

The Ohio Department of Medicaid's Quality-Based Auto- Assignment Methodology

**Caveat: All data used in this document were
created only for explanatory and illustrative purposes.**

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Introduction

The quality-based auto-assignment percentages will be updated quarterly using the measures in the Women's Health Index. The five measures in the Women's Health Index are used in the quality-based auto-assignment process to calculate the percentage of unassigned recipients that each Medicaid managed care plan (MCP) will receive starting in April 2018. The measures in the Women's Health Index are: *CHIPRA Low Birth Weight*; *Screening for Breast Cancer*; *Screening for Cervical Cancer*; *Prenatal and Postpartum Care (PPC): Timeliness of Prenatal Care*; and *Prenatal and Postpartum Care (PPC): Postpartum Visits*.

Quality-Based Auto-Assignment Calculation

1. The rates for the five MCPs are ranked in order for each measure, from best to worst. For the *CHIPRA Low Birth Weight* measure, the lowest value is the best; for *Timeliness of Prenatal Care*, *Postpartum Visits*, *Screening for Cervical Cancer*, and *Screening for Breast Cancer*, the highest value is the best.
2. The median values are calculated for each measure. For each measure, upper and lower bounds are created, in addition to a middle band surrounding the median that contains two other bounds - the upper median bound and lower median bound. Thus, in total, four bounds are created besides the median value in order to create the five possible ranking levels for each plan. These four bounds are the upper bound, upper median bound, lower median bound, and lower bound.

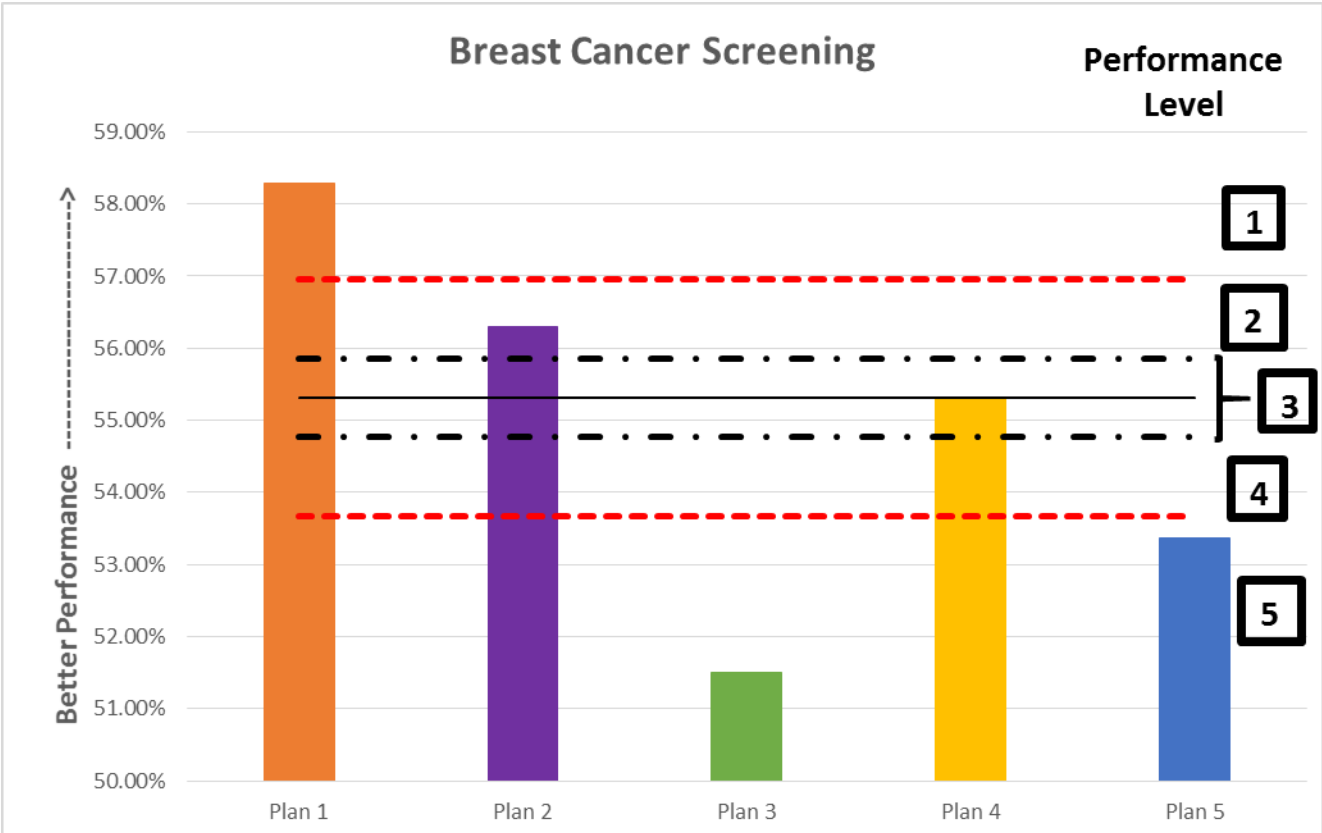
NOTE: The bounds are intended to detect meaningful differences without penalizing MCPs for small variations in performance. Due to the large denominator in the Screening for Cervical Cancer measure, the resulting range between the upper and lower bound is so narrow that small deviations from the median will result in different performance levels. For this reason, the denominator of the Screening for Cervical Cancer measure will be normalized using the denominator of the Screening for Breast Cancer measure. This will be done by calculating a ratio of the sum of MCP denominators in the Screening for Breast cancer measure to the sum of MCP denominators in the Screening for Cervical Cancer measure. Each of the individual MCP denominators for Screening for Cervical Cancer will then be multiplied by this ratio. See the tables below for how the ratio is calculated and applied to create the New Screening for Cervical Cancer Denominators.

	Screening for Breast Cancer Denominators	Screening for Cervical Cancer Denominators	Ratio
Plan 1	8,523	57,950	
Plan 2	34,501	271,218	
Plan 3	9,379	59,825	
Plan 4	4,947	45,802	
Plan 5	9,774	59,516	
Total	67,124	494,311	7.36

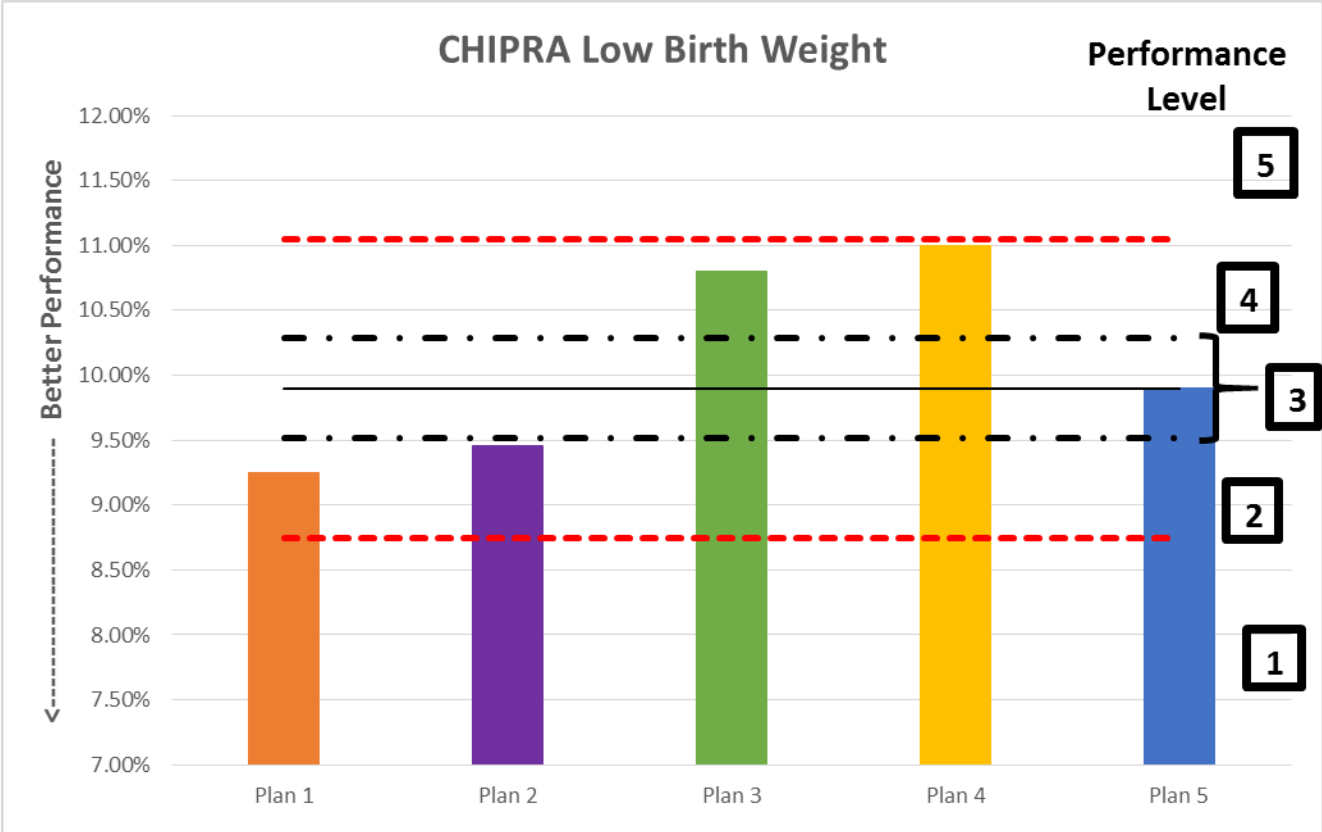
	Screening for Cervical Cancer	Ratio	New Screening for Cervical Cancer Denominator
Plan 1	57,950	7.36	7,869
Plan 2	271,218	7.36	36,830
Plan 3	59,825	7.36	8,124
Plan 4	45,802	7.36	6,220
Plan 5	59,516	7.36	8,082

- Upper and lower bounds are created based on statistical significance testing for the measures. Using chi-squared tests, the median plan is compared to each other plan individually. Then, the 99% statistical significance level is created for both lower and upper bounds. The upper bound is created based on an average of the two 99% chi-squared upper significance levels from the two plans with the highest and lowest denominator, in order to set a uniform significance level that does not favor one plan over another. The lower bound is created based on an average of the two 99% chi-squared lower significance levels from the two plans with the highest and lowest denominator, in order to set a uniform significance level that does not favor one plan over another.
- For all five measures, after the upper and lower bounds are created, the upper median bound and lower median bound are created from these upper and lower bounds. The upper median bound is 1/3 of the difference between the median plan and the upper bound. The lower median bound is 1/3 of the difference between the median plan and the lower bound. This is done in order to give equal sizes to the levels ranked 2, 3, and 4 – all of which equal 1/3 of the distance between lower and upper bound. See the examples below for further clarification of this concept.
- For measures in which a higher value indicates more success than a lower value the following ranking levels are given: a level of 1 for the MCP or MCPs with values higher than the upper bound; a level of 2 for the MCP or MCPs with values higher than the upper median bound but lower than the upper bound; a level of 3 for the MCP or MCPs equal to the median value, higher than the median value but lower than the upper median bound, or lower than the median value but higher than the lower median bound; a level of 4 for the

MCP or MCPs with values lower than the lower median bound but higher than the lower bound; and a level of 5 for the MCP or MCPs with values lower than the lower bound. For example, the ranking levels for *Screening for Breast Cancer* using fictitious simulated annual HEDIS results and fictitious bounds are as follows:



- For measures in which a lower value indicates more success than a higher value, the reverse ranking levels are given. The ranking levels are as follows: a level of 1 for the MCP or MCPs with values lower than the lower bound; a level of 2 for the MCP or MCPs with values lower than the lower median bound but higher than the lower bound; a level of 3 for the MCP or MCPs equal to the median value, higher than the median value but lower than the upper median bound, or lower than the median value but higher than the lower median bound; a level of 4 for the MCP or MCPs with values higher than the higher median bound but lower than the upper bound; and a level of 5 for the MCP or MCPs with values higher than the upper bound. For example, the ranking number levels for fictitious simulated *CHIPRA Low Birth Weight* data are as follows:



7. For each measure, the following initial percentages are assigned to each MCP based on their ranked level 1-5 and the Phase of the program:

Quality-Based Auto-Assignment Phase Schedule				
	Effective January 2016	Effective January 2017	Effective January 2019	Effective January 2020
Performance Level	Phase I - 1% Step	Phase II - 3% Step	Phase III - 5% Step	Phase IV - 8.33% Step
Level 1	22.00%	26.00%	30.00%	36.70%
Level 2	21.00%	23.00%	25.00%	28.30%
Level 3	20.00%	20.00%	20.00%	20.00%
Level 4	19.00%	17.00%	15.00%	11.70%
Level 5	18.00%	14.00%	10.00%	3.30%

- After assigning an initial percentage for each MCP for each measure, the percentages are summed for all MCPs on a single measure. If the sum adds up to 100%, the original initial assignment percentage is kept for each MCP for that measure as the adjusted assignment percentage. For example:

CHIPRA Low Birth Weight				
MCP	Performance Rate	Performance Measure	Initial Percentage Assigned	Adjusted Percentage on Measure
Plan 1	9.25%	2	23.00%	23.00%
Plan 2	9.46%	2	23.00%	23.00%
Plan 3	10.80%	4	17.00%	17.00%
Plan 4	11.00%	4	17.00%	17.00%
Plan 5	9.90%	3	20.00%	20.00%

Since the sum of the Initial assignment percentages equals 100%, no normalization factor is needed. Therefore, the adjusted assignment percentage is equal to the initial assignment percentage.

If the sum does not add up to 100%, the sum is multiplied times a factor that will result in a sum of 100% in order to normalize the percentages while keeping the proper ratio between the ranking levels. Using that factor, all initial assignment percentages are multiplied by the factor to reach the adjusted assignment percentage for that measure for all MCPs. For the *CHIPRA Low Birth Weight*, the sum of the Initial assignment percentages equals 99%.

Therefore, a normalization factor of 100/99 is multiplied by the initial assignment percentage to calculate the adjusted assignment percentage for each MCP. Summing the adjusted assignment percentages for all MCPs then equals 100%. For example:

Breast Cancer Screening				
MCP	Performance Rate	Performance Measure	Initial Percentage Assigned	Adjusted Percentage on Measure
Plan 1	58.28%	1	26.00%	26.80%
Plan 2	56.29%	2	23.00%	23.71%
Plan 3	51.50%	5	14.00%	14.43%
Plan 4	55.32%	3	20.00%	20.62%
Plan 5	53.37%	5	14.00%	14.43%

- After an adjusted assignment percentage is calculated for each MCP, the appropriate weight for each measure is applied. To calculate the final assignment contribution for each MCP, the adjusted percentage is multiplied by 0.30 for *CHIPRA Low Birth Weight*, .25 for *Timeliness of Prenatal Care* and *Postpartum Visits*, and .10 for *Breast Cancer Screening and Cervical Cancer Screening*.

The following table illustrates the calculation of quality-based auto-assignment contributions using, fictitious simulated data. This is an example for illustrative purposes and will not be used for quality-based auto-assignments.

Example: Calculation of Quality-Based Auto-Assignment Contributions – Fictitious Data

Measure	MCP	Performance Rate	Performance Level	Initial Percentage	Sum	Adjusted Percentage	Weight of Measure	Total Assignment Contribution
CHIPRA Low Birth Weight	Plan 1	9.25%	2	23.00%	100.00%	23.00%	30.00%	6.90%
	Plan 2	9.46%	2	23.00%	100.00%	23.00%	30.00%	6.90%
	Plan 3	10.80%	4	17.00%	100.00%	17.00%	30.00%	5.10%
	Plan 4	11.00%	4	17.00%	100.00%	17.00%	30.00%	5.10%
	Plan 5	9.90%	3	20.00%	100.00%	20.00%	30.00%	6.00%
Cervical Cancer Screening	Plan 1	45.68%	1	26.00%	103.00%	25.24%	10.00%	2.52%
	Plan 2	55.99%	5	14.00%	103.00%	13.59%	10.00%	1.36%
	Plan 3	50.63%	4	17.00%	103.00%	16.50%	10.00%	1.65%
	Plan 4	50.37%	3	20.00%	103.00%	19.42%	10.00%	1.94%
	Plan 5	47.43%	1	26.00%	103.00%	25.24%	10.00%	2.52%
Breast Cancer Screening	Plan 1	58.28%	1	26.00%	97.00%	26.80%	10.00%	2.68%
	Plan 2	56.29%	2	23.00%	97.00%	23.71%	10.00%	2.37%
	Plan 3	51.50%	5	14.00%	97.00%	14.43%	10.00%	1.44%
	Plan 4	55.32%	3	20.00%	97.00%	20.62%	10.00%	2.06%
	Plan 5	53.37%	5	14.00%	97.00%	14.43%	10.00%	1.44%
Timeliness of Prenatal Care	Plan 1	82.65%	5	14.00%	100.00%	14.00%	25.00%	3.50%
	Plan 2	84.55%	3	20.00%	100.00%	20.00%	25.00%	5.00%
	Plan 3	90.00%	1	26.00%	100.00%	26.00%	25.00%	6.50%
	Plan 4	81.11%	5	14.00%	100.00%	14.00%	25.00%	3.50%
	Plan 5	87.50%	1	26.00%	100.00%	26.00%	25.00%	6.50%
Postpartum Care	Plan 1	68.79%	1	26.00%	100.00%	26.00%	25.00%	6.50%
	Plan 2	62.57%	3	20.00%	100.00%	20.00%	25.00%	5.00%
	Plan 3	64.55%	1	26.00%	100.00%	26.00%	25.00%	6.50%
	Plan 4	58.79%	5	14.00%	100.00%	14.00%	25.00%	3.50%
	Plan 5	52.23%	5	14.00%	100.00%	14.00%	25.00%	3.50%

- The assignment contributions for each measure are summed by MCP to get the total auto-assignment percentages for each MCP. This an example for illustrative purposes and will not be used for quality-based auto-assignments.

Example: Calculation of Final Assignment Percentage

