Jim Carlough and Dan Olson, CFE
Medicaid Health Plans of America
Aug. 20, 2014

THE PROMISE OF AGGREGATED DATA
Trends, Pitfalls, and Tips for Commercial Payers
AGENDA

01 Aggregated Data Background
02 Trends and Tips
03 Pitfalls
04 Opportunities
05 Research: Medicaid Expansion
06 Questions?
HMS BACKGROUND

» Established in 1974
» Exclusive focus on healthcare
» MCOs served: 160+
» States served: 40+
» Publicly traded since 1992 (NASDAQ: HMSY)
» More than 35 U.S. offices
» More than 2,500 employees
HEALTHCARE DATA ANALYSIS OPPORTUNITY

In 2013...

22% of the digital universe was “tagged” and available for analysis.

Less than 5% was analyzed.
**Aggregated data analytics**

**noun**

1. The application of multiple analytic methods against multiple plan data sets simultaneously.
AGGREGATED DATA BENEFITS

- Learn new provider trends and patterns
- Identify regional and national cost trends
- Spot outcomes at regional and national level
- Discover new approaches for analyzing data
TYPES OF AGGREGATED DATA ANALYTIC METHODS

- Predictive Modeling
- Advanced Analytics
- Link Analysis
AGGREGATED DATA IMPACT AREAS

- Eligibility Verification
- Cost Avoidance
- Fraud, Waste, & Abuse
- Practice Pattern Benchmarks
HMS AND AGGREGATED DATA

» Eligibility
  » Medicare and Medicaid
  » Commercial, Medicare, and Medicaid
  » Strategic Multi-State, Multi-Payer Data
  » Cross-State Tactical Opportunities
TRENDS AND TIPS
NON-HEALTHCARE AGGREGATED DATA TRENDS

» Financial services
» Property and casualty insurance
» Airlines
Credit card losses due to fraud have dropped 70% as a percentage of sales since the advent of real-time analytics in 1992.
Pooling of data began in 1959. One database currently houses more than 93% of industry data.
U.S. airlines share flight data between more than 25 airports to reduce delays.

EU shares passenger data with U.S. to fight terrorism.

More than 40 U.S. carriers share air safety data with the Federal Aviation Administration.
HEALTHCARE AGGREGATED DATA TRENDS

» Industry-wide
» Accountable Care Organizations
» Healthcare Fraud Prevention Partnership
### Healthcare Industry

<table>
<thead>
<tr>
<th>Industry-wide data collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured value in healthcare delivery</td>
</tr>
<tr>
<td>Transparency concerning costs, quality, and service</td>
</tr>
<tr>
<td>Shift towards an evidence-based decision making model</td>
</tr>
<tr>
<td>Uniform provider performance measurement</td>
</tr>
</tbody>
</table>
ACCOUNTABLE CARE ORGANIZATIONS

- 73% of Accountable Care Organizations integrate clinical and claims data
- 50% use predictive analytics to forecast patient and population needs
- 46% use an integrated solution to reduce data siloes
Goal: Detect fraud schemes in fragmented system

Created on July 26, 2012

Joint initiative with Departments of Justice, and Health and Human Services

30 partners
CURRENT HFPP PARTNER MEMBERSHIP

4 Federal Partners
5 State Partners
13 Private Partners
8 Associations
SCOPE OF THE HFPP TRUSTED THIRD PARTY

- Collect de-identified data from partners
- Aggregate data on single platform
- Apply sophisticated analytics
- Generate reports for partners that identify potential fraud cases
HFPP INITIAL PILOT RESULTS

11 partners participated
44 data sources used
100 fraud schemes identified
1,400 misused codes identified as fraud or misuse
HFPP BEST PRACTICES

Train provider community based on results

Communicate prevention measures to individuals

Provide example code for future partners
CHALLENGES OF IMPLEMENTING AGGREGATED DATA

- Acquiring and managing partners
- Normalizing data into a single format
- Managing disparate data sources
- Making data actionable and analytic-ready
OPPORTUNITIES
OPPORTUNITIES

STRATEGIC

TACTICAL
TACTICAL OPPORTUNITIES

01 Identify individuals receiving service in multiple states

02 Find providers billing for same individuals in multiple states

03 Quantify cross-state exposure for bad providers and individuals

04 Spot new outliers otherwise under the radar
RESEARCH: MEDICAID EXPANSION
<table>
<thead>
<tr>
<th></th>
<th>Current Population</th>
<th>Newly Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Age</td>
<td>39</td>
<td>36</td>
</tr>
<tr>
<td>Male</td>
<td>33%</td>
<td>49%</td>
</tr>
<tr>
<td>White</td>
<td>50%</td>
<td>59%</td>
</tr>
<tr>
<td>Obese</td>
<td>43%</td>
<td>35%</td>
</tr>
<tr>
<td>Depression</td>
<td>22%</td>
<td>16%</td>
</tr>
<tr>
<td>Smokers</td>
<td>38%</td>
<td>49%</td>
</tr>
<tr>
<td>Heavy Drinkers</td>
<td>10%</td>
<td>17%</td>
</tr>
</tbody>
</table>
MEDI CA ID EXPANSION: HOSPITAL UTILIZATION

» Increased ER use
» Increase in patients with previously undiagnosed chronic conditions
» Substantial increase first quarter 2014 patient volume
» Decrease in self-pay and overall charity care
MEDICAID EXPANSION: MEDICAL CARE

- 35% increase in outpatient care
- 30% increase in hospital inpatient care
- 15% increase in prescription drugs
Medicaid and the Affordable Care Act One Year Later: Key Trends for MCOs

Panelists
Doug Williams, President of HMS Commercial Solutions
Jim Carlough, Vice President of HMS Commercial Solutions
Aggregated data promises to reshape the methods used to address healthcare eligibility; cost avoidance; fraud, waste, and abuse; and practice pattern benchmarks.
CONTACT US

» JIM CARLOUGH
  ● HMS Vice President of Commercial Solutions
  ● jcarlough@hms.com

» DAN OLSON, CFE
  ● HMS Director of Predictive Analytics
  ● dan.olson@hms.com