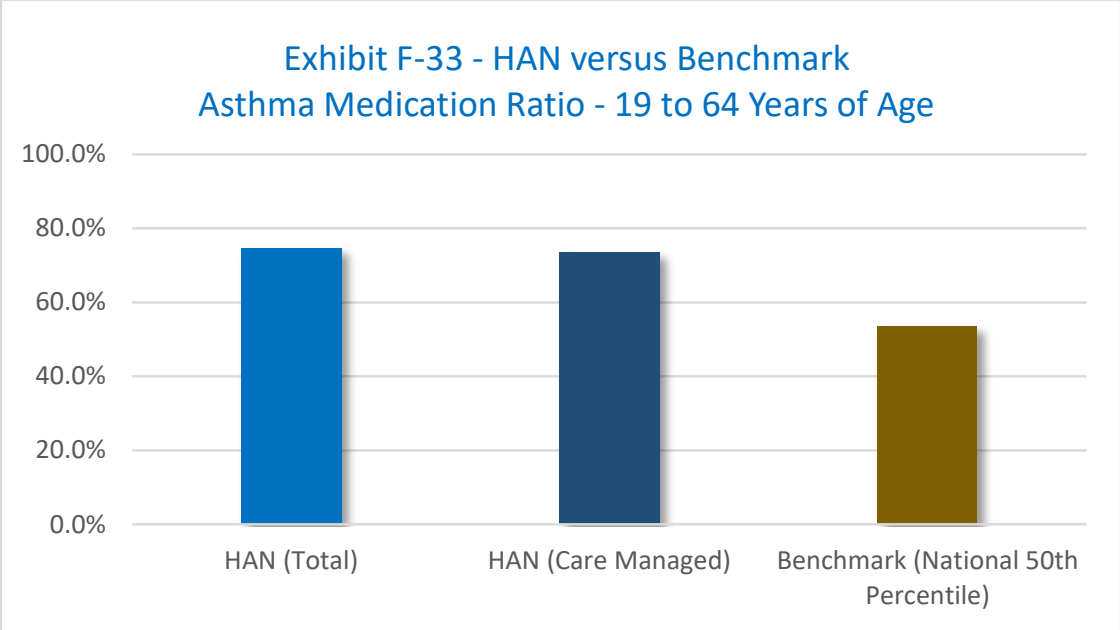
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	62.9%	68.5%	78.1%
	Rural	80.5%	84.6%	86.3%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Findings – HAN Total and Care Managed Populations and National Benchmark

The three-year pooled rate for the SoonerCare HAN total population exceeded the national benchmark rate by 21 percentage points. The three-year pooled rate for the SoonerCare HAN Care Managed population exceeded the national benchmark rate by approximately 20 percentage points (Exhibit F-33).

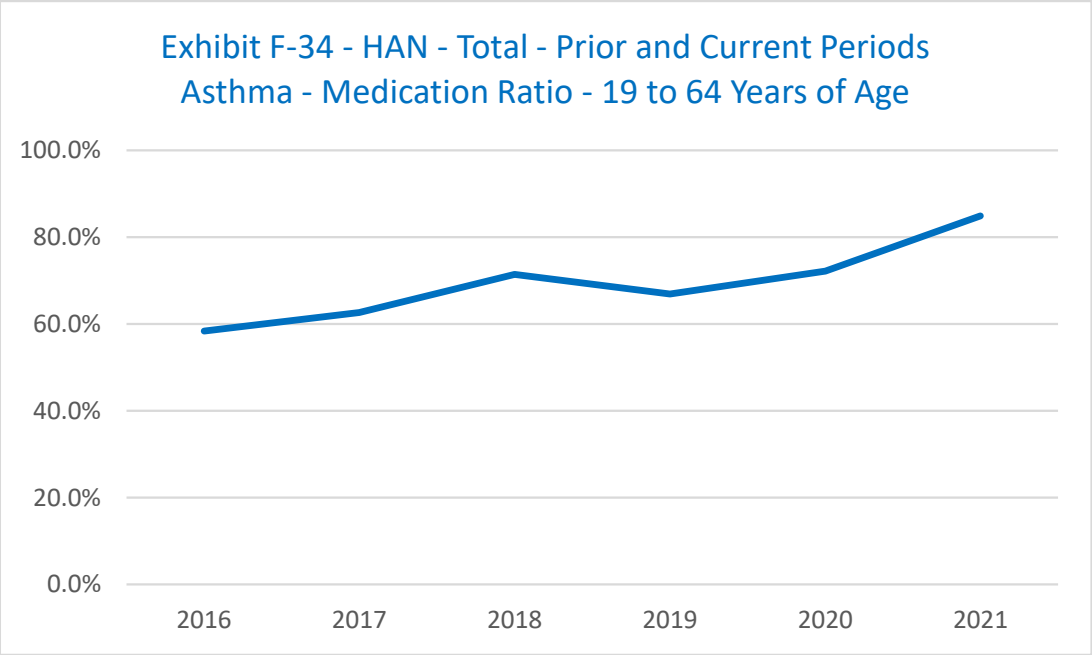
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Total	HAN Care Managed	Benchmark
Compliance Rate	74.7%	73.6%	53.7%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 58 percent in 2016 to 85 percent in 2021 (Exhibit F-34).

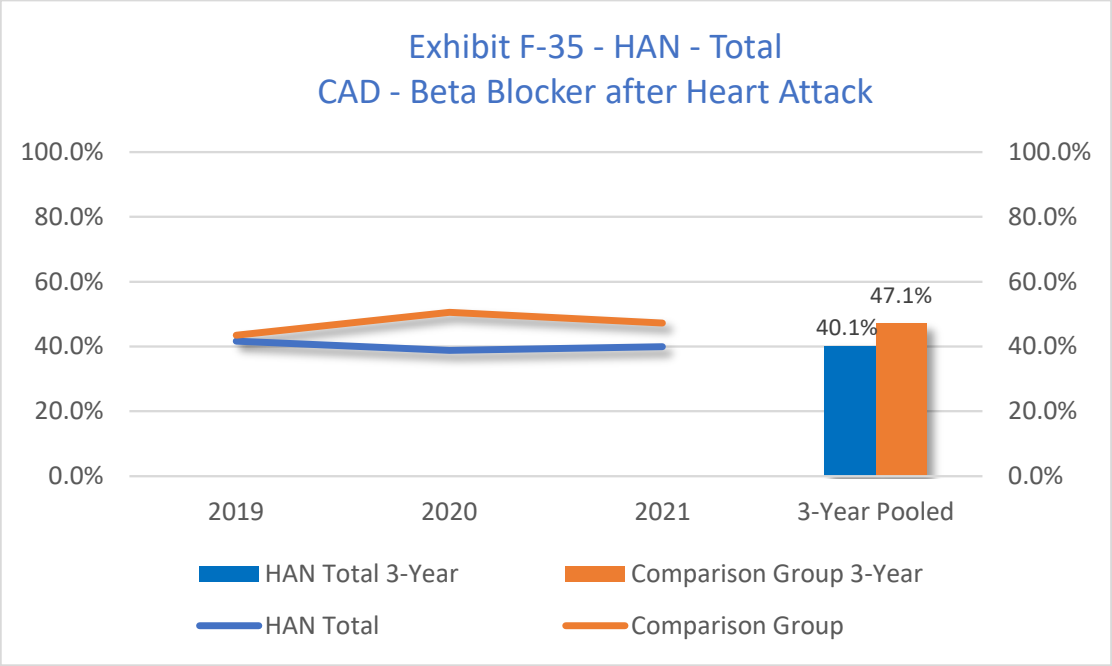


	2016	2017	2018	2019	2020	2021
HAN (Total)	58.4%	62.6%	71.4%	66.9%	72.2%	84.9%

Coronary Artery Disease – Persistent Beta Blocker Treatment after a Heart Attack

Findings – HAN Total Population

Approximately 40 percent of HAN total members and 47 percent of comparison group members were compliant on this measure across the three years (Exhibit F-35). The compliance rate for the HAN population was stable from 2019 to 2021. The compliance rate for the comparison group rose from 2019 to 2020 before declining slightly from 2020 to 2021.



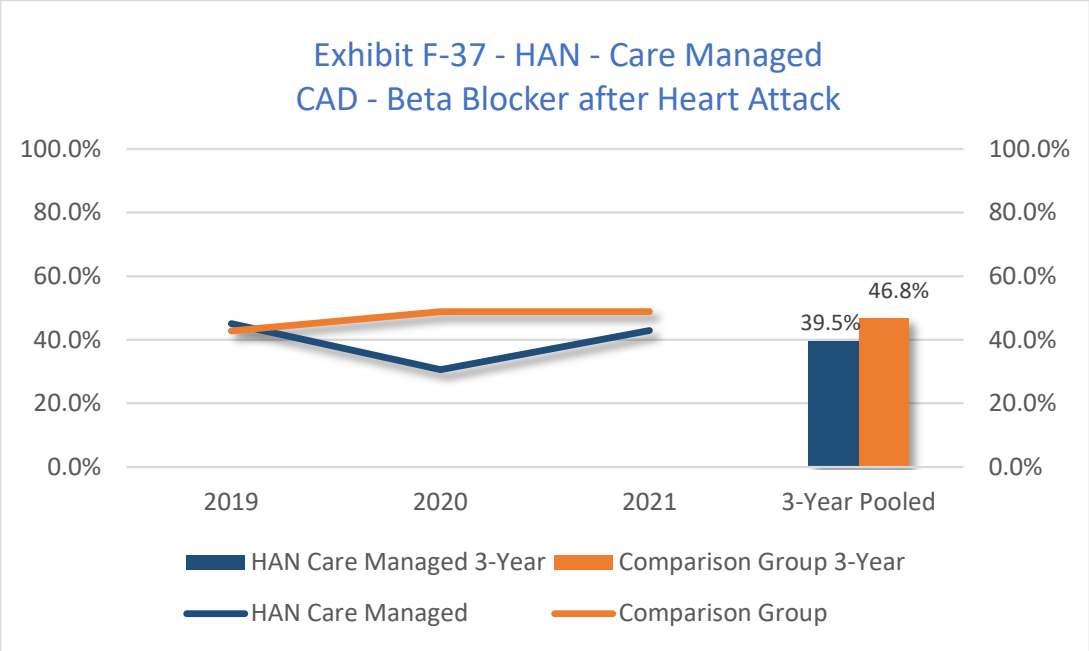
The difference between the HAN total and comparison group compliance rates was statistically significant in 2020 and 2021. It also was statistically significant for the three-year pooled data (Exhibit F-36).

Exhibit F-36 – HAN (Total) – CAD – Beta Blocker after Heart Attack

	2019	2020	2021	3-Year Pooled
HAN (Total)	41.7%	38.8%	39.9%	40.1%
Comparison Group	43.5%	50.5%	47.2%	47.1%
Difference	(1.8%)	(11.7%)‡	(7.3%)‡	(7.0%)‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 393 CG – 852	HAN-T – 361 CG – 772	HAN-T – 501 CG – 764	HAN-T – 1,255 CG – 2,388
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 39 percent of HAN Care Managed members and approximately 46 percent of comparison group members were compliant on this measure across the three years (Exhibit F-37). The compliance rate for HAN members declined from 2019 to 2020 before rising again from 2020 to 2021. The compliance rate for the comparison group rose from 2019 to 2020 and was unchanged from 2020 to 2021.



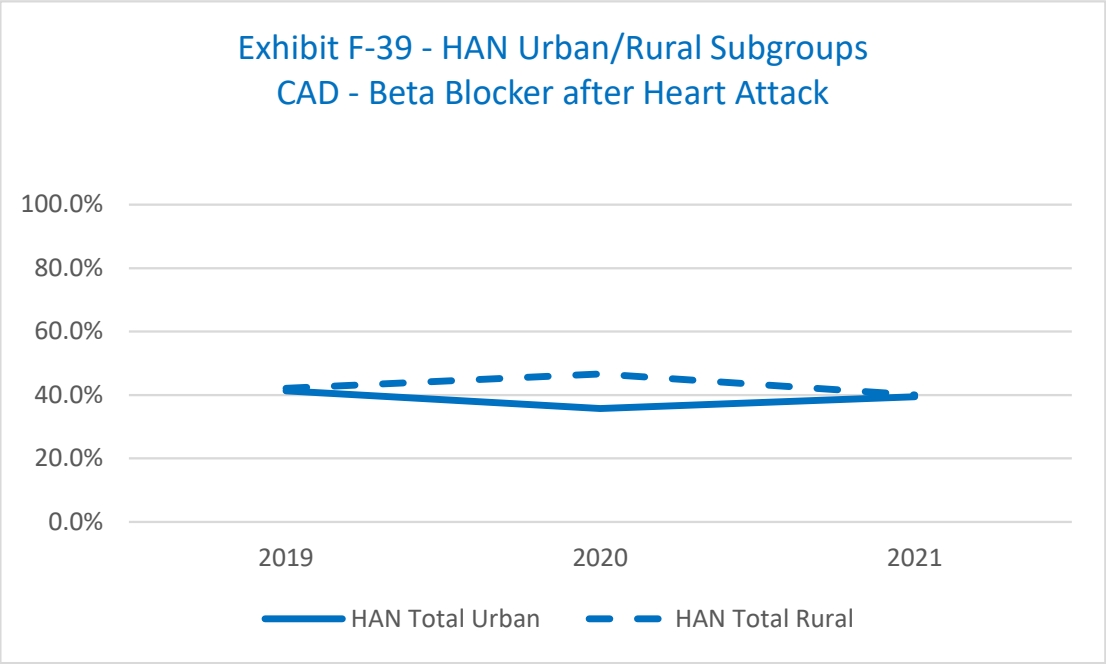
The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in 2020. It was not statistically significant for the three-year pooled data (Exhibit F-38).

Exhibit F-38 – HAN (Care Managed) – CAD – Beta Blocker after Heart Attack

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	45.1%	30.6%	42.9%	39.5%
Comparison Group	42.8%	48.8%	48.8%	46.8%
Difference	2.3%	(18.2%)‡	(5.9%)	(7.3%)
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 51 CG – 566	HAN-CM – 36 CG – 526	HAN-CM – 49 CG – 439	HAN-CM – 136 CG – 1,531
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban rate in 2020; the two subgroups had nearly equal rates in 2019 and 2021. The rural subgroup rate trended upward from 2019 to 2020 and downward from 2020 to 2021; the urban subgroup rate trended slightly downward from 2019 to 2020 and slightly upward from 2020 to 2021 (Exhibit F-39).



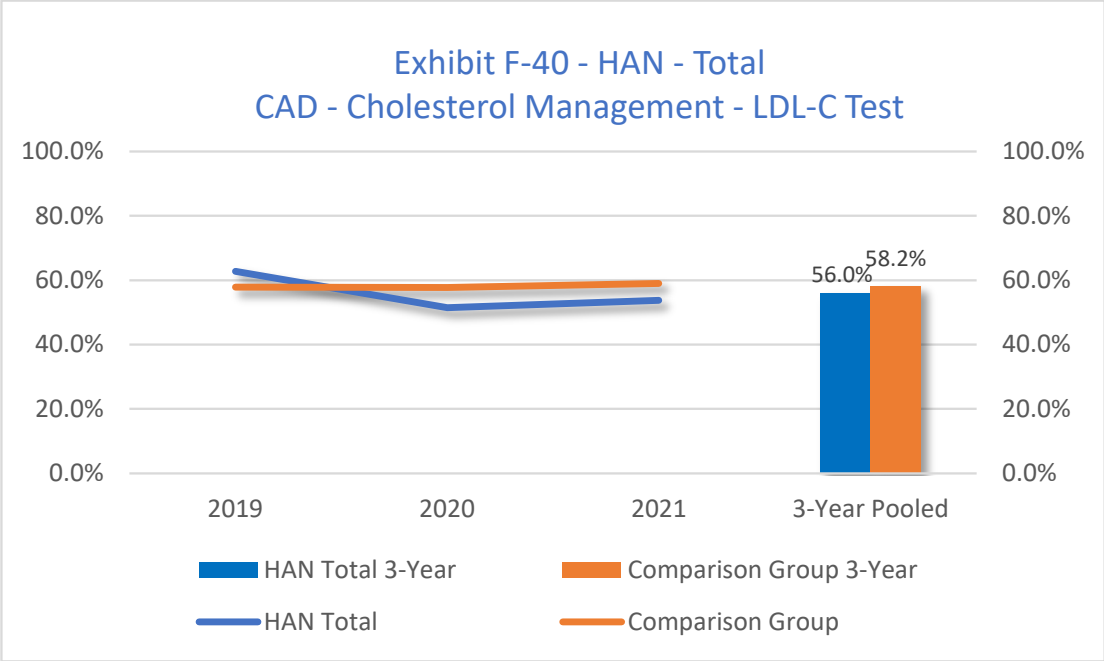
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	41.3%	35.8%	39.5%
	Rural	42.1%	46.7%	40.0%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Coronary Artery Disease – Cholesterol Management – LDL-C Test

Findings – HAN Total Population

Fifty-six percent of HAN total members and approximately 58 percent of comparison group members were compliant on this measure across the three years (Exhibit F-40). The compliance rate for the HAN population declined from 2019 to 2020 before rising again from 2020 to 2021. The compliance rate for the comparison group was stable across the three years.



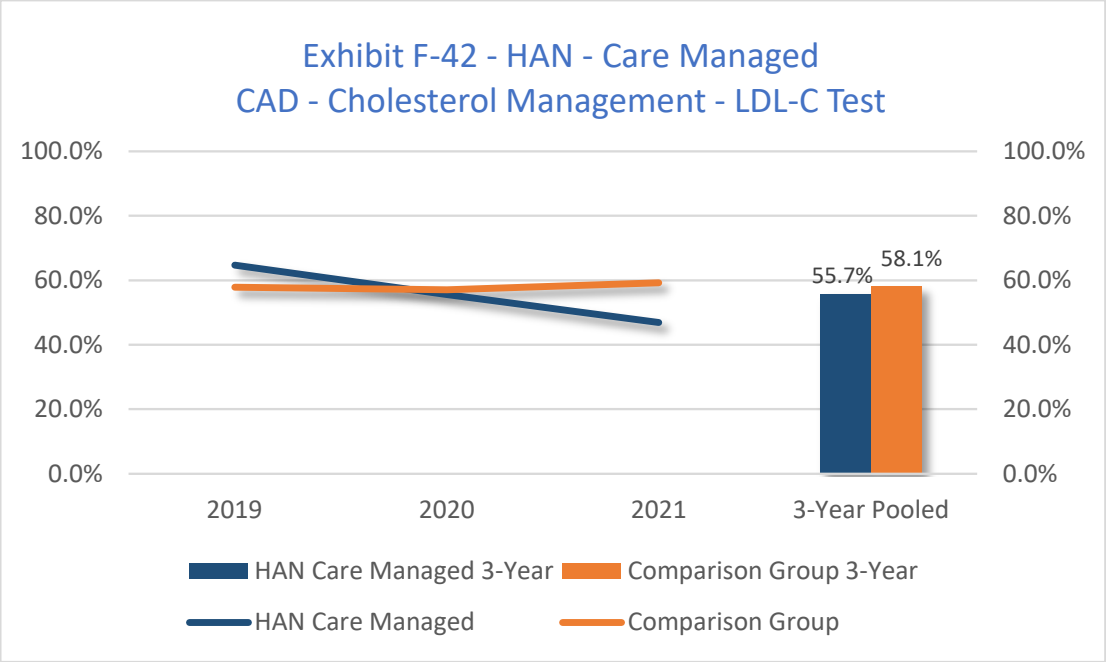
The difference between the HAN total and comparison group compliance rates was statistically significant in 2021. It was not statistically significant for the three-year pooled data (Exhibit F-41).

Exhibit F-41 – HAN (Total) – CAD – Cholesterol Management – LDL-C Test

	2019	2020	2021	3-Year Pooled
HAN (Total)	62.8%	51.5%	53.7%	56.0%
Comparison Group	57.9%	57.7%	59.0%	58.2%
Difference	4.9%	(6.2%)	(5.3%)‡	(2.2%)
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 393 CG – 852	HAN-T – 361 CG – 772	HAN-T – 501 CG – 764	HAN-T – 1,255 CG – 2,388
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 56 percent of HAN Care Managed members and 58 percent of comparison group members were compliant on this measure across the three years (Exhibit F-42). The compliance rate for HAN members declined from 2019 to 2021. The compliance rate for the comparison group declined slightly from 2019 to 2020 before rising again from 2020 to 2021.



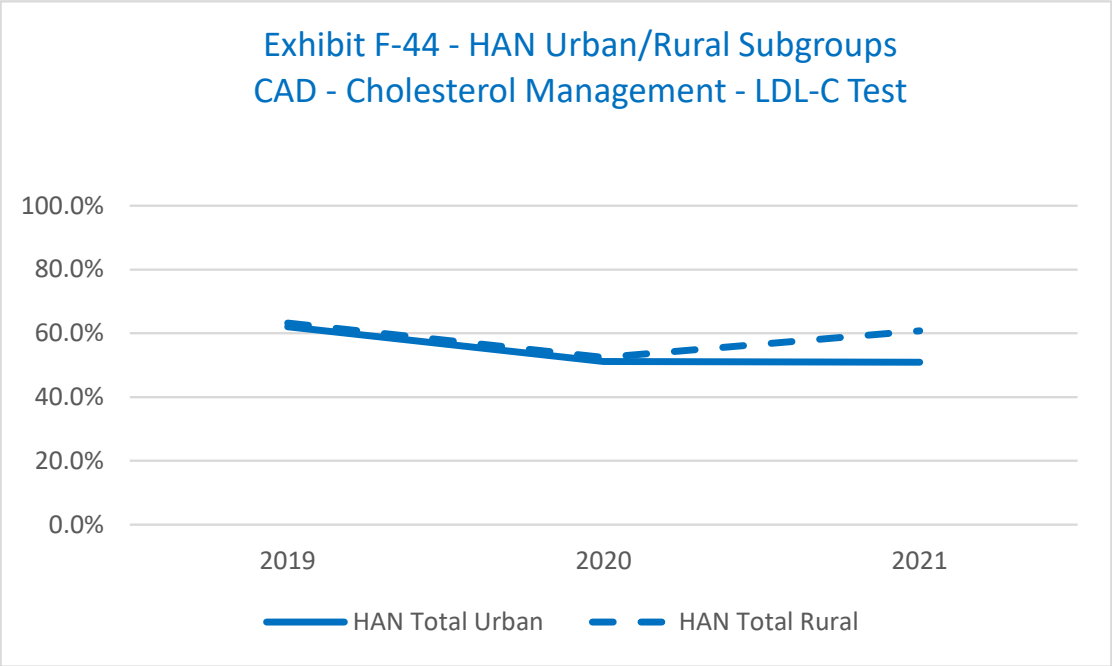
The difference between the HAN Care Managed and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-43).

Exhibit F-43 – HAN (Care Managed) – CAD – Cholesterol Management – LDL-C Test

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	64.7%	55.6%	46.9%	55.7%
Comparison Group	57.9%	57.1%	59.2%	58.1%
Difference	6.8%	(1.5%)	(12.3%)	(2.4%)
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 51 CG – 566	HAN-CM – 36 CG – 526	HAN-CM – 49 CG – 439	HAN-CM – 136 CG – 1,531
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban and rural subgroups had nearly equal rates in 2019 and 2020; the rural rate exceeded the urban rate in 2021. The rural subgroup rate trended downward from 2019 to 2020 and upward from 2020 to 2021; the urban subgroup rate trended downward from 2019 to 2020 and was nearly unchanged from 2020 to 2021 (Exhibit F-44).



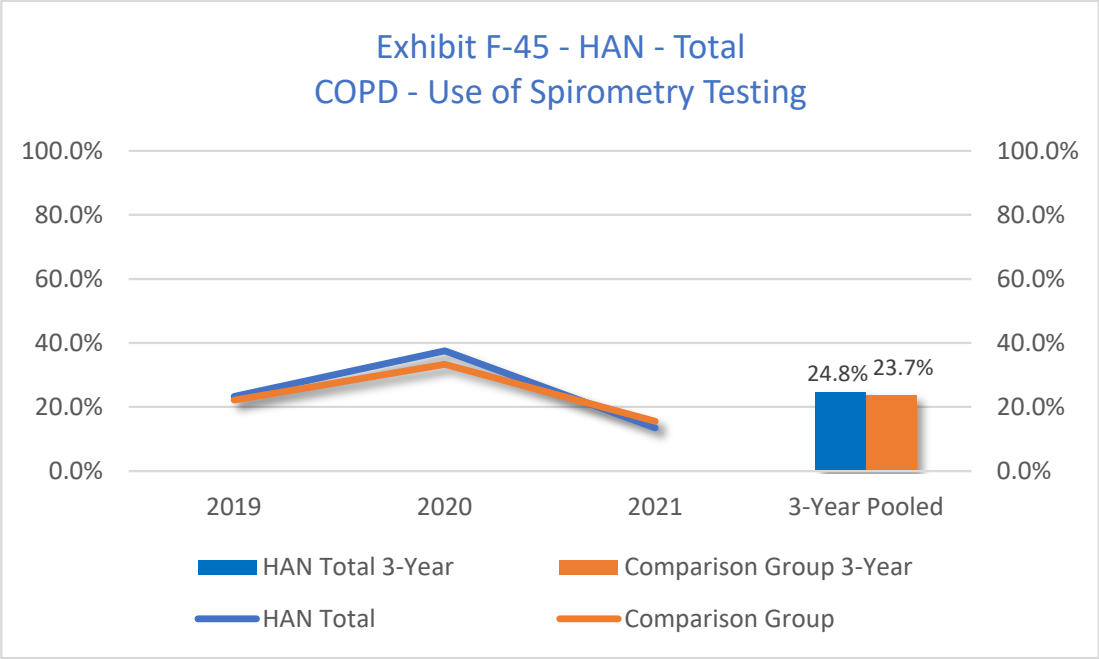
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	62.1%	51.2%	50.9%
	Rural	63.2%	52.4%	60.8%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Chronic Obstructive Pulmonary Disease – Use of Spirometry Testing

Findings – HAN Total Population

Approximately 25 percent of HAN total members and 24 percent of comparison group members were compliant on this measure across the three years (Exhibit F-45). The compliance rate for both populations rose from 2019 to 2020 before declining from 2020 to 2021.



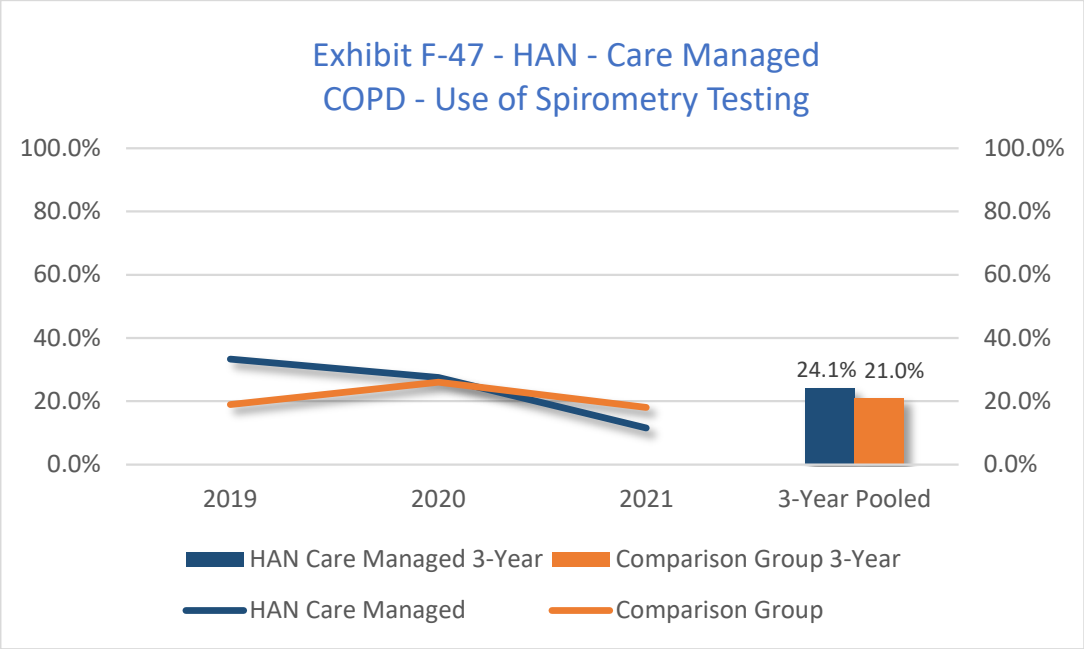
The difference between the HAN total and comparison group compliance rates was statistically significant in 2020. It was not statistically significant for the three-year pooled data (Exhibit F-46).

Exhibit F-46 – HAN (Total) – COPD – Use of Spirometry Testing

	2019	2020	2021	3-Year Pooled
HAN (Total)	23.3%	37.5%	13.5%	24.8%
Comparison Group	22.2%	33.3%	15.5%	23.7%
Difference	1.1%	4.2%‡	(2.0%)	1.1%
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 446 CG – 785	HAN-T – 715 CG – 1,020	HAN-T – 945 CG – 1,102	HAN-T – 2,106 CG – 2,907
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 24 percent of HAN Care Managed members and 21 percent of comparison group members were compliant on this measure across the three years (Exhibit F-47). The compliance rate for HAN members declined from 2019 to 2021. The compliance rate for the comparison group rose from 2019 to 2020 before declining from 2020 to 2021.



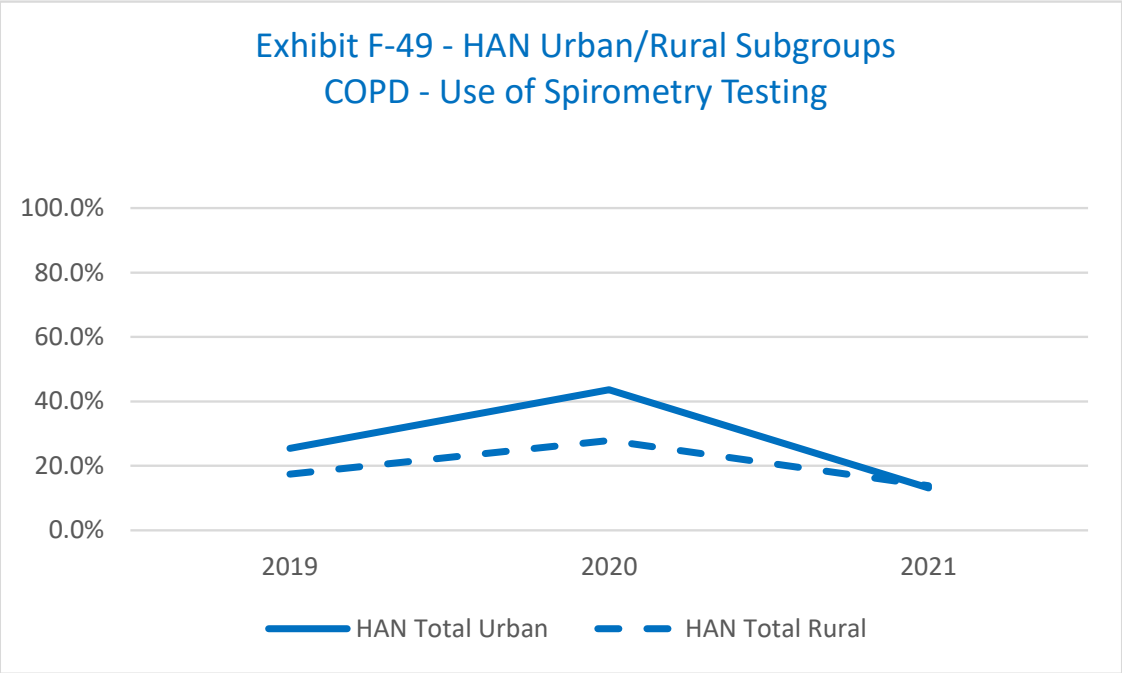
The difference between the HAN Care Managed and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-48).

Exhibit F-48 – HAN (Care Managed) – COPD – Use of Spirometry Testing

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	33.3%	27.5%	11.6%	24.1%
Comparison Group	19.0%	26.0%	18.1%	21.0%
Difference	14.3%	1.5%	(6.5%)	3.1%
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 24 CG – 379	HAN-CM – 40 CG – 439	HAN-CM – 43 CG – 363	HAN-CM – 107 CG – 1,181
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban subgroup rate exceeded the rural rate in 2019 and 2020; the two subgroups had nearly equal rates in 2021. The rates for both subgroups trended upward from 2019 to 2020 and downward from 2020 to 2021 (Exhibit F-49).



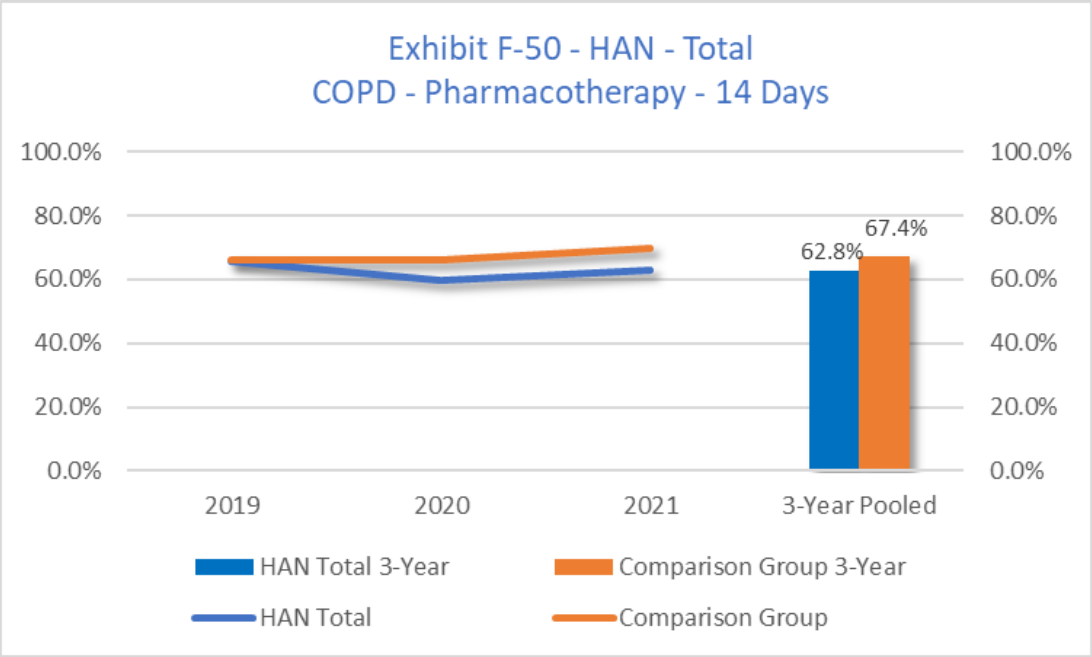
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	25.4%	43.6%	13.1%
	Rural	17.4%	27.9%	13.9%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Chronic Obstructive Pulmonary Disease – Pharmacotherapy Management of Exacerbation – 14 Days

Findings – HAN Total Population

Approximately 63 percent of HAN total members and 67 percent of comparison group members were compliant on this measure across the three years (Exhibit F-50). The compliance rate for the HAN total population declined from 2019 to 2020 before rising again from 2020 to 2021. The compliance rate for the comparison group was stable from 2019 to 2020 and rose from 2020 to 2021.



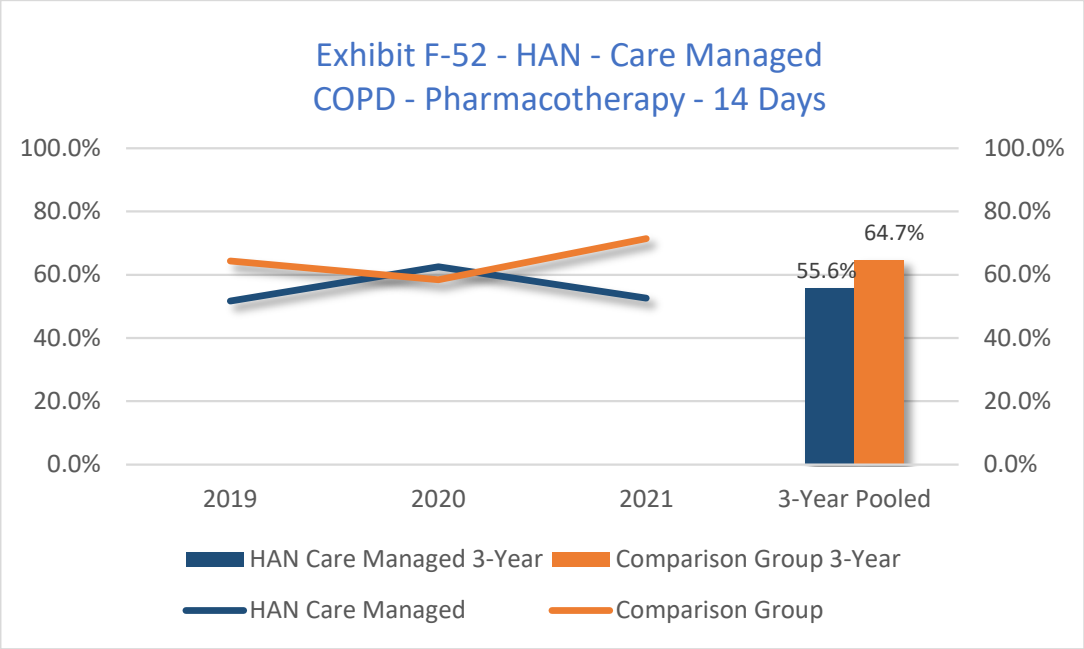
The difference between the HAN total and comparison group compliance rates was not statistically significant in any of the individual years. However, it was statistically significant for the three-year pooled data (Exhibit F-51).

Exhibit F-51 – HAN (Total) – COPD – Pharmacotherapy – 14 Days

	2019	2020	2021	3-Year Pooled
HAN (Total)	65.8%	59.6%	62.9%	62.8%
Comparison Group	66.3%	66.1%	69.7%	67.4%
Difference	(0.5%)	(6.5%)	(6.8%)	(4.6%)‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 222 CG – 348	HAN-T – 146 CG – 293	HAN-T – 200 CG – 207	HAN-T – 568 CG – 848
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 56 percent of HAN Care Managed members and 65 percent of comparison group members were compliant on this measure across the three years (Exhibit F-52). The compliance rate for HAN members rose from 2019 to 2020 before declining from 2021 to 2021. Conversely, the compliance rate for the comparison group declined from 2019 to 2020 before rising from 2020 to 2021.



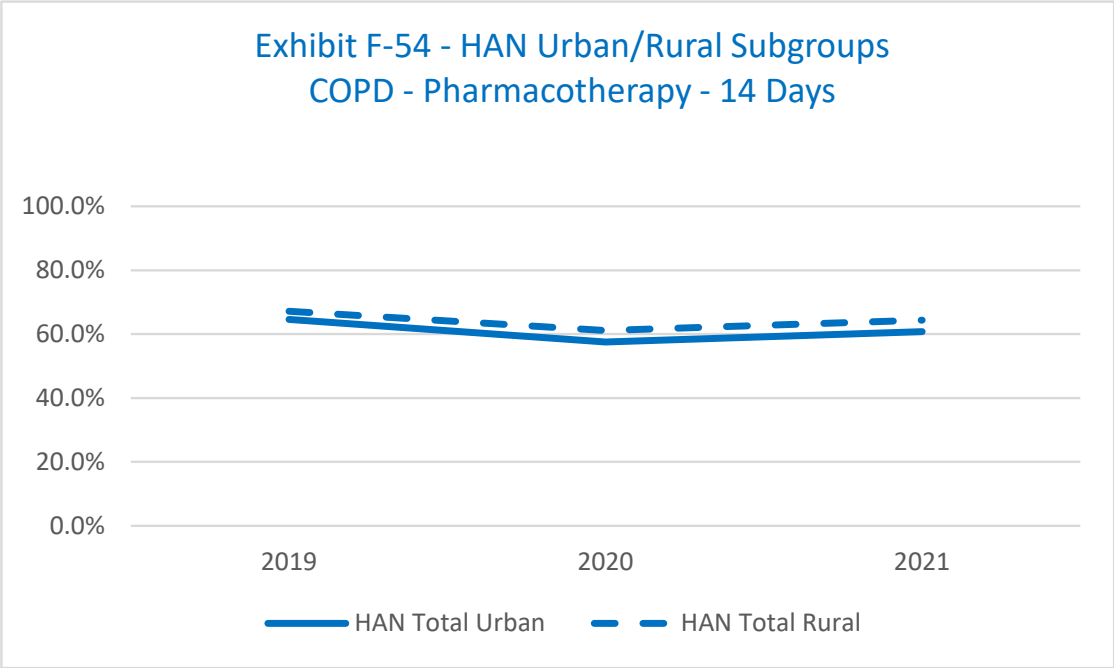
The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in 2021. It was not statistically significant for the three-year pooled data (Exhibit F-53).

Exhibit F-53 – HAN (Care Managed) – COPD – Pharmacotherapy – 14 Days

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	51.7%	62.5%	52.6%	55.6%
Comparison Group	64.4%	58.4%	71.4%	64.7%
Difference	(12.7%)	4.1%	(18.8%)‡	(9.1%)
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 29 CG – 288	HAN-CM – 16 CG – 170	HAN-CM – 17 CG – 50	HAN-CM – 62 CG – 508
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban subgroup rate from 2019 to 2021. The rates for both subgroups trended downward from 2019 to 2020 and rose again from 2020 to 2021 (ExhibitF-54).



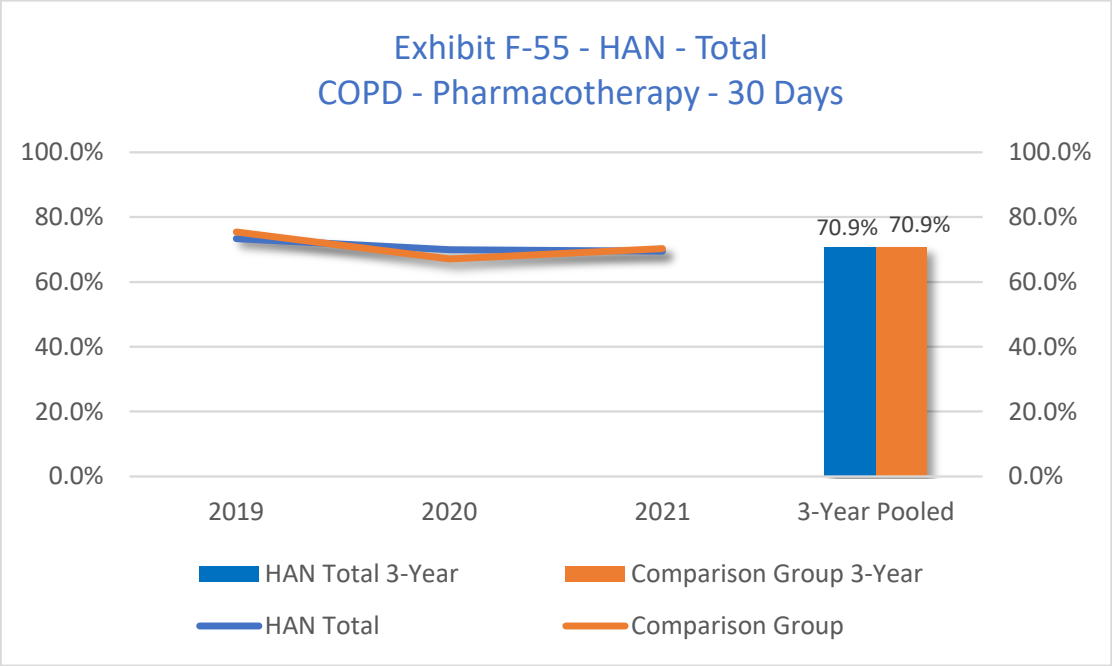
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	64.6%	57.5%	60.8%
	Rural	67.2%	61.1%	64.4%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Chronic Obstructive Pulmonary Disease – Pharmacotherapy Management of Exacerbation – 30 Days

Findings – HAN Total Population

Approximately 71 percent of HAN total members and 71 percent of comparison group members were compliant on this measure across the three years (Exhibit F-55). The compliance rate for both populations declined from 2019 to 2021.



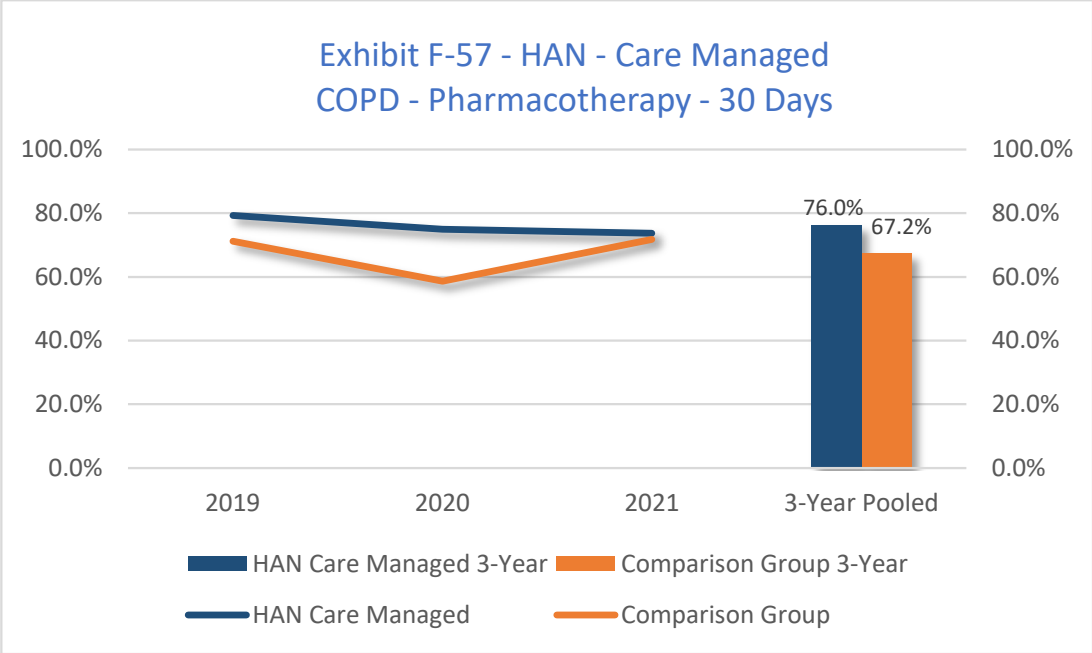
The difference between the HAN total and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-56).

Exhibit F-56 – HAN (Total) – COPD – Pharmacotherapy – 30 Days

	2019	2020	2021	3-Year Pooled
HAN (Total)	73.4%	69.9%	69.5%	70.9%
Comparison Group	75.4%	67.1%	70.3%	70.9%
Difference	(2.0%)	2.8%	(0.8%)	0.0%
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 222 CG – 348	HAN-T – 146 CG – 293	HAN-T – 200 CG – 207	HAN-T – 568 CG – 848
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Seventy-six percent of HAN Care Managed members and approximately 67 percent of comparison group members were compliant on this measure across the three years (Exhibit F-57). The compliance rate for HAN members declined from 2019 to 2021. The compliance rate for the comparison group declined from 2019 to 2020 before rising from 2020 to 2021.



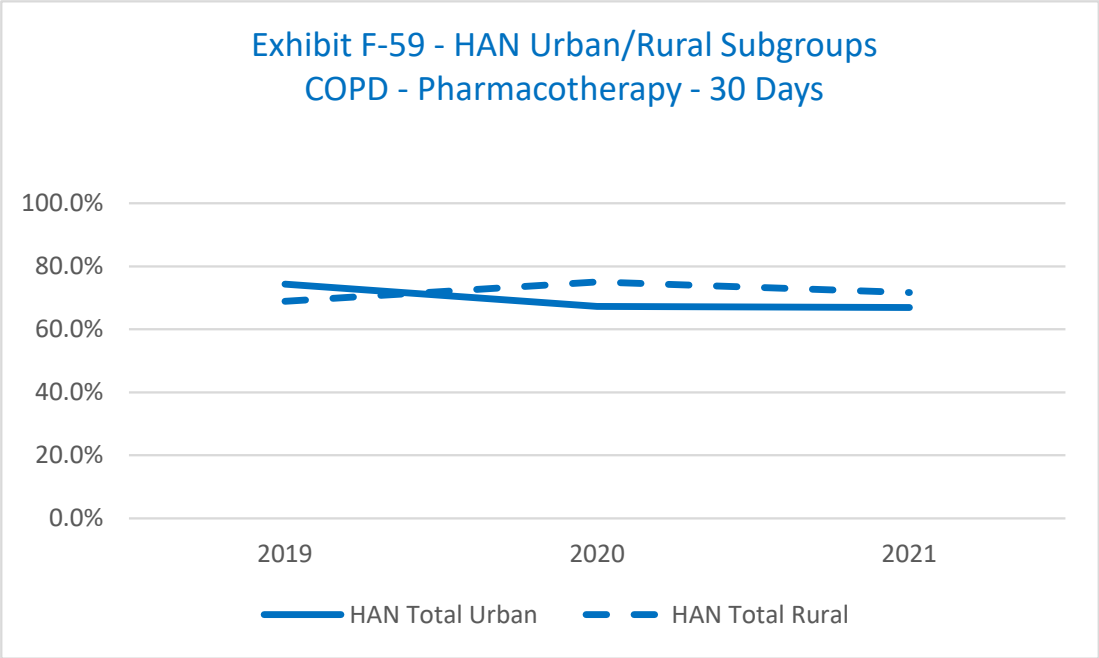
The difference between the HAN Care Managed and comparison group compliance rates was not statistically significant in any individual year. It was not statistically significant for the three-year pooled data (Exhibit F-58).

Exhibit F-58 – HAN (Care Managed) – COPD – Pharmacotherapy – 30 Days

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	79.3%	75.0%	73.7%	76.0%
Comparison Group	71.2%	58.6%	71.8%	67.2%
Difference	8.1%	16.4%	1.9%	8.8%
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 29 CG – 288	HAN-CM – 16 CG – 170	HAN-CM – 17 CG – 50	HAN-CM – 62 CG – 508
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban subgroup rate exceeded the rural subgroup rate in 2019; the rural subgroup rate exceeded the urban rate in 2020 and 2021. The urban subgroup rate trended downward from 2019 to 2021. The rural subgroup rate rose from 2019 to 2020 before declining from 2020 to 2021 (Exhibit F-59).



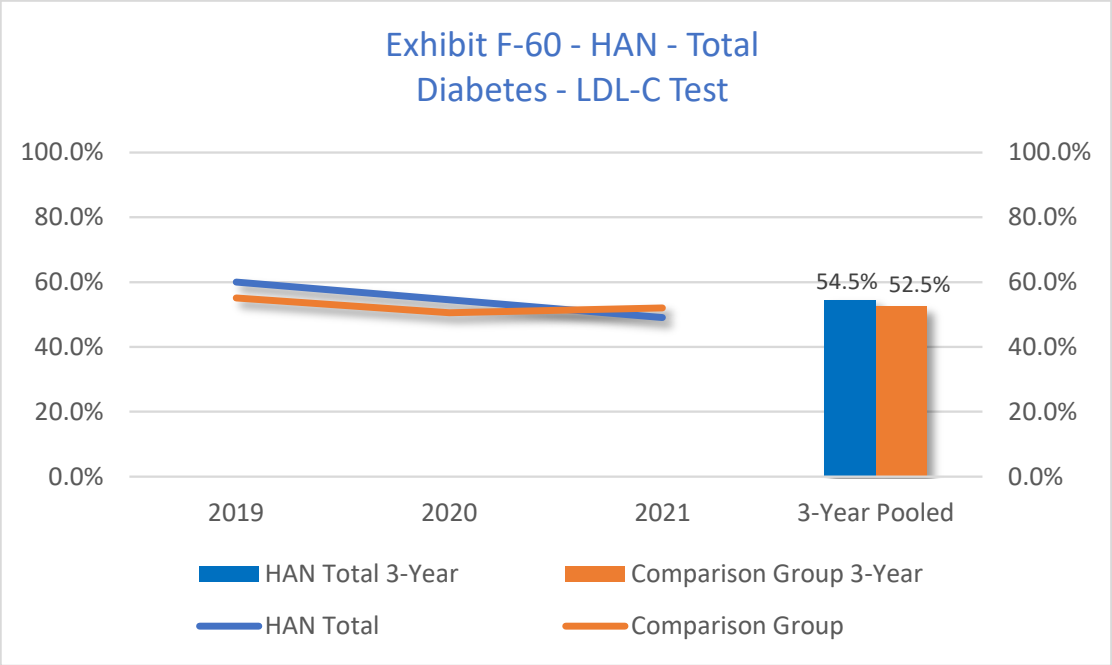
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	74.4%	67.3%	66.9%
	Rural	68.9%	75.0%	71.7%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Diabetes – LDL-C Test

Findings – HAN Total Population

Approximately 55 percent of HAN total members and 53 percent of comparison group members were compliant on this measure across the three years (Exhibit F-60). The compliance rate for the HAN total population declined from 2019 to 2021. The compliance rate for the comparison group declined from 2019 to 2020 before rising again from 2020 to 2021.



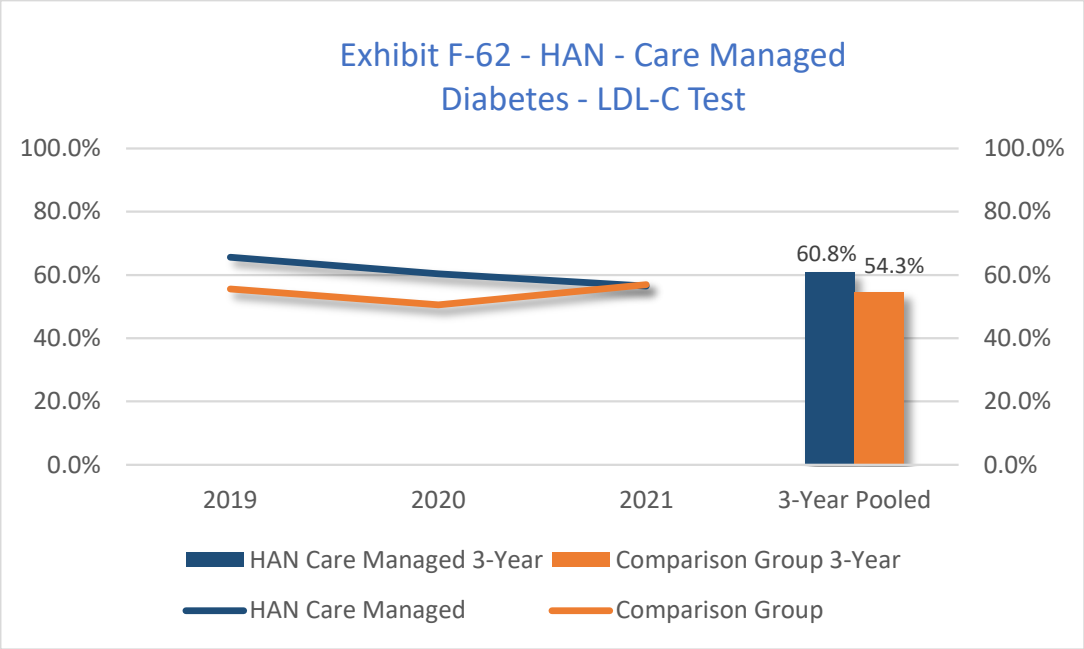
The difference between the HAN total and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-61).

Exhibit F-61 – HAN (Total) – Diabetes – LDL-C Test

	2019	2020	2021	3-Year Pooled
HAN (Total)	60.0%	54.5%	49.1%	54.5%
Comparison Group	55.1%	50.5%	52.0%	52.5%
Difference	4.9%‡	4.0%‡	(2.9%)‡	2.0%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 2,034 CG – 3,785	HAN-T – 2,240 CG – 4,501	HAN-T – 4,822 CG – 4,830	HAN-T – 9,096 CG – 13,116
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 61 percent of HAN Care Managed members and 54 percent of comparison group members were compliant on this measure across the three years (Exhibit F-62). The compliance rate for the HAN Care Managed population declined from 2019 to 2021. The compliance rate for the comparison group declined from 2019 to 2020 before rising again from 2020 to 2021.



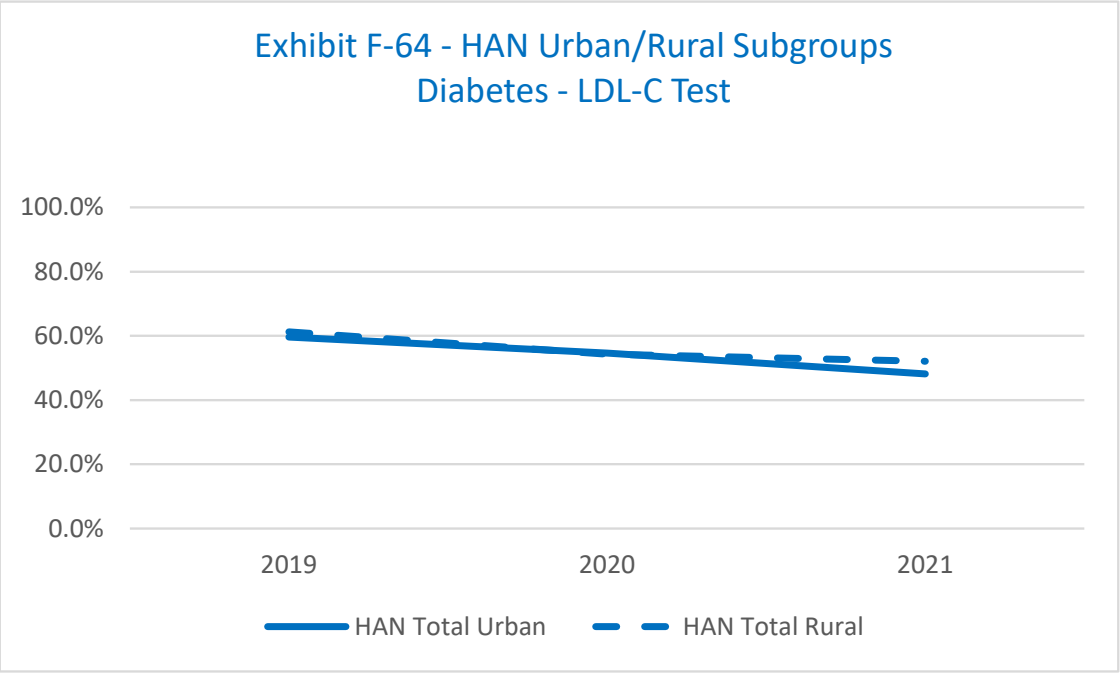
The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in 2019 and 2020. It also was statistically significant for the three-year pooled data (Exhibit F-63).

Exhibit F-63 – HAN (Care Managed) – Diabetes – LDL-C Test

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	65.6%	60.4%	56.5%	60.8%
Comparison Group	55.6%	50.5%	56.9%	54.3%
Difference	10.0%‡	9.9%‡	(0.4%)	6.5%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 131 CG – 2,635	HAN-CM – 105 CG – 2,529	HAN-CM – 170 CG – 3,372	HAN-CM – 406 CG – 8,536
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban and rural subgroups had nearly equal rates in 2019 and 2020; the HAN rural subgroup rate exceeded the urban rate in 2021. The rates for both subgroups declined from 2019 to 2021 (Exhibit F-64).

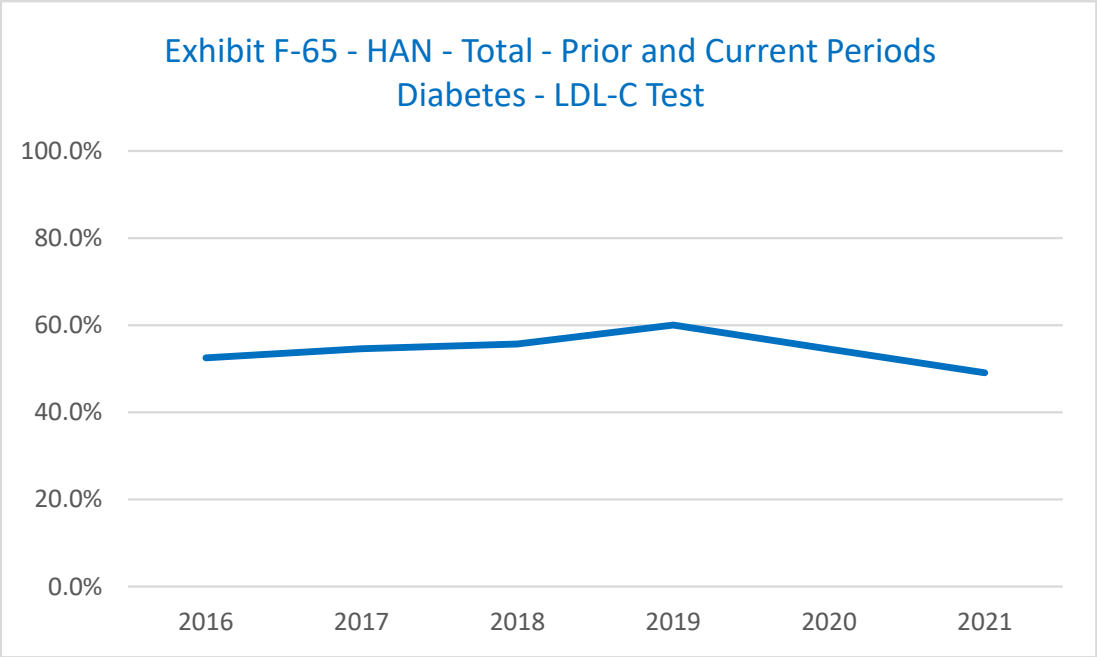


	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	59.6%	54.7%	48.1%
	Rural	61.3%	54.3%	52.1%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 53 percent in 2016 to 60 percent in 2019, before declining to 49 percent in 2021 (Exhibit F-65).

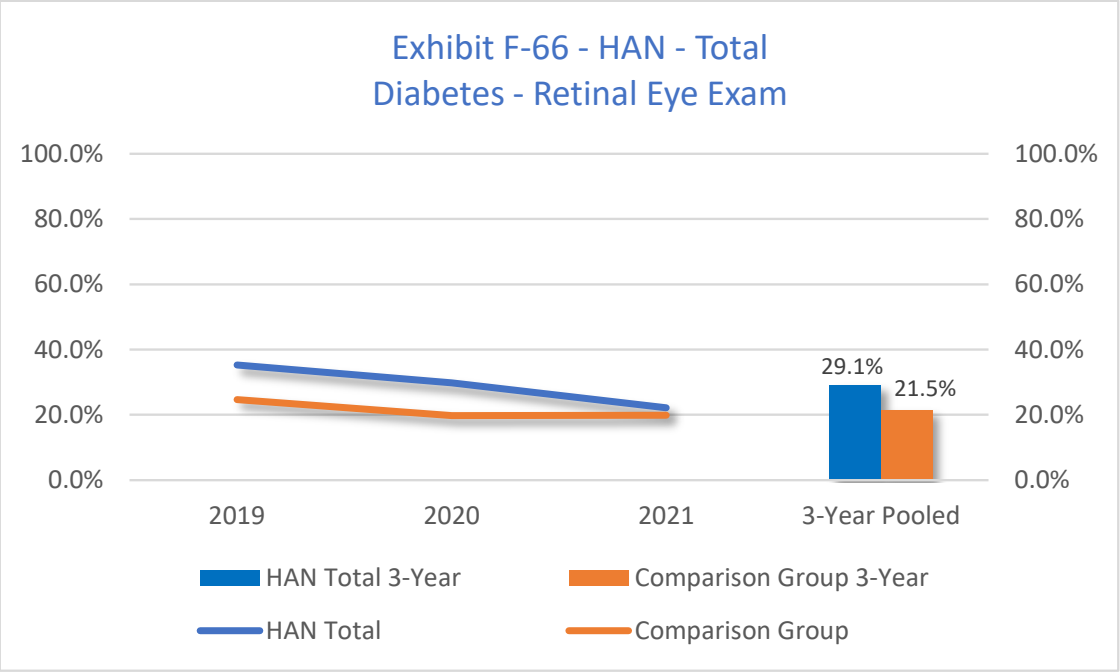


	2016	2017	2018	2019	2020	2021
HAN (Total)	52.5%	54.6%	55.7%	60.0%	54.5%	49.1%

Diabetes – Retinal Eye Exam

Findings – HAN Total Population

Approximately 29 percent of HAN total members and 22 percent of comparison group members were compliant on this measure across the three years (Exhibit F-66). The compliance rate for both populations declined from 2019 to 2021.



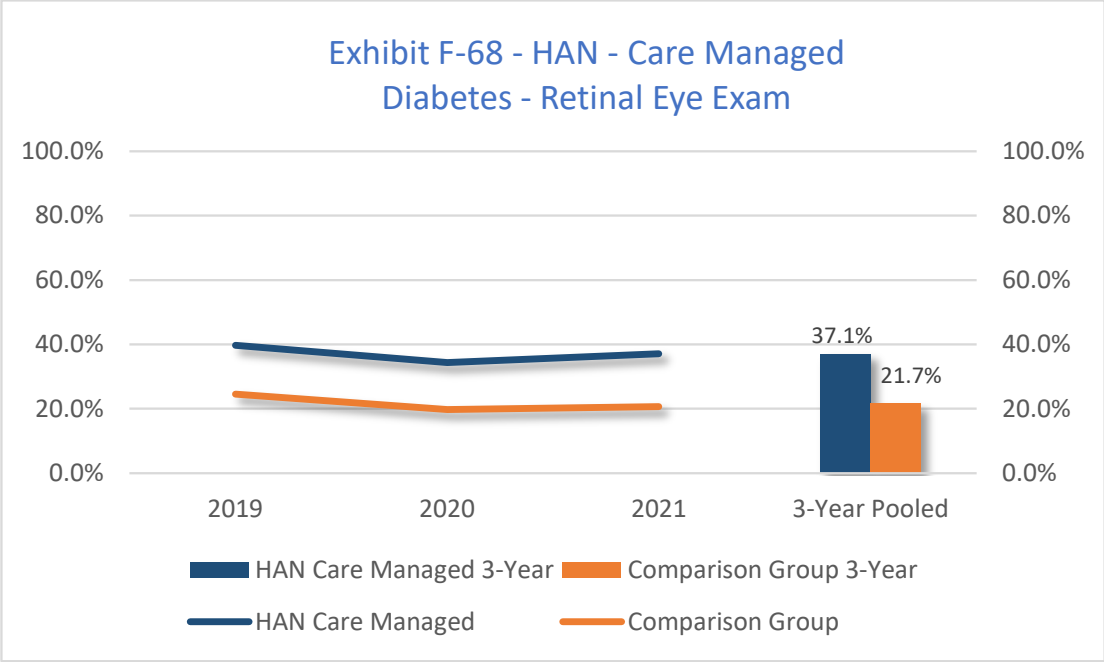
The difference between the HAN total and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-67).

Exhibit F-67 – HAN (Total) – Diabetes – Retinal Eye Exam

	2019	2020	2021	3-Year Pooled
HAN (Total)	35.3%	29.8%	22.2%	29.1%
Comparison Group	24.7%	19.8%	19.9%	21.5%
Difference	10.6%‡	10.0%‡	2.3%‡	7.6%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 2,034 CG – 3,785	HAN-T – 2,240 CG – 4,501	HAN-T – 4,822 CG – 4,830	HAN-T – 9,096 CG – 13,116
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 37 percent of HAN Care Managed members and 22 percent of comparison group members were compliant on this measure across the three years (Exhibit F-68). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



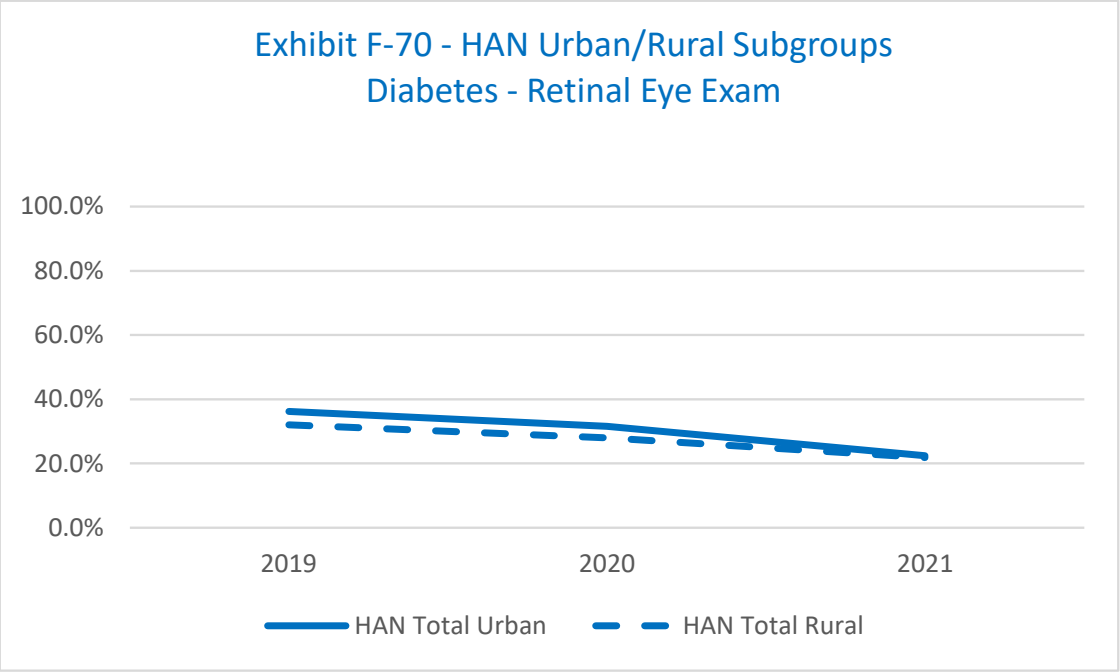
The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-69).

Exhibit F-69 – HAN (Care Managed) – Diabetes – Retinal Eye Exam

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	39.7%	34.4%	37.1%	37.1%
Comparison Group	24.5%	19.8%	20.7%	21.7%
Difference	15.2%‡	14.6%‡	16.4%‡	15.4%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 131 CG – 2,635	HAN-CM – 105 CG – 2,529	HAN-CM – 170 CG – 3,372	HAN-CM – 406 CG – 8,536
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban subgroup rate exceeded the rural subgroup rate across the three years. The rates for both subgroups declined from 2019 to 2021 (Exhibit F-70).

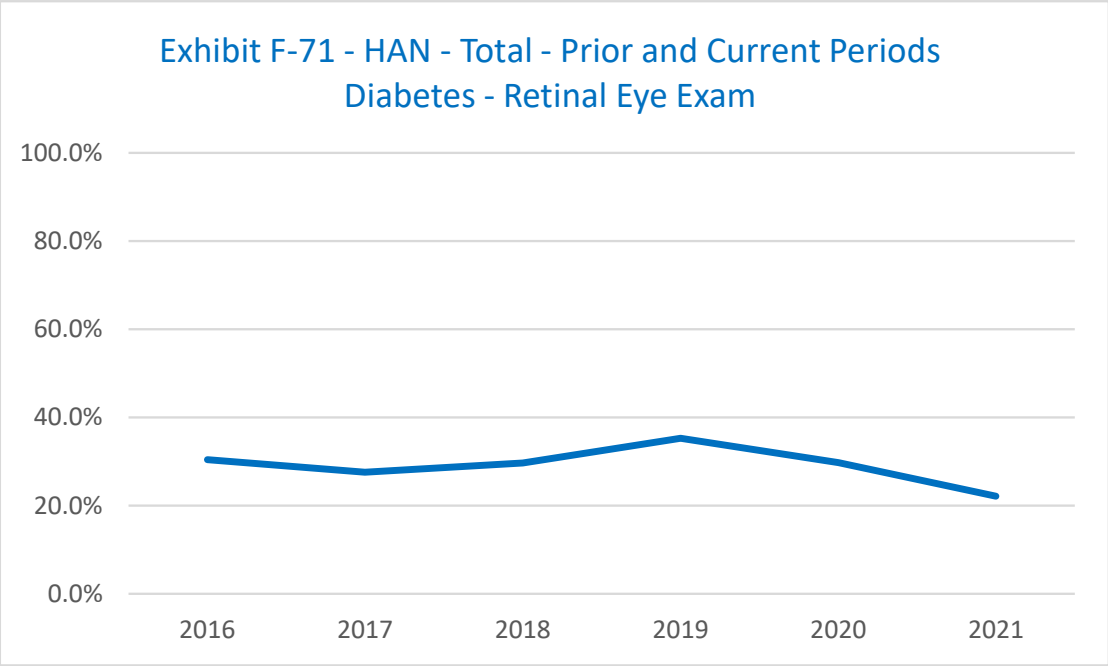


	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	36.2%	31.6%	22.4%
	Rural	32.1%	28.0%	21.8%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 30 percent in 2016 to 35 percent in 2019, before declining to 22 percent in 2021 (Exhibit F-71).

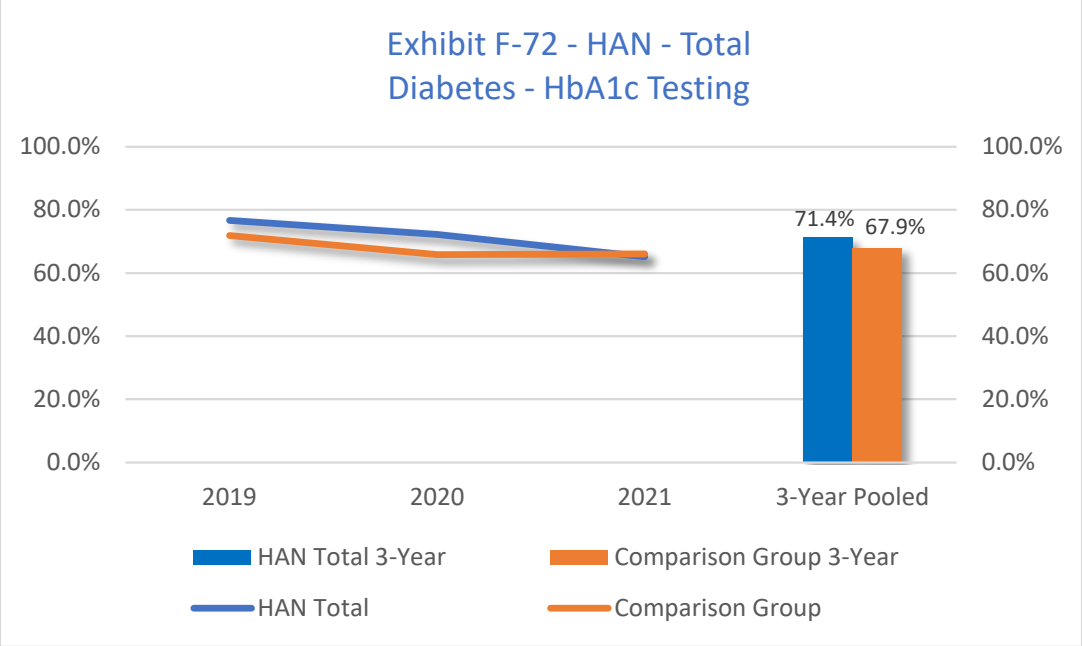


	2016	2017	2018	2019	2020	2021
HAN (Total)	30.4%	27.6%	29.7%	35.3%	29.8%	22.2%

Diabetes – HbA1c Testing

Findings – HAN Total Population

Approximately 71 percent of HAN total members and 68 percent of comparison group members were compliant on this measure across the three years (Exhibit F-72). The compliance rate for both populations declined from 2019 to 2021.



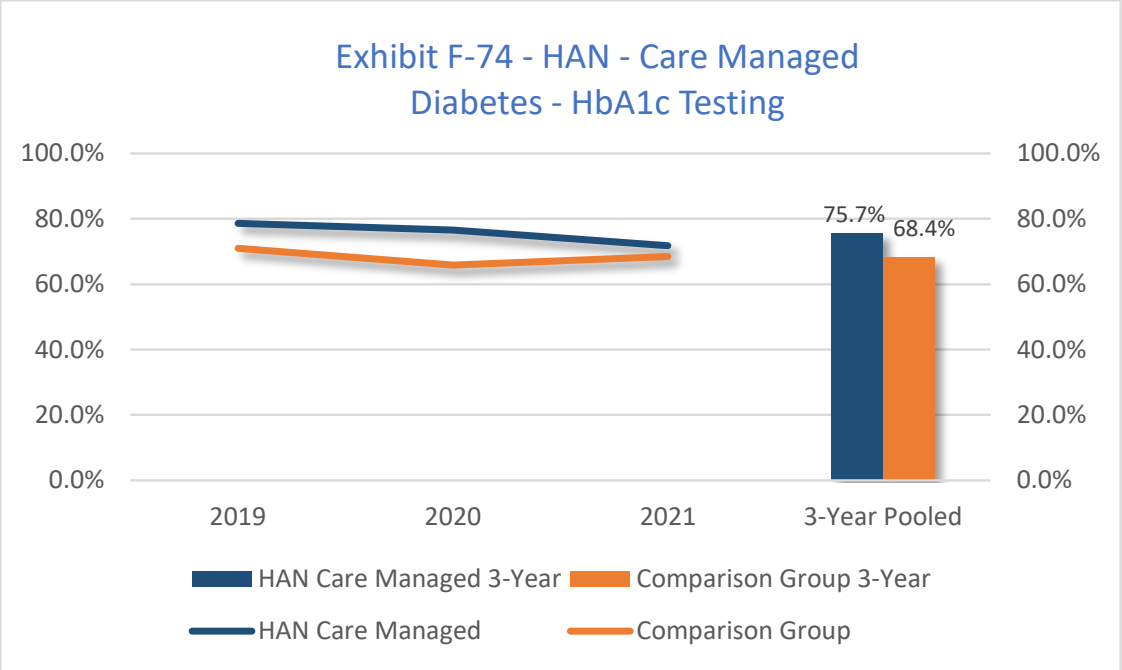
The difference between the HAN total and comparison group compliance rates was statistically significant in 2019 and 2020. It also was statistically significant for the three-year pooled data (Exhibit F-73).

Exhibit F-73 – HAN (Total) – Diabetes – HbA1c Testing

	2019	2020	2021	3-Year Pooled
HAN (Total)	76.7%	72.2%	65.2%	71.4%
Comparison Group	71.9%	65.8%	66.0%	67.9%
Difference	4.8%‡	6.4%‡	(0.8%)	3.5%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 2,034 CG – 3,785	HAN-T – 2,240 CG – 4,501	HAN-T – 4,822 CG – 4,830	HAN-T – 9,096 CG – 13,116
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 76 percent of HAN Care Managed members and 68 percent of comparison group members were compliant on this measure across the three years (Exhibit F-74). The compliance rate for the HAN total population declined from 2019 to 2021. The compliance rate for the comparison group population declined from 2019 to 2020 before rising again from 2020 to 2021.



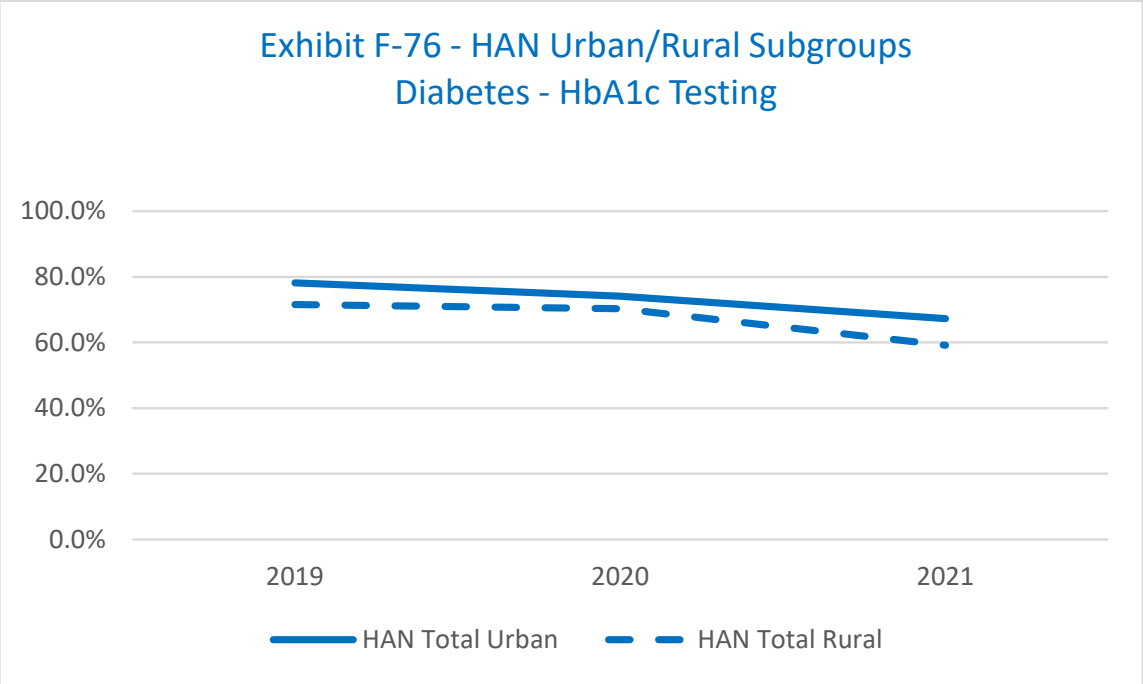
The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in 2019 and 2020. It also was statistically significant for the three-year pooled data (Exhibit F-75).

Exhibit F-75 – HAN (Care Managed) – Diabetes – HbA1c Testing

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	78.6%	76.6%	71.8%	75.7%
Comparison Group	71.0%	65.8%	68.4%	68.4%
Difference	7.6%‡	10.8%‡	3.4%	7.3%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 131 CG – 2,635	HAN-CM – 105 CG – 2,529	HAN-CM – 170 CG – 3,372	HAN-CM – 406 CG – 8,536
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban subgroup rate exceeded the rural subgroup rate across the three years. The rates for both subgroups declined from 2019 to 2021 (Exhibit F-76).

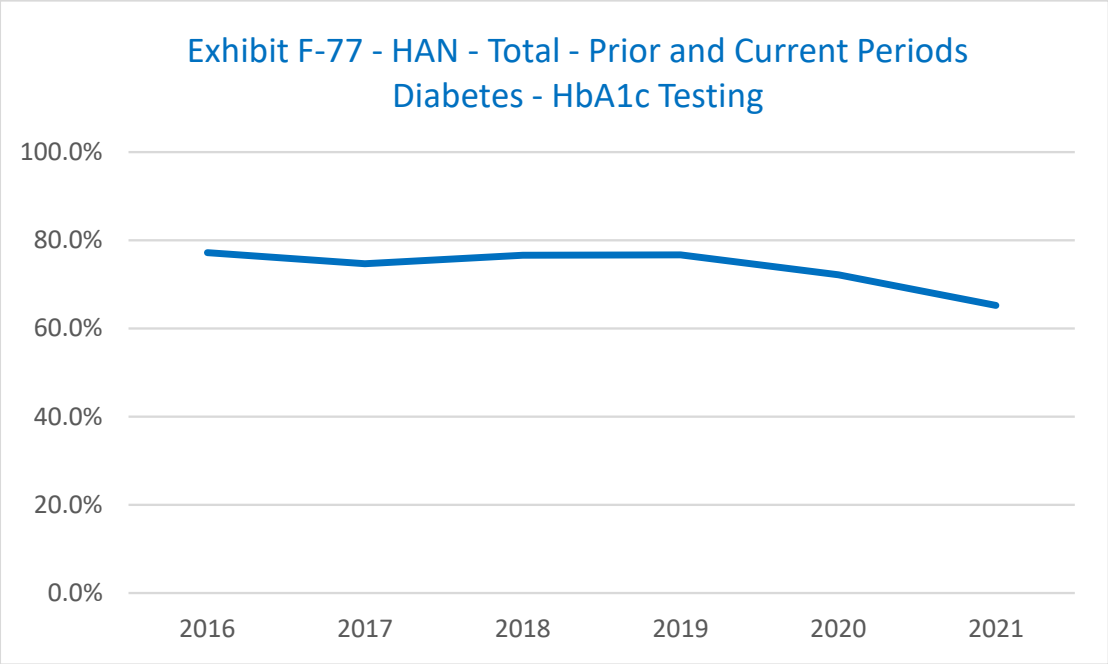


	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	78.2%	74.2%	67.3%
	Rural	71.6%	70.3%	59.2%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate declined from approximately 77 percent in 2016 to 65 percent in 2021 (Exhibit F-77).

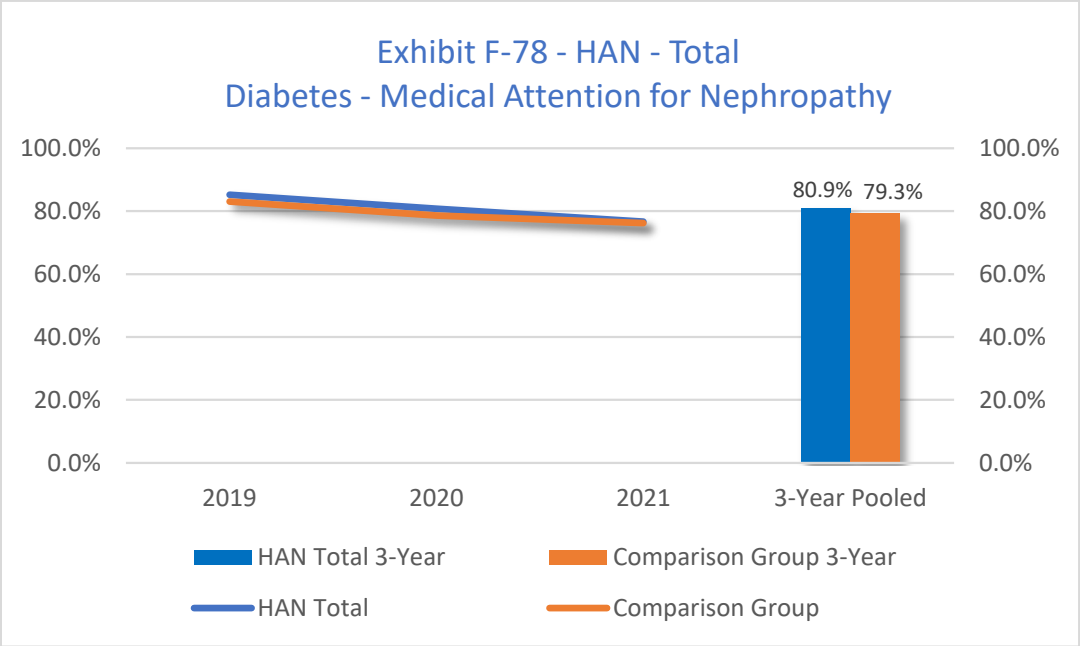


	2016	2017	2018	2019	2020	2021
HAN (Total)	77.2%	74.7%	76.6%	76.7%	72.2%	65.2%

Diabetes – Medical Attention for Nephropathy

Findings – HAN Total Population

Approximately 81 percent of HAN total members and 79 percent of comparison group members were compliant on this measure across the three years (Exhibit F-78). The compliance rate for both populations declined from 2019 to 2021.



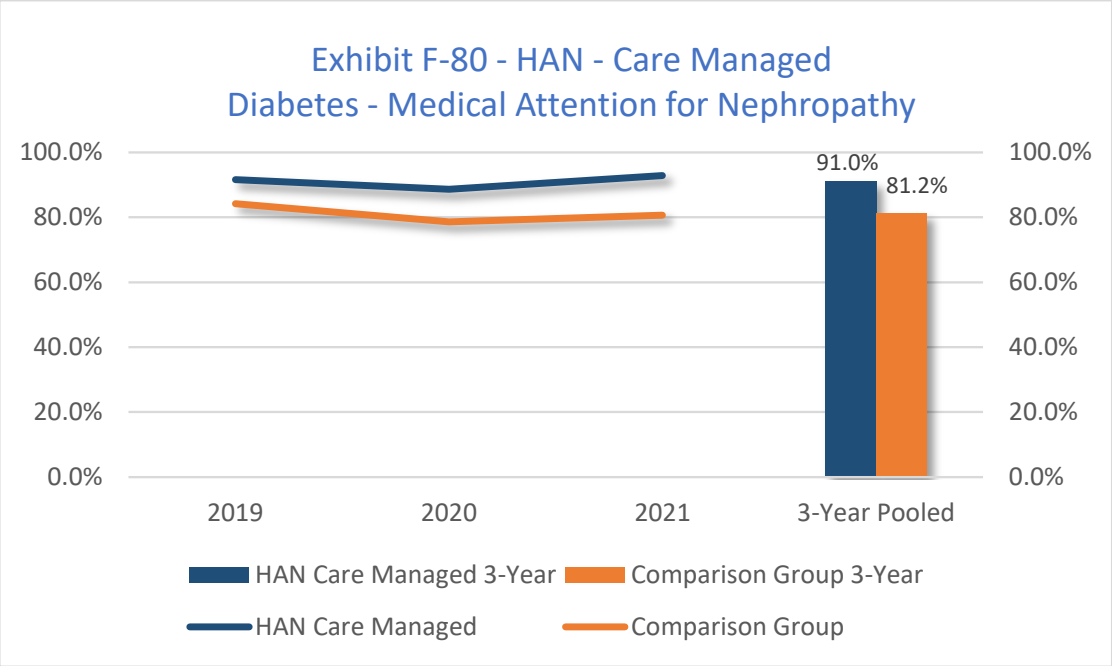
The difference between the HAN total and comparison group compliance rates was statistically significant in 2019 and 2020. It also was statistically significant for the three-year pooled data (Exhibit F-79).

Exhibit F-79 – HAN (Total) – Diabetes – Medical Attention for Nephropathy

	2019	2020	2021	3-Year Pooled
HAN (Total)	85.2%	80.8%	76.7%	80.9%
Comparison Group	83.1%	78.6%	76.2%	79.3%
Difference	2.1%‡	2.2%‡	0.5%	1.6%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 2,034 CG – 3,785	HAN-T – 2,240 CG – 4,501	HAN-T – 4,822 CG – 4,830	HAN-T – 9,096 CG – 13,116
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Ninety-one percent of HAN Care Managed members and approximately 81 percent of comparison group members were compliant on this measure across the three years (Exhibit F-80). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



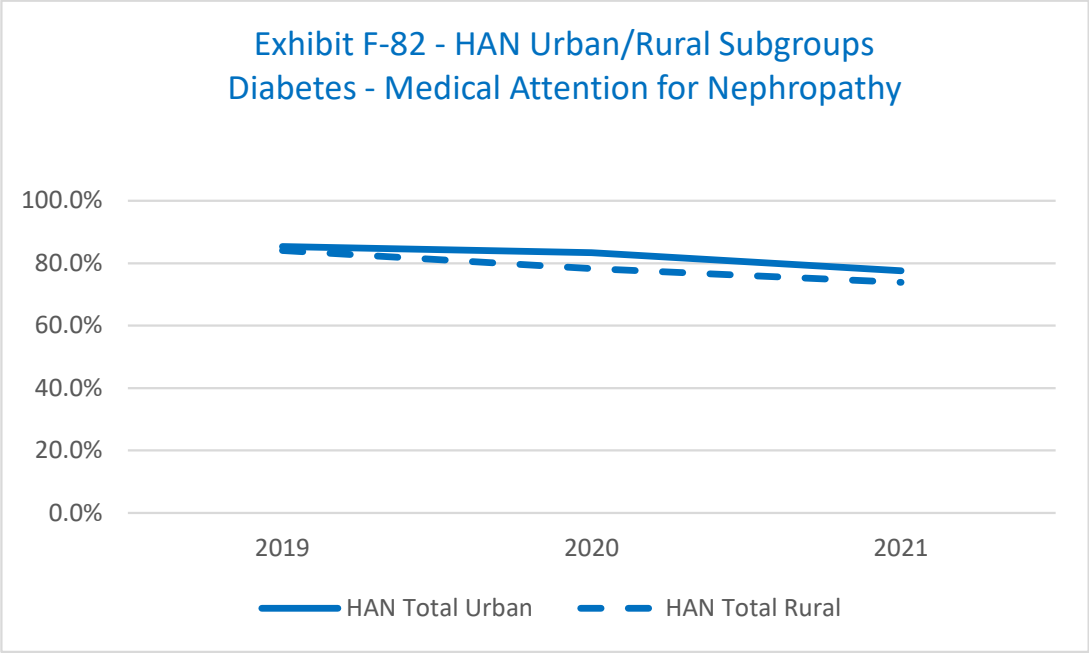
The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-81).

Exhibit F-81 – HAN (Care Managed) – Diabetes – Medical Attention for Nephropathy

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	91.6%	88.6%	92.9%	91.0%
Comparison Group	84.2%	78.6%	80.7%	81.2%
Difference	7.4%‡	10.0%‡	12.2%‡	9.8%‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 131 CG – 2,635	HAN-CM – 105 CG – 2,529	HAN-CM – 170 CG – 3,372	HAN-CM – 406 CG – 8,536
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban subgroup rate exceeded the rural subgroup rate across the three years. The rates for both subgroups declined from 2019 to 2021 (Exhibit F-82).

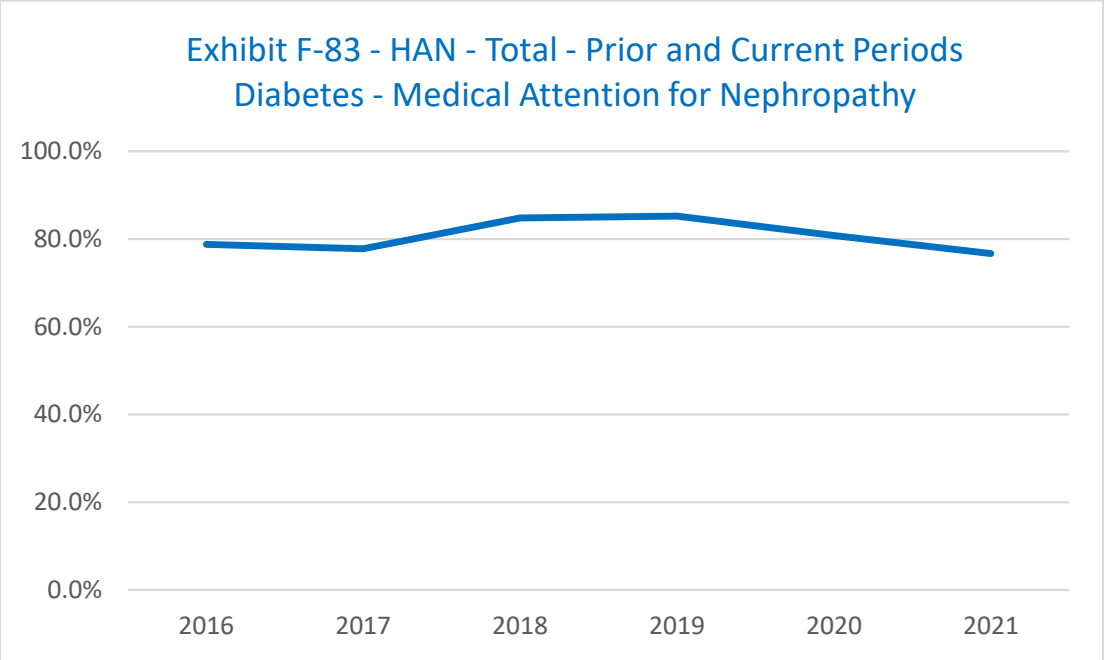


	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	85.4%	83.4%	77.6%
	Rural	84.1%	78.3%	73.9%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 79 percent in 2016 to 85 percent in 2019, before declining to 77 percent in 2021 (Exhibit F-83).

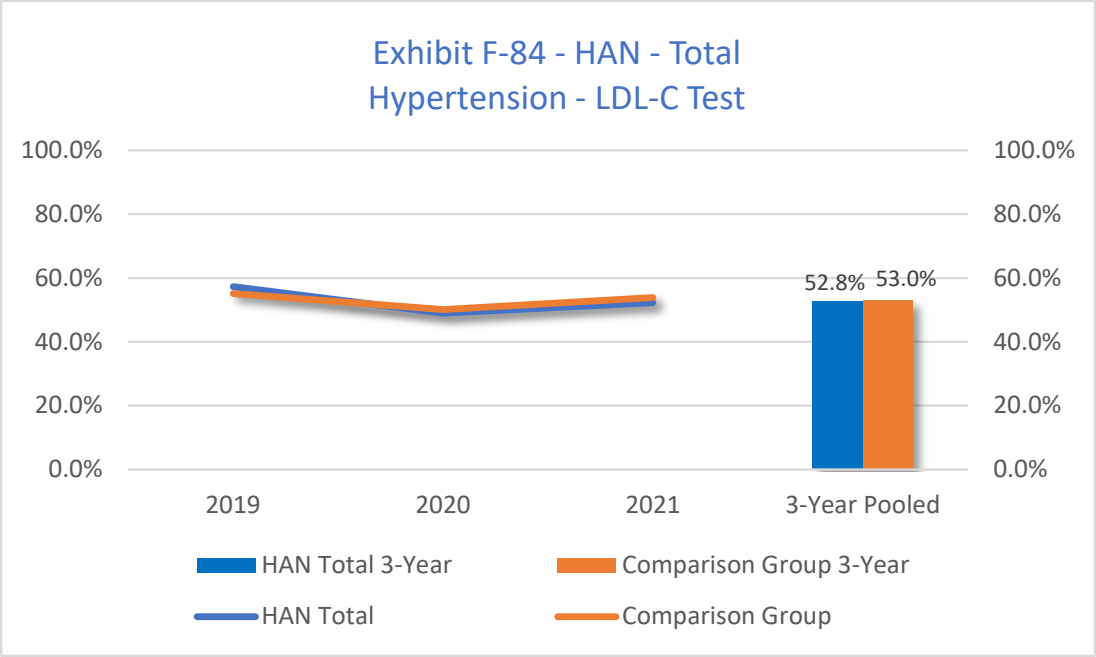


	2016	2017	2018	2019	2020	2021
HAN (Total)	78.8%	77.8%	84.8%	85.2%	80.8%	76.7%

Hypertension – LDL-C Test

Findings – HAN Total Population

Approximately 53 percent of HAN total members and 53 percent of comparison group members were compliant on this measure across the three years (Exhibit F-84). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



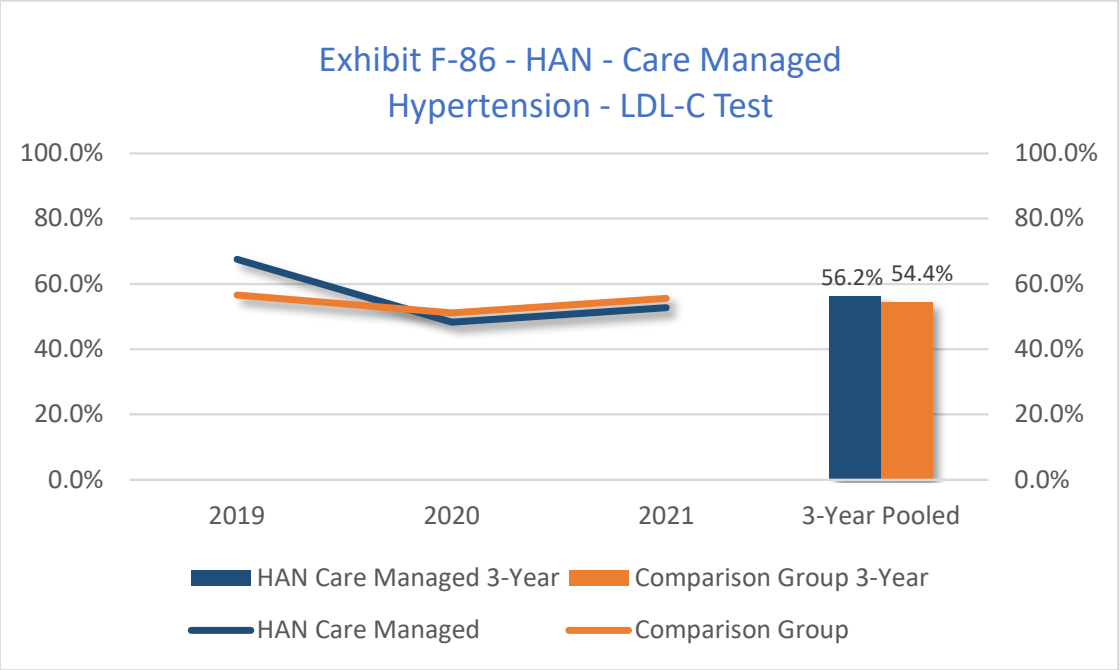
The difference between the HAN total and comparison group compliance rates was statistically significant in 2019 and 2021. It was not statistically significant for the three-year pooled data (Exhibit F-85).

Exhibit F-85 – HAN (Total) – Hypertension – LDL-C Test

	2019	2020	2021	3-Year Pooled
HAN (Total)	57.3%	48.9%	52.3%	52.8%
Comparison Group	55.1%	50.1%	53.8%	53.0%
Difference	2.2%‡	(1.2%)	(1.5%)‡	(0.2%)
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 3,321 CG – 5,960	HAN-T – 3,794 CG – 7,885	HAN-T – 4,668 CG – 6,582	HAN-T – 11,783 CG – 20,427
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 56 percent of HAN Care Managed members and 54 percent of comparison group members were compliant on this measure across the three years (Exhibit F-86). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



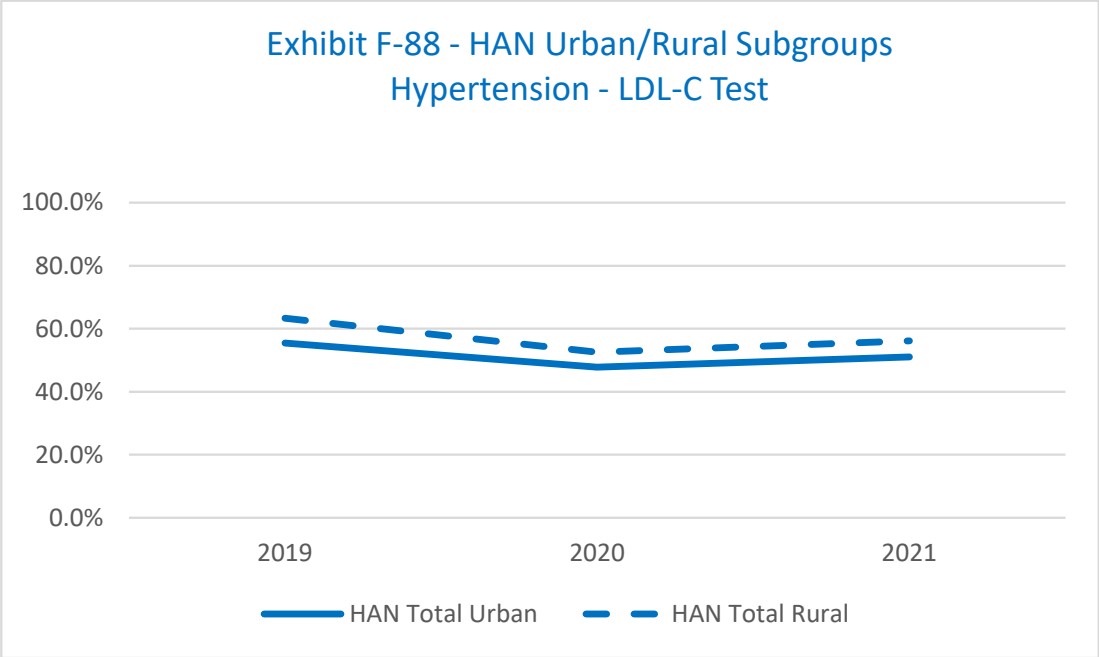
The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in 2019. It was not statistically significant for the three-year pooled data (Exhibit F-87).

Exhibit F-87 – HAN (Care Managed) – Hypertension – LDL-C Test

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	67.5%	48.3%	52.7%	56.2%
Comparison Group	56.6%	51.1%	55.6%	54.4%
Difference	10.9%‡	(2.8%)	(2.9%)	1.8%
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 209 CG – 4,637	HAN-CM – 207 CG – 4,728	HAN-CM – 279 CG – 5,360	HAN-CM – 695 CG – 14,724
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban subgroup rate across the three years. The rates for both subgroups declined from 2019 to 2020 and rose from 2020 to 2021 (Exhibit F-88).

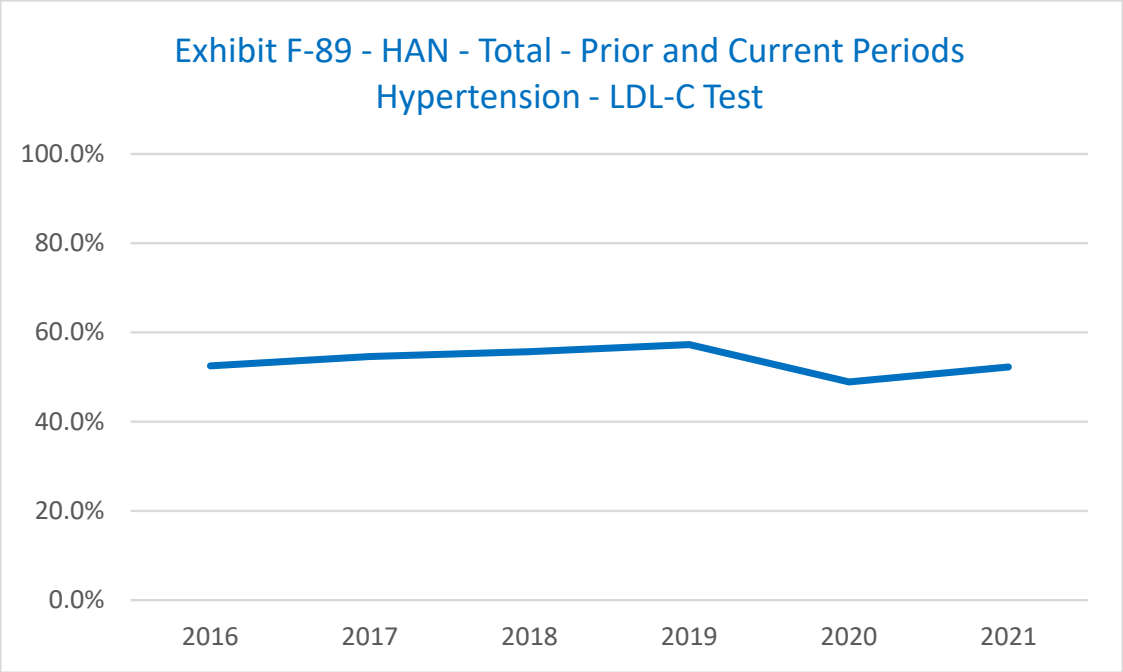


	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	55.5%	47.8%	51.0%
	Rural	63.3%	52.6%	56.1%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 53 percent in 2016 to 57 percent in 2019, before declining to 49 percent in 2021 and rising again to 52 percent in 2021 (Exhibit F-89).

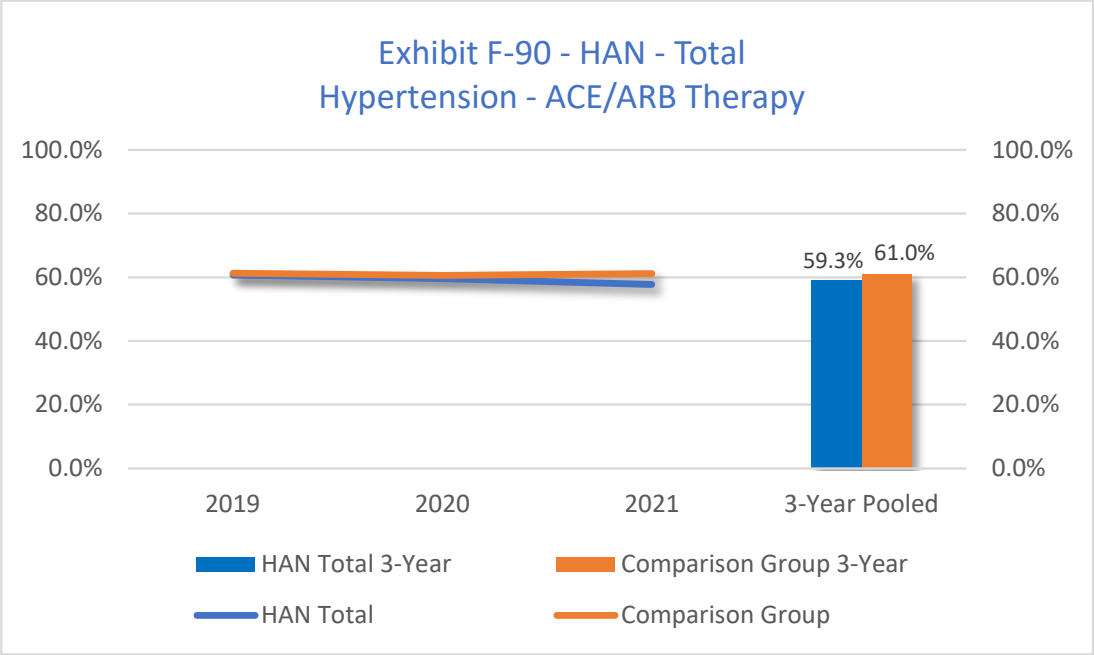


	2016	2017	2018	2019	2020	2021
HAN (Total)	52.5%	54.6%	55.7%	57.3%	48.9%	52.3%

Hypertension – ACE/ARB Therapy

Findings – HAN Total Population

Approximately 59 percent of HAN total members and 61 percent of comparison group members were compliant on this measure across the three years (Exhibit F-90). The compliance rate for the HAN total population declined slightly from 2019 to 2021. The compliance rate for the comparison group declined slightly from 2019 to 2020 before rising slightly again from 2020 to 2021.



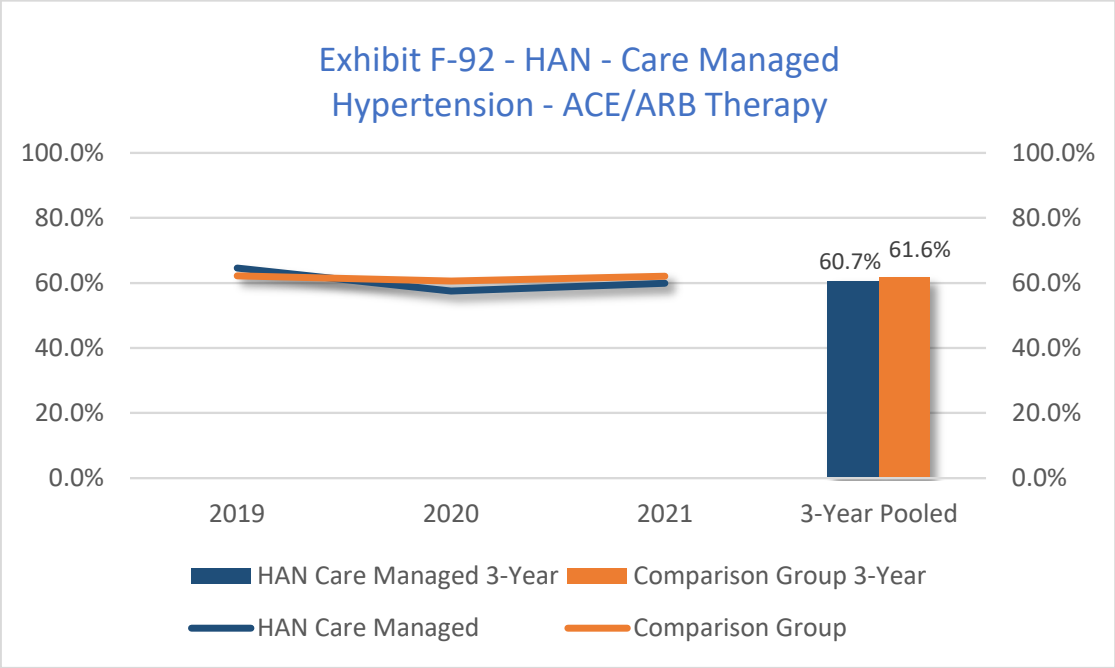
The difference between the HAN total and comparison group compliance rates was statistically significant in 2021. It also was statistically significant for the three-year pooled data (Exhibit F-91).

Exhibit F-91 – HAN (Total) – Hypertension – ACE/ARB Therapy

	2019	2020	2021	3-Year Pooled
HAN (Total)	60.7%	59.5%	57.7%	59.3%
Comparison Group	61.3%	60.6%	61.1%	61.0%
Difference	(0.6%)	(1.1%)	(3.4%)‡	(1.7%)‡
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 3,321 CG – 5,960	HAN-T – 3,794 CG – 7,885	HAN-T – 4,668 CG – 6,582	HAN-T – 11,783 CG – 20,427
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

Approximately 61 percent of HAN Care Managed members and 62 percent of comparison group members were compliant on this measure across the three years (Exhibit F-92). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



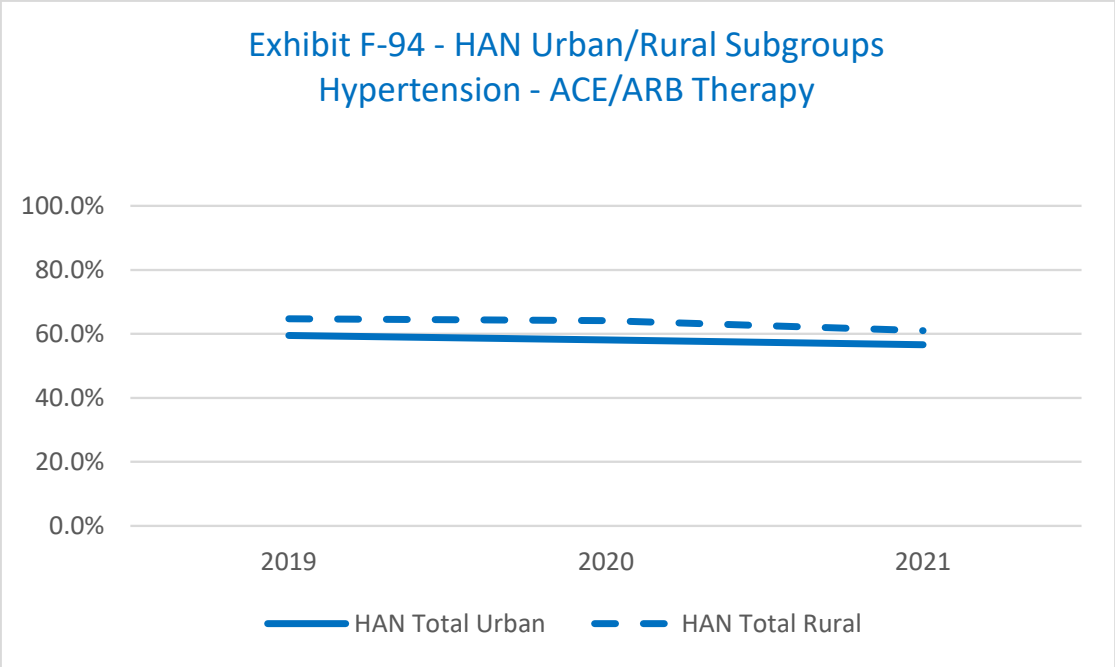
The difference between the HAN Care Managed and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-93).

Exhibit F-93 – HAN (Care Managed) – Hypertension – ACE/ARB Therapy

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	64.6%	57.5%	59.9%	60.7%
Comparison Group	62.2%	60.6%	62.1%	61.6%
Difference	2.4%	(3.1%)	(2.2%)	(0.9%)
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 209 CG – 4,637	HAN-CM – 207 CG – 4,728	HAN-CM – 279 CG – 5,360	HAN-CM – 695 CG – 14,724
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban subgroup rate across the three years. The rates for both subgroups declined slightly from 2019 to 2021 (Exhibit F-94).

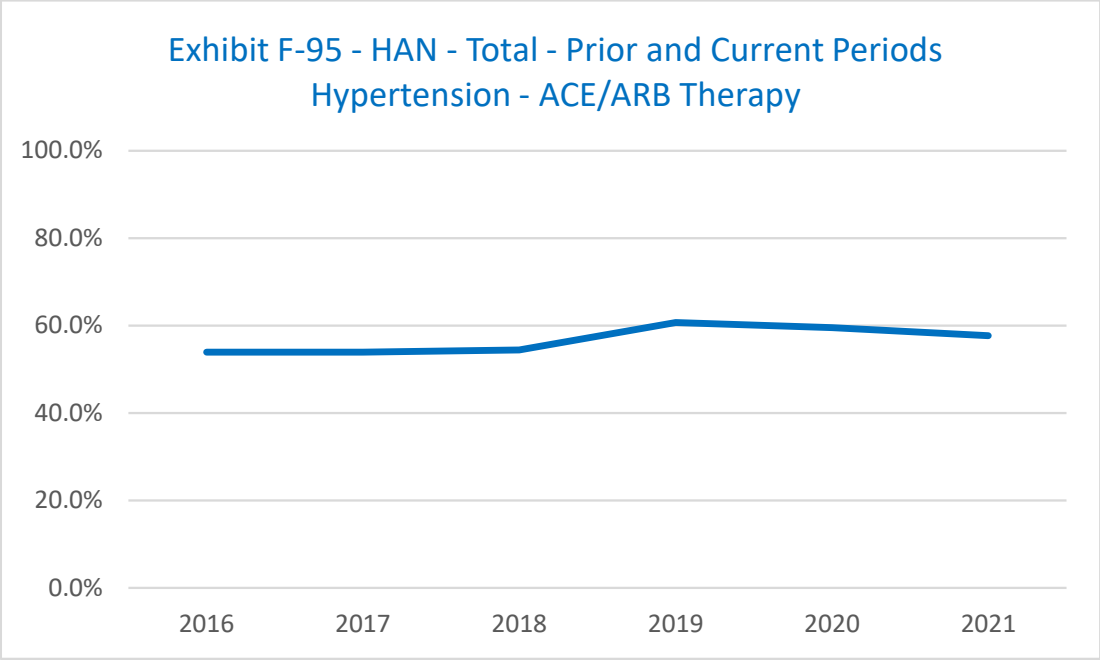


	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	59.5%	58.1%	56.6%
	Rural	64.7%	64.2%	61.0%

The HAN Care Managed urban and rural subgroups were not sufficient in size to produce reliable trendlines.

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 54 percent in 2016 to 61 percent in 2019, before declining to 58 percent in 2021 (Exhibit F-95).

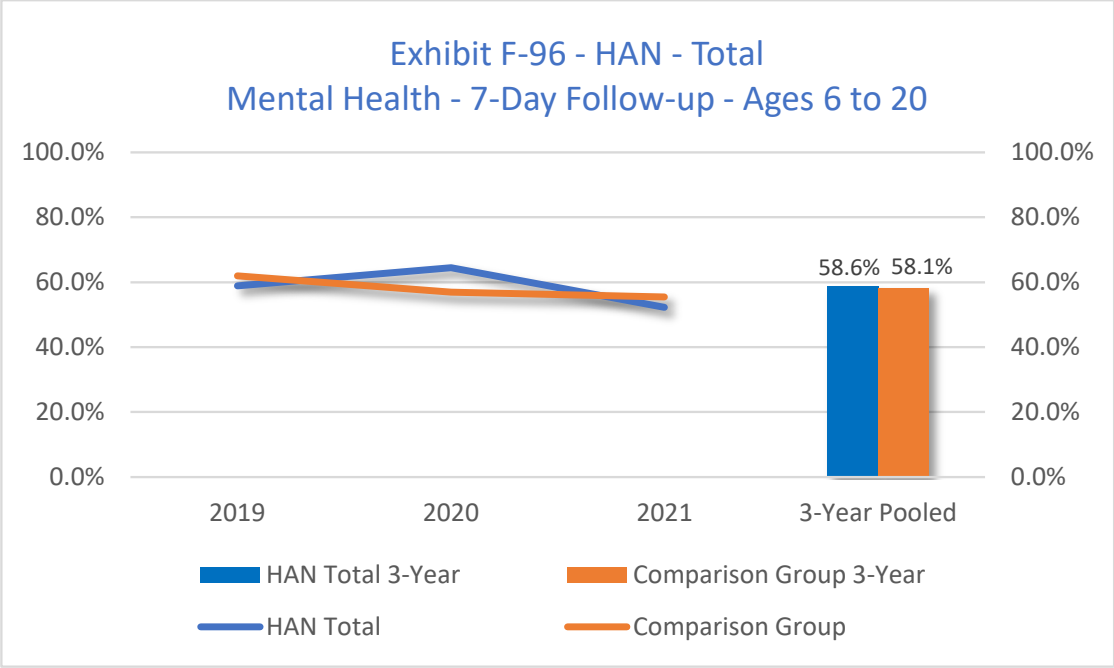


	2016	2017	2018	2019	2020	2021
HAN (Total)	53.9%	53.9%	54.4%	60.7%	59.5%	57.7%

Mental Health – Follow-up after Hospitalization for Mental Illness – 7 Days – Ages 6 to 20

Findings – HAN Total Population

Approximately 59 percent of HAN total members and 58 percent of comparison group members were compliant on this measure across the three years (Exhibit F-96). The compliance rate for the HAN total population rose from 2019 to 2020, before declining from 2020 to 2021. The compliance rate for the comparison group declined from 2019 to 2021.



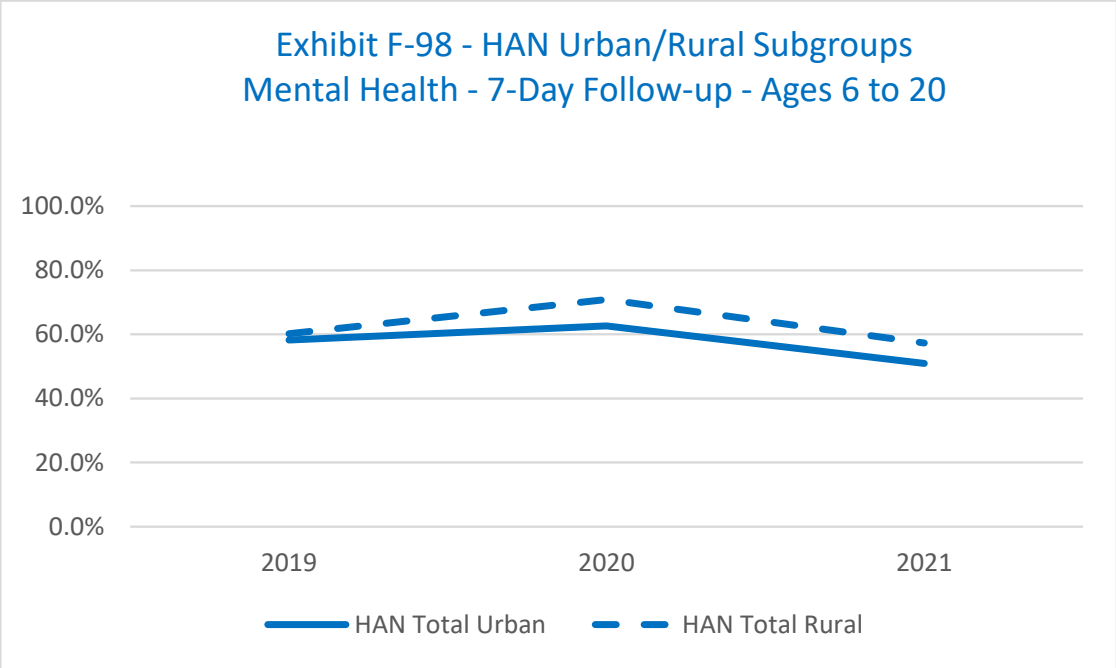
The difference between the HAN total and comparison group compliance rates was statistically significant in 2020. It was not statistically significant for the three-year pooled data (Exhibit F-97).

Exhibit F-97 – HAN (Total) – Mental Health – 7-Day Follow-up – Ages 6 to 20

	2019	2020	2021	3-Year Pooled
HAN (Total)	58.9%	64.5%	52.3%	58.6%
Comparison Group	62.0%	56.9%	55.5%	58.1%
Difference	(3.1%)	7.6%‡	(3.2%)	0.5%
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 632 CG – 737	HAN-T – 485 CG – 829	HAN-T – 940 CG – 964	HAN-T – 2,057 CG – 2,530
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban subgroup rate in 2020 and 2021. The rates for both subgroups rose from 2019 to 2021 and declined from 2019 to 2021 (Exhibit F-98).



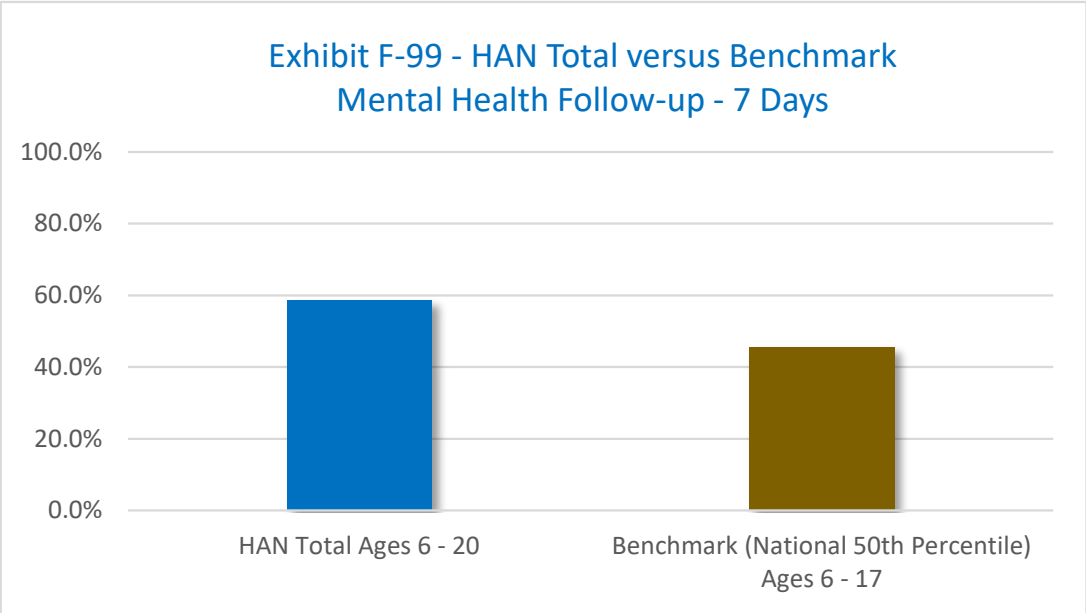
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	58.2%	62.6%	50.9%
	Rural	60.2%	70.9%	57.3%

Findings – HAN Total Population and National Benchmark

The HAN and national benchmark measures differed slightly with respect to age ranges. The HAN population includes ages 6 to 20 while the national benchmark includes ages 6 to 17.

The three-year pooled rate for the SoonerCare HAN total population exceeded the national benchmark rate by 13 percentage points (Exhibit F-99).

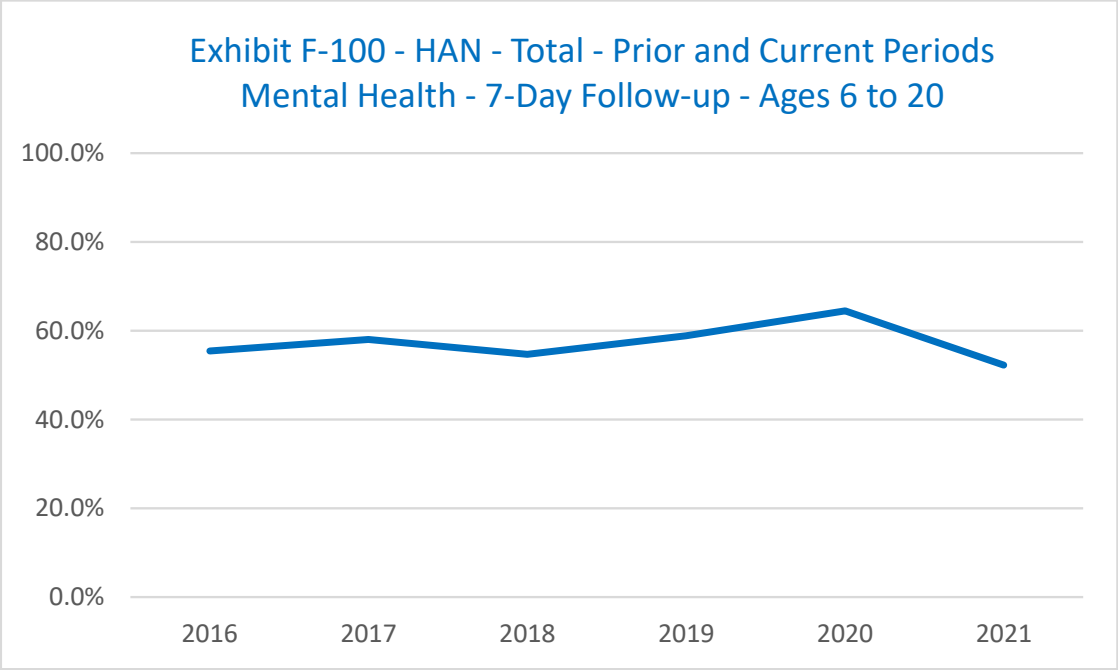
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Total	Benchmark
Compliance Rate	58.6%	45.6%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 55 percent in 2016 to 65 percent in 2020, before declining to 52 percent in 2021 (Exhibit F-100).

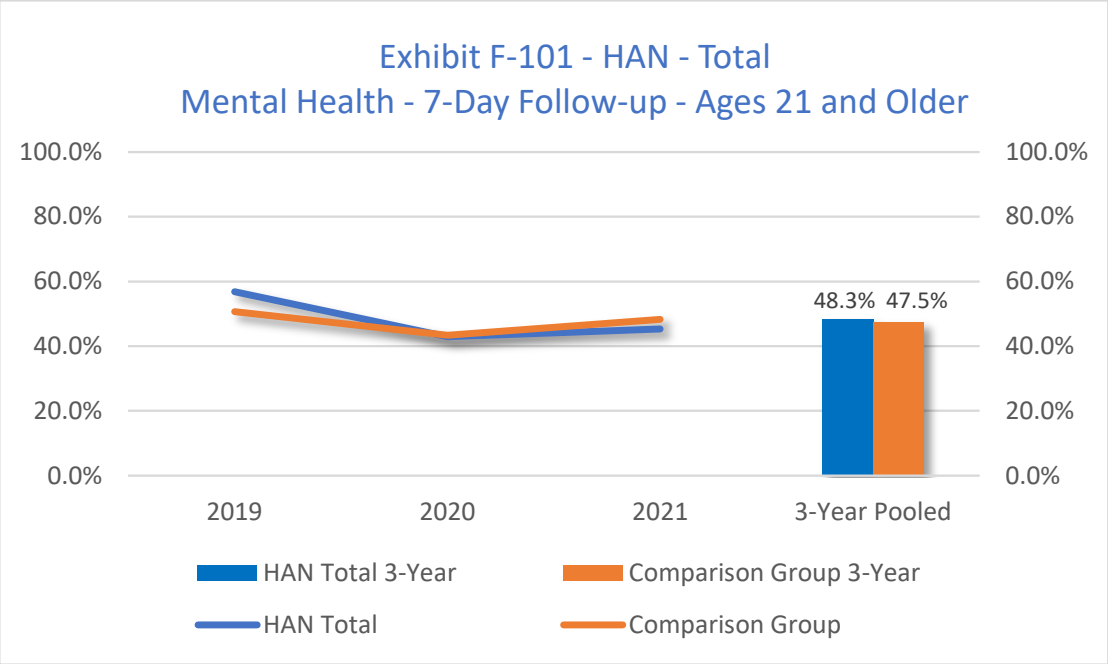


	2016	2017	2018	2019	2020	2021
HAN (Total)	55.4%	58.0%	54.7%	58.9%	64.5%	52.3%

Mental Health – Follow-up after Hospitalization for Mental Illness – 7 Days – Ages 21 and Older

Findings – HAN Total Population

Approximately 48 percent of HAN total members and 48 percent of comparison group members were compliant on this measure across the three years (Exhibit F-101). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



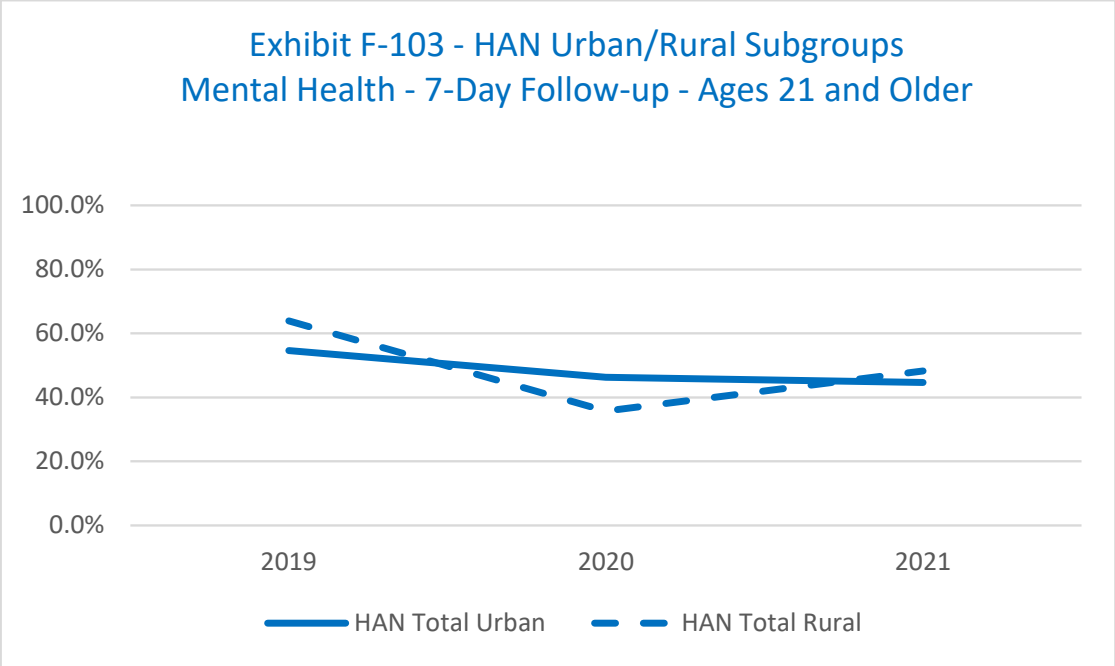
The difference between the HAN total and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-102).

Exhibit F-102 – HAN (Total) – Mental Health – 7-Day Follow-up – Ages 21 and Older

	2019	2020	2021	3-Year Pooled
HAN (Total)	56.8%	42.9%	45.3%	48.3%
Comparison Group	50.7%	43.4%	48.3%	47.5%
Difference	6.1%	(0.5%)	(3.0%)	0.8%
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 155 CG – 218	HAN-T – 70 CG – 97	HAN-T – 506 CG – 451	HAN-T – 731 CG – 766
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban subgroup rate in 2019 and 2021; the urban subgroup rate exceeded the rural subgroup rate in 2020. The urban subgroup rate declined from 2019 to 2021 while the rural subgroup rate declined from 2019 to 2020 and rose again from 2020 to 2021 (Exhibit F-103)[53].



	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	54.6%	46.3%	44.7%
	Rural	63.9%	35.7%	48.3%

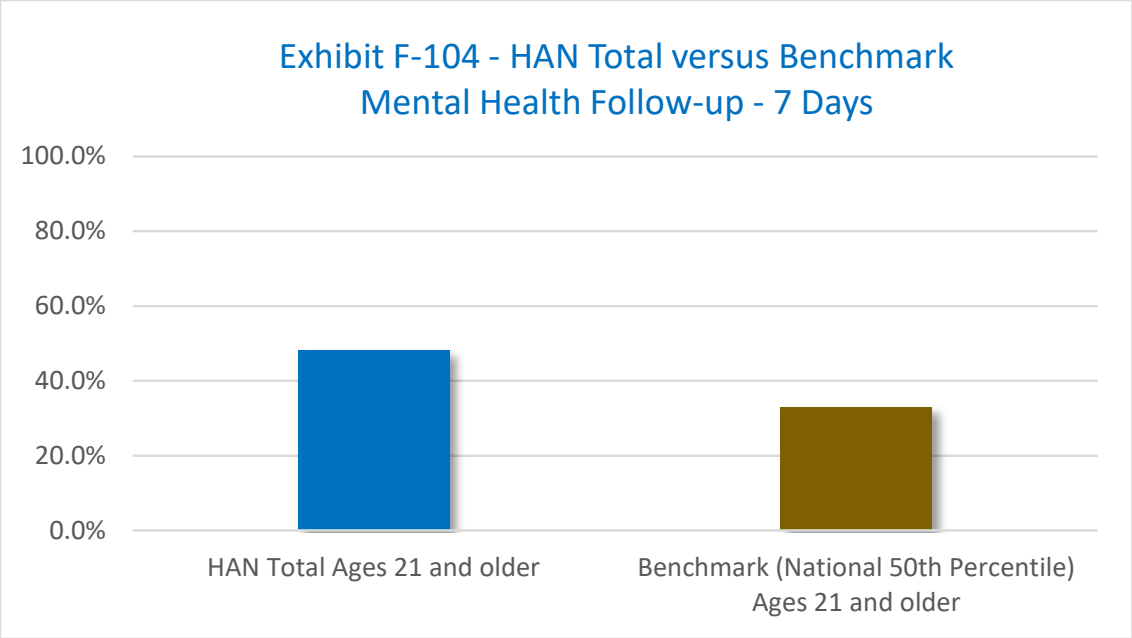
[53] See cautionary note in Introduction to Section F regarding year-over-year variance in measures with small denominators. HAN rural population denominator for this measure was less than 100 in each of the three years.

Findings – HAN Total Population and National Benchmark

The HAN and national benchmark measures differed slightly with respect to age ranges. The HAN population includes ages 21 and older while the national benchmark includes ages 18 and older.

The three-year pooled rate for the SoonerCare HAN total population exceeded the national benchmark rate by approximately 15 percentage points (Exhibit F-104).

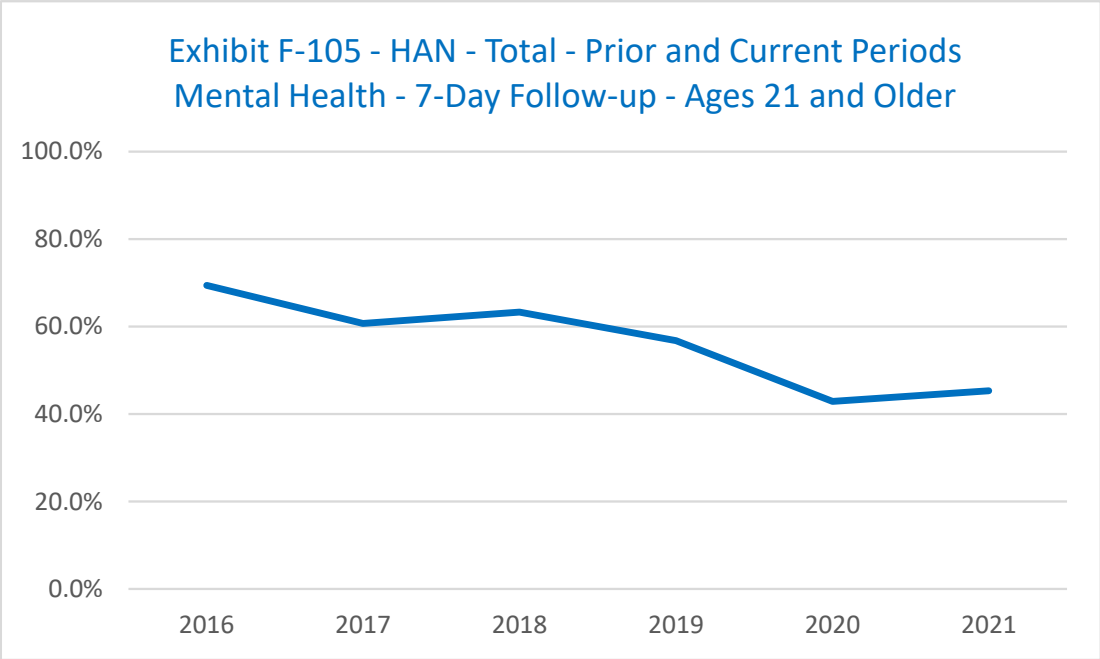
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Total	Benchmark
Compliance Rate	48.3%	33.1%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate declined gradually from approximately 69 percent in 2016 to 43 percent in 2020 and rising again slightly to 45 percent in 2021 (Exhibit F-105).

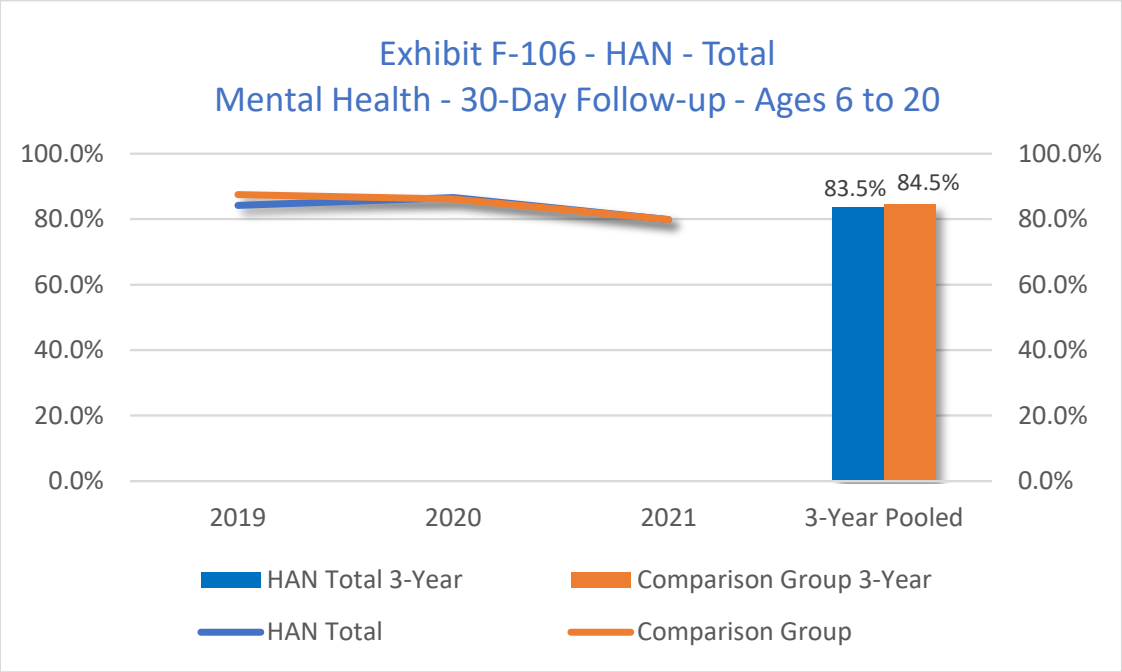


	2016	2017	2018	2019	2020	2021
HAN (Total)	69.4%	60.7%	63.3%	56.8%	42.9%	45.3%

Mental Health – Follow-up after Hospitalization for Mental Illness – 30 Days – Ages 6 to 20

Findings – HAN Total Population

Approximately 84 percent of HAN total members and 85 percent of comparison group members were compliant on this measure across the three years (Exhibit F-106). The compliance rate for the HAN total population rose from 2019 to 2020, before declining from 2020 to 2021. The compliance rate for the comparison group declined from 2019 to 2021.



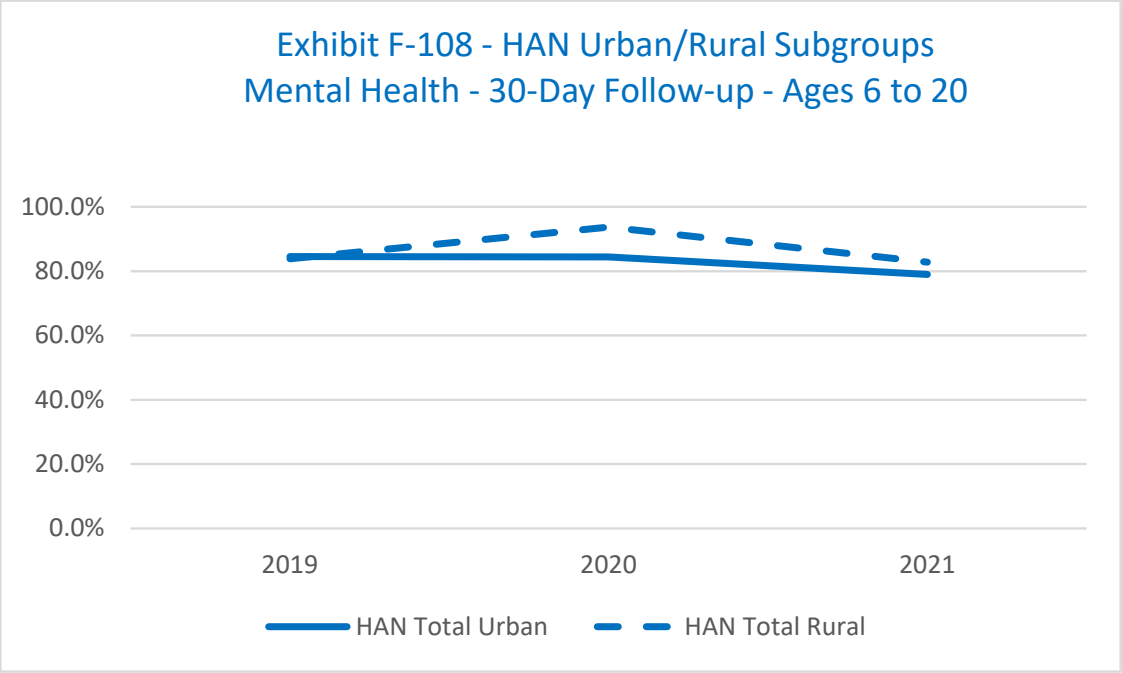
The difference between the HAN total and comparison group compliance rates was statistically significant in 2019. It was not statistically significant for the three-year pooled data (Exhibit F-107).

Exhibit F-107 – HAN (Total) – Mental Health – 30-Day Follow-up – Ages 6 to 20

	2019	2020	2021	3-Year Pooled
HAN (Total)	84.2%	86.6%	79.8%	83.5%
Comparison Group	87.5%	86.1%	79.9%	84.5%
Difference	(3.3%)‡	0.5%	(0.1%)	(1.0%)
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 632 CG – 737	HAN-T – 485 CG – 829	HAN-T – 940 CG – 964	HAN-T – 2,057 CG – 2,530
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban subgroup rate in 2020 and 2021. The rates for both subgroups rose from 2019 to 2021 and declined from 2019 to 2021 (Exhibit F-108).



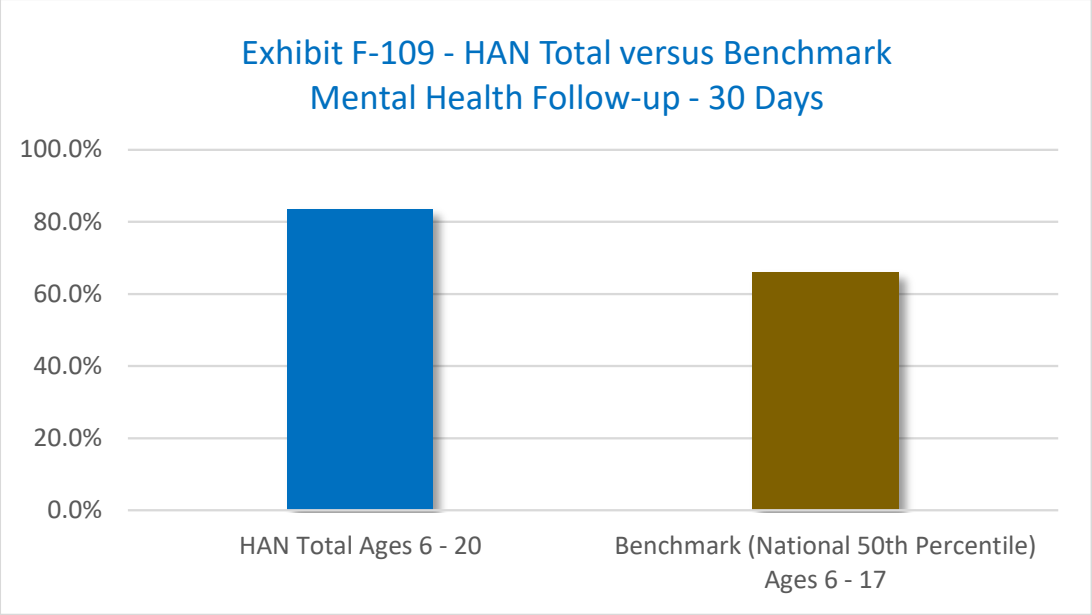
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	84.5%	84.4%	79.0%
	Rural	83.9%	93.7%	82.8%

Findings – HAN Total Population and National Benchmark

The HAN and national benchmark measures differed slightly with respect to age ranges. The HAN population includes ages 6 to 20 while the national benchmark includes ages 6 to 17.

The three-year pooled rate for the SoonerCare HAN total population exceeded the national benchmark rate by approximately 17 percentage points (Exhibit F-109).

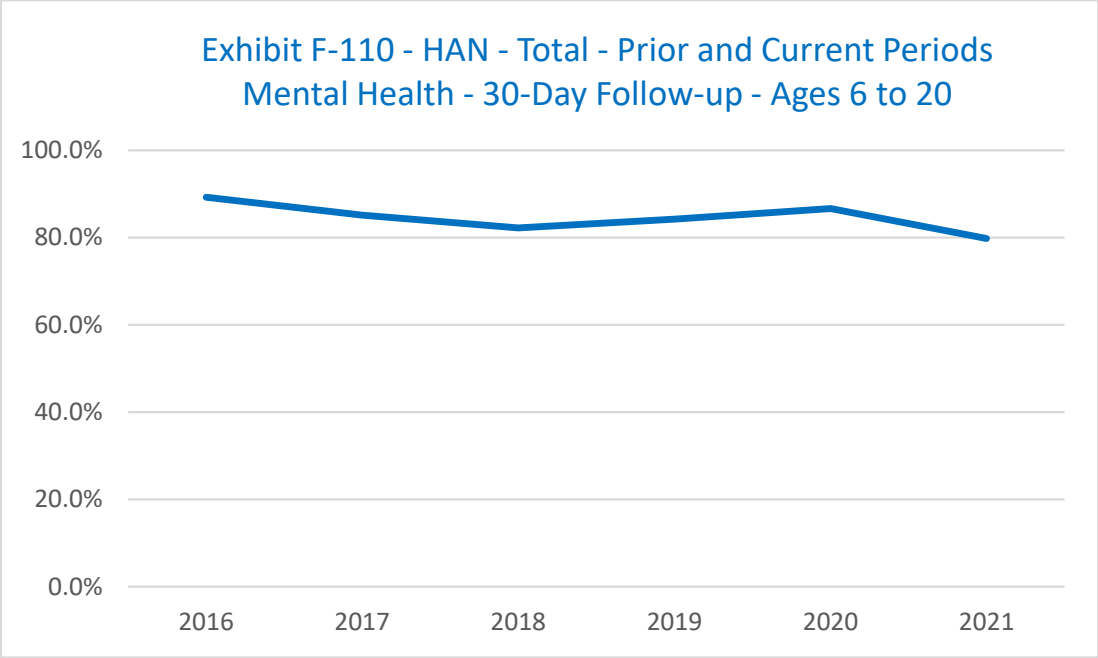
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Total	Benchmark
Compliance Rate	83.5%	66.0%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate declined from approximately 89 percent in 2016 to 82 percent in 2018, before rising to 87 percent in 2020 and declining again to 80 percent in 2021 (Exhibit F-110).

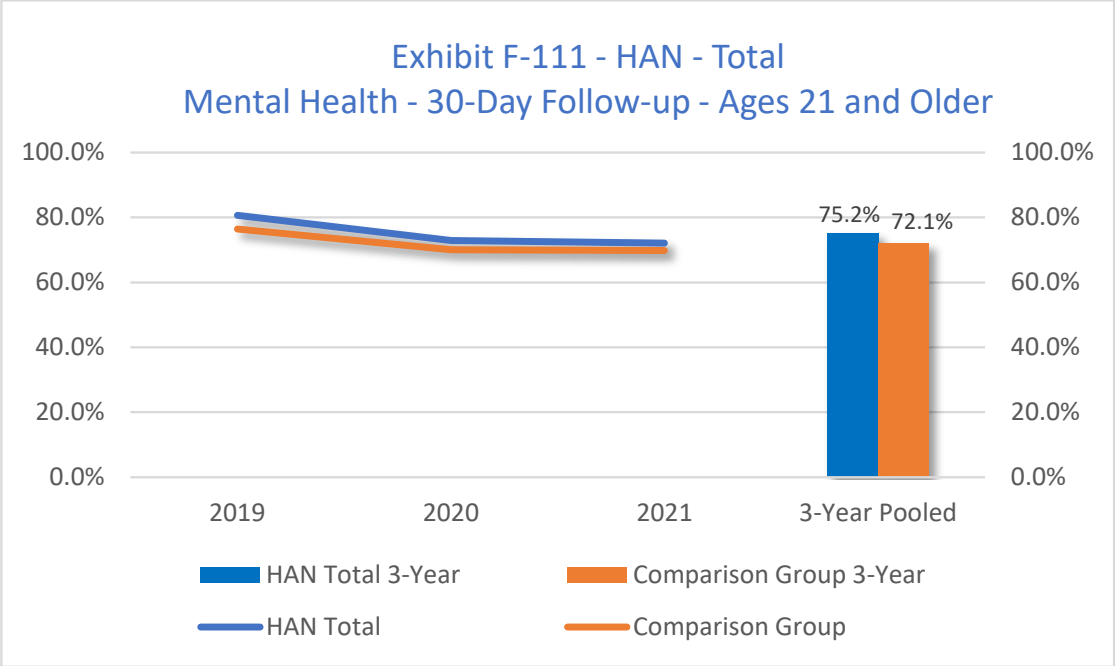


	2016	2017	2018	2019	2020	2021
HAN (Total)	89.2%	85.1%	82.2%	84.2%	86.6%	79.8%

Mental Health – Follow-up after Hospitalization for Mental Illness – 30 Days – Ages 21 and Older

Findings – HAN Total Population

Approximately 75 percent of HAN total members and approximately 72 percent of comparison group members were compliant on this measure across the three years (Exhibit F-111). The compliance rate for both populations declined from 2019 to 2021.



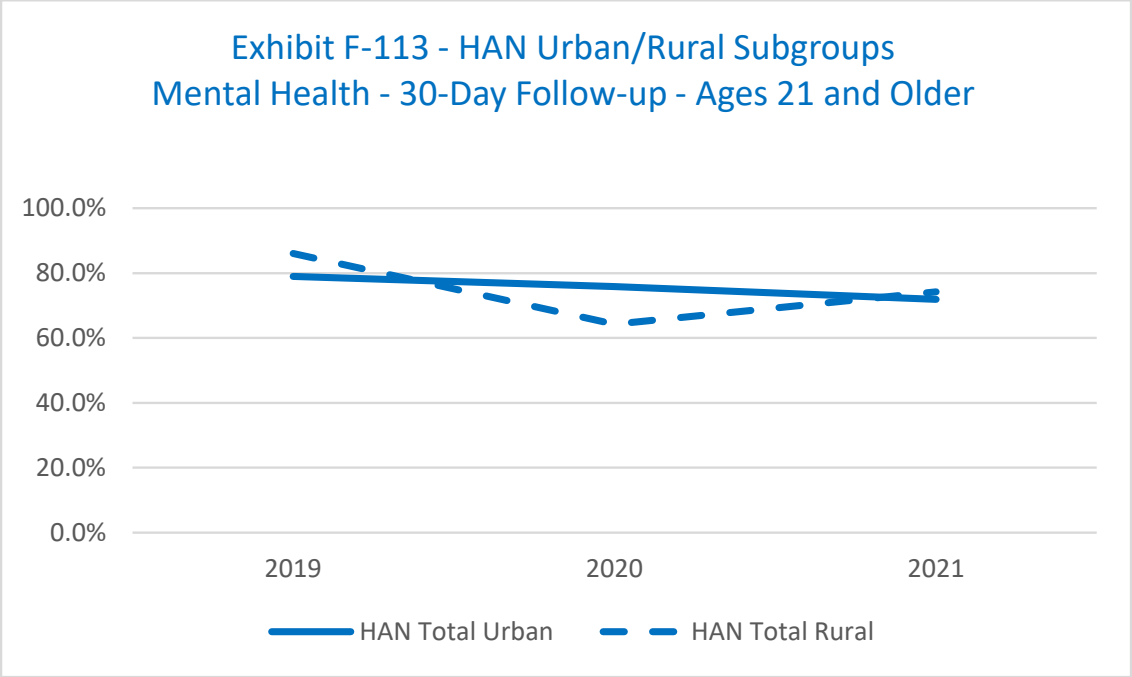
The difference between the HAN total and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-112).

Exhibit F-112 – HAN (Total) – Mental Health – 30-Day Follow-up – Ages 21 and Older

	2019	2020	2021	3-Year Pooled
HAN (Total)	80.6%	72.9%	72.1%	75.2%
Comparison Group	76.4%	70.1%	69.8%	72.1%
Difference	4.2%	2.8%	2.3%	3.1%
‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 155 CG – 218	HAN-T – 70 CG – 97	HAN-T – 506 CG – 451	HAN-T – 731 CG – 766
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup rate exceeded the urban subgroup rate in 2019 and 2021; the urban subgroup rate exceeded the rural subgroup rate in 2020. The urban subgroup rate declined from 2019 to 2021 while the rural subgroup rate declined from 2019 to 2020 and rose again from 2020 to 2021 (Exhibit F-113).



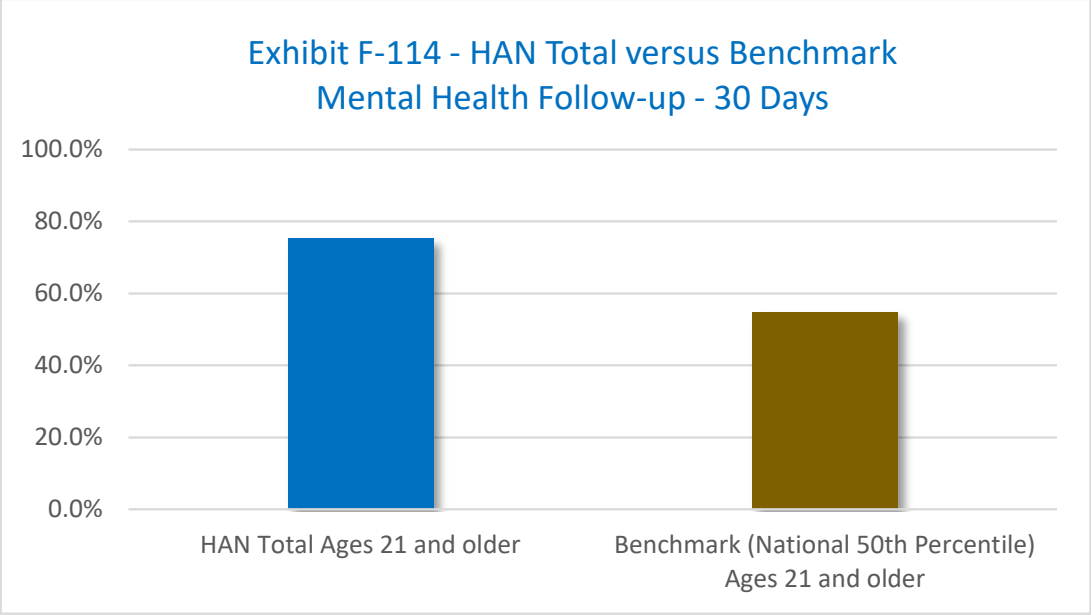
	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	79.0%	75.9%	71.9%
	Rural	86.1%	64.3%	74.2%

Findings – HAN Total Population and National Benchmark

The HAN and national benchmark measures differed slightly with respect to age ranges. The HAN population includes ages 21 and older while the national benchmark includes ages 18 and older.

The three-year pooled rate for the SoonerCare HAN total population exceeded the national benchmark rate by approximately 21 percentage points (Exhibit F-114).

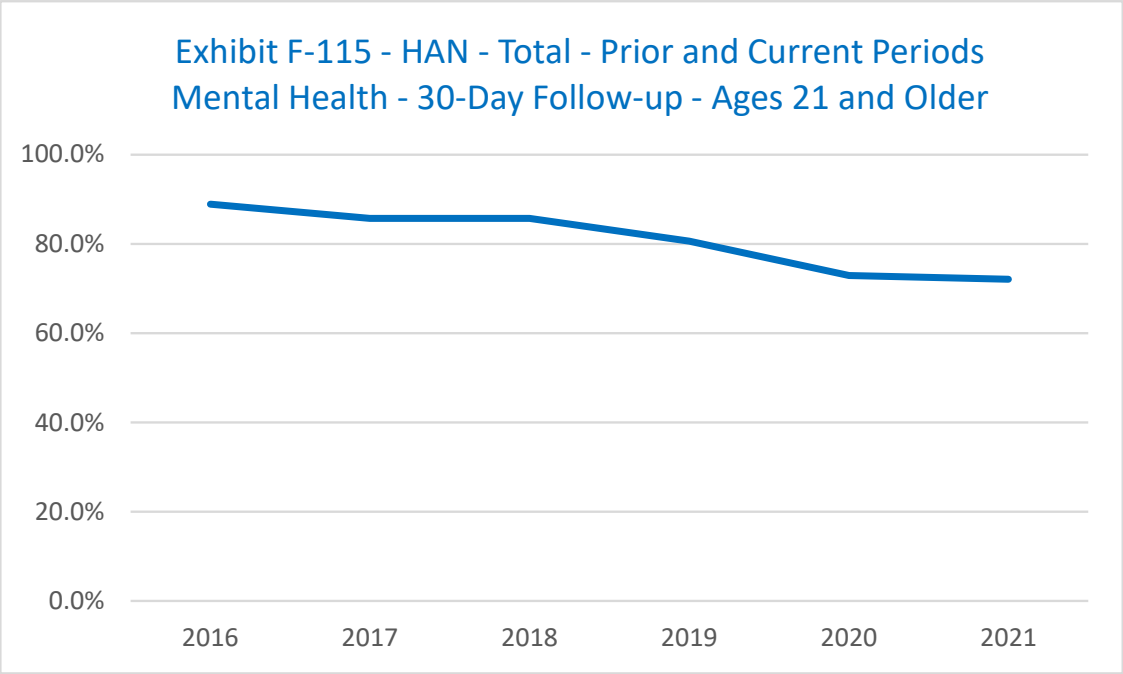
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Total	Benchmark
Compliance Rate	75.2%	54.7%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The compliance rate declined gradually from approximately 89 percent in 2016 to 72 percent in 2021 (Exhibit F-115).



	2016	2017	2018	2019	2020	2021
HAN (Total)	88.9%	85.7%	85.7%	80.6%	72.9%	72.1%

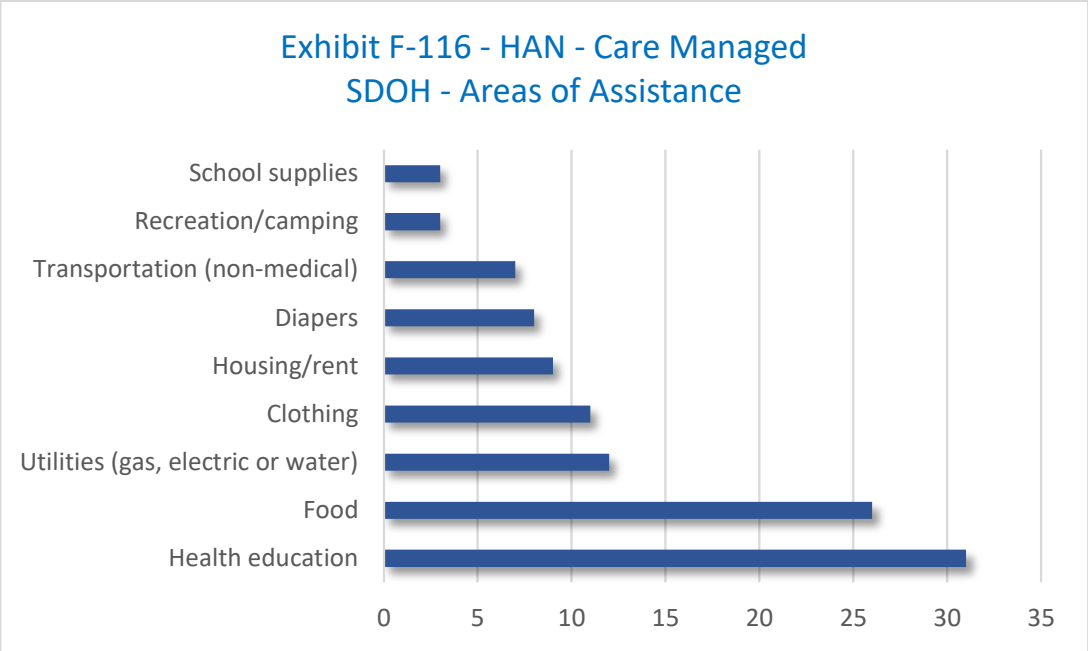
HAN Quality of Care – Social Determinants of Health

A stratified sample of SoonerCare HAN members was surveyed concerning social determinants of health (SDOH). PHPG surveyed 125 care managed members whose profile included an indicator that the HAN had provided assistance with SDOH in 2021. The survey inquired about the nature of the assistance, its importance to the member in addressing social service needs and/or reducing barriers to care and the member's satisfaction with help provided. Appendix 6 contains a copy of the survey instrument.

Although a structured survey instrument was used, the findings should be considered qualitative due to the sample selection method. Findings are not necessarily representative of the entire SoonerCare HAN population.

Findings – HAN Care Managed Population – Nature of Assistance

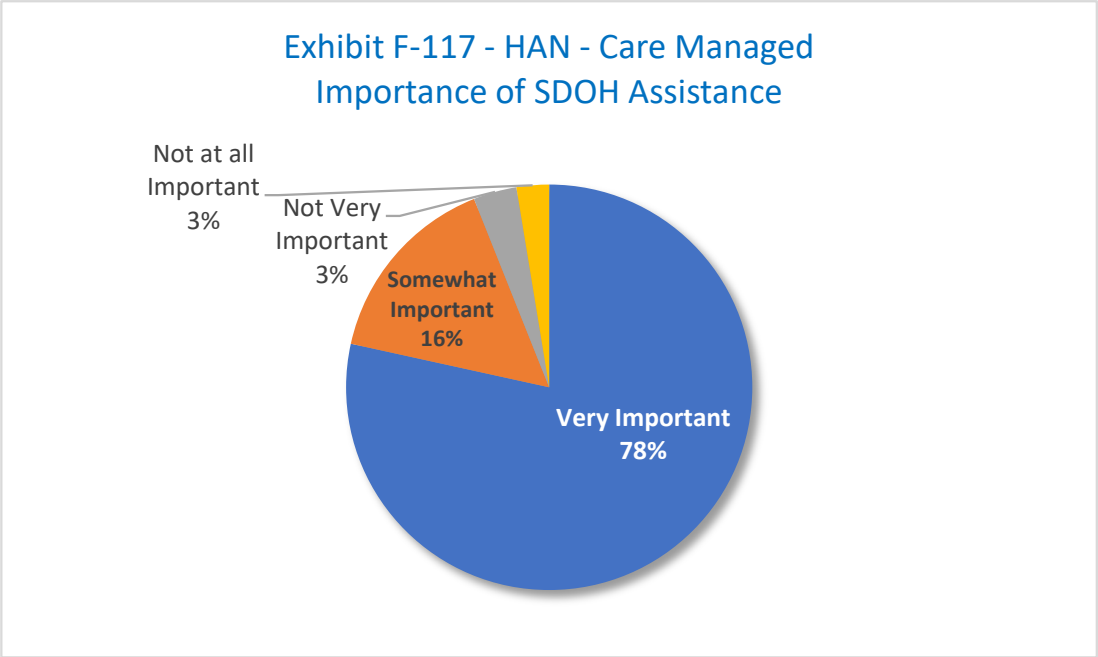
Respondents reported receiving assistance with a variety of SDOH-related needs (multiple responses per member were permitted). The most common areas cited were health education and help resolving food insecurity, followed by assistance with utilities, clothing and housing/rent (Exhibit F-116)[54].



[54] Areas mentioned by fewer than three respondents not shown on chart.

Findings – HAN Care Managed Population – Importance and Satisfaction

Respondents were asked to rate the importance of the help they received. Ninety-four percent rated the help as either very or somewhat important (Exhibit F-117).



Respondents also were asked to rate their satisfaction with the help received. All but one respondent gave a rating of very satisfied; the remaining respondent gave a rating of somewhat satisfied.

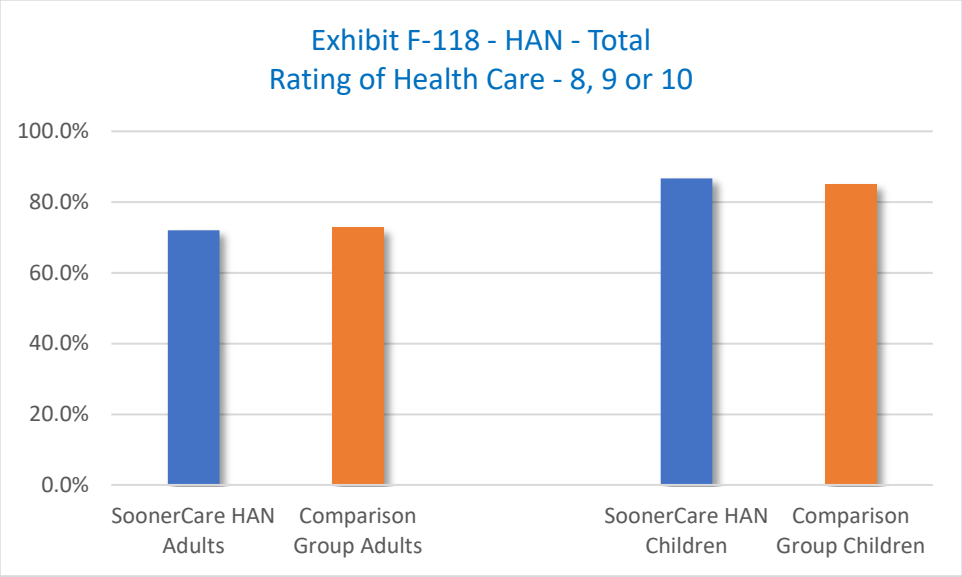
In addition to providing responses to the structured survey questions, respondents were invited to describe their experience in their own words. A representative sample of respondent comments is provided below.

> *"(My care manager) is everything to me. She is my light. She uplifts me every time we talk. She helps me maneuver through the health care and insurance process. She goes above and beyond like once my car died and no one would help me. (She) came out to my trailer, took my dead battery and went and got a new one then put it in. That meant so much to me."*
>
> *"(My care manager) is like a sister to me. I felt like I was falling apart before I started talking to her. She helped me get through my anxiety about my surgery. She has also brought me food. "*
>
> *"(My care manager) always seems to know when to call me. I would be lost without her calls to help me down. I have been through a lot and still am and her calls save me. She also helped me to get kids furniture for my grandbabies I am now raising. I bless (her) and SoonerCare and hope I have them both 'til I die."*

Rating of Health Care – Children and Adults

Findings – HAN Total Population

Seventy-two percent of HAN adult members and approximately 73 percent of comparison group adult members rated their health care as 8, 9 or 10 on a scale of 0 (worst health care possible) to 10 (best health care possible)[55]. Approximately 87 percent of parents/caretakers of HAN child members and 85 percent of comparison group parents/caretakers rated their health care as 8, 9 or 10 (Exhibit F-118).



The difference between the HAN total and comparison group compliance rates was not statistically significant for either group (Exhibit F-119).

Exhibit F-119 – HAN (Total) – Rating of Health Care– Percent Rating 8, 9 or 10

	Adults	Children
HAN (Total)	72.0%	86.7%
Comparison Group	72.8%	85.1%
Difference	(0.8%)	1.6%

‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)

Sample Sizes	Adults	HAN-T - 33 CG – 213	Parents/Caretakers of Children	HAN-T - 283 CG – 668

Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.

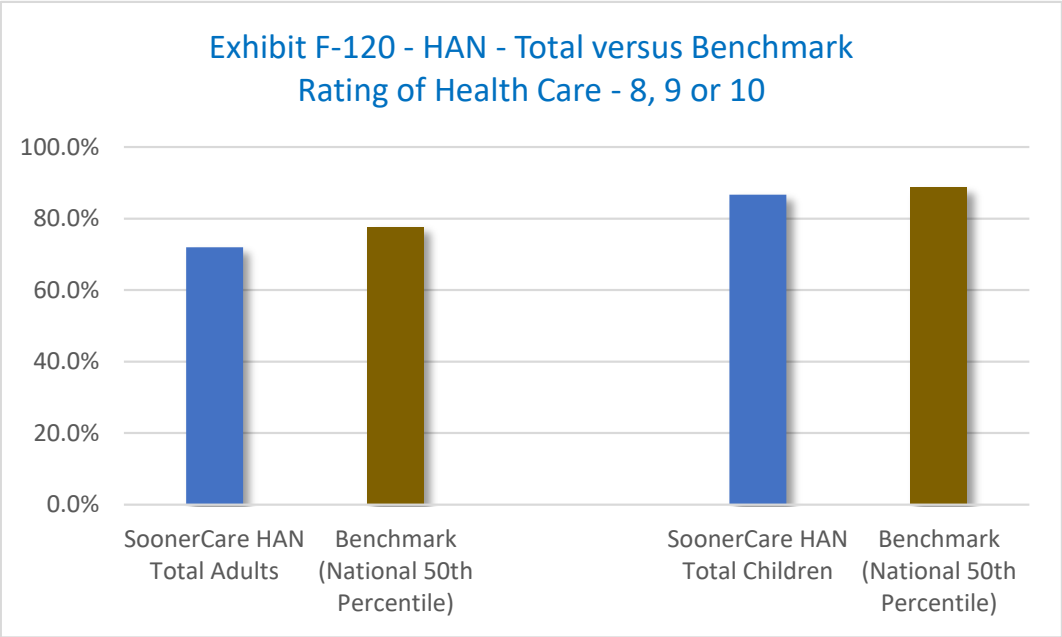
[55] CAHPS question: Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your (your child's) health care in the last six months?

Findings – HAN Total Population and National Benchmark

The 2021 national benchmark rate for adults exceeded the SoonerCare HAN adult rate by approximately six percentage points (Exhibit F-120).

The 2021 national benchmark rate for children exceeded the SoonerCare HAN children rate by approximately two percentage points.

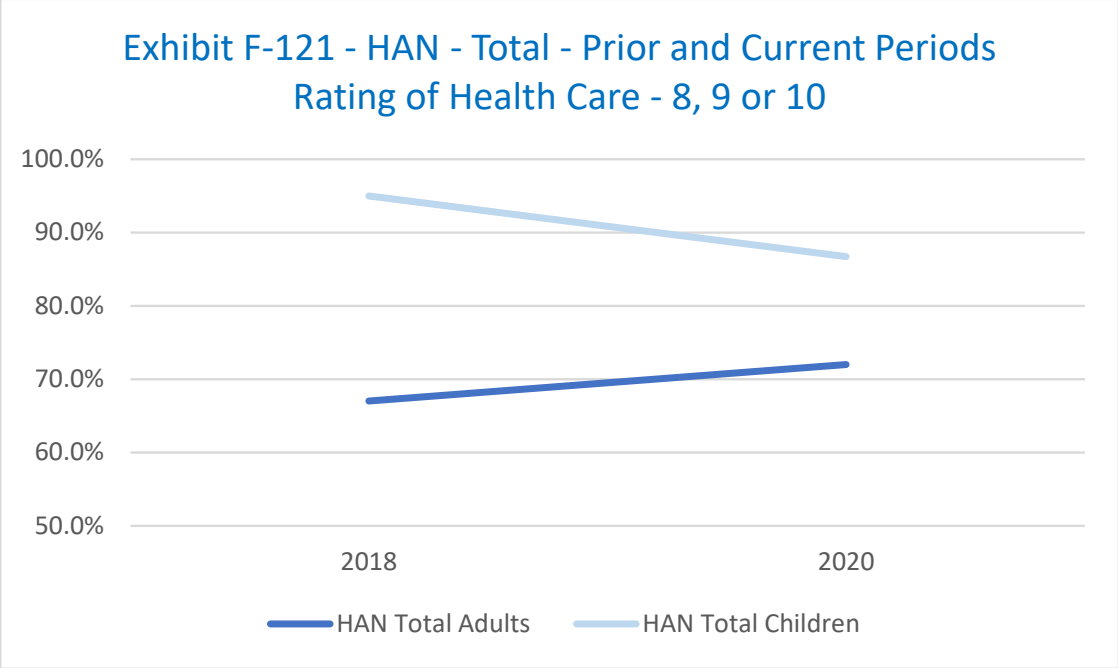
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Adult	Benchmark	HAN Child	Benchmark
HAN (Total)	72.0%	77.7%	86.7%	88.8%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was calculated for the HAN total population in the 2018 CAHPS survey period. The percentage rating their health care 8, 9 or 10 increased five percentage points among adults and declined approximately eight percentage points among parents/caretakers of children (Exhibit F-121).



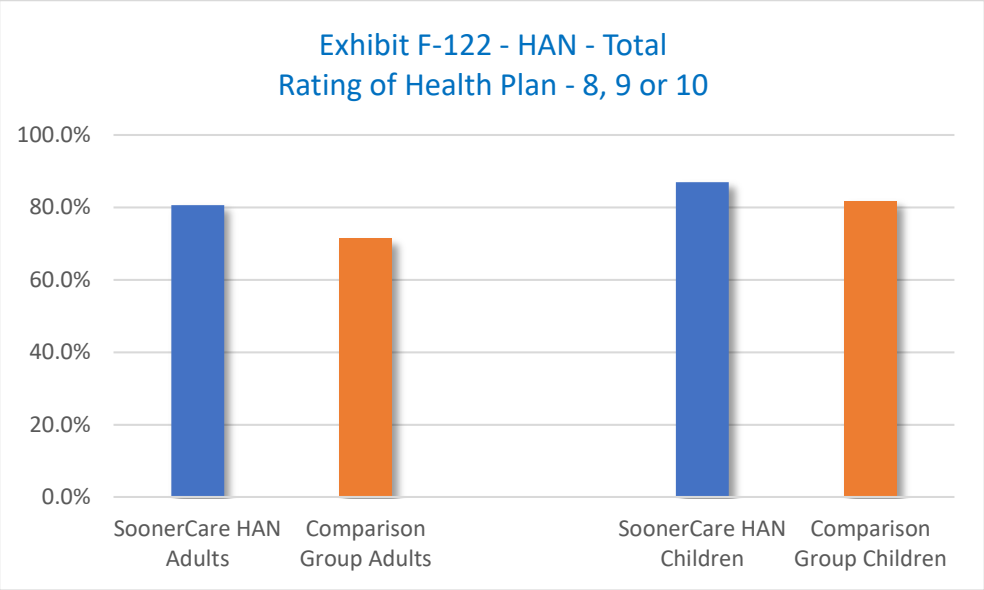
Note: Y-axis does not begin at 0.

	HAN Adult 2018	HAN Adult 2020	HAN Child 2018	HAN Child 2020
HAN (Total)	67.0%	72.0%	95.0%	86.7%

Rating of Health Plan – Children and Adults

Findings – HAN Total Population

Approximately 80 percent of HAN adult members and approximately 71 percent of comparison group adult members rated their health plan (SoonerCare) as 8, 9 or 10 on a scale of 0 (worst health plan possible) to 10 (best health plan possible)[56]. Eighty-seven percent of parents/caretakers of HAN child members and approximately 81 percent of comparison group parents/caretakers rated their health plan as 8, 9 or 10 (Exhibit F-122).



The difference between the adult HAN total and comparison group compliance rates was not statistically significant; the difference between parents/caretakers of HAN child members and comparison group parents/caretakers was statistically significant (Exhibit F-123).

Exhibit F-123 – HAN (Total) – Rating of Health Plan – Percent Rating 8, 9 or 10

	Adults	Children
HAN (Total)	80.6%	87.0%
Comparison Group	71.3%	81.6%
Difference	9.3%	5.4%‡

‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)

Sample Sizes	Adults	HAN-T - 33 CG – 213	Parents/Caretakers of Children	HAN-T - 283 CG – 668

Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.

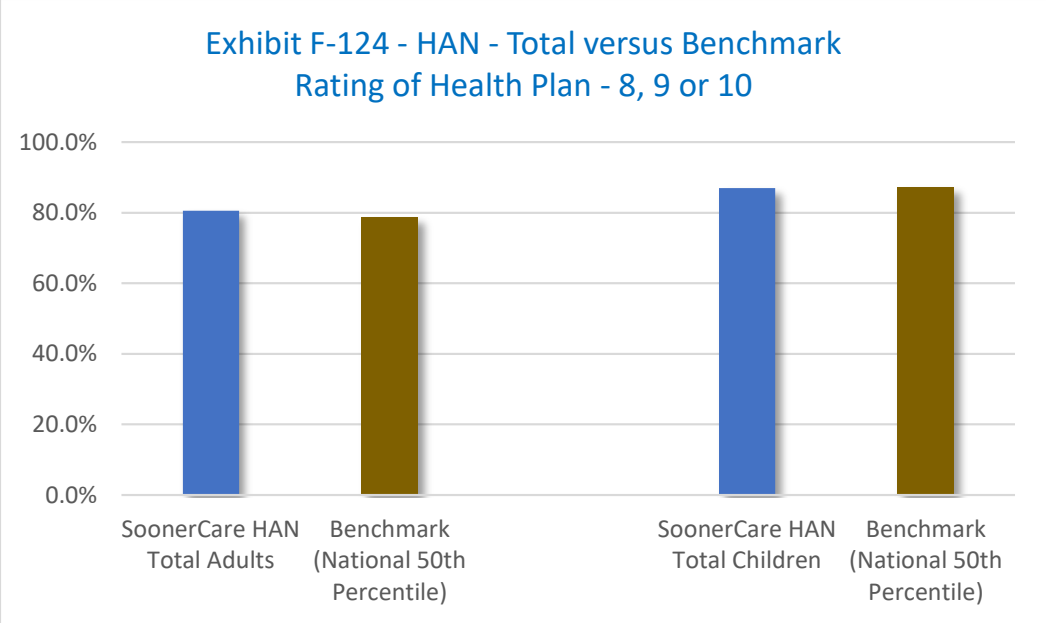
[56] CAHPS question: Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your (your child's) health plan?

Findings – HAN Total Population and National Benchmark

The rate for SoonerCare HAN adults exceeded the 2021 national benchmark rate by two percentage points (F-124).

The 2021 national benchmark rate for children exceeded the SoonerCare HAN children rate by less than one percentage point.

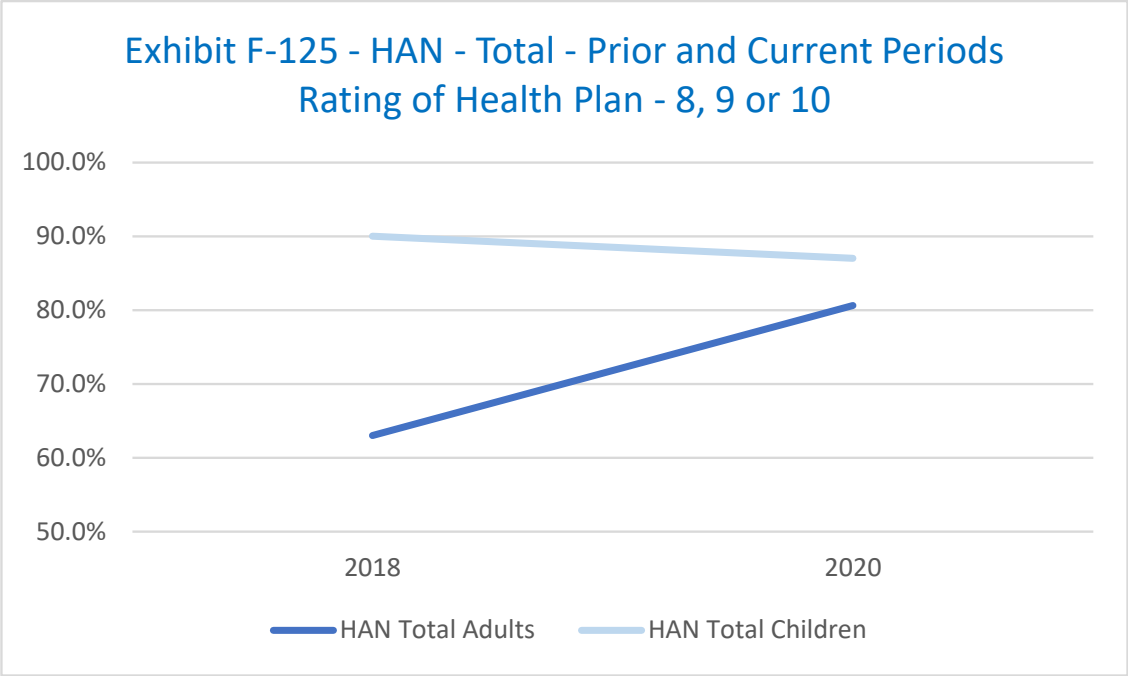
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Adult	Benchmark	HAN Child	Benchmark
HAN (Total)	80.6%	78.6%	87.0%	87.2%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was calculated for the HAN total population in the 2018 CAHPS survey period. The percentage rating their health plan 8, 9 or 10 increased 18 percentage points among adults and declined three percentage points among parents/caretakers of children (Exhibit F-125).



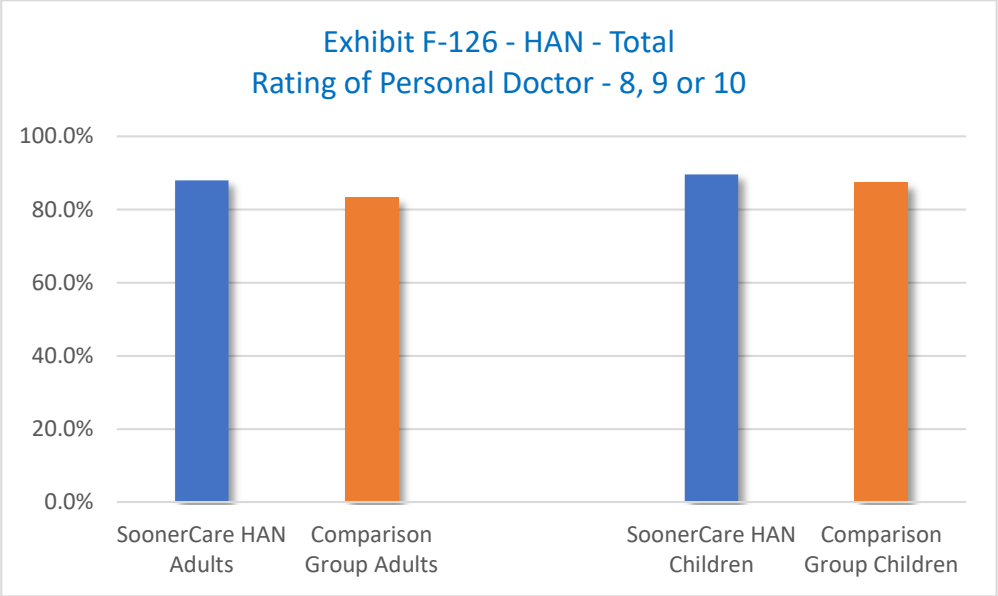
Note: Y-axis does not begin at 0.

	HAN Adult 2018	HAN Adult 2020	HAN Child 2018	HAN Child 2020
HAN (Total)	63.0%	80.6%	90.0%	87.0%

Rating of Personal Doctor – Children and Adults

Findings – HAN Total Population

Eighty-eight percent of HAN adult members and approximately 83 percent of comparison group adult members rated their personal doctor as 8, 9 or 10 on a scale of 0 (worst doctor possible) to 10 (best doctor possible)[57]. Approximately 90 percent of parents/caretakers of HAN child members and 87 percent of comparison group parents/caretakers rated their personal doctor as 8, 9 or 10 (Exhibit F-126).



The difference between the HAN total and comparison group compliance rates was not statistically significant for either group (Exhibit F-127).

Exhibit F-127 – HAN (Total) – Rating of Personal Doctor – Percent Rating 8, 9 or 10

	Adults	Children
HAN (Total)	88.0%	89.6%
Comparison Group	83.3%	87.3%
Difference	4.7%	2.3%‡

‡ HAN rate differs from comparison group rate by a statistically significant amount (95% confidence level)

Sample Sizes	Adults	HAN-T - 33 CG – 213	Parents/Caretakers of Children	HAN-T - 283 CG – 668

Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.

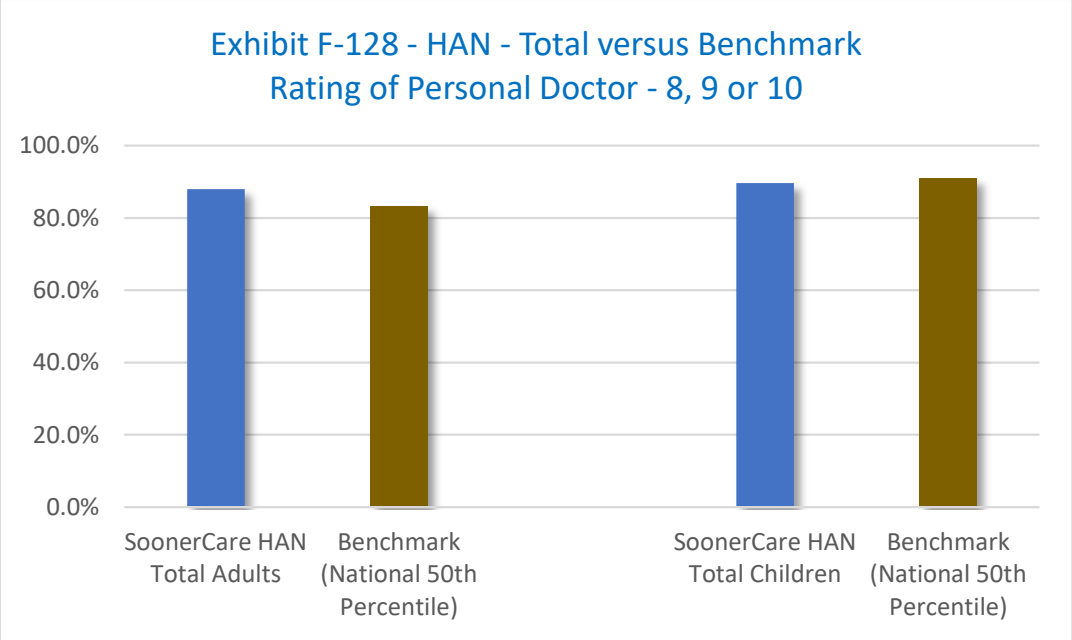
[57] CAHPS question: Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your (your child's) personal doctor?

Findings – HAN Total Population and National Benchmark

The rate for SoonerCare HAN adults exceeded the 2021 national benchmark rate by approximately five percentage points (Exhibit F-128).

The 2021 national benchmark rate for children exceeded the SoonerCare HAN children rate by approximately one percentage point.

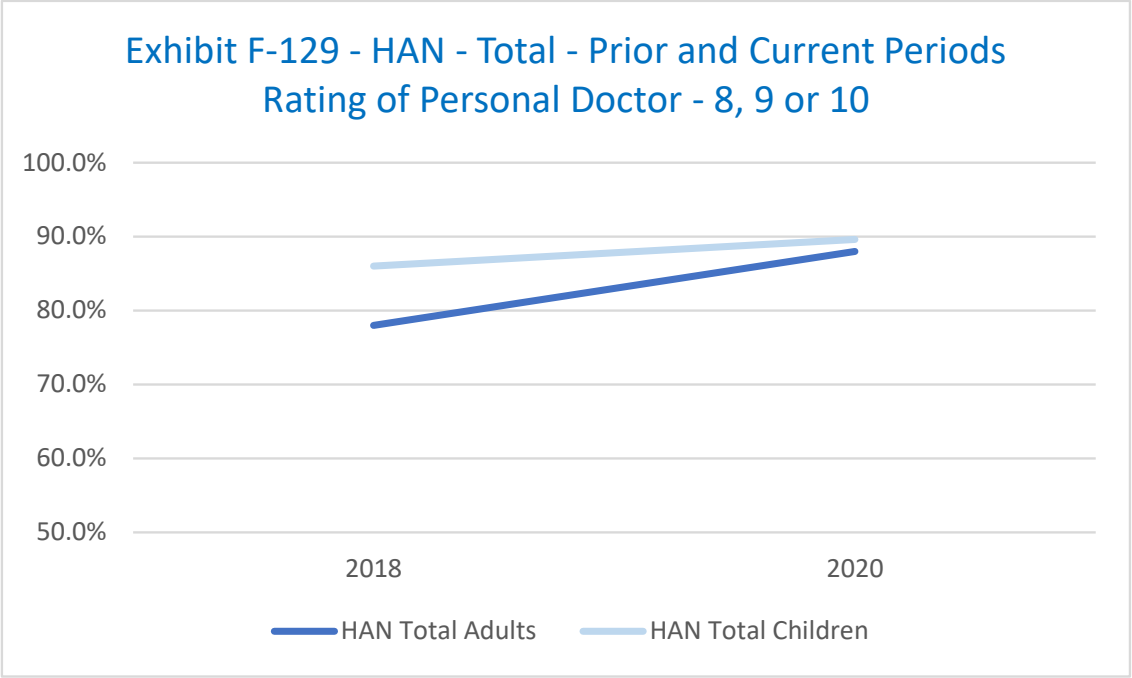
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HAN Adult	Benchmark	HAN Child	Benchmark
HAN (Total)	88.0%	83.1%	89.6%	90.6%

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was calculated for the HAN total population in the 2018 CAHPS survey period. The percentage rating their personal doctor 8, 9 or 10 increased 10 percentage points among adults and approximately four percentage points among parents/caretakers of children (Exhibit F-129).



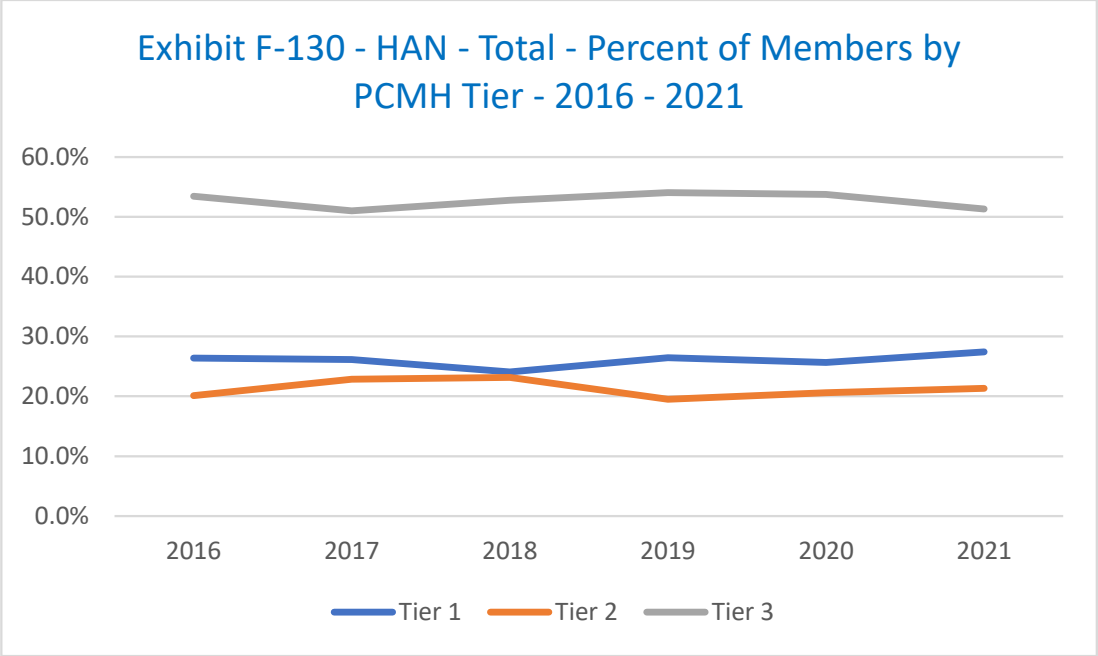
Note: Y-axis does not begin at 0.

	HAN Adult 2018	HAN Adult 2020	HAN Child 2018	HAN Child 2020
HAN (Total)	78.0%	88.0%	86.0%	89.6%

HAN Quality of Care – Members Served within Each PCMH Tier

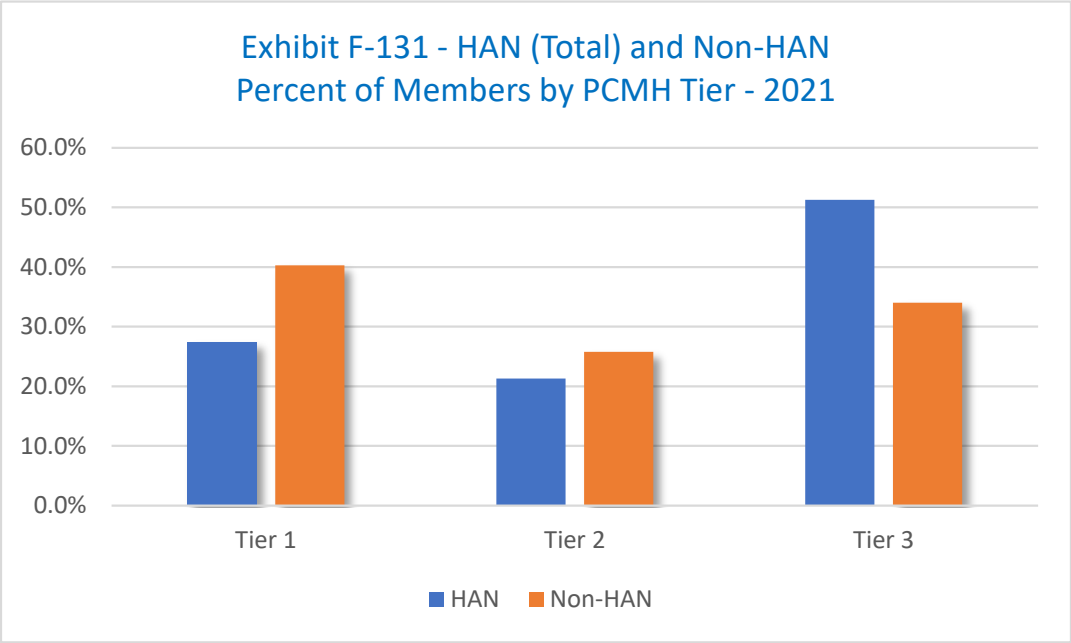
Findings – HAN Total Population

The percentage of members enrolled with a Tier 3 practice remained relatively constant, both during the current waiver period (2019 – 2021) and the prior period (2016 – 2018). The percentage enrolled with a Tier 1 or Tier 2 practice also remained constant (Exhibit F-130).



HAN (Total) – Percent of Members by PCMH Tier						
PCMH Tier	2016	2017	2018	2019	2020	2021
Tier 1 (Entry)	26.4%	26.1%	24.1%	26.4%	25.7%	27.4%
Tier 2 (Advanced)	20.1%	22.9%	23.2%	19.5%	20.6%	21.3%
Tier 3 (Optimal)	53.5%	51.0%	52.7%	54.1%	53.7%	51.3%

Although the portion of HAN members enrolled with a Tier 3 practice has been stable, it is substantially higher than for the non-HAN population, while the portion enrolled with a Tier 1 provider is substantially lower (Exhibit F-131).



HAN (Total) and Non-HAN – Percent of Members by PCMH Tier (2021)		
PCMH Tier	HAN	Non-HAN
Tier 1 (Entry)	27.4%	40.3%
Tier 2 (Advanced)	21.3%	25.8%
Tier 3 (Optimal)	51.3%	34.0%

HAN Quality of Care – PCMH Satisfaction

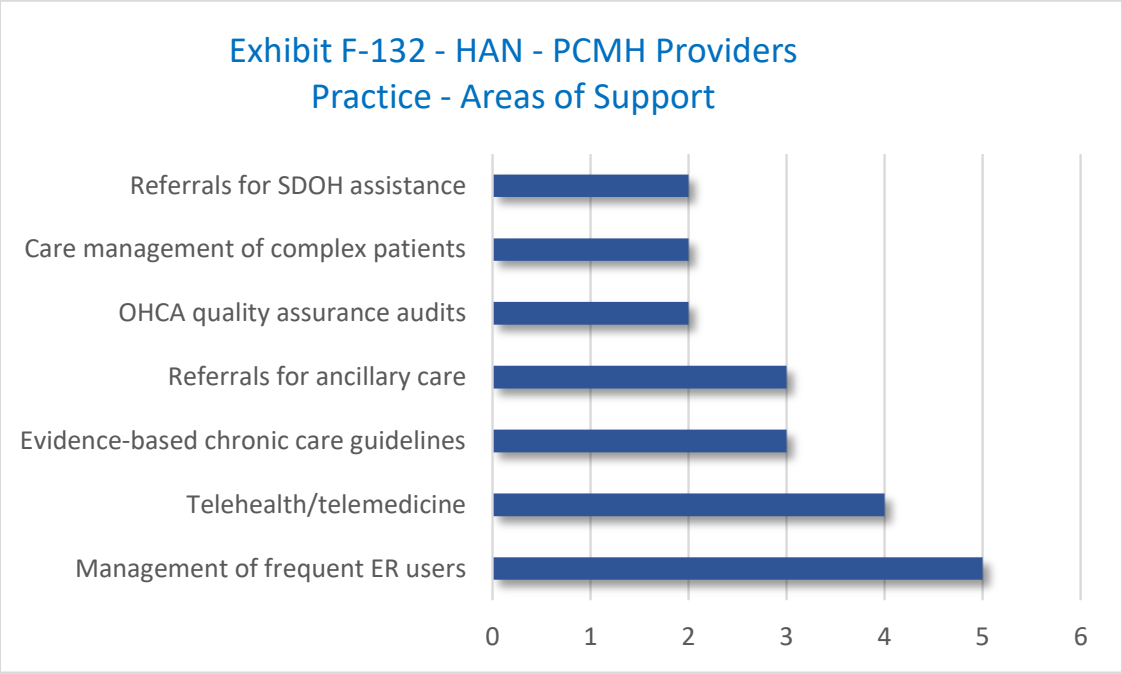
The SoonerCare HANs provided lists of PCMH practices that received assistance in 2021 to raise their Medicaid tier level (and associated case management fee) and/or to incorporate chronic care disease guidelines into their practices. The HANs identified 11 sites as candidates to be surveyed.

PHPG was able to survey six of the 11 sites. The survey inquired about the type of support the practice had received and its satisfaction both with the specific activities performed and with HAN support in general. Appendix 7 includes a copy of the survey.

Although a structured survey instrument was used, the findings should be considered qualitative due to the sample selection method and size.

Findings – HAN Care Managed Population – Nature of Support Activities

Respondents reported receiving support with patient care management, quality assurance and adoption of telehealth/telemedicine (multiple responses per member were permitted). No respondents specifically reported being assisted to achieve a higher level of tier support, although OHCA quality assurance audits are a component of maintaining or raising a provider's tier level (Exhibit F-132).



Findings – HAN Care Managed Population – PCMH Provider Satisfaction

Five of the six respondents reported being very satisfied both with the specific support activities and the HAN's overall level of support. One respondent reported being somewhat satisfied in both areas. No respondents reported being dissatisfied.

HAN Quality of Care – Summary

The SoonerCare HAN total and comparison group populations differed by a statistically significant amount on nine of 17 HEDIS or HEDIS-like quality-of-care measures, with the HAN total population outperforming the comparison group on four measures and the comparison group outperforming the HAN total population on five. All of but two of the measures trended downward from 2019 to 2021.

The SoonerCare HAN Care Managed member and comparison group populations differed by a statistically significant amount on four of 13 HEDIS measures, with the SoonerCare HAN Care Managed population outperforming the comparison group on all four measures. Five of the measures trended upward from 2019 to 2021; the remaining eight trended downward.

The SoonerCare HAN total and comparison group populations differed by a statistically significant amount on two of six CAHPS measures, with the SoonerCare HAN population outperforming the comparison group on both measures (Exhibit F-133). (See bottom of exhibit for legend.)

Exhibit F-133 – HAN Quality of Care Measures – Summary

Measures	HAN Total versus Comparison Group	HAN Total 2019 – 2021 Trend	HAN Care Managed versus Comparison Group	HAN Care Managed 2019 – 2021 Trend
Number of HAN beneficiaries engaged in care management				▲
Asthma – Medication Ratio – Ages 5 to 18	✦	▲	✦	▲
Asthma – Medication Ratio – Ages 19 to 64	✦	▲	✦	▲
Cardiovascular – Persistence of Beta Blocker Treatment after a Heart Attack	✦	▼	✦	▼
Cardiovascular – LDL-C Test	✦	▼	✦	▼
COPD – Use of Spirometry Testing	✦	▼	✦	▼
COPD – Pharmacotherapy Management of COPD Exacerbation – 14 Days	✦	▼	✦	▲

Measures	HAN Total versus Comparison Group	HAN Total 2019 – 2021 Trend	HAN Care Managed versus Comparison Group	HAN Care Managed 2019 – 2021 Trend
COPD – Pharmacotherapy Management of COPD Exacerbation – 30 Days				
Diabetes – Percentage of Members who had LDL-C Test				
Diabetes – Percentage of Members who had Retinal Eye Exam Performed				
Diabetes – Percentage of Members who had HbA1c Testing				
Diabetes – Percentage who Received Medical Attention for Nephropathy				
Hypertension – Percentage of Members who had LDL-C Test				
Hypertension – Percentage of Members Prescribed ACE/ARB Therapy				
Mental Health – Follow-up after Hospitalization – 7 Days – Ages 6 to 20				
Mental Health – Follow-up after Hospitalization – 7 Days – Ages 21 and Older				
Mental Health – Follow-up after Hospitalization – 30 Days – Ages 6 to 20				
Mental Health – Follow-up after Hospitalization – 30 Days – Ages 21 and Older				
SDOH Assistance		*Qualitative Measure*		
Rating of Health Care – Adults				

Measures	HAN Total versus Comparison Group	HAN Total 2019 – 2021 Trend	HAN Care Managed versus Comparison Group	HAN Care Managed 2019 – 2021 Trend
Rating of Health Care – Children				
Rating of Health Plan – Adults				
Rating of Health Plan – Children				
Rating of Personal Doctor – Adults				
Rating of Personal Doctor - Children				
PCMH accreditation – members by tier		*Qualitative Measure*		
PCMH Provider satisfaction – practice support activities		*Qualitative Measure*		
PCMH provider satisfaction – chronic disease guidelines		*Qualitative Measure*		

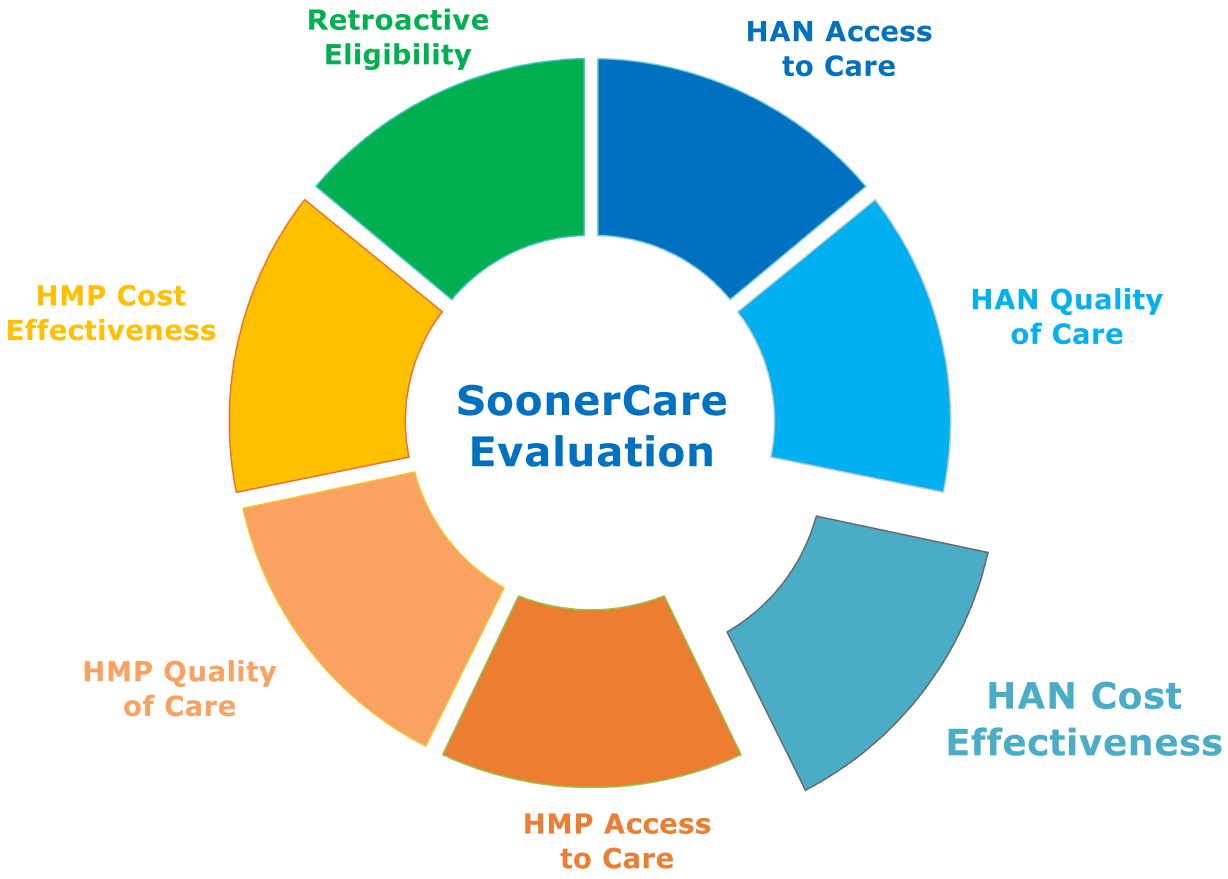
 HAN exceeds comparison group by a statistically significant amount (3-year pooled)

 No statistically significant difference (3-year pooled)

 Comparison group exceeds HAN by a statistically significant amount (3-year pooled)

 2019 – 2021 trend is upward

 2019 – 2021 trend is downward


Retroactive Eligibility
HAN Access to Care
HAN Quality of Care
HAN Cost Effectiveness
HMP Access to Care
HMP Quality of Care
HMP Cost Effectiveness
SoonerCare Evaluation

3. HAN Cost Effectiveness

Overview

HAN activities related to improving access and quality, if effective, should have an observable impact on beneficiary service utilization and expenditures. Improvement in quality of care should yield better outcomes in the form of fewer emergency room visits and hospitalizations, and lower acute care costs.

HAN Cost Effectiveness Measures

Exhibit F-134 presents the HAN cost effectiveness measures and identifies:

- Data sources
- Subgroups evaluated (if any)
- Presence or absence of a national benchmark
- Presence or absence of comparative data from the prior Demonstration period

Supporting Appendices

Appendix 2 contains CEM covariate balance tables for utilization and expenditure measures. Appendix 3 contains statistical significance test results for utilization and expenditure measures.

Exhibit F-134 - HAN Cost Effectiveness Measures - Overview

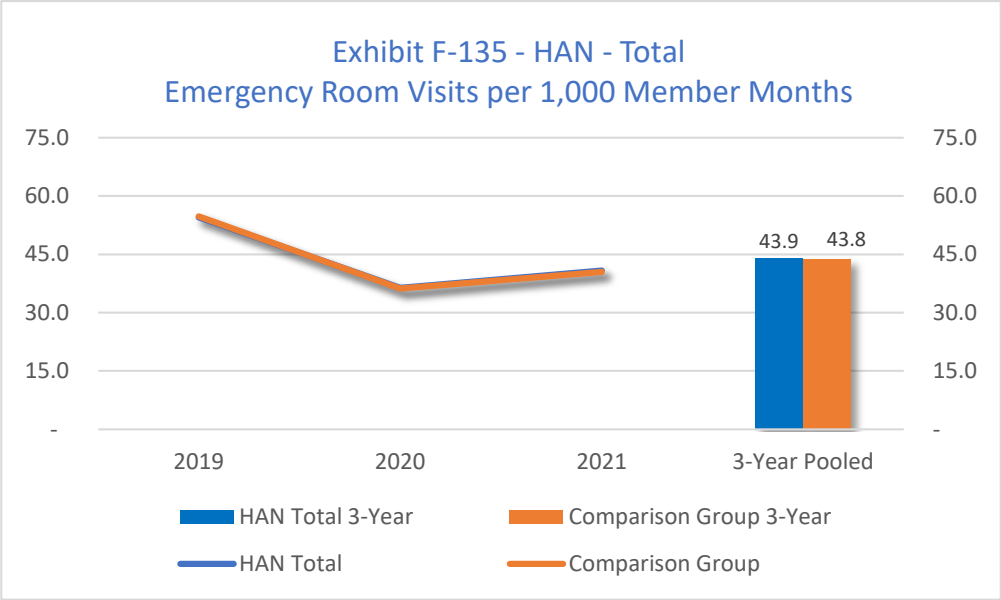
Measures	Source	HAN Care Managed Subgroup	Geographic Subgroups	National Benchmark	Prior Period Data
Emergency Room Utilization Emergency room visits per 1,000 member months.	MMIS (claims)	***Yes***	***Yes***	No	***Yes***
Hospital Admissions Acute care hospital admissions per 100,000 member months.	MMIS (claims)	***Yes***	***Yes***	No	***Yes***
PMPM Expenditures Average per member per month expenditures (all services).	MMIS (claims)	***Yes***	***Yes***	No	***Yes***

Methodology detail and sample sizes also are included at the bottom of exhibits containing the results of statistical significance tests between treatment (Demonstration) and comparison group populations.

Emergency Room Visits per 1,000 Member Months

Findings – HAN Total Population

HAN total and comparison group members each averaged approximately 44 emergency room visits per 1,000 member months across the three years (Exhibit F-135). The visit rate for both populations declined from 2019 to 2020 and rose again from 2020 to 2021.



Note: Lower rate is better

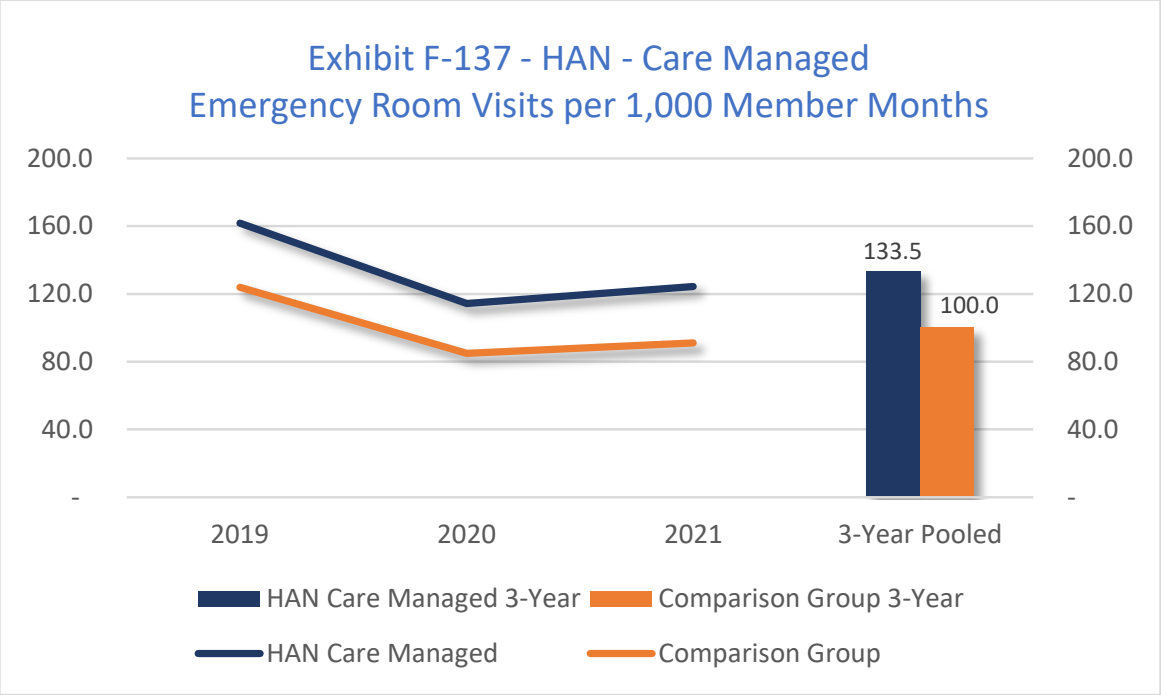
The difference between the HAN total and comparison group compliance rates was statistically significant in each of the individual years. It was not statistically significant for the three-year pooled data (Exhibit F-136)[58].

Exhibit F-136 – HAN (Total) – Emergency Room Visits per 1,000 Member Months				
	2019	2020	2021	3-Year Pooled
HAN (Total)	54.5	36.4	40.8	43.9
Comparison Group	54.8	36.2	40.5	43.8
Difference	(0.3) ‡	0.2‡	0.3‡	0.1
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 93,543 CG – 129,535	HAN-T – 108,548 CG – 162,413	HAN-T – 127,036 CG – 197,225	HAN-T – 329,127 CG – 489,173
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

[58] The finding of statistical significance for the individual years, despite the small absolute difference, is an artifact of the large population sizes for both groups. The three-year pooled rate (which did not reach significance), when taken to the third decimal place, was nearly identical, at 43.895 for the HAN total population and 43.833 for the comparison group.

Findings – HAN Care Managed Population

HAN Care Managed members averaged approximately 134 emergency room visits per 1,000 member months and comparison group members averaged 100 visits per 1,000 member months across the three years (Exhibit F-137). The visit rate for both populations declined from 2019 to 2020 and rose again from 2020 to 2021.



Note: Lower rate is better

The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-138).

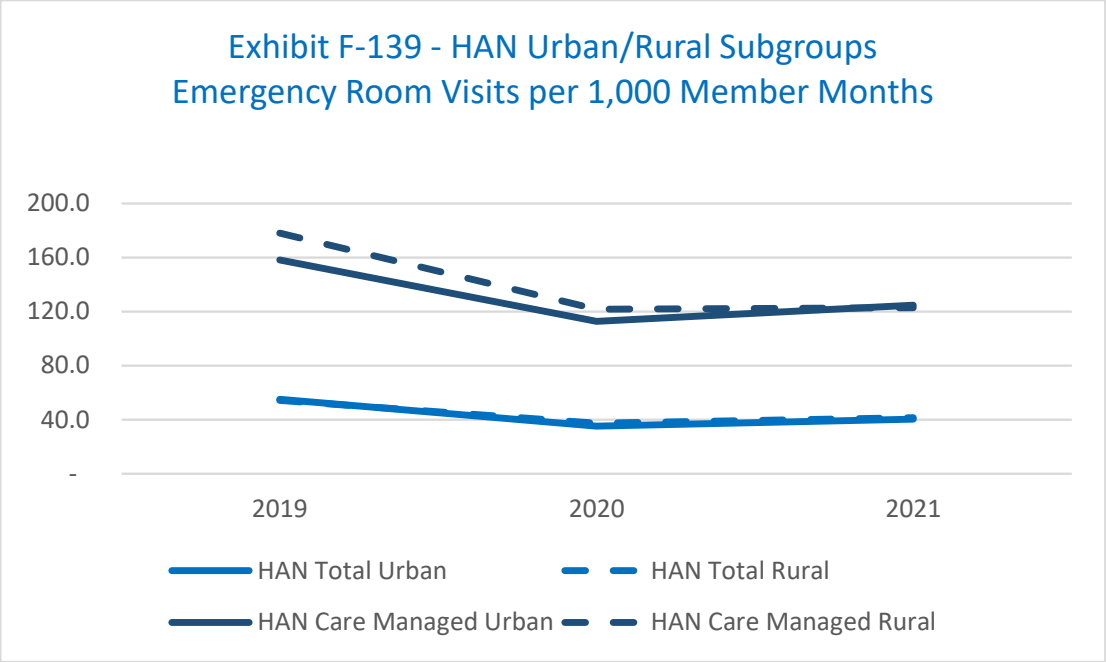
Exhibit F-138 – HAN (Care Managed) – Emergency Room Visits per 1,000 Member Months

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	161.8	114.3	124.4	133.5
Comparison Group	124.0	84.8	91.1	100.0
Difference	37.8 ‡	29.5‡	33.3‡	33.5‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 1,394 CG – 10,951	HAN-CM – 1,744 CG – 10,502	HAN-CM – 2,288 CG – 16,150	HAN-CM – 5,426 CG –37,603
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban and rural subgroups recorded similar compliance rates; both trended subgroups downward from 2019 to 2020 and rose again from 2020 to 2021.

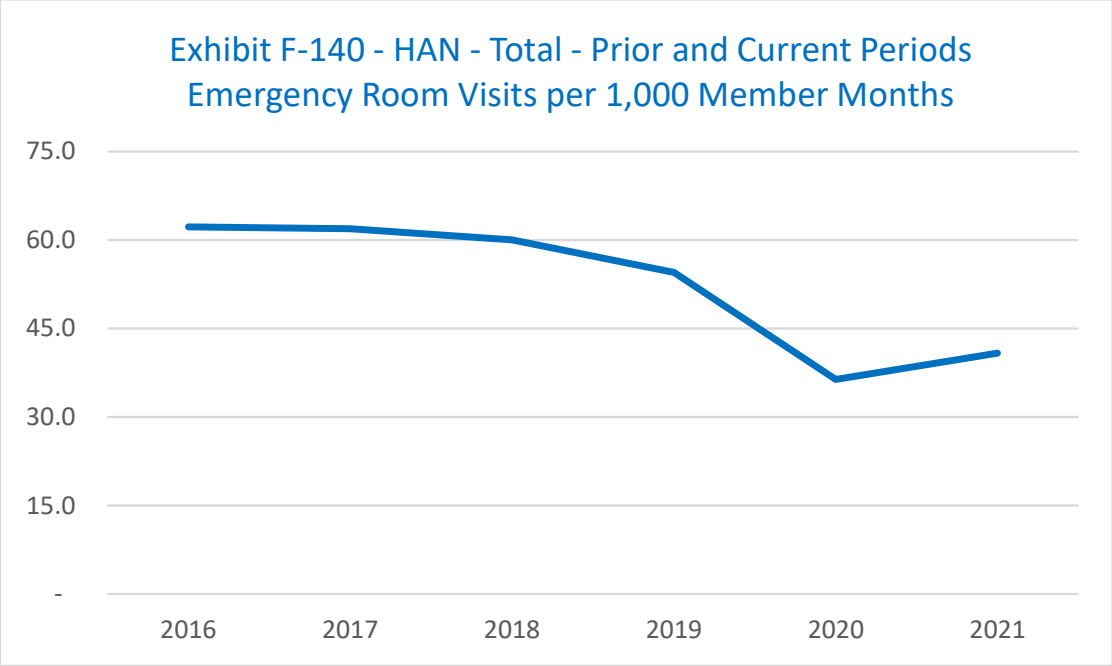
The HAN Care Managed rural subgroup recorded a higher rate than the urban subgroup in 2019 and 2020; the rates were nearly equal in 2021. Both subgroups trended downward from 2019 to 2020 and rose again from 2020 to 2021 (Exhibit F-139).



	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	55.0	35.3	40.5
	Rural	54.3	37.4	41.5
HAN (Care Managed)	**Urban**	158.2	112.9	124.9
	Rural	178.1	121.8	123.0

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The emergency room visit rate declined gradually from approximately 62 visits per 1,000 member months in 2016 to 36 visits per 1,000 member months in 2020, before rising partially again to 41 visits per 1,000 member months in 2021 (Exhibit F-140).

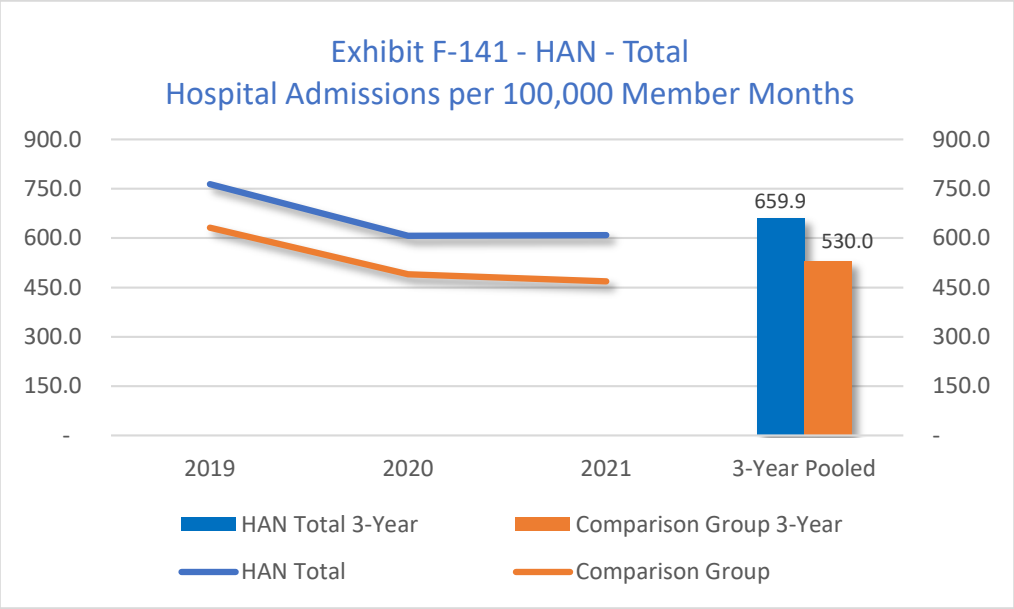


	2016	2017	2018	2019	2020	2021
HAN (Total)	62.2	61.9	60.0	54.5	36.4	40.8

Hospital Admissions per 100,000 Member Months

Findings – HAN Total Population

HAN total members averaged approximately 660 hospital admissions per 100,000 member months and comparison group members 530 admissions per 100,000 member months across the three years (Exhibit F-141). The admission rate for both populations declined from 2019 to 2020; it remained approximately unchanged from 2020 to 2021 for the HAN total population and declined further for the comparison group population.



Note: Lower rate is better

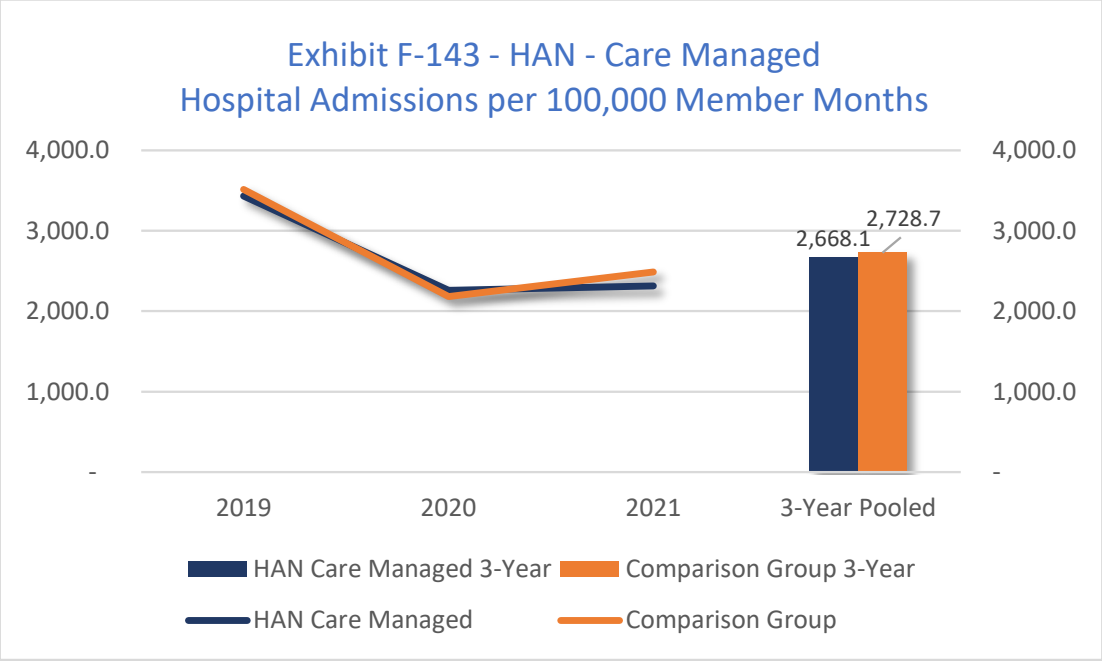
The difference between the HAN total and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-142).

Exhibit F-142 – HAN (Total) – Hospital Admissions per 100,000 Member Months

	2019	2020	2021	3-Year Pooled
HAN (Total)	764.4	606.6	608.8	659.9
Comparison Group	632.0	489.8	468.1	530.0
Difference	132.4 ‡	116.8‡	140.7‡	129.9‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 93,543 CG – 129,535	HAN-T – 108,548 CG – 162,413	HAN-T – 127,036 CG – 197,225	HAN-T – 329,127 CG – 489,173
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Care Managed Population

HAN Care Managed members averaged approximately 2,668 hospital admissions per 100,000 member months and comparison group members averaged approximately 2,729 admissions per 100,000 member months across the three years (Exhibit F-143). The admission rate for both populations declined from 2019 to 2020 and rose again from 2020 to 2021.



Note: Lower rate is better

The difference between the HAN Care Managed and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-144) .

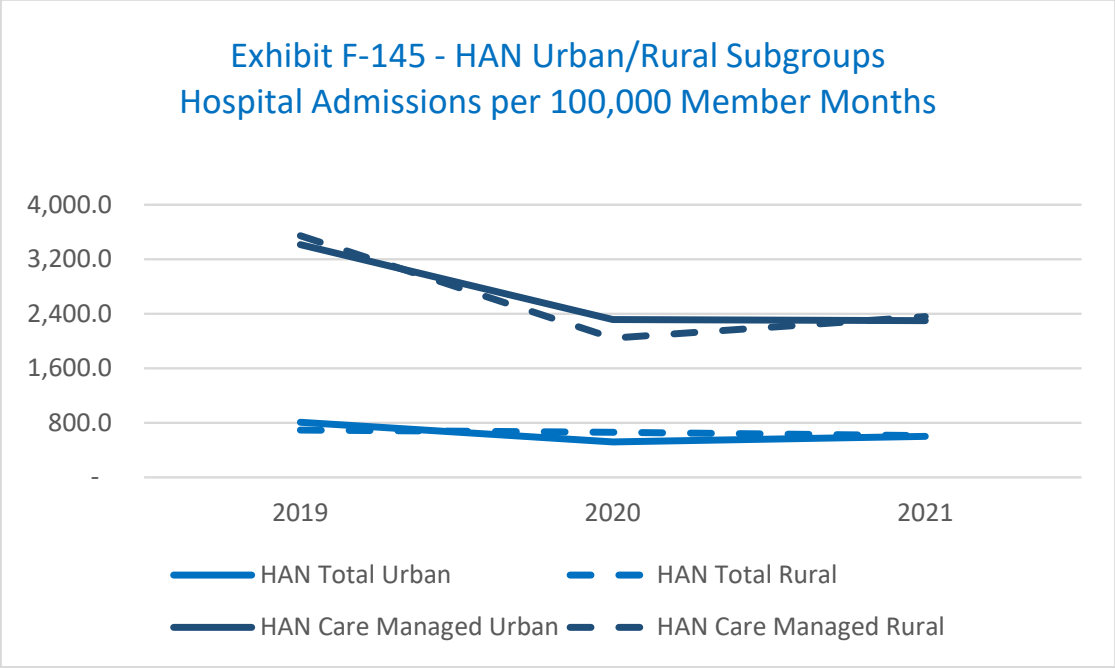
Exhibit F-144 – HAN (Care Managed) – Hospital Admissions per 100,000 Member Months

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	3,431.4	2,260.1	2,312.8	2,668.1
Comparison Group	3,515.0	2,182.8	2,488.2	2,728.7
Difference	(83.6)	77.3	(175.4)	(60.6)
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 1,394 CG – 10,951	HAN-CM – 1,744 CG – 10,502	HAN-CM – 2,288 CG – 16,150	HAN-CM – 5,426 CG –37,603
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total urban subgroup recorded a higher rate than the rural subgroup in 2019 and a lower rate in 2020; the 2021 rates were nearly equal. The urban subgroup trended downward from 2019 to 2020 and rose again from 2020 to 2021; the rural subgroup trended downward from 2019 to 2021.

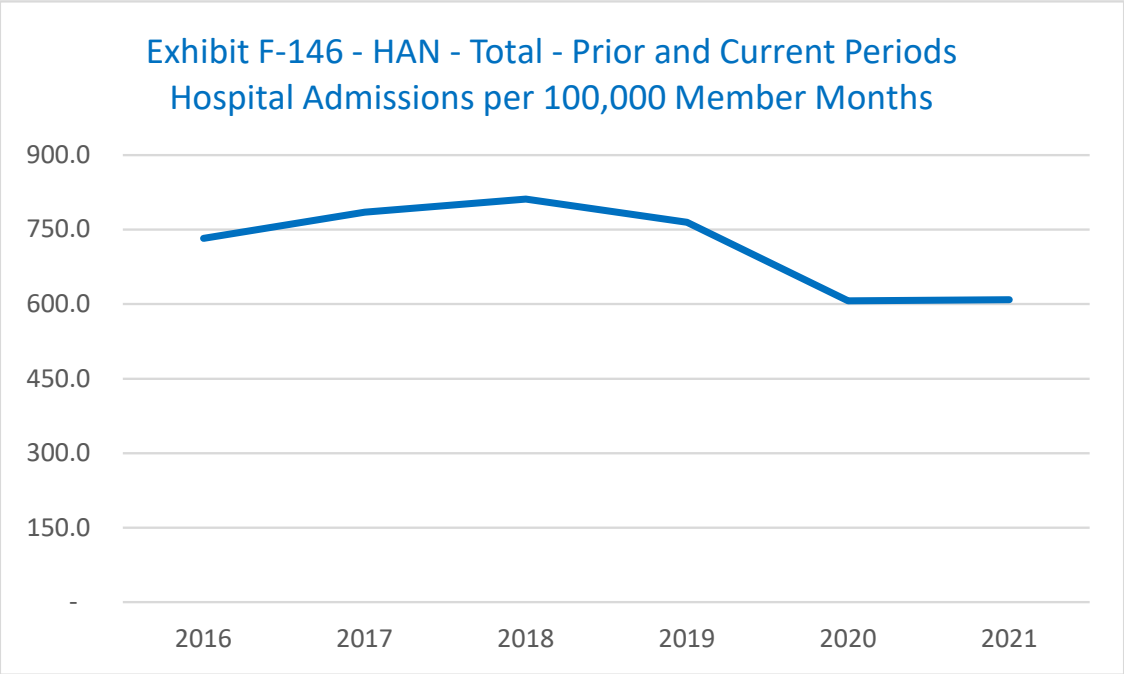
The HAN Care Managed urban subgroup recorded a lower rate in 2019 and 2021 and a higher rate in 2020. The urban subgroup trended downward from 2019 to 2020 and was approximately flat from 2020 to 2021. The rural subgroup also trended downward from 2019 to 2020 and rose again from 2020 to 2021 (Exhibit F-145).



	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	809.2	518.0	602.0
	Rural	694.4	633.3	613.1
HAN (Care Managed)	**Urban**	3,416.5	2,317.4	2,297.8
	Rural	3,548.8	2,043.0	2,357.8

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). The hospital admission rate rose from approximately 733 admissions per 100,000 member months in 2016 to 811 admissions per 100,000 member months in 2018, before declining to 609 admissions per 100,000 member months in 2021 (Exhibit F-146).

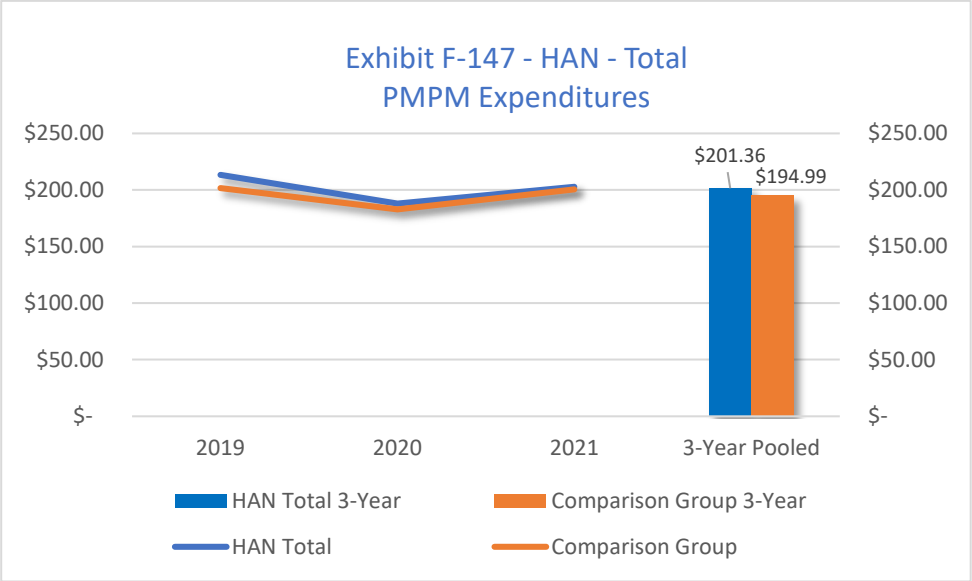


	2016	2017	2018	2019	2020	2021
HAN (Total)	732.6	785.0	811.2	764.4	606.6	608.8

Per Member Per Month (PMPM) Expenditures

Findings – HAN Total Population

HAN total member expenditures averaged approximately $201 PMPM and comparison group member expenditures averaged approximately $195 PMPM across the three years (Exhibit F-147). Average expenditures for both populations declined from 2019 to 2020 and rose again from 2020 to 2021.



Note: Lower rate is better

The difference between the HAN total and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-148)[59].

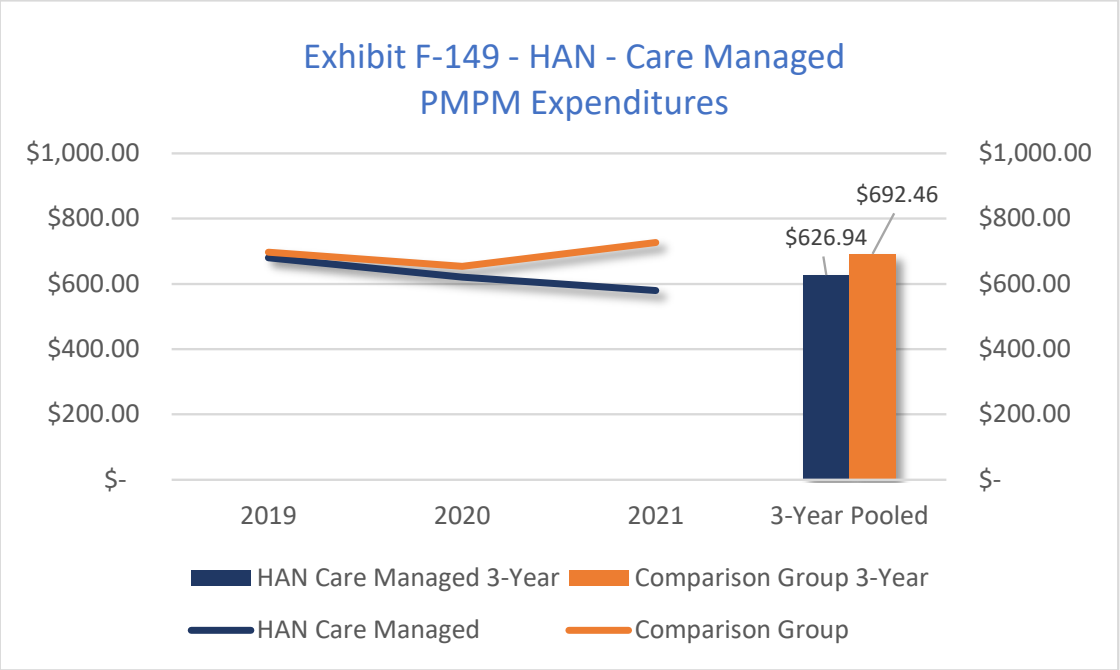
Exhibit F-148 – HAN (Total) – PMPM Expenditures

	2019	2020	2021	3-Year Pooled
HAN (Total)	$213.32	$187.94	$202.83	$201.36
Comparison Group	$201.62	$182.75	$200.60	$194.99
Difference	$11.70‡	$5.19‡	$2.23‡	$6.37‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-T – 93,543 CG – 129,535	HAN-T – 108,548 CG – 162,413	HAN-T – 127,036 CG – 197,225	HAN-T – 329,127 CG – 489,173
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

[59] The finding of statistical significance despite the small absolute difference is an artifact of the large population sizes for both groups.

Findings – HAN Care Managed Population

HAN Care Managed member expenditures averaged approximately $627 PMPM and comparison group member expenditures averaged approximately $692 PMPM across the three years (Exhibit F-149). Average expenditures for the HAN Care Managed population declined from 2019 to 2021. Average expenditures for the comparison group declined from 2019 to 2020 and rose again from 2020 to 2021.



Note: Lower rate is better

The difference between the HAN Care Managed and comparison group compliance rates was statistically significant in 2021. It also was statistically significant for the three-year pooled data (Exhibit F-150).

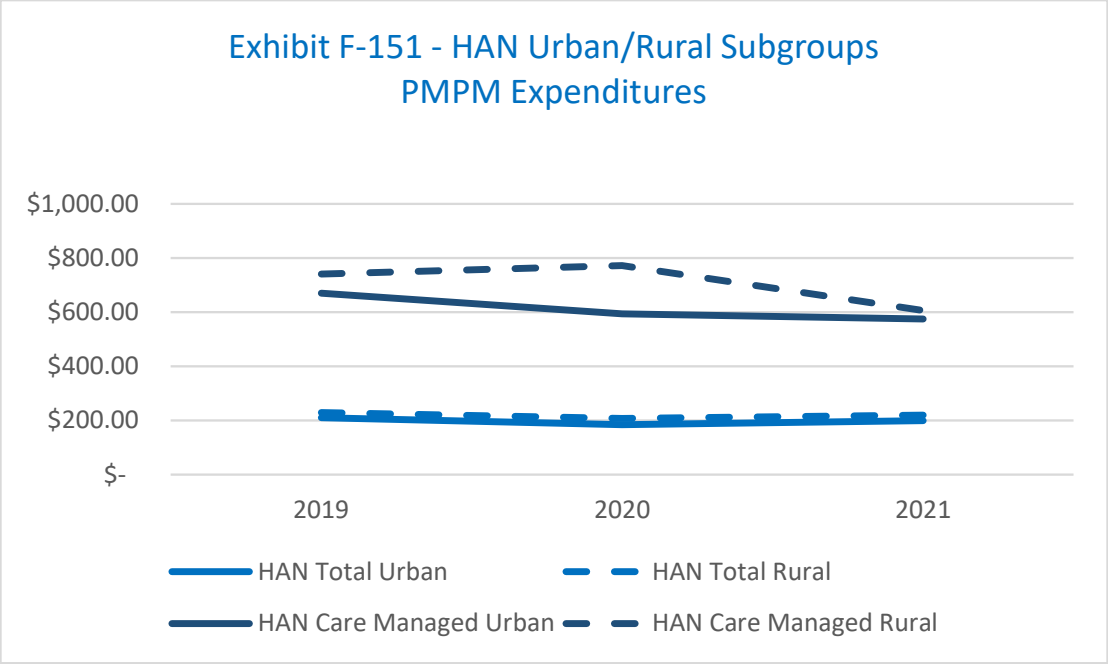
Exhibit F-150 – HAN (Care Managed) – PMPM Expenditures

	2019	2020	2021	3-Year Pooled
HAN (Care Managed)	$680.44	$620.76	$579.62	$626.94
Comparison Group	$697.17	$653.91	$726.29	$692.46
Difference	($16.73)	($33.15)	($146.67)‡	($65.52)‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HAN-CM – 1,394 CG – 10,951	HAN-CM – 1,744 CG – 10,502	HAN-CM – 2,288 CG – 16,150	HAN-CM – 5,426 CG –37,603
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HAN Total and Care Managed Populations – Urban and Rural Subgroups

The HAN total rural subgroup recorded a higher rate than the urban subgroup across the three years. Both subgroups trended downward from 2019 to 2020 and rose again from 2020 to 2021.

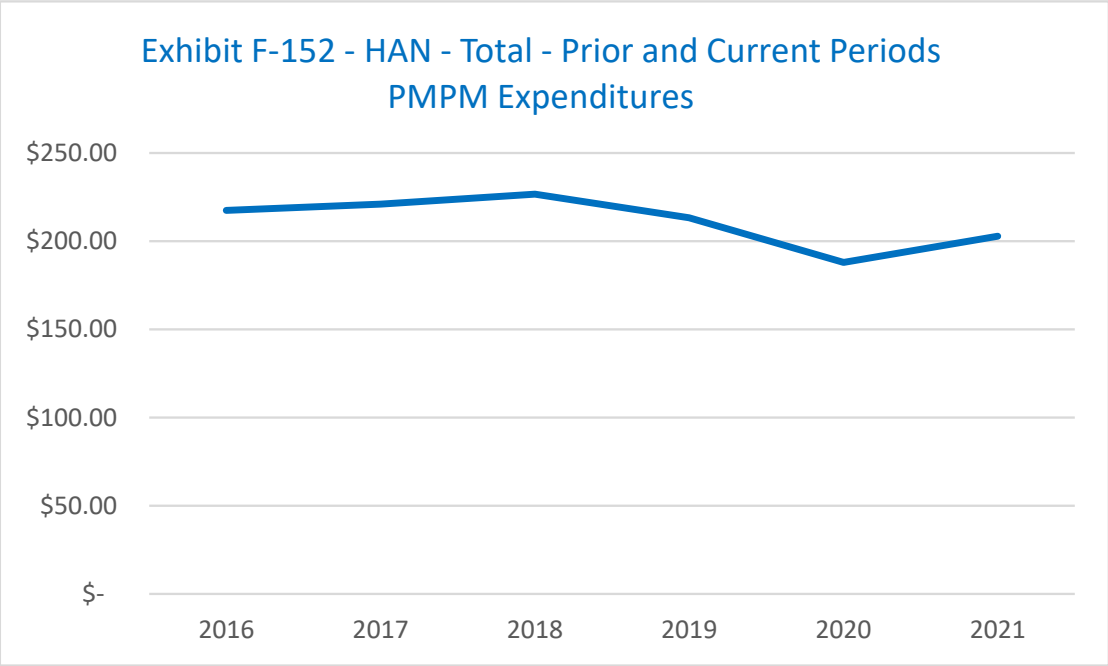
The HAN Care Managed rural subgroup also recorded a higher rate than the urban subgroup across the three years. The urban subgroup trended downward from 2019 to 2021; the rural subgroup rose from 2019 to 2020 and declined from 2020 to 2021 (Exhibit F-151).



	Subgroup	2019	2020	2021
HAN (Total)	**Urban**	$210.55	$184.43	$199.67
	Rural	$229.01	$207.81	$219.96
HAN (Care Managed)	**Urban**	$669.77	$594.03	$574.87
	Rural	$740.90	$772.21	$606.53

Findings – HAN Total Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HAN total population in the prior waiver period (2016 to 2018). Average PMPM expenditures rose from approximately $217 PMPM in 2016 to $227 PMPM in 2018, before declining to $188 PMPM in 2020 (first year of Public Health Emergency) and rising partially again to $203 PMPM in 2021 (Exhibit F-152).



	2016	2017	2018	2019	2020	2021
HAN (Total)	$217.33	$220.97	$226.69	$213.32	$187.94	$202.83

HAN Cost Effectiveness – Summary

The SoonerCare HAN total and comparison group populations differed by a statistically significant amount on two of the three cost effectiveness measures, with the comparison group outperforming the HAN total population. All three of the measures trended downward from 2019 to 2021 (lower rate is better).

The SoonerCare HAN Care Managed member and comparison group populations also differed by a statistically significant amount on two of the three cost effectiveness measures, with each outperforming the other on one measure apiece. All three of the measures again trended downward from 2019 to 2021 (Exhibit F-153).

Exhibit F-153 – HAN Cost Effectiveness – Summary

Measures	HAN Total versus Comparison Group	HAN Total 2019 – 2021 Trend	HAN Care Managed versus Comparison Group	HAN Care Managed 2019 – 2021 Trend
Emergency Room Visits per 1,000 Member Months	✦	▼	✦	▼
Hospital Admissions per 100,000 Member Months	✦	▼	✦	▼
PMPM Expenditures	✦	▼	✦	▼

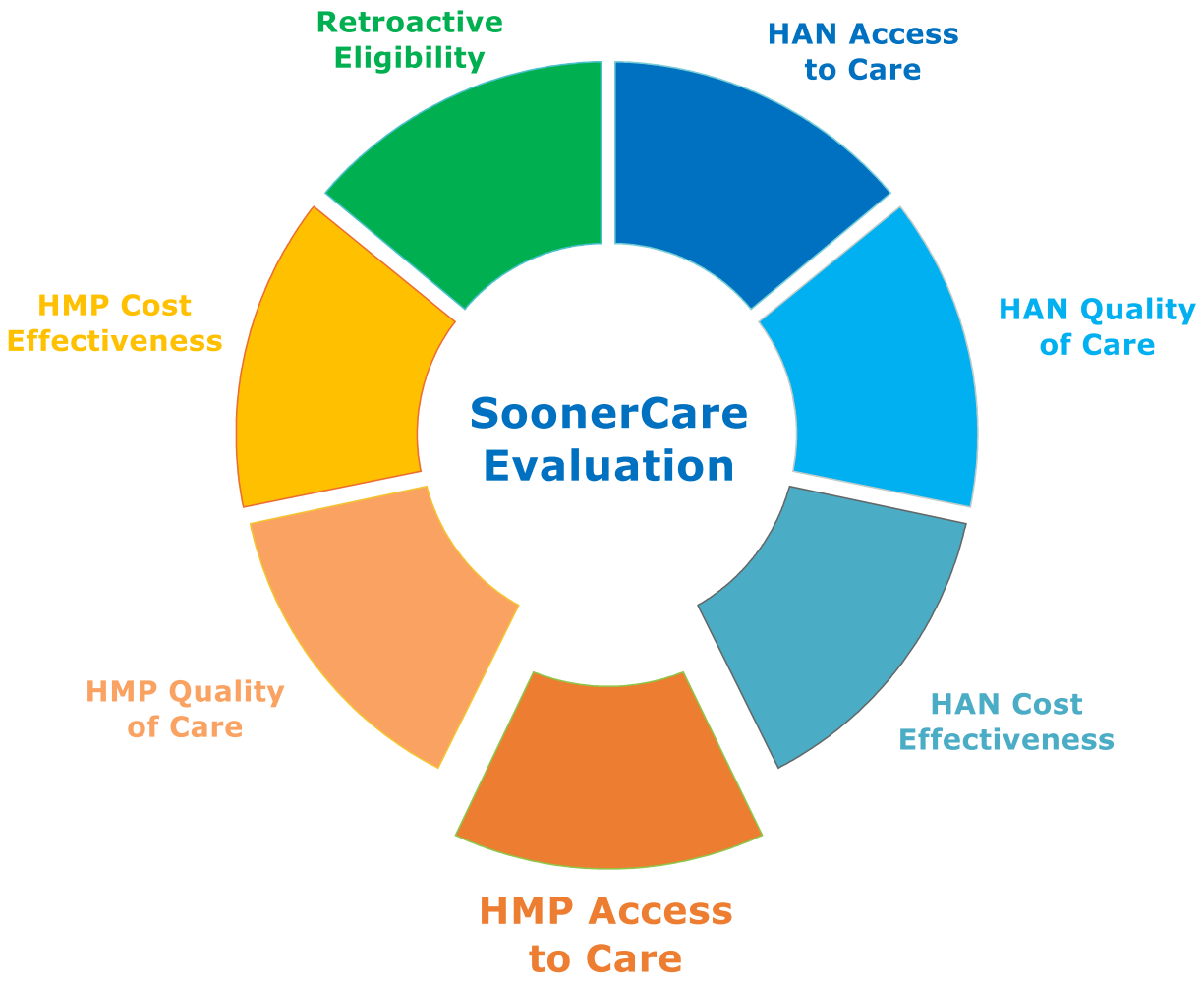
✦ HAN exceeds comparison group by a statistically significant amount (3-year pooled)

✦ No statistically significant difference (3-year pooled)

✦ Comparison group exceeds HAN by a statistically significant amount (3-year pooled)

▲ 2019 - 2021 trend is upward (higher trend is worse)

▼ 2019 – 2021 trend is downward (lower trend is better)


Retroactive Eligibility
HAN Access to Care
HAN Quality of Care
HAN Cost Effectiveness
HMP Access to Care
HMP Quality of Care
HMP Cost Effectiveness
SoonerCare Evaluation

4. HMP Access to Care

Overview

The OHCA contracted with the SoonerCare HMP vendor (Telligen) to offer practice facilitation in holistic chronic care management to participating providers. The OHCA also required its vendor to assess and identify beneficiaries with, or at risk for chronic conditions who would benefit from holistic care management. (Beneficiaries aligned with an HMP-participating practice.)

The OHCA established a target number of beneficiaries to be care managed during a contract year and specified that the majority of care management was to occur at the PCMH office. This was to improve the frequency of beneficiary interactions with the care manager and PCMH, and associated access to care.

HMP Access to Care Measures

Exhibit F-154 on the following page presents the HMP access to care measures and identifies:

- Data sources
- Subgroups evaluated (if any)
- Presence or absence of a national benchmark
- Presence or absence of comparative data from the prior Demonstration period[60]

Supporting Appendices

Appendix 8 contains CEM covariate balance tables for CAHPS measures. Appendix 9 contains statistical significance tests results for CAHPS measures.

[60] The approved evaluation design included an Interrupted Time Series (ITS) analysis for a subset of HMP access, quality and cost measures, using the 2016 – 2018 time period as baseline. PHPG concluded that the ITS could not be performed for the interim evaluation due to insufficient data points and the disruptive effects of the COVID-19 PHE on the HMP vendor's implementation of enhanced coaching modalities. The efficacy of the ITS analysis will be reconsidered for the summative evaluation.

Exhibit F-154 - HMP Access to Care Measures - Overview

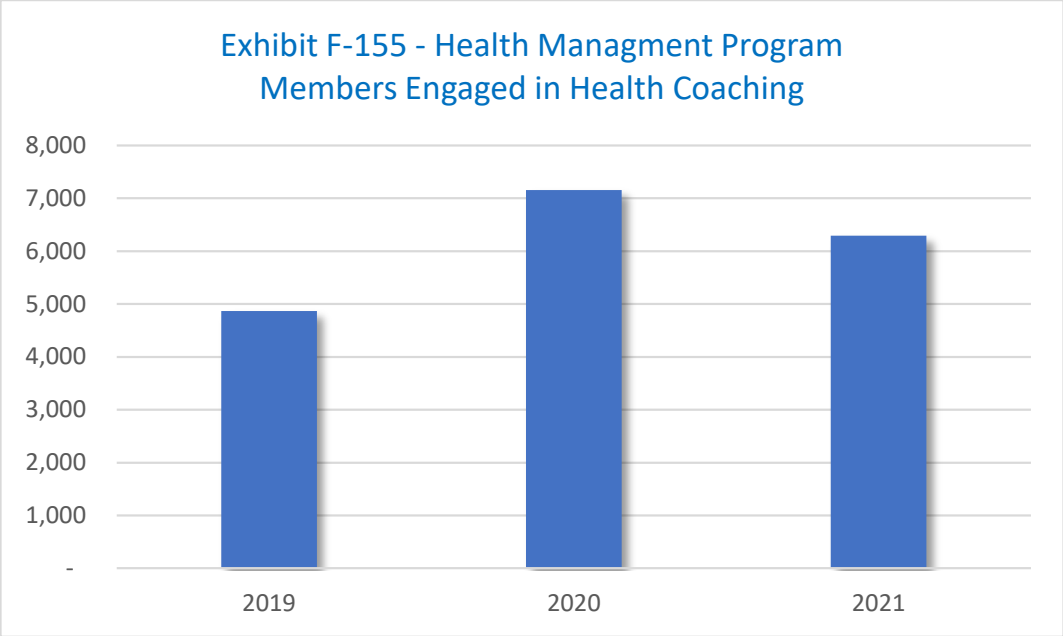
Measures	Source	Geographic Subgroups	National Benchmark	Prior Period Data
Number of HAN beneficiaries engaged in care management Number of HAN members engaged in care management at any point during the measurement year.	OHCA	No	No	No
Children and adolescents' access to PCPs – 12 months to 19 years Percentage of beneficiaries 12 months to 19 years of age who had a visit with a PCP during the measurement year.	HEDIS	***Yes***	No	***Yes***
Adults' access to preventive/ambulatory health services Percentage of beneficiaries 20 years of age and older who had an ambulatory or preventive care visit in the measurement year.	HEDIS	***Yes***	No	No

Methodology detail and sample sizes also are included at the bottom of exhibits containing the results of statistical significance tests between treatment (Demonstration) and comparison group populations.

Number of HMP Members Engaged in Health Coaching

Findings

Telligen proposed to serve 6,000 beneficiaries each year under the contract that took effect in 2019. Telligen provided health coaching to 4,864 unduplicated beneficiaries in 2019, 7,152 in 2020 and 6,292 in 2021[61]. Although these are not point-in-time caseloads, average tenure each year was close to 12 months (Exhibit F-155).



Hypertension and diabetes were the most common of the major chronic diagnoses across the three years, although approximately 35 percent of members had none of the five conditions (Exhibit F-156).

Exhibit F-156 – HMP – Health Coaching Diagnoses (Percent of Total)[62]

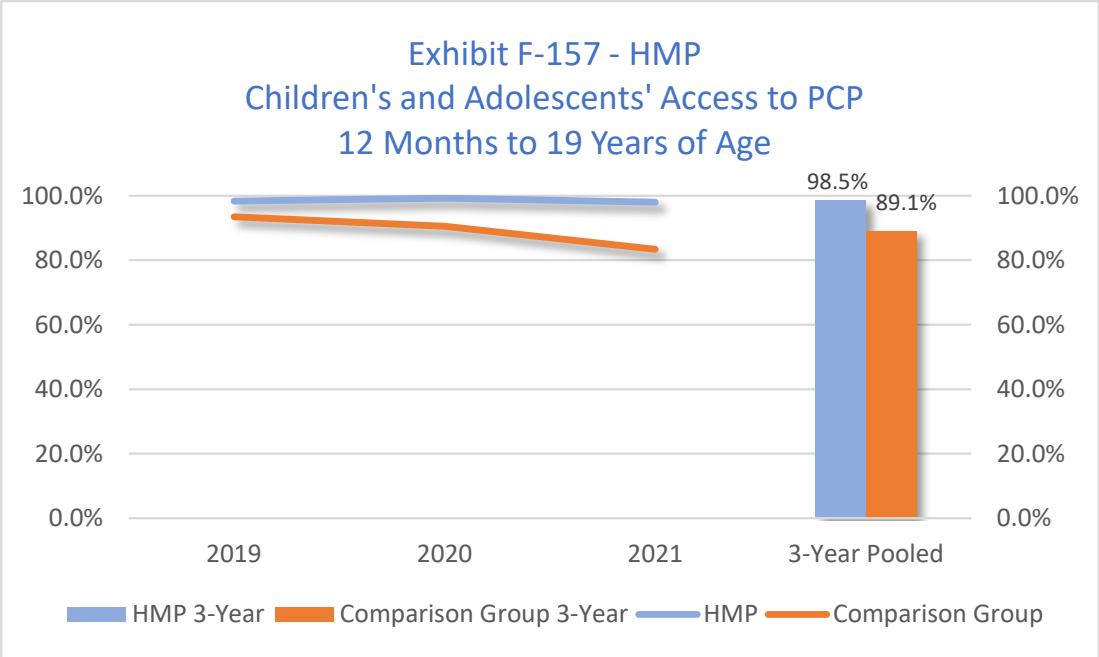
	2019	2020	2021	3-Year Average
Asthma	5.6%	5.4%	6.2%	5.7%
CAD	12.7%	8.7%	9.2%	10.0%
COPD	11.8%	8.5%	9.5%	9.6%
Diabetes	36.6%	31.8%	32.7%	33.4%
Hypertension	53.5%	49.4%	45.4%	49.1%
Other	28.1%	36.8%	37.7%	34.8%

[61] The lower enrollment in 2019 was at least partially due to Telligen's decision not to automatically re-enroll all members at the time of the new contract. Telligen took several months to re-assess the health coaching population and to enroll new participants in place of those found no longer to need assistance.
[62] Beneficiaries can be in multiple categories; "other" includes those not appearing in any of the defined categories.

Children and Adolescents' Access to PCPs – 12 Months to 19 Years

Findings – HMP Population

Approximately 98 percent of HMP members and 89 percent of comparison group members were compliant on this measure across the three years (Exhibit F-157). The compliance rate for the HMP population was stable from 2019 to 2021 while the comparison group rate declined.



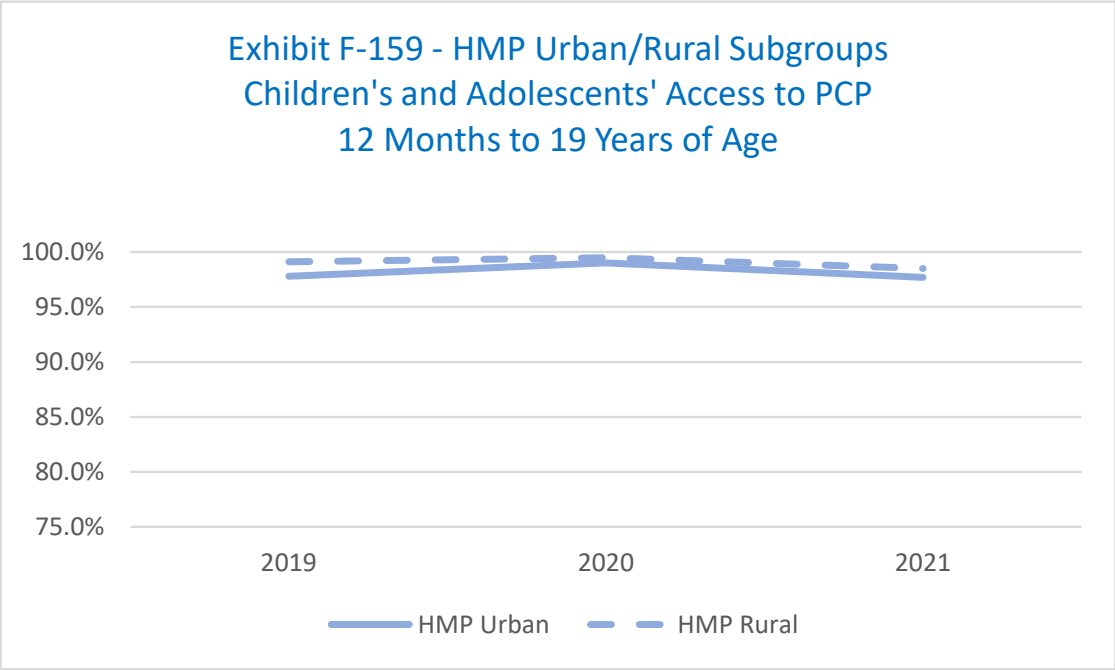
The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-158).

Exhibit F-158 – HMP – Children's & Adolescents' Access to PCP – 12 Months to 19 Years

	2019	2020	2021	3-Year Pooled
HMP	98.3%	99.2%	98.0%	98.5%
Comparison Group	93.5%	90.5%	83.4%	89.1%
Difference	4.8%‡	8.7%‡	14.6%‡	9.4%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 286 CG – 139,312	HMP – 511 CG – 178,929	HMP –498 CG – 172,006	HMP – 1,295 CG – 490,247
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

The HMP urban and rural subgroups recorded similar compliance rates, with both remaining above 97 percent across the three years (Exhibit F-159).

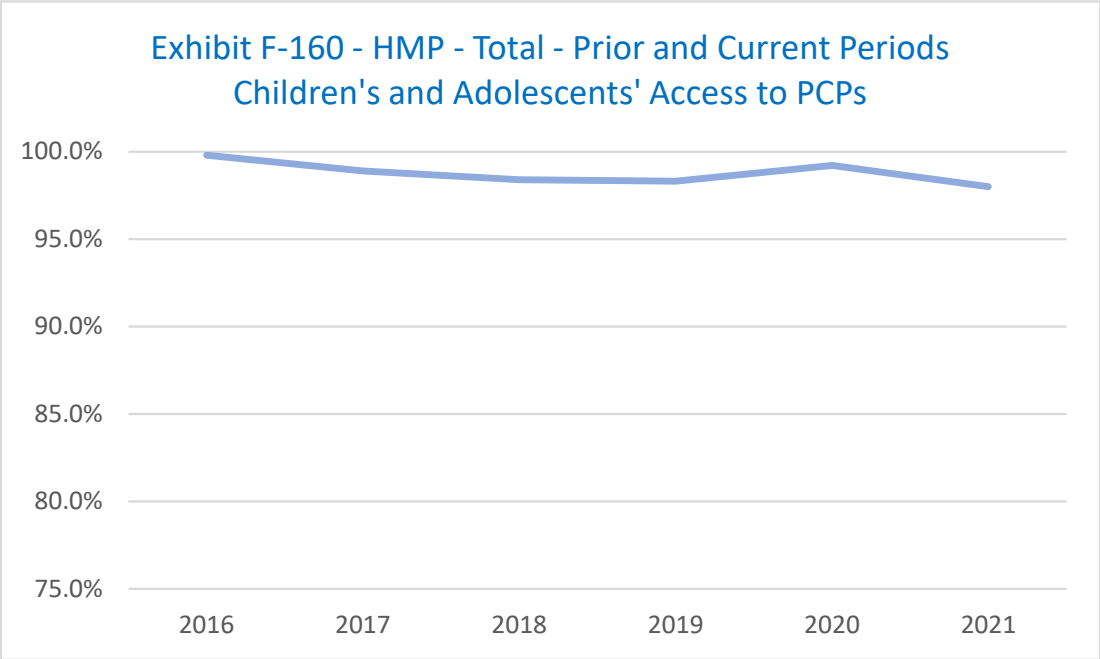


Note: Y-axis does not begin at 0.

	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	97.8%	99.0%	97.7%
	Rural	99.1%	99.5%	98.5%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate consistently remained at 98 percent or higher from 2016 to 2021 (Exhibit F-160).



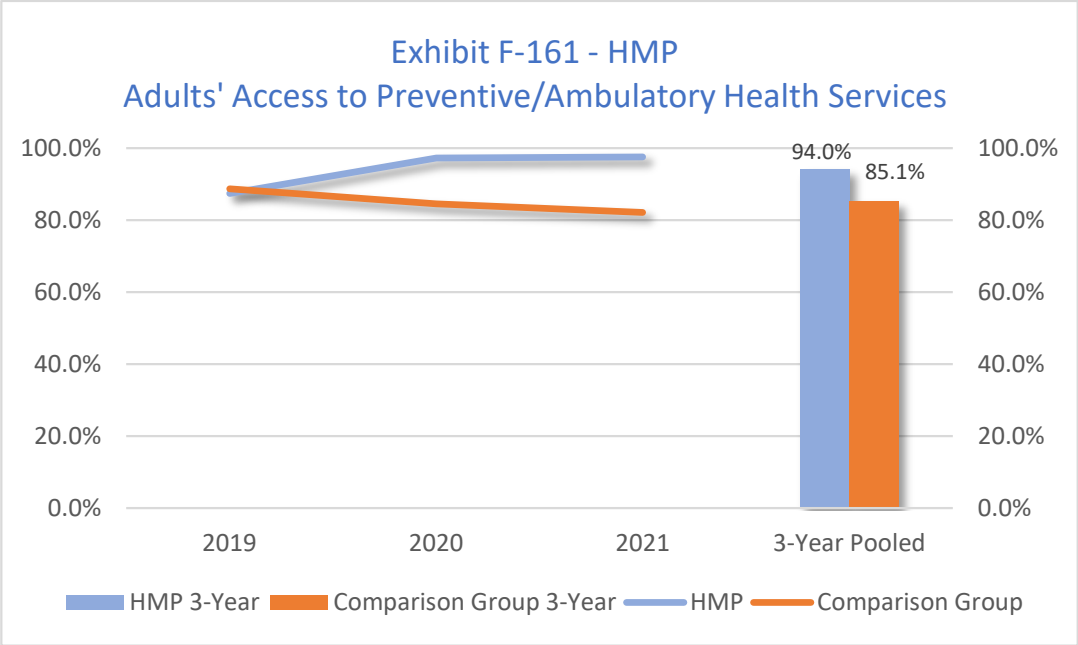
Note: Y-axis does not begin at 0.

	2016	2017	2018	2019	2020	2021
Compliance Rate	99.8%	98.9%	98.4%	98.3%	99.2%	98.0%

Adults' Access to Preventive/Ambulatory Health Services

Findings – HMP Population

Ninety-four percent of HMP members and approximately 85 percent of comparison group members were compliant on this measure across the three years (Exhibit F-161). The compliance rate for the HMP population rose from 2019 to 2021 while the compliance rate for the comparison group declined.



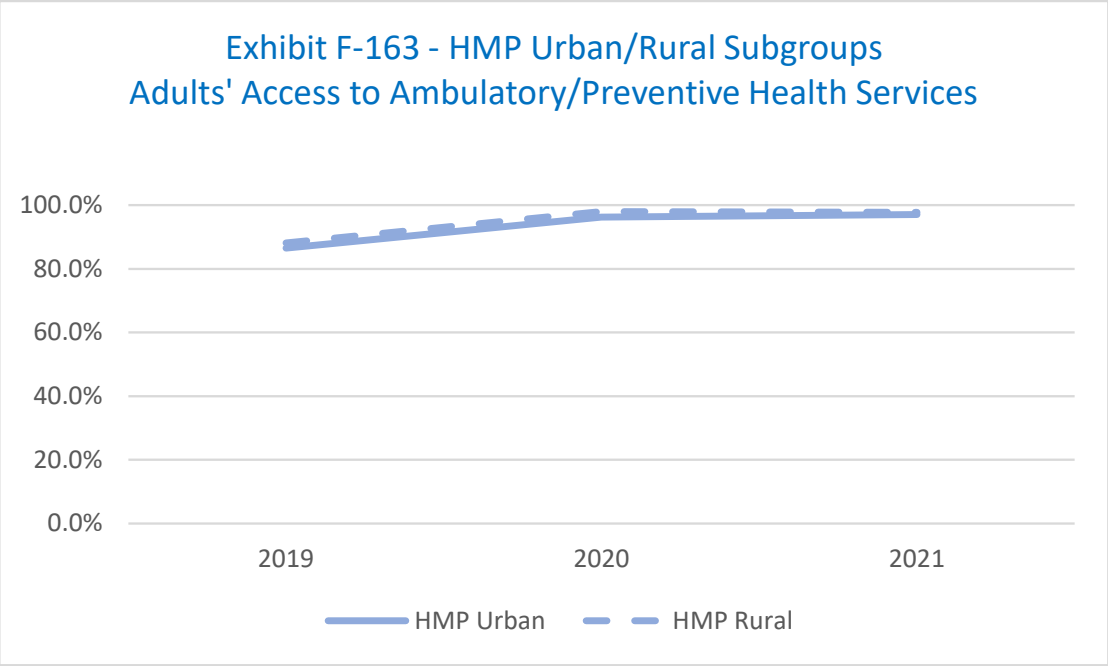
The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-162).

Exhibit F-162– HMP – Adults' Access to Preventive/Ambulatory Health Services

	2019	2020	2021	3-Year Pooled
HMP	87.4%	97.2%	97.5%	94.0%
Comparison Group	88.7%	84.5%	82.1%	85.1%
Difference	(1.3%)‡	12.7%‡	15.4‡	8.9%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 4,572 CG – 27,396	HMP – 6,641 CG – 40,174	HMP – 5,791 CG – 46,043	HMP – 17,004 CG – 113,613
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

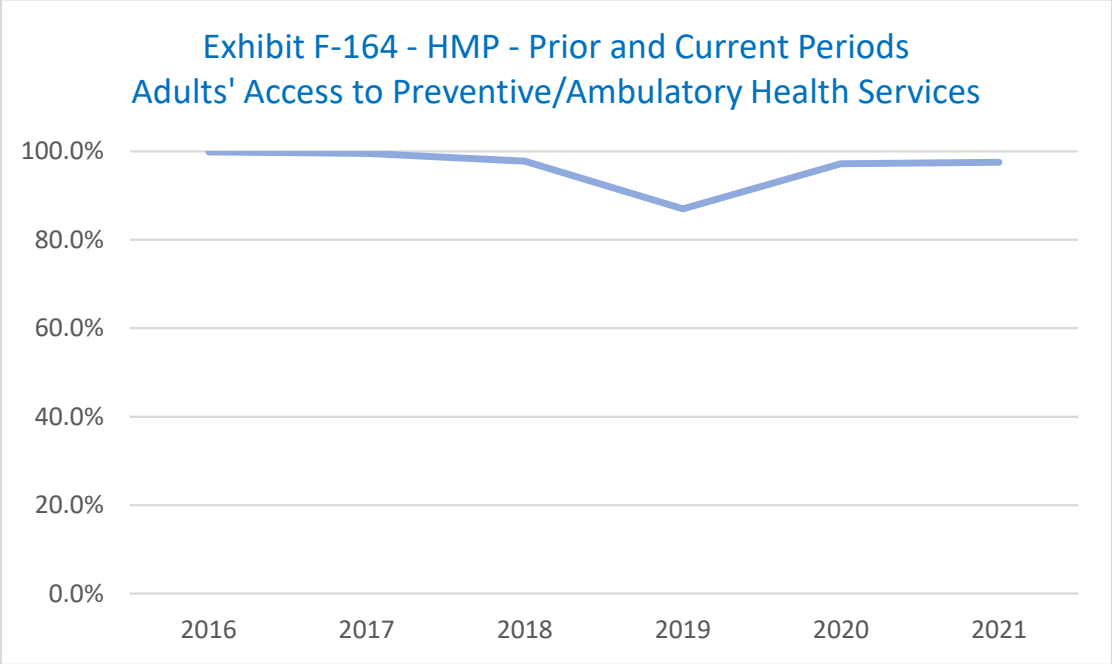
The HMP urban and rural subgroups recorded similar compliance rates; both trended upward from 2019 to 2021. (Exhibit F-163).



	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	86.5%	96.2%	97.1%
	Rural	88.1%	98.0%	97.8%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate remained above 97 percent in every year except one[63] from 2016 to 2021 (Exhibit F-164).



	2016	2017	2018	2019	2020	2021
Compliance Rate	99.9%	99.5%	97.8%	87.0%	97.2%	97.5%

[63] 2019 was a transitional year, with a new Telligen contract taking effect in July. Although all members included in the measure met the HEDIS continuous enrollment standard, a larger proportion than in other years were enrolled in the HMP for only part of the year. (See also footnote 61.)

HMP Access to Care – Summary

The SoonerCare HMP member and comparison group populations differed by a statistically significant amount on the two HEDIS preventive care measures, with the HMP population outperforming the comparison group on both measures. The 2019 to 2021 trend was upward for one measure and downward for the other (Exhibit F-165).

Exhibit F-165 – HMP Access to Care Measures – Summary

Measures	HMP versus Comparison Group	HMP 2019 – 2021 Trend
Number of members engaged in health coaching		▲
Children and adolescents' access to PCPs – 12 months to 19 years	✦	▼
Adults' access to preventive/ambulatory health services	✦	▲

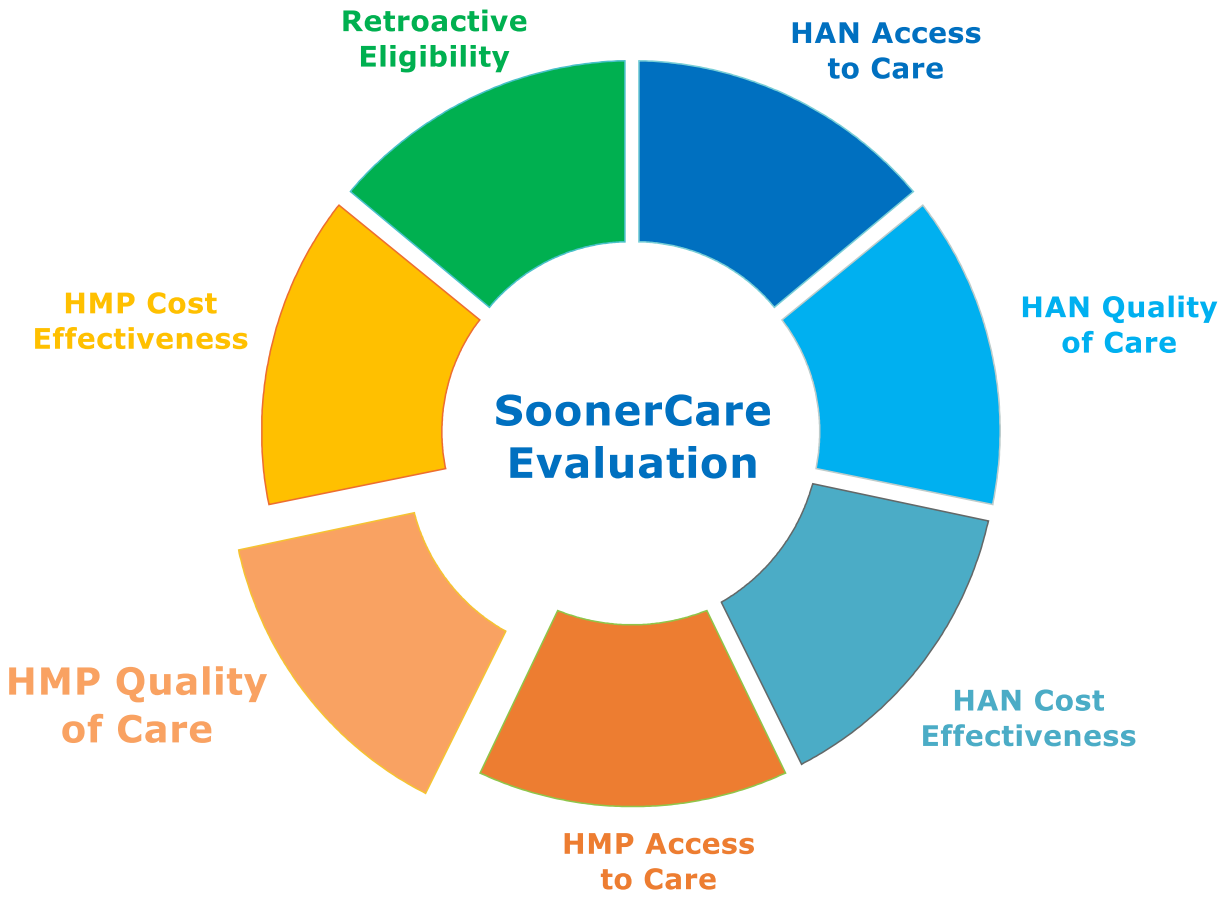
✦ HMP exceeds comparison group by a statistically significant amount (3-year pooled)

✦ No statistically significant difference (3-year pooled)

✦ Comparison group exceeds HMP by a statistically significant amount (3-year pooled)

▲ 2019 – 2021 trend is upward

▼ 2019 – 2021 trend is downward


Retroactive Eligibility
HAN Access to Care
HAN Quality of Care
HAN Cost Effectiveness
HMP Access to Care
HMP Quality of Care
HMP Cost Effectiveness
SoonerCare Evaluation

5. HMP Quality of Care

Overview

The SoonerCare HMP uses a combination of data analytics and physician referrals to identify appropriate candidates for health coaching. The program targets persons with multiple physical health conditions (often with behavioral health co-morbidities) who can benefit from holistic care management.

Health coaches employ motivational interviewing and other techniques to engage beneficiaries in better managing their chronic health conditions and adopting healthier lifestyles. Health coaches provide education on the importance of preventive care specific to the beneficiary's condition (e.g., retinal eye exams and HbA1c tests for diabetics) and for general good health (e.g., proper diet and exercise). Coaches also assist beneficiaries in communicating with their PCMH provider and scheduling appointments with specialists and behavioral health providers.

Health coaches make themselves available to beneficiaries by telephone, as well as at the physician's office, in the case of practice-embedded coaches. The SoonerCare HMP vendor also operates a telephonic resource center, through which beneficiaries (or their health coaches) can obtain assistance addressing social service needs (social determinants of health) that could present barriers to care (e.g., food or housing insecurity).

HMP Quality of Care Measures

Exhibit F-166 on the following page presents the HMP quality of care measures and identifies:

- Data sources
- Subgroups evaluated (if any)
- Presence or absence of a national benchmark
- Presence or absence of comparative data from the prior Demonstration period

Supporting Appendices

Appendix 8 contains CEM covariate balance tables for CAHPS measures. Appendix 9 contains statistical significance tests results for CAHPS measures. Appendix 10 contains CEM covariate balance tables for HEDIS measures. Appendix 11 contains statistical significance test results for HEDIS measures. Appendix 12 contains the SDOH component of the HMP member targeted survey instrument.

Exhibit F-166 - Quality of Care Measures - Overview[64]

Measures	Source	Geographic Subgroups	National Benchmark	Prior Period Data
Chronic conditions Average number of physical health chronic conditions among HMP members.	MMIS	No	No	No
Physical/behavioral health co-morbidities Percentage of members with co-occurring chronic physical health and behavioral health conditions	MMIS	No	No	No
Asthma – Medication Ratio Percentage of members ages 5 to 18 and 19 to 64 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medication of 0.50 or greater during the measurement year.	HEDIS	***Yes***[65]	***Yes***	***Yes***
Cardiovascular – Persistence of Beta Blocker Treatment after a Heart Attack Percentage of members 18 years of age and older during the measurement year who were hospitalized and discharged from July 1 of the year prior to the measurement year to June 30 of the measurement year with a diagnosis of AMI and who received persistent beta-blocker treatment for six months after discharge.	HEDIS	***Yes***	No	No
Cardiovascular – Cholesterol Management for Patients with Cardiovascular Conditions – LDL-C Test Percentage of members 18 to 75 years of age with cardiovascular disease who had an LDL-C test during the measurement year.	HEDIS	***Yes***	No	No
COPD – Use of Spirometry Testing in the Assessment and Diagnosis of COPD Percentage of members 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.	HEDIS	***Yes***	No	No

[64] The approved evaluation design includes follow-up for hospitalization after mental illness, as well as measures for asthma, CAD and diabetes admission rates for treatment of short-term complications. The HMP case count for these measures was determined to be too small to produce reliable findings. The measures will be re-examined for possible inclusion in the summative evaluation report.

[65] 19 – 64 age cohort only. Insufficient case count in 5 – 18 age cohort for reliable results.

Measures	Source	Geographic Subgroups	National Benchmark	Prior Period Data
COPD – Pharmacotherapy Management of COPD Exacerbation – 14 Days and 30 Days Percentage of COPD exacerbations for members 40 years of age and older who had an acute inpatient discharge or emergency room visit on or between January 1 to November 30 of the measurement year and who were dispensed a systemic corticosteroid (or there was evidence of an active prescription) within 14 days of the event and within 30 days of the event.	HEDIS	***Yes***	No	No
Diabetes – Percentage of Members who had LDL-C Test Percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had LDL-C performed.	HEDIS	***Yes***	No	***Yes***
Diabetes – Percentage of Members who had Retinal Eye Exam Performed Percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had retinal eye exam performed.	HEDIS	***Yes***	No	***Yes***
Diabetes - Percentage of Members who had Hemoglobin A1c (HbA1c) Testing Percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had Hemoglobin A1c (HbA1c) testing performed.	HEDIS	***Yes***	No	***Yes***
Diabetes - Percentage of Members who Received Medical Attention for Nephropathy Percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who received medical attention for nephropathy.	HEDIS	***Yes***	No	***Yes***
Hypertension – Percentage of Members who had LDL-C Test Percentage of members 18 years of age and older with hypertension who had an LDL-C test performed.	HEDIS	***Yes***	No	***Yes***
Hypertension – Percentage of Members Prescribed ACE/ARB Therapy Percentage of members 18 years of age and older with hypertension who were prescribed angiotensin converting enzyme inhibitors or angiotensin receptor blockers (ACE/ARB therapy).	HEDIS	***Yes***	No	***Yes***

Measures	Source	Geographic Subgroups	National Benchmark	Prior Period Data
Opioids – Use of Opioids at High Dosage Percentage of members without cancer using prescribed opioids at high dosage.	HEDIS	***Yes***	***Yes***	No
Opioids – Concurrent use of Opioids and Benzodiazepines Percentage of members concurrently using prescribes opioids and benzodiazepines.	HEDIS	***Yes***	***Yes***	No
Rating of Assistance with SDOH Member awareness of the availability of help with SDOH and satisfaction, among HAN members receiving assistance.	PHPG Targeted Survey	No	No	No
Getting Needed Care – children and adults Percentage of beneficiaries (adults and parents/caretakers of children) who reported "always" getting needed care. "Getting Needed Care" is a composite measure consisting of two questions, the first of which asks about getting necessary care, tests or treatment[66] and the second of which asks about getting appointments with specialists as soon as needed[67]. The composite is a simple average of the individual measure percentages.	CAHPS	No	***Yes***	No
Rating of Healthcare – Children and Adults[68] Rating of health care (or child's health care) in the last six months, using a scale from 0 to 10, where "0" represented the worst possible health care and "10" the best possible health care.	CAHPS	No	***Yes***	No
Rating of Health Plan – Children and Adults Rating of health plan (or child's health plan) in the last six months, using a scale from 0 to 10, where "0" represented the worst possible health plan and "10" the best possible health plan.	CAHPS	No	***Yes***	No

Methodology detail and sample sizes also are included at the bottom of exhibits containing the results of statistical significance tests between treatment (Demonstration) and comparison group populations.

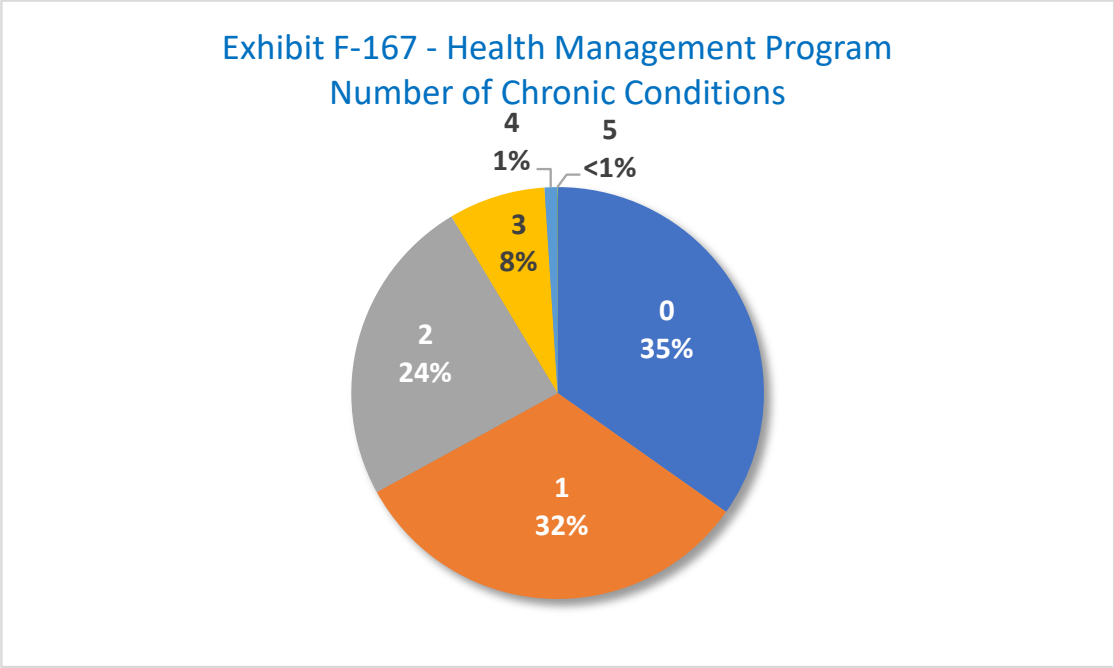
[66] In the last 6 months, how often was it easy to get the care, tests, or treatment you (your child) needed?
[67] In the last 6 months, how often did you (your child) get an appointment to see a specialist as soon as you needed?
[68] The approved evaluation design includes the CAHPS Rating of Personal Doctor question. The determination was made not to survey SoonerCare HMP members on this item because the program has no role in the member's selection of a PCMH provider.

Average Number of Chronic Conditions

Findings – HMP Population

The SoonerCare HMP is designed to be holistic and not diagnosis-driven. However, five chronic physical health conditions are prevalent in the member population: asthma, coronary artery disease, chronic obstructive pulmonary disease, diabetes and hypertension.

On average, from 2019 – 2021, approximately 65 percent of SoonerCare HMP members had one or more of the prevalent conditions (Exhibit F-167).



The percentage having one or more of the prevalent chronic conditions declined from 2019 to 2021 (Exhibit F-168).

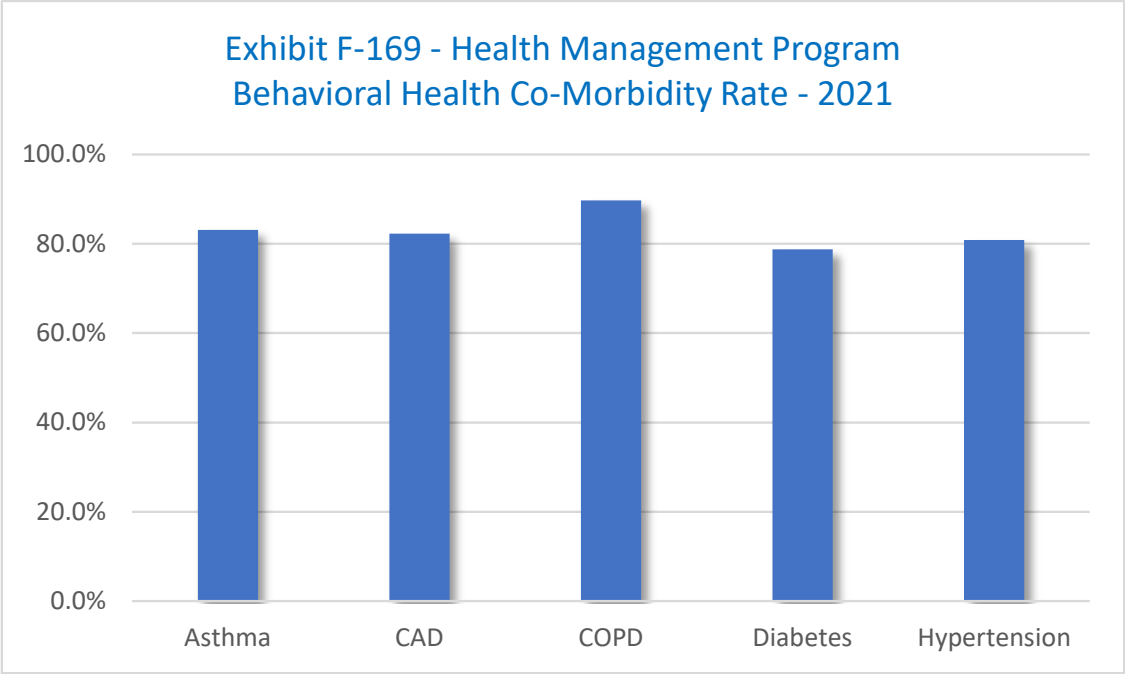
Exhibit F-168 – HMP – Number of Chronic Conditions per Member

	2019	2020	2021	3-Year Average
0 conditions (of the five)	28.1%	36.8%	37.7%	34.8%
1 condition	35.1%	31.3%	31.0%	32.2%
2 conditions	26.9%	23.9%	22.9%	24.4%
3 conditions	8.7%	7.1%	7.3%	7.6%
4 conditions	1.1%	0.8%	1.0%	0.9%
5 conditions	0.1%	0.1%	0.1%	0.1%
1 or more conditions	71.9%	63.2%	62.3%	65.2%

Percentage of Members with Physical and Behavioral Health Co-Morbidities

Findings – HMP Population

A significant majority of the HMP members with one or more of the prevalent chronic physical health conditions had a behavioral health co-morbidity. The portion ranged from approximately 79 percent for members with diabetes to 90 percent for members with COPD. Common co-morbidities included psychosis and major depression (Exhibit F-169).



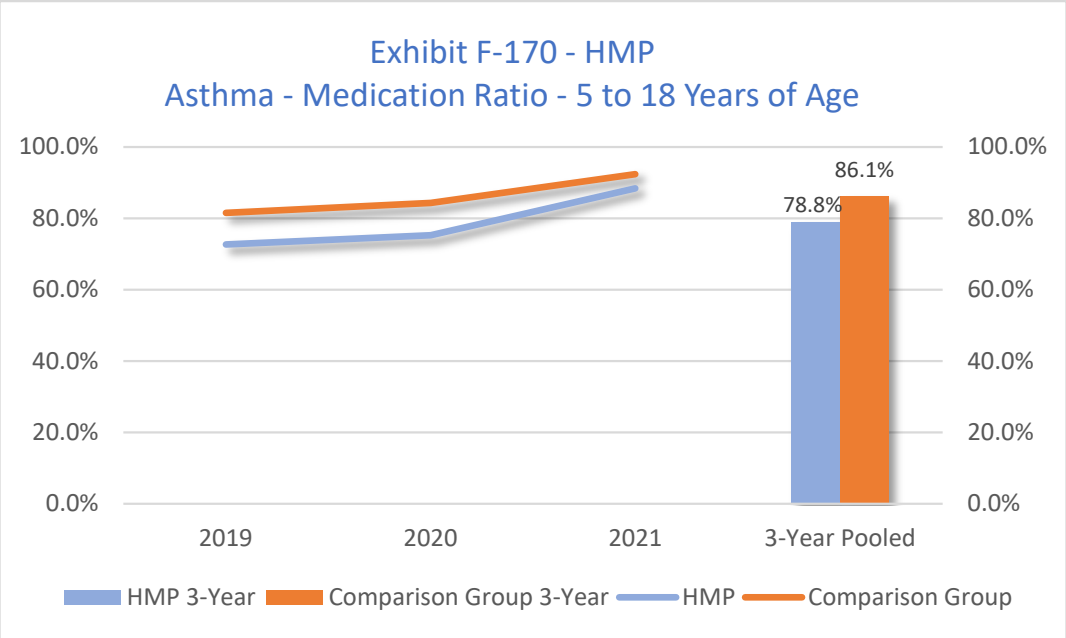
Asthma	CAD	COPD	Diabetes	Hypertension
83.1%	82.3%	89.8%	78.8%	80.0%

Behavioral health conditions were prevalent throughout the SoonerCare HMP population in 2021; 79.9 percent had a diagnosis with or without a co-morbidity, versus 29.2 percent for the total SoonerCare Choice population.

Asthma – Medication Ratio – Ages 5 to 18

Findings – HMP Population

Approximately 79 percent of HMP members and 86 percent of comparison group members were compliant on this measure across the three years (Exhibit F-170). The compliance rate for both populations rose from 2019 to 2021.



The difference between the HMP and comparison group compliance rates was statistically significant in 2020. It also was statistically significant for the three-year pooled data (Exhibit F-171).

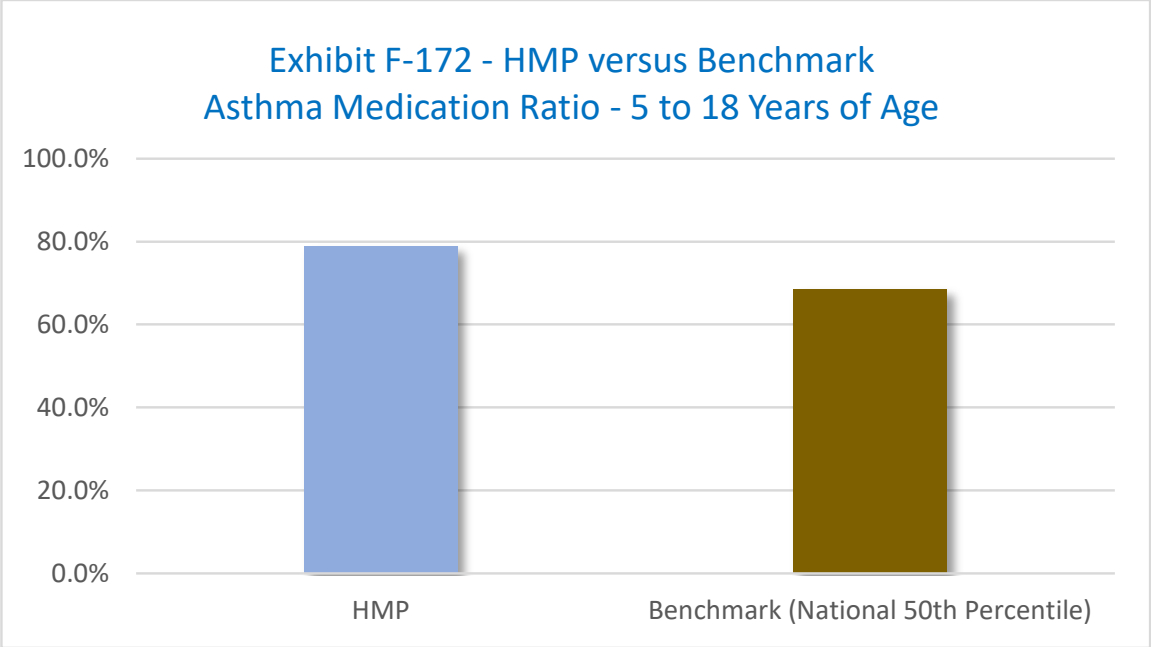
Exhibit F-171 – HMP – Asthma – Medication Ratio – 5 to 18 Years of Age

	2019	2020	2021	3-Year Pooled
HMP	72.7%	75.3%	88.4%	78.8%
Comparison Group	81.5%	84.3%	92.4%	86.1%
Difference	(8.8%)	(9.0%)‡	(4.0%)	(7.3%)‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 13 CG – 5,805	HMP – 22 CG – 7,715	HMP – 21 CG – 8,440	HMP – 51 CG – 21,960
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and National Benchmark

The three-year pooled rate for the SoonerCare HMP population exceeded the national benchmark rate by approximately 10 percentage points (Exhibit F-172).

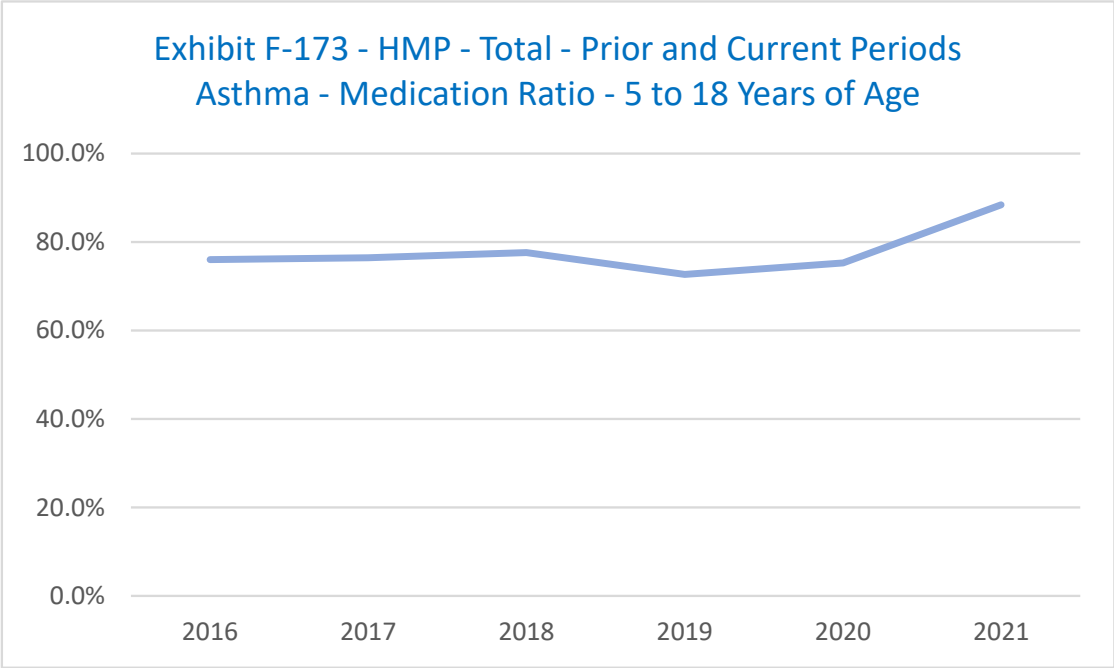
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HMP	Benchmark
Compliance Rate	78.8%	68.6%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate rose from 76 percent 2016 to approximately 88 percent in 2021 (Exhibit F-173).

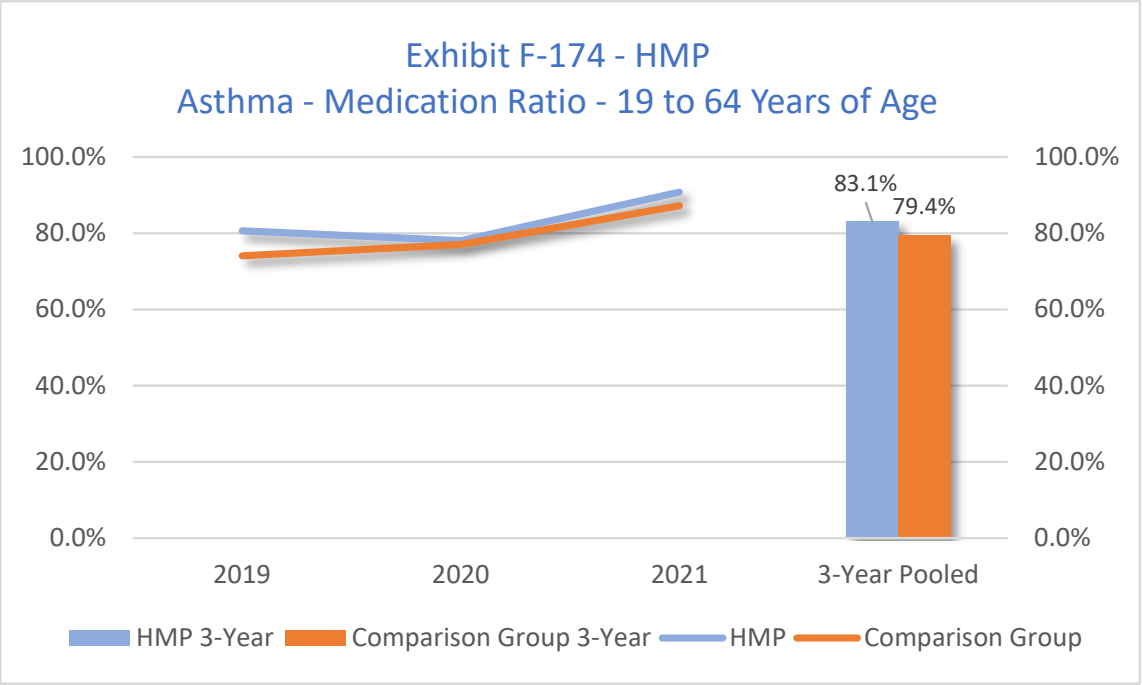


	2016	2017	2018	2019	2020	2021
Compliance Rate	76.0%	76.4%	77.6%	72.7%	75.3%	88.4%

Asthma – Medication Ratio – Ages 19 to 64

Findings – HMP Population

Approximately 83 percent of HMP members and 79 percent of comparison group members were compliant on this measure across the three years (Exhibit F-174). The compliance rate for both populations declined slightly from 2019 to 2020 and rose from 2020 to 2021.



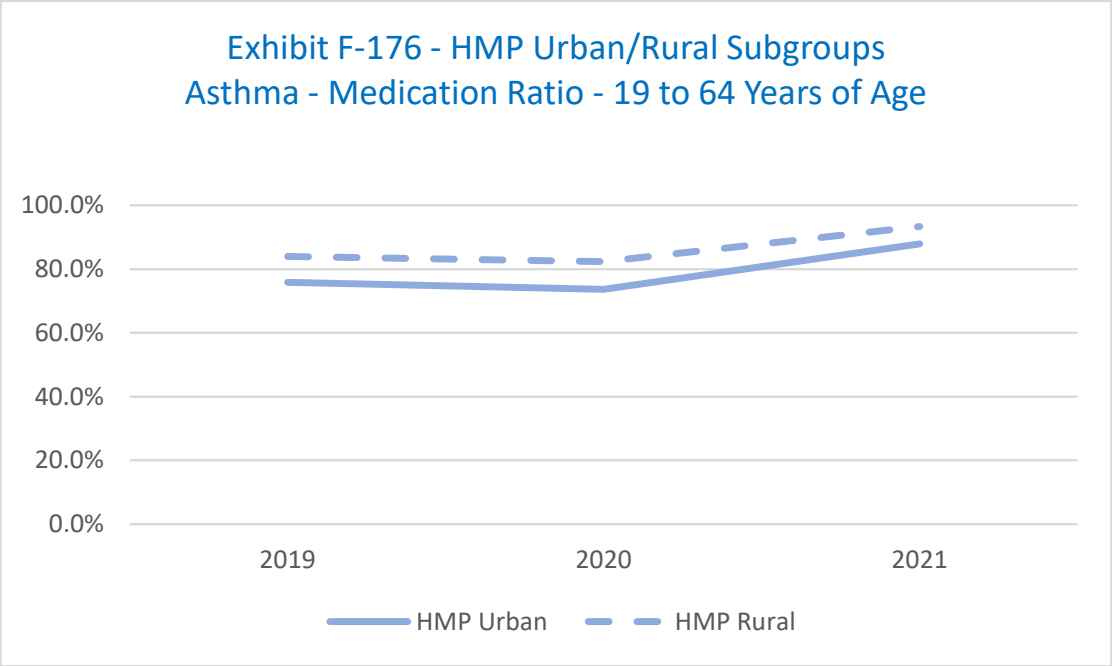
The difference between the HMP and comparison group compliance rates was statistically significant in 2019. It also was statistically significant for the three-year pooled data (Exhibit F-175).

Exhibit F-175 – HMP – Asthma – Medication Ratio – 19 to 64 Years of Age

	2019	2020	2021	3-Year Pooled
HMP	80.6%	78.0%	90.8%	83.1%
Comparison Group	74.1%	77.0%	87.2%	79.4%
Difference	6.5%‡	1.0%	3.6%	3.7%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 222 CG – 1,425	HMP – 326 CG – 2,304	HMP – 279 CG – 2,825	HMP – 827 CG – 6,554
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

The HMP rural subgroup rate exceeded the urban rate in all three years. The compliance rate for both subgroups trended slightly downward from 2019 to 2020 and upward from 2020 to 2021 (Exhibit F-176).

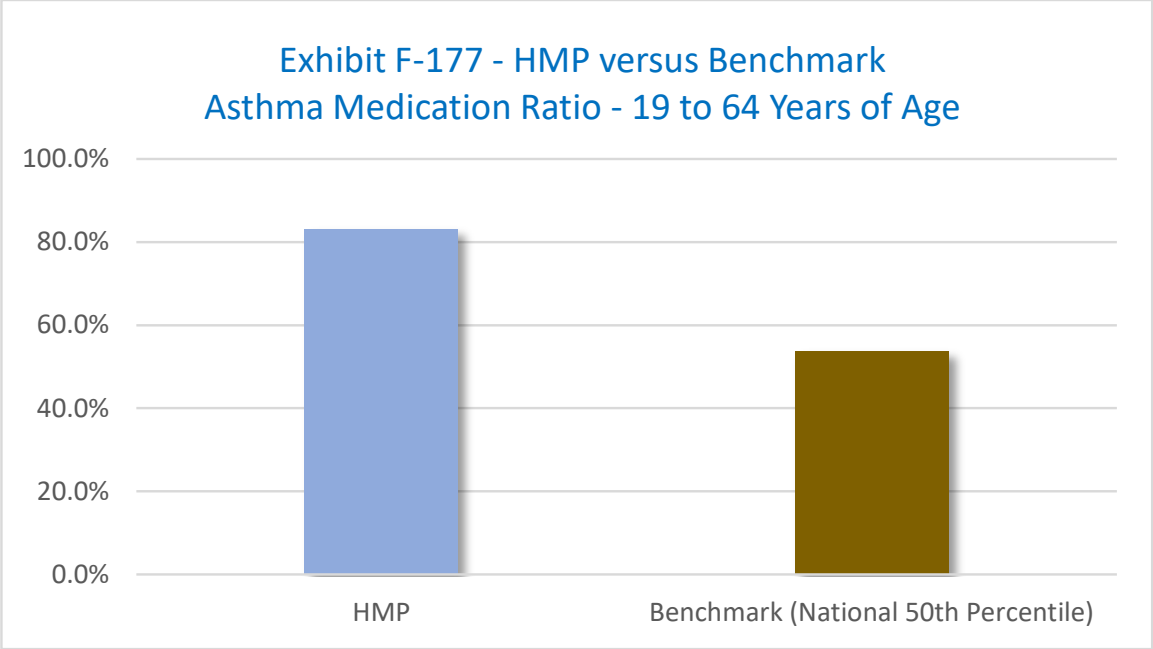


	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	75.8%	73.6%	87.9%
	Rural	84.0%	82.4%	93.4%

Findings – HMP and Care Managed Populations and National Benchmark

The three-year pooled rate for the SoonerCare HMP population exceeded the national benchmark rate by approximately 29 percentage points (Exhibit F-177).

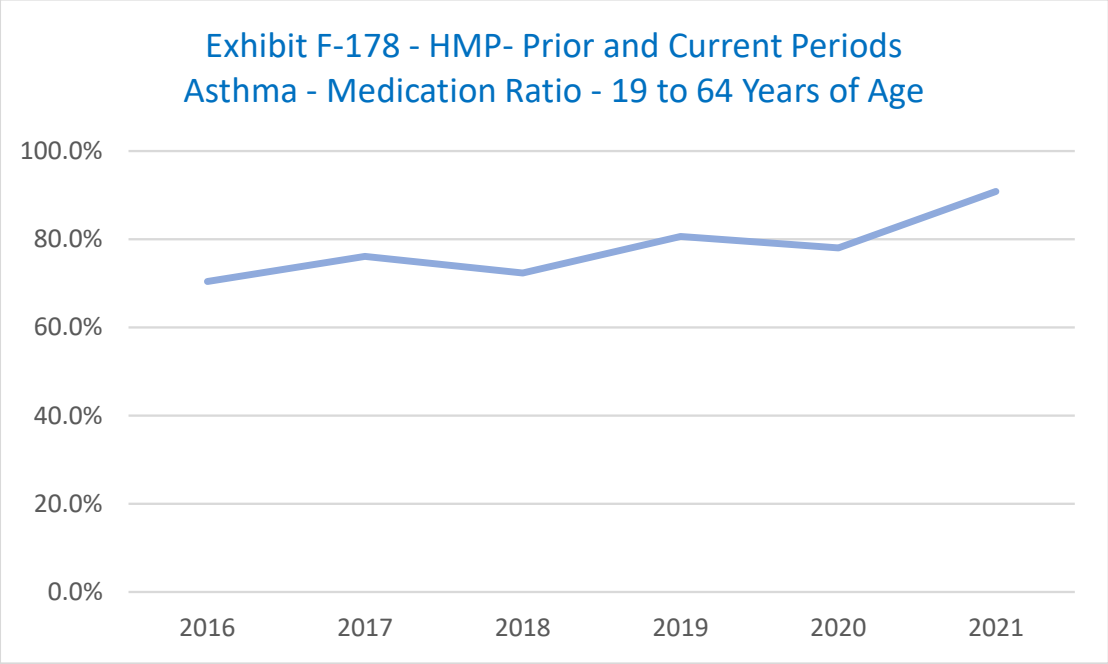
(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HMP	Benchmark
Compliance Rate	83.1%	53.7%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate rose from 70 approximately percent in 2016 to 91 percent in 2021 (Exhibit F-178).

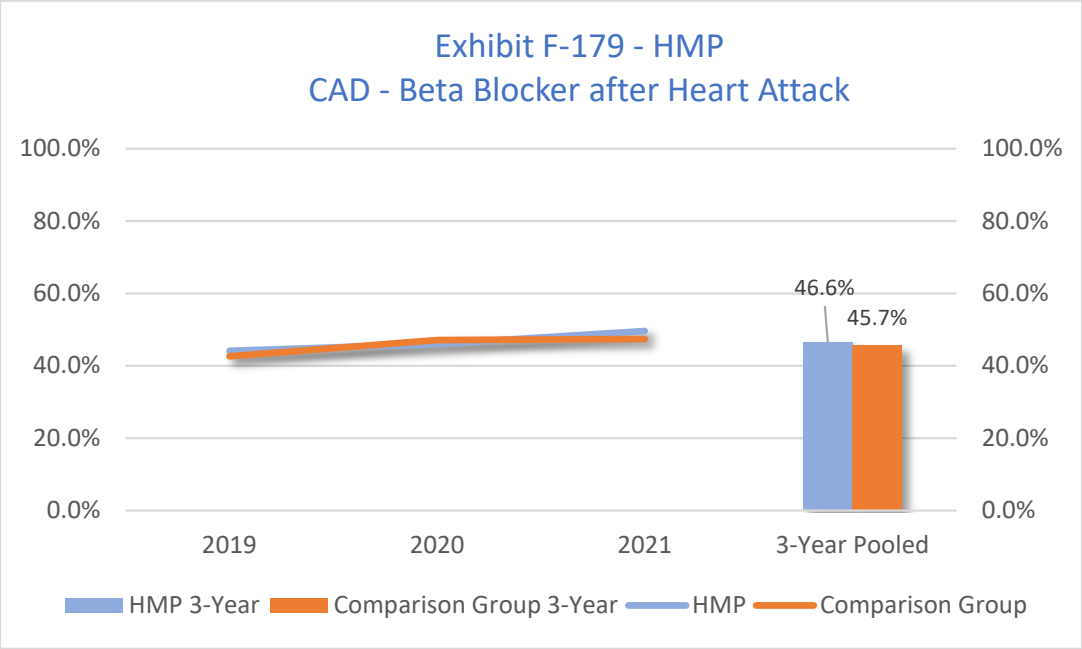


	2016	2017	2018	2019	2020	2021
Compliance Rate	70.4%	76.1%	72.3%	80.6%	78.0%	90.8%

Coronary Artery Disease – Persistent Beta Blocker Treatment after a Heart Attack

Findings – HMP Population

Approximately 47 percent of HMP members and 46 percent of comparison group members were compliant on this measure across the three years (Exhibit F-179). The compliance rate rose for both populations from 2019 to 2021.



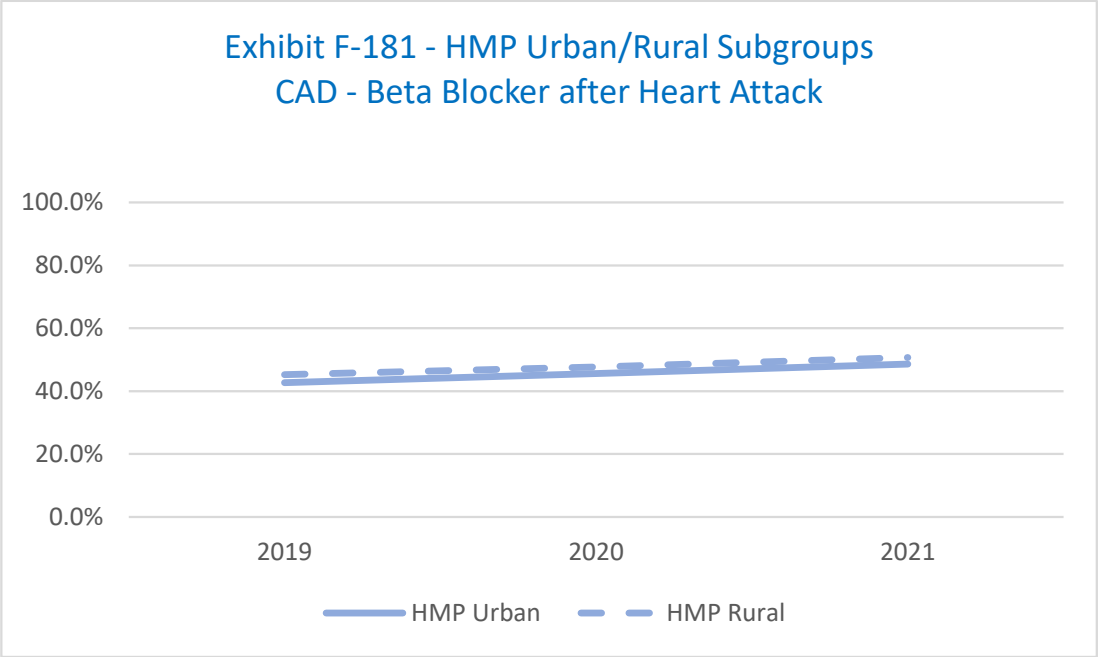
The difference between the HMP and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-180).

Exhibit F-180 – HMP – CAD – Beta Blocker after Heart Attack

	2019	2020	2021	3-Year Pooled
HMP	44.1%	46.0%	49.6%	46.6%
Comparison Group	42.6%	47.1%	47.4%	45.7%
Difference	1.5%	(1.1%)	2.2%	0.9%
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 612 CG – 854	HMP – 624 CG – 777	HMP – 569 CG – 752	HMP – 1,805 CG – 2,383
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

The HMP rural subgroup had a slightly higher compliance rate than the urban subgroup across the three years. The compliance rate for both subgroups trended upward from 2019 to 2021 (Exhibit F-181).

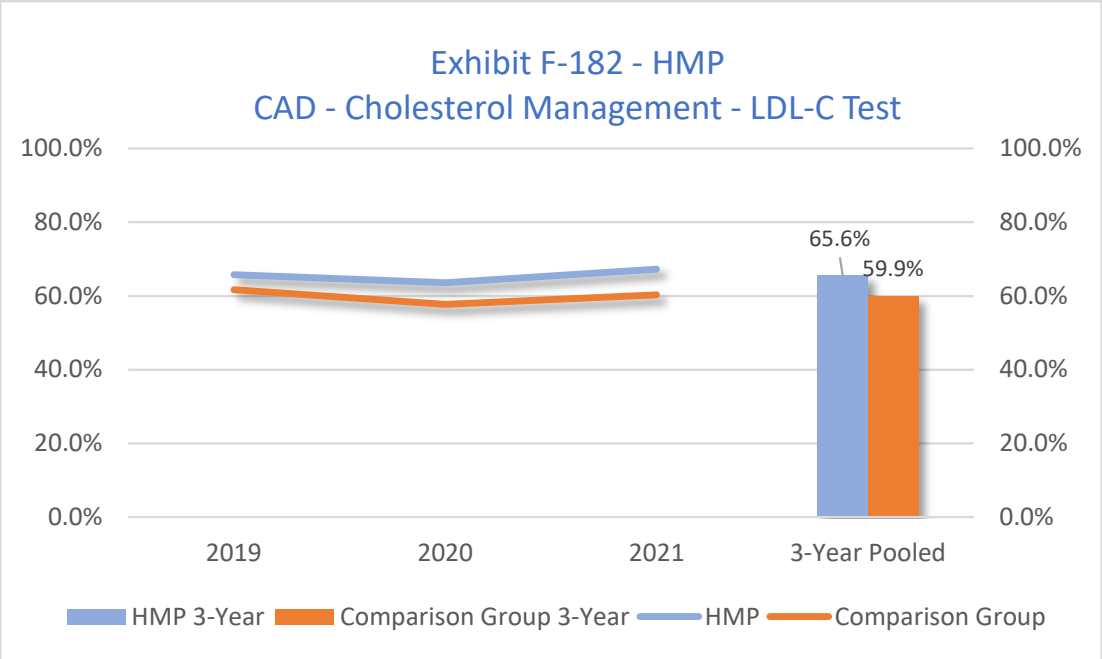


	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	42.7%	45.6%	48.6%
	Rural	45.3%	47.7%	50.7%

Coronary Artery Disease – Cholesterol Management – LDL-C Test

Findings – HMP Population

Approximately 66 percent of HMP members and 60 percent of comparison group members were compliant on this measure across the three years (Exhibit F-182). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



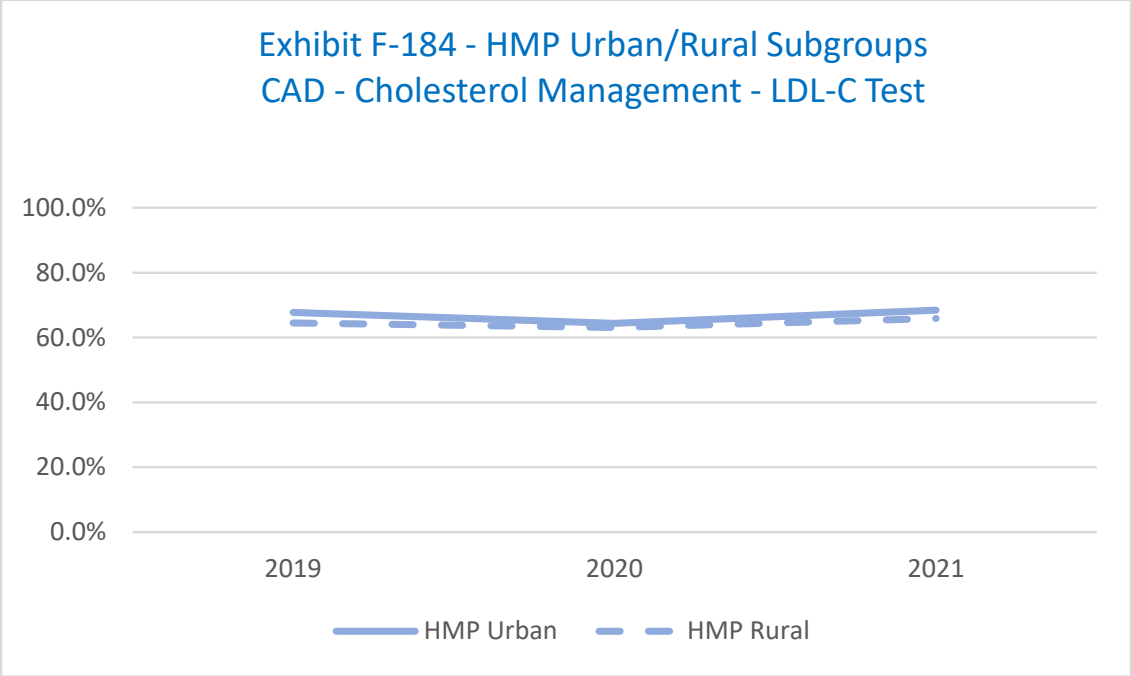
The difference between the HMP and comparison group compliance rates was statistically significant in 2020 and 2021. It also was statistically significant for the three-year pooled data (Exhibit F-183).

Exhibit F-183 – HMP – CAD – Cholesterol Management – LDL-C Test

	2019	2020	2021	3-Year Pooled
HMP	65.8%	63.6%	67.3%	65.6%
Comparison Group	61.7%	57.7%	60.3%	59.9%
Difference	4.1%	5.9%‡	7.0%‡	5.7%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 612 CG – 854	HMP – 624 CG – 777	HMP – 569 CG – 752	HMP – 1,805 CG – 2,383
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

The HMP urban subgroup compliance rate exceeded the rural subgroup rate across the three years. The compliance rate for both subgroups trended downward from 2019 to 2020 and upward from 2019 to 2021 (Exhibit F-184).

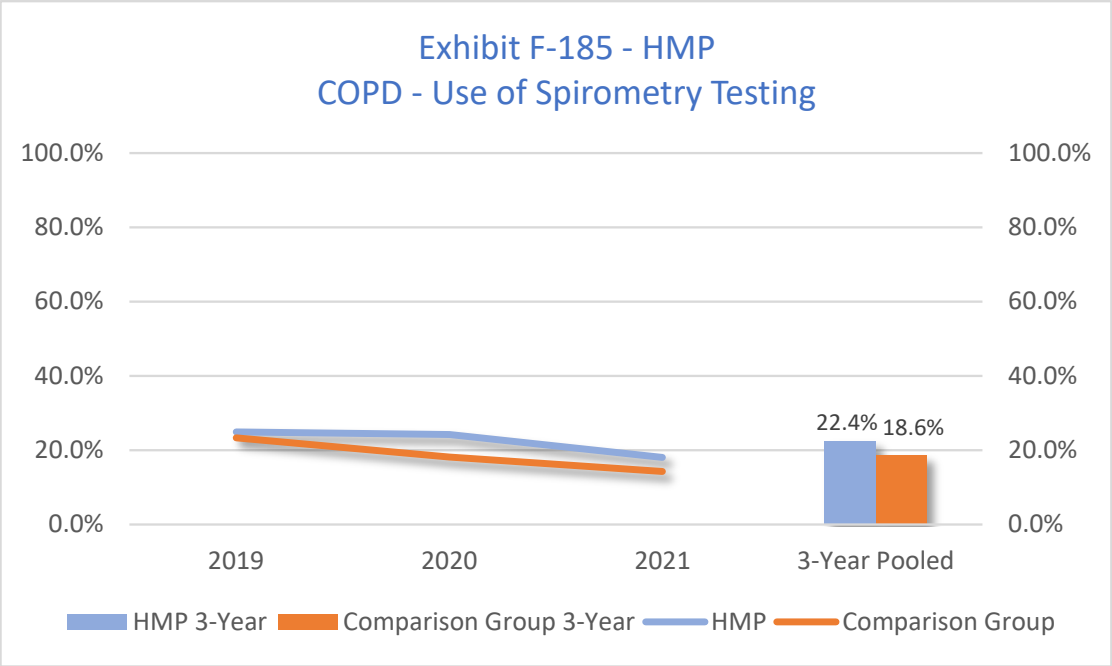


	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	67.8%	64.4%	68.4%
	Rural	64.5%	63.1%	65.9%

Chronic Obstructive Pulmonary Disease – Use of Spirometry Testing

Findings – HMP Population

Approximately 22 percent of HMP members and 19 percent of comparison group members were compliant on this measure across the three years (Exhibit F-185). The compliance rate for both populations declined from 2019 to 2021.



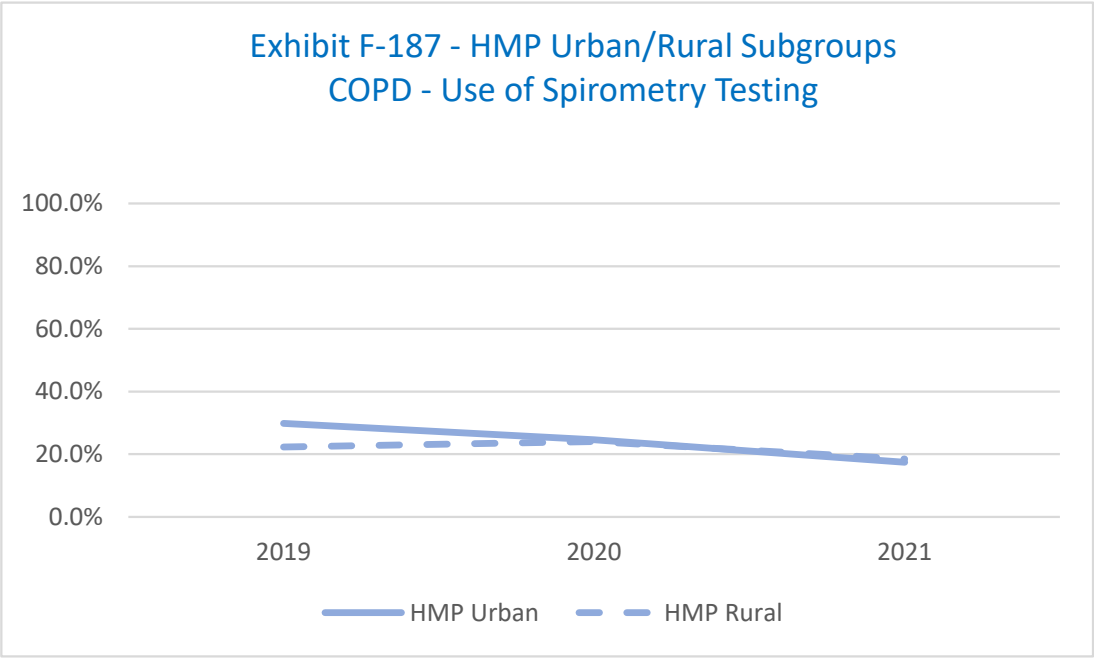
The difference between the HMP and comparison group compliance rates was statistically significant in 2020. It also was statistically significant for the three-year pooled data (Exhibit F-186).

Exhibit F-186 – HMP – COPD – Use of Spirometry Testing

	2019	2020	2021	3-Year Pooled
HMP	24.9%	24.2%	18.1%	22.4%
Comparison Group	23.3%	18.2%	14.3%	18.6%
Difference	1.6%	6.0%‡	3.8%	3.8%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 377 CG – 738	HMP – 418 CG – 858	HMP – 480 CG – 929	HMP – 1,275 CG – 2,525
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

The HMP urban subgroup rate exceeded the rural rate in 2019 and 2020; the rural subgroup rate exceeded the urban rate in 2021. The rate for the urban subgroup trended downward from 2019 to 2021; the rate for the rural subgroup trended upward from 2019 to 2020 and downward from 2020 to 2021 (Exhibit F-187).

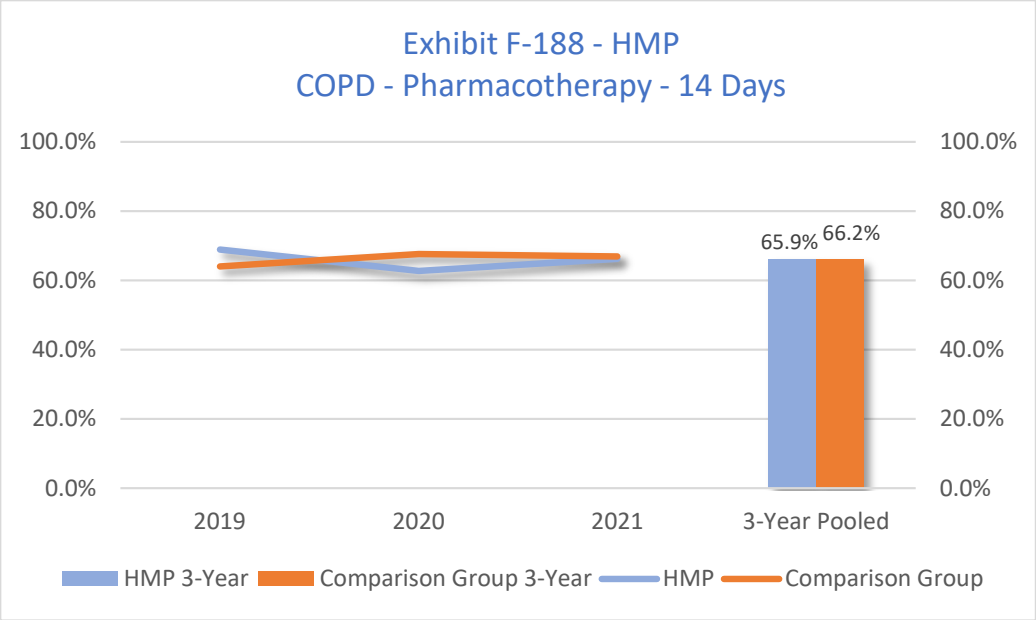


	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	29.9%	24.6%	17.4%
	Rural	22.3%	24.0%	18.5%

Chronic Obstructive Pulmonary Disease – Pharmacotherapy Management of Exacerbation – 14 Days

Findings – HMP Population

Approximately 66 percent of HMP members and 66 percent of comparison group members were compliant on this measure across the three years (Exhibit F-188). The compliance rate for the HMP population declined from 2019 to 2020 before rising again from 2020 to 2021. The compliance rate for the comparison group rose from 2019 to 2020 before declining from 2020 to 2021.



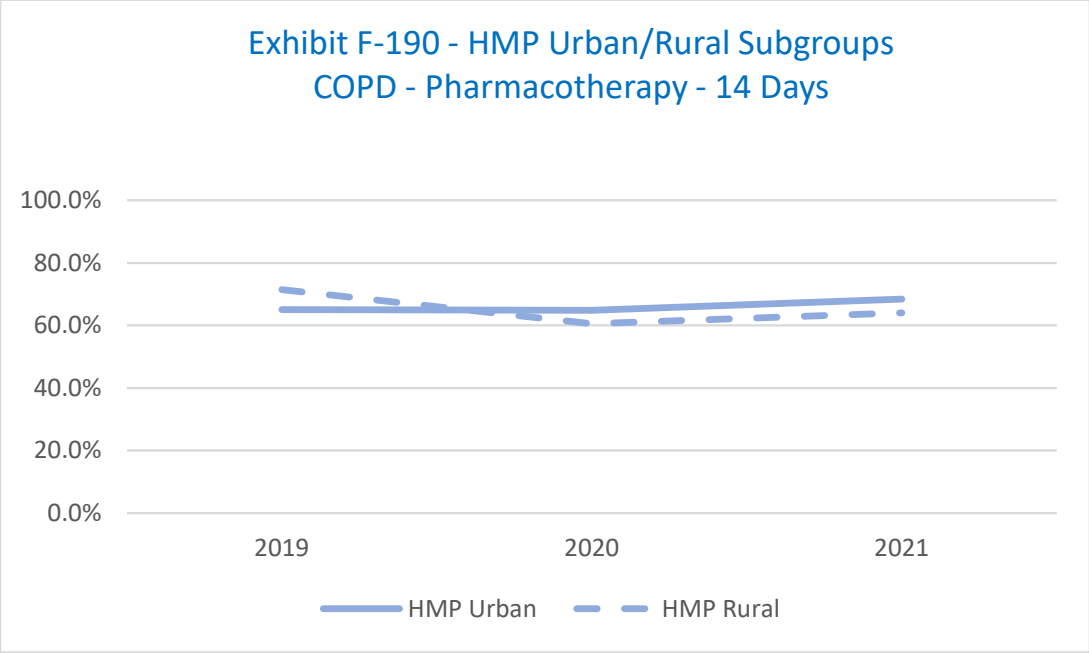
The difference between the HMP and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-189).

Exhibit F-189 – HMP – COPD – Pharmacotherapy – 14 Days

	2019	2020	2021	3-Year Pooled
HMP	68.9%	62.7%	66.2%	65.9%
Comparison Group	64.0%	67.6%	66.9%	66.2%
Difference	4.9%	(4.9%)	(0.7%)	(0.3%)
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 209 CG – 340	HMP – 209 CG – 278	HMP – 139 CG – 187	HMP – 557 CG – 805
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

The HMP rural subgroup had a higher compliance rate than the urban subgroup in 2019; the urban subgroup had a higher rate in 2020 and 2021. The rates for both groups trended downward from 2019 to 2020 and trended upward from 2020 to 2021 (Exhibit F-190).

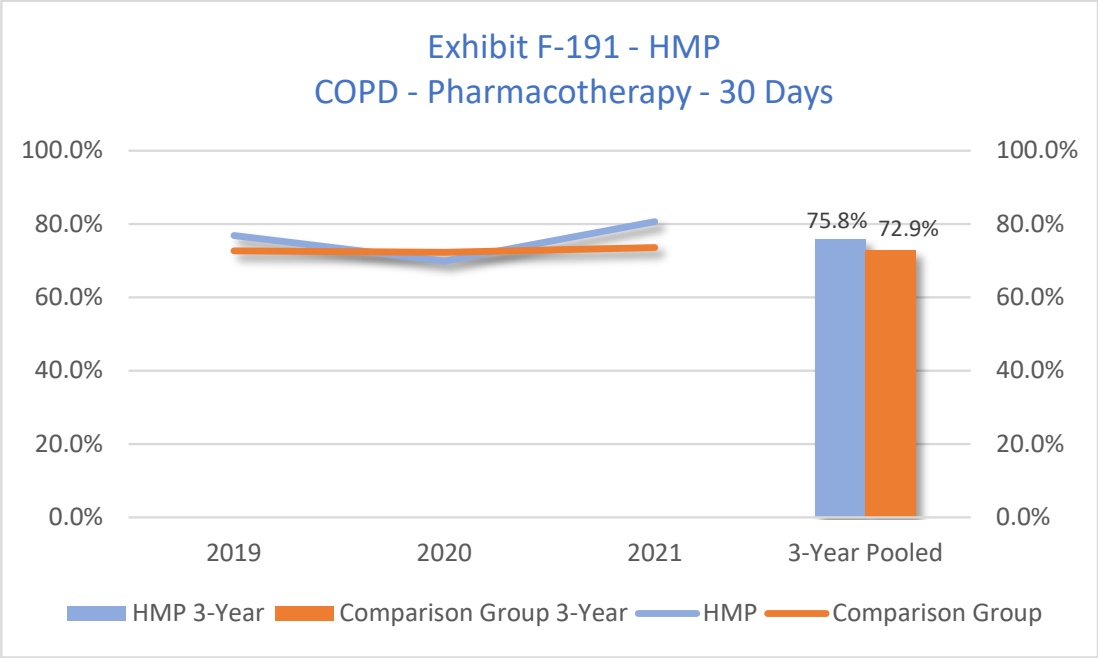


	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	65.1%	64.9%	68.4%
	Rural	71.5%	60.5%	64.0%

Chronic Obstructive Pulmonary Disease – Pharmacotherapy Management of Exacerbation – 30 Days

Findings – HMP Population

Approximately 76 percent of HMP members and 73 percent of comparison group members were compliant on this measure across the three years (Exhibit F-191). The compliance rate for both populations declined from 2019 to 2020 and rose again from 2020 to 2021.



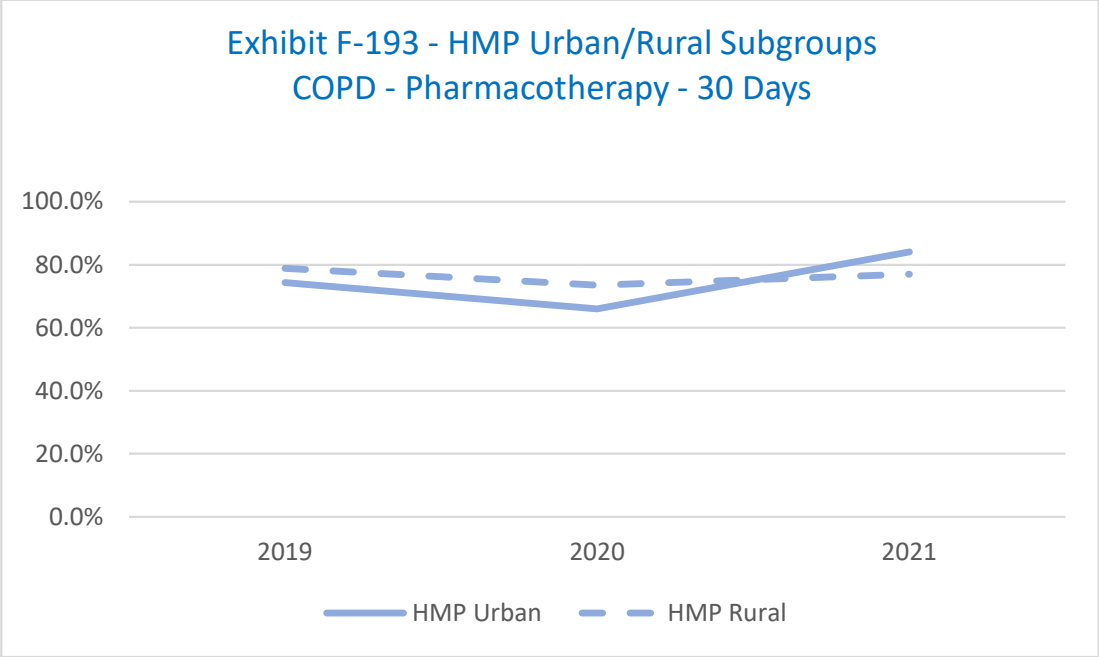
The difference between the HMP and comparison group compliance rates was not statistically significant in any of the individual years. It also was not statistically significant for the three-year pooled data (Exhibit F-192).

Exhibit F-192 – HMP – COPD – Pharmacotherapy – 30 Days

	2019	2020	2021	3-Year Pooled
HMP	76.8%	69.9%	80.6%	75.8%
Comparison Group	72.7%	72.3%	73.6%	72.9%
Difference	4.1%	(2.4%)	7.0%	2.9%
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 209 CG – 340	HMP – 209 CG – 278	HMP – 139 CG – 187	HMP – 557 CG – 805
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

The HMP rural subgroup had a higher compliance rate than the urban subgroup in 2019 and 2020; the urban subgroup had a higher rate in 2021. The rates for both groups trended downward from 2019 to 2020 and trended upward from 2020 to 2021 (Exhibit F-193).

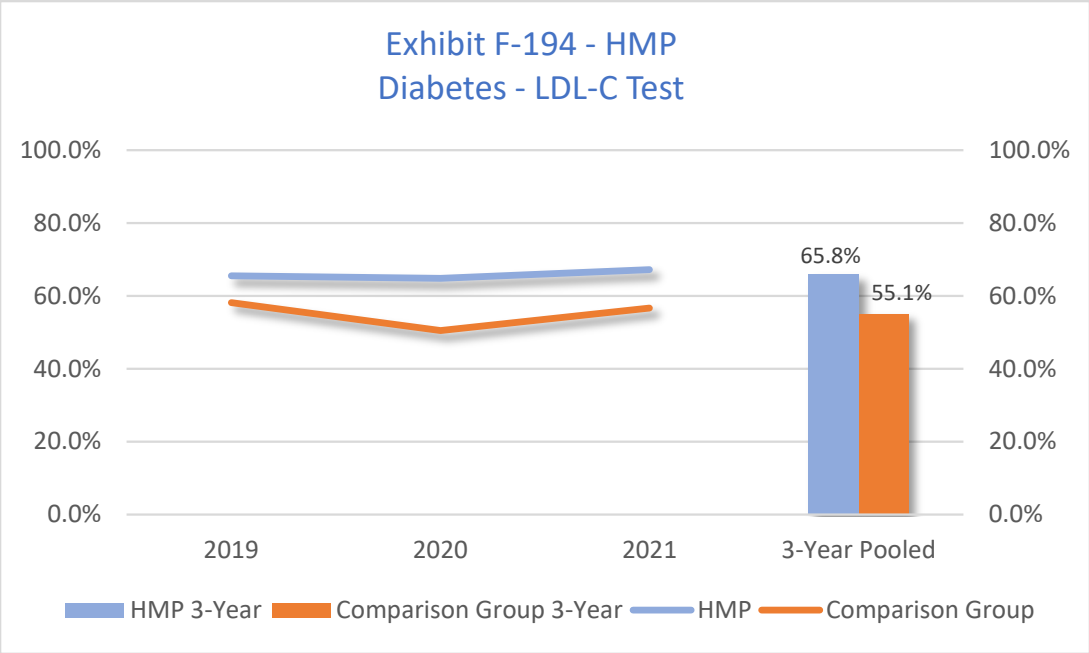


	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	74.4%	66.0%	84.1%
	Rural	78.9%	73.5%	77.0%

Diabetes – LDL-C Test

Findings – HMP Population

Approximately 66 percent of HMP members and 55 percent of comparison group members were compliant on this measure across the three years (Exhibit F-194). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



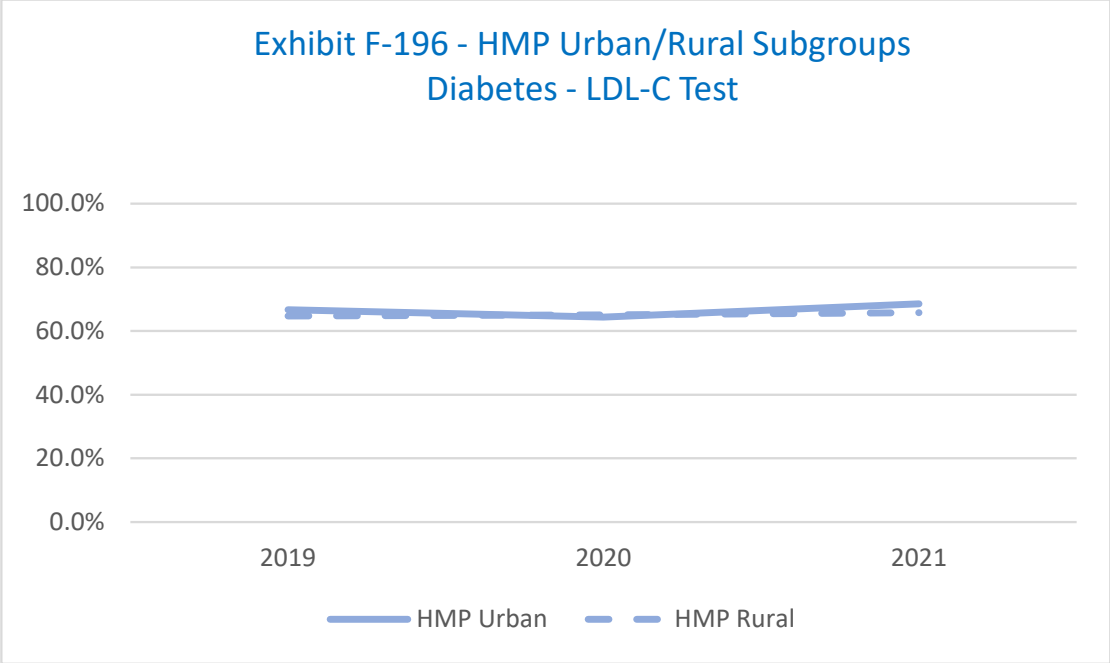
The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-195).

Exhibit F-195 – HMP – Diabetes – LDL-C Test

	2019	2020	2021	3-Year Pooled
HMP	65.5%	64.8%	67.2%	65.8%
Comparison Group	58.1%	50.5%	56.7%	55.1%
Difference	7.4%‡	14.3%‡	10.5%‡	10.7%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 1,777 CG – 3,716	HMP – 2,272 CG – 4,464	HMP – 2,044 CG – 4,744	HMP – 6,093 CG – 12,924
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

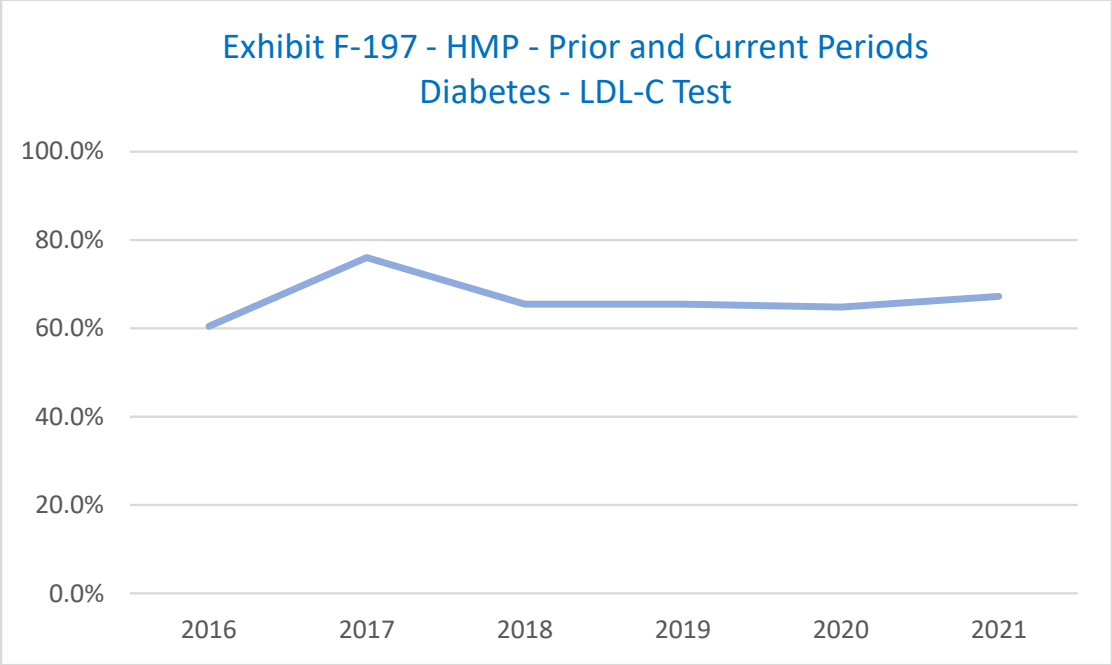
The HMP urban subgroup compliance rate exceeded the rural subgroup rate in 2019 and 2021; the rural subgroup rate exceeded the urban subgroup rate in 2020. The urban subgroup rate trended slightly downward from 2019 to 2020 and upward from 2020 to 2021; the rural subgroup rate trended slightly upward from 2019 to 2021 (Exhibit F-196).



	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	66.7%	64.4%	68.5%
	Rural	64.7%	65.1%	65.8%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 61 percent in 2016 to 76 percent in 2017, before declining to 66 percent in 2018 and rising again to 67 percent in 2021 (Exhibit F-197).

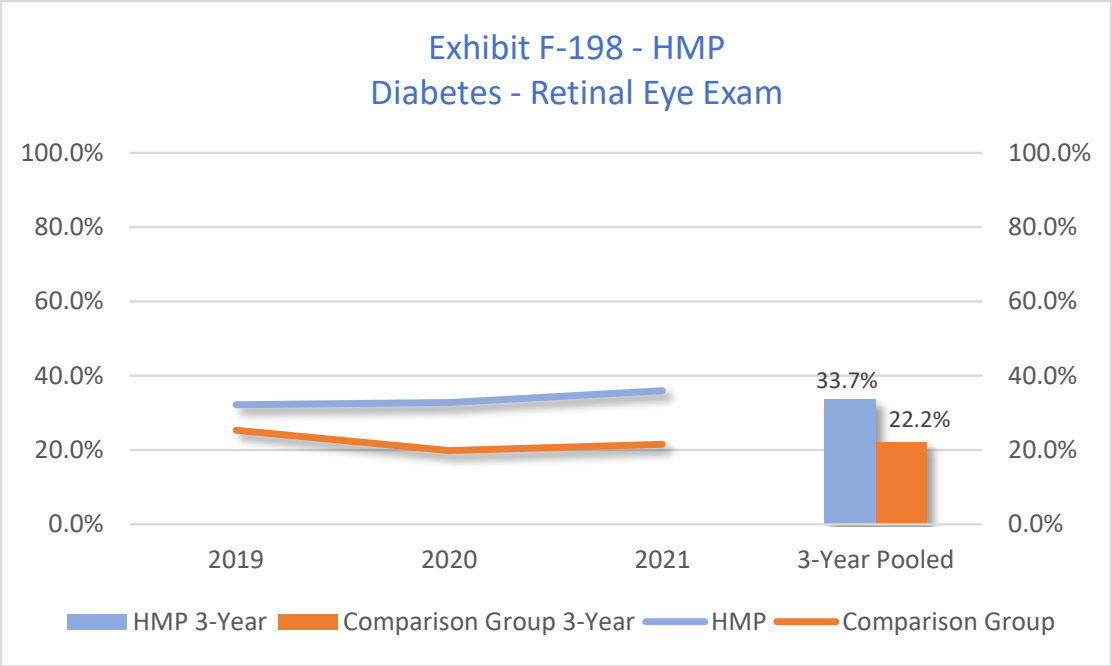


	2016	2017	2018	2019	2020	2021
Compliance Rate	60.5%	76.0%	65.5%	65.5%	64.8%	67.2%

Diabetes – Retinal Eye Exam

Findings – HMP Population

Approximately 34 percent of HMP members and 22 percent of comparison group members were compliant on this measure across the three years (Exhibit F-198). The compliance rate for the HMP population rose from 2019 to 2021; the compliance rate for the comparison group declined from 2019 to 2020 before rising again from 2020 to 2021.



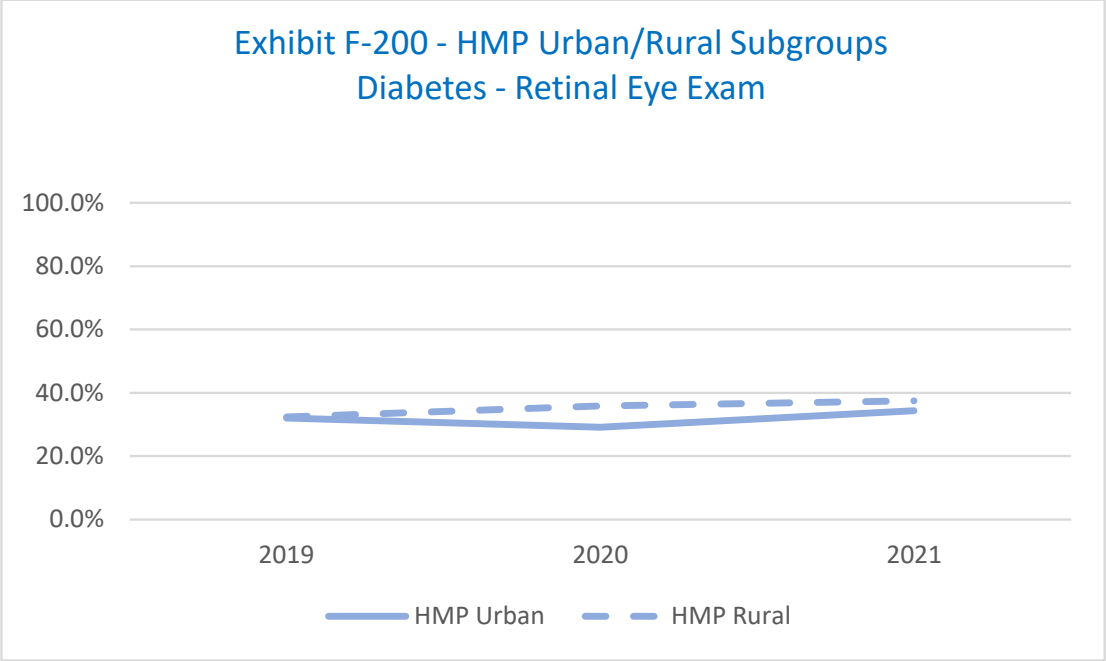
The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-199).

Exhibit F-199 – HMP – Diabetes – Retinal Eye Exam

	2019	2020	2021	3-Year Pooled
HMP	32.2%	32.8%	36.0%	33.7%
Comparison Group	25.3%	19.8%	21.5%	22.2%
Difference	6.9%‡	13.0%‡	14.5%‡	11.5%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 1,777 CG – 3,716	HMP – 2,272 CG – 4,464	HMP – 2,044 CG – 4,744	HMP – 6,093 CG – 12,924
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

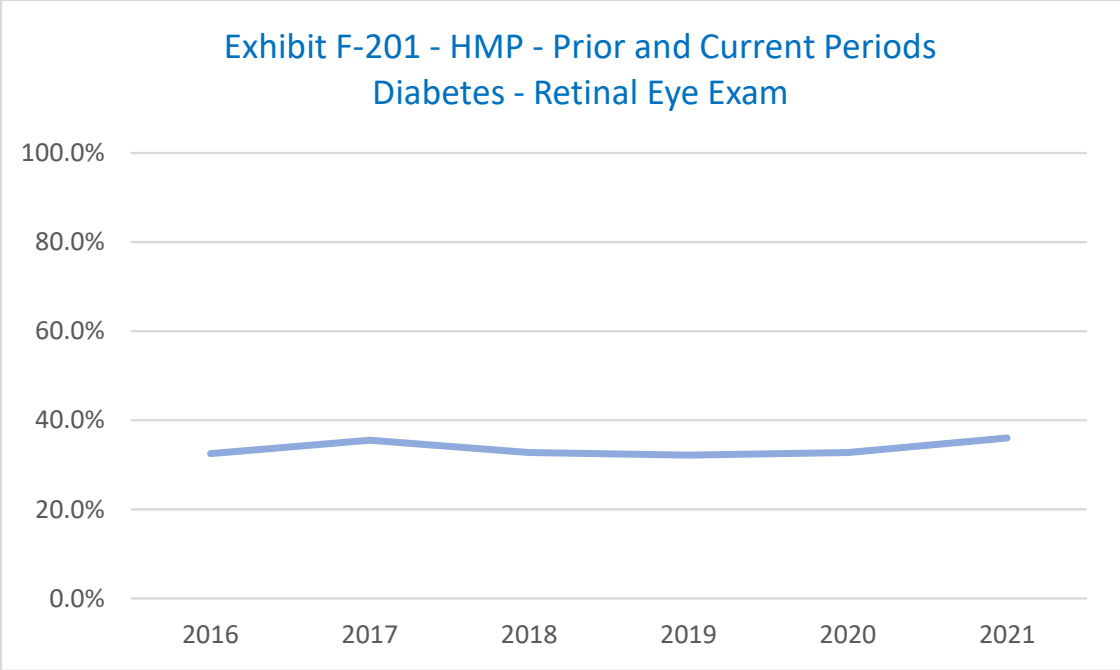
The HMP rural subgroup rate exceeded the urban subgroup rate across the three years. The rural subgroup trended upward from 2019 to 2021. The urban subgroup trended downward from 2019 to 2021 before rising again from 2020 to 2021 (Exhibit F-200).



	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	32.0%	29.1%	34.4%
	Rural	32.4%	35.9%	37.5%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 33 percent in 2016 to 36 percent in 2021 (Exhibit F-201).

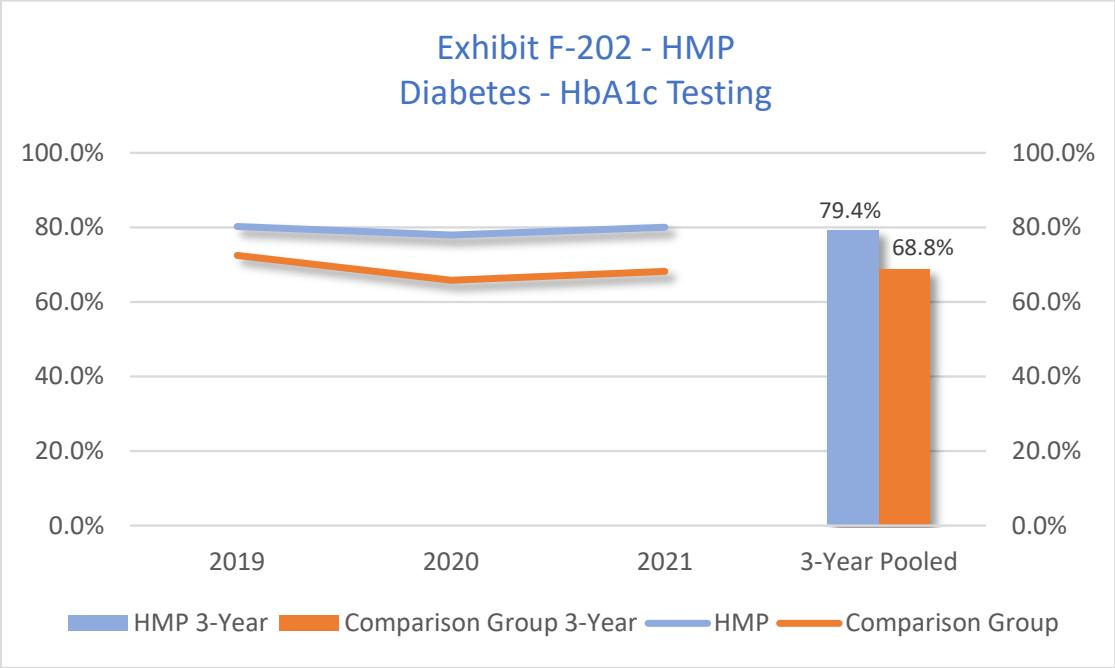


	2016	2017	2018	2019	2020	2021
Compliance Rate	32.5%	35.5%	32.8 %	32.2%	32.8%	36.0%

Diabetes – HbA1c Testing

Findings – HMP Population

Approximately 79 percent of HMP members and 69 percent of comparison group members were compliant on this measure across the three years (Exhibit F-202). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



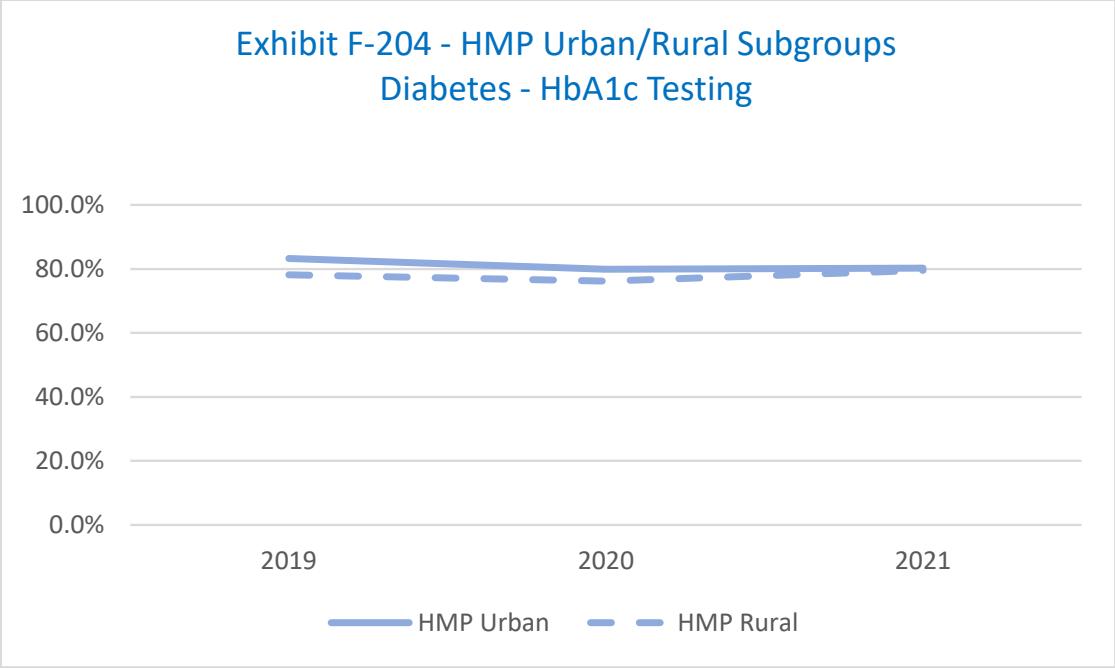
The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-203).

Exhibit F-203 – HMP – Diabetes – HbA1c Testing

	2019	2020	2021	3-Year Pooled
HMP	80.2%	77.9%	80.0%	79.4%
Comparison Group	72.5%	65.8%	68.2%	68.8%
Difference	7.7%‡	12.1%‡	11.8%‡	10.6%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 1,777 CG – 3,716	HMP – 2,272 CG – 4,464	HMP – 2,044 CG – 4,744	HMP – 6,093 CG – 12,924
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

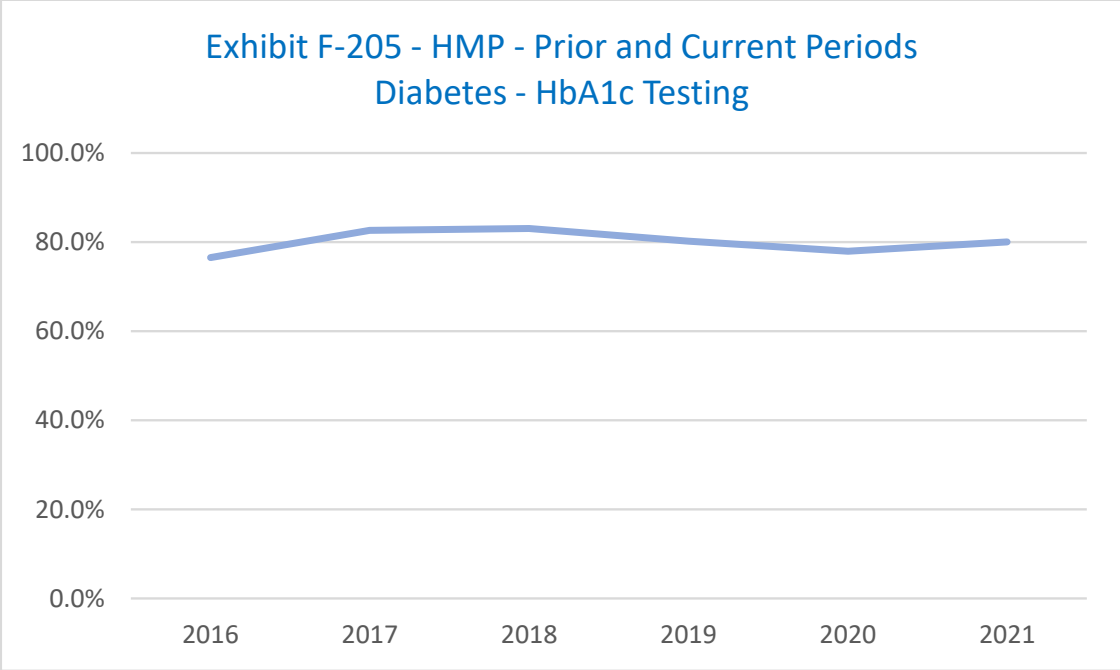
The HMP urban subgroup rate exceeded the rural subgroup rate across the three years. The compliance rate for both subgroups trended downward from 2019 to 2020 and trended upward from 2020 to 2021 (Exhibit F-204).



	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	83.3%	79.9%	80.3%
	Rural	78.2%	76.2%	79.6%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 77 percent in 2016 to 83 percent in 2018, before declining to 78 percent and rising again to 80 percent in 2021 (Exhibit F-205).

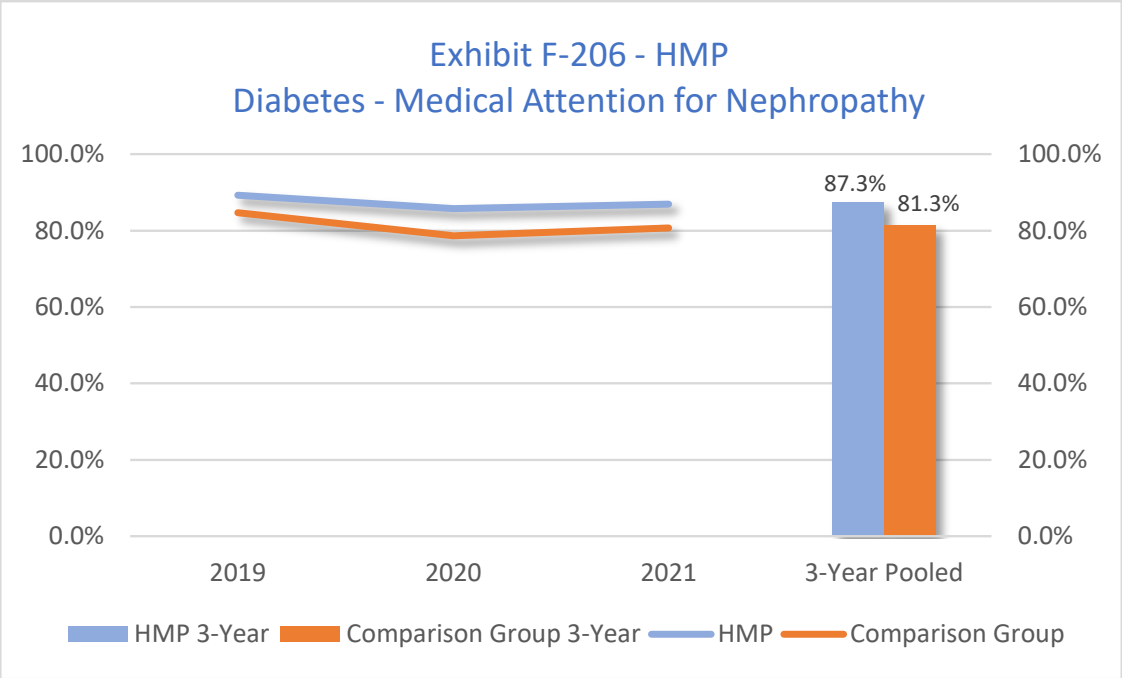


	2016	2017	2018	2019	2020	2021
Compliance Rate	76.5%	82.6%	83.0 %	80.2%	77.9%	80.0%

Diabetes – Medical Attention for Nephropathy

Findings – HMP Population

Approximately 87 percent of HMP members and 81 percent of comparison group members were compliant on this measure across the three years (Exhibit F-206). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



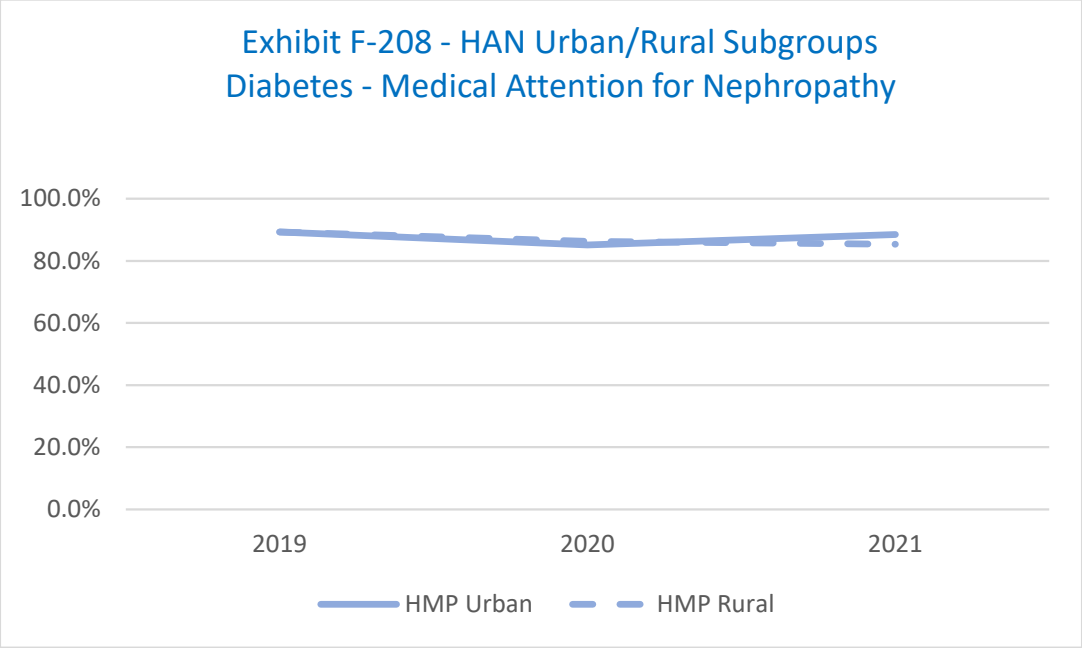
The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-207).

Exhibit F-207 – HMP – Diabetes – Medical Attention for Nephropathy

	2019	2020	2021	3-Year Pooled
HMP	89.3%	85.8%	86.9%	87.3%
Comparison Group	84.7%	78.6%	80.7%	81.3%
Difference	4.6%‡	7.2%‡	6.2%‡	6.0%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 1,777 CG – 3,716	HMP – 2,272 CG – 4,464	HMP – 2,044 CG – 4,744	HMP – 6,093 CG – 12,924
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

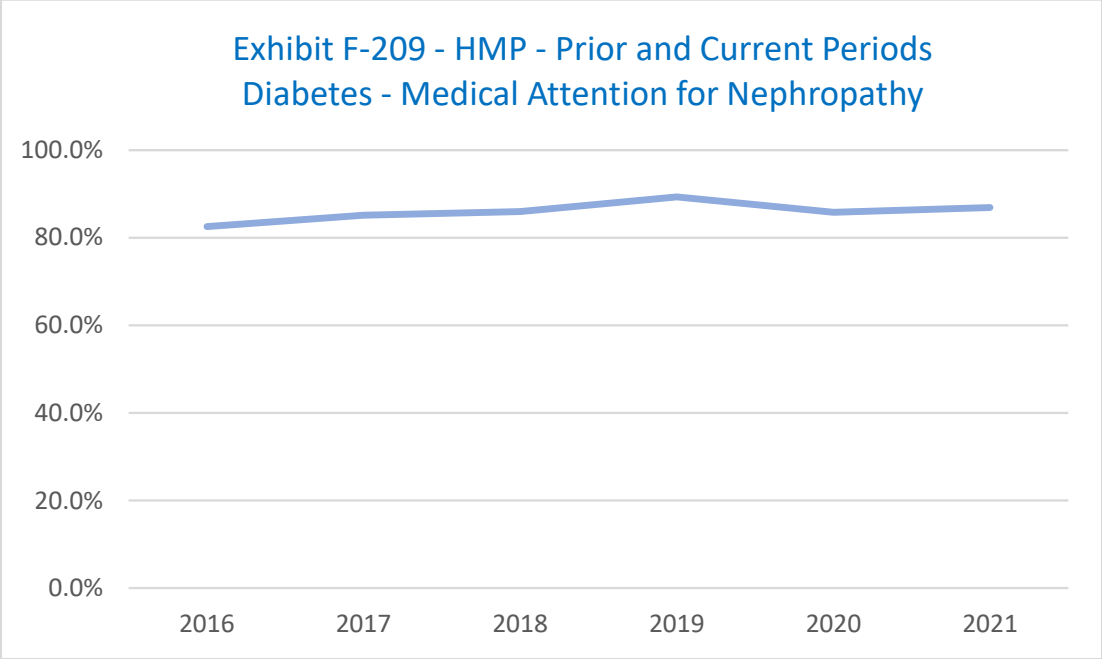
The HMP urban and rural subgroups had identical compliance rates in 2019; the rural subgroup rate was slightly higher in 2020 and the urban subgroup rate was higher in 2021. The urban subgroup rate trended downward from 2019 to 2020 and trended upward from 2020 to 2021. The rural subgroup rate trended downward from 2019 to 2021 (Exhibit F-208).



	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	89.3%	85.1%	88.5%
	Rural	89.3%	86.3%	85.1%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 83 percent in 2016 to 89 percent in 2019, before declining to 86 percent in 2020 and rising again slightly to 87 percent in 2021 (Exhibit F-209).

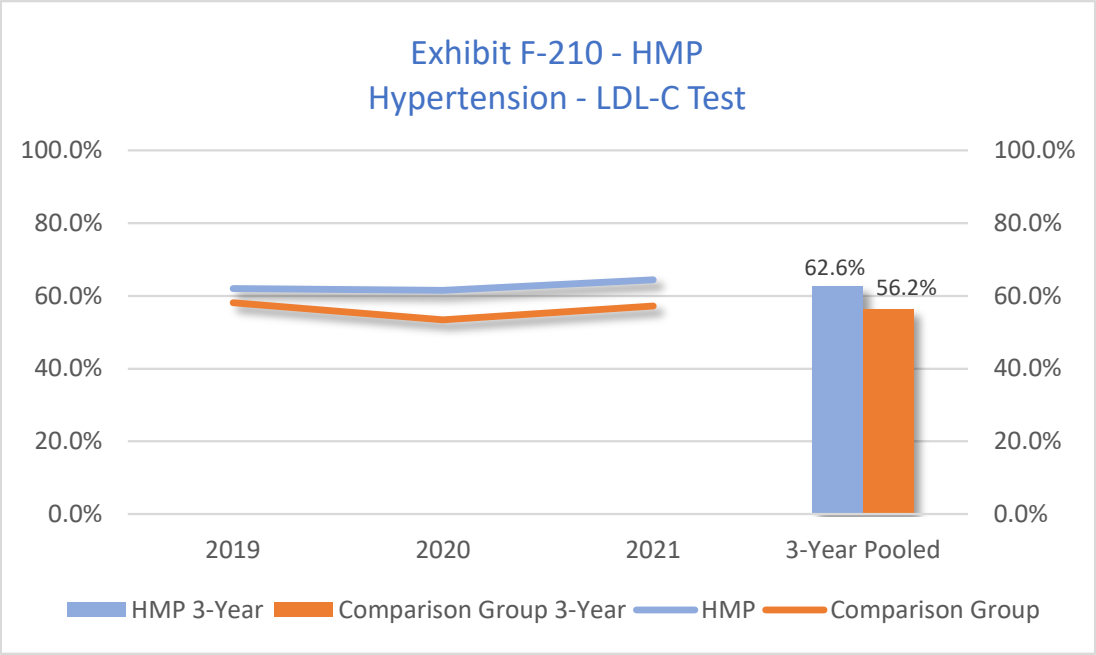


	2016	2017	2018	2019	2020	2021
Compliance Rate	82.5%	85.1%	86.0%	89.3%	85.8%	86.9%

Hypertension – LDL-C Test

Findings – HMP Population

Approximately 63 percent of HMP members and 56 percent of comparison group members were compliant on this measure across the three years (Exhibit F-210). The compliance rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



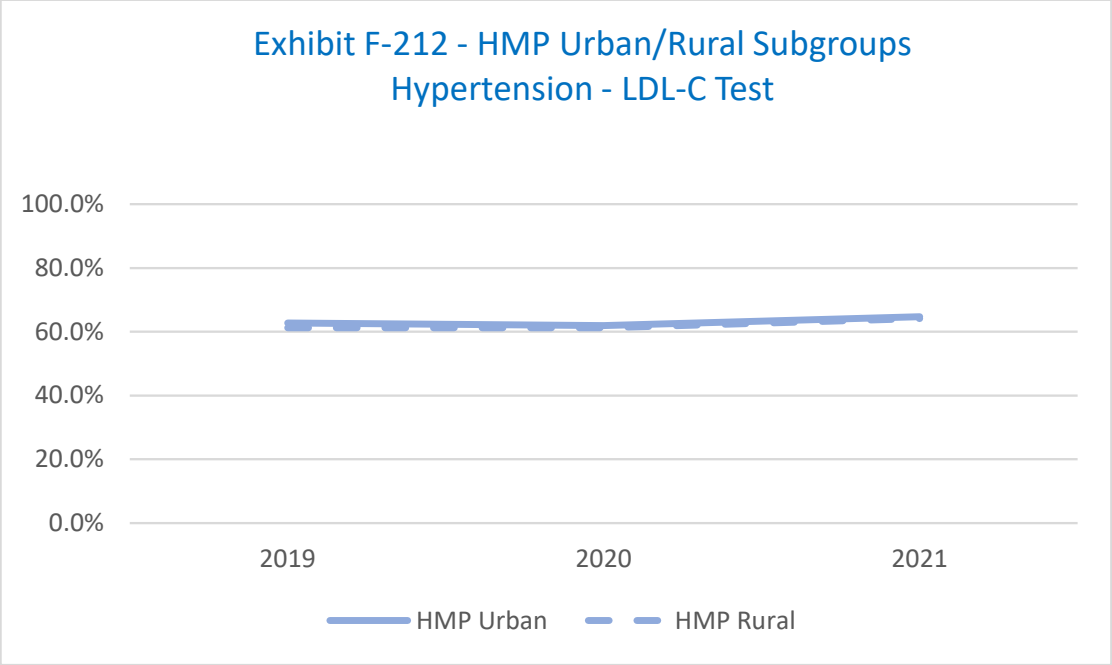
The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-211).

Exhibit F-211 – HMP – Hypertension – LDL-C Test

	2019	2020	2021	3-Year Pooled
HMP	62.0%	61.5%	64.4%	62.6%
Comparison Group	58.1%	53.4%	57.2%	56.2%
Difference	3.9%‡	8.1%	7.2%‡	6.4%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 2,596 CG – 5,920	HMP – 3,534 CG – 7,853	HMP – 2,857 CG – 6,555	HMP – 8,987 CG – 20,328
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

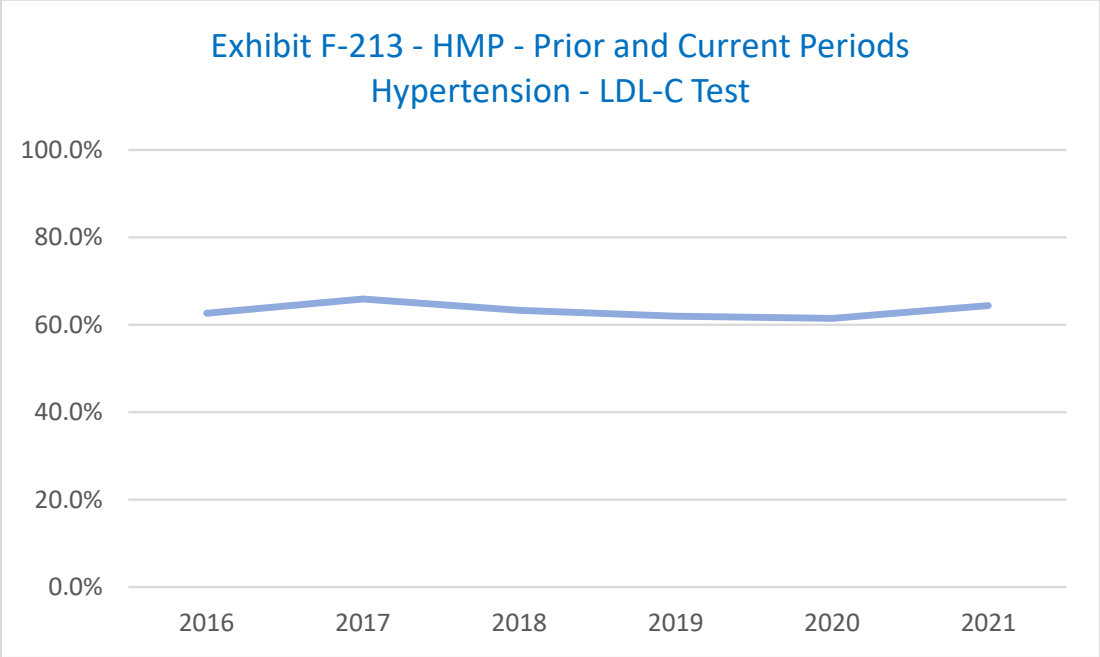
The HMP urban and rural subgroup rates were similar across the three years. The rate for the urban subgroup trended downward from 2019 to 2020 before trending upward from 2020 to 2021. The rate for the rural subgroup trended upward from 2019 to 2021 (Exhibit F-212).



	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	62.8%	61.9%	64.7%
	Rural	61.3%	61.3%	64.1%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 63 percent in 2016 to 66 percent in 2017, before declining gradually over several years and rising again to 64 percent in 2021 (Exhibit F-213).

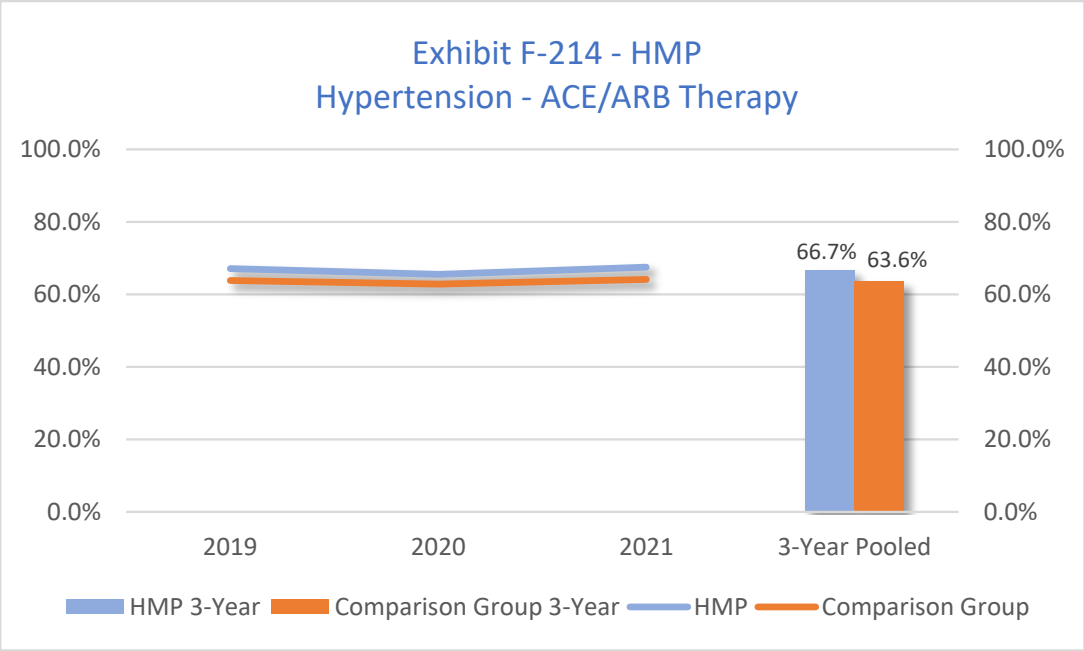


	2016	2017	2018	2019	2020	2021
Compliance Rate	62.6%	65.9%	63.3%	62.0%	61.5%	64.4%

Hypertension – ACE/ARB Therapy

Findings – HMP Population

Approximately 67 percent of HMP members and 64 percent of comparison group members were compliant on this measure across the three years (Exhibit F-214). The compliance rate for both populations declined slightly from 2019 to 2020 before rising again from 2020 to 2021.



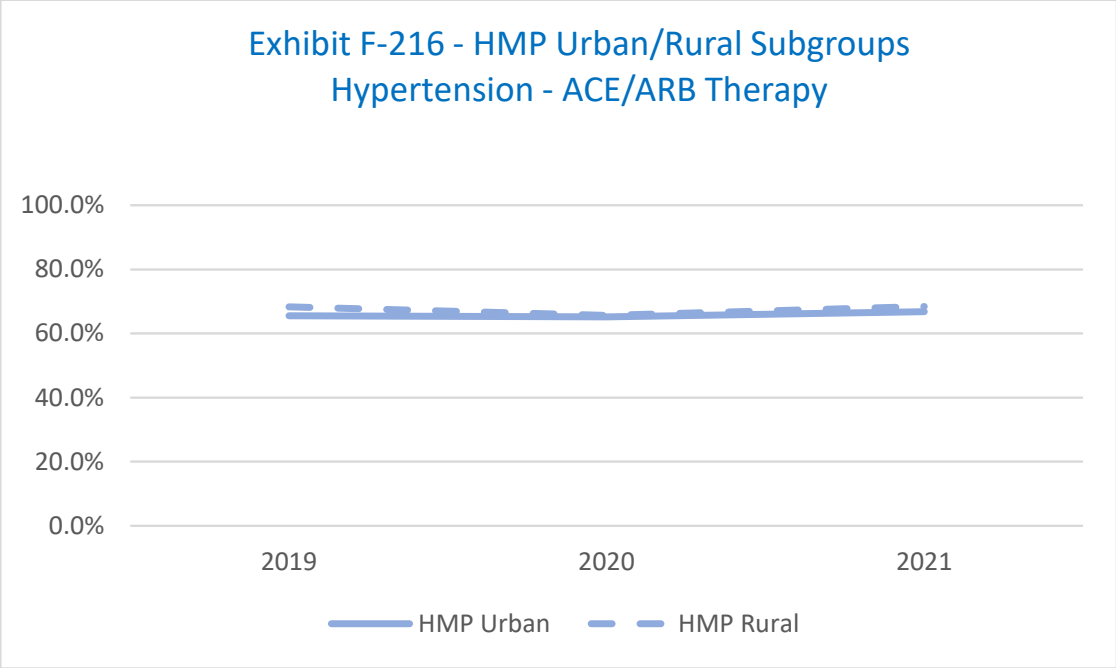
The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-215).

Exhibit F-215 – HMP – Hypertension – ACE/ARB Therapy

	2019	2020	2021	3-Year Pooled
HMP	67.1%	65.5%	67.5%	66.7%
Comparison Group	63.8%	62.8%	64.1%	63.6%
Difference	3.3%‡	2.7%‡	3.4%‡	3.1%‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 3,321 CG – 5,960	HMP – 3,794 CG – 7,885	HMP – 4,668 CG – 6,582	HMP – 11,783 CG – 20,427
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

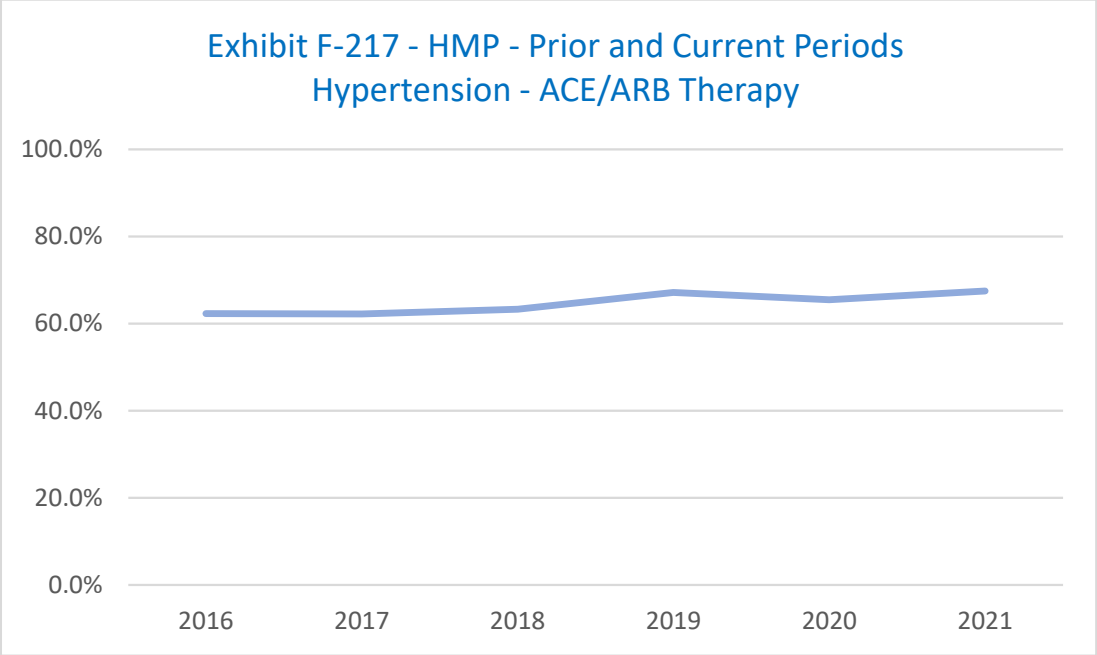
The HMP rural subgroup rate exceeded the urban subgroup rate across the three years. The rates for both groups trended downward slightly from 2019 to 2020 before trending upward from 2020 to 2021 (Exhibit F-216).



	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	65.5%	65.2%	66.8%
	Rural	68.3%	65.7%	68.4%

Findings – HMP Population – Comparison to Prior Waiver Period

This measure also was evaluated for the HMP population in the prior waiver period (2016 to 2018). The compliance rate rose from approximately 62 percent in 2016 to 67 percent in 2019, before declining slightly to 66 percent in 2020 and rising again to 68 percent in 2021 (Exhibit F-217).

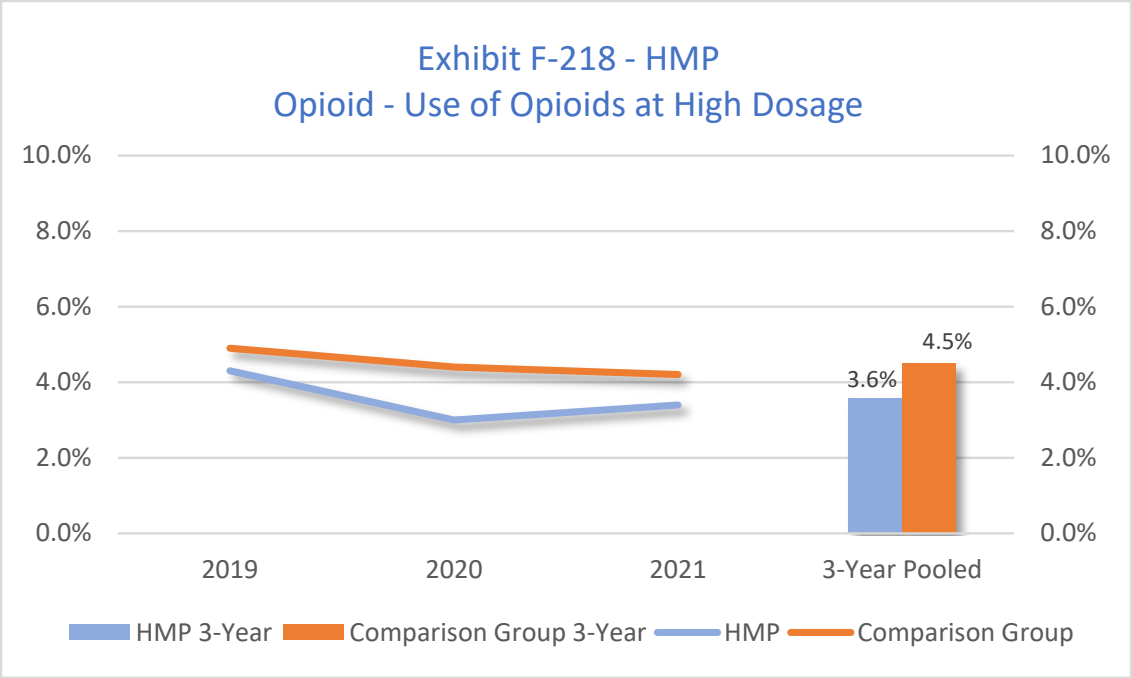


	2016	2017	2018	2019	2020	2021
Compliance Rate	62.3%	62.2%	63.3%	67.1%	65.5%	67.5%

Opioid – Use of Opioids at High Dosage

Findings – HMP Population

Approximately four percent of HMP members and five percent of comparison group members were positive for this measure (users of prescription opioids at high dosage) across the three years (Exhibit F-218). The HMP population rate declined from 2019 to 2020 before rising again from 2020 to 2021. The comparison group rate declined from 2019 to 2021.



Note: Lower rate is better

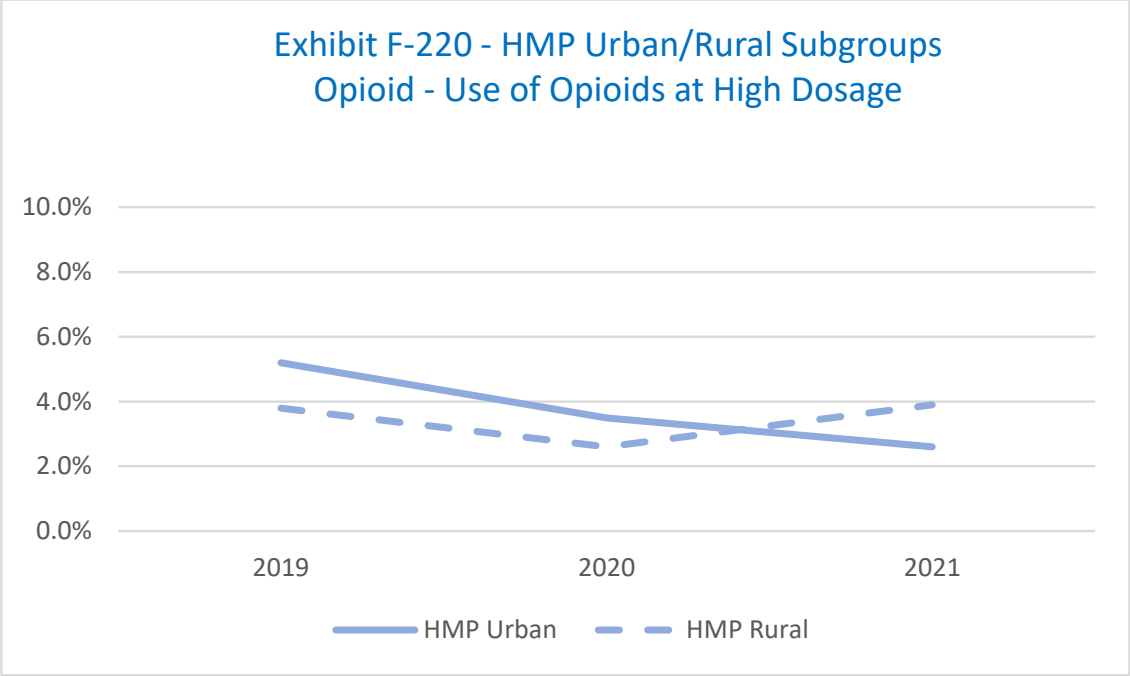
The difference between the HMP and comparison group compliance rates was statistically significant in 2020. It also was statistically significant for the three-year pooled data (Exhibit F-219).

Exhibit F-219 – HMP – Opioid – Use of Opioids at High Dosage

	2019	2020	2021	3-Year Pooled
HMP	4.3%	3.0%	3.4%	3.6%
Comparison Group	4.9%	4.4%	4.2%	4.5%
Difference	(0.6%)	(1.4%)‡	(0.8%)	(0.9%)‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 1,094 CG – 2,890	HMP – 1,313 CG – 2,728	HMP – 1,127 CG – 2,436	HMP – 3,534 CG – 8,054
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

The HMP urban subgroup rate exceeded the rural subgroup rate in 2019 and 2020 and was lower than the rural subgroup rate in 2021. The rate for the urban subgroup trended downward from 2019 to 2021. The rate for the rural subgroup trended downward from 2019 to 2020 and upward from 2020 to 2021 (Exhibit F-220).



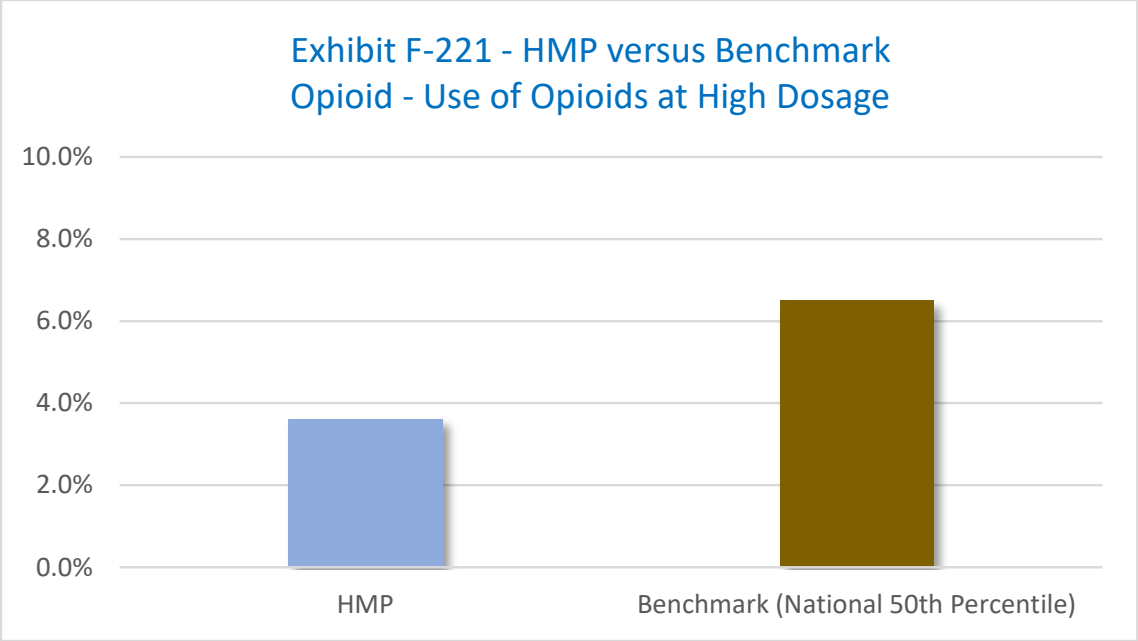
Note: Lower rate is better

	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	5.2%	3.5%	2.6%
	Rural	3.8%	2.6%	3.9%

Findings – HMP and National Benchmark

The three-year pooled rate for the SoonerCare HMP population was 33 percentage points lower than the national benchmark rate (Exhibit F-221).

(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



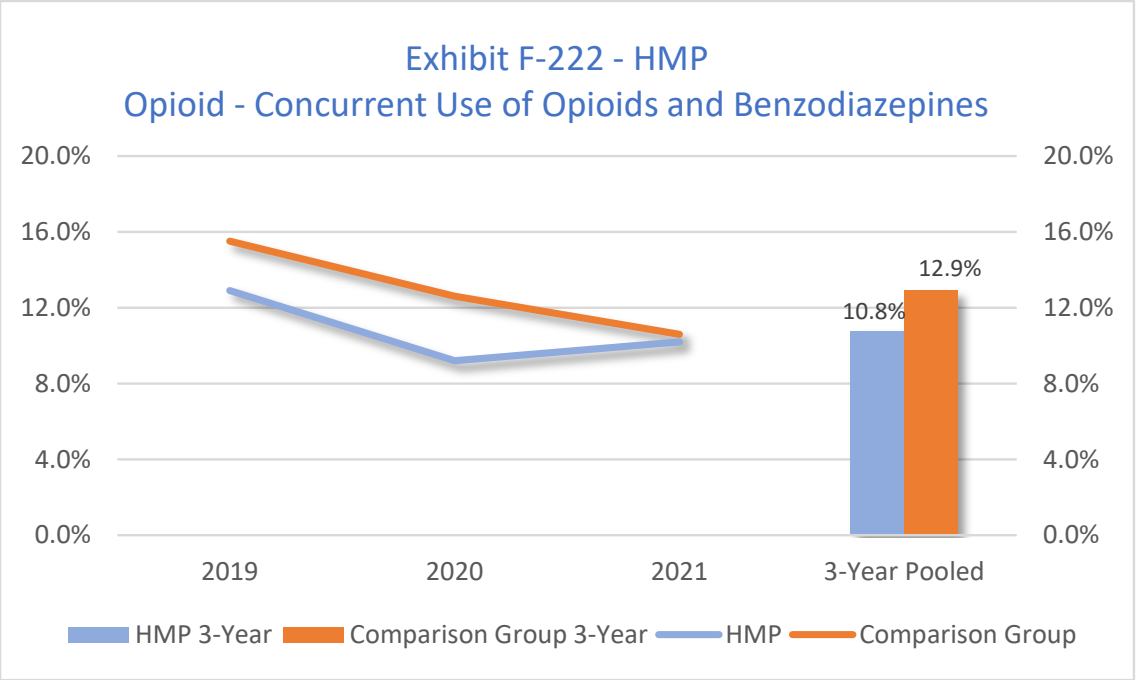
Note: Lower rate is better

	HMP	Benchmark
Compliance Rate	3.6%	6.5%

Opioid – Concurrent Use of Opioids and Benzodiazepines

Findings – HMP Population

Approximately 11 percent of HMP members and 13 percent of comparison group members were positive for this measure (concurrent users of prescription opioids and benzodiazepines) across the three years (Exhibit F-222). The HMP population rate declined from 2019 to 2020 before rising again from 2020 to 2021. The comparison group rate declined from 2019 to 2021.



Note: Lower rate is better

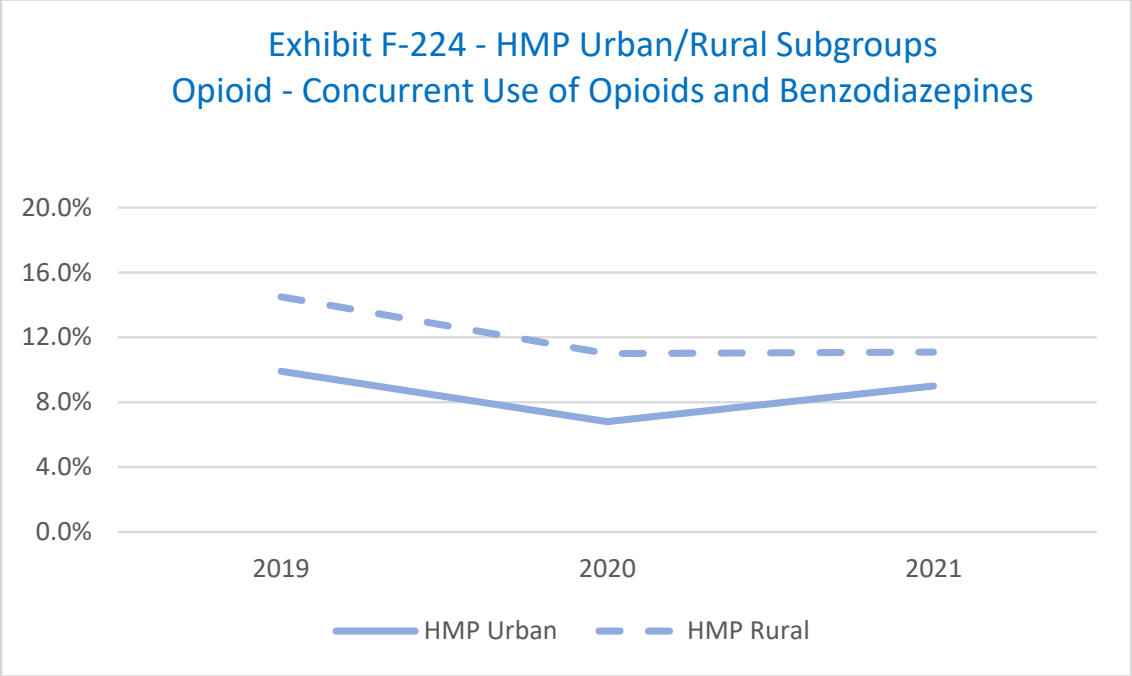
The difference between the HMP and comparison group compliance rates was statistically significant in 2019 and 2020. It also was statistically significant for the three-year pooled data (Exhibit F-223).

Exhibit F-223 – HMP – Opioid – Concurrent Use of Opioids and Benzodiazepines

	2019	2020	2021	3-Year Pooled
HMP	12.9%	9.2%	10.2%	10.8%
Comparison Group	15.5%	12.6%	10.6%	12.9%
Difference	(2.6%)‡	(3.4%)‡	(0.4%)	(2.1%)‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 1,390 CG – 4,037	HMP – 1,756 CG – 3,873	HMP – 1,520 CG – 3,624	HMP – 4,666 CG – 11,534
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

The HMP rural subgroup rate exceeded the urban subgroup rate across all three years. The rate for the rural subgroup trended downward from 2019 to 2020 and was stable from 2020 to 2021. The rate for the urban subgroup trended downward from 2019 to 2020 and upward from 2020 to 2021 (Exhibit F-224).



Note: Lower rate is better

	Subgroup	2019	2020	2021
Compliance Rate	**Urban**	9.9%	6.8%	9.0%
	Rural	14.5%	11.0%	11.1%

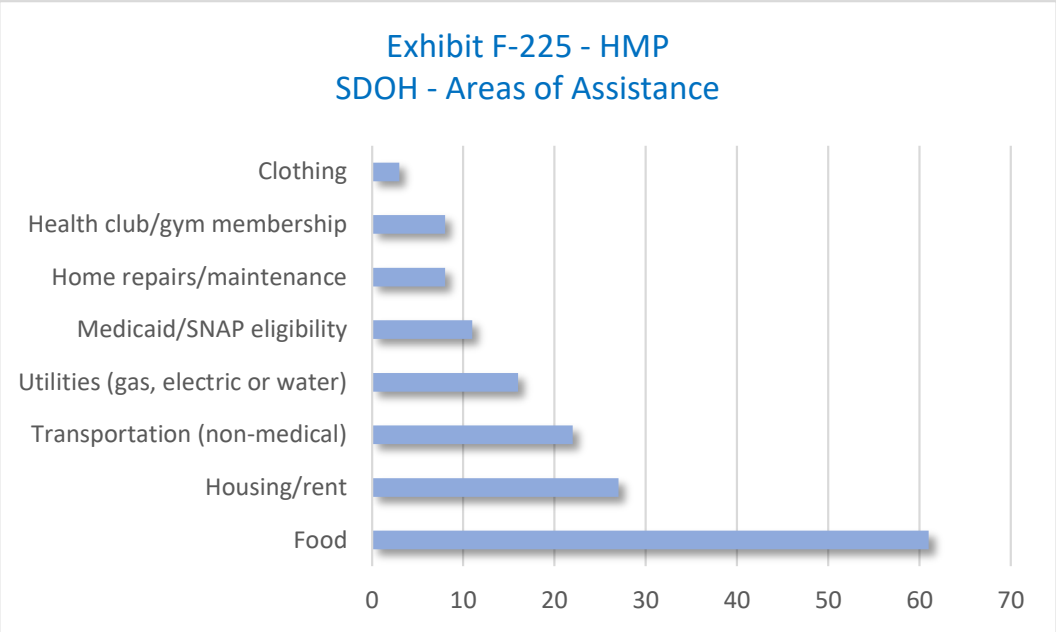
HMP Quality of Care – Social Determinants of Health

PHPG attempts to conduct a telephone survey with all SoonerCare HMP members at time of enrollment (baseline) and again six months later (follow-up). The survey includes questions concerning social determinants of health (SDOH). PHPG conducted 1,936 baseline surveys and 923 follow-up surveys from 2019 to 2021. Both surveys inquired about awareness of available assistance with SDOH through the SoonerCare HMP, use rates among those aware and satisfaction among those receiving assistance (asked in terms of how helpful the assistance was). Appendix 8 contains a copy of the survey instrument SDOH section.

Findings – Awareness and Use of SDOH Assistance

Fifty-six percent of baseline respondents and sixty-five percent of follow-up respondents were aware that the SoonerCare HMP offers assistance with SDOH, either through the member's health coach or a SoonerCare HMP Community Resource Specialist. Among those aware, 17 percent of baseline respondents reported receiving assistance from their Health Coach and/or a SoonerCare HMP Community Resource Specialist; 14 percent of follow-up respondents reported receiving assistance in the preceding six months.

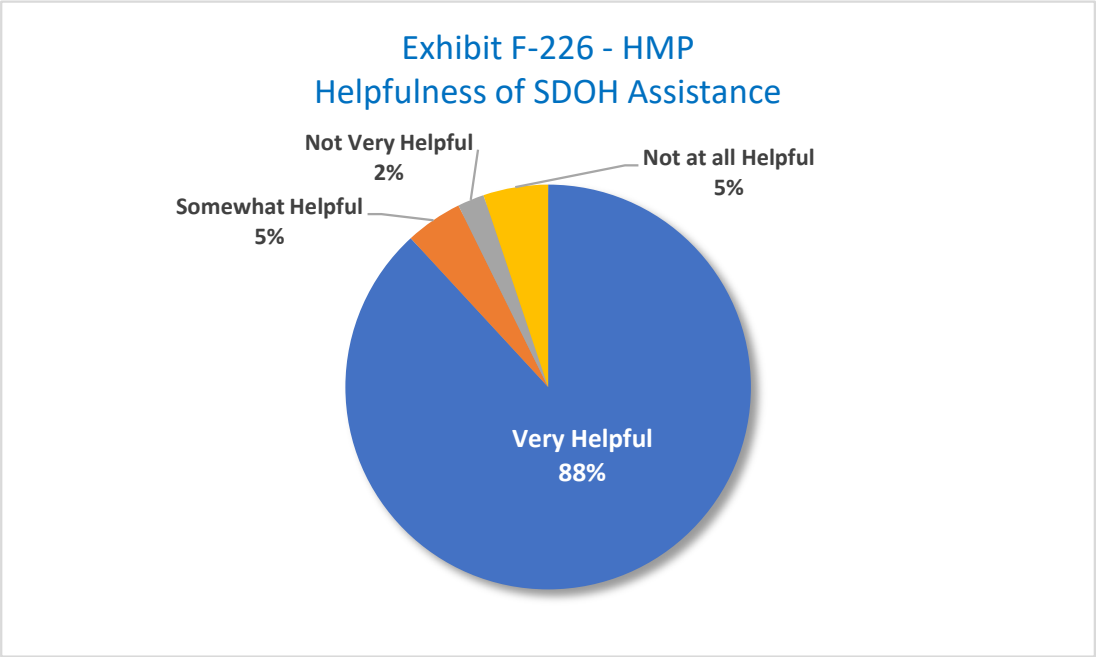
Respondents reported receiving assistance with a variety of SDOH-related needs (multiple responses per member were permitted). The most common areas cited were help resolving food insecurity, housing/rent and transportation (Exhibit F-225)[69].



[69] Areas mentioned by fewer than three respondents not shown on chart.

Findings – Satisfaction (Helpfulness)

Respondents were asked to rate the helpfulness of the assistance they received. Ninety-three percent rated it as very or somewhat helpful (Exhibit F-226).



In addition to providing responses to the structured survey questions, respondents were invited to describe their experience in their own words. A representative sample of respondent comments is provided below.

> *"(My health coach) has helped me so much, especially during COVID. I'm a single mom of three and can't always afford food; she sent me information on food pantries and helped me get my medications approved."*

> *"(My health coach) filled out and sent in my HUD application for me. I am computer illiterate so she just did it herself and I am so thankful."*

> *"SoonerCare only gives six punches of prescriptions a month and I have more than that. I was doing without some of my meds until my health coach set me up on 90-day supplies, now I get all of them! She also helped me write up a budget to help me keep track of my money."*

> *"I am computer illiterate. My nurse prints out helpful things for my health and sends them to me. She also helped get me dentures and glasses."*

> *"(My health coach) helped me at my lowest point in life. He never rushes me and I can tell he truly cares. He has helped me track down my medical records for a specialist. I have memory issues and he has been such a help. I told the other health coach that called that I am putting (my regular health coach) in my will!"*

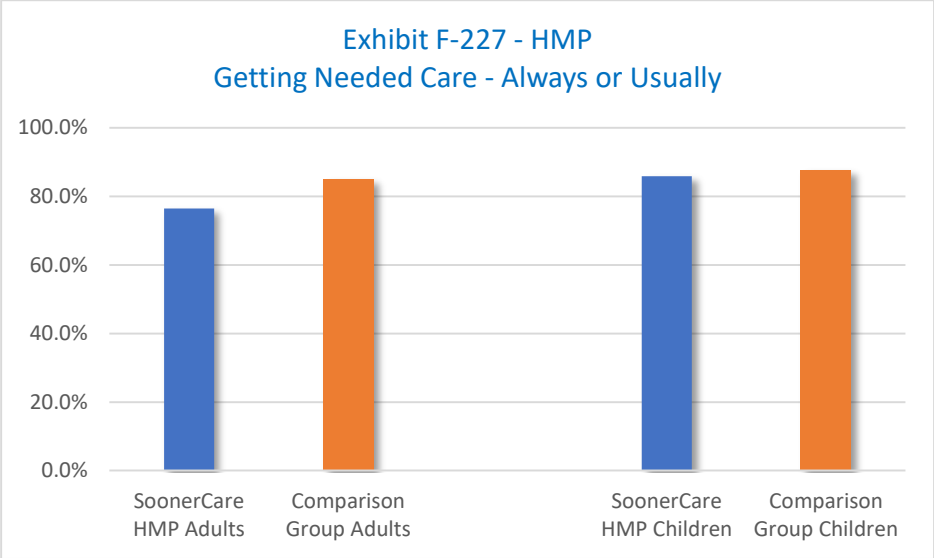
"(My health coach) not only helped me get glasses and stop smoking but she is so easy to talk to. She is always upbeat and happy. I can text her, call her or email her and she always answers quickly."

"The lady who calls has literally saved my life. If I didn't have her to talk to, I probably would have killed myself by now. She is helping me get section 8 housing and transportation. She also had my medication delivered to me when I could not get to the pharmacy and was panicking. She is an angel."

Getting Needed Care – Children and Adults

Findings – HMP Population

Approximately 77 percent of HMP adult members and 86 percent of comparison group adult members reported always or usually being able to get needed care[70]. Approximately 86 percent of parents/caretakers of HAN child members and 88 percent of comparison group parents/caretakers reported always or usually being able to get needed care for their children (Exhibit F-227).



The difference between the HMP and comparison group compliance rates was statistically significant for adults (Exhibit F-228).

Exhibit F-228 – HMP – Getting Needed Care – Percent Responding Always or Usually

	Adults	Children
HMP	76.5%	85.9%
Comparison Group	85.1%	87.8%
Difference	(8.6%)‡	(1.9%)

‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)

Sample Sizes	Adults	HMP - 591 CG – 213	Parents/Caretakers of Children	HMP - 77 CG – 668

Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.

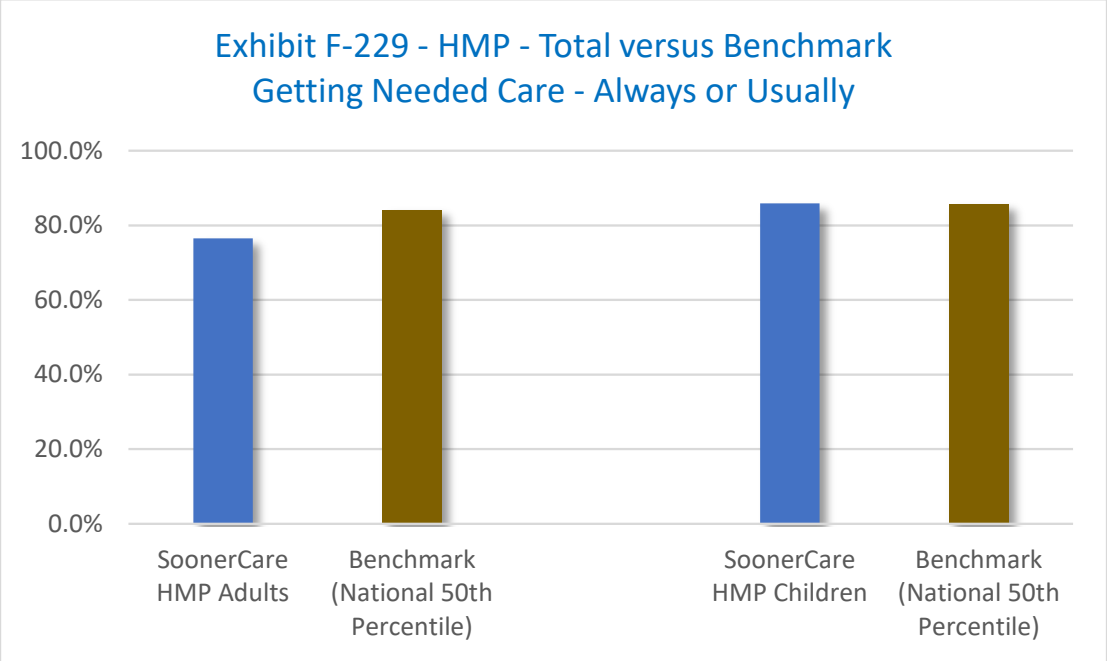
[70] CAHPS question: In the last six months, how often was it easy to get the care, tests or treatment you (your child) needed?

Findings – HMP Population and National Benchmark

The 2021 national benchmark rate for adults exceeded the rate for SoonerCare HMP by approximately eight percentage points (Exhibit F-229).

The rate for SoonerCare HMP children exceeded the 2021 national benchmark rate by less than one percentage point.

(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)

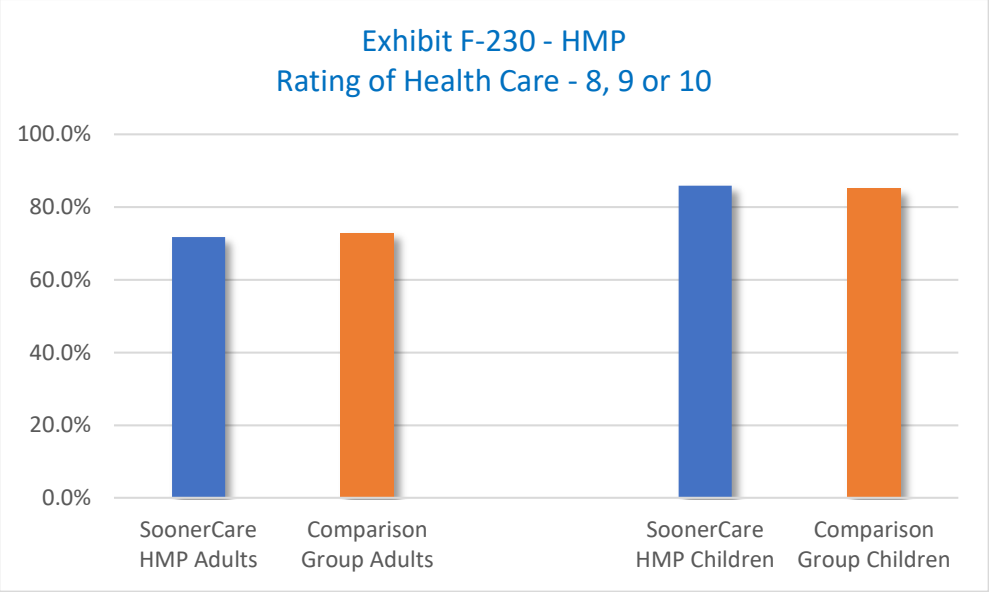


	HMP Adult	Benchmark	HMP Child	Benchmark
Response	76.5%	84.1%	85.9%	85.7%

Rating of Health Care – Children and Adults

Findings – HMP Population

Approximately 72 percent of both HMP adult and comparison group members rated their health care as 8, 9 or 10 on a scale of 0 (worst health care possible) to 10 (best health care possible)[71]. Approximately 86 percent of parents/caretakers of HMP child members and 85 percent of comparison group parents/caretakers rated their health care as 8, 9 or 10 (Exhibit F-230).



The difference between the HMP and comparison group compliance rates was not statistically significant for either group (Exhibit F-231).

Exhibit F-231 – HMP – Rating of Health Care– Percent Rating 8, 9 or 10

	Adults	Children
HMP	71.8%	85.9%[72]
Comparison Group	72.8%	85.1%
Difference	(1.0%)	0.8%

‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)

Sample Sizes	Adults	HMP - 591 CG – 213	Parents/Caretakers of Children	HMP - 77 CG – 668

Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.

[71] CAHPS question: Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your (your child's) health care in the last six months?

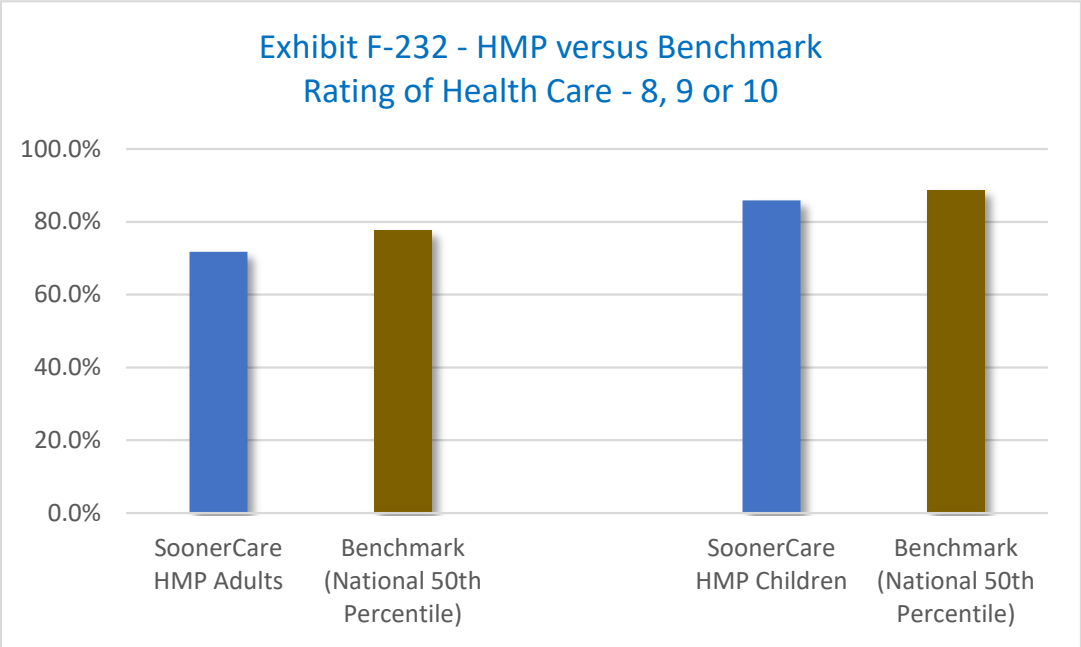
[72] Percentage for HMP children on this measure coincidentally matches percentage on previous measure.

Findings – HMP Population and National Benchmark

The 2021 national benchmark rate for adults exceeded the SoonerCare HMP adult rate by approximately six percentage points (Exhibit F-232).

The 2021 national benchmark rate for children exceeded the SoonerCare HMP children rate by approximately three percentage points.

(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)

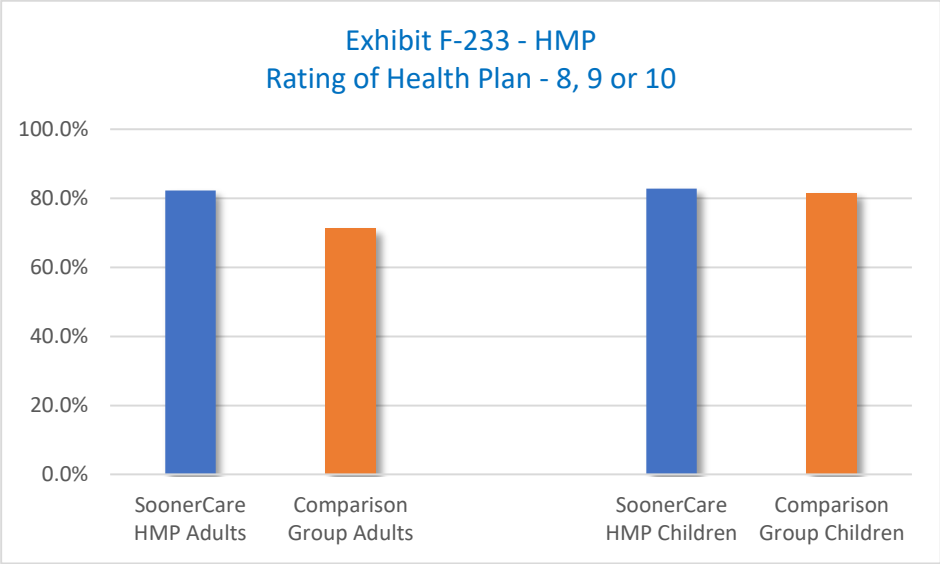


	HMP Adult	Benchmark	HMP Child	Benchmark
Response	71.8%	77.7%	85.9%	88.8%

Rating of Health Plan – Children and Adults

Findings – HMP Population

Approximately 82 percent of HMP adult members and approximately 71 percent of comparison group adult members rated their health plan (SoonerCare) as 8, 9 or 10 on a scale of 0 (worst health plan possible) to 10 (best health plan possible)[73]. Approximately 82 percent of parents/caretakers of HMP child members and approximately 81 percent of comparison group parents/caretakers rated their health plan as 8, 9 or 10 (Exhibit F-233).



The difference between the adult HMP total and comparison group compliance rates was statistically significant (Exhibit F-234).

Exhibit F-234 – HMP – Rating of Health Plan – Percent Rating 8, 9 or 10

	Adults	Children
HMP	82.3%	82.8%
Comparison Group	71.3%	81.6%
Difference	11.0%‡	1.2%

‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)

Sample Sizes	Adults	HMP - 591 CG – 213	Parents/Caretakers of Children	HMP - 77 CG – 668

Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.

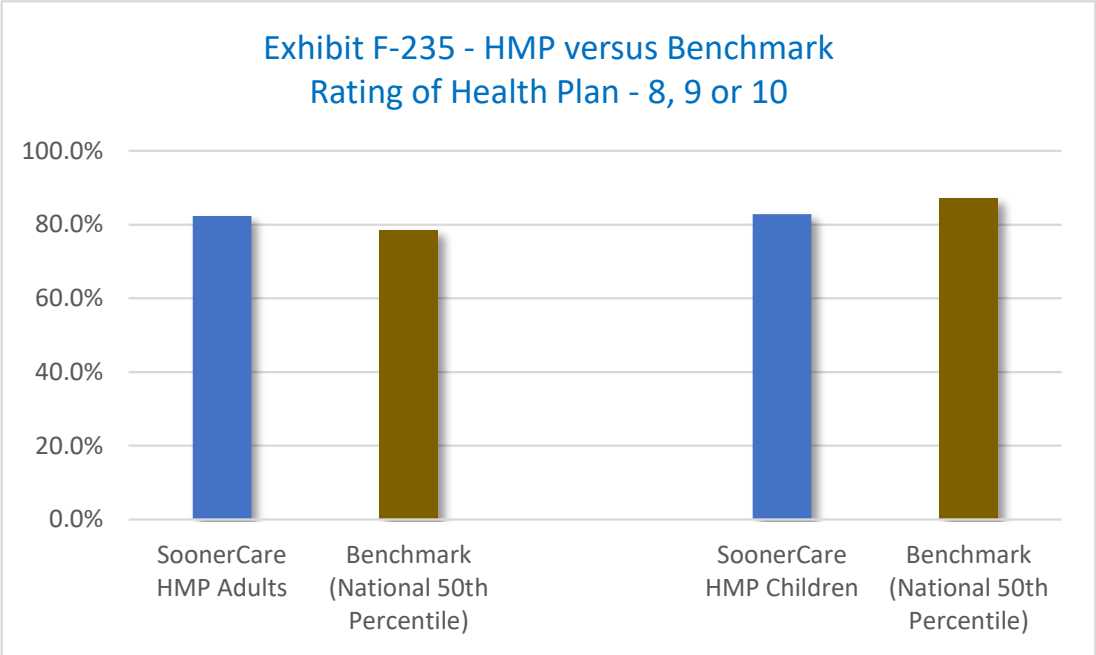
[73] CAHPS question: Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your (your child's) health plan?

Findings – HMP Population and National Benchmark

The rate for SoonerCare HMP adults exceeded the 2021 national benchmark rate by approximately four percentage points (Exhibit F-235).

The 2021 national benchmark rate for children exceeded the SoonerCare HMP children rate by approximately four percentage points.

(Caution: the benchmark population characteristics were not matched to the OHCA groups to minimize differences in the populations. The data is presented for informational purposes only.)



	HMP Adult	Benchmark	HMP Child	Benchmark
Response	82.3%	78.6%	82.8%	87.2%

HMP Quality of Care – Summary

The SoonerCare HMP and comparison group populations differed by a statistically significant amount on 12 of 15 HEDIS or HEDIS-like quality-of-care measures, with the HMP population outperforming the comparison group on 11 measures and the comparison group outperforming the HAN total population on one. Eleven of the measures trended in a positive direction and four trended in a negative direction. (The measure set included two opioid measures for which a downward trend was positive.)

The SoonerCare HMP and comparison group populations differed by a statistically significant amount on two of six CAHPS measures, with the SoonerCare HMP and comparison group each outperforming the other on one measure apiece (Exhibit F-236). (See bottom of exhibit for legend.)

Exhibit F-236 – HMP Quality of Care Measures – Summary

Measures	HMP versus Comparison Group	HMP 2019 – 2021 Trend
Average number of chronic conditions	*Qualitative Measure*	
Physical/behavioral health co-morbidities	*Qualitative Measure*	
Asthma – Medication Ratio – Ages 5 to 18		
Asthma – Medication Ratio – Ages 19 to 64		
Cardiovascular – Persistence of Beta Blocker Treatment after a Heart Attack		
Cardiovascular – LDL-C Test		
COPD – Use of Spirometry Testing		
COPD – Pharmacotherapy Management of COPD Exacerbation – 14 Days		
COPD – Pharmacotherapy Management of COPD Exacerbation – 30 Days		

Measures	HMP versus Comparison Group	HMP 2019 – 2021 Trend
Diabetes – Percentage of Members who had LDL-C Test		
Diabetes – Percentage of Members who had Retinal Eye Exam Performed		
Diabetes – Percentage of Members who had HbA1c Testing		
Diabetes – Percentage who Received Medical Attention for Nephropathy		
Hypertension – Percentage of Members who had LDL-C Test		
Hypertension – Percentage of Members Prescribed ACE/ARB Therapy		
Opioids – Use of Opioids at High Dosage		
Opioids – Concurrent Use of Opioids and Benzodiazepines		
SDOH Assistance	*Qualitative Measure*	
Getting Needed Health Care – Adults		
Getting Needed Health Care - Children		
Rating of Health Care – Adults		
Rating of Health Care – Children		
Rating of Health Plan – Adults		

Measures	HMP versus Comparison Group	HMP 2019 – 2021 Trend
Rating of Health Plan – Children		

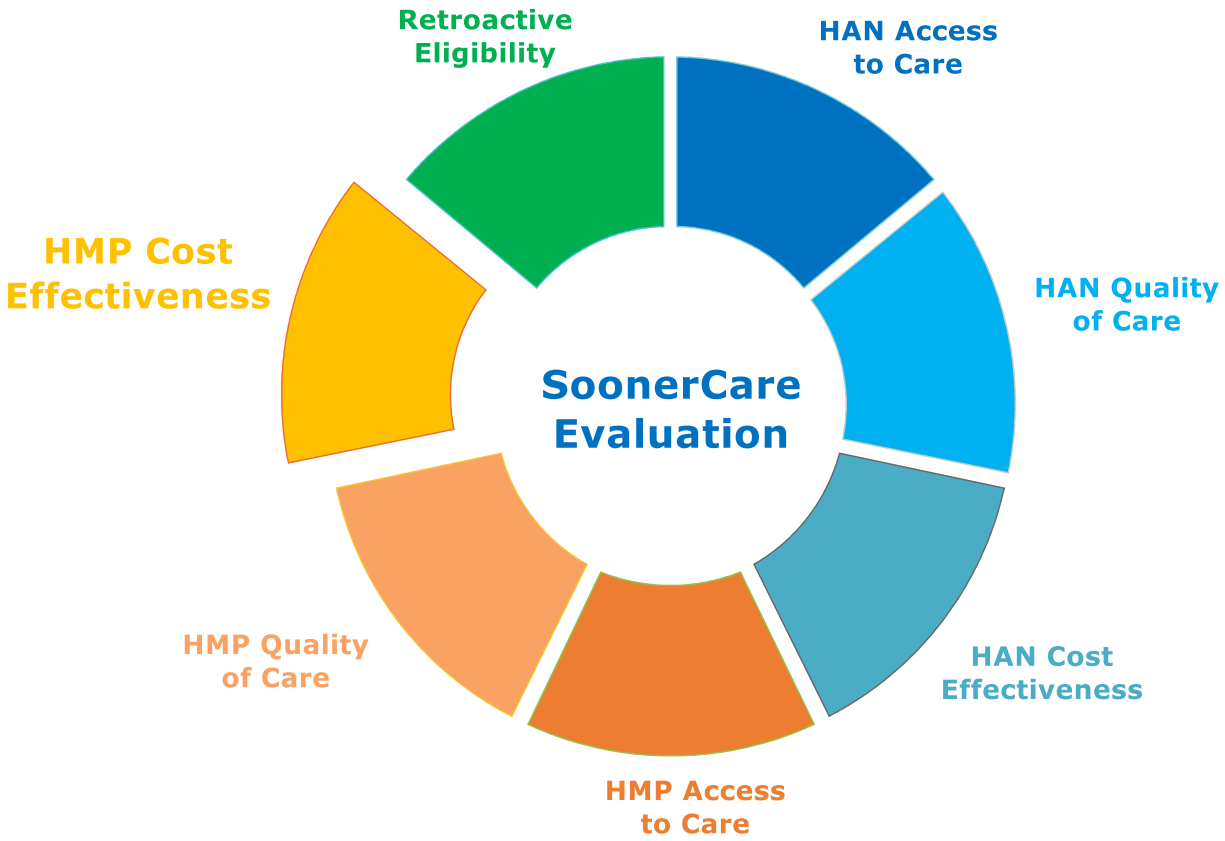
 HMP exceeds comparison group by a statistically significant amount (3-year pooled)

 No statistically significant difference (3-year pooled)

 Comparison group exceeds HMP by a statistically significant amount (3-year pooled)

 2019 – 2021 trend is upward /  trend is downward (opioid measures)

 2019 – 2021 trend is downward (non-opioid measures)


Retroactive Eligibility
HAN Access to Care
HAN Quality of Care
HAN Cost Effectiveness
HMP Access to Care
HMP Quality of Care
HMP Cost Effectiveness
SoonerCare Evaluation

6. HMP Cost Effectiveness

Overview

SoonerCare HMP activities related to improving access and quality, if effective, should have an observable impact on beneficiary service utilization and expenditures. Improvement in quality of care should yield better outcomes in the form of fewer emergency room visits and hospitalizations, and lower acute care costs.

HMP Cost Effectiveness Measures

Exhibit F-237 on the following page presents the HMP cost effectiveness measures and identifies:

- Data sources
- Subgroups evaluated (if any)
- Presence or absence of a national benchmark
- Presence or absence of comparative data from the prior Demonstration period

Supporting Appendices

Appendix 10 contains CEM covariate balance tables for utilization and expenditure measures. Appendix 11 contains statistical significance test results for utilization and expenditure measures.

Exhibit F-237 - HMP Cost Effectiveness Measures - Overview

Measures	Source	Geographic Subgroups	National Benchmark	Prior Period Data[74]
Emergency Room Utilization Emergency room visits per 1,000 member months.	MMIS (claims)	***Yes***	No	No
Hospital Admissions Acute care hospital admissions per 100,000 member months.	MMIS (claims)	***Yes***	No	No
Hospital Readmissions Acute care hospital 30-day readmission rate (all causes).	MMIS (claims)	***Yes***	No	No
PMPM Expenditures Average per member per month expenditures (all services).	MMIS (claims)	***Yes***	No	No

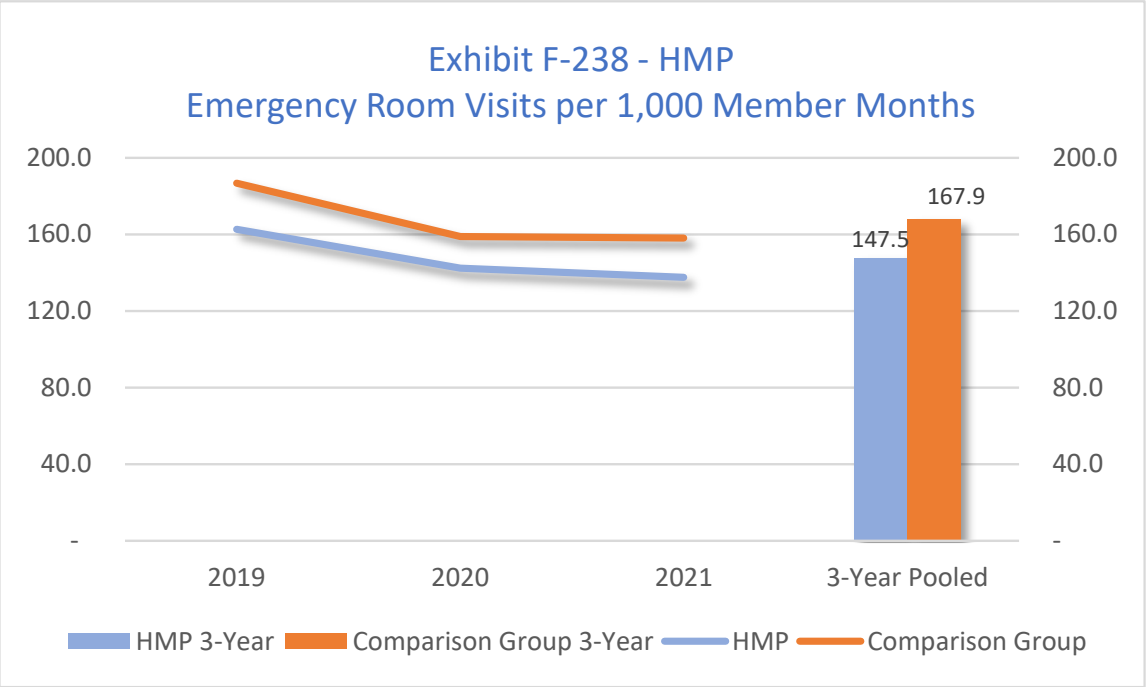
Methodology detail and sample sizes also are included at the bottom of exhibits containing the results of statistical significance tests between treatment (Demonstration) and comparison group populations.

[74] The member acuity component of the matching criteria used for selection of a comparison group was modified from the prior evaluation period, to better align HMP and comparison group populations. PHPG determined it would be inappropriate to show a six-year trend line. (The trends in all cases are favorable as compared to the 2016 - 2018 period, but the degree of change suggests that at least a portion of the improvement is due to the refined matching method.)

Emergency Room Visits per 1,000 Member Months

Findings – HMP Population

HMP members averaged approximately 148 emergency room visits per 1,000 member months and comparison group members averaged 168 visits per 1,000 member months across the three years (Exhibit F-238). The visit rate for both populations declined from 2019 to 2021.



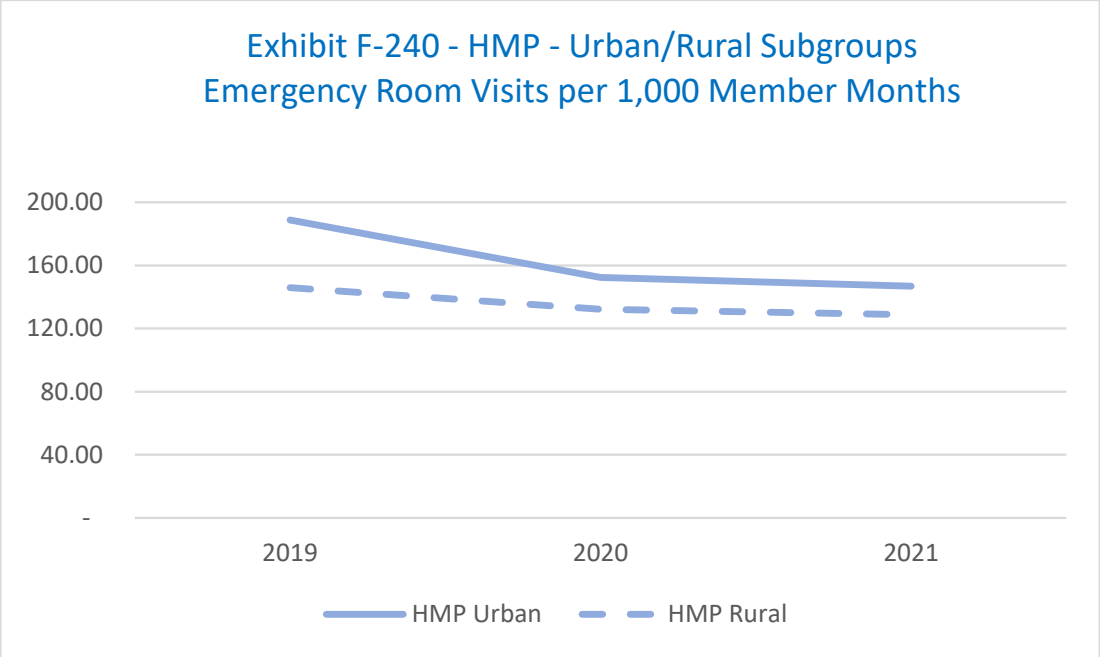
Note: Lower rate is better

The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-239).

Exhibit F-239 – HMP – Emergency Room Visits per 1,000 Member Months				
	2019	2020	2021	3-Year Pooled
HMP	162.7	142.4	137.5	147.5
Comparison Group	186.8	158.9	158.0	167.9
Difference	(24.1)‡	(16.5)‡	(20.5%)‡	(20.4)‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 2,775 CG – 10,444	HMP – 4,413 CG – 10,926	HMP – 4,147 CG – 16,895	HMP – 11,335 CG – 38,265
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP Population – Urban and Rural Subgroups

The HMP urban subgroup rate exceeded the rural subgroup rate across the three years. The rate for both subgroups rate declined from 2019 to 2021 (Exhibit F-240).

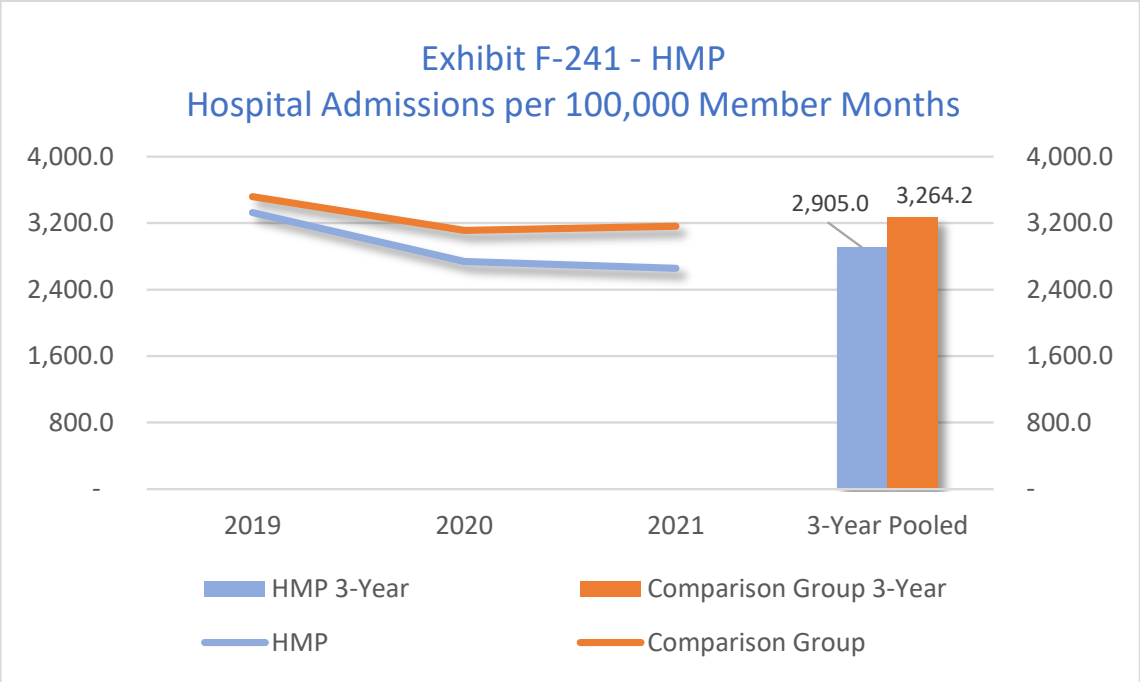


	Subgroup	2019	2020	2021
Visit Rate	**Urban**	188.7	152.5	146.8
	Rural	145.9	132.3	128.8

Hospital Admissions per 100,000 Member Months

Findings – HMP Population

HMP members averaged 2,905 hospital admissions per 100,000 member months and comparison group members averaged approximately 3,264 admissions per 100,000 member months across the three years (Exhibit F-241). The admission rate for the HMP population declined from 2019 to 2021. The admission rate for the comparison group population declined from 2019 to 2020 before rising slightly from 2020 to 2021.



Note: Lower rate is better

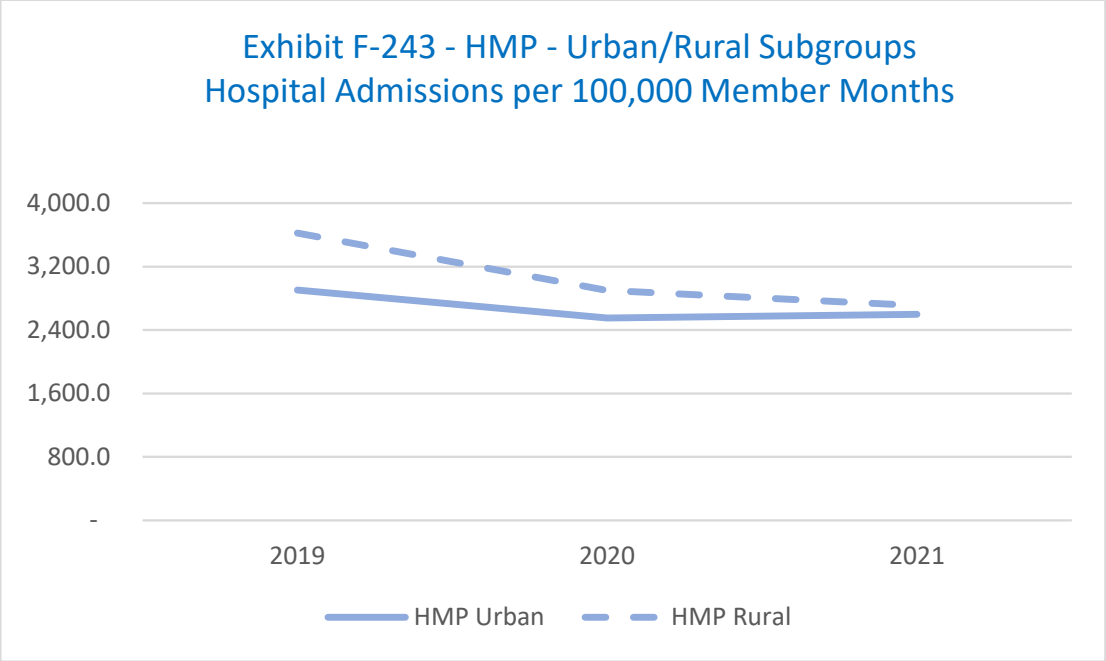
The difference between the HMP and comparison group compliance rates was statistically significant in 2020 and 2021. It also was statistically significant for the three-year pooled data (Exhibit F-242).

Exhibit F-242 – HMP – Hospital Admissions per 100,000 Member Months

	2019	2020	2021	3-Year Pooled
HMP	3,324.3	2,736.2	2,654.5	2,905.0
Comparison Group	3,518.2	3,112.8	3,161.5	3,264.2
Difference	(193.9)‡	(376.6)‡	(507.0)‡	(359.2)‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 2,775 CG – 10,444	HMP – 4,413 CG – 10,926	HMP – 4,147 CG – 16,895	HMP – 11,335 CG – 38,265
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP Population – Urban and Rural Subgroups

The HMP rural subgroup rate exceeded the urban subgroup rate across all three years. The rural subgroup rate declined from 2019 to 2021 while the urban subgroup rate declined from 2019 to 2020 and rose slightly again from 2020 to 2021 (Exhibit F-243).

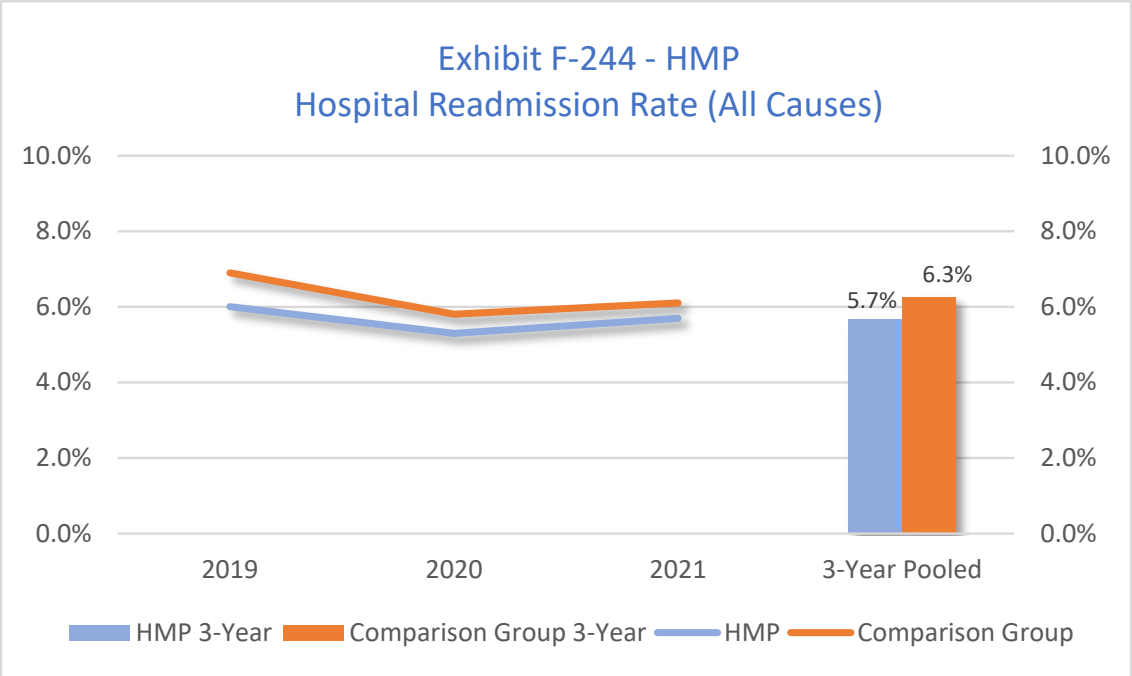


	Subgroup	2019	2020	2021
Admission Rate	**Urban**	2,902.4	2,550.8	2,599.5
	Rural	3,623.2	2,900.4	2,710.0

Hospital 30-Day Readmission Rate (All Causes)

Findings – HMP Population

HMP and comparison group members both had an average 30-day hospital readmission rate of approximately six percent across the three years (Exhibit F-244). The readmission rate for both populations declined from 2019 to 2020 before rising again from 2020 to 2021.



Note: Lower rate is better

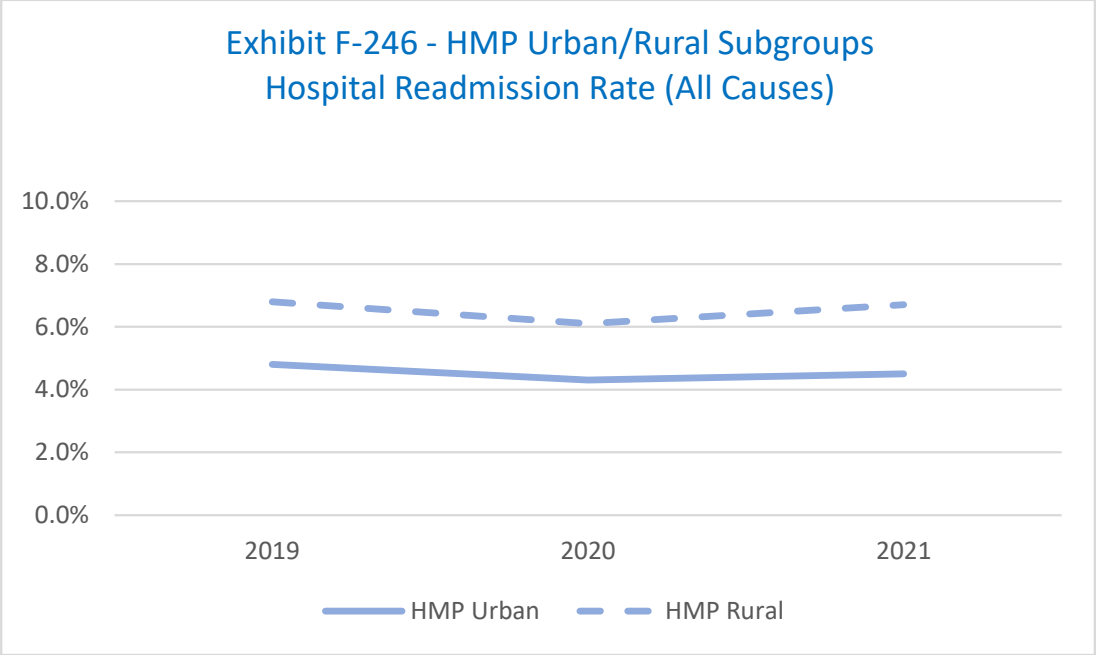
The difference between the HMP and comparison group compliance rates was not statistically significant in any of the individual years. However, it was statistically significant for the three-year pooled data (Exhibit F-245).

Exhibit F-245 – HMP – Hospital 30-Day Readmission Rate

	2019	2020	2021	3-Year Pooled
HMP	6.0%	5.3%	5.7%	5.7%
Comparison Group	6.9%	5.8%	6.1%	6.3%
Difference	(0.9%)	(0.5%)	(0.4%)	(0.6%)‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 2,775 CG – 10,444	HMP – 4,413 CG – 10,926	HMP – 4,147 CG – 16,895	HMP – 11,335 CG – 38,265
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP Population – Urban and Rural Subgroups

The HMP rural subgroup rate exceeded the urban subgroup rate across all three years. The rate for both subgroups declined from 2019 to 2020 and rose again from 2020 to 2021 (Exhibit F-246).

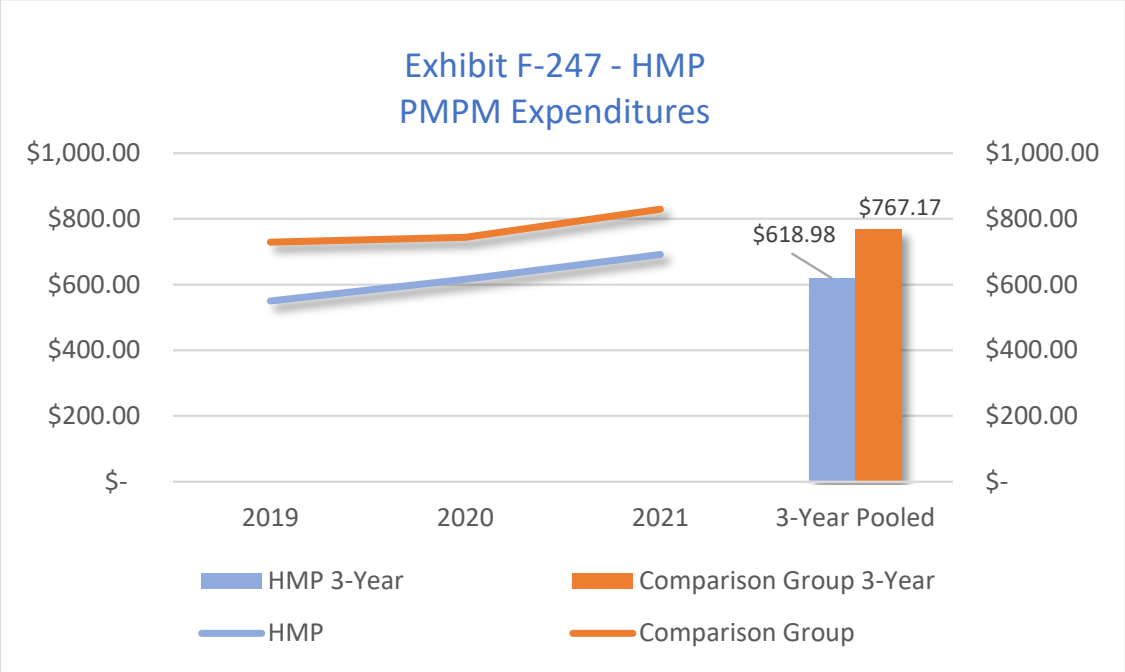


	Subgroup	2019	2020	2021
Readmission Rate	**Urban**	4.8%	4.3%	4.5%
	Rural	6.8%	6.1%	6.7%

Per Member Per Month (PMPM) Expenditures

Findings – HMP Population

HMP member expenditures averaged approximately $619 PMPM and comparison group member expenditures averaged $767 PMPM across the three years (Exhibit F-247). Average expenditures for both populations rose from 2019 to 2021.



Note: Lower rate is better

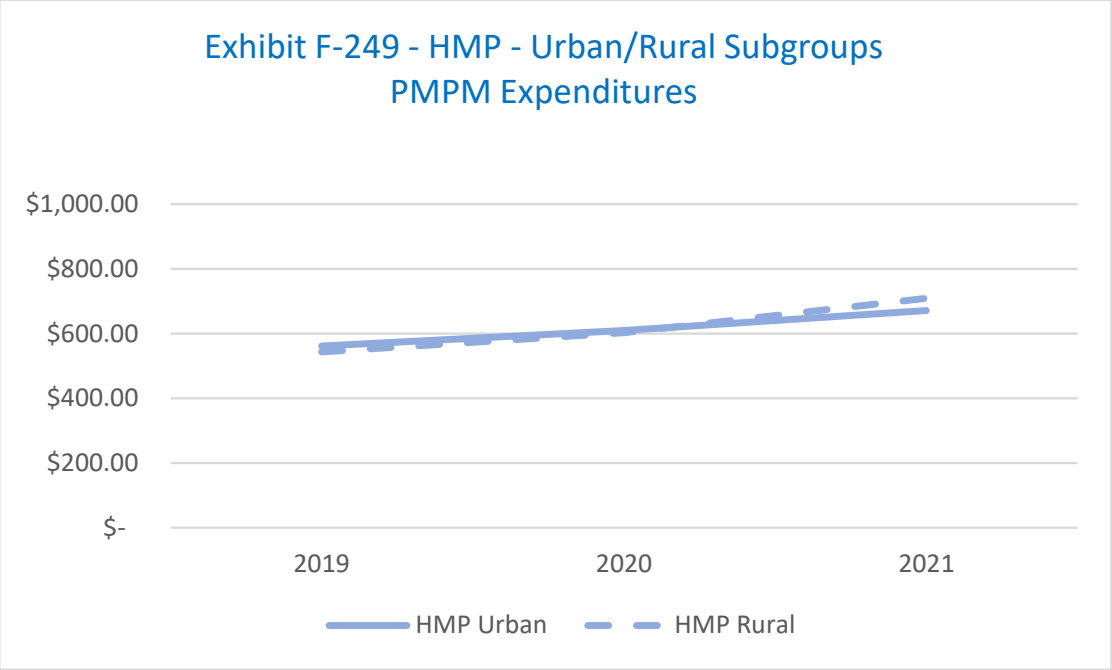
The difference between the HMP and comparison group compliance rates was statistically significant in each of the individual years. It also was statistically significant for the three-year pooled data (Exhibit F-248).

Exhibit F-248 – HMP – PMPM Expenditures

	2019	2020	2021	3-Year Pooled
HMP	$550.09	$616.09	$690.77	$618.98
Comparison Group	$728.57	$743.48	$829.46	$767.17
Difference	($178.48)‡	($127.39)‡	($138.69)‡	($148.19)‡
‡ HMP rate differs from comparison group rate by a statistically significant amount (95% confidence level)				
Sample Sizes	HMP – 2,775 CG – 10,444	HMP – 4,413 CG – 10,926	HMP – 4,147 CG – 16,895	HMP – 11,335 CG – 38,265
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.				

Findings – HMP and Care Managed Populations – Urban and Rural Subgroups

HMP urban subgroup member expenditures slightly exceeded rural subgroup expenditures in 2019 and 2020, while rural subgroup expenditures exceeded urban subgroup expenditures in 2021. PMPM expenditures rose for both subgroups from 2019 to 2021 (Exhibit F-249).



	Subgroup	2019	2020	2021
PMPM	**Urban**	$561.89	$610.33	$671.66
	Rural	$543.58	$603.28	$709.55

HMP Cost Effectiveness – Summary

The SoonerCare HMP and comparison group populations differed by a statistically significant amount on the four cost effectiveness measures, with the HMP population outperforming the comparison group (Exhibit F-250). Three of the four measures trended downward from 2019 to 2021 (lower rate is better).

Exhibit F-250 – HMP Cost Effectiveness – Summary

Measures	HMP versus Comparison Group	HMP 2019 – 2021 Trend
Emergency Room Visits per 1,000 Member Months	✦	▼
Hospital Admissions per 100,000 Member Months	✦	▼
Hospital 30-Day Readmission Rate	✦	▼
PMPM Expenditures	✦	▲

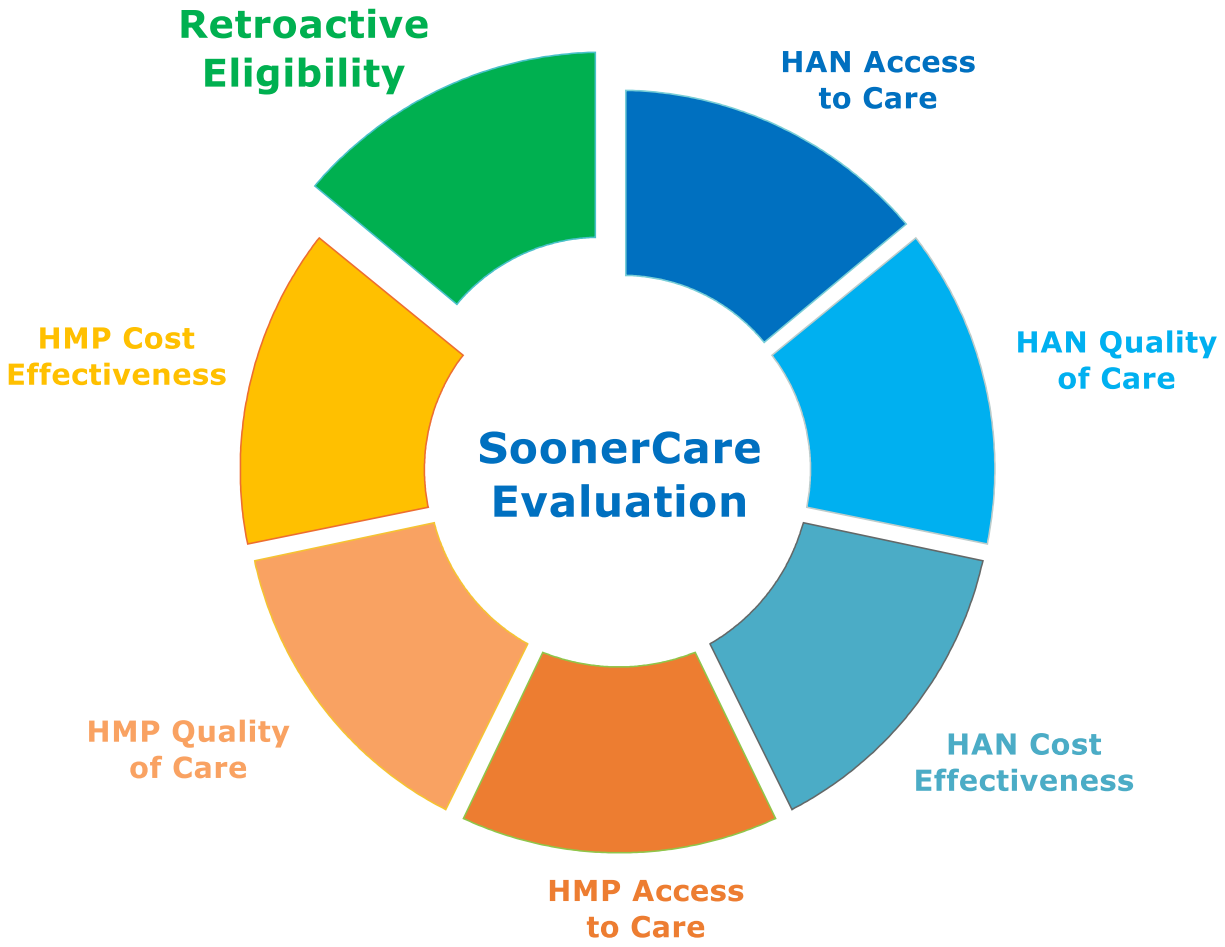
✦ HMP exceeds comparison group by a statistically significant amount (3-year pooled)

✦ No statistically significant difference (3-year pooled)

✦ Comparison group exceeds HMP by a statistically significant amount (3-year pooled)

▲ 2019 - 2021 trend is upward (higher trend is worse)

▼ 2019 – 2021 trend is downward (lower trend is better)


Retroactive Eligibility
HAN Access to Care
HAN Quality of Care
HAN Cost Effectiveness
HMP Access to Care
HMP Quality of Care
HMP Cost Effectiveness
SoonerCare Evaluation

7. Retroactive Eligibility Waiver

Overview

The SoonerCare Demonstration during the evaluation period included a waiver of retroactive eligibility for the parent/caretaker MEG and Insure Oklahoma beneficiaries[75]. (Exhibit B-10 presents detailed information on populations covered under the waiver and populations exempted from it[76].) The retroactive eligibility waiver evaluation examines whether being subject to the waiver encourages eligible individuals to enroll earlier, to maintain health insurance coverage even while healthy, and to obtain preventive health care.

In March 2020, Oklahoma received a Section 1135 waiver, granting flexibilities for operating under the COVID-19 Public Health Emergency. As a condition of the waiver, Oklahoma agreed to a maintenance of effort in the form of continued eligibility for most SoonerCare members who otherwise would have lost eligibility absent the PHE.

The preservation of eligibility in the absence of timely re-certifications removed a key variable from the evaluation, which primarily relies on testing treatment group behaviors against a comparison group of members not subject to the waiver. In the absence of such data, the evaluation presents enrollment counts and survey findings but does not offer conclusions about the waiver's impact. The summative evaluation report will include findings for the post-PHE period in accordance with the approved design.

Retroactive Eligibility Waiver Measures

Exhibit F-251 on the following page presents the retroactive eligibility waiver measures and identifies:

- Data sources
- Subgroups evaluated (if any)
- Presence or absence of a national benchmark
- Presence or absence of comparative data from the prior Demonstration period

Supporting Appendices

Appendix 13 contains the retroactive eligibility targeted survey instrument. Appendix 14 contains CEM covariate balance tables for survey measures. Appendix 15 contains statistical significance tests results for survey measures.

[75] Although the current demonstration period began on August 31, 2018, the MEGs subject to the retroactive eligibility waiver under current STCs took effect in March 2020, approximately concurrent with the PHE.
[76] The waiver applies only to adult beneficiaries in the affected MEGs. Accordingly, evaluation results are for adult beneficiaries only.

Exhibit F-251 - Retroactive Eligibility Waiver Measures - Overview

Measures[77]	Source	Geographic Subgroups	National Benchmark	Prior Period Data[78]
Total Enrollment Trend Number of individuals (adults) enrolled in Medicaid, by eligibility group, by quarter.	MMIS	No	No	No
New Enrollment Trend Number of new enrollees (adults) in Medicaid, by eligibility group, by quarter.	MMIS	No	No	No
Beneficiary Health Status – Self-Reported Beneficiary self-reported health status, measured at baseline and at 12, 18 and 24 months[79].	PHPG Targeted Survey	No	No	No
Beneficiary Health Status – Utilization Beneficiary self-reported emergency department and hospital utilization in the past 12 months.	PHPG Targeted Survey	No	No	No
Beneficiary Health Status – Not Healthy Days Beneficiary self-reported not healthy days out of the past 30 days, both physical and mental health.	PHPG Targeted Survey	No	No	No

Methodology detail and sample sizes also are included at the bottom of exhibits containing the results of statistical significance tests between treatment (Demonstration) and comparison group populations.

[77] The approved evaluation design also includes several measures related to renewal timeliness and enrollment tenure (see Appendix 1, measures 74 – 78). These measures were not evaluated, due to the impact of the PHE-related suspension of disenrollments on the recertification process. They will be included in the summative evaluation report for the post-PHE period.

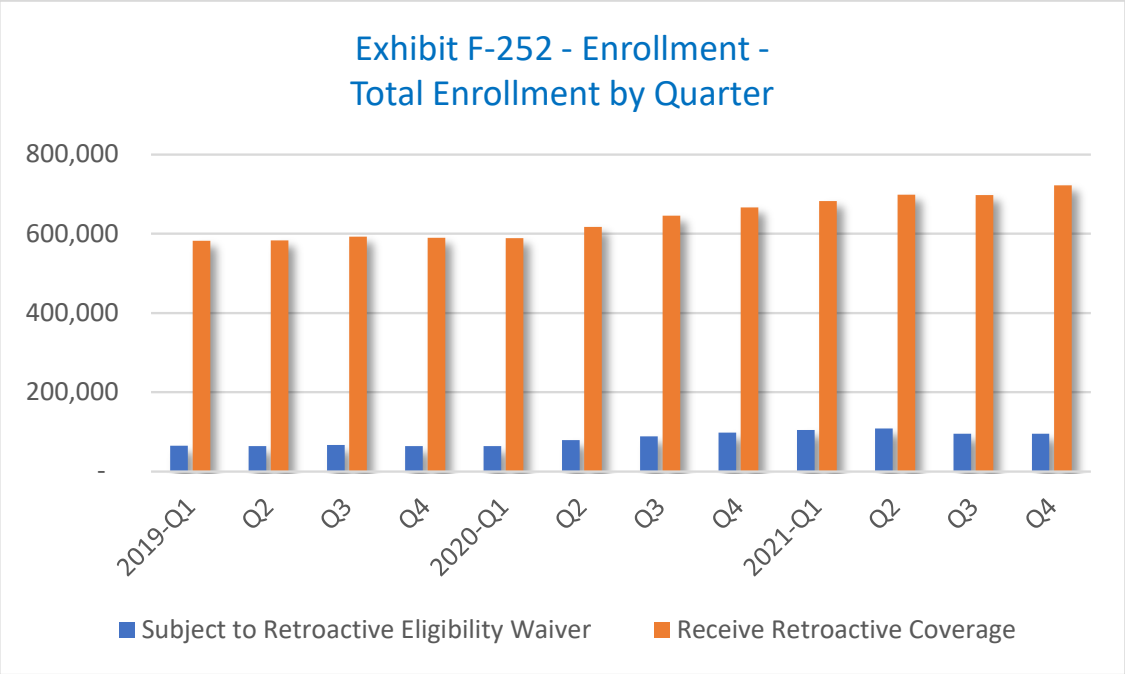
[78] The evaluation design for the retroactive eligibility waiver, and the affected MEGs, differed in the prior demonstration period.

[79] Interim evaluation includes results for baseline surveys. The summative evaluation report also will include results for follow-up surveys.

Enrollment - Total Enrollment Trend

Total enrollment for SoonerCare beneficiaries subject to the retroactive eligibility waiver increased from 65,400 (rounded) in the first quarter of 2019 to 95,100 in the fourth quarter of 2021, a 42 percent change (Exhibit F-252). The growth began in the second quarter of 2020, concurrent with suspension of disenrollments under the PHE and accelerated in the fourth quarter of 2021, following implementation of Medicaid expansion[80].

Total enrollment for SoonerCare beneficiaries eligible for retroactive coverage also grew, increasing from 582,400 in the first quarter of 2019 to 721,900 in the fourth quarter of 2021, a 24 percent change. As with the population subject to the retroactive eligibility waiver, the growth began in the second quarter of 2020, concurrent with the start of the PHE.



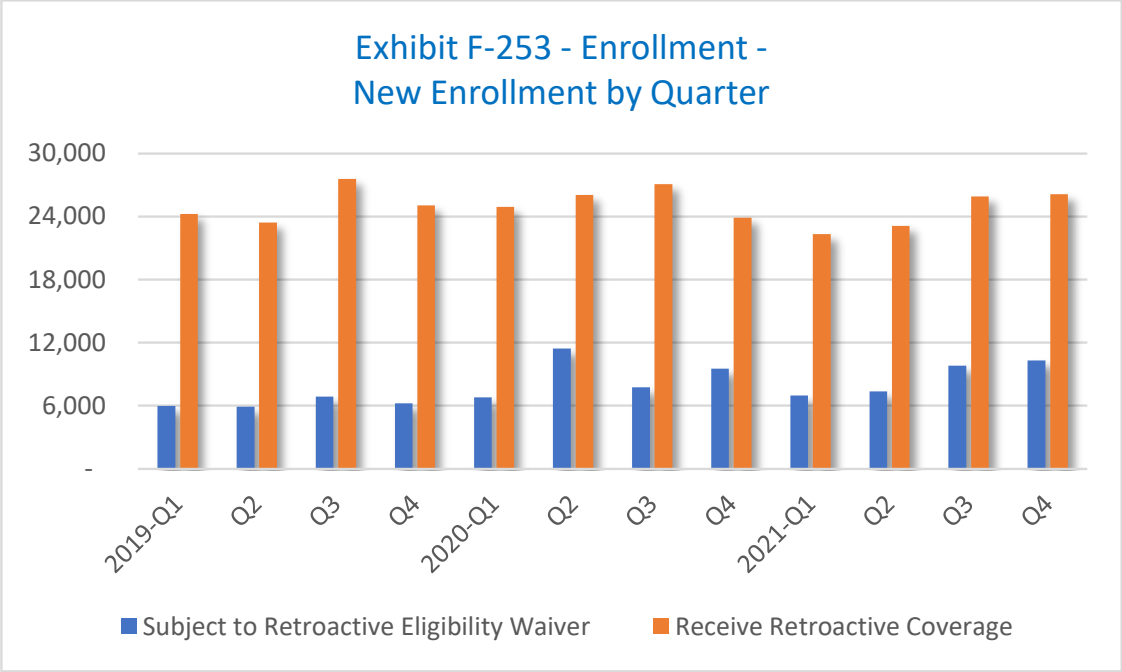
Total Enrollment by Quarter (in thousands)													
	2009				2020				2021				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	% Change
Subject to Waiver	64.5	64.3	66.4	64.3	64.2	79.0	88.0	98.0	104.4	108.7	95.5	95.1	47.4%
Receive Coverage	582.4	583.3	592.6	590.2	589.1	617.2	645.3	666.1	682.7	698.8	698.0	721.9	23.9%
Total	646.9	647.6	659.0	654.5	653.3	696.2	733.3	764.1	787.1	807.5	793.5	817.0	26.3%

[80] The drop in enrollment in quarters 3 and 4 of 2021 coincides with implementation of Medicaid expansion. The portion of the Parent/Caretaker MEG ineligible for Medicaid except for the PHE, but eligible under the expansion, was transitioned to the new MEG starting in July 2021. Expansion beneficiaries, who became eligible for SoonerCare Choice in September 2021, are not depicted in the exhibit pending the OHCA's decision as to whether to extend the retroactive eligibility waiver to this population (subject to CMS approval).

Enrollment – New Enrollment Trend[81]

New enrollments for SoonerCare beneficiaries subject to the retroactive eligibility waiver fluctuated across the three years but averaged approximately 7,900 (rounded) per quarter (Exhibit F-253).

Total enrollment for SoonerCare beneficiaries eligible for retroactive coverage also fluctuated, averaging approximately 25,000 per quarter.



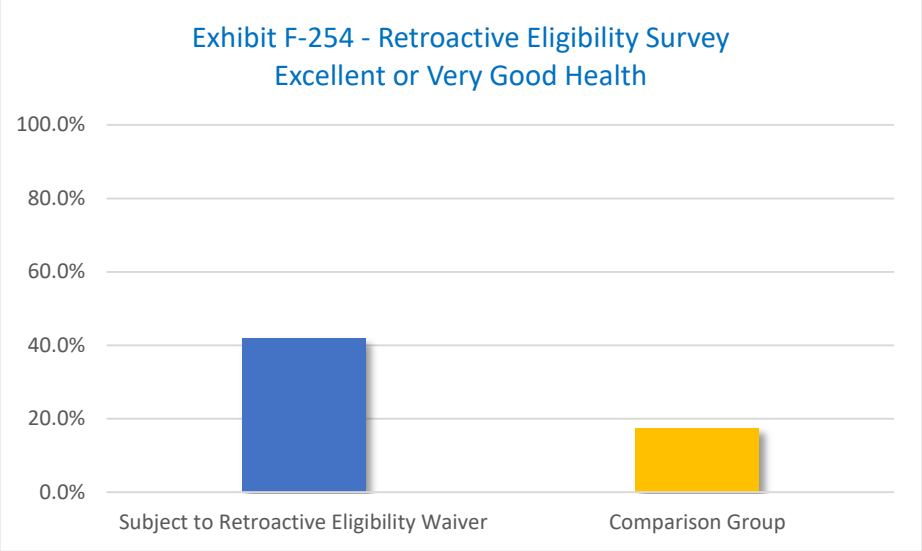
New Enrollment by Quarter (in thousands)													
	2019				2020				2021				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Average
Subject to Waiver	6.0	5.9	6.9	6.2	6.8	11.5	7.8	9.5	7.0	7.4	9.8	10.3	**7.9**
Receive Coverage	24.3	23.4	27.6	25.1	24.9	26.1	27.1	23.9	22.3	23.1	25.9	26.1	**25.0**
Total	30.3	29.3	34.5	31.3	31.7	37.6	34.9	33.4	29.3	30.5	35.7	36.4	**32.9**

[81] New enrollment counts exclude beneficiaries who were enrolled (and subsequently disenrolled) at any point in the twelve months prior to their new enrollment period.

Beneficiary Health Status – Self-Reported

Findings – Baseline Survey

Approximately 42 percent of members subject to the retroactive eligibility waiver reported being in excellent or very good health at the time of the baseline survey[82]. Approximately 17 percent of the comparison group population reported being in excellent or very good health (Exhibit F-254 (The comparison group includes aged, blind and disabled members, among others.)



The difference between the retroactive eligibility waiver and comparison group populations was statistically significant among respondents reporting their health status as fair or good (Exhibit F-255).

Exhibit F-255– Retroactive Eligibility Survey – Self-Reported Health Status

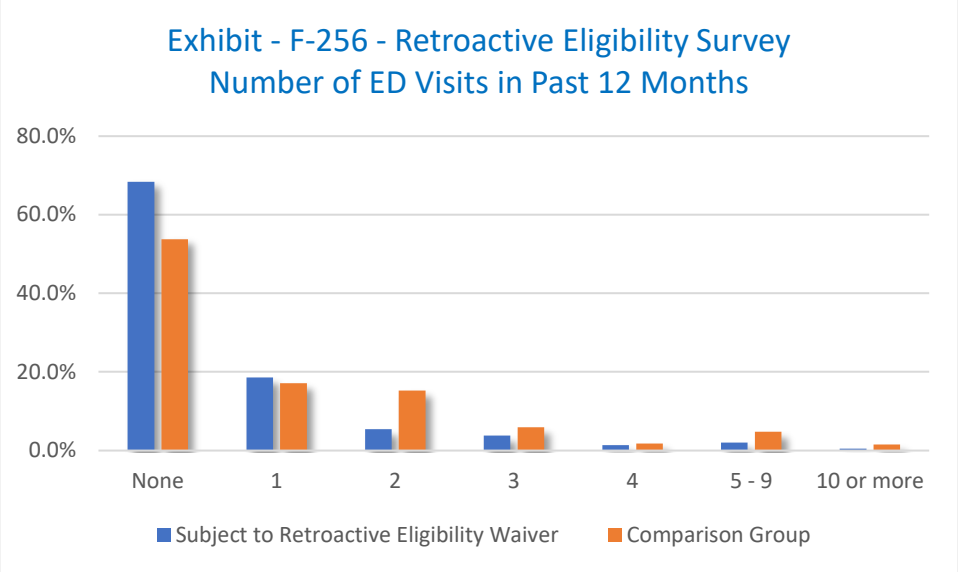
	Poor	Fair	Good	Very Good	Excellent
Subject to Waiver	5.4%	16.2%	36.6%	29.9%	11.9%
Comparison Group	13.9%	51.6%	17.0%	13.0%	4.5%
Difference	(8.5%)	(35.4%)‡	19.6%‡	16.9%	7.4%
‡ Retroactive eligibility waiver group differs from comparison group by a statistically significant amount					
Sample Sizes - Retroactive Waiver – 446 / Comparison Group – 116					
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.					

[82] Survey question: How would you say that in general your health is – excellent, very good, good, fair or poor? (Question source – BRFSS 2018 survey.)

Beneficiary Health Status – Utilization – Emergency Department

Findings – Baseline Survey

Approximately 68 percent of members subject to the retroactive eligibility waiver reported having no ED visits in the past twelve months, while approximately 32 percent reported having one or more visits[83]. The percentages for the comparison group were approximately 54 percent with no visits and 47 percent with one or more visits (Exhibit F-256). (Baseline surveys are conducted during the first 30 days of SoonerCare enrollment; at least 11 of the 12 months therefore pre-dates SoonerCare coverage.)



The difference between the retroactive eligibility waiver and comparison group populations was not statistically significant for any of the individual ED visit counts (Exhibit F-257).

Exhibit F-257 – Retroactive Eligibility Survey – ED Visits in Past 12 Months

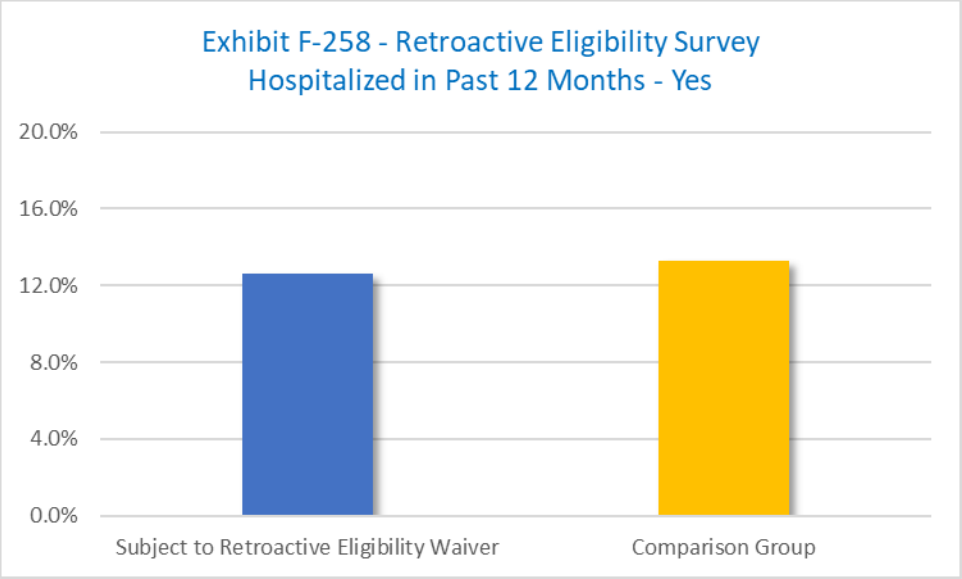
	None	1	2	3	4	5 – 9	10+
Subject to Waiver	68.4%	18.6%	5.4%	3.8%	1.3%	2.0%	0.4%
Comparison Group	53.7%	17.1%	15.3%	5.9%	1.7%	4.7%	1.5%
Difference	14.7%	1.5%	(9.9%)	(2.1%)	(0.4%)	(2.7%)	(1.1%)
‡ Retroactive eligibility waiver group differs from comparison group by a statistically significant amount							
Sample Sizes - Retroactive Waiver – 446 / Comparison Group – 116							
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.							

[83] Survey question: In the last 12 months, how many times did you go to an emergency room to get care for yourself? (Question source – CAHPS 5.0 Adult Health Plan survey.)

Beneficiary Health Status – Utilization – Hospitalization

Findings – Baseline Survey

Approximately 13 percent of both members subject to the retroactive eligibility and members in the comparison group population reported having been hospitalized in the past 12 months[84] (Exhibit F-258). (Baseline surveys are conducted during the first 30 days of SoonerCare enrollment; at least 11 of the 12 months therefore pre-dates SoonerCare coverage.)



The difference between the retroactive eligibility waiver and comparison group populations was not statistically significant (Exhibit F-259).

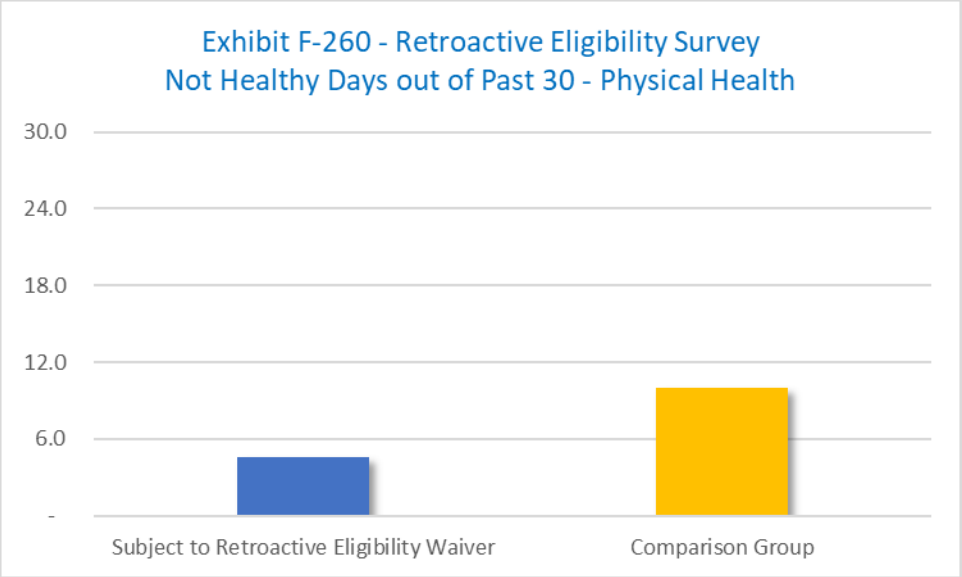
Exhibit F-259 – Retroactive Eligibility Survey – Hospitalized in Past 12 Months		
	Yes	No
Subject to Waiver	12.6 %	87.4%
Comparison Group	13.3%	86.7%
Difference	(0.7%)	
‡ Retroactive eligibility waiver group differs from comparison group by a statistically significant amount		
Sample Sizes - Retroactive Waiver – 446 / Comparison Group – 116		
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.		

[84] Survey question: Have you been hospitalized overnight in the past 12 months? Do not include an overnight stay in the emergency room (Question source: FHOSPYR, NHIS Draft 2018 – Family.)

Beneficiary Health Status – Not Healthy Days – Physical Health

Findings – Baseline Survey

Members subject to the retroactive eligibility reported having approximately five days out of the past 30 in which their physical health was not good. Members of the comparison group population reported having approximately 10 days out of the past 30 in which their physical health was not good[85] (Exhibit F-260).



Note: Lower count is better

The difference between the retroactive eligibility waiver and comparison group populations was statistically significant (Exhibit F-261).

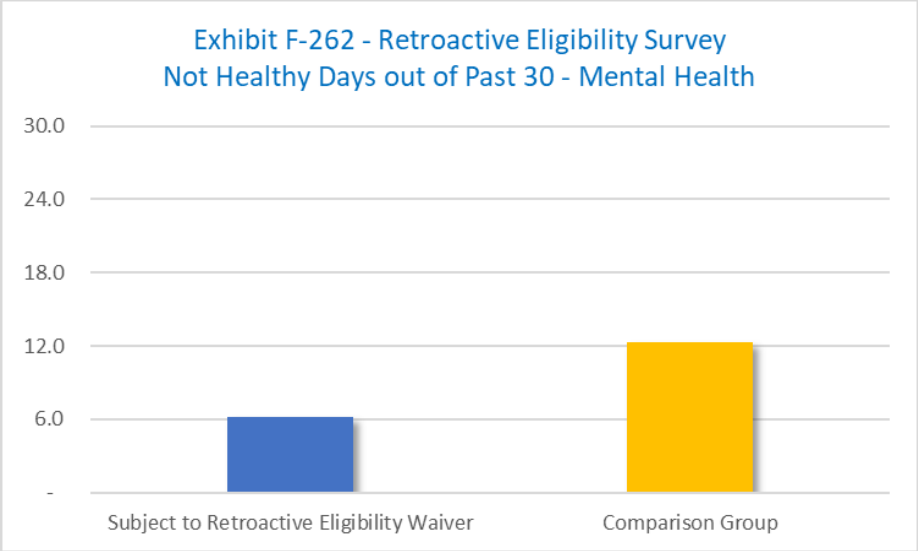
Exhibit F-261 – Retroactive Eligibility Survey – Not Healthy Days out of Past 30 Days (Physical Health)		
	Not Healthy	Healthy (Imputed)
Subject to Waiver	4.6	25.4
Comparison Group	10.0	20.0
Difference	(5.4) ‡	
‡ Retroactive eligibility waiver group differs from comparison group by a statistically significant amount		
Sample Sizes - Retroactive Waiver – 446 / Comparison Group – 116		
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.		

[85] Survey question: Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good? (Question source: BRFSS 2018 survey.)

Beneficiary Health Status – Not Healthy Days – Mental Health

Findings – Baseline Survey

Members subject to the retroactive eligibility reported having approximately six days out of the past 30 in which their physical health was not good. Members of the comparison group population reported having approximately 12 days out of the past 30 in which their physical health was not good[86] (Exhibit F-262).



Note: Lower count is better

The difference between the retroactive eligibility waiver and comparison group populations was statistically significant (Exhibit F-263).

Exhibit F-263 – Retroactive Eligibility Survey – Not Healthy Days out of Past 30 Days (Mental Health)		
	Not Healthy	Healthy (Imputed)
Subject to Waiver	6.2	23.8
Comparison Group	12.3	17.7
Difference	(6.1) ‡	
‡ Retroactive eligibility waiver group differs from comparison group by a statistically significant amount		
Sample Sizes - Retroactive Waiver – 446 / Comparison Group – 116		
Methodology – Coarsened Exact Matching for sample selection. T-test for statistical significance.		

[86] Survey question: Now thinking about your mental health, which includes stress, depression and problems with emotions, for how many days during the past 30 days was your mental health not good? (Question source: BRFSS 2018 survey.)

Retroactive Eligibility Waiver – Summary

The population subject to the retroactive eligibility waiver and comparison group differed by a statistically significant amount on two of five health status-related measures. The population subject to the retroactive eligibility waiver outperformed the comparison group on both measures (Exhibit F-264).

Exhibit F-264 – Retroactive Eligibility Waiver – Summary

Measures	Retroactive Eligibility Waiver versus Comparison Group	Baseline to Follow-up Trend
Total Enrollment Trend	*Qualitative Measure*	
New Enrollment Trend	*Qualitative Measure*	
Beneficiary Health Status – Excellent or Very Good	✦	–
Beneficiary Health Status – ED Utilization	✦	–
Beneficiary Health Status – Hospital Utilization	✦	–
Beneficiary Health Status – Not Healthy Days (Physical Health)	✦	–
Beneficiary Health Status – Not Healthy Days (Mental Health)	✦	–

✦ Population subject to retroactive eligibility waiver exceeds comparison group by a statistically significant amount (baseline)

✦ No statistically significant difference (baseline)

✦ Comparison group exceeds population subject to retroactive eligibility waiver by a statistically significant amount (baseline)

– Trend from baseline to follow-up survey periods will be reported in summative evaluation

G. CONCLUSIONS

The SoonerCare Demonstration evaluation examines the impact of the Health Access Networks and Health Management Program on access, quality and cost. It also examines the impact of the retroactive eligibility waiver on beneficiary enrollment patterns and health status.

The interim evaluation includes data for only the first three years of the five-year Demonstration, making tentative any conclusions drawn from the analysis. The evaluation also overlapped with the COVID-19 PHE, which disrupted patterns-of-care in Oklahoma and throughout the nation.

Exhibit G-1 on the following page presents summary findings by evaluation domain and research area. The exhibit documents the number of quantitative measures for which the Demonstration populations (HAN – total, HAN – care managed, HMP and persons subject to the retroactive eligibility waiver) differed from their respective comparison groups by a statistically significant amount.

The HMP population registered the greatest net positive results, outperforming the comparison group on 18 of 20 measures for which there was a statistically significant difference. Seven measures showed no statistically significant difference.

The HAN Care Managed population also showed net positive results, outperforming the comparison group on seven of eight measures for which there was a statistically significant difference. Eight measures showed no statistically significant difference.

The HAN Total population showed mixed results, outperforming the comparison group on six of 16 measures for which there was a statistically significant difference. Fourteen measures showed no statistically significant difference.

The population subject to the retroactive eligibility waiver outperformed the comparison group on both measures for which there was a statistically significant difference. Three measures showed no statistically significant difference.

Exhibit – G-1 - Demonstration Populations versus Comparison Groups – Summary

DOMAIN/Research Area	Demonstration Population Outperformed Comparison Group	Comparison Group Outperformed Demonstration Population	No Statistically Significant Difference
HAN (TOTAL) – Access to Care		● ●	● ●
HAN (TOTAL) – Quality of Care	● ● ● ● ● ●	● ● ● ● ●	● ● ● ● ● ● ● ● ● ● ● ●
HAN (TOTAL) – Cost Effectiveness		● ●	●
HAN (CARE MANAGED) – Access to Care	● ●		
HAN (CARE MANAGED) – Quality of Care	● ● ● ●		● ● ● ● ● ● ● ●
HAN (CARE MANAGED) – Cost Effectiveness	●	●	●
HMP – Access to Care	● ●		
HMP – Quality of Care	● ● ● ● ● ● ● ● ● ● ● ●	● ●	● ● ● ● ● ● ●
HMP – Cost Effectiveness	● ● ● ●		
RETROACTIVE ELIGIBILITY – Health Status	● ●		● ● ●

● One measure (Demonstration population outperformed comparison group)

● One measure (comparison group outperformed Demonstration population)

● One measure (no difference)

H. INTERPRETATIONS & POLICY LIMITATIONS/INTERACTIONS WITH OTHER STATE INITIATIVES

The majority of state Medicaid programs have transitioned to managed care by enrolling at least a portion of their populations into capitated health plans. Health plan contracts typically encompass most or all covered medical services, and in many instances also include behavioral health. The contracts also require health plans to assess their members' medical, behavioral health (if applicable) and social service needs, develop care plans and provide care management in accordance with care plan goals and interventions.

Oklahoma is one of a minority of states that has elected to implement managed care through a non-traditional model. After terminating its capitated program in 2004, the OHCA began a years-long transition to the SoonerCare Choice program in place during the waiver evaluation period.

SoonerCare Choice seeks to achieve the same access, quality and cost effectiveness objectives common to capitated programs but to do so in a more targeted fashion. The OHCA contracts with the SoonerCare HANs and SoonerCare HMP vendor to offer practice enhancement to affiliated PCMH providers and provide care management to high-risk beneficiaries.

Medicaid benefits continue to be paid on a fee-for-service basis and the majority of SoonerCare Demonstration beneficiaries, who are healthy children and pregnant women, receive any needed care coordination through their PCMH provider and/or prenatal care provider.

The OHCA is preparing to transition the non-ABD portion of the SoonerCare Choice population back into risk based managed care, with implementation scheduled for early 2024. This will coincide with the completion of the current five-year Demonstration period and will present the opportunity to evaluate the impact of the transition on the non-ABD population, while continuing to monitor outcomes for the residual population remaining in the non-traditional model.

Contracting with capitated health plans is a proven strategy for implementing managed care. At the same time, the current SoonerCare Demonstration model offers another option for states to consider when implementing or expanding managed care in areas where a capitated program may be difficult to establish, such as rural/frontier counties.

I. LESSONS LEARNED & RECOMMENDATIONS

It is premature to draw lessons or make recommendations during the interim evaluation stage, particularly given the still unknown full impact of the COVID-19 PHE.

The summative evaluation report will address lessons learned and recommendations based on a complete five-year analysis, the final portion of which is expected to lie outside of the PHE window.

J. APPENDICES

Supporting appendices for the evaluation design and results section are presented, starting on the following page.

Appendix	Applies to	Contents
Appendix 1	All Sections	Approved evaluation design, CMS recommendations for enhanced evaluation and listing of deviations from approved design
Appendix 2	HAN Analysis	CEM covariate balance tables (pre- and post-matching) for HEDIS, utilization and expenditure measures (2019 – 2021)
Appendix 3	HAN Analysis	Statistical significance test results (p<.005) for HEDIS, utilization and expenditure measures (2019 – 2021 and three-year pooled data)
Appendix 4	HAN Analysis	CEM covariate balance tables (pre- and post-matching) for CAHPS measures
Appendix 5	HAN Analysis	Statistical significance test results for CAHPS measures (HAN and comparison group)
Appendix 6	HAN Analysis	HAN member SDOH targeted survey instrument (HAN and comparison group)
Appendix 7	HAN Analysis	HAN-aligned PCMH targeted survey instrument
Appendix 8	HMP Analysis	CEM covariate balance tables (pre- and post-matching) for CAHPS measures (HMP and comparison group)
Appendix 9	HMP Analysis	Statistical significance test results for CAHPS measures (HMP and comparison group)
Appendix 10	HMP Analysis	CEM covariate balance tables (pre- and post-matching) for HEDIS, utilization and expenditure measures (2019 – 2021)
Appendix 11	HMP Analysis	Statistical significance test results (p<.005) for HEDIS, utilization and expenditure measures (2019 – 2021 and three-year pooled data)
Appendix 12	HMP Analysis	HMP member targeted survey instrument (SDOH section only)
Appendix 13	Retroactive Eligibility	Retroactive eligibility analysis survey instrument
Appendix 14	Retroactive Eligibility	CEM covariate balance tables (pre- and post-matching) for survey measures
Appendix 15	Retroactive Eligibility	Statistical significance test results for retroactive survey measures (population subject to waiver and comparison group)

1. Approved Evaluation Design Measure Set and Related

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
Evaluation of Health Access Networks – Access to Care							
1	Will the implementation and expansion of the HANs improve access to and the availability of health care services to SoonerCare beneficiaries served by the HANs?	Child and adolescent access to PCPs – 12 months to 19 years	Members within age cohort enrolled with a HAN-affiliated PCMH	In accordance with HEDIS specifications (administrative data only)	SoonerCare Choice members within age cohort not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
2		Adult access to preventive/ ambulatory health services	Members within age cohort enrolled with a HAN-affiliated PCMH	In accordance with HEDIS specifications (administrative data only)	SoonerCare Choice members within age cohort not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
3		Getting needed care – children and adults	Adult members enrolled with a HAN-affiliated PCMH Child members enrolled with a HAN-affiliated PCMH	In accordance with CAHPS specifications	SoonerCare Choice adult members not enrolled with a HAN-affiliated PCMH SoonerCare Choice child members not enrolled with a HAN-affiliated PCMH	Source - CAHPS survey data file Steward – CAHPS	T-tests Regression with propensity score matching

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
4		Rating of health plan – children and adults	Adult members enrolled with a HAN-affiliated PCMH Child members enrolled with a HAN-affiliated PCMH	In accordance with CAHPS specifications	SoonerCare Choice adult members not enrolled with a HAN-affiliated PCMH SoonerCare Choice child members not enrolled with a HAN-affiliated PCMH	Source - CAHPS survey data file Steward – CAHPS	T-tests Regression with propensity score matching
5		Rating of personal doctor – children and adults	Adult members enrolled with a HAN-affiliated PCMH Child members enrolled with a HAN-affiliated PCMH	In accordance with CAHPS specifications	SoonerCare Choice adult members not enrolled with a HAN-affiliated PCMH SoonerCare Choice child members not enrolled with a HAN-affiliated PCMH	Source - CAHPS survey data file Steward – CAHPS	T-tests Regression with propensity score matching
Evaluation of Health Access Networks – Quality of Care							
6	Will the implementation and expansion of the HANs improve the quality and coordination of health care services to SoonerCare beneficiaries served by the HANs, including specifically populations at greatest risk (e.g.,	Number of members engaged in care management	Total unduplicated members engaged in care management at any point during year Unduplicated members with multiple chronic illnesses engaged in care management at any point during the year	Numerators – members engaged in care management (total and population with multiple chronic conditions Denominators – all members (total and population with multiple chronic conditions)	N/A	Source - HAN care management databases Steward - HANs	Time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
7	those with multiple chronic illnesses)?	Asthma – use of appropriate medications for people with asthma	HAN members with asthma	In accordance with HEDIS specifications	SoonerCare Choice members with asthma not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
8		Asthma – Medication management for people with asthma – 75 percent	HAN members with asthma	In accordance with HEDIS specifications	SoonerCare Choice members with asthma not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
9		CAD – Persistent beta-blocker treatment after a heart attack	HAN members with CAD and heart failure	In accordance with HEDIS specifications	SoonerCare Choice members with CAD/heart failure not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
10		CAD – Cholesterol management for patients with cardiovascular conditions – LDL-C test	HAN members with CAD and heart failure	In accordance with HEDIS specifications	SoonerCare Choice members with CAD/heart failure not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
11		COPD – Use of spirometry testing in the assessment and diagnosis of COPD	HAN members with COPD	In accordance with HEDIS specifications	SoonerCare Choice members with COPD not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
12		COPD – pharmacotherapy management of COPD exacerbation – 14 days	HAN members with COPD	In accordance with HEDIS specifications	SoonerCare Choice members with COPD not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
13		COPD – pharmacotherapy management of COPD exacerbation – 30 days	HAN members with COPD	In accordance with HEDIS specifications	SoonerCare Choice members with COPD not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
14		Diabetes – Percentage of members who had LDL-C test	HAN members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
15		Diabetes – percentage of members who had retinal eye exam performed	HAN members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
16		Diabetes – percentage of members who had HbA1c testing	HAN members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
17		Diabetes - Percentage of members who received medical attention for nephropathy	HAN members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
18		Diabetes - Percentage of members prescribed ACE/ARB therapy	HAN members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
19		Hypertension – Percentage of members who had LDL-C test	HAN members with hypertension	In accordance with HEDIS specifications	SoonerCare Choice members with hypertension not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
20		Hypertension – Percentage of members prescribed ACE/ARB therapy	HAN members with hypertension	In accordance with HEDIS specifications	SoonerCare Choice members with hypertension not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
21		Hypertension – Percentage of members prescribed diuretics	HAN members with hypertension	In accordance with HEDIS specifications	SoonerCare Choice members with hypertension not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
22		Hypertension – Percentage of members prescribed ACE/ARB therapy or diuretics with annual medication monitoring	HAN members with hypertension	In accordance with HEDIS specifications	SoonerCare Choice members with hypertension not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
23		Mental Health – Follow-up after hospitalization for mental illness – 7 days	HAN members hospitalized for mental illness	In accordance with HEDIS specifications	SoonerCare Choice members hospitalized for mental illness not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
24		Mental Health – Follow-up after hospitalization for mental illness – 30 days	HAN members hospitalized for mental illness	In accordance with HEDIS specifications	SoonerCare Choice members hospitalized for mental illness not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching
25		SDOH – Member satisfaction	Randomly selected sample of HAN members receiving assistance with SDOH as part of care management	Numerator – Members reporting satisfaction Denominator – All respondents	N/A	Source - HAN care management databases for sample Steward - SoonerCare Independent Evaluator for survey data	Descriptive statistics

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
26	Will the implementation and expansion of the HANs enhance the State's PCMH program by making HAN care management and support available to more providers, as documented through an evaluation of PCP profiles that incorporates a review of utilization, disease guideline compliance and cost? *(Note: HEDIS chronic disease measures from preceding hypothesis/question also will be included in evaluation of this hypothesis/question, as PCMH providers drive member compliance.)*	Number and percentage of HAN-affiliated PCMH providers who have attained the highest level of OHCA accreditation	HAN-affiliated PCMH providers	Numerator – PCMH providers with Tier 3 accreditation (or highest level under any future redesign of PCMH tiers) Denominator – All HAN-aligned PCMH providers	PCMH providers not aligned with a HAN	Source – MMIS Steward – OHCA	Time series
27		PCMH provider satisfaction with HAN practice support activities	Randomly selected sample of HAN-affiliated PCMH providers	Numerator – Providers reporting satisfaction Denominator – All respondents	N/A	Source – MMIS for provider sample Steward – SoonerCare Independent Evaluator for survey data	Descriptive statistics
28		PCMH provider adoption of chronic care disease guidelines (self-reported)	Randomly selected sample of HAN-affiliated PCMH providers	Numerator – Providers reporting compliance by disease state Denominator – All respondents	N/A	Source – MMIS for provider sample Steward – SoonerCare Independent Evaluator for survey data	Descriptive statistics

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
Evaluation of Health Access Networks – Cost Effectiveness							
29	Will the implementation and expansion of the HANs reduce cost associated with provision of health care services to SoonerCare beneficiaries served by the HANs?	Emergency room utilization	SoonerCare Choice HAN members	Numerator – ED visits Denominator – total member months	SoonerCare Choice members not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source – MMIS Steward – OHCA	T-tests Regression with propensity score matching
30		Hospital admissions	SoonerCare Choice HAN members	Numerator – IP admissions Denominator – total member months	SoonerCare Choice members not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP PCMH and not enrolled in the HMP	Source – MMIS Steward – OHCA	T-tests Regression with propensity score matching
31		Evaluation of Health Access Networks – PMPM Expenditures	SoonerCare Choice HAN members	Numerator – total expenditures (paid claims and PCMH case management fees) Denominator – total member months	SoonerCare Choice members not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source – MMIS Steward – OHCA	T-tests Regression with propensity score matching
Evaluation of Health Management Program – Access to Care							

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
32	Will implementation of the third generation HMP, including health coaches and practice facilitation, result in an increase in enrollment, as compared to baseline?	Number of members engaged in health coaching	SoonerCare HMP members engaged in health coaching (minimum of three months), by coaching method	N/A	HMP beneficiaries enrolled in second generation HMP	Source – HMP contractor database Steward – HMP contractor	Interrupted time series
33	Will incorporating health coaches into primary care practices result in increased contact with HMP beneficiaries by the PCP (measured through claims encounter data), as compared to baseline, when care management occurred (exclusively) via telephonic or face-to-face contact with a nurse care manager?	Number of PCP contacts (total and per member engaged in health coaching)	SoonerCare HMP members engaged in health coaching (minimum of three months), by coaching method	Numerator - Member contacts (visits) with PCMH, by coaching method Denominator – Member months, by coaching method	Members receiving health coaching in PCMH offices will be compared to members receiving field-based and telephonic health coaching	Source – MMIS; HMP contractor database Steward – OHCA for claims; HMP contractor for member assignments	T-tests Regression with propensity score matching
Evaluation of Health Management Program – Quality of Care							

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
34	Will implementation of the third generation HMP result in an increase in the average risk profile of newly-enrolled members (based on the average number of chronic conditions) as the program becomes available to qualified members who do not currently have access to the HMP?	Average number of chronic conditions	SoonerCare members enrolled in the HMP, by coaching method	Numerator – Number of chronic conditions Denominator – Number of members	HMP beneficiaries enrolled in second generation HMP	Source – MMIS; HMP contractor database Steward – OHCA for claims; HMP contractor for member assignments	Interrupted time series
35		Percentage of members with physical/behavioral health co-morbidities	SoonerCare members enrolled in the HMP, by coaching method	Numerator – Number of members with at least one chronic physical and one behavioral health condition Denominator – Number of members	HMP beneficiaries enrolled in second generation HMP	Source – MMIS; HMP contractor database Steward – OHCA for claims; HMP contractor for member assignments	Interrupted time series
36	Will the use of disease registry functions by the health coach (along with other coaching activities) improve the quality of care delivered to beneficiaries, as measured by changes in performance on the	Asthma – use of appropriate medications for people with asthma	HMP members with asthma	In accordance with HEDIS specifications	SoonerCare Choice members with asthma not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
37	initial set of Health Care Quality Measures for Medicaid-Eligible Adults or CHIPRA Core Set of Children's Healthcare Quality Measures?	Asthma – Medication management for people with asthma – 75 percent	HMP members with asthma	In accordance with HEDIS specifications	SoonerCare Choice members with asthma not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
38		Asthma - COPD or asthma in older adults admission rate	HMP members with asthma or COPD	In accordance with AHRQ specifications	SoonerCare Choice members with COPD or asthma not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - AHRQ	T-tests Regression with propensity score matching Interrupted time series
39		Asthma – Asthma in younger adults admission rate	HMP members with asthma	In accordance with AHRQ specifications	SoonerCare Choice members with COPD or asthma not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - AHRQ	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
40		CAD – Persistent beta-blocker treatment after a heart attack	HMP members with CAD and heart failure	In accordance with HEDIS specifications	SoonerCare Choice members with CAD not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
41		CAD – Cholesterol management for patients with cardiovascular conditions – LDL-C test	HMP members with CAD and heart failure	In accordance with HEDIS specifications	SoonerCare Choice members with CAD not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
42		CAD – Heart failure admission rate	HMP members with heart failure	In accordance with AHRQ specifications	SoonerCare Choice members with CAD not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - AHRQ	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
43		COPD – Use of spirometry testing in the assessment and diagnosis of COPD	HMP members with COPD	In accordance with HEDIS specifications	SoonerCare Choice members with COPD or asthma not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
44		COPD – pharmacotherapy management of COPD exacerbation – 14 days	HMP members with COPD	In accordance with HEDIS specifications	SoonerCare Choice members with COPD or asthma not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
45		COPD – pharmacotherapy management of COPD exacerbation – 30 days	HMP members with COPD	In accordance with HEDIS specifications	SoonerCare Choice members with COPD or asthma not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
46		Diabetes – Percentage of members who had LDL-C test	HMP members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
47		Diabetes – percentage of members who had retinal eye exam performed	HMP members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
48		Diabetes – percentage of members who had HbA1c testing	HMP members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
49		Diabetes - Percentage of members who received medical attention for nephropathy	HMP members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
50		Diabetes - Percentage of members prescribed ACE/ARB therapy	HMP members with diabetes	In accordance with HEDIS specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
51		Diabetes – Diabetes short-term complications admission rate	HMP members with diabetes	In accordance with AHRQ specifications	SoonerCare Choice members with diabetes not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - AHRQ	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
52		Hypertension – Percentage of members who had LDL-C test	HMP members with hypertension	In accordance with HEDIS specifications	SoonerCare Choice members with hypertension not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
53		Hypertension – Percentage of members prescribed ACE/ARB therapy	HMP members with hypertension	In accordance with HEDIS specifications	SoonerCare Choice members with hypertension not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
54		Hypertension – Percentage of members prescribed diuretics	HMP members with hypertension	In accordance with HEDIS specifications	SoonerCare Choice members with hypertension not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
55		Hypertension – Percentage of members prescribed ACE/ARB therapy or diuretics with annual medication monitoring	HMP members with hypertension	In accordance with HEDIS specifications	SoonerCare Choice members with hypertension not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
56		Mental Health – Follow-up after hospitalization for mental illness – 7 days	HMP members hospitalized for mental illness	In accordance with HEDIS specifications	SoonerCare Choice members hospitalized for mental illness not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series
57		Mental Health – Follow-up after hospitalization for mental illness – 30 days	HMP members hospitalized for mental illness	In accordance with HEDIS specifications	SoonerCare Choice members hospitalized for mental illness not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP	Source - MMIS Steward - NCQA	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
					HMP beneficiaries enrolled in second generation HMP		
58		Opioid – Use of opioids at high dosage in persons without cancer	HMP members prescribed opioids (through Medicaid)	In accordance with PQA specifications	SoonerCare Choice members prescribed opioids not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - PQA	T-tests Regression with propensity score matching Interrupted time series
59		Opioid – Concurrent use of opioids and benzodiazepines	HMP members prescribed opioids (through Medicaid)	In accordance with PQA specifications	SoonerCare Choice members prescribed opioids and benzodiazepines not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source - MMIS Steward - PQA	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
60		SDOH – Member awareness of SDOH available assistance	Randomly selected sample of HMP members enrolled in HMP	Numerators – Members reporting awareness and use of SDOH assistance available through HMP Denominator – All respondents	N/A	Source – SoonerCare Independent Evaluator survey data file Steward - SoonerCare Independent Evaluator for survey data	Descriptive statistics
61		SDOH – Member satisfaction with SDOH available assistance	Randomly selected sample of HMP members enrolled in HMP	Numerator – Members reporting satisfaction with SDOH assistance Denominator – All respondents reporting use of assistance	N/A	Source – SoonerCare Independent Evaluator survey data file Steward - SoonerCare Independent Evaluator for survey data	Descriptive statistics
62	Will beneficiaries using HMP services have higher satisfaction compared to beneficiaries not receiving HMP services (as measured through CAHPS survey questions)?	Rating of health care – children and adults	Adult HMP members Child HMP members	In accordance with CAHPS specifications	SoonerCare Choice adult members not enrolled with a HAN-affiliated PCMH SoonerCare Choice child members not enrolled with a HAN-affiliated PCMH	Source – SoonerCare Independent Evaluator survey data file Steward – CAHPS	T-tests Regression with propensity score matching

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
63		Getting needed care – children and adults	Adult HMP members Child HMP members	In accordance with CAHPS specifications	SoonerCare Choice adult members not enrolled with a HAN-affiliated PCMH SoonerCare Choice child members not enrolled with a HAN-affiliated PCMH	Source – SoonerCare Independent Evaluator survey data file Steward – CAHPS	T-tests Regression with propensity score matching
64		Rating of health plan – children and adults	Adult HMP members Child HMP members	In accordance with CAHPS specifications	SoonerCare Choice adult members not enrolled with a HAN-affiliated PCMH SoonerCare Choice child members not enrolled with a HAN-affiliated PCMH	Source - SoonerCare Independent Evaluator Steward – CAHPS	T-tests Regression with propensity score matching
65		Rating of personal doctor – children and adults	Adult HMP members Child HMP members	In accordance with CAHPS specifications	SoonerCare Choice adult members not enrolled with a HAN-affiliated PCMH SoonerCare Choice child members not enrolled with a HAN-affiliated PCMH	Source - SoonerCare Independent Evaluator data file Steward – CAHPS	T-tests Regression with propensity score matching

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
Evaluation of Health Management Program – Cost Effectiveness							
66	Will beneficiaries using HMP services have fewer ER visits as compared to beneficiaries not receiving HMP services (as measured through claims data)?	ER utilization – HMP members versus comparison group	SoonerCare HMP members (minimum of three months)	Numerator – ED visits Denominator – total participants	SoonerCare Choice members not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source – MMIS Steward – Independent Evaluator	T-tests Regression with propensity score matching Interrupted time series
67	Will beneficiaries using HMP services have fewer (admissions and) readmissions as compared to beneficiaries not receiving HMP services (as measured through claims data)?	Hospital admissions – HMP members versus comparison group Hospital readmissions (30 days) – HMP members versus comparison group	SoonerCare HMP members (minimum of three months) SoonerCare HMP members with at least one hospitalization	Numerator – Admissions Denominator – total participants Numerator – Unique members with readmissions within 30 days following an admission Denominator- total members with admissions in 30-day period	SoonerCare Choice members not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source – MMIS Steward – SoonerCare Independent Evaluator	T-tests Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
68	Will total and per member per month expenditures for members enrolled in HMP be lower than would have occurred absent their participation?	PMPM costs – HMP members versus comparison group	SoonerCare HMP members (minimum of three months)	Numerator – total expenditures (paid claims) and program administrative costs (vendor payments and agency direct/overhead expenses) Denominator – member months	SoonerCare Choice members not enrolled with a HAN-affiliated PCMH and not enrolled in the HMP HMP beneficiaries enrolled in second generation HMP	Source – MMIS Steward – SoonerCare Independent Evaluator	T-tests Regression with propensity score matching Interrupted time series
Evaluation of Insure Oklahoma – Access to Care							
69	Will the evaluation support the hypothesis that Insure Oklahoma is improving access to care for low-income Oklahomans not eligible for Medicaid?	The number of individuals enrolled in Insure Oklahoma	Insure Oklahoma beneficiaries, both ESI and Individual Plan	N/A	N/A	Source – OHCA eligibility system Steward – OHCA	Descriptive statistics
70		The number of employers participating in the ESI portion of Insure Oklahoma	Employers participating in the ESI portion of the program	N/A	N/A	Source – Insure Oklahoma Steward – OHCA	Descriptive statistics

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
71		The number of primary care providers participating in the Individual Plan portion of Insure Oklahoma	Primary care providers (PCMH providers) participating in the Individual Plan network	N/A	N/A	Source – MMIS Steward – OHCA	Descriptive statistics
Evaluation of Retroactive Eligibility – Access to Care							
72	Do eligible people subject to retroactive eligibility waivers enroll in Medicaid at the same rate as other eligible people who have access to retroactive eligibility?	The number of individuals enrolled in Medicaid by eligibility group, by quarter	Beneficiaries subject to retroactive eligibility waiver Beneficiaries newly covered by retroactive eligibility (non-disabled children under age 19 and pregnant women)	N/A	Non-pregnant adults covered by retroactive eligibility waiver Beneficiaries previously subject to retroactive eligibility waiver	Source – OHCA eligibility system Steward - OHCA	Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
73		The number of new enrollees in Medicaid by eligibility group, by quarter	Beneficiaries subject to retroactive eligibility waiver Beneficiaries newly covered by retroactive eligibility (non-disabled children under age 19 and pregnant women)	N/A	Non-pregnant adults covered by retroactive eligibility waiver Beneficiaries previously subject to retroactive eligibility waiver	Source – OHCA eligibility system Steward - OHCA	Regression with propensity score matching Interrupted time series
74	What is the likelihood of enrollment continuity for those subject to a retroactive eligibility waiver compared to other Medicaid beneficiaries who have access to retroactive eligibility?	Probability of completing the renewal (recertification) process, by eligibility group	Beneficiaries subject to retroactive eligibility waiver Beneficiaries newly covered by retroactive eligibility (non-disabled children under age 19 and pregnant women)	N/A	Non-pregnant adults covered by retroactive eligibility waiver Beneficiaries previously subject to retroactive eligibility waiver	Source – OHCA eligibility system Steward - OHCA	Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
75		Probability of remaining enrolled in Medicaid for 12-, 18-24- consecutive months, by eligibility group	Beneficiaries subject to retroactive eligibility waiver Beneficiaries newly covered by retroactive eligibility (non-disabled children under age 19 and pregnant women)	N/A	Non-pregnant adults covered by retroactive eligibility waiver Beneficiaries previously subject to retroactive eligibility waiver	Source – OHCA eligibility system Steward - OHCA	Regression with propensity score matching Interrupted time series
76		Number of months with Medicaid coverage (average tenure) (1-12)	Beneficiaries subject to retroactive eligibility waiver Beneficiaries newly covered by retroactive eligibility (non-disabled children under age 19 and pregnant women)	N/A	Non-pregnant adults covered by retroactive eligibility waiver Beneficiaries previously subject to retroactive eligibility waiver	Source – OHCA eligibility system Steward - OHCA	Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
77	Do beneficiaries subject to retroactive eligibility waivers who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries who have access to retroactive eligibility?	Probability of re-enrolling in Medicaid after a gap in coverage of six months	Beneficiaries subject to retroactive eligibility waiver Beneficiaries newly covered by retroactive eligibility (non-disabled children under age 19 and pregnant women)	N/A	Non-pregnant adults covered by retroactive eligibility waiver Beneficiaries previously subject to retroactive eligibility waiver	Source – OHCA eligibility system Steward - OHCA	Regression with propensity score matching Interrupted time series
78		Number of months without Medicaid coverage, up to six months	Beneficiaries subject to retroactive eligibility waiver Beneficiaries newly covered by retroactive eligibility (non-disabled children under age 19 and pregnant women)	N/A	Non-pregnant adults covered by retroactive eligibility waiver Beneficiaries previously subject to retroactive eligibility waiver	Source – OHCA eligibility system Steward - OHCA	Regression with propensity score matching Interrupted time series

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
Evaluation of Retroactive Eligibility – Quality of Care							
79	Do newly-enrolled beneficiaries subject to a waiver of retroactive eligibility have higher self-assessed health status than other newly enrolled beneficiaries who have access to retroactive eligibility?	Beneficiary self-reported health status; reported prior year utilization	Beneficiaries subject to retroactive eligibility waiver	N/A	Non-pregnant adults covered by retroactive eligibility waiver	Source – SoonerCare Independent Evaluator survey data file Steward - SoonerCare Independent Evaluator for survey data	Descriptive regression model (due to lack of baseline data; waiver is ongoing from prior period)
80	Do beneficiaries subject to the retroactive eligibility waiver have better health outcomes than other beneficiaries who have access to retroactive eligibility?	Beneficiary self-reported health status; healthy days	Beneficiaries subject to retroactive eligibility waiver	N/A	Non-pregnant adults covered by retroactive eligibility waiver	Source – SoonerCare Independent Evaluator survey data file Steward - SoonerCare Independent Evaluator for survey data	Regression with propensity score matching

Ref	Research Question	Measure	Population	Numerator/ Denominator	Comparison Group	Data Source & Measure Steward	Analytic Methods
81		Change in physical and mental health status, measured at baseline and at 12, 18 and 24 months	Beneficiaries subject to retroactive eligibility waiver	N/A	Non-pregnant adults covered by retroactive eligibility waiver	Source – SoonerCare Independent Evaluator survey data file Steward - SoonerCare Independent Evaluator for survey data	Regression model of change in self-reported health status among Medicaid beneficiaries initially enrolled and subject to waiver

Oklahoma SoonerCare Section 1115 Demonstration

CMS COMMENTS ON THE SUMMATIVE EVALUATION REPORT FOR THE PERIOD ENDING DECEMBER 31, 2018

September 29, 2020

I. Introduction

The Centers for Medicare & Medicaid Services (CMS) has reviewed Oklahoma's summative evaluation report, titled "SoonerCare Section 1115 Waiver Evaluation: Demonstration Years 21 – 23 (CY 2016 – 2018)," dated June 2020. The report evaluates Oklahoma's SoonerCare section 1115 demonstration for the demonstration period of January 1, 2016 through December 31, 2018. CMS compared the summative evaluation report to the demonstration special terms and conditions (STC)[87] and the evaluation design from the state[88].

The demonstration contains the following policies:

- SoonerCare Health Access Networks (HANs), which offer care management and care coordination to SoonerCare Choice members with complex health care needs who are enrolled with affiliated primary care medical home (PCMH) providers. HANs expanded to additional counties between 2016 and 2018, but the policy was otherwise unchanged from the previous demonstration period.

- SoonerCare Health Management Program (HMP), an initiative under the demonstration developed to offer care management to SoonerCare Choice members most at risk for chronic disease and other adverse health events. During the 2016–2018 period, HMP was unchanged from the previous demonstration period.

- The state continued to waive retroactive eligibility for most SoonerCare Choice beneficiaries but did not apply it to those eligible due to the Tax Equity and Fiscal Responsibility Act (TEFRA) or Aged, Blind or Disabled (ABD) status. During the 2016–2018 period, the retroactive eligibility waiver was unchanged from the previous demonstration period.

The goals of the demonstration are to improve enrollee health care access and quality and to increase cost-effectiveness.

CMS has identified strengths and weaknesses of the analyses contained in the summative evaluation report. The strengths of the evaluation are that the state uses a mix of claims and primary survey data and employs propensity score matching to select an in-state comparison

[87] Three sets of STCs cover the 2016–2018 demonstration period: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ok/soonercare/ok-soonercare-2015-ext-appvl-07092015.pdf; https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ok/soonercare/ok-soonercare-tech-crrctns-amdmnt-rqst-11302016.pdf; and https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ok/soonercare/ok-soonercare-renewal-12292017.pdf.

[88] Evaluation Design available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ok/soonercare/ok-soonercare-draft-eval-design-20181228.pdf.

group among Oklahoma beneficiaries not enrolled in HAN or HMP. The state also uses well-defined outcome measures that are appropriate for the research questions. CMS has several recommendations for improving the methods, their description, and presentation of the results (Section II). CMS has also identified a number of opportunities to strengthen the evaluation of the demonstration period August 31, 2018 through December 31, 2023[89] (Section III). Upon CMS's review of this evaluation report, CMS also has identified a few areas where the state could consider certain minor amendments to the approved evaluation design for this period, dated June 2019. These updates within the approved design framework will strengthen future evaluation efforts, including the interim and summative evaluation reports. The state is not required to resubmit the evaluation design for these suggested modifications, but should accommodate those adjustments in evaluation of the ongoing demonstration approval period. In accordance with STC 88 of the STCs for the January 1 to December 31, 2018 approval period, CMS anticipates receiving a revised summative evaluation report from the state within 60 days after it receives CMS comments.

II. Recommendations for improvements to the summative evaluation report

The OHCA appreciates CMS' recommendations for improving the summative evaluation report. We have worked with our independent evaluator to incorporate the recommendations in the manner described below.

1. **Provide more details about the propensity score matching process used to select the comparison groups and other analytic methods.**

The report describes the beneficiary characteristics that are included in the matching process but does not provide any comparison of summary statistics for the intervention and comparison groups. The state should consider adding balance tables that display mean beneficiary characteristics for treatment and comparison group, before and after matching. The balance tables would help persuade the reader that the treatment and comparison groups are observably similar after matching. In addition, the state should describe the matching algorithm in more detail, for example, whether the evaluator used matching with or without replacement and which distance measure was used for matching. The summative evaluation report also mentions "peer grouping" on page 50 but does not explain elsewhere what this is. If this references a specific statistical method, the state should describe it in more detail.

The matching process description has been expanded in the report methodology section to address the elements identified by CMS. (Nearest neighbor PSM without replacement was utilized.) Report Appendix 2 also now contains balance table data depicting mean beneficiary characteristics (treatment and comparison group) and standardized difference. (Post-matching data is presented to allow readers to assess the similarity of treatment and comparison groups.) The "peer grouping" reference has been removed.

2. **Describe the results only in terms of statistically significant findings when assessing whether the data supports each hypothesis.**

[89] The STCs for 2019–2023 can be found at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ok/soonercare/ok-soonercare-demo-appvl-20180831.pdf.

In the section describing the hypothesis that HANs would improve beneficiary access on page 152 of the summative evaluation report, the state notes that, "The SoonerCare HAN and comparison group rates did not differ by a statistically significant amount on the majority of measures, and this typically would argue against a conclusion that the evaluation supported the hypothesis. However, the compliance and satisfaction rates were very high in absolute terms, and also relative to the national benchmark." The state then uses this to argue that HANs improved access to care, a conclusion that is not supported by the data. The state should revise this statement to reflect the fact that no conclusion about the impact of HANs on beneficiary access can be drawn, given lack of statistically significant findings.

The report has been revised to clarify that no conclusion about the impact of HANs on beneficiary access can be drawn from the evaluation measures, given the lack of statistically significant findings.

The discussion of absolute compliance/satisfaction rates, and performance against national benchmarks, has been retained as it is relevant to Oklahoma policymakers when assessing the Oklahoma Medicaid program in its entirety. However, the language has been revised to clarify why the information is provided. The report also has been revised to include cautionary language regarding differences in the Oklahoma waiver and national benchmark populations. This language appears throughout the report whenever benchmark data is presented or discussed.

3. Add a disclaimer that results should not be interpreted as causal.

Because the demonstration continued the same policies during the 2016–2018 period that existed before 2016, the state cannot use an evaluation design that supports causal inferences about the effects of demonstration policies, such as difference-in-differences. Therefore, the findings in the summative evaluation report should not be interpreted as causal evidence for the impacts of this demonstration. The state does not claim causality in its interpretation of the findings but should add an explicit reference to the descriptive nature of the results.

As noted above, the evaluation report did not claim causality. Per CMS' request, an explicit reference to the descriptive nature of the results has been added both to the executive summary and methodological limitations section of the report.

4. Consider pooling three years of data, 2016–2018, and reporting results for the pooled sample as the main results.

The state should consider reporting only results from the pooled three-year period in the main text of the report and relegate the results for each individual year to an appendix. The evaluation report currently assesses many outcomes (at least 68) up to three times (2016, 2017, and 2018) each. The state nicely organizes the outcomes by demonstration policy and hypothesis, and then summarizes the high-level findings at the conclusion of each section of results, but the results could be more concisely presented using a pooled sample. Although it is interesting to see trends over three years in some cases, most are flat or display no strong trendline, and therefore reporting results for separate years is not very informative. Pooling multiple years of data would also increase statistical power.

The revised report contains pooled three-year rates for all HEDIS measures, as well as all utilization and cost measures. (The individual year-over-year rates are still available in Appendix 2 of the report.)

5. Correct for multiple comparison tests.

The state currently presents a large number of statistical tests (greater than 200) without noting any kind of statistical correction to account for the risk of false discoveries. Without adjustment for multiple comparisons, this means that several of the findings are likely statistically significant purely by chance.[90] Pooling the three years will reduce the number of hypothesis tests significantly, but the state should also account for multiple comparisons by using correction methods to decrease the likelihood of a false positive.[4]

The revised evaluation report adopts CMS' recommendation of using pooling to reduce the number of discrete hypothesis tests. The state's independent evaluator did not make additional statistical corrections but did include a cautionary note for readers concerning false positives both in the executive summary and methodological limitations section of the report.

6. Consider dropping the comparison to Core Set benchmarks when comparison groups are available.

The Core Set comparison group is very different from the HAN and HMP populations and inferior to the in-state matched comparison group because the state cannot match or regression-adjust the Core Set comparison to make it more similar to the demonstration population. The median value is an interesting benchmark that could be included in the tables for context, but it should not be used as evidence that the demonstration did or did not meet its goals, especially when an in-state comparison group is available.

As noted previously, the national benchmark data is of interest to Oklahoma policymakers when evaluating the relative performance of the state's Medicaid program. (Oklahoma has been a

[90] See the discussion of multiple comparisons here: https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/causal-inference.pdf.

strong supporter of the CMS Scorecard initiative for this same reason.) However, the report has been revised to include cautionary language regarding differences in the Oklahoma waiver and national benchmark populations. This language appears throughout the report whenever benchmark data is presented or discussed.

7. For each demonstration component, provide a concise, high-level summary of relevant results from previous evaluation reports to place analyses in context.

CMS requests that the state add a high-level summary of key evaluation results and their implications, including results from earlier reports. Given that the HAN, HMP, and retroactive eligibility waiver components have been ongoing and largely unchanged for many years, the state should summarize the findings from the previous evaluations alongside new results. This summary should incorporate the level of confidence the evaluators place in different sets of prior results.

The evaluation design used for 2016 – 2018 is based on the latest CMS guidance and differs greatly in comprehensiveness and statistical rigor from earlier evaluations. Going forward, it will be possible to make comparisons across waiver periods for the majority of measures contained in this report.

The retroactive eligibility waiver similarly has changed in terms of covered populations over time. For the current waiver cycle, the OHCA is adopting the design guidelines issued by CMS for such waivers.

Although it would be problematic to link this evaluation formally to prior evaluations, the revised report contains a new appendix with data from the most recent HAN and HMP evaluations pre-dating the 2016 – 2018 evaluation period. The prior period data is compared to corresponding data for the 2016 – 2018 evaluation, where applicable, and summary findings are presented. A link to the section of the OHCA website holding the prior period evaluation reports also is included.

8. Correct minor errors and typos.

There are two minor issues that the state should correct:

a) (p. 26) Exhibit 8a appears to have a typo. The aim is listed as "provide cost effective care" when it should be "improve access and quality." There may also be changes required for the primary and secondary drivers, which look quite similar for both Exhibits 8a and 8b.

b) (p. 84) In exhibit 48, "Tier 2" is listed twice. One of these should likely be "Tier 1."

Corrections made. (Note – primary and secondary drivers in Exhibits 8a and 8b intentionally overlap. The drivers contribute to all three Demonstration aims.)

III. Considerations for future demonstration evaluations

We concur with both of CMS' recommendations below and will work to incorporate them into the next cycle.

9. The state should consider using multiple matching approaches to assess the sensitivity of the results to each set of matching assumptions.

In addition to propensity score matching, the state should consider using another matching algorithm, such as coarsened exact matching, especially if the evaluators continue to use a small number of covariates that can be expressed as categorical variables. Coarsened exact matching and similar techniques are preferred to propensity score matching in cases where there are few matching variables and should be at least considered as a sensitivity check.

10. The state should consider additional variables for the matching process.

Currently, the state uses a small number of demographic characteristics to match demonstration and comparison beneficiaries, but there are more covariates available in Medicaid eligibility and claims data, and in other data sets that can be linked by geographic area such as county or zip code. The state should consider all or some of the following to improve the match quality:

- Beneficiary level: Medicaid eligibility category, beneficiary race, a risk adjustment score such as the Chronic Illness and Disability Payment System (CDPS), chronic condition indicators, and length of continuous Medicaid enrollment.
- Provider practice level: academic affiliation, hospital system affiliation or independent practice, and practice size.
- County, zip code, or Census block group level: median income, poverty rate, education level.

Deviations from Approved Design Measure Set

Measure Reference Number	Population	Measure Description	Notes
7	HAN	Asthma – use of appropriate medications for people with asthma	Measure was retired. Replaced with successor measure – asthma medication ratio
8	HAN	Asthma – medication management for people with asthma – 75 percent	Measure was retired. Replaced with successor measure – asthma medication ratio
18	HAN	Diabetes – percentage of members prescribed ACE/ARB therapy	Measure was retired. No replacement
22	HAN	Hypertension – percentage of members prescribed ACE/ARB therapy or diuretics with annual medication monitoring	Measure was retired. No replacement
26	HAN	Number and percentage of HAN-affiliated PCMH providers who have attained the highest level of OHCA accreditation	Measure calculated based on counts of beneficiaries aligned with PCMH providers at each tier level, rather than PCMH provider counts
33	HMP	Number of PCP contacts (total and per member engaged in health coaching)	Replaced with two HEDIS preventive/ambulatory care measures – child and adolescent access to PCPs – 12 months to 19 years and adult access to preventive/ambulatory health services
36	HMP	Asthma – use of appropriate medications for people with asthma	Measure was retired. Replaced with successor measure – asthma medication ratio
37	HMP	Asthma – medication management for people with asthma – 75 percent	Measure was retired. Replaced with successor measure – asthma medication ratio
38	HMP	Asthma – COPD or asthma in older adults admission rate	Measure was not reported due to sample size concerns. Will be re-examined for summative evaluation
39	HMP	Asthma – asthma in younger adults admission rate	Measure was not reported due to sample size concerns. Will be re-examined for summative evaluation

Measure Reference Number	Population	Measure Description	Notes
42	HMP	CAD – heart failure admission rate	Measure was not reported due to sample size concerns. Will be re-examined for summative evaluation
50	HMP	Diabetes – percentage of members prescribed ACE/ARB therapy	Measure was retired. No replacement
51	HMP	Diabetes – short term complications admission rate	Measure was not reported due to sample size concerns. Will be re-examined for summative evaluation
55	HMP	Hypertension – percentage of members prescribed ACE/ARB therapy or diuretics with annual medication monitoring	Measure was retired. No replacement
56	HMP	Mental Health – follow-up after hospitalization for mental illness – 7 days	Measure was not reported due to sample size concerns. Will be re-examined for summative evaluation
57	HMP	Mental Health – follow-up after hospitalization for mental illness – 30 days	Measure was not reported due to sample size concerns. Will be re-examined for summative evaluation
65	HMP	Rating of personal doctor – children and adults	Measure (survey question) was not asked, as HMP does not influence choice of doctor
69	Insure OK	Number of individuals enrolled in Insure OK	Enrollment data included in Background section of report. Measure not reported in Results due to phase-out of majority of program following eligibility expansion
70	Insure OK	Number of employers participating in the ESI portion of Insure OK	Participation data included in Background section of report. Measure not reported in Results due to phase-out of majority of program following eligibility expansion
71	Insure OK	PCPs participating in the Individual Plan portion of Insure OK	Not evaluated

Measure Reference Number	Population	Measure Description	Notes
74	Retroactive Eligibility	Probability of completing the renewal (recertification) process, by eligibility group	Data not available for interim evaluation. Will be included in summative evaluation if obtainable
75	Retroactive Eligibility	Probability of remaining enrolled in Medicaid for 12-, 18-, 12-consecutive months, by eligibility group	Not evaluated due to suspension of most disenrollments under PHE. Will be evaluated for post-PHE period and included in summative evaluation report
76	Retroactive Eligibility	Number of months with Medicaid coverage (average tenure)	Not evaluated due to suspension of most disenrollments under PHE. Will be evaluated for post-PHE period and included in summative evaluation report
77	Retroactive Eligibility	Probability of re-enrolling in Medicaid after a gap in coverage of six months	Not evaluated due to suspension of most disenrollments under PHE. Will be evaluated for post-PHE period and included in summative evaluation report
78	Retroactive Eligibility	Number of months without Medicaid coverage, up to six months	Not evaluated due to suspension of most disenrollments under PHE. Will be evaluated for post-PHE period and included in summative evaluation report

2. HAN CEM Covariate Balance Tables (Pre- and Post-Matching) 2019 - 2021

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
Asthma - Medication Ratio - 5 to 18 years						
Age	10.902	11.073	-0.044	10.902	10.902	0.000
Gender (0 = male; 1 = female)	0.487	0.493	-0.011	0.487	0.487	0.000
Urban/Rural (0 = urban; 1 = rural)	0.230	0.581	-0.835	0.230	0.230	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.046	0.038	0.039	0.046	0.046	0.000
Asthma - Medication Ratio - 19 to 64 years						
Age	38.623	38.670	-0.004	38.623	38.621	0.000
Sex (0 = male; 1 = female)	0.702	0.689	0.030	0.702	0.702	0.000
Urban/Rural (0 = urban; 1 = rural)	0.235	0.600	-0.860	0.235	0.235	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.440	0.428	0.024	0.440	0.440	0.000
CAD - Persistent Beta-Blocker Treatment after a Heart Attack						
Age	54.160	54.758	-0.071	54.489	54.514	-0.003
Sex (0 = male; 1 = female)	0.446	0.526	-0.160	0.450	0.450	0.000
Urban/Rural (0 = urban; 1 = rural)	0.241	0.620	-0.888	0.239	0.239	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.850	0.831	0.053	0.855	0.855	0.000
CAD - Cholesterol Management - LDL-C Test	*Same population as CAD Beta Blocker*			*Same population as CAD Beta Blocker*		
Age	54.160	54.758	-0.071	54.489	54.514	-0.003
Sex (0 = male; 1 = female)	0.446	0.526	-0.160	0.450	0.450	0.000
Urban/Rural (0 = urban; 1 = rural)	0.241	0.620	-0.888	0.239	0.239	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.850	0.831	0.053	0.855	0.855	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
COPD - Use of Spirometry Testing						
Age	43.993	46.804	-0.151	44.343	44.392	-0.003
Sex (0 = male; 1 = female)	0.622	0.626	-0.008	0.623	0.623	0.000
Urban/Rural (0 = urban; 1 = rural)	0.246	0.648	-0.934	0.244	0.244	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.648	0.656	-0.016	0.648	0.648	0.000
COPD - Pharmacotherapy Management of Exacerbation - 14 days						
Age	54.674	52.715	0.224	55.023	54.987	0.004
Sex (0 = male; 1 = female)	0.639	0.684	-0.093	0.653	0.653	0.000
Urban/Rural (0 = urban; 1 = rural)	0.274	0.630	-0.797	0.275	0.275	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.878	0.837	0.127	0.901	0.901	0.000
COPD - Pharmacotherapy Management of Exacerbation - 30 days	*Same population as 14 days*			*Same population as 14 days*		
Age	54.674	52.715	0.224	55.023	54.987	0.004
Sex (0 = male; 1 = female)	0.639	0.684	-0.093	0.653	0.653	0.000
Urban/Rural (0 = urban; 1 = rural)	0.274	0.630	-0.797	0.275	0.275	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.878	0.837	0.127	0.901	0.901	0.000
Diabetes - Members who had LDL-C Test						
Age	47.353	47.676	-0.027	47.411	47.359	0.004
Sex (0 = male; 1 = female)	0.653	0.652	0.002	0.654	0.654	0.000
Urban/Rural (0 = urban; 1 = rural)	0.237	0.617	-0.895	0.238	0.238	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.667	0.688	-0.046	0.669	0.669	0.000
Diabetes - Retinal Eye Exam	*Same population as LDL-C*			*Same population as LDL-C*		
Age	47.353	47.676	-0.027	47.411	47.359	0.004
Sex (0 = male; 1 = female)	0.653	0.652	0.002	0.654	0.654	0.000
Urban/Rural (0 = urban; 1 = rural)	0.237	0.617	-0.895	0.238	0.238	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.667	0.688	-0.046	0.669	0.669	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
Diabetes - HbA1c Testing	*Same population as LDL-C*			*Same population as LDL-C*		
Age	47.353	47.676	-0.027	47.411	47.359	0.004
Sex (0 = male; 1 = female)	0.653	0.652	0.002	0.654	0.654	0.000
Urban/Rural (0 = urban; 1 = rural)	0.237	0.617	-0.895	0.238	0.238	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.667	0.688	-0.046	0.669	0.669	0.000
Diabetes - Medical Attention for Nephropathy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	47.353	47.676	-0.027	47.411	47.359	0.004
Sex (0 = male; 1 = female)	0.653	0.652	0.002	0.654	0.654	0.000
Urban/Rural (0 = urban; 1 = rural)	0.237	0.617	-0.895	0.238	0.238	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.667	0.688	-0.046	0.669	0.669	0.000
Hypertension - LDL-C Test						
Age	49.262	49.071	0.017	49.245	49.247	0.000
Sex (0 = male; 1 = female)	0.623	0.612	0.023	0.623	0.623	0.000
Urban/Rural (0 = urban; 1 = rural)	0.231	0.607	-0.892	0.231	0.231	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.689	0.684	0.010	0.688	0.688	0.000
Hypertension - ACE/ARB Therapy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	49.262	49.071	0.017	49.245	49.247	0.000
Sex (0 = male; 1 = female)	0.623	0.612	0.023	0.623	0.623	0.000
Urban/Rural (0 = urban; 1 = rural)	0.231	0.607	-0.892	0.231	0.231	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.689	0.684	0.010	0.688	0.688	0.000
Mental Health - Follow-up after Hospitalization - 7 days - 6 to 20						
Age	13.662	14.213	-0.178	13.687	13.719	-0.010
Sex (0 = male; 1 = female)	0.527	0.558	-0.061	0.527	0.527	0.000
Urban/Rural (0 = urban; 1 = rural)	0.254	0.518	-0.607	0.255	0.255	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.150	0.145	0.015	0.141	0.141	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
Mental Health - Follow-up after Hospitalization - 7 days - 21 and older						
Age	41.437	41.238	0.017	41.413	41.335	0.007
Sex (0 = male; 1 = female)	0.665	0.653	0.024	0.677	0.677	0.000
Urban/Rural (0 = urban; 1 = rural)	0.234	0.452	-0.513	0.232	0.232	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.741	0.694	0.107	0.755	0.755	0.000
Mental Health - Follow-up after Hospitalization - 30 days - 6 to 20	*Same population as 7 days - 6 to 20*			*Same population as 7 days - 6 to 20*		
Age	13.662	14.213	-0.178	13.687	13.719	-0.010
Sex (0 = male; 1 = female)	0.527	0.558	-0.061	0.527	0.527	0.000
Urban/Rural (0 = urban; 1 = rural)	0.254	0.518	-0.607	0.255	0.255	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.150	0.145	0.015	0.141	0.141	0.000
Mental Health - Follow-up after Hospitalization - 30 days - 21 and older	*Same population as 7 days - 21 and older*			*Same population as 7 days - 21 and older*		
Age	41.437	41.238	0.017	41.413	41.335	0.007
Sex (0 = male; 1 = female)	0.665	0.653	0.024	0.677	0.677	0.000
Urban/Rural (0 = urban; 1 = rural)	0.234	0.452	-0.513	0.232	0.232	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.741	0.694	0.107	0.755	0.755	0.000
Child and Adolescents' Access to PCP - 12 months to 19 years						
Age	8.777	9.025	-0.049	8.777	8.777	0.000
Sex (0 = male; 1 = female)	0.487	0.492	-0.010	0.487	0.487	0.000
Urban/Rural (0 = urban; 1 = rural)	0.232	0.576	-0.816	0.232	0.232	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.039	0.033	0.031	0.039	0.039	0.000
Adults' Access to Preventive/Ambulatory Health Services						
Age	39.736	39.761	-0.002	39.731	39.742	-0.001
Sex (0 = male; 1 = female)	0.708	0.694	0.032	0.708	0.708	0.000
Urban/Rural (0 = urban; 1 = rural)	0.235	0.598	-0.857	0.235	0.235	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.453	0.441	0.024	0.453	0.453	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
Utilization/Expenditure Measures						
Emergency Room Visits (per 1,000 member months) - All						
Age	12.656	13.419	-0.066	12.642	12.653	0.000
Sex	0.508	0.518	-0.019	0.508	0.508	0.000
Urban/Rural	0.224	0.564	-0.816	0.224	0.224	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.097	0.098	-0.002	0.097	0.097	0.000
Hospital Admissions (per 100,000 member months) - All	*Same population as ER visits*			*Same population as ER visits*		
Age	12.656	13.419	-0.066	12.642	12.653	0.000
Sex	0.508	0.518	-0.019	0.508	0.508	0.000
Urban/Rural	0.224	0.564	-0.816	0.224	0.224	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.097	0.098	-0.002	0.097	0.097	0.000
Per Member Per Month Expenditures - All	*Same population as ER visits*			*Same population as ER visits*		
Age	12.656	13.419	-0.066	12.642	12.653	0.000
Sex	0.508	0.518	-0.019	0.508	0.508	0.000
Urban/Rural	0.224	0.564	-0.816	0.224	0.224	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.097	0.098	-0.002	0.097	0.097	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
Asthma - Medication Ratio - 5 to 18 years						
Age	10.949	11.139	-0.048	10.949	10.949	0.000
Gender (0 = male; 1 = female)	0.487	0.492	-0.010	0.487	0.487	0.000
Urban/Rural (0 = urban; 1 = rural)	0.224	0.576	-0.845	0.224	0.224	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.042	0.034	0.039	0.042	0.042	0.000
Asthma - Medication Ratio - 19 to 64 years						
Age	34.995	35.222	-0.018	34.995	34.987	0.001
Sex (0 = male; 1 = female)	0.707	0.699	0.016	0.707	0.707	0.000
Urban/Rural (0 = urban; 1 = rural)	0.240	0.580	-0.798	0.240	0.240	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.309	0.285	0.052	0.309	0.309	0.000
CAD - Persistent Beta-Blocker Treatment after a Heart Attack						
Age	54.331	55.551	-0.139	54.651	54.751	-0.006
Sex (0 = male; 1 = female)	0.484	0.509	-0.050	0.488	0.488	0.000
Urban/Rural (0 = urban; 1 = rural)	0.290	0.623	-0.734	0.291	0.291	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.814	0.824	-0.025	0.817	0.817	0.000
CAD - Cholesterol Management - LDL-C Test	*Same population as CAD Beta Blocker*			*Same population as CAD Beta Blocker*		
Age	54.331	55.551	-0.139	54.651	54.751	-0.006
Sex (0 = male; 1 = female)	0.484	0.509	-0.050	0.488	0.488	0.000
Urban/Rural (0 = urban; 1 = rural)	0.290	0.623	-0.734	0.291	0.291	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.814	0.824	-0.025	0.817	0.817	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
COPD - Use of Spirometry Testing						
Age	27.767	37.031	-0.405	27.804	27.815	-0.001
Sex (0 = male; 1 = female)	0.502	0.553	-0.102	0.504	0.504	0.000
Urban/Rural (0 = urban; 1 = rural)	0.239	0.611	-0.874	0.241	0.241	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.401	0.527	-0.257	0.397	0.397	0.000
COPD - Pharmacotherapy Management of Exacerbation - 14 days						
Age	52.310	53.066	-0.075	53.719	53.871	-0.015
Sex (0 = male; 1 = female)	0.652	0.645	0.015	0.685	0.685	0.000
Urban/Rural (0 = urban; 1 = rural)	0.228	0.585	-0.851	0.233	0.233	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.798	0.821	-0.058	0.815	0.815	0.000
COPD - Pharmacotherapy Management of Exacerbation - 30 days	*Same population as 14 days*			*Same population as 14 days*		
Age	52.310	53.066	-0.075	53.719	53.871	-0.015
Sex (0 = male; 1 = female)	0.652	0.645	0.015	0.685	0.685	0.000
Urban/Rural (0 = urban; 1 = rural)	0.228	0.585	-0.851	0.233	0.233	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.798	0.821	-0.058	0.815	0.815	0.000
Diabetes - Members who had LDL-C Test						
Age	46.382	46.351	0.003	46.420	46.398	0.002
Sex (0 = male; 1 = female)	0.659	0.667	-0.017	0.660	0.660	0.000
Urban/Rural (0 = urban; 1 = rural)	0.244	0.597	-0.821	0.245	0.245	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.601	0.586	0.030	0.602	0.602	0.000
Diabetes - Retinal Eye Exam	*Same population as LDL-C*			*Same population as LDL-C*		
Age	46.382	46.351	0.003	46.420	46.398	0.002
Sex (0 = male; 1 = female)	0.659	0.667	-0.017	0.660	0.660	0.000
Urban/Rural (0 = urban; 1 = rural)	0.244	0.597	-0.821	0.245	0.245	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.601	0.586	0.030	0.602	0.602	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
Diabetes - HbA1c Testing	*Same population as LDL-C*			*Same population as LDL-C*		
Age	46.382	46.351	0.003	46.420	46.398	0.002
Sex (0 = male; 1 = female)	0.659	0.667	-0.017	0.660	0.660	0.000
Urban/Rural (0 = urban; 1 = rural)	0.244	0.597	-0.821	0.245	0.245	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.601	0.586	0.030	0.602	0.602	0.000
Diabetes - Medical Attention for Nephropathy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	46.382	46.351	0.003	46.420	46.398	0.002
Sex (0 = male; 1 = female)	0.659	0.667	-0.017	0.660	0.660	0.000
Urban/Rural (0 = urban; 1 = rural)	0.244	0.597	-0.821	0.245	0.245	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.601	0.586	0.030	0.602	0.602	0.000
Hypertension - LDL-C Test						
Age	48.229	47.621	0.053	48.221	48.226	0.000
Sex (0 = male; 1 = female)	0.630	0.624	0.013	0.630	0.630	0.000
Urban/Rural (0 = urban; 1 = rural)	0.236	0.588	-0.830	0.236	0.236	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.620	0.584	0.075	0.620	0.620	0.000
Hypertension - ACE/ARB Therapy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	48.229	47.621	0.053	48.221	48.226	0.000
Sex (0 = male; 1 = female)	0.630	0.624	0.013	0.630	0.630	0.000
Urban/Rural (0 = urban; 1 = rural)	0.236	0.588	-0.830	0.236	0.236	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.620	0.584	0.075	0.620	0.620	0.000
Mental Health - Follow-up after Hospitalization - 7 days - 6 to 20						
Age	14.221	14.713	-0.163	14.334	14.332	0.001
Sex (0 = male; 1 = female)	0.593	0.597	-0.008	0.608	0.608	0.000
Urban/Rural (0 = urban; 1 = rural)	0.255	0.570	-0.723	0.262	0.262	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.130	0.115	0.047	0.097	0.097	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
Mental Health - Follow-up after Hospitalization - 7 days - 21 and older						
Age	41.840	38.969	0.206	41.400	41.203	0.014
Sex (0 = male; 1 = female)	0.733	0.620	0.256	0.757	0.757	0.000
Urban/Rural (0 = urban; 1 = rural)	0.267	0.519	-0.572	0.229	0.229	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.653	0.659	-0.012	0.657	0.657	0.000
Mental Health - Follow-up after Hospitalization - 30 days - 6 to 20	*Same population as 7 days - 6 to 20*			*Same population as 7 days - 6 to 20*		
Age	14.221	14.713	-0.163	14.334	14.332	0.001
Sex (0 = male; 1 = female)	0.593	0.597	-0.008	0.608	0.608	0.000
Urban/Rural (0 = urban; 1 = rural)	0.255	0.570	-0.723	0.262	0.262	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.130	0.115	0.047	0.097	0.097	0.000
Mental Health - Follow-up after Hospitalization - 30 days - 21 and older	*Same population as 7 days - 21 and older*			*Same population as 7 days - 21 and older*		
Age	41.840	38.969	0.206	41.400	41.203	0.014
Sex (0 = male; 1 = female)	0.733	0.620	0.256	0.757	0.757	0.000
Urban/Rural (0 = urban; 1 = rural)	0.267	0.519	-0.572	0.229	0.229	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.653	0.659	-0.012	0.657	0.657	0.000
Child and Adolescents' Access to PCP - 12 months to 19 years						
Age	8.938	9.254	-0.060	8.938	8.938	0.000
Sex (0 = male; 1 = female)	0.487	0.493	-0.012	0.487	0.487	0.000
Urban/Rural (0 = urban; 1 = rural)	0.225	0.574	-0.835	0.225	0.225	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.035	0.029	0.033	0.035	0.035	0.000
Adults' Access to Preventive/Ambulatory Health Services						
Age	37.833	37.771	0.005	37.832	37.845	-0.011
Sex (0 = male; 1 = female)	0.739	0.725	0.031	0.739	0.739	0.000
Urban/Rural (0 = urban; 1 = rural)	0.240	0.578	-0.792	0.240	0.240	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.351	0.320	0.066	0.351	0.351	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
Utilization/Expenditure Measures						
Emergency Room Visits (per 1,000 member months) - All						
Age	12.444	13.515	-0.098	12.430	12.446	-0.001
Sex	0.509	0.519	-0.019	0.509	0.509	0.000
Urban/Rural	0.222	0.574	-0.848	0.222	0.222	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.084	0.087	-0.010	0.084	0.084	0.000
Hospital Admissions (per 100,000 member months) - All	*Same population as ER visits*			*Same population as ER visits*		
Age	12.444	13.515	-0.098	12.430	12.446	-0.001
Sex	0.509	0.519	-0.019	0.509	0.509	0.000
Urban/Rural	0.222	0.574	-0.848	0.222	0.222	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.084	0.087	-0.010	0.084	0.084	0.000
Per Member Per Month Expenditures - All	*Same population as ER visits*			*Same population as ER visits*		
Age	12.444	13.515	-0.098	12.430	12.446	-0.001
Sex	0.509	0.519	-0.019	0.509	0.509	0.000
Urban/Rural	0.222	0.574	-0.848	0.222	0.222	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.084	0.087	-0.010	0.084	0.084	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
Asthma - Medication Ratio - 5 to 18 years						
Age	11.077	11.257	-0.045	11.077	11.077	0.000
Gender (0 = male; 1 = female)	0.487	0.491	-0.008	0.487	0.487	0.000
Urban/Rural (0 = urban; 1 = rural)	0.232	0.589	-0.846	0.232	0.232	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.037	0.029	0.042	0.037	0.037	0.000
Asthma - Medication Ratio - 19 to 64 years						
Age	33.535	33.357	0.014	33.535	33.462	0.006
Sex (0 = male; 1 = female)	0.671	0.688	-0.035	0.671	0.671	0.000
Urban/Rural (0 = urban; 1 = rural)	0.245	0.594	-0.811	0.245	0.245	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.137	0.233	-0.276	0.137	0.137	0.000
CAD - Persistent Beta-Blocker Treatment after a Heart Attack						
Age	55.207	55.940	-0.085	55.244	55.524	-0.001
Sex (0 = male; 1 = female)	0.499	0.501	-0.005	0.501	0.501	0.000
Urban/Rural (0 = urban; 1 = rural)	0.232	0.622	-0.923	0.238	0.238	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.814	0.824	-0.025	0.817	0.817	0.000
CAD - Cholesterol Management - LDL-C Test	*Same population as CAD Beta Blocker*			*Same population as CAD Beta Blocker*		
Age	55.207	55.940	-0.085	55.244	55.524	-0.001
Sex (0 = male; 1 = female)	0.499	0.501	-0.005	0.501	0.501	0.000
Urban/Rural (0 = urban; 1 = rural)	0.232	0.622	-0.923	0.238	0.238	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.814	0.824	-0.025	0.817	0.817	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
COPD - Use of Spirometry Testing						
Age	54.876	53.918	0.135	54.822	54.713	0.015
Sex (0 = male; 1 = female)	0.614	0.629	-0.030	0.614	0.614	0.000
Urban/Rural (0 = urban; 1 = rural)	0.280	0.671	-0.871	0.280	0.280	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.401	0.527	-0.257	0.397	0.397	0.000
COPD - Pharmacotherapy Management of Exacerbation - 14 days						
Age	55.812	56.097	-0.041	55.975	55.952	0.003
Sex (0 = male; 1 = female)	0.633	0.659	-0.056	0.690	0.690	0.000
Urban/Rural (0 = urban; 1 = rural)	0.269	0.633	-0.820	0.285	0.285	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.798	0.821	-0.058	0.815	0.815	0.000
COPD - Pharmacotherapy Management of Exacerbation - 30 days	*Same population as 14 days*			*Same population as 14 days*		
Age	55.812	56.097	-0.041	55.975	55.952	0.003
Sex (0 = male; 1 = female)	0.633	0.659	-0.056	0.690	0.690	0.000
Urban/Rural (0 = urban; 1 = rural)	0.269	0.633	-0.820	0.285	0.285	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.798	0.821	-0.058	0.815	0.815	0.000
Diabetes - Members who had LDL-C Test						
Age	46.478	46.105	0.030	46.462	46.443	0.002
Sex (0 = male; 1 = female)	0.657	0.677	-0.041	0.657	0.657	0.000
Urban/Rural (0 = urban; 1 = rural)	0.260	0.618	-0.815	0.260	0.260	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.601	0.586	0.030	0.602	0.602	0.000
Diabetes - Retinal Eye Exam	*Same population as LDL-C*			*Same population as LDL-C*		
Age	46.478	46.105	0.030	46.462	46.443	0.002
Sex (0 = male; 1 = female)	0.657	0.677	-0.041	0.657	0.657	0.000
Urban/Rural (0 = urban; 1 = rural)	0.260	0.618	-0.815	0.260	0.260	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.601	0.586	0.030	0.602	0.602	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
Diabetes - HbA1c Testing	*Same population as LDL-C*			*Same population as LDL-C*		
Age	46.478	46.105	0.030	46.462	46.443	0.002
Sex (0 = male; 1 = female)	0.657	0.677	-0.041	0.657	0.657	0.000
Urban/Rural (0 = urban; 1 = rural)	0.260	0.618	-0.815	0.260	0.260	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.601	0.586	0.030	0.602	0.602	0.000
Diabetes - Medical Attention for Nephropathy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	46.478	46.105	0.030	46.462	46.443	0.002
Sex (0 = male; 1 = female)	0.657	0.677	-0.041	0.657	0.657	0.000
Urban/Rural (0 = urban; 1 = rural)	0.260	0.618	-0.815	0.260	0.260	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.601	0.586	0.030	0.602	0.602	0.000
Hypertension - LDL-C Test						
Age	48.794	48.613	0.016	48.787	48.740	0.004
Sex (0 = male; 1 = female)	0.639	0.617	0.046	0.639	0.639	0.000
Urban/Rural (0 = urban; 1 = rural)	0.246	0.610	-0.847	0.246	0.246	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.620	0.584	0.075	0.620	0.620	0.000
Hypertension - ACE/ARB Therapy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	48.794	48.613	0.016	48.787	48.740	0.004
Sex (0 = male; 1 = female)	0.639	0.617	0.046	0.639	0.639	0.000
Urban/Rural (0 = urban; 1 = rural)	0.246	0.610	-0.847	0.246	0.246	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.620	0.584	0.075	0.620	0.620	0.000
Mental Health - Follow-up after Hospitalization - 7 days - 6 to 20						
Age	15.045	15.235	-0.064	15.165	15.148	0.006
Sex (0 = male; 1 = female)	0.655	0.612	0.091	0.655	0.655	0.000
Urban/Rural (0 = urban; 1 = rural)	0.250	0.565	-0.728	0.251	0.251	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.111	0.069	0.134	0.093	0.093	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
Mental Health - Follow-up after Hospitalization - 7 days - 21 and older						
Age	38.102	38.785	-0.057	37.364	37.461	-0.008
Sex (0 = male; 1 = female)	0.656	0.667	-0.024	0.672	0.672	0.000
Urban/Rural (0 = urban; 1 = rural)	0.175	0.515	-0.895	0.178	0.178	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.432	0.590	-0.318	0.455	0.455	0.000
Mental Health - Follow-up after Hospitalization - 30 days - 6 to 20	*Same population as 7 days - 6 to 20*			*Same population as 7 days - 6 to 20*		
Age	15.045	15.235	-0.064	15.165	15.148	0.006
Sex (0 = male; 1 = female)	0.655	0.612	0.091	0.655	0.655	0.000
Urban/Rural (0 = urban; 1 = rural)	0.250	0.565	-0.728	0.251	0.251	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.111	0.069	0.134	0.093	0.093	0.000
Mental Health - Follow-up after Hospitalization - 30 days - 21 and older	*Same population as 7 days - 21 and older*			*Same population as 7 days - 21 and older*		
Age	38.102	38.785	-0.057	37.364	37.461	-0.008
Sex (0 = male; 1 = female)	0.656	0.667	-0.024	0.672	0.672	0.000
Urban/Rural (0 = urban; 1 = rural)	0.175	0.515	-0.895	0.178	0.178	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.432	0.590	-0.318	0.455	0.455	0.000
Child and Adolescents' Access to PCP - 12 months to 19 years						
Age	9.623	9.832	-0.039	9.623	9.623	0.000
Sex (0 = male; 1 = female)	0.488	0.492	-0.008	0.488	0.488	0.000
Urban/Rural (0 = urban; 1 = rural)	0.235	0.587	-0.831	0.235	0.235	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.035	0.029	0.033	0.035	0.035	0.000
Adults' Access to Preventive/Ambulatory Health Services						
Age	36.201	37.063	-0.071	36.196	36.198	0.000
Sex (0 = male; 1 = female)	0.697	0.729	-0.069	0.697	0.697	0.000
Urban/Rural (0 = urban; 1 = rural)	0.246	0.594	-0.807	0.246	0.246	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.351	0.320	0.066	0.351	0.351	0.000

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**	**HAN General Mean**	**Comparison Mean**	**Standardized Difference**
Utilization/Expenditure Measures						
Emergency Room Visits (per 1,000 member months) - All						
Age	12.830	13.992	-0.108	12.817	12.827	-0.001
Sex	0.513	0.524	-0.023	0.513	0.513	0.000
Urban/Rural	0.225	0.588	-0.869	0.225	0.225	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.078	0.078	-0.001	0.077	0.077	0.000
Hospital Admissions (per 100,000 member months) - All	*Same population as ER visits*			*Same population as ER visits*		
Age	12.830	13.992	-0.108	12.817	12.827	-0.001
Sex	0.513	0.524	-0.023	0.513	0.513	0.000
Urban/Rural	0.225	0.588	-0.869	0.225	0.225	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.078	0.078	-0.001	0.077	0.077	0.000
Per Member Per Month Expenditures - All	*Same population as ER visits*			*Same population as ER visits*		
Age	12.830	13.992	-0.108	12.817	12.827	-0.001
Sex	0.513	0.524	-0.023	0.513	0.513	0.000
Urban/Rural	0.225	0.588	-0.869	0.225	0.225	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.078	0.078	-0.001	0.077	0.077	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HAN CM Mean	Comparison Mean	Standardized Difference	HAN CM Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Asthma - Medication Ratio - 5 to 18 years						
Age	10.401	11.073	-0.171	10.401	10.401	0.000
Gender (0 = male; 1 = female)	0.481	0.493	-0.024	0.481	0.481	0.000
Urban/Rural (0 = urban; 1 = rural)	0.202	0.581	-0.945	0.202	0.202	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.227	0.038	0.452	0.227	0.227	0.000
Asthma - Medication Ratio - 19 to 64 years						
Age	45.766	38.670	0.550	45.766	45.692	0.006
Sex (0 = male; 1 = female)	0.676	0.689	-0.027	0.676	0.676	0.000
Urban/Rural (0 = urban; 1 = rural)	0.192	0.600	-1.038	0.192	0.192	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.787	0.428	0.879	0.787	0.787	0.000
CAD - Persistent Beta-Blocker Treatment after a Heart Attack						
Age	54.294	54.758	-0.054	54.294	54.078	0.025
Sex (0 = male; 1 = female)	0.549	0.526	0.047	0.549	0.549	0.000
Urban/Rural (0 = urban; 1 = rural)	0.177	0.620	-1.163	0.177	0.177	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.902	0.831	0.240	0.902	0.902	0.000
CAD - Cholesterol Management - LDL-C Test	*Same population as CAD Beta Blocker*			*Same population as CAD Beta Blocker*		
Age	54.294	54.758	-0.054	54.294	54.078	0.025
Sex (0 = male; 1 = female)	0.549	0.526	0.047	0.549	0.549	0.000
Urban/Rural (0 = urban; 1 = rural)	0.177	0.620	-1.163	0.177	0.177	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.902	0.831	0.240	0.902	0.902	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
COPD - Use of Spirometry Testing						
Age	50.208	46.804	0.204	50.208	50.279	-0.004
Sex (0 = male; 1 = female)	0.625	0.626	-0.002	0.625	0.625	0.000
Urban/Rural (0 = urban; 1 = rural)	0.333	0.648	-0.667	0.333	0.333	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.917	0.656	0.944	0.917	0.917	0.000
COPD - Pharmacotherapy Management of Exacerbation - 14 days						
Age	55.966	52.715	0.508	55.966	55.775	0.030
Sex (0 = male; 1 = female)	0.621	0.684	-0.130	0.621	0.621	0.000
Urban/Rural (0 = urban; 1 = rural)	0.345	0.630	-0.599	0.345	0.345	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.966	0.837	0.706	0.966	0.966	0.000
COPD - Pharmacotherapy Management of Exacerbation - 30 days	*Same population as 14 days*			*Same population as 14 days*		
Age	55.966	52.715	0.508	55.966	55.775	0.030
Sex (0 = male; 1 = female)	0.621	0.684	-0.130	0.621	0.621	0.000
Urban/Rural (0 = urban; 1 = rural)	0.345	0.630	-0.599	0.345	0.345	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.966	0.837	0.706	0.966	0.966	0.000
Diabetes - Members who had LDL-C Test						
Age	50.420	47.676	0.268	50.420	50.507	1.006
Sex (0 = male; 1 = female)	0.618	0.652	-0.069	0.618	0.618	0.000
Urban/Rural (0 = urban; 1 = rural)	0.153	0.617	-1.292	0.153	0.153	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.878	0.688	0.579	0.878	0.878	0.000
Diabetes - Retinal Eye Exam	*Same population as LDL-C*			*Same population as LDL-C*		
Age	50.420	47.676	0.268	50.420	50.507	1.006
Sex (0 = male; 1 = female)	0.618	0.652	-0.069	0.618	0.618	0.000
Urban/Rural (0 = urban; 1 = rural)	0.153	0.617	-1.292	0.153	0.153	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.878	0.688	0.579	0.878	0.878	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HAN CM Mean	Comparison Mean	Standardized Difference	HAN CM Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Child and Adolescents' Access to PCP - 12 months to 19 years						
Age	7.453	9.025	-0.306	7.453	0.000	0.000
Sex (0 = male; 1 = female)	0.481	0.492	-0.022	0.481	0.000	4.158
Urban/Rural (0 = urban; 1 = rural)	0.209	0.576	-0.904	0.209	0.000	9.592
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.193	0.033	0.407	0.193	0.000	10.357
Adults' Access to Preventive/Ambulatory Health Services						
Age	46.481	39.761	0.542	46.481	46.474	0.001
Sex (0 = male; 1 = female)	0.678	0.694	-0.034	0.678	0.678	0.000
Urban/Rural (0 = urban; 1 = rural)	0.191	0.598	-1.037	0.191	0.191	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.796	0.441	0.881	0.796	0.796	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**
Utilization/Expenditure Measures						
Emergency Room Visits (per 1,000 member months) - All						
Age	18.842	13.419	0.286	18.872	18.872	-0.002
Sex	0.528	0.518	0.021	0.528	0.528	0.000
Urban/Rural	0.195	0.564	-0.931	0.195	0.195	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.396	0.098	0.610	0.396	0.396	0.000
Prior Year PMPM top 5%	0.254	0.047	0.462	0.245	0.245	0.000
Hospital Admissions (per 100,000 member months) - All	*Same population as ER visits*			*Same population as ER visits*		
Age	18.842	13.419	0.286	18.872	18.872	-0.002
Sex	0.528	0.518	0.021	0.528	0.528	0.000
Urban/Rural	0.195	0.564	-0.931	0.195	0.195	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.396	0.098	0.610	0.396	0.396	0.000
Prior Year PMPM top 5%	0.254	0.047	0.462	0.245	0.245	0.000
Per Member Per Month Expenditures - All	*Same population as ER visits*			*Same population as ER visits*		
Age	18.842	13.419	0.286	18.872	18.872	-0.002
Sex	0.528	0.518	0.021	0.528	0.528	0.000
Urban/Rural	0.195	0.564	-0.931	0.195	0.195	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.396	0.098	0.610	0.396	0.396	0.000
Prior Year PMPM top 5%	0.254	0.047	0.462	0.245	0.245	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HAN CM Mean	Comparison Mean	Standardized Difference	HAN CM Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Asthma - Medication Ratio - 5 to 18 years						
Age	10.409	11.389	-0.194	10.409	10.409	0.000
Gender (0 = male; 1 = female)	0.469	0.492	-0.045	0.469	0.469	0.000
Urban/Rural (0 = urban; 1 = rural)	0.192	0.576	0.976	0.192	0.192	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.196	0.034	0.409	0.196	0.196	0.000
Asthma - Medication Ratio - 19 to 64 years						
Age	42.914	35.222	0.556	42.914	42.883	0.002
Sex (0 = male; 1 = female)	0.723	0.699	0.052	0.723	0.723	0.000
Urban/Rural (0 = urban; 1 = rural)	0.147	0.580	-1.222	0.147	0.147	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.679	0.285	0.844	0.679	0.679	0.000
CAD - Persistent Beta-Blocker Treatment after a Heart Attack						
Age	54.361	55.551	-0.137	54.361	54.361	0.000
Sex (0 = male; 1 = female)	0.528	0.509	0.038	0.528	0.528	0.000
Urban/Rural (0 = urban; 1 = rural)	0.167	0.623	-1.223	0.167	0.167	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.889	0.824	0.207	0.889	0.889	0.000
CAD - Cholesterol Management - LDL-C Test	*Same population as CAD Beta Blocker*			*Same population as CAD Beta Blocker*		
Age	54.361	55.551	-0.137	54.361	54.361	0.000
Sex (0 = male; 1 = female)	0.528	0.509	0.038	0.528	0.528	0.000
Urban/Rural (0 = urban; 1 = rural)	0.167	0.623	-1.223	0.167	0.167	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.889	0.824	0.207	0.889	0.889	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
COPD - Use of Spirometry Testing						
Age	29.756	37.031	-0.301	30.200	30.262	-0.003
Sex (0 = male; 1 = female)	0.512	0.553	-0.082	0.500	0.500	0.000
Urban/Rural (0 = urban; 1 = rural)	0.220	0.611	-0.946	0.225	0.225	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.634	0.527	0.223	0.625	0.625	0.000
COPD - Pharmacotherapy Management of Exacerbation - 14 days						
Age	51.529	53.066	-0.170	52.813	53.035	-0.025
Sex (0 = male; 1 = female)	0.706	0.645	0.134	0.750	0.750	0.000
Urban/Rural (0 = urban; 1 = rural)	0.235	0.585	-0.824	0.188	0.188	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.941	0.821	0.512	0.938	0.938	0.000
COPD - Pharmacotherapy Management of Exacerbation - 30 days	*Same population as 14 days*			*Same population as 14 days*		
Age	51.529	53.066	-0.170	52.813	53.035	-0.025
Sex (0 = male; 1 = female)	0.706	0.645	0.134	0.750	0.750	0.000
Urban/Rural (0 = urban; 1 = rural)	0.235	0.585	-0.824	0.188	0.188	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.941	0.821	0.512	0.938	0.938	0.000
Diabetes - Members who had LDL-C Test						
Age	50.238	46.351	0.399	50.238	50.123	0.012
Sex (0 = male; 1 = female)	0.733	0.667	0.151	0.733	0.733	0.000
Urban/Rural (0 = urban; 1 = rural)	0.124	0.597	-1.438	0.124	0.124	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.857	0.586	0.775	0.857	0.857	0.000
Diabetes - Retinal Eye Exam	*Same population as LDL-C*			*Same population as LDL-C*		
Age	50.238	46.351	0.399	50.238	50.123	0.012
Sex (0 = male; 1 = female)	0.733	0.667	0.151	0.733	0.733	0.000
Urban/Rural (0 = urban; 1 = rural)	0.124	0.597	-1.438	0.124	0.124	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.857	0.586	0.775	0.857	0.857	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HAN CM Mean	Comparison Mean	Standardized Difference	HAN CM Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Diabetes - HbA1c Testing	*Same population as LDL-C*			*Same population as LDL-C*		
Age	50.238	46.351	0.399	50.238	50.123	0.012
Sex (0 = male; 1 = female)	0.733	0.667	0.151	0.733	0.733	0.000
Urban/Rural (0 = urban; 1 = rural)	0.124	0.597	-1.438	0.124	0.124	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.857	0.586	0.775	0.857	0.857	0.000
Diabetes - Medical Attention for Nephropathy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	50.238	46.351	0.399	50.238	50.123	0.012
Sex (0 = male; 1 = female)	0.733	0.667	0.151	0.733	0.733	0.000
Urban/Rural (0 = urban; 1 = rural)	0.124	0.597	-1.438	0.124	0.124	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.857	0.586	0.775	0.857	0.857	0.000
Hypertension - LDL-C Test						
Age	50.966	47.621	0.335	50.966	51.012	-0.005
Sex (0 = male; 1 = female)	0.705	0.624	0.179	0.705	0.705	0.000
Urban/Rural (0 = urban; 1 = rural)	0.082	0.588	-1.841	0.082	0.082	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.836	0.584	0.680	0.836	0.836	0.000
Hypertension - ACE/ARB Therapy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	50.966	47.621	0.335	50.966	51.012	-0.005
Sex (0 = male; 1 = female)	0.705	0.624	0.179	0.705	0.705	0.000
Urban/Rural (0 = urban; 1 = rural)	0.082	0.588	-1.841	0.082	0.082	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.836	0.584	0.680	0.836	0.836	0.000
Child and Adolescents' Access to PCP - 12 months to 19 years						
Age	7.335	9.254	-0.367	7.335	48.164	0.000
Sex (0 = male; 1 = female)	0.469	0.493	-0.048	0.469	0.469	0.000
Urban/Rural (0 = urban; 1 = rural)	0.204	0.574	-0.919	0.204	0.204	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.154	0.029	0.347	0.154	0.154	0.000
Adults' Access to Preventive/Ambulatory Health Services						
Age	44.546	37.771	0.525	44.546	44.505	0.003
Sex (0 = male; 1 = female)	0.729	0.725	0.010	0.729	0.729	0.000
Urban/Rural (0 = urban; 1 = rural)	0.139	0.578	-1.266	0.139	0.139	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.709	0.320	0.857	0.709	0.709	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**
Utilization/Expenditure Measures						
Emergency Room Visits (per 1,000 member months) - All						
Age	16.590	13.515	0.176	16.530	16.695	-0.009
Sex	0.523	0.519	0.008	0.523	0.523	0.000
Urban/Rural	0.185	0.574	-1.004	0.185	0.185	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.317	0.087	0.494	0.316	0.316	0.000
Prior Year PMPM top 5%	0.195	0.046	0.378	0.194	0.194	0.000
Hospital Admissions (per 100,000 member months) - All						
Age	16.590	13.515	0.176	16.530	16.695	-0.009
Sex	0.523	0.519	0.008	0.523	0.523	0.000
Urban/Rural	0.185	0.574	-1.004	0.185	0.185	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.317	0.087	0.494	0.316	0.316	0.000
Prior Year PMPM top 5%	0.195	0.046	0.378	0.194	0.194	0.000
Per Member Per Month Expenditures - All						
Age	16.590	13.515	0.176	16.530	16.695	-0.009
Sex	0.523	0.519	0.008	0.523	0.523	0.000
Urban/Rural	0.185	0.574	-1.004	0.185	0.185	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.317	0.087	0.494	0.316	0.316	0.000
Prior Year PMPM top 5%	0.195	0.046	0.378	0.194	0.194	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HAN CM Mean	Comparison Mean	Standardized Difference	HAN CM Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Asthma - Medication Ratio - 5 to 18 years						
Age	10.550	11.257	-0.178	10.550	10.550	0.000
Gender (0 = male; 1 = female)	0.462	0.491	-0.057	0.462	0.462	0.000
Urban/Rural (0 = urban; 1 = rural)	0.224	0.589	-0.876	0.224	0.224	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.201	0.029	0.428	0.201	0.201	0.000
Asthma - Medication Ratio - 19 to 64 years						
Age	40.711	33.357	0.493	40.702	40.678	0.002
Sex (0 = male; 1 = female)	0.708	0.688	0.045	0.708	0.708	0.000
Urban/Rural (0 = urban; 1 = rural)	0.166	0.594	-1.152	0.166	0.166	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.592	0.233	0.730	0.592	0.592	0.000
CAD - Persistent Beta-Blocker Treatment after a Heart Attack						
Age	56.020	55.940	0.010	55.816	55.569	0.031
Sex (0 = male; 1 = female)	0.460	0.501	-0.083	0.469	0.469	0.000
Urban/Rural (0 = urban; 1 = rural)	0.120	0.622	-1.545	0.122	0.122	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.889	0.824	0.207	0.889	0.889	0.000
CAD - Cholesterol Management - LDL-C Test	*Same population as CAD Beta Blocker*			*Same population as CAD Beta Blocker*		
Age	56.020	55.940	0.010	55.816	55.569	0.031
Sex (0 = male; 1 = female)	0.460	0.501	-0.083	0.469	0.469	0.000
Urban/Rural (0 = urban; 1 = rural)	0.120	0.622	-1.545	0.122	0.122	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.889	0.824	0.207	0.889	0.889	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
COPD - Use of Spirometry Testing						
Age	55.861	53.918	0.285	55.861	55.870	-0.001
Sex (0 = male; 1 = female)	0.558	0.629	-0.142	0.558	0.558	0.000
Urban/Rural (0 = urban; 1 = rural)	0.140	0.671	-1.534	0.140	0.140	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.634	0.527	0.223	0.625	0.625	0.000
COPD - Pharmacotherapy Management of Exacerbation - 14 days						
Age	54.682	56.097	-0.196	55.412	55.069	0.048
Sex (0 = male; 1 = female)	0.455	0.659	-0.411	0.588	0.588	0.000
Urban/Rural (0 = urban; 1 = rural)	0.136	0.633	-0.145	0.118	0.118	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.941	0.821	0.512	0.938	0.938	0.000
COPD - Pharmacotherapy Management of Exacerbation - 30 days	*Same population as 14 days*			*Same population as 14 days*		
Age	54.682	56.097	-0.196	55.412	55.069	0.048
Sex (0 = male; 1 = female)	0.455	0.659	-0.411	0.588	0.588	0.000
Urban/Rural (0 = urban; 1 = rural)	0.136	0.633	-0.145	0.118	0.118	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.941	0.821	0.512	0.938	0.938	0.000
Diabetes - Members who had LDL-C Test						
Age	49.659	46.105	0.297	49.659	49.553	0.009
Sex (0 = male; 1 = female)	0.659	0.677	-0.038	0.659	0.659	0.000
Urban/Rural (0 = urban; 1 = rural)	0.135	0.618	-1.410	0.135	0.135	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.857	0.586	0.775	0.857	0.857	0.000
Diabetes - Retinal Eye Exam	*Same population as LDL-C*			*Same population as LDL-C*		
Age	49.659	46.105	0.297	49.659	49.553	0.009
Sex (0 = male; 1 = female)	0.659	0.677	-0.038	0.659	0.659	0.000
Urban/Rural (0 = urban; 1 = rural)	0.135	0.618	-1.410	0.135	0.135	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.857	0.586	0.775	0.857	0.857	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HAN CM Mean	Comparison Mean	Standardized Difference	HAN CM Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Diabetes - HbA1c Testing	*Same population as LDL-C*			*Same population as LDL-C*		
Age	49.659	46.105	0.297	49.659	49.553	0.009
Sex (0 = male; 1 = female)	0.659	0.677	-0.038	0.659	0.659	0.000
Urban/Rural (0 = urban; 1 = rural)	0.135	0.618	-1.410	0.135	0.135	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.857	0.586	0.775	0.857	0.857	0.000
Diabetes - Medical Attention for Nephropathy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	49.659	46.105	0.297	49.659	49.553	0.009
Sex (0 = male; 1 = female)	0.659	0.677	-0.038	0.659	0.659	0.000
Urban/Rural (0 = urban; 1 = rural)	0.135	0.618	-1.410	0.135	0.135	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.857	0.586	0.775	0.857	0.857	0.000
Hypertension - LDL-C Test						
Age	51.842	48.613	0.290	51.842	51.786	0.005
Sex (0 = male; 1 = female)	0.638	0.617	0.044	0.638	0.638	0.000
Urban/Rural (0 = urban; 1 = rural)	0.133	0.610	-1.408	0.133	0.133	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.836	0.584	0.680	0.836	0.836	0.000
Hypertension - ACE/ARB Therapy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	51.842	48.613	0.290	51.842	51.786	0.005
Sex (0 = male; 1 = female)	0.638	0.617	0.044	0.638	0.638	0.000
Urban/Rural (0 = urban; 1 = rural)	0.133	0.610	-1.408	0.133	0.133	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.836	0.584	0.680	0.836	0.836	0.000
Child and Adolescents' Access to PCP - 12 months to 19 years						
Age	7.910	9.832	-0.356	7.910	7.904	0.001
Sex (0 = male; 1 = female)	0.470	0.492	-0.044	0.470	0.000	4.256
Urban/Rural (0 = urban; 1 = rural)	0.226	0.587	-0.863	0.226	0.000	8.838
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.154	0.029	0.347	0.154	0.154	0.000
Adults' Access to Preventive/Ambulatory Health Services						
Age	44.043	37.063	0.496	44.043	43.994	0.004
Sex (0 = male; 1 = female)	0.702	0.729	-0.057	0.702	0.702	0.000
Urban/Rural (0 = urban; 1 = rural)	0.156	0.594	-1.206	0.156	0.156	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.709	0.320	0.857	0.709	0.709	0.000

HEALTH ACCESS NETWORKS - CM - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**	**HAN CM Mean**	**Comparison Mean**	**Standardized Difference**
Utilization/Expenditure Measures						
Emergency Room Visits (per 1,000 member months) - All						
Age	16.213	13.992	0.133	16.213	16.288	-0.005
Sex	0.516	0.524	-0.017	0.516	0.516	0.000
Urban/Rural	0.200	0.588	-0.970	0.200	0.200	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.304	0.078	0.491	0.304	0.304	0.000
Prior Year PMPM top 5%	0.171	0.045	0.335	0.171	0.171	0.000
Hospital Admissions (per 100,000 member months) - All						
Age	16.213	13.992	0.133	16.213	16.288	-0.005
Sex	0.516	0.524	-0.017	0.516	0.516	0.000
Urban/Rural	0.200	0.588	-0.970	0.200	0.200	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.304	0.078	0.491	0.304	0.304	0.000
Prior Year PMPM top 5%	0.171	0.045	0.335	0.171	0.171	0.000
Per Member Per Month Expenditures - All						
Age	16.213	13.992	0.133	16.213	16.288	-0.005
Sex	0.516	0.524	-0.017	0.516	0.516	0.000
Urban/Rural	0.200	0.588	-0.970	0.200	0.200	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.304	0.078	0.491	0.304	0.304	0.000
Prior Year PMPM top 5%	0.171	0.045	0.335	0.171	0.171	0.000

3. HAN Statistical Significance Test Results - 2019 – 2021 and 3-Year Pooled

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	2019	2020	2021	Pooled	2019	2020	2021	Pooled
HEDIS Measures								
Asthma - Medication Ratio - 5 to 18 years								
HAN	77.9%	81.3%	90.8%	83.3%	0.0046	0.0000	0.0002	0.0000
Comparison Group	80.0%	85.3%	92.4%	85.9%	**Yes**	**Yes**	**Yes**	**Yes**
Asthma - Medication Ratio - 19 to 64 years								
HAN	66.9%	72.2%	84.9%	74.7%	0.0002	0.3125	0.0043	0.0001
Comparison Group	74.1%	71.4%	87.2%	77.6%	**Yes**	No	**Yes**	**Yes**
CAD - Persistent Beta-Blocker Treatment after a Heart Attack								
HAN	41.7%	38.8%	39.9%	40.1%	0.5647	0.0000	0.0000	0.0000
Comparison Group	43.5%	50.5%	47.2%	47.1%	No	**Yes**	**Yes**	**Yes**
CAD - Cholesterol Management - LDL-C Test								
HAN	62.8%	51.5%	53.7%	56.0%	0.0951	0.0507	0.0000	0.1010
Comparison Group	57.9%	57.7%	59.0%	58.2%	No	No	**Yes**	No
COPD - Use of Spirometry Testing								
HAN	23.3%	37.5%	13.5%	24.8%	0.6561	0.0137	0.2011	0.1828
Comparison Group	22.2%	33.3%	15.5%	23.7%	No	**Yes**	No	No
COPD - Pharmacotherapy Management of Exacerbation - 14 days								
HAN	65.8%	59.6%	62.9%	62.8%	0.8995	0.1846	0.0773	0.0371
Comparison Group	66.3%	66.1%	69.7%	67.4%	No	No	No	**Yes**
COPD - Pharmacotherapy Management of Exacerbation - 30 days								
HAN	73.4%	69.9%	69.5%	70.9%	0.6047	0.5542	0.4805	1.0000
Comparison Group	75.4%	67.1%	70.3%	70.9%	No	No	No	No
Diabetes - HbA1c Testing								
HAN	76.7%	72.2%	65.2%	71.4%	0.0000	0.0000	0.3736	0.0000
Comparison Group	71.9%	65.8%	66.0%	67.9%	**Yes**	**Yes**	No	**Yes**

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	**2019**	**2020**	**2021**	**Pooled**	**2019**	**2020**	**2021**	**Pooled**
HEDIS Measures								
Diabetes - HbA1c Testing								
HAN	76.7%	72.2%	65.2%	71.4%	0.0000	0.0000	0.3736	0.0000
Comparison Group	71.9%	65.8%	66.0%	67.9%	**Yes**	**Yes**	No	**Yes**
Diabetes - LDL-C Test								
HAN	60.0%	54.5%	49.1%	54.5%	0.0000	0.0099	0.0000	0.0017
Comparison Group	55.1%	50.5%	52.0%	52.5%	**Yes**	**Yes**	**Yes**	**Yes**
Diabetes - Retinal Eye Exam								
HAN	35.3%	29.8%	22.2%	29.1%	0.0000	0.0000	0.0000	0.0000
Comparison Group	24.7%	19.8%	19.9%	21.5%	**Yes**	**Yes**	**Yes**	**Yes**
Diabetes - Medical Attention for Nephropathy								
HAN	85.2%	80.8%	76.7%	80.9%	0.0391	0.0178	0.6270	0.0170
Comparison Group	83.1%	78.6%	76.2%	79.3%	**Yes**	**Yes**	No	**Yes**
Hypertension - LDL-C Test								
HAN	57.3%	48.9%	52.3%	52.8%	0.0343	0.2288	0.0000	0.3645
Comparison Group	55.1%	50.1%	53.8%	53.0%	**Yes**	No	**Yes**	No
Hypertension - ACE/ARB Therapy								
HAN	60.7%	59.5%	57.7%	59.3%	0.6181	0.2629	0.0000	0.0013
Comparison Group	61.3%	60.6%	61.1%	61.0%	No	No	**Yes**	**Yes**
Mental Health - Follow-up after Hospitalization - 7 days - 6 to 20								
HAN	58.9%	64.5%	52.3%	58.6%	0.2330	0.0057	0.1610	0.3663
Comparison Group	62.0%	56.9%	55.5%	58.1%	No	**Yes**	No	No
Mental Health - Follow-up after Hospitalization - 7 days - 21 and older								
HAN	56.8%	42.9%	45.3%	48.3%	0.2451	0.9467	0.3407	0.3784
Comparison Group	50.7%	43.4%	48.3%	47.5%	No	No	No	No

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	**2019**	**2020**	**2021**	**Pooled**	**2019**	**2020**	**2021**	**Pooled**
HEDIS Measures								
Mental Health - Follow-up after Hospitalization - 30 days - 6 to 20								
HAN	84.2%	86.6%	79.8%	83.5%	0.0000	0.7896	0.9170	0.1788
Comparison Group	87.5%	86.1%	79.9%	84.5%	**Yes**	No	No	No
Mental Health - Follow-up after Hospitalization - 30 days - 21 and older								
HAN	80.6%	72.9%	72.1%	75.2%	0.3203	0.6956	0.4191	0.0870
Comparison Group	76.4%	70.1%	69.8%	72.1%	No	No	No	No
Adults' Access to Preventive/Ambulatory Health Services								
HAN	84.6%	79.5%	69.3%	77.8%	0.7139	0.2155	0.0000	0.0000
Comparison Group	84.5%	79.1%	73.5%	79.0%	No	No	**Yes**	**Yes**
Child and Adolescents' Access to PCP - 12 months to 19 years								
HAN	92.5%	88.7%	81.5%	87.6%	0.0000	0.0000	0.0000	0.0000
Comparison Group	92.4%	88.5%	84.3%	88.4%	**Yes**	**Yes**	**Yes**	**Yes**

HEALTH ACCESS NETWORKS - TOTAL - STATEWIDE	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	**2019**	**2020**	**2021**	**Pooled**	**2019**	**2020**	**2021**	**Pooled**
Utilization/Expenditure Measures								
Emergency Room Visits (per 1,000 member months) - All								
HAN	54.5	36.4	40.8	43.9	0.0000	0.0000	0.0000	0.3617
Comparison Group	54.8	36.2	40.5	43.8	**Yes**	**Yes**	**Yes**	No
Hospital Admissions (per 100,000 member months) - All								
HAN	764.4	606.6	608.8	659.9	0.0000	0.0000	0.0000	0.0000
Comparison Group	632.0	489.8	468.1	530.0	**Yes**	**Yes**	**Yes**	**Yes**
Per Member Per Month Expenditures - All								
HAN	$ 213.32	$ 187.94	$ 202.83	$ 201.36	0.0000	0.0000	0.0000	0.0000
Comparison Group	$ 201.62	$ 182.75	$ 200.60	$ 194.99	**Yes**	**Yes**	**Yes**	**Yes**

HEALTH ACCESS NETWORKS - CM - STATEWIDE	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	2019	2020	2021	Pooled	2019	2020	2021	Pooled
HEDIS Measures								
Asthma - Medication Ratio - 5 to 18 years								
HAN	82.0%	89.1%	91.5%	87.5%	0.4403	0.1584	0.3849	0.2745
Comparison Group	81.2%	84.0%	92.2%	85.8%	No	No	No	No
Asthma - Medication Ratio - 19 to 64 years								
HAN	75.0%	63.6%	82.1%	73.6%	0.4603	0.1230	0.1696	0.1419
Comparison Group	74.0%	73.9%	87.1%	78.3%	No	No	No	No
CAD - Persistent Beta-Blocker Treatment after a Heart Attack								
HAN	45.1%	30.6%	42.9%	39.5%	0.7596	0.0295	0.4346	0.0510
Comparison Group	42.8%	48.8%	48.8%	46.8%	No	**Yes**	No	No
CAD - Cholesterol Management - LDL-C Test								
HAN	64.7%	55.6%	46.9%	55.7%	0.3418	0.8602	0.1111	0.2935
Comparison Group	57.9%	57.1%	59.2%	58.1%	No	No	No	No
COPD - Use of Spirometry Testing								
HAN	33.3%	27.5%	11.6%	24.1%	0.1649	0.8378	0.2325	0.2265
Comparison Group	19.0%	26.0%	18.1%	21.0%	No	No	No	No
COPD - Pharmacotherapy Management of Exacerbation - 14 days								
HAN	51.7%	62.5%	52.6%	55.6%	0.2075	0.7597	0.0101	0.0800
Comparison Group	64.4%	58.4%	71.4%	64.7%	No	No	**Yes**	No
COPD - Pharmacotherapy Management of Exacerbation - 30 days								
HAN	79.3%	75.0%	73.7%	76.0%	0.3242	0.1803	0.4040	0.0804
Comparison Group	71.2%	58.6%	71.8%	67.2%	No	No	No	No
Diabetes - HbA1c Testing								
HAN	78.6%	76.6%	71.8%	75.7%	0.0408	0.0110	0.3467	0.0010
Comparison Group	71.0%	65.8%	68.4%	68.4%	**Yes**	**Yes**	No	**Yes**

HEALTH ACCESS NETWORKS - CM - STATEWIDE	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	2019	2020	2021	Pooled	2019	2020	2021	Pooled
HEDIS Measures								
Diabetes - LDL-C Test								
HAN	65.6%	60.4%	56.5%	60.8%	0.0200	0.0234	0.9170	0.0051
Comparison Group	55.6%	50.5%	56.9%	54.3%	**Yes**	**Yes**	No	**Yes**
Diabetes - Retinal Eye Exam								
HAN	39.7%	34.4%	37.1%	37.1%	0.0000	0.0001	0.0000	0.0000
Comparison Group	24.5%	19.8%	20.7%	21.7%	**Yes**	**Yes**	**Yes**	**Yes**
Diabetes - Medical Attention for Nephropathy								
HAN	91.6%	88.6%	92.9%	91.0%	0.0039	0.0069	0.0000	0.0000
Comparison Group	84.2%	78.6%	80.7%	81.2%	**Yes**	**Yes**	**Yes**	**Yes**
Hypertension - LDL-C Test								
HAN	67.5%	48.3%	52.7%	56.2%	0.0012	0.4277	0.3436	0.1759
Comparison Group	56.6%	51.1%	55.6%	54.4%	**Yes**	No	No	No
Hypertension - ACE/ARB Therapy								
HAN	64.6%	57.5%	59.9%	60.7%	0.4818	0.3841	0.4494	0.3168
Comparison Group	62.2%	60.6%	62.1%	61.6%	No	No	No	No
Adults' Access to Preventive/Ambulatory Health Services								
HAN	97.9%	95.4%	92.5%	95.3%	0.0000	0.0000	0.0000	0.0000
Comparison Group	87.5%	83.4%	79.4%	83.4%	**Yes**	**Yes**	**Yes**	**Yes**
Child and Adolescents' Access to PCP - 12 months to 19 years								
HAN	99.0%	95.8%	93.5%	96.1%	0.0000	0.0000	0.0000	0.0000
Comparison Group	93.2%	89.4%	86.4%	89.7%	**Yes**	**Yes**	**Yes**	**Yes**

HEALTH ACCESS NETWORKS - CM - STATEWIDE	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	**2019**	**2020**	**2021**	**Pooled**	**2019**	**2020**	**2021**	**Pooled**
Utilization/Expenditure Measures								
Emergency Room Visits (per 1,000 member months) - All								
HAN	161.8	114.3	124.4	133.5	0.0000	0.0000	0.0000	0.0000
Comparison Group	124.0	84.8	91.1	100.0	**Yes**	**Yes**	**Yes**	**Yes**
Hospital Admissions (per 100,000 member months) - All								
HAN	3431.4	2260.1	2312.8	2668.1	0.8365	0.8129	0.5090	0.4014
Comparison Group	3515.0	2182.8	2488.2	2728.7	No	No	No	No
Per Member Per Month Expenditures - All								
HAN	$ 680.44	$ 620.76	$ 579.62	$ 626.94	0.6591	0.4133	0.0000	0.0001
Comparison Group	$ 697.17	$ 653.91	$ 726.29	$ 692.46	No	No	**Yes**	**Yes**

4. HAN CEM Covariate Balance Tables for CAHPS Measures

HAN AND HMP PROGRAMS - STATEWIDE		All Data (pre-balancing)			Matched Data (post-balancing)		
CAHPS Measures		Treatment Group Mean	Comparison Mean	Standardized Difference	Treatment Group Mean	Comparison Mean	Standardized Difference
All Measures							
HAN Adults							
	Age Range*	3.242	4.372	-0.753	0.727	0.727	0.000
	Gender (0 = male; 1 = female)	0.727	0.674	0.119	3.242	3.242	0.000
	Urban/Rural (0 = urban; 1 = rural)	N/A	N/A	N/A	N/A	N/A	N/A
	ABD/non-ABD (0 = non-ABD; 1 - ABD)	N/A	N/A	N/A	N/A	N/A	N/A
HAN Children							
	Age	11.696	14.127	-0.192	11.693	11.960	-0.021
	Sex (0 = male; 1 = female)	0.438	0.439	-0.091	0.438	0.438	0.000
	Urban/Rural (0 = urban; 1 = rural)	N/A	N/A	N/A	N/A	N/A	N/A
	ABD/non-ABD (0 = non-ABD; 1 - ABD)	N/A	N/A	N/A	N/A	N/A	N/A
*	Adult age ranges: 1 - 18-24; 2 - 25-34; 3 - 35-44; 4 - 45-54; 5 - 55-64; 6 - 65-74; 7 - 75 or older						

5. HAN Statistical Significance Test Results for CAHPS Measures

	Adults			Children		
CAHPS Measure	**HAN** ***N = 33***	**Comparison Group** ***N = 213***	**P-Value**	**HAN** ***N = 283***	**Comparison Group** ***N = 668***	**P-Value**
Getting Needed Care (Composite)						
Always or Usually	90.0%	85.1%	*0.2272*	90.2%	87.8%	*0.1444*
Rating of Health Care (8, 9 or 10)						
8 - 10	72.0%	72.8%	*0.4611*	86.7%	85.1%	*0.2605*
Rating of Health Plan (8, 9 or 10)						
8 - 10	80.6%	71.3%	*0.1332*	87.0%	81.6%	*0.0210*
Rating of Personal Doctor (8, 9 or 10)						
8 - 10	88.0%	83.3%	*0.8397*	89.6%	87.3%	*0.1594*

6. HAN Member SDOH Targeted Survey Instrument

Hello, my name is _____ and I am calling on behalf of the SoonerCare program. May I please speak to {RESPONDENT NAME}?

INTRO1. **We are conducting a short survey to find out about where SoonerCare members get their health care and their experiences with doctors and nurses. The purpose of the survey is to learn about how we can make the program better. The survey is voluntary and if you decide not to participate it will not affect your benefits. Anything you tell us will be kept confidential. The information will not be shared with your doctor or nurse and will not affect any treatment you may be receiving. The survey takes about 10 minutes.**
[ANSWER ANY QUESTIONS AND PROCEED TO QUESTION 1]

INTRO2. **[If need to leave a message] We are conducting a short survey to find out about where SoonerCare members get their health care and about their experiences with their doctors and nurses. We can be reached toll-free at 1-888-941-9358.**

[IDENTIFY HAN NAME & CASE MANAGER NAME ON MEMBER SURVEY ROSTER BEFORE BEGINNING INTERVIEW. IF MEMBER IS A MINOR (DOB AFTER CURRENT MONTH IN 2004), ASK PARENT/GUARDIAN SCREENING QUESTION BEFORE BEGINNING SURVEY]

Parent/Guardian Screening Question: Are you the parent or guardian of [NAME]? [IF YES, PROCEED TO QUESTION 1. IF NO, ASK TO SPEAK TO PARENT/GUARDIAN. IF UNABLE TO REACH, END CALL]

1. The SoonerCare program is a health insurance program offered by the state. Are you currently enrolled in SoonerCare?[91] [IF MINOR → Is [NAME] currently enrolled in SoonerCare?]
    a. Yes
    b. No → [ASK IF ENROLLED IN MEDICAID. IF NO, END CALL]
    c. Don't Know/Not Sure → [ASK IF ENROLLED IN MEDICAID. IF NO, END CALL]
2. Our records show that you chose or were assigned a doctor to be your/your child's regular SoonerCare provider for check-ups, when you need advice about a health problem or get sick or hurt. Is that right? [If respondent says provider is a Nurse Practitioner, record as "Yes"]
    a. Yes → [GO TO QUESTION 4]
    b. No → [GO TO QUESTION 3]
    c. Don't Know/Not Sure → [GO TO QUESTION 3]
3. Where do you usually go to get health care (health care for your child)?
    a. Emergency Room
    b. Urgent Care Clinic
    c. No usual place

[91] All questions include a "don't know/not sure" or similar option which is unprompted by the surveyor; this response is listed on the instrument to allow surveyors to document such a response. Questions are reworded for parents/guardians completing the survey on behalf of program participants.

d. Have never tried to get care
e. Don't Know/Not Sure

4. Some SoonerCare members see providers who belong to what is known as a Health Access Network. One of these is [READ HAN NAME]. Have you heard this name?
    a. Yes
    b. No→ [GO TO QUESTION 6]
    c. Don't Know/Not Sure → [GO TO QUESTION 6]

5. Have you seen a provider who is part of [READ HAN NAME]?
    a. Yes
    b. No
    c. Don't Know/Not Sure

6. [READ HAN NAME] has nurses who are available to help patients who are referred by their provider. Have any nurses from [READ HAN NAME] helped you?
    a. Yes
    b. No → [GO TO QUESTION 8]
    c. Don't Know/Not Sure → [GO TO QUESTION 8]

7. Do you remember the name of the nurse who helped you?
    a. Yes [RECORD NAME. IF MORE THAN ONE NAME PROVIDED, RECORD FIRST] → [GO TO QUESTION 9]
    b. No
    c. Don't Know/Not Sure

8. One of the nurses at [READ HAN NAME] is [CASE MANAGER NAME]. Have you talked to [CASE MANAGER NAME]?
    a. Yes
    b. No → [READ TERMINATION SCRIPT]
    c. Don't Know/Not Sure → [READ TERMINATION SCRIPT]

[TERMINATION SCRIPT – THE REST OF OUR QUESTIONS TODAY ARE ABOUT HELP PEOPLE RECEIVED FROM NURSES. THANK YOU FOR YOUR TIME.]

9. What kind of help did you receive from [CASE MANAGER]? [RECORD ALL HELP]
    a. Child Care
    b. Child Car Seat
    c. Clothing
    d. Dental
    e. Diapers

f. Durable Medical Equipment
g. Education [SPECIFY TOPIC(S)]
h. Family Planning/Contraception
i. Food Pantry/other Food Assistance
j. Health Education – Asthma/COPD
k. Health Education – Diabetes
l. Health Education – Heart Disease
m. Health Education – Hypertension
n. Health Education – Obesity
o. Health Education – Other [SPECIFY]
p. Housing/Rent
q. Legal Aid
r. Long Term Care Waiver (ADvantage or Independent Living)
s. Long Term Care Waiver (DDSD)
t. Medical/Behavioral Health Appointment(s) [SPECIFY]
u. Medication Assistance (not covered by SoonerCare)
v. Nutrition/WIC
w. Recreation/Camp
x. School Supplies
y. SoonerSuccess [SPECIFY HELP]
z. Tobacco Cessation
aa. Transportation to Medical Appointment
bb. Transportation to Other [RECORD]
cc. Utility – HVAC
dd. Utility – Gas
ee. Utility – Electric
ff. Utility - Water
gg. Other – Referral [SPECIFY]
hh. Other [RECORD]
ii. Don't Know/Not Sure

10. How important was the help you received from [CASE MANAGER]?
    a. Very Important
    b. Somewhat Important
    c. Not Very Important → [GO TO QUESTION 14]
    d. Not at all Important → [GO TO QUESTION 14]
    e. Don't Know/Not Sure → [GO TO QUESTION 14]

11. In what ways was it important? [RECORD ANSWER]

12. How satisfied are you with the help you received from [CASE MANAGER]?
    a. Very Satisfied
    b. Somewhat Satisfied
    c. Somewhat Dissatisfied
    d. Very Dissatisfied
    e. Don't Know/Not Sure → [GO TO QUESTION 16]

13. Why did you choose that answer? [RECORD REASON]

14. The [READ HAN NAME] nurses try to make it easier for patients to take care of their health, even if it means helping with other kinds of problems. Would you say the help you received from [CASE MANAGER] made it easier for you to take care of your health (your child's health)?
    a. Yes
    b. No → [GO TO QUESTION 16]
    c. Don't Know/Not Sure → [GO TO QUESTION 16]

15. How did it make it easier? [RECORD ANSWER]

16. Could [CASE MANAGER] have been more helpful to you? If yes, how? [RECORD ANSWER]

17. In general, how would you rate your (your child's) overall health? Would you say it is "excellent", "good", "fair" or "poor"?
    a. Excellent
    b. Good
    c. Fair
    d. Poor
    e. Don't Know/Not Sure

That is all the questions I have today. Thank you for your help.

7. HAN-Aligned PCMH Targeted Survey Instrument

The Oklahoma Health Care Authority (OHCA) would like to hear about your experience as a SoonerCare (Medicaid) Patient Centered Medical Home (PCMH) affiliated with a SoonerCare Health Access Network (HAN) (NAME HERE). The Pacific Health Policy Group (PHPG), an outside company, has been contracted by the OHCA to survey SoonerCare PCMH providers. The purpose of the survey is to gather information on the type of assistance you may have received from the Health Access Network and its importance to your practice.

Awareness of SoonerCare and the (NAME HERE) Health Access Network

18. Were you aware that your practice is designated as a "Patient Centered Medical Home" within the Oklahoma SoonerCare (Medicaid) program?
    a. Yes
    b. No
19. Were you aware that PCMH practices in SoonerCare receive a monthly case management fee for each SoonerCare member on their panel, and that the fee amount is based in part on the practice's "tier level"?
    a. Yes
    b. No
20. Were you aware that, as part of SoonerCare, your practice is affiliated with **(NAME HERE)**?
    a. Yes
    b. No

If you answered "no" to question 3, please complete the final page and return. Do not answer the remaining questions.

Health Access Network Activities

21. SoonerCare Health Access Networks provide support to medical practices with which they are affiliated. Which of these kinds of support, if any, has **(NAME HERE)** provided to your practice? (Select all that apply, or select "K. None" if no support provided)

    a. Assistance in qualifying for a higher PCMH tier level under SoonerCare (i.e., moving from Tier 1 to Tier 2 or 3, or moving from Tier 2 to Tier 3)

    b. Assistance in preparing for, and/or undergoing audits performed by the Oklahoma Health Care Authority's Quality Assurance department

    c. Adoption of evidence-based guidelines for the care of patients with chronic health conditions

    d. Care management of SoonerCare patients with complex healthcare needs and/or chronic health conditions

    e. Care management of SoonerCare patients who are frequent users of the emergency room

    f. Facilitating use of telehealth or telemedicine

    g. Facilitating referrals/patient access to specialty care

    h. Facilitating referrals/patient access to ancillary services (e.g., transportation)

    i. Facilitating referrals/patient access to social services (e.g., heating assistance, rental assistance, food)

    j. Other. Please specify: _____

    k. None **(Please go to Question 6)**

22. For each of the areas you identified in question four, please record your level of satisfaction with assistance your practice received. Include any additional comments explaining your ratings in the space provided.

Support Area	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied
A. Higher tier level support				
B. Audit support				
C. Evidence-based guidelines				
D. Complex/chronic care mgmt.				
E. High ER utilizer care mgmt.				

Support Area	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied
F. Telehealth/telemedicine				
G. Specialty care referrals				
H. Ancillary service referrals				
I. Social service referrals				
J. Other				

Additional Comments: _____

_____

_____

23. Overall, how satisfied are you with the support your practice has received from (NAME HERE)
    a. Very satisfied
    b. Somewhat satisfied
    c. Somewhat dissatisfied
    d. Very dissatisfied
    e. No opinion
24. Other than raising payment amounts, are there ways in which the SoonerCare program overall, or (NAME HERE) could better support your practice? If yes, please describe how in the space provided.
    a. Yes
    b. No

Additional Support:

_____

_____

8. HMP CEM Covariate Balance Tables for CAHPS Measures

HAN AND HMP PROGRAMS - STATEWIDE		All Data (pre-balancing)			Matched Data (post-balancing)		
CAHPS Measures		Treatment Group Mean	Comparison Mean	Standardized Difference	Treatment Group Mean	Comparison Mean	Standardized Difference
All Measures							
HMP Adults							
	Age Range*	4.002	4.372	-0.342	4.002	4.002	0.000
	Sex (0 = male; 1 = female)	0.626	0.674	-0.100	0.626	0.626	0.000
	Urban/Rural (0 = urban; 1 = rural)	N/A	N/A	N/A	N/A	N/A	N/A
	ABD/non-ABD (0 = non-ABD; 1 - ABD)	N/A	N/A	N/A	N/A	N/A	N/A
HMP Children					*Same population as CAD Beta Blocker*		
	Age	11.581	14.127	-0.641	11.581	11.282	0.075
	Sex (0 = male; 1 = female)	0.364	0.484	-0.249	0.364	0.364	0.000
	Urban/Rural (0 = urban; 1 = rural)	N/A	N/A	N/A	N/A	N/A	N/A
	ABD/non-ABD (0 = non-ABD; 1 - ABD)	N/A	N/A	N/A	N/A	N/A	N/A
*	Adult age ranges: 1 - 18-24; 2 - 25-34; 3 - 35-44; 4 - 45-54; 5 - 55-64; 6 - 65-74; 7 - 75 or older						

9. HMP Statistical Significance Test Results for CAHPS Measures

	Adults			Children		
CAHPS Measure	HMP *N = 591*	Comparison Group *N = 213*	P-Value	HMP *N = 77*	Comparison Group *N = 668*	P-Value
Getting Needed Care (Composite)						
Always or Usually	76.5%	85.1%	*0.0043*	85.9%	87.8%	*0.3160*
Rating of Health Care (8, 9 or 10)						
8 - 10	71.8%	72.8%	*0.3902*	85.9%	85.1%	*0.4258*
Rating of Health Plan (8, 9 or 10)						
8 - 10	82.3%	71.3%	*0.0004*	82.8%	81.6%	*0.3982*

10. HMP CEM Covariate Balance Tables (Pre- and Post-Matching) 2019 - 2021

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Asthma - Medication Ratio - 5 to 18 years						
Age	12.218	11.073	0.306	12.218	12.218	0.000
Gender (0 = male; 1 = female)	0.508	0.493	0.031	0.508	0.508	0.000
Urban/Rural (0 = urban; 1 = rural)	0.361	0.581	-0.459	0.361	0.361	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.341	0.038	0.640	0.341	0.341	0.000
Asthma - Medication Ratio - 19 to 64 years						
Age	50.698	38.670	1.141	50.698	50.672	0.002
Sex (0 = male; 1 = female)	0.645	0.689	-0.092	0.645	0.645	0.000
Urban/Rural (0 = urban; 1 = rural)	0.581	0.600	-0.040	0.581	0.581	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.766	0.428	0.797	0.766	0.766	0.000
CAD - Persistent Beta-Blocker Treatment after a Heart Attack						
Age	56.602	54.758	0.268	56.662	56.531	0.019
Sex (0 = male; 1 = female)	0.505	0.526	-0.042	0.510	0.510	0.000
Urban/Rural (0 = urban; 1 = rural)	0.607	0.620	-0.028	0.610	0.610	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.876	0.831	0.137	0.882	0.882	0.000
CAD - Cholesterol Management - LDL-C Test	*Same population as CAD Beta Blocker*			*Same population as CAD Beta Blocker*		
Age	56.602	54.758	0.268	56.662	56.531	0.019
Sex (0 = male; 1 = female)	0.505	0.526	-0.042	0.510	0.510	0.000
Urban/Rural (0 = urban; 1 = rural)	0.607	0.620	-0.028	0.610	0.610	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.876	0.831	0.137	0.882	0.882	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
COPD - Use of Spirometry Testing						
Age	54.640	46.804	0.960	54.804	54.578	0.028
Sex (0 = male; 1 = female)	0.645	0.626	0.040	0.650	0.650	0.000
Urban/Rural (0 = urban; 1 = rural)	0.637	0.648	-0.023	0.639	0.639	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.861	0.656	0.591	0.865	0.865	0.000
COPD - Pharmacotherapy Management of Exacerbation - 14 days						
Age	56.578	52.715	0.620	56.531	56.354	0.029
Sex (0 = male; 1 = female)	0.640	0.684	-0.092	0.641	0.641	0.000
Urban/Rural (0 = urban; 1 = rural)	0.592	0.630	-0.076	0.589	0.589	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.886	0.837	0.156	0.895	0.895	0.000
COPD - Pharmacotherapy Management of Exacerbation - 30 days	*Same population as 14 days*			*Same population as 14 days*		
Age	56.578	52.715	0.620	56.531	56.354	0.029
Sex (0 = male; 1 = female)	0.640	0.684	-0.092	0.641	0.641	0.000
Urban/Rural (0 = urban; 1 = rural)	0.592	0.630	-0.076	0.589	0.589	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.886	0.837	0.156	0.895	0.895	0.000
Diabetes - Members who had LDL-C Test						
Age	52.323	47.676	0.485	52.292	52.231	0.006
Sex (0 = male; 1 = female)	0.653	0.652	0.003	0.653	0.653	0.000
Urban/Rural (0 = urban; 1 = rural)	0.587	0.617	-0.062	0.586	0.586	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.796	0.688	0.266	0.795	0.795	0.000
Diabetes - Retinal Eye Exam	*Same population as LDL-C*			*Same population as LDL-C*		
Age	52.323	47.676	0.485	52.292	52.231	0.006
Sex (0 = male; 1 = female)	0.653	0.652	0.003	0.653	0.653	0.000
Urban/Rural (0 = urban; 1 = rural)	0.587	0.617	-0.062	0.586	0.586	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.796	0.688	0.266	0.795	0.795	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Diabetes - HbA1c Testing	*Same population as LDL-C*			*Same population as LDL-C*		
Age	52.323	47.676	0.485	52.292	52.231	0.006
Sex (0 = male; 1 = female)	0.653	0.652	0.003	0.653	0.653	0.000
Urban/Rural (0 = urban; 1 = rural)	0.587	0.617	-0.062	0.586	0.586	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.796	0.688	0.266	0.795	0.795	0.000
Diabetes - Medical Attention for Nephropathy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	52.323	47.676	0.485	52.292	52.231	0.006
Sex (0 = male; 1 = female)	0.653	0.652	0.003	0.653	0.653	0.000
Urban/Rural (0 = urban; 1 = rural)	0.587	0.617	-0.062	0.586	0.586	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.796	0.688	0.266	0.795	0.795	0.000
Hypertension - LDL-C Test						
Age	53.422	49.071	0.474	53.388	53.311	0.008
Sex (0 = male; 1 = female)	0.610	0.612	-0.003	0.611	0.611	0.000
Urban/Rural (0 = urban; 1 = rural)	0.577	0.607	-0.061	0.576	0.576	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.803	0.684	0.301	0.803	0.803	0.000
Hypertension - ACE/ARB Therapy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	53.422	49.071	0.474	53.388	53.311	0.008
Sex (0 = male; 1 = female)	0.610	0.612	-0.003	0.611	0.611	0.000
Urban/Rural (0 = urban; 1 = rural)	0.577	0.607	-0.061	0.576	0.576	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.803	0.684	0.301	0.803	0.803	0.000
Opioid - Use of Opioids at High Dosage						
Age	53.402	47.712	0.645	53.423	53.388	0.004
Sex (0 = male; 1 = female)	0.643	0.698	-0.114	0.643	0.643	0.000
Urban/Rural (0 = urban; 1 = rural)	0.645	0.639	0.012	0.645	0.645	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.833	0.620	0.571	0.834	0.834	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Opioid - Concurrent Use of Opioids and Benzodiazepines						
Age	52.710	45.810	0.740	52.655	52.554	0.011
Sex (0 = male; 1 = female)	0.659	0.709	-0.105	0.660	0.660	0.000
Urban/Rural (0 = urban; 1 = rural)	0.635	0.632	0.006	0.636	0.636	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.809	0.566	0.618	0.809	0.809	0.000
Child and Adolescents' Access to PCP - 12 months to 19 years						
Age	11.843	9.025	0.619	11.843	11.843	0.000
Sex (0 = male; 1 = female)	0.507	0.492	0.030	0.507	0.507	0.000
Urban/Rural (0 = urban; 1 = rural)	0.374	0.576	-0.417	0.374	0.374	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.357	0.033	0.676	0.357	0.357	0.000
Adults' Access to Preventive/Ambulatory Health Services						
Age	51.247	39.761	10.087	51.247	51.139	0.010
Sex (0 = male; 1 = female)	0.641	0.694	-0.111	0.641	0.641	0.000
Urban/Rural (0 = urban; 1 = rural)	0.582	0.598	-0.033	0.582	0.582	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.773	0.441	0.793	0.773	0.773	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2019 All Data (pre-balancing)			2019 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HMP Mean**	**Comparison Mean**	**Standardized Difference**	**HMP Mean**	**Comparison Mean**	**Standardized Difference**
Utilization/Expenditure Measures						
Emergency Room Visits (per 1,000 member months) - All						
Age	48.869	13.419	2.559	48.840	48.813	0.002
Sex	0.649	0.518	0.275	0.649	0.649	0.000
Urban/Rural	0.599	0.564	0.071	0.599	0.599	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.791	0.098	1.703	0.792	0.792	0.000
Prior Year PMPM - Top 2%	0.272	0.047	0.506	0.272	0.272	0.000
Hospital Admissions (per 100,000 member months) - All	*Same population as Emergency Room*			*Same population as Emergency Room*		
Age	48.869	13.419	2.559	48.840	48.813	0.002
Sex	0.649	0.518	0.275	0.649	0.649	0.000
Urban/Rural	0.599	0.564	0.071	0.599	0.599	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.791	0.098	1.703	0.792	0.792	0.000
Prior Year PMPM - Top 2%	0.272	0.047	0.506	0.272	0.272	0.000
Hospital Readmission Rate - All	*Same population as Emergency Room*			*Same population as Emergency Room*		
Age	48.869	13.419	2.559	48.840	48.813	0.002
Sex	0.649	0.518	0.275	0.649	0.649	0.000
Urban/Rural	0.599	0.564	0.071	0.599	0.599	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.791	0.098	1.703	0.792	0.792	0.000
Prior Year PMPM - Top 2%	0.272	0.047	0.506	0.272	0.272	0.000
Per Member Per Month Expenditures - All	*Same population as Emergency Room*			*Same population as Emergency Room*		
Age	48.869	13.419	2.559	48.840	48.813	0.002
Sex	0.649	0.518	0.275	0.649	0.649	0.000
Urban/Rural	0.599	0.564	0.071	0.599	0.599	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.791	0.098	1.703	0.792	0.792	0.000
Prior Year PMPM - Top 5%	0.272	0.047	0.506	0.272	0.272	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Asthma - Medication Ratio - 5 to 18 years						
Age	12.873	11.139	0.447	12.873	12.873	0.000
Gender (0 = male; 1 = female)	0.522	0.492	0.061	0.522	0.522	0.000
Urban/Rural (0 = urban; 1 = rural)	0.409	0.576	-0.340	0.409	0.409	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.252	0.034	0.502	0.252	0.252	0.000
Asthma - Medication Ratio - 19 to 64 years						
Age	47.820	35.222	1.055	47.820	47.788	0.003
Sex (0 = male; 1 = female)	0.701	0.699	0.004	0.701	0.701	0.000
Urban/Rural (0 = urban; 1 = rural)	0.529	0.580	-0.104	0.529	0.529	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.638	0.285	0.736	0.638	0.638	0.000
CAD - Persistent Beta-Blocker Treatment after a Heart Attack						
Age	56.889	55.551	0.198	56.952	56.952	0.000
Sex (0 = male; 1 = female)	0.511	0.509	0.005	0.506	0.506	0.000
Urban/Rural (0 = urban; 1 = rural)	0.576	0.623	-0.094	0.580	0.580	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.856	0.824	0.092	0.865	0.865	0.000
CAD - Cholesterol Management - LDL-C Test	*Same population as CAD Beta Blocker*			*Same population as CAD Beta Blocker*		
Age	56.889	55.551	0.198	56.952	56.952	0.000
Sex (0 = male; 1 = female)	0.511	0.509	0.005	0.506	0.506	0.000
Urban/Rural (0 = urban; 1 = rural)	0.576	0.623	-0.094	0.580	0.580	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.856	0.824	0.092	0.865	0.865	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HMP Mean**	**Comparison Mean**	**Standardized Difference**	**HMP Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
COPD - Use of Spirometry Testing						
Age	52.325	37.031	1.318	52.414	52.267	0.013
Sex (0 = male; 1 = female)	0.629	0.553	0.157	0.634	0.634	0.000
Urban/Rural (0 = urban; 1 = rural)	0.591	0.611	-0.041	0.596	0.596	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.861	0.656	0.591	0.865	0.865	0.000
COPD - Pharmacotherapy Management of Exacerbation - 14 days						
Age	55.660	53.066	0.369	55.780	55.737	0.006
Sex (0 = male; 1 = female)	0.618	0.645	-0.055	0.627	0.627	0.000
Urban/Rural (0 = urban; 1 = rural)	0.557	0.585	-0.057	0.550	0.550	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.901	0.821	0.268	0.909	0.909	0.000
COPD - Pharmacotherapy Management of Exacerbation - 30 days	*Same population as 14 days*			*Same population as 14 days*		
Age	55.660	53.066	0.369	55.780	55.737	0.006
Sex (0 = male; 1 = female)	0.618	0.645	-0.055	0.627	0.627	0.000
Urban/Rural (0 = urban; 1 = rural)	0.557	0.585	-0.057	0.550	0.550	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.901	0.821	0.268	0.909	0.909	0.000
Diabetes - Members who had LDL-C Test						
Age	51.814	46.351	0.538	51.806	51.738	0.007
Sex (0 = male; 1 = female)	0.651	0.667	-0.034	0.651	0.651	0.000
Urban/Rural (0 = urban; 1 = rural)	0.547	0.597	-0.101	0.548	0.548	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.748	0.586	0.374	0.748	0.748	0.000
Diabetes - Retinal Eye Exam	*Same population as LDL-C*			*Same population as LDL-C*		
Age	51.814	46.351	0.538	51.806	51.738	0.007
Sex (0 = male; 1 = female)	0.651	0.667	-0.034	0.651	0.651	0.000
Urban/Rural (0 = urban; 1 = rural)	0.547	0.597	-0.101	0.548	0.548	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.748	0.586	0.374	0.748	0.748	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Diabetes - HbA1c Testing	*Same population as LDL-C*			*Same population as LDL-C*		
Age	51.814	46.351	0.538	51.806	51.738	0.007
Sex (0 = male; 1 = female)	0.651	0.667	-0.034	0.651	0.651	0.000
Urban/Rural (0 = urban; 1 = rural)	0.547	0.597	-0.101	0.548	0.548	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.748	0.586	0.374	0.748	0.748	0.000
Diabetes - Medical Attention for Nephropathy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	51.814	46.351	0.538	51.806	51.738	0.007
Sex (0 = male; 1 = female)	0.651	0.667	-0.034	0.651	0.651	0.000
Urban/Rural (0 = urban; 1 = rural)	0.547	0.597	-0.101	0.548	0.548	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.748	0.586	0.374	0.748	0.748	0.000
Hypertension - LDL-C Test						
Age	52.680	47.621	0.522	52.680	52.630	0.005
Sex (0 = male; 1 = female)	0.632	0.624	0.017	0.632	0.632	0.000
Urban/Rural (0 = urban; 1 = rural)	0.552	0.588	-0.071	0.552	0.552	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.762	0.584	0.419	0.762	0.762	0.000
Hypertension - ACE/ARB Therapy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	52.680	47.621	0.522	52.680	52.630	0.005
Sex (0 = male; 1 = female)	0.632	0.624	0.017	0.632	0.632	0.000
Urban/Rural (0 = urban; 1 = rural)	0.552	0.588	-0.071	0.552	0.552	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.762	0.584	0.419	0.762	0.762	0.000
Opioid - Use of Opioids at High Dosage						
Age	52.168	47.419	0.494	52.193	52.149	0.005
Sex (0 = male; 1 = female)	0.655	0.702	-0.098	0.656	0.656	0.000
Urban/Rural (0 = urban; 1 = rural)	0.605	0.602	0.006	0.606	0.606	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.754	0.575	0.417	0.754	0.754	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Opioid - Concurrent Use of Opioids and Benzodiazepines						
Age	51.291	45.297	0.585	51.284	51.226	0.006
Sex (0 = male; 1 = female)	0.673	0.716	-0.092	0.673	0.673	0.000
Urban/Rural (0 = urban; 1 = rural)	0.580	0.600	-0.040	0.580	0.580	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.717	0.514	0.452	0.718	0.718	0.000
Child and Adolescents' Access to PCP - 12 months to 19 years						
Age	13.464	9.254	0.954	13.464	13.464	0.000
Sex (0 = male; 1 = female)	0.546	0.493	0.107	0.546	0.546	0.000
Urban/Rural (0 = urban; 1 = rural)	0.421	0.574	-0.310	0.421	0.421	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.249	0.029	0.509	0.249	0.249	0.000
Adults' Access to Preventive/Ambulatory Health Services						
Age	48.603	37.771	0.917	48.603	48.536	0.006
Sex (0 = male; 1 = female)	0.695	0.725	-0.066	0.695	0.695	0.000
Urban/Rural (0 = urban; 1 = rural)	0.530	0.578	-0.097	0.530	0.530	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.653	0.320	0.699	0.653	0.653	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2020 All Data (pre-balancing)			2020 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HMP Mean**	**Comparison Mean**	**Standardized Difference**	**HMP Mean**	**Comparison Mean**	**Standardized Difference**
Utilization/Expenditure Measures						
Emergency Room Visits (per 1,000 member months) - All						
Age	46.526	13.515	2.247	46.417	46.308	0.007
Sex	0.687	0.519	0.364	0.688	0.688	0.000
Urban/Rural	0.535	0.574	-0.080	0.535	0.535	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.662	0.087	1.216	0.666	0.666	0.000
Prior Year PMPM - Top 5%	0.263	0.046	0.494	0.264	0.264	0.000
Hospital Admissions (per 100,000 member months) - All	*Same population as Emergency Room*			*Same population as Emergency Room*		
Age	46.526	13.515	2.247	46.417	46.308	0.007
Sex	0.687	0.519	0.364	0.688	0.688	0.000
Urban/Rural	0.535	0.574	-0.080	0.535	0.535	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.662	0.087	1.216	0.666	0.666	0.000
Prior Year PMPM - Top 5%	0.263	0.046	0.494	0.264	0.264	0.000
Hospital Readmission Rate - All	*Same population as Emergency Room*			*Same population as Emergency Room*		
Age	46.526	13.515	2.247	46.417	46.308	0.007
Sex	0.687	0.519	0.364	0.688	0.688	0.000
Urban/Rural	0.535	0.574	-0.080	0.535	0.535	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.662	0.087	1.216	0.666	0.666	0.000
Prior Year PMPM - Top 5%	0.263	0.046	0.494	0.264	0.264	0.000
Per Member Per Month Expenditures - All	*Same population as Emergency Room*			*Same population as Emergency Room*		
Age	46.526	13.515	2.247	46.417	46.308	0.007
Sex	0.687	0.519	0.364	0.688	0.688	0.000
Urban/Rural	0.535	0.574	-0.080	0.535	0.535	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.662	0.087	1.216	0.666	0.666	0.000
Prior Year PMPM - Top 5%	0.263	0.046	0.494	0.264	0.264	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Asthma - Medication Ratio - 5 to 18 years						
Age	12.347	11.257	0.278	12.347	12.347	0.000
Gender (0 = male; 1 = female)	0.433	0.491	-0.115	0.434	0.434	0.000
Urban/Rural (0 = urban; 1 = rural)	0.403	0.589	-0.380	0.403	0.403	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.511	0.029	0.963	0.511	0.511	0.000
Asthma - Medication Ratio - 19 to 64 years						
Age	48.795	33.357	1.295	48.795	48.771	0.002
Sex (0 = male; 1 = female)	0.671	0.688	-0.036	0.671	0.671	0.000
Urban/Rural (0 = urban; 1 = rural)	0.513	0.594	-0.163	0.513	0.513	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.701	0.233	1.022	0.701	0.701	0.000
CAD - Persistent Beta-Blocker Treatment after a Heart Attack						
Age	57.565	55.940	0.000	57.452	57.295	0.023
Sex (0 = male; 1 = female)	0.506	0.501	0.000	0.501	0.501	0.000
Urban/Rural (0 = urban; 1 = rural)	0.566	0.622	0.000	0.569	0.569	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.701	0.233	1.022	0.701	0.701	0.000
CAD - Cholesterol Management - LDL-C Test	*Same population as CAD Beta Blocker*			*Same population as CAD Beta Blocker*		
Age	57.565	55.940	0.000	57.452	57.295	0.023
Sex (0 = male; 1 = female)	0.506	0.501	0.000	0.501	0.501	0.000
Urban/Rural (0 = urban; 1 = rural)	0.566	0.622	0.000	0.569	0.569	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.701	0.233	1.022	0.701	0.701	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HMP Mean**	**Comparison Mean**	**Standardized Difference**	**HMP Mean**	**Comparison Mean**	**Standardized Difference**
HEDIS Measures						
COPD - Use of Spirometry Testing						
Age	56.017	53.918	0.314	56.125	56.068	0.009
Sex (0 = male; 1 = female)	0.612	0.629	-0.035	0.617	0.617	0.000
Urban/Rural (0 = urban; 1 = rural)	0.593	0.671	-0.159	0.598	0.598	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.861	0.656	0.591	0.865	0.865	0.000
COPD - Pharmacotherapy Management of Exacerbation - 14 days						
Age	57.507	56.097	0.224	57.863	57.952	-0.014
Sex (0 = male; 1 = female)	0.637	0.659	-0.046	0.669	0.669	0.000
Urban/Rural (0 = urban; 1 = rural)	0.541	0.633	-0.184	0.547	0.547	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.861	0.656	0.591	0.865	0.865	0.000
COPD - Pharmacotherapy Management of Exacerbation - 30 days	*Same population as 14 days*			*Same population as 14 days*		
Age	57.507	56.097	0.224	57.863	57.952	-0.014
Sex (0 = male; 1 = female)	0.637	0.659	-0.046	0.669	0.669	0.000
Urban/Rural (0 = urban; 1 = rural)	0.541	0.633	-0.184	0.547	0.547	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.861	0.656	0.591	0.865	0.865	0.000
Diabetes - Members who had LDL-C Test						
Age	52.790	46.105	0.663	52.701	52.668	0.003
Sex (0 = male; 1 = female)	0.633	0.677	-0.090	0.631	0.631	0.000
Urban/Rural (0 = urban; 1 = rural)	0.534	0.618	-0.167	0.531	0.531	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.748	0.586	0.374	0.748	0.748	0.000
Diabetes - Retinal Eye Exam	*Same population as LDL-C*			*Same population as LDL-C*		
Age	52.790	46.105	0.663	52.701	52.668	0.003
Sex (0 = male; 1 = female)	0.633	0.677	-0.090	0.631	0.631	0.000
Urban/Rural (0 = urban; 1 = rural)	0.534	0.618	-0.167	0.531	0.531	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.748	0.586	0.374	0.748	0.748	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Diabetes - HbA1c Testing	*Same population as LDL-C*			*Same population as LDL-C*		
Age	52.790	46.105	0.663	52.701	52.668	0.003
Sex (0 = male; 1 = female)	0.633	0.677	-0.090	0.631	0.631	0.000
Urban/Rural (0 = urban; 1 = rural)	0.534	0.618	-0.167	0.531	0.531	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.748	0.586	0.374	0.748	0.748	0.000
Diabetes - Medical Attention for Nephropathy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	52.790	46.105	0.663	52.701	52.668	0.003
Sex (0 = male; 1 = female)	0.633	0.677	-0.090	0.631	0.631	0.000
Urban/Rural (0 = urban; 1 = rural)	0.534	0.618	-0.167	0.531	0.531	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.748	0.586	0.374	0.748	0.748	0.000
Hypertension - LDL-C Test						
Age	53.999	48.613	0.567	53.992	53.956	0.004
Sex (0 = male; 1 = female)	0.605	0.617	-0.025	0.605	0.605	0.000
Urban/Rural (0 = urban; 1 = rural)	0.535	0.610	-0.152	0.535	0.535	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.762	0.584	0.419	0.762	0.762	0.000
Hypertension - ACE/ARB Therapy	*Same population as LDL-C*			*Same population as LDL-C*		
Age	53.999	48.613	0.567	53.992	53.956	0.004
Sex (0 = male; 1 = female)	0.605	0.617	-0.025	0.605	0.605	0.000
Urban/Rural (0 = urban; 1 = rural)	0.535	0.610	-0.152	0.535	0.535	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.762	0.584	0.419	0.762	0.762	0.000
Opioid - Use of Opioids at High Dosage						
Age	53.954	48.313	0.563	53.575	53.475	0.011
Sex (0 = male; 1 = female)	0.654	0.698	-0.092	0.655	0.655	0.000
Urban/Rural (0 = urban; 1 = rural)	0.597	0.629	-0.065	0.596	0.596	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.754	0.575	0.417	0.754	0.754	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	HMP Mean	Comparison Mean	Standardized Difference	HMP Mean	Comparison Mean	Standardized Difference
HEDIS Measures						
Opioid - Concurrent Use of Opioids and Benzodiazepines						
Age	52.772	45.450	0.734	52.772	52.696	0.000
Sex (0 = male; 1 = female)	0.671	0.720	0.000	0.671	0.008	2.946
Urban/Rural (0 = urban; 1 = rural)	0.576	0.626	0.000	0.576	0.576	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.717	0.514	0.452	0.718	0.718	0.000
Child and Adolescents' Access to PCP - 12 months to 19 years						
Age	13.157	9.832	0.746	13.157	13.130	0.006
Sex (0 = male; 1 = female)	0.440	0.492	-0.105	0.440	0.440	0.000
Urban/Rural (0 = urban; 1 = rural)	0.400	0.587	-0.383	0.400	0.400	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.249	0.029	0.509	0.249	0.249	0.000
Adults' Access to Preventive/Ambulatory Health Services						
Age	49.930	37.063	1.090	49.926	49.845	0.007
Sex (0 = male; 1 = female)	0.666	0.729	-0.133	0.666	0.666	0.000
Urban/Rural (0 = urban; 1 = rural)	0.516	0.594	-0.156	0.516	0.516	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.653	0.320	0.699	0.653	0.653	0.000

HEALTH MANAGEMENT PROGRAM - STATEWIDE	2021 All Data (pre-balancing)			2021 Matched Data (post-balancing)		
HEDIS and Utilization/Expenditure Measures	**HMP Mean**	**Comparison Mean**	**Standardized Difference**	**HMP Mean**	**Comparison Mean**	**Standardized Difference**
Utilization/Expenditure Measures						
Emergency Room Visits (per 1,000 member months) - All						
Age	46.822	13.992	2.113	46.772	46.719	0.003
Sex	0.645	0.524	0.251	0.646	0.646	0.000
Urban/Rural	0.517	0.588	-0.143	0.516	0.516	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.740	0.078	1.508	0.742	0.742	0.000
Prior Year PMPM - Top 5%	0.268	0.045	0.504	0.269	0.269	0.000
Hospital Admissions (per 100,000 member months) - All	*Same population as Emergency Room*			*Same population as Emergency Room*		
Age	46.822	13.992	2.113	46.772	46.719	0.003
Sex	0.645	0.524	0.251	0.646	0.646	0.000
Urban/Rural	0.517	0.588	-0.143	0.516	0.516	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.740	0.078	1.508	0.742	0.742	0.000
Prior Year PMPM - Top 5%	0.268	0.045	0.504	0.269	0.269	0.000
Hospital Readmission Rate - All	*Same population as Emergency Room*			*Same population as Emergency Room*		
Age	46.822	13.992	2.113	46.772	46.719	0.003
Sex	0.645	0.524	0.251	0.646	0.646	0.000
Urban/Rural	0.517	0.588	-0.143	0.516	0.516	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.740	0.078	1.508	0.742	0.742	0.000
Prior Year PMPM - Top 5%	0.268	0.045	0.504	0.269	0.269	0.000
Per Member Per Month Expenditures - All	*Same population as Emergency Room*			*Same population as Emergency Room*		
Age	46.822	13.992	2.113	46.772	46.719	0.003
Sex	0.645	0.524	0.251	0.646	0.646	0.000
Urban/Rural	0.517	0.588	-0.143	0.516	0.516	0.000
ABD/non-ABD (0 = non-ABD; 1 - ABD)	0.740	0.078	1.508	0.742	0.742	0.000
Prior Year PMPM - Top 5%	0.268	0.045	0.504	0.269	0.269	0.000

11. HMP Statistical Significance Test Results - 2019 – 2021 and 3-Year Pooled

HEALTH MANAGEMENT PROGRAM - HEALTH COACHING	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	2019	2020	2021	Pooled	2019	2020	2021	Pooled
HEDIS Measures								
Asthma - Medication Ratio - 5 to 18 years								
HMP	72.7%	75.3%	88.4%	78.8%	0.1570	0.0496	0.2969	0.0000
Comparison Group	81.5%	84.3%	92.4%	86.1%	No	**Yes**	No	**Yes**
Asthma - Medication Ratio - 19 to 64 years								
HMP	80.6%	78.0%	90.8%	83.1%	0.0448	0.7251	0.2542	0.0001
Comparison Group	74.1%	77.0%	87.2%	79.4%	**Yes**	No	No	**Yes**
CAD - Persistent Beta-Blocker Treatment after a Heart Attack								
HMP	44.1%	46.0%	49.6%	46.6%	0.5611	0.6924	0.4286	0.2814
Comparison Group	42.6%	47.1%	47.4%	45.7%	No	No	No	No
CAD - Cholesterol Management - LDL-C Test								
HMP	65.8%	63.6%	67.3%	65.6%	0.0985	0.0232	0.0000	0.0001
Comparison Group	61.7%	57.7%	60.3%	59.9%	No	**Yes**	**Yes**	**Yes**
COPD - Use of Spirometry Testing								
HMP	24.9%	24.2%	18.1%	22.4%	0.5372	0.0171	0.0697	0.0028
Comparison Group	23.3%	18.2%	14.3%	18.6%	No	**Yes**	No	**Yes**
COPD - Pharmacotherapy Management of Exacerbation - 14 days								
HMP	68.9%	62.7%	66.2%	65.9%	0.2360	0.2583	0.1081	0.1390
Comparison Group	64.0%	67.6%	66.9%	66.2%	No	No	No	No
COPD - Pharmacotherapy Management of Exacerbation - 30 days								
HMP	76.8%	69.9%	80.6%	75.8%	0.2900	0.5519	0.1823	0.1315
Comparison Group	72.7%	72.3%	73.6%	72.9%	No	No	No	No
Diabetes - HbA1c Testing								
HMP	80.2%	77.9%	80.0%	79.4%	0.0000	0.0000	0.0000	0.0000
Comparison Group	72.5%	65.8%	68.2%	68.8%	**Yes**	**Yes**	**Yes**	**Yes**

HEALTH MANAGEMENT PROGRAM - HEALTH COACHING	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	**2019**	**2020**	**2021**	**Pooled**	**2019**	**2020**	**2021**	**Pooled**
HEDIS Measures								
Diabetes - LDL-C Test								
HMP	65.5%	64.8%	67.2%	65.8%	0.0000	0.0000	0.0000	0.0000
Comparison Group	58.1%	50.5%	56.7%	55.1%	**Yes**	**Yes**	**Yes**	**Yes**
Diabetes - Retinal Eye Exam								
HMP	32.2%	32.8%	36.0%	33.7%	0.0000	0.0000	0.0000	0.0000
Comparison Group	25.3%	19.8%	21.5%	22.2%	**Yes**	**Yes**	**Yes**	**Yes**
Diabetes - Medical Attention for Nephropathy								
HMP	89.3%	85.8%	86.9%	87.3%	0.0000	0.0000	0.0000	0.0000
Comparison Group	84.7%	78.6%	80.7%	81.3%	**Yes**	**Yes**	**Yes**	**Yes**
Hypertension - LDL-C Test								
HMP	62.0%	61.5%	64.4%	62.6%	0.0000	0.0000	0.0000	0.0000
Comparison Group	58.1%	53.4%	57.2%	56.2%	**Yes**	**Yes**	**Yes**	**Yes**
Hypertension - ACE/ARB Therapy								
HMP	67.1%	65.5%	67.5%	66.7%	0.0000	0.0000	0.0000	0.0000
Comparison Group	63.8%	62.8%	64.1%	63.6%	**Yes**	**Yes**	**Yes**	**Yes**
Opioid - Use of Opioids at High Dosage								
HMP	4.3%	3.0%	3.4%	3.6%	0.4017	0.0000	0.2208	0.0133
Comparison Group	4.9%	4.4%	4.2%	4.5%	No	**Yes**	No	**Yes**
Opioid - Concurrent Use of Opioids and Benzodiazepines								
HMP	12.9%	9.2%	10.2%	10.8%	0.0000	0.0000	0.6626	0.0001
Comparison Group	15.5%	12.6%	10.6%	12.9%	**Yes**	**Yes**	No	**Yes**
Child and Adolescents' Access to PCP - 12 months to 19 years								
HMP	98.3%	99.2%	98.0%	98.5%	0.0000	0.0000	0.0000	0.0000
Comparison Group	93.5%	90.5%	83.4%	89.1%	**Yes**	**Yes**	**Yes**	**Yes**
Adults' Access to Preventive/Ambulatory Health Services								
HMP	87.4%	97.2%	97.5%	94.0%	0.0000	0.0000	0.0000	0.0000
Comparison Group	88.7%	84.5%	82.1%	85.1%	**Yes**	**Yes**	**Yes**	**Yes**

HEALTH MANAGEMENT PROGRAM - HEALTH COACHING	Percent Compliant				P-Value/Statistical Significance (p < .05)			
HEDIS and Utilization/Expenditure Measures	**2019**	**2020**	**2021**	**Pooled**	**2019**	**2020**	**2021**	**Pooled**
Utilization/Expenditure Measures								
Emergency Room Visits (per 1,000 member months) - All								
HMP	162.7	142.4	137.5	147.5	0.0000	0.0000	0.0000	0.0000
Comparison Group	186.8	158.9	158.0	167.9	**Yes**	**Yes**	**Yes**	**Yes**
Hospital Admissions (per 100,000 member months) - All								
HMP	3324.3	2736.2	2654.5	2905.0	0.3855	0.0000	0.0000	0.0158
Comparison Group	3518.2	3112.8	3161.5	3264.2	No	**Yes**	**Yes**	**Yes**
Hospital Readmission Rate - All								
HMP	6.0%	5.3%	5.7%	5.7%	0.1680	0.3613	0.4568	0.0098
Comparison Group	6.9%	5.8%	6.1%	6.3%	No	No	No	**Yes**
Per Member Per Month Expenditures - All								
HMP	$ 550.09	$ 616.09	$ 690.77	$ 618.98	0.0000	0.0000	0.0000	0.0000
Comparison Group	$ 728.57	$ 743.48	$ 829.46	$ 767.17	**Yes**	**Yes**	**Yes**	**Yes**

12. HMP Member Targeted Survey Instrument (SDOH Component)

1. The SoonerCare Health Management Program can help members deal with non-medical problems. For example, the program can help with eligibility issues or getting equipment like a wheelchair or getting help with food, electricity, heating and other needs. Did you know the Health Management Program can provide this kind of help?
    a. Yes
    b. No
    c. Don't Know/Not Sure

2. Some of this help is provided by Community Resource Specialists. Have you heard of the Community Resource Specialists?
    a. Yes
    b. No
    c. Don't Know/Not Sure

3. Have you or your Health Coach used a Community Resource Specialist to help you with a problem like the ones I mentioned? [IF NO] Has your Health Coach himself/herself helped you with a problem like the ones I mentioned?
    a. Yes – CRS helped
    b. Yes – Health Coach helped
    c. No to both → [GO TO Q40]
    d. Don't Know/Note Sure → [GO TO Q40]

4. Thinking about the last time you received help, what problem did get help in resolving?
    a. Housing/rent
    b. Food
    c. Child care
    d. Transportation. SPECIFY DESTINATION:
    _____
    e. Don't Know/Not Sure
    f. Other. SPECIFY:
    _____

5. How helpful was the Community Resource Specialist or Health Coach in solving the problem? Would you say s/he was very helpful, somewhat helpful, not very helpful or not at all helpful?

a. Very helpful
b. Somewhat helpful
c. Not very helpful
d. Not at all helpful
e. Don't Know/Not Sure

6. What did the Community Resource Specialist or Health Coach do?
    a. RECORD:
    _____
    b. Don't Know/Not Sure

13. Retroactive Eligibility Analysis Survey Instrument

Hello, my name is _____ and I am calling on behalf of the Oklahoma SoonerCare program. May I please speak to {RESPONDENT NAME}?

INTRO1. We are conducting a short survey to find out about where SoonerCare members get their health care. The survey takes about 10 minutes.

[ANSWER ANY QUESTIONS AND PROCEED TO QUESTION 1]

INTRO2. [If need to leave a message] We are conducting a short survey to find out about where SoonerCare members get their health care. We can be reached toll-free at 1-888-941-9358.

2. SoonerCare and Insure Oklahoma are health insurance programs offered by the state. Are you currently enrolled either in SoonerCare or Insure Oklahoma?[92]
    a. Yes, SoonerCare → [GO TO QUESTION 6]
    b. Yes, Insure Oklahoma → [GO TO QUESTION 6]
    c. No
    d. Don't Know/Not Sure → [ASK IF ENROLLED IN MEDICAID. IF NO, END CALL]

3. The SoonerCare program also is known as Medicaid. Are you currently enrolled in the Oklahoma Medicaid program?
    a. Yes → [GO TO QUESTION 6]
    b. No
    c. Don't Know/Not Sure

4. Have you been enrolled in SoonerCare or Oklahoma Medicaid in the past?
    a. Yes
    b. No → [EXPLAIN THAT THE SURVEY IS FOR SOONERCARE MEMBERS. END CALL]
    c. Don't Know/Not Sure → [EXPLAIN THAT THE SURVEY IS FOR SOONERCARE MEMBERS. END CALL]

5. About how long ago did you disenroll?
    a. Within the past month
    b. One to three months ago
    c. Four to six months ago
    d. Seven months to one year ago
    e. More than one year ago

[92] All questions include a "don't know/not sure" or similar option which is unprompted by the surveyor; this response is listed on the instrument to allow surveyors to document such a response.

f. Don't Know/Not Sure

6. Did you reapply for the program after you were disenrolled? If yes, what happened?
    a. Reapplied – waiting for determination
    b. Reapplied – approved [CONFIRM MEMBER IS NOT CURRENTLY ENROLLED]
    c. Reapplied – denied
    d. Did not reapply – had other health coverage
    e. Did not reapply – did not have other health coverage
    f. Don't Know/Not Sure

[USUAL CARE QUESTIONS] *Red italics – baseline survey only*

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

7. In the last six months *prior to your enrollment in SoonerCare (Insure Oklahoma)*, how often was it easy to get the care, tests or treatment you needed? [CAHPS 5.0H – HEALTH PLAN ADULT SURVEY]
    a. Never
    b. Sometimes
    c. Usually
    d. Always
    e. Don't Know/Not Sure

8. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors and other doctors who specialize in one area of health care. In the last six months *prior to your enrollment in SoonerCare (Insure Oklahoma)*, did you make any appointments to see a specialist? [CAHPS 5.0H – HEALTH PLAN ADULT SURVEY]
    a. Yes
    b. No → [GO TO Q9]
    c. Don't Know/Not Sure → [GO TO Q9]

9. In the last six months *prior to your enrollment in SoonerCare (Insure Oklahoma)*, how often did you get an appointment to see a specialist as soon as you needed? [CAHPS 5.0H – HEALTH PLAN ADULT SURVEY]
    a. Never
    b. Sometimes
    c. Usually
    d. Always
    e. Don't Know/Not Sure

10. Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last six months *prior to your enrollment in SoonerCare (Insure Oklahoma)*? [CAHPS 5.0H – HEALTH PLAN ADULT SURVEY]

    RECORD NUMBER _____

11. This next question asks about your experience with your SoonerCare (Insure Oklahoma) health plan. Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan? [CAHPS 5.0H – HEALTH PLAN ADULT SURVEY]

    RECORD NUMBER _____

[HEALTH STATUS]

These next questions ask about your health.

12. Would you say that in general your health is? [BRFSS 2018]
    a. Excellent
    b. Very Good
    c. Good
    d. Fair
    e. Poor
    f. Don't Know/Not Sure

13. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good? [BRFSS 2018]
    a. None
    b. Record Number between 1 and 30 _____
    c. Don't Know/Not Sure

14. Now thinking about your mental health, which includes stress, depression and problems with emotions, for how many days during the past 30 days was your mental health not good? [EMPHASIZE “MENTAL HEALTH” TO ENSURE DISTINCTION IS MADE] [BRFSS 2018]
    a. None
    b. Record Number between 1 and 30 _____
    c. Don’t Know/Not Sure

15. In the last 12 months, how many times did you go to an emergency room to get care for yourself? [CAHPS 5.0H – HEALTH PLAN ADULT SURVEY]
    a. None
    b. 1 time
    c. 2 times
    d. 3 times
    e. 4 times
    f. 5 to 9 times
    g. 10 or more times
    h. Don’t Know/Not Sure

16. Have you been hospitalized overnight in the past 12 months? Do not include an overnight stay in the emergency room [FHOSPYR, NHIS DRAFT 2018 - FAMILY]
    a. Yes
    b. No
    c. Don’t Know/Not Sure

Those are all the questions I have today. We may contact you again in the future to follow-up and learn if anything about your health care has changed. Thank you for your help.

14. Retroactive Eligibility CEM Covariate Balance Tables for Survey Measures

RETROACTIVE ELIGIBILITY ANALYSIS	All Data (pre-balancing)			Matched Data (post-balancing)		
Retroactive Eligibility Survey Measures	**Population Subject to Waiver Mean**	**Comparison Mean**	**Standardized Difference**	**Population Subject to Waiver Mean**	**Comparison Mean**	**Standardized Difference**
All Measures						
Matching Variables						
Age	36.960	34.963	0.195	37.120	37.120	0.000
Gender (0 = male; 1 = female)	0.586	0.810	-0.454	0.642	0.642	0.000
Urban/Rural (0 = urban; 1 = rural)	0.456	0.469	-0.025	0.448	0.448	0.000

15. *Retroactive Eligibility Statistical Significance Test Results for Survey Measures*

Survey Measure		Population Subject to Waiver	Comparison Group	P-Value	Statistically Significant
Self-Reported Health Status					
	Excellent	11.9%	4.5%	*0.1191*	*No*
	Very Good	29.9%	13.0%	*0.0585*	*No*
	Good	36.6%	17.0%	*0.00215*	*Yes*
	Fair	16.2%	51.6%	*0.0030*	*Yes*
	Poor	5.4%	13.9%	*0.0539*	*No*
Number of ED Visits in Past 12 Months					
	None	68.4%	53.7%	*0.2675*	*No*
	1 Visit	18.6%	17.1%	*0.8147*	*No*
	2 Visits	5.4%	15.3%	*0.1763*	*No*
	3 Visits	3.8%	5.9%	*0.4500*	*No*
	4 Visits	1.3%	1.7%	*0.7057*	*No*
	5 - 9 Visits	2.0%	4.7%	*0.1981*	*No*
	10 or More Visits	0.4%	1.5%	*0.2660*	*No*
Hospitalized in Past 12 Months					
	Yes	12.6%	13.3%	*0.8382*	*No*
	No	87.4%	86.7%		
Not Healthy Days out of Past 30 Days					
	Physical Health - Mean	4.6	10.0	*0.0069*	*Yes*
	Mental Health - Mean	6.2	12.3	*0.0220*	*Yes*