BIG DATA APPROACHES: BETTER CONNECTING PHYSICIANS AND PATIENTS

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Cigna is applying big data analytics across all aspects of our business

Commitment to analytics

Significant financial commitment
Interdisciplinary data scientists
Dedicated technology talent
Institutionalized “insight” process

Big data platform

Data diversity

Unstructured text
Consumer data
Web logs
Health diagnostics

Key initiatives

Health segmentation
Net promoter score
Delivery system collaborations
Employer benefit design
Cigna’s connected care approach
Meet them where they are. Take them where they need to be.

Customer engagement

Health care professional engagement

Optimizing choices
Optimizing care

INSIGHT

ALIGN

MOTIVATE

Value-based benefits
Value-based reimbursement

Better health
Better affordability
Better experience

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Big data driven initiatives that are core to Cigna’s connected care strategy

Identifying customer level health opportunities and individual tendencies to make changes based how, where and by whom information is delivered.

Deeper collaboration with physicians and hospitals by sharing actionable information and creating value-based incentives.
What is the Health Matters score?

Define

**STEP 1:** Each attribute is scored for each customer as illustrated below.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of coaching opportunity</td>
<td>0</td>
</tr>
<tr>
<td>Targeted impact</td>
<td>0</td>
</tr>
<tr>
<td>Probability of success</td>
<td>0</td>
</tr>
<tr>
<td>Tobacco attribute score</td>
<td>325</td>
</tr>
</tbody>
</table>

**STEP 2:** The score for each attribute is combined for a total SMART score for each customer as illustrated below.

Customer with diabetes, gaps in care, smoker and taking brand medication

- Tobacco attribute score: 325
- ER/IP diabetes attribute score: 100
- Brand to generic attribute score: 200
- Gaps in care attribute score: 350

Total SMART score: 975
How Health Matters creates value for Cigna customers

Asthma
- One ER visit or inpatient stay
- Women’s plus size purchases
- Interest in dieting/weight loss

Diabetes
- Females > 42
- High-risk scores

Coronary artery disease
- Females > 42
- High-risk scores

Chronic kidney disease
- Diagnosis of CKD Stage 4
- No evidence of dialysis

Medical cost savings opportunity

$500 PDMPY
$780 PDMPY
$900 PDMPY
$2.4k PDMPY

$500 - $2,400 (7%-23%) TMC Savings per engaged diseased customer
- Optimal segmentation yields superior medical cost savings for coaching
- 29%-42% of customers in national clients with these conditions are in optimal segments

Identify possible optimal segments (ex., within existing disease populations)
Look at new modalities for segments (ex., online, text, email)
Test, learn and implement what worked
Driving insights to personalize our operations and drive deeper customer engagement

Past = At least one discussion with a Cigna health coach (via phone) or Cigna online coaching tool

2015 and beyond = Measuring a customer’s individual journey using his/her preferred health modality and accompanying evidence of change

Segment | Healthy | Chronic Illness
---|---|---
Healthy | Devices | Apps | Web | Texts | Email | Phone | Onsite | Physician
Chronic Illness | Devices | Apps | Web | Texts | Email | Phone | Onsite | Physician
How we connect customers with doctors

Piloting the Health Matters score and broader definition of engagement within key ACO groups

Key areas of focus

- Exchanging actionable information
- Aligning health goals and motivating change
- Activating and empowering customers
- Enhancing value relationships with providers
How we see our Big Data initiatives evolving our collaborations with physicians

<table>
<thead>
<tr>
<th>Today</th>
<th>Working Toward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care management reports for embedded nurses to identify high-risk customers and close claim-based care gaps</td>
<td>New products and financial models to align incentives HCP, customer and client</td>
</tr>
<tr>
<td>Performance management reports for practice administrators to identify areas of opportunity for affordability and quality improvement</td>
<td>Risk-adjusted episode of care arrangements</td>
</tr>
<tr>
<td>Contract negotiations for ACO performance for quality and cost outcomes and taking action on proactive Cigna data</td>
<td>EMR data driving improved stratification and quality assessment</td>
</tr>
<tr>
<td></td>
<td>Shared care plans between customer, Cigna nurses, and HCPs</td>
</tr>
</tbody>
</table>
QUESTIONS?
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