BCBS Louisiana Physician Assessment
A Physician’s Explanation for Physicians

Seeing the big picture to solve the biggest problems in health care.
To Be Covered

• Challenges of assessing physician performance
• Building blocks for physician performance assessment
  > ETGs
  > EBM rules
• Important concepts in the BCBSLA approach
  > Comparison groups: peer definitions
  > Standard pricing
  > Attribution
• Physician comparison
  > Creating validity
    • Episode severity adjustment
    • Episode outlier adjustment
    • Episode case-mix adjustment
    • Confidence intervals
Challenges of Assessing Physician Performance

• The availability of the right kind of data to make assessments
• Having enough data from a physician to make an accurate assessment
• Making comparisons that make sense from a clinical point of view
  > How to create clinically meaningful units of comparison
  > Defining who is compared to whom
  > Defining the components of comparison
How BCBSLA Addresses the Challenges

• Uses claims data, the most complete look at healthcare available in a fractured data environment
• Uses episodes of care as clinically meaningful units of comparison
• Comparisons are to peers defined by BCBSLA
  > Individuals and groups are compared to like specialties
  > Compared episodes of care and evidence based measures of quality are specific for each group of peers
The Building Blocks: Episode Treatment Groups (ETG)
ETG® Overview

- ETG is a basic illness classification methodology based on a clinical condition.
- A software application groups claims data into a medically meaningful statistical unit of analysis representing a patient’s complete episode of care.
- Claims Data Used:
  - Inpatient
  - Outpatient
  - Professional
  - Ancillary
  - Pharmaceutical
- There are 456 basic episode treatment groups which are subdivided into over 1300 individual ETGs
ETG Methodology - Creating an Episode

• **Anchor records** (office visit, surgery) start or extend an episode.

• **Ancillary records** (x-rays, labs, pharmaceuticals) do not start or extend an episode.

• An episode is **complete** when an absence of treatment is detected for the condition for a period of time called a clean period.

• Different ETGs have different clean periods
  > Viral pneumonia – 90 days
  > Acute bronchitis – 30 days

• Chronic condition episodes (e.g., diabetes) are complete after 365 days; then another starts
Diagram of a Diabetes Episode

- **Episode Start**
- **Antibiotic**
- **UTI**
- **Bronchitis**

Unrelated services are not part of this episode

An anchor record and any affiliated services form an episode cluster

Diabetes episode Clusters (contain diabetes related services)

- **Office Visit (Anchor Record)**
- **Lab Services (Ancillary Record)**
- **Radiology (Ancillary)**
- **Pharmacy Records (Ancillary)**
The Quality Surrogate: EBM Rules
EBM Connect®

• EBM Connect combines evidence from published medical research with the observed clinical experience to identify and measure patient compliance with Quality of Care standards
  > Compliance is assessed at the patient level according to the condition and rule criteria for over 500 evidence based rules
  > Includes national standard measures and standards for care established by professional organizations
  > Member compliance results are attributed to physicians to assess Quality of Care aggregated to the physician or group level
  > Physician to peer group compliance comparison results in an Index of Quality for physicians or physician groups
Evidence Based Medicine Rules

- Over 270 of the EBM rules assigned to 16 specialty peer groups
- EBM attribution is based on attribution of the ETG for all except preventive rules
- Preventive rules are attributed to an imputed primary care provider
- Some specialty peer groups do not have EBMs
  - Dermatology
  - Chiropractors
Comparison Groups: Peer Definitions
Peer Definitions

• Are used to define the basis against which an individual or group of physicians is compared

• Consists of three components

  > Who is a member-For BCBS LA is a specialty, but can be defined with other defining characteristics, e.g. geography or product

  > What is compared-the set of ETGs and EBM rules that clinically make sense for comparing the members of the peer definition

  > How the comparison is done-Is it on the basis of episodes or population

Peer Definition Example: Endocrinology

  Who = endocrinologists
  What = 28 episodes and 40 EBM rules specific to endocrinology
  How = episode based comparisons
## BCBSLA Peer Definitions

<table>
<thead>
<tr>
<th>Peer Definition Name</th>
<th>Definition Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCP (Family)</td>
<td>Chiropractics</td>
</tr>
<tr>
<td>PCP (Internal Medicine)</td>
<td>General Surgery</td>
</tr>
<tr>
<td>PCP (Pediatric)</td>
<td>Invasive Cardiology</td>
</tr>
<tr>
<td>Cardiology</td>
<td>Obstetrics/Gynecology</td>
</tr>
<tr>
<td>Dermatology</td>
<td>Orthopedics</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>Otolaryngology</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>Urology</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>Facility</td>
</tr>
</tbody>
</table>
Standard Pricing
Standard Pricing

- Standard pricing is an Ingenix developed tool that re-prices each claim using specific approaches for different types of claims
  - Facility inpatient-uses a per diem adjusted for aggregated diagnostic service category, presence of major surgery, level of care (acute vs. non-acute), and length of stay
  - Facility outpatient-uses a percentage of billed charges
  - Professional and ancillary services-uses RBRVS from Medicare multiplied by a resources value
  - Pharmacy-average wholesale price

- Approach eliminates contractual relationships from the assessment of cost efficiency

- Cost comparisons then based on 2 things, both within the control of the physician:
  - Units of service
  - Mix of services
Attribution
Attribution Components

• Episode Responsible Provider-the basis for determining which physician has contributed to an episode to a level to achieve “responsibility”
  > ETG Clusters-based on counts of clusters attributed within an episode; used mostly for non-surgical specialties
  > Cost of Professional Services-based on the percentage of the total of standard priced professional services within the episode; used mostly for surgical specialties

• Threshold Requirements-the minimum level that must be achieved to be attributed the episode
  > 2 types of thresholds
    • For physicians of the same peer definition providing care in the episode
    • For physicians of any peer definition providing care in the episode
### Attribution Criteria

<table>
<thead>
<tr>
<th>Peer Definition Name</th>
<th>Episode Attribution</th>
<th>Peer Group Threshold (%)</th>
<th>Episode Provider Threshold (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCP (Family)</td>
<td>ETG Episode Clusters</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>PCP (Internal Medicine)</td>
<td>ETG Episode Clusters</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>PCP (Pediatric)</td>
<td>ETG Episode Clusters</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Cardiology</td>
<td>ETG Episode Clusters</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Dermatology</td>
<td>ETG Episode Clusters</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>ETG Episode Clusters</td>
<td>30</td>
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<td>Gastroenterology</td>
<td>ETG Episode Clusters</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>ETG Episode Clusters</td>
<td>50</td>
<td>30</td>
</tr>
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<td>Chiropractics</td>
<td>ETG Episode Clusters</td>
<td>50</td>
<td>30</td>
</tr>
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<td>General Surgery</td>
<td>Cost for Professional Services</td>
<td>50</td>
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<td>ETG Episode Clusters</td>
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<td>30</td>
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<td>ETG Episode Clusters</td>
<td>40</td>
<td>30</td>
</tr>
</tbody>
</table>

**Most use episode clusters**

**Some surgical use professional services $**

**Thresholds for peers and vary**
Cluster Approach

• Assigning responsibility for the episode is determined by:
  > Highest number of service clusters within an episode of care
  > Minimum percentage of clusters; If no provider reaches the percentage minimum, the episode is not assigned to a provider in the peer definition.
  > Tie breaker (if needed) is service costs
Assigning responsibility for the episode is determined by:

- Highest proportion of professional services costs within an episode of care
- Minimum percentage of professional services costs; If no provider reaches the minimum, the episode is not assigned to a provider in the peer definition.
Episode Attribution – Understanding Results

• Only peer definition specific episodes are attributed

• Only the physicians within the peer group who meet both thresholds are in the running for becoming the responsible physician

• Episodes where no physicians meet both thresholds for a peer group will not be assigned a responsible provider

• Episodes that cross peer definitions could have a responsible physician within each peer definition
Episode Attribution – Quality Rules

• Quality rules are attributed based on who is attributed the episode for the condition to which the quality rules are attached

• Thus, the same quality rules might be attributed to multiple physicians when an episode is attributed to multiple physicians
Physician Comparison
Creating Validity: Episode Risk Adjustment

- **Severity adjustment occurs at the episode level**
  > Severity Level: indicator of relative severity from 1 to 4 based upon the patient’s age and gender with the observed mix of complications and comorbidities.

The Symmetry ETG Episode Severity Level enables analysis of the relative impact of all a member’s conditions, age, and gender to a specific condition.

Each episode has a severity level assigned.
Creating Validity Episode Cost Outliers

- Low Cost Outlier episodes
  - Often driven by miscoding or missing data
  - Excluded from physician measurement to avoid significant understating costs for physicians and peers

- High Cost Outlier episodes
  - High Cost Outlier episodes are included in measurement to capture the relative activity
  - The cost for all service lines within the episode are recalculated to adjust for the truncation for the purpose of physician cost of care measurement
Creating Validity: Case Mix Adjustment Level

• Risk Adjustment Level-this accounts for case mix in the comparisons; 2 types are used
  > ETG by severity level
    • Used for peer definitions of non-surgical specialties
  > ETG with surgery, if no surgery, use severity level
    • This adjustment is used for peer definitions for specialties with a significant surgical component
    • Many episodes are subdivided into those with surgery and those without-these episodes are compared at the “with surgery” level if surgery occurred and at the severity level if a surgery has not occurred
Creating Validity: Case Mix Adjustment

- Comparisons of cost are made on the basis of comparing a physician's mix of cases to the exact same mix of cases of his peers.
- Here is a simple example of how this occurs. Assume there are only 2 conditions for Dr. Jones to treat, HTN and CHF, and there are 2 severity levels of each condition:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Avg Cost/Episode</th>
<th># of Episodes</th>
<th>Total Cost/Condition</th>
<th>Peer Avg Cost/Episode</th>
<th>Total Peer Cost/Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTN-sever 1</td>
<td>$100</td>
<td>30</td>
<td>$3000</td>
<td>$125</td>
<td>30X125=$3750</td>
</tr>
<tr>
<td>HTN-sever 2</td>
<td>$200</td>
<td>15</td>
<td>$3000</td>
<td>$250</td>
<td>15X250=$3750</td>
</tr>
<tr>
<td>CHF-sever 1</td>
<td>$3000</td>
<td>10</td>
<td>$30000</td>
<td>$2500</td>
<td>10X2800=$25000</td>
</tr>
<tr>
<td>CHF-sever 2</td>
<td>$7000</td>
<td>5</td>
<td>$35000</td>
<td>$6500</td>
<td>5X6500=$32500</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td>$71000</td>
<td></td>
<td>$65000</td>
</tr>
</tbody>
</table>

The case mix adjusted cost index for Dr. Jones is $71000/$65000 = 1.09.

Multiply Dr. Jones’s avg cost by the # of episodes for each condition.
Multiply the peer def avg cost by the same # of episodes.
Divide Dr. Jones’s observed cost.
By the expected cost from peers.
Cost Efficiency Comparisons

- Impact Intelligence compares a physician’s costs (resource use) to others of the same specialty by comparing the cost of her mix of ETGs (per the attribution discussion) with the average cost for the specialty for that exact same mix.
- Thus the average index for a specialty (actual/expected costs) is 1.0.
- A physician with an index > 1.0 has actual costs greater than expected for the exact same mix of ETGs.
Quality Comparisons

- Impact Intelligence compares a physician’s EBM rule performance to others of the same specialty by comparing her compliance rates on individual measures to the compliance rates of specialty peers for those measures.
- An aggregate of these rates creates an index compared to an index of 1.0 for the specialty/peer group.
- A physician with an index > 1.0 has higher compliance rates on EBM measures than peers.
Creating Validity: Confidence Intervals

• BCBSLA uses confidence intervals to guide users in the statistical validity of comparisons
  > A 90% confidence interval around the cost index and quality index is calculated
  > An assessment is then made if the result is different from peers (the index of 1.0) with either a 90% or 95% confidence and that is reported for the cost index and quality index

• Additionally, BCBSLA does not even consider assessing the performance of providers who have fewer than 30 episodes or 30 opportunities for EBM rule compliance attributed
Summary Review

• Overcoming challenges to physician performance assessment
• Building blocks
  > ETGs
  > EBM
• Concepts
  > Peer definitions
  > Standard pricing
  > Attribution
• Physician comparisons and creating validity
  > Severity adjustment
  > Outlier adjustment
  > Case mix adjustment
  > Confidence intervals