Healthcare Provider Profiling

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Discovery Health
Agenda

1. Background

2. How to build a profile based on cost efficiency

3. The importance of quality measurement

4. Communicating results and professional responsibility
System problems

- Dysfunctional health system arrangements
- Undersupply of doctors
- Growing Burden of Illness
- Need to increase access to quality affordable care for the emerging middle class

The Challenge: Do more with less
Managing access and efficiency

Demand side
Management for healthcare products and services

1. Measure the variations & changes in the Disease Burden Index
2. Prevent illness and injury, promote wellness behaviour
3. Ensure value conscious service / treatment consumption (includes benefit packages based on Cost Effectiveness Analysis)
4. Set clinical access criteria and manage triage process

Supply side
Ensure matches quantity, quality and price

5. Plan ‘embedded capacity’ – structure staff and facilities and design good processes
6. Purchase (including contracting) access to healthcare services: measure and manage cost efficiency (throughput)
7. Measure and manage the delivery of quality by providers (outcomes)

Insurer’s roles:
- Develop capacity to enable the effective demand and supply side management of the system on behalf of the population of members
- Promote sustainable financing mechanisms to collect and redistribute funds
Building a Patient Centered Medical Home

Practice organisation
- Build a multidisciplinary team: GPs; coaches; coordinators; social workers; community health workers
- Responsible for the health of the practice’s population
- Appropriate Funding arrangements
- Strong local system integration

Quality measures
- Facility minimum qualifying criteria
- Audit evidence based practice
- MIS: psycho-social, clinical and disability and resource data collection and measurement
- Iterative improvement

Health Information technology
- Full patient data in electronic health records + scripting, lab results etc
- Support coordinated care with individual eCare Plans
- Clinician / Patient structured email interactions
- Population segmentation & management

Patient experience
- Patient convenient care
- Consistent voice in decisions about their care
- Support for self management and family/caregiver
- Patient Experience Surveys

Primary Care practice

Practice Organisation

Health Information Technology

Quality Measures

Patient Experience

Family Medicine Core Values
- Continuous healing relationship
- Whole person orientation

Family and community context
- Comprehensive Care
Provider profiling objectives

- Provide healthcare providers with **non-punitive information** to better understand their patients’ disease burden and better manage their medical care

- Reduce **unnecessary variations** in medical practice to maintain or improve quality while removing wastage by identifying opportunities for improvement

- Highlight **best practice** in delivering healthcare

- Enable **peer review**
Building a cost efficiency profile
Profile methodology

- Clinical tools
- Allocate members to providers
- Risk adjustment
- Quality
Clinical tools used in profiling

Different levels of data and how the clinical tools map to different levels

- Patient
  - ACG – Adjusted Clinical Groups
  - DEG – Discovery Episode Groups
  - MEDSTAT – Disease Staging
  - DRG – Diagnosis Related Groups

- Episode of Care
  - Pharmacy: ATC and Surgical
  - Pathology: LOINC coding
  - Professional: Billing categories
  - RPL, ICD-10, CCSA, NAPPI

- Claim lines
Clinical tools used in profiling

Tools used to assess various disease stages

- Death
- Hospitalisation
- Daily health status
- Clinical encounters: Acute / Chronic
- Chronic illness
- Age + Gender
- Mortality code
- DRG
- Acute clinical / activity test
- Discovery Episode Grouper (DEG) & Disease stages
- ICD-10 coded data
- Demographic data
Discovery Episode Grouper

- Organizes claims data into diagnostically & chronologically related episodes of care
- Initiated by a health care practitioner when a patient first presents for care
- The episode continues to the resolution of a condition
Allocation

Assigning a provider, or providers, who will be held accountable for a member based on an analysis of that member’s claim data.

The attributed provider is deemed to be responsible for the patient’s cost and quality of care, regardless of which providers actually deliver the service.

Source: Milliman Healthcare Reform Briefing Paper
Susan E. Pantely
Allocation
Factors to consider

- Patient based vs. Episode based allocation
- Single attribution vs. Multiple attribution
- Prospective attribution vs. Retrospective attribution
- Explicit vs. Implicit allocation
- Duration
- Members with no claims
- Member or family unit
- Credibility

Source: Milliman Healthcare Reform Briefing Paper
Susan E. Pantely
Discovery experience

Allocate members to providers for:

Admissions
- Allocate patient to admitting doctor
- Resolve allocation method in situations where conflicts exist

Episodes of care
- Allocate downstream cost measures per episode of care
- Allocate patient to primary caregiver for the episode
Risk adjustment:  
Process of adjusting payments to healthcare providers to reflect differences in member risk.  
By not adjusting for differences in severity, complexity and demographic characteristics we may penalise providers treating sicker, more complicated or more difficult-to-manage patients.

Source: Terminology used in physician profiling  
American Medical Association
Risk adjustment
Common methods used

**Diagnostic Cost Groups (DCGs) from DxCG Inc.**
Use age, sex, diagnoses from patient encounters with entire medical delivery system

**Episode Risk Groups (ERGs) from Symmetry Health Data Systems Inc.**
Episodes mapped to 119 episode risk groups and risk score determined based on age, gender and mix of ERGs

**Medstat Episode Groups (MEGs) from Thomson Healthcare**
Classifies disease-specific episodes of care based on organ system and cause and severity of illness

**Adjusted Clinical Groups (ACGs) from Johns Hopkins University**
Cluster members with similar co-morbidities and similar resource requirements and clinical characteristics

**Impact Pro from Integrated Healthcare Information Services**
Multidimensional, episode-based predictive model that uses a clinical algorithm to identify risk markers

Source: An introduction to risk assessment and risk adjustment models, *American Medical Association*
Risk adjustment
Discovery experience

- Construct risk cells by grouping:
  - Discovery Episode Grouper (DEG)
    - Adjusts for clinical experience
  - Plan group
    - Adjusts for access to benefits
  - Resource Utilisation Bands (RUBs) - *Summarised Adjusted Clinical Groups (ACGs)*
    - Adjusts for complexity of patient
Risk adjustment
Discovery experience

- Aggregate payments or rates by risk cell and assess number of members in each risk cell:

<table>
<thead>
<tr>
<th>RUB</th>
<th>Plan group</th>
<th>DEG</th>
<th>Length of stay</th>
<th>Number of members</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Core</td>
<td>Coronary artery disease</td>
<td>597</td>
<td>152</td>
</tr>
<tr>
<td>1</td>
<td>Core</td>
<td>Essential hypertension</td>
<td>392</td>
<td>124</td>
</tr>
<tr>
<td>2</td>
<td>High threshold</td>
<td>Malaria</td>
<td>447</td>
<td>43</td>
</tr>
</tbody>
</table>

- Exclude risk cells with less than 10 members for credibility

- Determine an expected length of stay for each risk cell: Length of stay/number of member

<table>
<thead>
<tr>
<th>RUB</th>
<th>Plan group</th>
<th>DEG</th>
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<th>Number of members</th>
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<td>High threshold</td>
<td>Malaria</td>
<td>447</td>
<td>43</td>
<td>10.40</td>
</tr>
</tbody>
</table>

- Expected length of stay applied to each member according to risk cell

- Actual and expected length of stay aggregated at Provider level
Profile results

Graph represents inefficiency for providers where there is explicit allocation – members select GP and all members’ claims are allocated to the chosen GP

Positive correlation between out-of-hospital specialist visit rate and hospital admission inefficiency
Quality
Why measure quality?

- Quality measurement enables policymakers, funders, and other stakeholders to determine value.
- Quality measurement creates transparency and mutual responsibility primarily for the supply side as well as those managing demand.
- The significant and well-documented gaps between evidence-based best practice and “usual care” translate into avoidable harm to patients (morbidity, mortality) and increased cost in the system:
  - Both underuse and overuse of healthcare services are associated with poorer health outcomes.
  - Some gaps are a consequence of unreliable processes (“defects”, medical errors) or other forms of unintended misuse.
  - Large unexplained variation in utilization of services across regions or providers is an important marker of quality deficits e.g. Dartmouth’s Jack Wennberg’s initial studies in the late 70s and early 80’s.
Definition of quality

Institute of Medicine proposes six measures along which quality can be evaluated:

- Safety
- Effectiveness
- Efficiency
- Patient-centredness
- Equity
- Timelines
“Generic” system function measures

**STRUCTURE**
- Capacity Norms

**PROCESS**
- Access measures; EBM* Processes

**OUTCOMES**
- Case mix adjusted costs; mortality; complications, readmissions

Patient experience surveys

Data

Risk Adjustment

Supply: procedures; drugs; admissions

Demand: age, gender; diagnosis; ADLs, path result

**HEALTH SYSTEM GOALS**

**PRIORITIES**

**BURDEN OF DISEASE**

**DETERMINANTS OF HEALTH**

*EBM = Evidence-based medicine
Choosing measures

• Evidence-based process measures should have tight links to outcomes

• The measure must accurately capture whether evidence-based care has been delivered

• The measure should address a process that has few intervening care processes that must occur before the improved outcome is realized.

• Implementing the measure should have little or no chance of inducing unintended adverse consequences

• Quantifying unintended harm is important which results from medical care (patient safety)

• “Administrative” data is a convenient and cost-effective basis for quality measurement

• In time, this data can be supplemented by data acquired from members, e.g. via surveys, and from providers, as part of agreed quality measurement initiatives
How to report on Healthcare Quality

• There is no single, uniform way to report healthcare quality

• Different measures/indicators may be needed to assess the performance of different entities/units, along the different dimensions of quality, and from different perspectives.

• Units of assessment include doctors, hospitals, other providers, and Medical Schemes themselves

• Units may be grouped or addressed singly

• Composite scores can be useful
A funder’s perspective: Our experience of engaging with providers on profiles

- Collaboration with provider societies important for buy-in and more effective for constructive peer-to-peer dialogue with outliers

- A ‘high-touch’ approach provides useful insights and guides iterative reporting improvements

- Decision points:
  - Pay for performance or pay for participation
  - Network Management
  - Blocking providers
Professional Responsibility

• Need to report responsibly as providers reputations are ‘on-the-line’
  • Providers can become resistant to measurement particularly if poor quality profiling has been communicated to them in the past

• One of the AMA’s sharpest criticism of profiles is how different insurers have completely different ratings for the same provider

• Essential to work with a multi-disciplinary team as a profile needs to be clinically meaningful

• State shortcomings- be careful of definitive conclusions!
Questions?