APPENDIX

Methodology

COST AND UTILIZATION

2018 REPORT

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MN Community MEASUREMENT
Measure Up To Better Health

METHODOLOGY

Calculation of Total Cost of Care, Relative Resources and Price Index

The total cost of care metric is allowed payment available in administrative claims and includes all allowed payments associated with attributed patients including professional, facility inpatient and outpatient, pharmacy, lab, radiology, ancillary and behavioral health services.

The measurement period is 12 consecutive months and includes all claims where dates of service occurred within the measurement period. If a portion of the attributed population does not include pharmacy costs due to self-insured employers carving out the pharmacy benefit to a separate vendor, the pharmacy per member per month (pmpm) cost is based on the total pharmacy costs divided by the number of member months for those attributed patients with pharmacy claims adjudicated by the submitted payer. That pharmacy pmpm value is added to the overall medical pmpm value to calculate the total pmpm costs. The administrative claims used for measurement are from 2017 dates of service and adjudicated (processed) as of May 1, 2018.

Patients are attributed to providers at the medical group level. The medical group is defined as a grouping of tax identification number (TIN). The association follows the TIN that is present on the administrative claim and not the individual provider indicator. The TIN is then associated with a single medical group (see Patient Attribution for specifications).

Population

The population is commercially insured patients only, including all fully-insured and self-insured commercial plan patients where the payer has access to final adjudicated claims, and group and individual plan patients.

To be included in the analysls, patients must be enrolled in the health plan for at least nine consecutive months within the measurement period. Patients must be at least one year and no more than 64 years old at the end of the measurement period.

Patient Attribution

Patients are attributed to primary care providers only. Primary care specialties are defined as Family Medicine, Internal Medicine, Pediatrics, Geriatrics and OB/GYN. Attibutable provider types include doctors (MD, DO), nurse practitioners and physician assistants. Specialty definition is based on practicing specialty and board certification. If specialty is undefined, a provider will not have any patients attributed. Patients are attributed to the medical group with the majority (>50 percent) of the patient's primary care provider office visits during the measurement period. Patients can be attributed to only one medical group. An office event is defined as any claim with a place of service code of 11 (office). 19 (Off campus hospital outpatient) or 22 (hospital outpatient). There is not a requirement of evaluation and management CPT code. Denied claims and claims where a payer is not the primary payer are excluded.

Attribution is a two-step process. First, attribution is calculated using all claims within the measurement period. If the patient remains unattributed, then second, attribution is calculated using all claims in the 12-month period immediately prior to the measurement period. This secondary attribution process is only used if there is at least one office visit claim to the attributed medical group in the final three months of the secondary period.

If a patient has more than $125,000 in total allowed payments in the measurement period, the total cost of care calculation truncates (caps) the expense at $125,000.

Six hundred unique attributed patients are required within a medical group for the medical group to be included in public reporting. All attributed patients are included in the risk score and population-wide outputs (e.g. statewide total cost of care average).

Data Sources and Collection

The data source for the TCOC measure is administrative claims from local health plans, specifically Blue Cross Blue Shield of Minnesota, HealthPartners, Medcial Health Plans and PreferredOne. All data elements and processing rules were specified by MN Community Measurement (MNCM) in the TCOC Data Guide and Specifications. This guide provided detailed steps and instructions to ensure health plans processed and submitted data in a standard and consistent format.

The definition of a medical group is based on group TINs (Tax Identification Numbers) which are used by health plans to process health care claims.

The data specifications were developed and tested by MNCM's Cost Technical Advisory Group, with assistance from HealthPartners, which developed the NQF-endorsed TCOC measure. Participating health plans submitted administrative data clustered by medical group and patient risk level to MNCM. MNCM aggregates the data, conducts analysis and quality asuurance checks then facilitates a review by the medical groups being publicly reported.

For further detail on the calculation, go to the ***HealthPartners TCOC page***.

Risk Adjustment

Patient cost is adjusted for known risk factors that are reported in administrative claims. Version 11.0 of the Johns Hopkins Adjusted Clinical Groupings (ACG) grouper (***www.hopkinsacg.org***) is the agreed on risk grouper and is also part of the NQF endorsed methodology. Lab and radiology claims are excluded from risk adjustment via the specific grouper software standard rules.

Risk score calculations use the same truncation methodology noted above, The risk score is based on the Minnesota weight file using actual current data from participating providers and payers. The time period for the data included in the risk score calculation is the same as the measurement period. The number of diagnosis codes available per claim must be the same for all payers that input data to the process. Therefore, in order to have a level impact of risk score, the number of codes must be equal to the minimum available from all participating payers. As of May 2018, the requirement is four diagnosis codes per claim. This is re-addressed before each measurement period.

Utilization Risk Adjustment

The Utilization measures use the same patients, attribution and administrative claims that are used for the total cost of care, relative resource use and price index.

The observed values were calculated using the same HealthPartners developed methodology as noted above. The commonly accepted way to compare medical groups is using the ratio of observed events to expected events.

The Utilization Observed versus Expected uses an Indirect Standardization Risk Adjustment. Expected rate is calculated for each medical group based on the patient distribution of medical risk, age and gender.

The patient risk is defined using the Johns Hopkins Adjusted Clinical Grouping categories. The ACG System measures the morbidity burden of patient populations based on disease patterns. It relies on the diagnostic information found in insurance claims. Patient age is grouped into three categories: 1-17, 18-39, and 40-64.

Calculation of Average Cost per Procedure

The Average Cost per Procedure (ACP) is the mean allowable amount (plan and patient responsibility) from CMS1500 claims on 118 high volume CPT and HCPCS codes for in-network benefits in commercial products. Administrative data collected from the four largest commercial health plans in Minnesota, submitted to MNCM for dates of service in 2017 and processed as of May 1, 2018.

For medical group based procedures, the allowable amount (cost) is is based on a CMS1500 claim form that includes the fee for the physician and clinic. For the hospital based radiology procedures, the allowable amount is based on a combination of the hospital facility fee from the hospital UB04 claim plus the corresponding fee from the radiologist for the same patient, same procedure and same date of service. Only hospital radiology events that have both the facilty fee and the radiology fee are included in this measure

ACP Attribution: the costs are attributed to a medical group through direct attribution based on the TIN on the claim.

No risk adjustment is applied, since the purpose of this measure is the average amount paid. ACP is not a reflection of utilization or appropriateness.

ACP Population: all commercial insured patients in the health plan during 2017 are eligible to be included. There is no age or length of enrollment requirement.

ACP CPT Modifiers: Medical group based costs include all global (non-modified) and all modifiers that do not directly impact the allowed amount. Further, the CPT modifiers exclude secondary COB claims and exclude all claim lines with less than $1.00 allowed.

In order to be published in MNCM's public reporting, a medical group's ACP for a given procedure must include data from at least three health plans and fifty or more patients. MNCM does not publish ACP if there are fewer than five medical groups with publishable results for any particular procedure.

Validation for All Cost and Utilization Measures

Measure calculations are confirmed by an outside statistician. The firm independently tests the input files for compliance to data specifications and builds a separate model using the raw input files and methodology specifications, to ensure that results matched those produced by MNCM.

Prior to public reporting, medical groups that met the threshold to be included in public reporting are given a preliminary version of the report. Medical groups have the option to request a list of all patients whose costs were attributed to them.

The MNCM Cost Technical Advisory Group

The MNCM Cost Technical Advisory Group (Cost TAG) advises MNCM on methodology and public reporting of all cost, resource use, price and utilization measures.

The workgroup includes representatives from consumers, medical groups, employers, State of Minnesota, health plans, Institute for Clinical Systems Improvement, Minnesota Medical Association, Minnesota Hospital Association and MNCM staff. The output of this workgroup also benefits from technical assistance from local experts, independent statisticians, Network for Regional Healthcare Improvement (NRHI), DST Health Solutions and medical groups.