POPULATION HEALTH MANAGEMENT: UTILIZATION IS ONLY HALF THE STORY

April 2017
PA Consulting Group
Population Health Management
Utilization is only half the story

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Our Areas of Expertise
Healthcare Analytics

- Strategic Market Forecasting/
  Scenario Planning
- Medical Claims Trends Analysis
- Administrative Cost Reduction
- Data Strategy
POPULATION HEALTH MANAGEMENT:
STATE OF THE INDUSTRY
Population Health Management (PHM)
as defined by HIMSS

Today:
Reactive and volume-based

The Future:
Proactive and value-based

Drivers
- Health Reform
- Affordability Gap
- Triple Aim
- Weight of the Nation
- Reimbursement

Individuals are accountable for their health with the health system as their health advocate.

Population health management provides comprehensive authoritative strategies for improving the systems and policies that affect health care quality, access, and outcomes, ultimately improving the health of an entire population.

Source: HIMSS, April 2015
Population Health Management

Improving outcomes through better care coordination and more efficient use of resources
Reducing utilization alone is not enough to manage total healthcare costs

\[ \text{Total Medical Cost} = \text{Unit Cost} \times \text{Utilization} \]
Example 02 - Facility B

POPULATION HEALTH MANAGEMENT: CASE STUDY
PHM company managing utilization through incentives, tools and guidance for PCPs

- **Engagement with PCPs**: Incentivizing PCPs based on the value of the care they deliver, not the volume.
- **Tools for PCPs**: Tools like telehealth, care coordination, documentation assistance, patient segmentation and reporting.
- **Support & Collaboration**: Build relationships across providers to create a unified care experience for patients.

**Omitted is the ability to manage unit costs.**
Case Study - Cost Increases driven by more than just volume
Allowed amounts, in-network – 1H 2015 Vs. 1H 2016

<table>
<thead>
<tr>
<th></th>
<th>1H 2015</th>
<th>1H 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase Due to Acuity</td>
<td></td>
<td></td>
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<tr>
<td>Increase Due to Price</td>
<td></td>
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<tr>
<td>Increase Due to Volume</td>
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Aggressive coding practices by providers
Low visibility into the impact of the ICD9 to ICD10 conversion on coding
Faulty “rules engine” settings
A change in the mix of facilities
Migration to higher complexity DRGs
An increase in high cost patients (random variation in clinical severity)
Price increases corresponding to contract changes
Change in product mix

Case Study - Our Approach
Using tried and tested scientific methodology

Clean & validate the data
Develop hypotheses about cost drivers
Isolate drivers of cost and determine the impact of each driver on cost growth
Identify outliers and anomalies in the data for further investigation

Faulty “rules engine” settings
A change in the mix of facilities
An increase in high cost patients (random variation in clinical severity)
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Change in product mix
ICD-9:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S72.90XA</td>
<td>Unspecified fracture of unspecified femur, initial encounter for closed fracture</td>
</tr>
<tr>
<td>S72.90XB</td>
<td>Unspecified fracture of unspecified femur, initial encounter for open fracture type I or II</td>
</tr>
<tr>
<td>S72.90XC</td>
<td>Unspecified fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC</td>
</tr>
</tbody>
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ICD-10:

<table>
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<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>821.10</td>
<td>Open fracture of unspecified part of femur</td>
</tr>
</tbody>
</table>

This specificity can result in coding for comorbidities or complications that may have been ignored or underreported under the ICD-9 system.
Case Study - Migration to More Complex DRGs
2016 was more complex across large volume in-patient facilities vs. a stable mix in 2014 & 2015

Data is percent of claims from facility classified by DRG complexity category, 2014-2016

Example 01 - Facility A

Example 02 - Facility B

Legend:
WO - Without Complications
CC - Complications
MC - Major Complications

Sources:
2014 CMS Inpatient Claims for traditional Medicare in target counties
2015 and 2016: Internal claims data
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Case Study - How do we know that this is not just bad luck?

We used 1000 simulations to show that this increase in complexity was not due to chance.

- We used 2014 as a base year
- We simulated 1000 times what 2015 and 2016 should look like based on just random variation
- The increase in complexity we see is very unlikely:
  - Less than 1% chance that it would occur due to “bad luck”

Sources:
2014 CMS Inpatient Claims for traditional Medicare in target counties
2015 and 2016: Internal claims data

Legend:
WO - Without Complications
CC - Complications
MC - Major Complications
Case Study - New devices and therapies are improving outcomes...but at what price?

New technology improved outcomes, but also increased the cost per outpatient neurosurgery by 5x, and the number of procedures increased 15x.

Source:
news.bostonscientific.com/2015-06-10-New-Data-Demonstrate-Greater-Pain-Relief-With-Boston-Scientific-Precision-Spectra-Spinal-Cord-Stimulator-System
Provider contracts need to evolve to better handle ICD-10 and value-based agreements

- We are likely to see fast growth of Value Based Programs, based on CMS proposed targets for 2018
- It will be challenging for payers to truly innovate, instead of tweaking old payment arrangements that were built for a fee-for-service world

Source: Centers for Medicare and Medicaid Services
Addressing both utilization management and unit cost reduction is essential for achieving sustainable quality outcomes.
Thank You & Questions
We Make the Difference
An of over 2,500 people, we operate globally from offices across the Americas, Europe, the Nordics, the Gulf and Asia Pacific.
We are experts in energy, financial services, life sciences and healthcare, manufacturing, government and public services, defense and security, telecommunications, transport and logistics.
Our deep industry knowledge together with skills in management consulting, technology and innovation allows us to challenge conventional thinking and deliver exceptional results that have a lasting impact on businesses, governments and communities worldwide.
Our clients choose us because we don’t just believe in making a difference. We believe in making the difference.

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