



Performance Assessment Methodology Manual for the MassHealth Community Behavioral Health Centers (CBHC) Clinical Quality Incentive (CCQI) Program

Performance Years 1 – 5 (Calendar Years 2024 – 2028)

Version: October 2025

Table of Contents

A.	CCQI Performance Assessment Methodology (PAM) Overview	3
A.1.	CBHC Clinical Quality Incentive (CCQI) Measure Slate	3
	Table 1. Overview of Measure Slate in the CCQI.....	3
A.2.	CCQI Measure Payment Status for PY1 – 5	3
	Table 2. CCQI Measure Payment Status in PY1 – 5.....	4
A.3	CCQI Eligibility Requirements for Performance Scoring.....	4
A.4.	Benchmarking.....	5
	Table 3. CCQI Performance Benchmarking Methodology in PY1 – 5.....	5
A.5.	Performance Scoring on Aggregate Rates	6
	Table 4. CCQI Aggregate (Overall) Rate for Performance Scoring by Measure	6
B.	Scoring Methodology by Performance Measure	6
B.1.	Scoring Methodology for Performance Measures CCQI-1 and CCQI-3.....	6
B.2.	Scoring Methodology for Performance Measure CCQI-2.....	8
C.	CCQI Performance Assessment Methodology (PAM) for Payment	9
C.1.	Individual Quality Score	9
C.2.	Weighted Quality Score.....	9
	Table 5: CCQI Measure Weights for each Performance Measure in PY1 – 5	10
C.3.	Overall Quality Score.....	10
D.	CCQI Performance Scoring Examples	11
	Example 1: Performance Scoring with Attainment and Improvement Met.....	11
	Example 2: Performance Scoring with Attainment and Improvement Unmet.....	12
	Example 3: Improvement Compared to Previous Highest Performing Year with Improvement Target Met.....	13
	Example 4: Past Performance Meeting or Exceeding Goal Benchmark and Improvement Target Met from Current Performance.....	14
	Example 5: Improvement Target Met Compared to the Previous Highest Performing Year if Attainment Threshold in Past Performance Unmet	15
E.	CCQI-2 Observed-Over-Expected Ratio Examples	16
	Example 1: Observed-Over-Expected Ratio	16
	Example 2: Observed-Over-Expected Ratio	17
	Example 3: Observed-Over-Expected Ratio	18

A. CCQI Performance Assessment Methodology (PAM) Overview

The purpose of the Performance Assessment Methodology (PAM) for the CBHC Clinical Quality Incentive (CCQI) is to establish an objective, systematic approach for evaluating performance on each clinical quality incentive measure. As part of the CBHC CQI PAM, MassHealth developed a scoring methodology to calculate an “Overall Quality Score” used to determine each CBHC’s final earned incentive payment. This manual provides a comprehensive overview of the CCQI PAM framework for Performance Years (PY) 1–5. Please note that adjustments may be made to components of the CCQI PAM which are subject to change both in current and subsequent performance years to accurately assess and score performance on each measure.

A.1. CBHC Clinical Quality Incentive (CCQI) Measure Slate

The CCQI measure slate consists of three clinical quality incentive measures outlined in *Table 1. Overview of Measure Slate in the CCQI*. Further detail on these measures is provided in the *CBHC Clinical Quality Incentive (CCQI) Technical Specifications* document.

Table 1. Overview of Measure Slate in the CCQI

Measure Name	Measure Description
CCQI-1: Access Standards	This measure assesses timely access to behavioral health services for members experiencing a behavioral health crisis with an urgent or immediate care need by looking at the percentage of new patients (new to qualifying visits) that received an appointment for a qualifying CBHC visit within a specified timeframe.
CCQI-2: Follow-up After Acute Behavioral Health Episode of Care	This measure assesses the proportion of qualifying CBHC visits that occurred within 7 days of discharge from a qualifying hospital encounter for each CBHC.
CCQI-3: Readmission to Acute Behavioral Health Care	This measure assesses the percentage of patients who have a qualifying CBHC visit within 7 days of discharge from a qualifying hospital encounter and were readmitted to a qualifying hospital encounter within 30 days of discharge.

A.2. CCQI Measure Payment Status for PY1 – 5

Pay-for-performance (P4P): The payment status for an incentive-based measure in which a CBHC can earn incentive payment based on performance in meeting established measure requirements to produce a quality score that is calculated using the performance assessment methodology.

The payment status for measures CCQI-2 and CCQI-3 will be in Pay-for-Performance (P4P) throughout PY1–5, while CCQI-1 will be in P4P payment status between PY2–5. Additional information on the payment status for each measure can be found in the *CBHC Incentive Program PY2–5 Implementation Plan*. *Table 2. CCQI Measure Payment Status in PY1–5* outlines the payment status for each CCQI measure between 2024 to 2028.

Table 2. CCQI Measure Payment Status in PY1 – 5

Measure Name	PY1 (2024)	PY2 (2025)	PY3 (2026)	PY4 (2027)	PY5 (2028)
CCQI-1: Access Standards	N/A	P4P	P4P	P4P	P4P
CCQI-2: Follow-up After Acute Behavioral Health Episode of Care	P4P	P4P	P4P	P4P	P4P
CCQI-3: Readmission to Acute Behavioral Health Care	P4P	P4P	P4P	P4P	P4P

Please refer to section 3.3.1 *Payment Methodology* on how each CBHCs individual maximum eligible incentive amount is calculated and section 3.3.2 *Payment Schedule* on “Earned Incentive Payments” in the *CBHC PY2–5 Implementation Plan*.

A.3 CCQI Eligibility Requirements for Performance Scoring

As a qualifying participant of the CQI component of the CBHC Incentive Program, each CBHC at the TIN-Billing entity level must meet CCQI performance requirements to earn an eligible incentive for each Pay-for-Performance measure. Please refer to the *CBHC Incentive Program PY2–5 Implementation Plan* and the *CBHC Clinical Quality Incentive (CCQI) Technical Specifications* on meeting performance requirements for the CCQI measures.

To be eligible for scoring on each performance measure, a CBHC must meet the minimum denominator requirement of 30 cases in the measure population. If a CBHC is unable to meet the minimum denominator for a measure, the CBHC will not be scored for that measure and the measure weight will be redistributed to the remaining performance measures that the CBHC is eligible for (Please see *Table 5: CCQI Measure Weights for each Performance Measure in PY1–5* for further information).

If a CBHC is exempt from meeting performance requirements for a given measure due to extenuating circumstances, then the measure weight will be redistributed to the remaining performance measures, where the CBHC can still earn up to the maximum eligible incentive amount based on performance. If a CBHC is noncompliant or has opted out of meeting performance requirements for a given measure, the weight for that measure will not be redistributed to the remaining performance measures, resulting in a lower Overall Quality Score where the CBHC can no longer earn up to the maximum eligible incentive amount. Please refer to section 3.2.1 in the *CBHC Incentive Program PY2–5 Implementation Plan* regarding performance reporting requirements.

The baseline year is the first performance year in which the CBHC meets the minimum eligible denominator requirement for scoring on each performance measure. The baseline year is also the first performance year to determine improvement for subsequent performance years to earn a higher performance score.

Performance scoring will be based on calendar year performance for each measure during each performance year. Incomplete or inaccurate data for a given measure may result in a lower performance score or an inability to earn up to the maximum number of points for that performance year.

A.4. Benchmarking

In order to meet P4P measure requirements, CBHCs must meet an established set of benchmarks each performance year to earn an incentive payment. Benchmarks are determined by assessing market performance using baseline data from the first performance year of a given measure against a set of Attainment Targets, which includes the Attainment Threshold (AT) and the Goal Benchmark (GB). See section *B. Scoring Methodology by Performance Measure* for additional information. The methodology to establish benchmarks using baseline data from the first performance year are outlined in Table 3. *CCQI Performance Benchmarking Methodology in PY1–5.*

Table 3. CCQI Performance Benchmarking Methodology in PY1 – 5

Measure Name	PY1 (2024)	PY2 (2025)	PY3 (2026)	PY4 (2027)	PY5 (2028)
CCQI-1: Access Standards	NA	AT: Within the 25 th percentile of market performance GB: At the 25 th percentile of market performance	AT: At the 25 th percentile of market performance GB: At the 50 th percentile of market performance	AT: At the 25 th percentile of market performance GB: At the 90 th percentile of market performance	AT: At the 25 th percentile of market performance GB: At the 90 th percentile of market performance
CCQI-2: Follow-up After Acute Behavioral Health Episode of Care	Benchmarked against market performance	Benchmarked against market performance	Benchmarked against market performance	Benchmarked against market performance	Benchmarked against market performance
CCQI-3: Readmission to Acute Behavioral Health Care	AT: Within the 25 th percentile of market performance GB: At the 25 th percentile of market performance	AT: Within the 25 th percentile of market performance GB: At the 25 th percentile of market performance	AT: At the 25 th percentile of market performance GB: At the 50 th percentile of market performance	AT: At the 25 th percentile of market performance GB: At the 90 th percentile of market performance	AT: At the 25 th percentile of market performance GB: At the 90 th percentile of market performance

Note: Proposed benchmarks pending approval. Benchmarking methodology is subject to change based on performance in subsequent measurement years.

A.5. Performance Scoring on Aggregate Rates

While each performance measure includes a set of sub-measures and the aggregate or overall rate, only performance on the aggregate rate for each TIN-billing entity will be scored for incentive payment. For the *CCQI-1 Access Standards* measure where performance for CBHCs with multiple site locations are captured at the MassHealth Provider ID and Service Location (PIDSL) level, aggregate performance rates for each service location at the PIDSL level will be rolled up to the same TIN-billing entity as a weighted average to calculate the performance score. PIDSL level performance, in addition to performance rates stratified for each sub-measure, will be shared for informational purposes only as needed but will not count towards the earned incentive amount. *Table 4. CCQI Aggregate (Overall) Rate for Performance Scoring by Measure* provides an overview of the aggregate rates for each CCQI measure.

Table 4. CCQI Aggregate (Overall) Rate for Performance Scoring by Measure

Measure Name	Description	Numerator	Denominator
CCQI-1: Access Standards	The aggregate rate combines all 6 qualifying visit appointment types to calculate the overall rate of timely access.	Number of new patients among MassHealth members who had timely qualifying visits scheduled from a qualifying triage with a CBHC.	Number of new patients among MassHealth members who had qualifying triages with a CBHC to all 6 qualifying visit appointment types.
CCQI-2: Follow-up After Acute Behavioral Health Episode of Care	The aggregate rate is the proportion of all 4 qualifying visits from all 4 qualifying hospital encounters combined for each CBHC compared to all CBHCs combined.	Number of patients among MassHealth members with any of the 4 qualifying CBHC visits within 7 days of discharge from any of the 4 qualifying hospital encounters per CBHC.	Number of patients among MassHealth members with any of the 4 qualifying CBHC visits within 7 days of discharge from any of the 4 qualifying hospital encounters across all CBHCs.
CCQI-3: Readmission to Acute Behavioral Health Care	The aggregate rate combines all 4 qualifying visits within 7 days from all 4 qualifying hospital encounters with a readmission within 30 days of discharge.	Number of patients among MassHealth members with any of the 4 qualifying CBHC visits within 7 days of discharge from any of the 4 qualifying hospital encounters and a readmission within 30 days.	Number of patients among MassHealth members with any of the 4 qualifying CBHC visits within 7 days of discharge from any of the 4 qualifying hospital encounters.

B. Scoring Methodology by Performance Measure

B.1. Scoring Methodology for Performance Measures CCQI-1 and CCQI-3

For the *CCQI-1 Access Standards* and *CCQI-3 Readmission to Acute BH Care* measures, CBHCs can earn attainment points by meeting Attainment Targets, with a maximum of 10 points for each measure. Attainment Targets include the Attainment Threshold and the Goal Benchmark. Additional points can be earned for each measure if CBHCs can demonstrate improvement between performance years.

Attainment Targets:

Attainment Threshold: The minimum level of performance at which a CBHC can earn points per measure.

Goal Benchmark: The highest level of performance at which a CBHC can earn the maximum number of 10 points per measure.

If performance falls below the Attainment Threshold for an individual measure, then the CBHC will earn 0 attainment points. If performance meets or exceeds the Goal Benchmark, the CBHC will earn the maximum amount of 10 attainment points for that measure. If performance meets the Attainment Threshold but falls below the Goal Benchmark, then attainment points are determined by multiplying the maximum number of points for each measure by the difference between the performance rate and the Attainment Threshold out of the difference between the Goal Benchmark and the Attainment Threshold.

$$\text{Attainment Points} = (\text{Maximum \# of Points per Measure}) \times \frac{(\text{Performance Rate} - \text{Attainment Threshold})}{(\text{Goal Benchmark} - \text{Attainment Threshold})}$$

In addition to attainment points, CBHCs can also earn improvement points if the Improvement Target is met based on improved performance compared to past performance years (even where the Attainment Threshold is not met or the Goal Benchmark is exceeded).

Improvement Target: The percentage that demonstrates improvement between performance years for each measure that a CBHC must meet to earn improvement points. A CBHC can earn a total of 5 points if the Improvement Target is met or exceeded. The sum of attainment and improvement points may exceed the maximum amount of 10 points for each measure. The Improvement Target is based on the gap between the Attainment Threshold and the Goal Benchmark out of the total number of program years:

$$\text{Improvement Target} = \frac{(\text{Goal Benchmark} - \text{Attainment Threshold})}{(\text{Total \# of Program Years})}$$

To prevent rewarding regression in subsequent performance years, the Improvement Target is determined by comparing the most recent performance year to the previous highest performing year. As such, improvement is based on the difference between performance in the current year and the previous highest performing year. CBHCs can also earn improvement points for each measure under the following circumstances:

Past Performance Meets or Exceeds Current Goal Benchmark: If a previous highest performing year met or exceeded the Goal Benchmark, performance in the current year must meet or exceed the Improvement Target compared to the previous highest performing year.

Attainment Threshold Not Met in Past Performance Year: If the CBHC did not meet the Attainment Threshold in a past performance year, improvement points can still be earned in the current performance year if the following requirements are met:

- a. Performance compared to the previous highest performing year still meets or exceeds the Improvement Target of the current year, even if performance in the current year does not meet or exceed the Attainment Threshold
- b. The Attainment Threshold and Improvement Target are met or exceeded in the current performance year compared to the previous highest performing year.

B.2. Scoring Methodology for Performance Measure CCQI-2

For the CCQI-2 measure on *Follow-up After an Acute Behavioral Health Episode of Care*, to assess each CBHC on individual performance each year, the scoring methodology will be based on an “observed-over-expected” (O/E) ratio to compare the actual (observed) number of events that occurred against the predicted (expected) number of events that occurred. Performance on the CCQI-2 measure for each CBHC will be scored by looking at the proportion of CBHC follow-up visits that occurred within 7 days of discharge from a Qualifying Hospital Encounter (observed) with the proportion of members who received CBHC follow-up services within the performance measurement year (expected).

$$\text{O/E Ratio} = \frac{(\text{Number of Follow-up Visits per CBHC} / \text{Number of Follow-up Visits from all CBHCs})}{(\text{Number of Members Served per CBHC} / \text{Number of Members Served by all CBHCs})}$$

The number of members served will be based on eligible MassHealth members who received Core Bundle, MCI, and CCS services to match the population in the CCQI-2 measure. The observed-over-expected ratio serves as the performance rate to compare against the Attainment Threshold and Goal Benchmark to earn attainment points similar to the scoring methodology outlined in section B.1 for measures CCQI-1 and CCQI-3. The observed-over-expected ratio will be rounded to the nearest hundredth as a percentage to calculate a performance score. Unlike performance rates for CCQI-1 and CCQI-3, the O/E ratio may exceed a value of 1 (or 100 as a percentage), in which case attainment points will remain capped at a maximum of 10 points. Improvement points can also be earned if the Improvement Target is met or exceeded based on improved performance year over year.

$$\text{CCQI-2 Attainment Points} = \text{Maximum \# of Points per Measure} \times \frac{(\text{O/E Ratio} - \text{Attainment Threshold})}{(\text{Goal Benchmark} - \text{Attainment Threshold})}$$

C. CCQI Performance Assessment Methodology (PAM) for Payment

C.1. Individual Quality Score

Once the total number of attainment and improvement points are calculated based on the performance rate, CBHCs will earn an Individual Quality Score for each performance measure as a ratio between 0 and 1 based on the total number of attainment and improvement points earned out of the maximum number of points for a given measure. For Individual Quality Scores, while the total number of attainment points a CBHC earns cannot exceed 10 points per measure, the sum of attainment and improvement points can reach a maximum of 15 points total. The Individual Quality Score will remain unrounded before it is weighted to calculate the Overall Quality Score.

$$\text{Individual Quality Score} = \frac{\text{Attainment Points} + \text{Improvement Points}}{\text{Maximum \# of Points per Measure}}$$

C.2. Weighted Quality Score

Once the Individual Quality Score is calculated, each score will be weighted based on the weight assigned to each measure. Each CCQI performance measure will be weighted equally between PY1-5, however, measure weights are subject to change in subsequent performance years as needed (e.g. 80 percent of CBHCs did not meet the minimum denominator requirement for a given measure due to unforeseen circumstances). As previously indicated, measure weights can also be redistributed to other measures if a CBHC cannot meet performance requirements for a given measure. To calculate the Weighted Quality Score for each measure, the Individual Quality Score is multiplied by the weight assigned to the measure. The measure weight and the Weighted Quality Score will remain unrounded to calculate the Overall Quality Score. *Table 5: CCQI Measure Weights for each Performance Measure in PY1 – 5* provides an overview of the measure weights for each measure across PY1 – 5.

$$\text{Weighted Quality Score} = \text{Measure Weight (\%)} \times \text{Individual Quality Score}$$

Table 5: CCQI Measure Weights for each Performance Measure in PY1 – 5

Measure Name	Measure Weight (%) PY1 (2024)	Measure Weight (%) PY2 (2025)	Measure Weight (%) PY3 (2026)	Measure Weight (%) PY4 (2027)	Measure Weight (%) PY5 (2028)
CCQI-1: Access Standards	N/A	33.33	33.33	33.33	33.33
CCQI-2: Follow-up After Acute Behavioral Health Episode of Care	50	33.33	33.33	33.33	33.33
CCQI-3: Readmission to Acute Behavioral Health Care	50	33.33	33.33	33.33	33.33
Total	100	100	100	100	100

Note: Measure weights are presented as a percentage rounded to the nearest hundredth in this table.

C.3. Overall Quality Score

The sum of each Weighted Quality Score will produce an Overall Quality Score, which cannot exceed 100 percent (or a ratio of 1) even if the sum of each Weighted Quality Score exceeds 100 percent (or a ratio of 1).

$$\text{Overall Quality Score} = \text{Sum of Weighted Quality Scores}$$

CBHCs can also earn provisional bonus points under unique circumstances through ad-hoc deliverables in a given performance year. Bonus points are administered on an all-or-nothing basis as either 0 or 5 points based on accurate and timely submission of the requested deliverable. Bonus points are added to the Overall Quality Score and not to each Individual Quality Score. Bonus points will not be added if the resulting Overall Quality Score exceeds 100 percent.

The Overall Quality Score is rounded to the nearest hundredth and calculated with the maximum eligible incentive amount to determine the final earned incentive payment for the CCQI after each performance year. For the CCQI, CBHCs will receive the final earned incentive payment after each performance year based on the Overall Quality Score. See *CBHC Incentive Program PY2 – 5 Implementation Plan* for further details.

$$\text{Final Earned Incentive Payment} = (\text{Overall Quality Score}) \times (\text{Maximum Eligible Incentive Amount})$$

D. CCQI Performance Scoring Examples

Example 1: Performance Scoring with Attainment and Improvement Met

Measure	PY1 Rate (%)	PY2 Rate (%)	Attainment Threshold (%)	Goal Benchmark (%)	Improvement	Improvement Target	Improvement Points
CCQI-1	50	55	43	59	5	3.2	5
CCQI-2	125	150	50	100	25	10	5
CCQI-3	48	43	50	30	5	4	5

Measure	Attainment Points	Attainment + Improvement Points	Individual Quality Score	Weighted Quality Score
CCQI-1	$10 \times \frac{(55 - 43)}{(59 - 43)} = 7.50 \text{ pts}$	$7.50 \text{ pts} + 5 \text{ pts} = 12.50 \text{ pts}$	$12.50 / 10 = 1.25$	$1.25 \times 33.33\% = 41.67$
CCQI-2	10 pts	$10 \text{ pts} + 5 \text{ pts} = 15 \text{ pts}$	$15 / 10 = 1.50$	$1.50 \times 33.33\% = 50.00$
CCQI-3	$10 \times \frac{(43 - 50)}{(30 - 50)} = 3.50 \text{ pts}$	$3.50 \text{ pts} + 5 \text{ pts} = 8.50 \text{ pts}$	$8.50 / 10 = 0.85$	$0.85 \times 33.33\% = 28.33$
Bonus Points Earned			5 pts	
Overall Quality Score			$41.67 + 50.00 + 28.33 + 5 = 125 = \mathbf{100}$ (capped)	

Example 2: Performance Scoring with Attainment and Improvement Unmet

Measure	PY1 Rate (%)	PY2 Rate (%)	Attainment Threshold (%)	Goal Benchmark (%)	Improvement	Improvement Target	Improvement Points
CCQI-1	40	38	43	59	-2	3.2	0
CCQI-2	60	49	50	100	-11	10	0
CCQI-3	46	52	50	30	-6	4	0

Measure	Attainment Points	Attainment + Improvement Points	Individual Quality Score	Weighted Quality Score
CCQI-1	$10 \times \frac{(38 - 43)}{(59 - 43)} = -3.13 = 0 \text{ pts}$	0 pts + 0 pts = 0 pts	0 / 10 = 0.00	$0.00 \times 33.33\% = 0.00$
CCQI-2	$10 \times \frac{(49 - 50)}{(100 - 50)} = -0.20 = 0 \text{ pts}$	0 pt + 0 pts = 0 pts	0 / 10 = 0.00	$0.10 \times 33.33\% = 0.00$
CCQI-3	$10 \times \frac{(52 - 50)}{(30 - 50)} = -1 = 0 \text{ pts}$	0 pts + 0 pts = 0 pts	0 / 10 = 0.00	$0.10 \times 33.33\% = 0.00$
Bonus Points Earned			0 pts	
Overall Quality Score			0 + 0 + 0 + 0 = 0.00	

Example 3: Improvement Compared to Previous Highest Performing Year with Improvement Target Met

Measure	PY1 Rate (%)	PY2 Rate (%)	PY3 Rate (%)	PY4 Rate (%)	Attainment Threshold (%)	Goal Benchmark (%)	Improvement	Improvement Target	Improvement Points
CCQI-1	50	53	52	57	43	59	4	3.2	5
CCQI-2	85	75	83	95	50	100	10	10	5
CCQI-3	55	48	52	44	50	30	4	4	5

Measure	Attainment Points	Attainment + Improvement Points	Individual Quality Score	Weighted Quality Score
CCQI-1	$10 \times \frac{(57 - 43)}{(59 - 43)} = 8.75 \text{ pts}$	$8.75 \text{ pts} + 5 \text{ pts} = 13.75 \text{ pts}$	$13.75 / 10 = 1.38$	$1.38 \times 33.33\% = 45.83$
CCQI-2	$10 \times \frac{(95 - 50)}{(100 - 50)} = 9 \text{ pts}$	$9 \text{ pts} + 5 \text{ pts} = 13 \text{ pts}$	$13 / 10 = 1.30$	$1.30 \times 33.33\% = 43.33$
CCQI-3	$10 \times \frac{(44 - 50)}{(30 - 50)} = 3 \text{ pts}$	$3 \text{ pts} + 5 \text{ pts} = 8 \text{ pts}$	$8 / 10 = 0.80$	$0.80 \times 33.33\% = 26.67$
Bonus Points Earned			5 pts	
Overall Quality Score			$45.83 + 43.33 + 26.67 + 5 = 120.83 = 100$ (capped)	

Example 4: Past Performance Meeting or Exceeding Goal Benchmark and Improvement Target Met from Current Performance

Measure	PY1 Rate (%)	PY2 Rate (%)	PY3 Rate (%)	PY4 Rate (%)	Attainment Threshold (%)	Goal Benchmark (%)	Improvement	Improvement Target	Improvement Points
CCQI-1	50	59	56	63	43	59	4	3.2	5
CCQI-2	110	80	75	120	50	100	10	10	5
CCQI-3	45	30	48	26	50	30	4	4	5

Measure	Attainment Points	Attainment + Improvement Points	Individual Quality Score	Weighted Quality Score
CCQI-1	10 pts	10 pts + 5 pts = 15 pts	15 / 10 = 1.50	1.50 × 33.33% = 50.00
CCQI-2	10 pts	10 pts + 5 pts = 15 pts	15 / 10 = 1.50	1.50 × 33.33% = 50.00
CCQI-3	10 pts	10 pts + 5 pts = 15 pts	15 / 10 = 1.50	1.50 × 33.33% = 50.00
Bonus Points Earned			0 pts	
Overall Quality Score			50.00 + 50.00 + 50.00 + 0 = 150.00 = 100 (capped)	

Example 5: Improvement Target Met Compared to the Previous Highest Performing Year if Attainment Threshold in Past Performance Unmet

Measure	PY1 Rate (%)	PY2 Rate (%)	PY3 Rate (%)	PY4 Rate (%)	Attainment Threshold (%)	Goal Benchmark (%)	Improvement	Improvement Target	Improvement Points
CCQI-1	38	40	39	44	43	59	4	3.2	5
CCQI-2	42	35	40	52	50	100	10	10	5
CCQI-3	53	51	55	47	50	30	4	4	5

Measure	Attainment Points	Attainment + Improvement Points	Individual Quality Score	Weighted Quality Score
CCQI-1	$10 \times \frac{(44 - 43)}{(59 - 43)} = 0.63 \text{ pts}$	0.63 pts + 5 pts = 5.63 pts	$5.63 / 10 = 0.56$	$0.56 \times 33.33\% = 18.75$
CCQI-2	$10 \times \frac{(52 - 50)}{(100 - 50)} = 0.40 \text{ pts}$	0.40 pts + 5 pts = 5.40 pts	$5.40 / 10 = 0.54$	$0.54 \times 33.33\% = 18.00$
CCQI-3	$10 \times \frac{(47 - 50)}{(30 - 50)} = 1.50 \text{ pts}$	1.50 pts + 5 pts = 6.50 pts	$6.50 / 10 = 0.65$	$0.65 \times 33.33\% = 21.67$
Bonus Points Earned			0 pts	
Overall Quality Score			$18.75 + 18.00 + 21.67 + 0 = 58.42$	

E. CCQI-2 Observed-Over-Expected Ratio Examples

CCQI-2 Terms	Definition
Observed (Num)	Total Number of MassHealth Members that completed a CBHC Follow-up Visit (Core Bundle/MCI/CCS) within 7 Days of Discharge from a Qualifying Hospital Encounter <u>per CBHC</u>
Observed (Den)	Total Number of MassHealth Members that completed a CBHC Follow-up Visit (Core Bundle/MCI/CCS) within 7 Days of Discharge from a Qualifying Hospital Encounter <u>across all CBHCs</u>
Expected (Num)	Total Number of MassHealth Members who utilized CBHC services (Core Bundle/MCI/CCS) within the Performance Year <u>per CBHC</u>
Expected (Den)	Total Number of MassHealth Members who utilized CBHC services (Core Bundle/MCI/CCS) within the Performance Year <u>across all CBHCs</u>

Example 1: Observed-Over-Expected Ratio

CBHC Name	Num	Den	Rate (Observed)	Num	Den	Rate (Expected)	O/E Ratio	O/E Ratio (%)
CBHC 1	50	500	0.10	75	1000	0.08	$0.10 / 0.08 = 1.33$	$1.33 \times 100 = 133.33$
CBHC 2	300	500	0.60	800	1000	0.80	$0.60 / 0.80 = 0.75$	$0.75 \times 100 = 75.00$
CBHC 3	100	500	0.20	200	1000	0.20	$0.20 / 0.20 = 1.00$	$1 \times 100 = 100.00$

Note: The O/E ratio is rounded to the nearest hundredth as a percentage

CBHC Name	O/E Ratio (%)	Attainment Threshold (%)	Goal Benchmark (%)	Attainment Points
CBHC 1	133.33	50	100	$10 \times \frac{(133.33 - 50)}{(100 - 50)} = 16.67 \text{ pts}$
CBHC 2	75	50	100	$10 \times \frac{(75 - 50)}{(100 - 50)} = 5 \text{ pts}$
CBHC 3	100	50	100	$10 \times \frac{(100 - 50)}{(100 - 50)} = 10 \text{ pts}$

Example 2: Observed-Over-Expected Ratio

CBHC Name	Num	Den	Rate (Observed)	Num	Den	Rate (Expected)	O/E Ratio	O/E Ratio (%)
CBHC 1	75	200	0.38	100	500	0.20	$0.38 / 0.20 = 1.90$	$1.90 \times 100 = 187.50$
CBHC 2	20	200	0.10	50	500	0.10	$0.10 / 0.10 = 1.00$	$1 \times 100 = 100$
CBHC 3	110	200	0.55	300	500	0.60	$0.55 / 0.60 = 0.92$	$0.92 \times 100 = 91.67$

Note: The O/E ratio is rounded to the nearest hundredth as a percentage.

CBHC Name	O/E Ratio (%)	Attainment Threshold (%)	Goal Benchmark (%)	Attainment Points
CBHC 1	187.50	50	100	$10 \times \frac{(187.50 - 50)}{(100 - 50)} = 27.50 \text{ pts}$
CBHC 2	100	50	100	$10 \times \frac{(100 - 50)}{(100 - 50)} = 10 \text{ pts}$
CBHC 3	91.67	50	100	$10 \times \frac{(91.67 - 50)}{(100 - 50)} = 8.33 \text{ pts}$

Example 3: Observed-Over-Expected Ratio

CBHC Name	Num	Den	Rate (Observed)	Num	Den	Rate (Expected)	O/E Ratio	O/E Ratio (%)
CBHC 1	25	100	0.25	50	200	0.25	$0.25 / 0.25 = 1.00$	$1.00 \times 100 = 100$
CBHC 2	10	100	0.10	100	200	0.50	$0.10 / 0.50 = 0.20$	$0.20 \times 100 = 20$
CBHC 3	30	100	0.30	175	200	0.88	$0.30 / 0.88 = 0.34$	$0.34 \times 100 = 34.09$

Note: The O/E ratio is rounded to the nearest hundredth as a percentage.

CBHC Name	O/E Ratio (%)	Attainment Threshold (%)	Goal Benchmark (%)	Attainment Points
CBHC 1	100	50	100	$10 \times \frac{(100 - 50)}{(100 - 50)} = 1 \text{ pt} = 10 \text{ pts}$
CBHC 2	20	50	100	$10 \times \frac{(20 - 50)}{(100 - 50)} = -6 \text{ pts} = 0 \text{ pts}$
CBHC 3	34.09	50	100	$10 \times \frac{(34.09 - 50)}{(100 - 50)} = -3.18 \text{ pts} = 0 \text{ pts}$