



Quality Improvement Initiative 2023: Diabetes Care

Problem Statement

The purpose of this quality initiative is to improve diabetes care outcomes. Diabetes is the second most prevalent chronic disease diagnoses for Cox HealthPlans (CHP), and according to the American Diabetes Association, 11.5% of Missouri Residents have diabetes and 33.6% more have pre-diabetes.¹ Promoting proper care management for diabetes patients can help to slow or completely avoid adverse health conditions developing through unmanaged abnormal blood sugar. Hemoglobin A1C is used to measure the “percentage of protein in blood that is coated with sugar”; the higher the hemoglobin A1C, the higher risk for complications.² Poor control in a diabetic patient (Hb A1C > 8%) has been shown to lead to life-threatening complications, including cardiovascular issues such as stroke.³

A1C can be difficult to keep under control (<8%). Along with medication, a healthy diet and exercise are needed.² Outreach to members regarding resources available to them for diabetes management and nutrition through the CoxHealth Population Health Services Organization (PHSO) can eliminate barriers and provide education.

Performance Goals

Our goal for this initiative is to reach the NCQA benchmark for Commercial PPO plans (which was 48.9% of members with A1C in control at the time this initiative was established) in our QHP, CHEP and Commercial lines of business. The baseline for this initiative was established based on 2020 data for QHP plans, and annualized data measured in 2021 for CoxHealth Employee plan (CHEP) and Commercial plans (CHEP data was added to tracking in 2023). Data will be analyzed at least annually to monitor the target population and measure progress.

Data Collection Plan

To measure A1C control, CHP will look at Adults 18-75 years of age with diabetes (type 1 and type 2) with HbA1c control, defined as A1C <8% according to NCQA⁴. Adults aged 18-75 with diabetes are the denominator and the numerator is the total of that population with A1C control. Data will be sourced from HEDIS, which will be divided into Qualified Health Plan (QHP), CHEP and Commercial plans, since CHP HEDIS data is accumulated per plan type. Data for CHEP was added in 2023. Data for the CHEP Commercial plans will be annualized using prospective HEDIS data reports.

Data Collection

Data collected by year and plan type is displayed below.

QHP

Year	Measure	Numerator (Total # with A1C Control)	Denominator (Total # members)	Rate	Goal
2020	hbA1c Control (<8%)	10	44	22.7%	N/A
2021	hbA1c Control (<8%)	37	41	90.2%	48.9%
2022	hbA1c Control (<8%)	16	30	53.3%	48.9%
2023	hbA1c Control (<8%)				48.9%

Commercial Plans*

Year	Measure	Numerator (Total # with A1C Control)	Denominator (Total # members)	Rate	Goal
2021	hbA1c Control (<8%)	1,063	1,903	55.8%	48.9%
2022	hbA1c Control (<8%)	521	1,159	45.0%	48.9%
2023	hbA1c Control (<8%)	607	1,249	48.6%	48.9%

*Annualized

CHEP*

Year	Measure	Numerator (Total # with A1C Control)	Denominator (Total # members)	Rate	Goal
2021	hbA1c Control (<8%)	896	1,903	47.1%	48.9%
2022	hbA1c Control (<8%)	690	1,159	59.5%	48.9%
2023	hbA1c Control (<8%)	646	762	84.8%	48.9%

*Annualized

Data Analysis and Statistical Testing

CHP uses chi-squared testing to demonstrate the statistical significance of our collected data. Chi-squared is a statistics test that measures how expected data compares to actual data. Results will be displayed in the chart below and indicate year to year changes in statistical significance. Statistical significance will be at $p < 0.05$. CHP will also address barriers here that effect statistically significant results, as applicable.

QHP

Year	Numerator	Denominator	Rate	Chi-square test	Statistical Significance
2020	10	44	22.7%	N/A	N/A

2021	37	41	90.2%	2020 to 2021: Chi-square 11.64 p-value 0.0006463	Statistically significant
2022	16	30	53.3%	2021 to 2022: Chi-square 1.89298 p-value 0.1689	Not statistically significant
2023					

Commercial Plans*

Year	Numerator	Denominator	Rate	Chi-square test	Statistical Significance
2021	1,063	1,903	55.8%	N/A	N/A
2022	521	1,159	45.0%	2021 to 2022: Chi-square 11.1241 p-value 0.0008521	Statistically significant
2023	607	1,249	48.6%	2022 to 2023: Chi-square 1.16323 p-value 0.2808	Not statistically significant

*Annualized

CHEP*

Year	Numerator	Denominator	Rate	Chi-square test	Statistical Significance
2021	896	1,903	47.1%	N/A	N/A
2022	690	1,159	59.5%	2021 to 2022: Chi-square 13.9456 p-value 0.0001882	Statistically significant
2023	646	762	84.8%	2022 to 2023: Chi-square 24.2269 p-value 0.0000008565	Statistically significant

*Annualized

Findings:

- QHP and CHP met goal in 2022
- Commercial plans fell ~4% below goal

QHP

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2021	37	41	90.2%	48.9%
2022	16	30	53.3%	48.9%
2023				48.9%

Commercial Plans*

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Action Plans / Interventions

Date	Intervention	Barrier Addressed
2020 & Ongoing	Education to members about resources available	<ul style="list-style-type: none"> Remove barrier of member being unaware of resources available to them to help manage diabetes and control A1C
2021	Implemented program for CoxHealth Employee Plan that provides diabetic medications at no cost in exchange for participation in an annual appointment and select disease management classes.	<ul style="list-style-type: none"> Remove cost of services to employee members, increase knowledge of disease awareness and self-management principles, and increase compliance with preventative care.
2022	<ul style="list-style-type: none"> Shared current diabetes screening recommendations with providers Education to members about self-management of diabetes 	<ul style="list-style-type: none"> Foster ongoing communication in diabetes care Promote and help provide direction for members on self-management of diabetes
2023	<ul style="list-style-type: none"> Education to members about eye exams and other annual health services for diabetes 	<ul style="list-style-type: none"> Promote annual eye exams with an eye care professional to members and other services recommended annually

Re-Measurement

CHP will re-measure A1C control using HEDIS data at least annually to evaluate progress towards meeting our goal. Goals can be re-evaluated during this time and adjusted accordingly.

Additional Corrective Actions

CHP will initiate additional corrective actions each year, where necessary.

Findings and Outcomes

The findings and outcomes of this quality initiative will be shared with CHP employees, members, providers, the Quality Improvement Committee, and the Board of Directors. We may add and/or modify goals and interventions when necessary based on findings and outcomes. If the findings at any time during the initiative lead to needed training and education for staff, the education will be created and distributed within the following quarter.

References:

1. American Diabetes Association. 2021. "Take A Closer Look: Statistics by State". <https://www.diabetes.org/resources/statistics/statistics-by-state> (June 25, 2021)
2. Mayo Clinic. 2021. "A1C Test". <https://www.mayoclinic.org/tests-procedures/a1c-test/about/pac-20384643> (June 25, 2021)
3. American Journal of Managed Care, The. 2017. "Challenges in Diabetes Management: Glycemic Control, Medication Adherence, and Healthcare Costs". <https://www.ajmc.com/view/challenges-in-diabetes-management-article> (June 25, 2021)
4. National Committee for Quality Assurance. 2021. "Comprehensive Diabetes Care (CDC)". <https://www.ncqa.org/hedis/measures/comprehensive-diabetes-care/> (May 3, 2022)
5. United States Preventive Services Task Force. 2021. "Prediabetes and Type 2 Diabetes: Screening". <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/screening-for-prediabetes-and-type-2-diabetes> (May 3, 2022)
6. National Heart, Lung, and Blood Institute. "Overweight and Obesity: Symptoms and Diagnosis". <https://www.nhlbi.nih.gov/health/overweight-and-obesity/symptoms> (May 3, 2022)