



Department of  
Medicaid

# Ohio Department of Medicaid 2018 Managed Care Plan Report Card Methodology

*September 2018*



## 1. Managed Care Plan Report Card Methodology

### I. Project Overview

Health Services Advisory Group, Inc. (HSAG) is currently serving as the External Quality Review Organization (EQRO) for the State of Ohio’s Medicaid Managed Care Program through a contract with the Ohio Department of Medicaid (ODM). HSAG is charged with developing a report card to evaluate the performance of five Ohio Medicaid managed care plans (MCPs). The report card is targeted towards a consumer audience; therefore, it is user friendly, easy to read, and addresses areas of interest for consumers. As part of the EQRO contract, HSAG analyzed 2018 Healthcare Effectiveness Data and Information Set (HEDIS<sup>®</sup>)<sup>1</sup> results, including 2018 Consumer Assessment of Healthcare Providers and Systems (CAHPS<sup>®</sup>)<sup>2</sup> data from the five Ohio Medicaid MCPs for presentation in the Ohio Medicaid 2018 MCP Report Card. The MCP Report Card analysis helps support ODM’s public reporting of MCP performance information.

### II. Data Collection

For this project, HSAG received the MCPs’ CAHPS member-level data files and HEDIS data from ODM. The CAHPS 5.0H Adult Medicaid Health Plan Survey and the CAHPS 5.0H Child Medicaid Health Plan Survey (with the Children with Chronic Conditions [CCC] measurement set) were used for the adult and child populations, respectively. The CAHPS survey most recently administered in 2018 was used. The *HEDIS 2018 Specifications for Survey Measures, Volume 3* were used to collect and report on the CAHPS measures. The *HEDIS 2018 Technical Specifications for Health Plans, Volume 2* was used to collect and report on the HEDIS measures.

### III. Reporting Categories

MCPs’ performance was evaluated in five separate reporting categories identified as important to consumers.<sup>3</sup> Each reporting category consists of a set of measures that were evaluated together to form a category summary score. The reporting categories and descriptions of the measures they contain are:

- **Getting Care:** Includes adult and child CAHPS composites on consumer perceptions regarding the ease of obtaining needed care and how quickly they received that care. This category includes HEDIS measures that assess adults’ and children’s access to care, as well as appropriate follow-up for mental illness and if adults had a body mass index (BMI) assessment.

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<sup>1</sup> HEDIS<sup>®</sup> is a registered trademark of the National Committee for Quality Assurance (NCQA).

<sup>2</sup> CAHPS<sup>®</sup> is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

<sup>3</sup> National Committee for Quality Assurance. “Ten Steps to a Successful Report Card Project, Producing Comparative Health Plan Reports for Consumers.” October 1998.

- **Doctors’ Communication and Service:** Includes adult and child CAHPS composites and items on consumer perceptions about how well their doctors communicate, and shared decision making. This category includes overall ratings of personal doctors and specialists seen most often. In addition, this category includes a CAHPS measure related to medical assistance with smoking and tobacco use cessation.
- **Keeping Kids Healthy:** Includes HEDIS measures that assess how often preventative services are provided (e.g., child and adolescent immunizations, well-child visits, well-care visits for adolescents, annual dental visits, and weight assessment and counseling for children/adolescents). Further, this category also includes HEDIS measures related to follow-up care for attention deficit/hyperactivity disorder (ADHD) as well as children and adolescents use of antipsychotics.
- **Living With Illness:** Includes HEDIS measures that assess how well MCPs take care of people who have chronic conditions, such as asthma, diabetes, and high blood pressure. This category also includes HEDIS measures that assess medication and pharmacotherapy management for people living with depression, asthma, or chronic obstructive pulmonary disease (COPD). HEDIS measures related to initiation and engagement of treatment for addiction are also included.
- **Women’s Health:** Includes HEDIS measures that assess how often women-specific services are provided (e.g., prenatal and postpartum care, and breast cancer, cervical cancer, and chlamydia screenings).

#### IV. Measures Used In Analysis

ODM, in collaboration with HSAG, chose measures for the 2018 MCP Report Card based on a number of factors, such as using measures that best approximate the reporting categories that are useful to consumers; using validated, audited data that are readily available; and using nationally recognized, standardized measures of Medicaid and/or managed care.

Table 1 lists the 58 measures, 14 CAHPS and 44 HEDIS, and their associated weights. Weights were applied when calculating the category summary scores and the 95 percent confidence intervals to ensure that all measures contribute equally in the derivation of the final results.<sup>4</sup> Please see section VI for more detail on comparing MCP performance.

**Table 1—Ohio 2018 MCP Report Card Reporting Categories, Measures, and Weights**

Measures	Measure Weight
<b>Category: Getting Care</b>	
Child Medicaid—Getting Needed Care (CAHPS Composite)	1
Adult Medicaid—Getting Needed Care (CAHPS Composite)	1

<sup>4</sup> One measure, Child Medicaid—Rating Of Specialist Seen Most Often (CAHPS Global Rating), was excluded from the 2018 MCP Report Card based on insufficient data reported for more than half of the MCPs. This measure will be reevaluated for inclusion in the 2019 MCP Report Card.

Measures	Measure Weight
Child Medicaid—Getting Care Quickly (CAHPS Composite)	1
Adult Medicaid—Getting Care Quickly (CAHPS Composite)	1
Adult BMI Assessment	1
Adults’ Access to Preventative/Ambulatory Health Services: Total Rate	1
Children and Adolescents’ Access to Primary Care Practitioners: Ages 12-24 Months	1/4
Children and Adolescents’ Access to Primary Care Practitioners: Ages 25 Months-6 Years	1/4
Children and Adolescents’ Access to Primary Care Practitioners: Ages 7-11 Years	1/4
Children and Adolescents’ Access to Primary Care Practitioners: Ages 12-19 Years	1/4
Follow-Up After Hospitalization for Mental Illness: 7 Day Follow-Up	1
<b>Category: Doctors’ Communication and Service</b>	
Child Medicaid—How Well Doctors Communicate (CAHPS Composite)	1
Adult Medicaid—How Well Doctors Communicate (CAHPS Composite)	1
Child Medicaid—Shared Decision Making (CAHPS Composite)	1
Adult Medicaid—Shared Decision Making (CAHPS Composite)	1
Child Medicaid—Rating of Personal Doctor (CAHPS Global Rating)	1
Adult Medicaid—Rating of Personal Doctor (CAHPS Global Rating)	1
Adult Medicaid—Rating of Specialist Seen Most Often (CAHPS Global Rating)	1
Medical Assistance With Smoking and Tobacco Use Cessation: Advising Smokers and Tobacco Users to Quit	1/3
Medical Assistance With Smoking and Tobacco Use Cessation: Discussing Cessation Medications	1/3
Medical Assistance With Smoking and Tobacco Use Cessation: Discussing Cessation Strategies	1/3
<b>Category: Keeping Kids Healthy</b>	
Adolescent Well-Care Visits	1
Annual Dental Visits: Total Rate	1
Childhood Immunization Status: Combo 2	1/3
Childhood Immunization Status: Combo 3	1/3
Childhood Immunization Status: Combo 10	1/3
Immunizations for Adolescents: Combo 1	1/2
Immunizations for Adolescents: Human Papillomavirus Vaccine	1/2
Follow-Up Care for Children Prescribed ADHD Medication: Initiation Phase	1/2

Measures	Measure Weight
Follow-Up Care for Children Prescribed ADHD Medication: Continuation and Maintenance Phase	1/2
Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics, Total	1
Use of Multiple Concurrent Antipsychotics in Children and Adolescents, Total	1
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: BMI Percentile Documentation	1/3
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Nutrition	1/3
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Physical Activity	1/3
Well-Child Visits in the First 15 Months of Life: 6 or More Visits	1
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	1
<b>Category: Living With Illness</b>	
Antidepressant Medication Management: Effective Acute Phase Treatment	1/2
Antidepressant Medication Management: Effective Continuation Phase Treatment	1/2
Comprehensive Diabetes Care: HbA1c Control (<8.0%)	1/6
Comprehensive Diabetes Care: HbA1c Poor Control (>9.0%)	1/6
Comprehensive Diabetes Care: HbA1c Testing	1/6
Comprehensive Diabetes Care: Blood Pressure Control (<140/90 mm Hg)	1/6
Comprehensive Diabetes Care: Eye Exam (Retinal) Performed	1/6
Comprehensive Diabetes Care: Medical Attention for Nephropathy	1/6
Controlling High Blood Pressure	1
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: Initiation of AOD Treatment Total	1/2
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: Engagement of AOD Treatment Total	1/2
Medication Management for People with Asthma: Medication Compliance 75 Percent	1
Pharmacotherapy Management of COPD Exacerbation: Dispensed a Systemic Corticosteroid within 14 days of the Event	1/2
Pharmacotherapy Management of COPD Exacerbation: Dispensed a Bronchodilator within 30 days of the Event	1/2
Statin Therapy for Patients With Cardiovascular Disease: Received Statin Therapy, Total	1
Statin Therapy for Patients With Diabetes: Received Statin Therapy, Total	1

Measures	Measure Weight
<b>Category: Women’s Health</b>	
Breast Cancer Screening	1
Cervical Cancer Screening	1
Chlamydia Screening in Women: Combined Rate	1
Prenatal and Postpartum Care: Timeliness of Prenatal Care	1
Prenatal and Postpartum Care: Postpartum Care	1

## V. Missing Values

In general, HEDIS and CAHPS data contain three classes of missing values:

- *Not Reported (NR)*—MCPs chose not to submit data, even though it was possible for them to do so.
- *Biased Rate (BR)*—MCPs’ measure rates were determined to be materially biased in a HEDIS Compliance Audit™<sup>5</sup>
- *Small Denominator (NA)*—MCPs were unable to provide a sufficient amount of data (e.g., too few members met the eligibility criteria for a measure).

In developing scores and ratings for the reporting categories, HSAG handled the missing rates for measures as follows:

- Rates with a *NR* designation were assigned the minimum rate.
- Rates with a *BR* designation were assigned the minimum rate.
- Rates with a *NA* designation were assigned the average value.

For measures with an *NA* audit result, HSAG used the mean of non-missing observations across all MCPs. For measures with an *NR* or *BR* audit result, HSAG used the minimum value of the non-missing observations across all MCPs. This minimizes the disadvantage for MCPs that are willing but unable to report data and ensures that MCPs do not gain advantage from intentionally failing to report complete and accurate data. If more than half of the MCPs have an *NA*, *NR*, or *BR* for any measure, then the measure was excluded from the analysis.

For MCPs with *NR*, *BR*, and *NA* audit results, HSAG calculated the variance for a given measure using the imputed value if the denominator was available. Conversely, if the denominator was unavailable, HSAG used the average variance of the non-missing observations across all MCPs. This ensured that all

<sup>5</sup> NCQA HEDIS Compliance Audit™ is a trademark of NCQA.

rates reflect some level of variability, rather than simply omitting the missing variances in subsequent calculations.

Additionally, HSAG only replaced missing values where an MCP reported data for at least 50 percent of the indicators in a reporting category. If an MCP was missing more than 50 percent of the measures that comprise a reporting category, HSAG gave the MCP a designation of “Insufficient Data” for that category.

## VI. Comparing MCP Performance - MCP Report Card

HSAG computed five summary scores for each MCP, as well as the summary mean values for the MCPs as a group. Each score is a standardized score where higher values represent more favorable performance. Summary scores for the five reporting categories (Getting Care, Doctors’ Communication and Service, Keeping Kids Healthy, Living With Illness, and Women’s Health) were calculated from MCP scores on selected HEDIS measures and CAHPS questions and composites.

MCP ratings for individual and summary measures were based on the difference between the MCP’s score and the unweighted group mean. The statistical significance of each difference was determined by computing a confidence interval (CI). A 95 percent CI and 68 percent CI was calculated around each difference to identify MCPs that are significantly higher than or significantly lower than the mean. MCPs with differences significantly above (i.e., 2 standard deviations above the mean) or below (i.e., 2 standard deviations below the mean) zero at the 95 percent confidence level received the top (Highest Performance) and bottom (Lowest Performance) designations, respectively. MCPs with differences significantly above (i.e., between 1 and 2 standard deviations above the mean) or below (i.e., between 1 and 2 standard deviations below the mean) zero at the 68 percent confidence level, but not at the 95 percent confidence level, received High Performance and Low Performance designations, respectively. An MCP was significantly above the mean if the lower limit of the CI was greater than the mean; and was significantly below the mean if the upper limit of the CI was below the mean. MCPs that do not fall either above or below zero at the 68 percent confidence level received the middle designation (Average Performance).

For a given measure and MCP  $k$ , let the difference  $d_k = \text{MCP } k \text{ score} - \text{group mean}$ . The formula for calculating the CIs are:

$$95\% \text{ CI} = d_k \pm 2\sqrt{\text{Var}(d_k)}$$

$$68\% \text{ CI} = d_k \pm \sqrt{\text{Var}(d_k)}$$

where  $\text{Var}(d_k) = \text{Variance of } d_k \text{ which is estimated as } \frac{P(P-2)}{P^2} * \frac{p_k(1-p_k)}{n_k-1} + \frac{1}{P^2} \sum_{k=1}^P \frac{p_k(1-p_k)}{n_k-1}$

and:  $p_k = \text{MCP } k \text{ score}$

$P = \text{total number of MCPs}$

$n_k = \text{number of members in the measure sample for MCP } k$

The CIs for CAHPS questions’ means and composites and for summary measures were computed similarly by modifying the formula for  $Var(d_k)$  to take into account the variances of HEDIS scores and CAHPS questions and composites in each summary measure.

For individual CAHPS ratings questions, HSAG:

- Converted each question response to a score (1, 2, 3) as described in *HEDIS Volume 3: Specifications for Survey Measures*.
- Computed the MCP mean.
- Used the MCP means to compute the group mean and the difference scores.
- Substituted  $V_j$ , the MCP k Global Variance, for  $p_k(1 - p_k)/(n_k - 1)$  in the variance formula.

$$\text{where } V_j = \frac{1}{n_k} \frac{\sum_{i=1}^{n_k} (x_i - \bar{x})^2}{n_k - 1}$$

and:  $x_i$  = response of member i  
 $\bar{x}$  = the mean score for MCP k  
 $n_k$  = number of responses in MCP k

For CAHPS composites, HSAG:

- Converted each individual response to a score (1, 2, 3).
- Calculated each MCP composite mean.
- Used the MCP composite means to compute the group mean and the difference scores.
- Substituted  $CV_k$ , the MCP k Composite Variance, for  $p_k(1 - p_k)/(n_k - 1)$  in the variance formula.

$$\text{where } CV_k = \frac{N}{N - 1} \sum_{i=1}^N \left( \sum_{j=1}^m \frac{1}{m} \frac{(x_{ij} - \bar{x}_j)^2}{n_j} \right)$$

and:  $j = 1, \dots, m$  questions in the composite measure  
 $i = 1, \dots, n_j$  members responding to question j  
 $x_{ij}$  = response of member i to question j (1, 2, 3)  
 $\bar{x}_j$  = MCP mean for question j  
 $N$  = members responding to at least one question in the composite

For analysis of the HEDIS-only reporting categories (Keeping Kids Healthy, Living With Illness, and Women’s Health), HSAG:

- Standardized each measure’s score by subtracting the group mean and dividing by the group standard deviation, to give each measure equal weight toward the category rating. If measures are not standardized, a measure with higher variability contributes disproportionately toward the category rating.



- Summed the MCP’s standardized scores, multiplied by the respective measure weights, to get the MCP summary measure score.
- Used the scores to compute the group summary mean and the difference scores.
- For each MCP k, substituted:  $\sum_{j=1}^m \frac{w_j}{c_j^2} \frac{p_j(1-p_j)}{n_j-1}$  for  $p_k(1-p_k)/(n_k-1)$  in the variance formula.

where:  $j = 1, \dots, m$  questions in the summary measure  
 $n_j$  = number of members in the sample for measure j  
 $c_j$  = group standard deviation for measure j  
 $p_j$  = nonstandardized MCP score for measure j  
 $w_j$  = measure weight for measure j

For reporting categories that include HEDIS and CAHPS scores (Getting Care and Doctors’ Communication and Service), the variance of the summary measure was the sum of the variances of the components of the measure, multiplied by their respective measure weights. For these categories, HSAG:

- Scored each CAHPS question and composite by converting each individual response to a score (1, 2, 3).
- Computed the MCP mean for each CAHPS question, composite mean for each CAHPS composite, and the MCP mean for each HEDIS measure.
- Standardized each MCP mean (composite or HEDIS) by subtracting the mean of the MCP means and dividing by the standard deviation of the MCP means, to give each measure equal weight toward the category rating. If the measures were not standardized, a measure with higher variability would contribute disproportionately toward the category rating.
- Summed the standardized MCP scores, multiplied by their respective measure weights, to get the MCP summary measure score.
- Used these summary scores to compute the group mean and the difference scores.
- For each MCP k, substituted:  $\sum_{j=1}^{m_c} \frac{w_j}{c_j^2} V_j + \sum_{j=1}^{m_c} \frac{w_j}{c_j^2} CV_j + \sum_{j=1}^m \frac{w_j}{c_j^2} \frac{p_j(1-p_j)}{n_j-1}$  for  $p_k(1-p_k)/(n_k-1)$  in

the variance formula.

where:  $j = 1, \dots, m$  or  $m_c$  HEDIS measures or CAHPS questions and composites in the summary  
 $n_j$  = number of members in the sample for measure j  
 $V_j$  = variance for global measure j  
 $CV_j$  = composite variance for composite j  
 $c_j$  = group standard deviation for measure j  
 $p_j$  = nonstandardized MCP score for measure j  
 $w_j$  = measure weight for measure j

A five-level rating scale provides consumers with an easy-to-read “picture” of quality performance across MCPs and presents data in a manner that emphasizes meaningful differences between MCPs. The

MCP Report Card used stars to display results for each MCP and displayed MCP performance as follows:

**Table 2—Ohio MCP Report Card - Performance Ratings**

Rating	MCP Performance Compared to Statewide Average	
★★★★★	<b>Highest Performance</b>	The MCP’s performance is 2 or more standard deviations above the Ohio Medicaid Managed Care Plan average.
★★★★	<b>High Performance</b>	The MCP’s performance is between 1 and 2 standard deviations above the Ohio Medicaid Managed Care Plan average.
★★★	<b>Average Performance</b>	The MCP’s performance is within one standard deviation of the Ohio Medicaid Managed Care Plan average.
★★	<b>Low Performance</b>	The MCP’s performance is between 1 and 2 standard deviations below the Ohio Medicaid Managed Care Plan average.
★	<b>Lowest Performance</b>	The MCP’s performance is 2 or more standard deviations below the Ohio Medicaid Managed Care Plan average.