

Appendix C

Additional Methodology and Application Rules For 2010 CIGNA Care Designations and Quality and Cost-Efficiency Displays

This document provides additional detail on the methodology, data sources, timeframes for the data, and application rules used in performing physician evaluations for both the CIGNA Care designations and Quality and Cost-Efficiency displays.

Physician Care Evaluation Principles

In providing individuals information on quality and cost-efficiency of physician care, we follow three key principles.

■ Standardized performance measures using the most robust data set available

For quality and cost-efficiency, CIGNA uses nationally recognized measures endorsed by such organizations as the National Quality Forum (NQF), Ambulatory Care Quality Alliance (AQA) and the Healthcare Effectiveness Data and Information Set (HEDIS®) or those commonly used in the industry.

■ Responsible use of the information

We believe quality and cost-efficiency profiles are meaningful, but not yet ideally comprehensive and reliable. Therefore, the limitations of the measures must be properly communicated to the user; this information represents a partial evaluation of quality and cost-efficiency, but should never be used as the sole basis for health care decision-making, as such measures have a risk of error.

Similarly, we believe that the information is sufficiently meaningful that participants may be encouraged through benefit incentives (i.e., a co-pay reduction for selection of a CIGNA Care designated physician versus choosing a non-designated, participating physician with a higher copay) to consider using CIGNA Care designated physicians for their care. But, benefit incentives based upon this information should not be used in a way that financially dictates a participant's choice of physician or disrupts currently satisfactory doctor-patient relationship

■ Provider Collaboration and Improvement Enablement

We must work with physicians to provide them with information to help assist them in improving the health care they provide. We will provide physicians with a detailed description of our methodology, the information behind the summary metrics, and ongoing data to help performance improvement. Equally important, ongoing discussions with key physician organizations ranging from national academies to large physician groups will provide input into future design changes.

Data Sources

The sources of data and how the information is utilized from each source to complete evaluations for the 24 physician specialty types are outlined below.

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CIGNA Provider Metrics, January 2007 through December 2008:

- Use combined Managed Care and PPO product data with episodes of care attributed to the responsible physician (based on the physician who is paid the most management and surgery fees and has at least 30% of those fees within the episode). This data is used to produce Episode Treatment Group (ETG) efficiency and Evidence Based Medicine (EBM) Summary reports. Note: Data for Medicare eligible members is removed.
- Combined Managed Care and PPO data is also used to apply Evidence Based Medicine (EBM) provider rules. EBM rules are applied to the appropriate specialties and to the physicians who saw the patient for two visits within 24 months, with the most recent visit within the previous 12 months. Note: Only one visit is needed for screenings and acute conditions that typically require one visit, such as a Chlamydia screening or breast cancer screening. Pregnancy management rules also require only one visit.

CIGNA Central Physician File (CPF):

- Extract files to identify contracted physicians, Tax ID Numbers (TINs), groups, specialty, board certification status, network and products contracted (as of April 2009)

Physician Recognition Program File obtained from National Committee for Quality Assurance (NCQA):

- Physicians recognized for the Diabetes, Heart /Stroke, Back Pain, Physician Practice Connections or Physician Practice Connections-Patient Centered Medical Home recognition programs as of April 2009.
- The Physician Recognition Program File is received from NCQA at least 6 times per year. Additional physicians recognized are updated with their status change as received

CIGNA's Bariatric Centers of Excellence program:

- Identify bariatric surgeons associated with the CIGNA Bariatric Centers of Excellence as of April 2009
- The file containing physicians associated with CIGNA Bariatric Centers of Excellence is updated monthly if new centers are identified

Identifying Physicians and Level for Evaluation

Business rules about the types of physicians to be reviewed for CIGNA Care designation and the Quality and Cost-Efficiency displays are applied. Physicians with one of the 24 reviewable specialty types listed in the main body of the 2010 Physician Evaluation Methodology whitepaper are eligible for evaluation and are CIGNA Care designated if they meet the criteria. Physicians in the 21 reviewable specialty types and in the three Appendix C - Additional Methodology and Application Rules For 2009 CIGNA Care® Designations and Quality and Cost Efficiency Displays

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primary care specialty types (Internal Medicine, Family Practice, Pediatrics) are reviewed for the Quality and Cost-Efficiency displays only in the Provider Directory on the secure website for individuals.

The following specialty types are **not** reviewed.

<ul style="list-style-type: none"> • Anesthesiology • Cardio Electrophysiology • Chiropractic • Dental • Emergency Medicine • Maternal Fetal Medicine • Mental Health • Occupational Therapy • Optometry • Oral-Maxillary 	<ul style="list-style-type: none"> • Pain Management • Pathology • Pediatric Subspecialties (all) • Physical Medicine • Physical Therapy • Plastic Surgery • Podiatry • Radiation Oncology • Radiology • Reproductive Endocrinology
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CIGNA measures participating physicians at the individual level but performs the majority of our profile assessments for physicians at the physician group or TIN level rather than at the individual physician level. Individual physicians who are not part of a group are profiled if they meet the volume criteria. This approach provides robust data for evaluation and is consistent with the assumptions that: (i) participants often choose a group rather than a specific physician within the group, and (ii) participants who initially choose a specific physician frequently receive care by another physician within that group.

Our reviews are largely based on comparison of physician practice patterns of participating physicians in the same geographic market. Since practice patterns vary by region, we have established 95 separate markets. The averages to which physicians are compared are established within each market for quality assessments and within each market and each specialty for cost-efficiency assessments. For 2010, 64 markets were activated for the CIGNA Care designation and 75 markets were activated for the Quality and Cost-Efficiency display. Markets that have insufficient data for analysis, third party vendor networks, and client specific networks were not evaluated or enabled.

Because physician metrics reports are created at the Physician ID level, physicians in the 21 specialty types and the three primary care specialty types must be aggregated by specialty, Tax Identification Number (TIN), and market in order to calculate the efficiency scoring metric.

A physician may only be assigned one specialty, TIN and market, for purposes of the Quality and Cost-Efficiency display and CIGNA Care designation review. The zip code of a physician’s primary office address is used to align a physician with a market. The

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first specialty listed for a physician in our central physician file is used to establish the specialty to evaluate physicians with multiple specialties.

Managed Care and PPO claim data is processed using Episode Treatment Group (ETG) methodology and Evidence Based Medicine EBM Connect® software licensed from Symmetry Health Data Systems, Inc. The methodology includes severity and case mix adjustments.

Attribution

For EBM quality assessment, the responsible physician is any relevant specialty physician who saw the patient for at least 2 visits in the previous 24 months with at least one of the visits occurring in the previous 12 months. Each EBM rule is associated with relevant specialties that treat the condition. [Click here](#) for a listing of the EBM rules and their relevant conditions and specialties (Appendix A). An EBM rule may be attributed to both specialists and primary care physicians (PCPs) if the measure is relevant to the specialty and the minimum volume criteria of two visits is met.

Note: Only one visit is needed for screenings and acute conditions that typically require one visit, such as chlamydia screening, breast cancer screening, etc. Pregnancy management rules also require only one visit.

For the ETG cost-efficiency assessment, each individual's episode of care is attributed to a responsible physician. An episode of care may include inpatient, outpatient, lab, radiology, and pharmacy claims. The responsible physician is the physician with the highest management and/or surgery costs within an episode. In order for a physician to be attributed for the episode, the management and surgery fees (professional charges) for that physician must account for at least 30% of the total management and surgery fees. In cases where no physician treating the patient meets the criteria, the episode of care is not attributed to any physician.

Market Determination

The markets for 2010 were defined by the Contracting and Market Medical Executive teams for each state. To determine the Peer Group for comparison, in addition to the specialty, 95 geographic markets were identified.

Analysis Process for Cost-Efficiency- Episode Treatment Groups (ETGs)

For ETGs, episodes are first aligned to individual physicians. Individual physicians are compared for ETGs where they were responsible, and to their "peers" (other physicians in the same specialty category and market), to calculate actual and expected costs. For an ETG to be included in that market's analysis there must be at least 10 episodes within the market in order to determine the market expected cost.

Total actual and expected costs are determined for each physician. Individual physicians are then aligned to groups (non-reviewable specialists are removed). The

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individual physicians' actual and expected totals are summed to derive the actual and expected totals for each group. The group Performance Index (PI) (group actual/group expected) plus a 90% confidence interval is calculated for groups with 30 or more episodes and then groups are rank ordered. The statistical significance test is used to determine physician groups that perform better than the bottom performing groups with at least 90% confidence. This process is repeated for the primary care (PCP) specialty types for transparency display only. Reviewable specialists in the 21 specialty types are reviewed separately from the 3 PCP specialty types.

Important Notes:

- The ETGs used for the 2010 process have been amended to use a 9 position identifier that includes ETG/Subclass/Severity/Comorbidity/Treatment Indicator/ERG.
- Physicians are only compared within specialty and market based on the ETG/Subclass/Severity/Comorbidity/Treatment Indicator/ERG where they had at least 1 episode. So, for example, if a cardiologist is not responsible for any ETGs with surgery, he is not compared to cardiology ETGs with surgery
- Any ETG at the subclass/severity level/comorbidity/treatment/ERG with less than 10 episodes in the Specialty/Market is excluded
- ETGs for routine inoculation, transplants, or any ETG with low volume or wide cost variations are excluded
- Only groups and solo practitioners with at least 30 episodes are evaluated for cost efficiency.

For additional information about the INGENIX® Symmetry Episode Treatment Groups and a complete listing of the ETGs, refer to the INGENIX web site at www.ingenix.com/transparency.

Analysis Process for the Evidence Based Medicine (EBM) Quality Metric

CIGNA is committed to utilizing standardized measures derived from measures endorsed by the National Quality Forum (NQF), Ambulatory Care Quality Association (AQA), and National Committee for Quality Assurance/Healthcare Effectiveness Data Information Set (NCQA/HEDIS®). Risk adjustment is incorporated into each measure through the population definitions for each measure, as appropriate. The population measured does not include the Medicare population; therefore, additional risk adjustment is not required. The table in Appendix A summarizes the core set of 41 Evidence Based Medicine (EBM) rules and the specialties applicable in 2010 physician performance evaluations.

For the EBM quality metric assessment, the peer group is the specialty category (either primary care (PCP) or the 21 reviewable specialty types) and the assigned market. Comparisons are done by individual physician at the rule level. Opportunities and successes for a rule are aligned to each appropriate physician (using the 2+ visits and

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relevant specialty). Physicians are then compared by rule to other physicians in the specialty category (PCP or reviewable) and market, to derive the peer expected results.

Physicians are aligned to groups and then opportunities, successes and expected successes are summed to obtain group totals. Groups and solo practitioners with 30 or more opportunities are ranked using a 90% confidence interval.

Using the EBM rules rankings, physician practices ranked in the top third of their market (33rd percentile) are eligible for CIGNA Care designation and top EBM quality display in the directory display. These practices must pass the Board Certification criteria and also have at least 50% of the practice's episodes performed by physicians with EBM quality information.

Application Rules for CIGNA Care Designation

The high level application rules and order of application for the 2010 implementation are summarized in the flow chart in the Physician Evaluation Methodology whitepaper and repeated below.

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2010 Outlier Removal Methodology

The cost-efficiency evaluation includes a methodology to account for episodes that are outliers, i.e., those episodes that are substantially different from the market expected amounts. High cost episodes (ETGs) that are greater than 1.5 times the market specialty average are reduced to 1.5 times the market specialty average. For 2010, approximately 15% of physician episodes were reduced. Low cost outlier episodes are determined by the INGENIX software or are episodes of less than \$25.00 and are dropped from the evaluation.

2010 Buffer Zone Methodology

Purpose

In an annual review process, variation in physician performance is inevitable and expected. Year over year variation can be positive or negative, substantial or minimal. There are many reasons why variation occurs, including changes to physician group makeup, external market factors, and practice pattern modifications. Accordingly, a “buffer zone” or “grandfathering” methodology has been implemented to address small-scale variation among non-CIGNA Care designated physician groups that were designated in the previous year. A buffer zone of 3 percent from the market cutoff has been adopted for groups whose CIGNA Care designations were lost due to insufficient ETG efficiency performance. A practice may maintain its CIGNA Care designation status if it’s Adjusted Performance Index (Performance Index adjusted with a 90% confidence interval) is within 3 percent of the market Adjusted Performance Index cutoff. For example, if a market’s 2010 Adjusted Performance Index cutoff is 1.00, then groups with an Adjusted Performance Index between 1.00 and 1.03, which had been CIGNA Care designated for efficiency in 2009 are eligible for consideration. Similarly, a buffer zone of 3 percent from market Adjusted Quality Index cutoff has been adopted for groups whose CIGNA Care designation was lost due to EBM quality performance.

Efficiency Buffer Zone Methodology 2010

Groups that were CIGNA Care designated in 2009 due to their efficiency performance that are not CIGNA Care designated in 2010, were selected and analyzed. If the 2010 group Adjusted Performance Index was within 3 percent of the market Adjusted Performance Index cutoff, the group was eligible for inclusion due to buffer zone status.

To achieve 2010 buffer zone designation the selected group must then meet the standard CIGNA Care designation criteria. Their physician group Board Certification rate must be at least 80%, the Board Certified physicians must be responsible for at least 50% of the group episodes, the group must have at least 30 episodes and the group must not be in the bottom 2.5 market percentile for EBM quality performance.

Quality Buffer Zone Methodology 2010

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Groups designated in 2009, due to their EBM quality performance that lost their designation in 2010, were selected and analyzed. If their 2010 Adjusted Quality Index was within 3 percent of the 2010 market Adjusted Quality Index cutoff, the group was eligible for buffer zone status. To achieve 2010 buffer zone status the selected group must then meet the standard CIGNA Care Network criteria. The group must have 30 or more EBM opportunities and the group's physicians with EBM opportunities must be responsible for at least 50% of the group episodes.

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