Analytics in Healthcare
Today’s Healthcare Analytics

- Healthcare IT is facing radical new changes as the industry works to overhaul service models and integrate advanced data analytics for improved population health management.

- To better understand analytics used in healthcare, CDW Healthcare in conjunction with O’Keeffe and Company surveyed 150 healthcare decision makers in August 2014. The total sample equates to a margin of error of ±7.97% at a 95% confidence level.

<table>
<thead>
<tr>
<th>Respondent Title</th>
<th>100% are familiar with their organizations’ use of or plans for clinical data analytics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Information /Technology Officer</td>
<td>15%</td>
</tr>
<tr>
<td>Chief Medical Information/Informatics Officer</td>
<td>7%</td>
</tr>
<tr>
<td>Chief Marketing Officer</td>
<td>8%</td>
</tr>
<tr>
<td>Other Healthcare/Clinical Informatics Specialist</td>
<td>21%</td>
</tr>
<tr>
<td>Information Technology (IT) Director/Manager</td>
<td>37%</td>
</tr>
<tr>
<td>Marketing Director/Manager</td>
<td>12%</td>
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</table>

<table>
<thead>
<tr>
<th>Organization Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 50 beds</td>
</tr>
<tr>
<td>51-200 beds</td>
</tr>
<tr>
<td>201-500 beds</td>
</tr>
<tr>
<td>501-1,000 beds</td>
</tr>
<tr>
<td>More than 1,000 beds</td>
</tr>
</tbody>
</table>
Vital Stats

Healthcare analytics is a top priority:

- More than **two thirds** of healthcare decision makers say analytics is one of their organization’s top three priorities.

- The top motivational factors driving analytics are: the rising cost of healthcare (**59%**), Medicare/Medicaid EHR incentive programs (**44%**), and accountable care (**41%**).

- The majority of organizations (**67%**) are planning for or implementing analytics; however, smaller organizations are lagging.
Analytics adoption is gaining momentum:

- Organizations moving forward with analytics have taken critical steps to prepare, such as investing to improve **data capture, storage and processing**. Many plan to continue investing in those areas in 2015.

- Organizations are experiencing clinical benefits (improved patient care, 82%) and operational benefits (improved financial reporting capabilities, 54%).

- 65% of organizations say their analytics spending will increase in 2015 and the average organization plans to spend **$1.9 million** on analytics in 2015.
A Healthy Objective

- The majority of respondents say that analytics is one of their top three priorities in 2014, and that focus grows with organization size

Percentage of respondents who say analytics is one of their organization’s top three priorities:

<table>
<thead>
<tr>
<th>Number of Beds</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>51-200 beds</td>
<td>67%</td>
</tr>
<tr>
<td>201-500 beds</td>
<td>69%</td>
</tr>
<tr>
<td>501-1,000 beds</td>
<td>73%</td>
</tr>
<tr>
<td>1,000+ beds</td>
<td>77%</td>
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</tbody>
</table>
Why Now?

- “Organizations are at a pivotal crossroads – they must now harness new clinical data sources…” to improve healthcare*

What have been the biggest motivating factors for your organization to start using analytics? Please select three.

**Rising costs of healthcare**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Medicare / Medicaid EHR Incentive</td>
<td>59%</td>
</tr>
<tr>
<td>Accountable care</td>
<td>44%</td>
</tr>
<tr>
<td>The Affordable Care Act</td>
<td>41%</td>
</tr>
<tr>
<td>Pay for performance</td>
<td>36%</td>
</tr>
<tr>
<td>The implementation of ICD-10</td>
<td>31%</td>
</tr>
<tr>
<td>Limited resources</td>
<td>25%</td>
</tr>
</tbody>
</table>

*2013 Clinical Analytics for Population Health Market Trends Report, Chilmark Research, August 2013

**The Big-data Revolution in U.S. Health Care, McKinsey, April 2013**
This is no longer a hypothetical scenario. The majority of healthcare organizations (67%) are planning for or implementing analytics, though adoption levels vary by organization size.

Overall, where does your organization stand with analytics?

- **Discovery**
- **Planning**
- **Implementing**
- **Benefitting**
- **Not considering/Unsure**

### 51-200 beds
- Discovery: 33%
- Planning: 40%
- Implementing: 20%
- Benefitting: 0%
- Not considering/Unsure: 7%

### 201-500 beds
- Discovery: 9%
- Planning: 31%
- Implementing: 41%
- Benefitting: 16%
- Not considering/Unsure: 3%

### 501-1,000 beds
- Discovery: 15%
- Planning: 35%
- Implementing: 27%
- Benefitting: 19%
- Not considering/Unsure: 4%

### 1,000+ beds
- Discovery: 10%
- Planning: 33%
- Implementing: 36%
- Benefitting: 20%
- Not considering/Unsure: 1%
Opportunities Ahead

- Analyzing clinical and operational data can open up many doors for healthcare organizations

**Life Sciences:**
- Get new medications to patients faster
- Provide regulatory bodies with evidence of drug safety
- Improve manufacturing processes and sales/marketing efforts

**Public Health:**
- Improve healthcare while lowering costs
- Sharing data
- Managing costs and resources in real-time
- Better manage money spending

**Providers:**
- Measure, track and improve performance
- Improve healthcare outcomes and patient safety
- Improve cost forecasting accuracy

**Health Insurance:**
- Answer questions about future growth, profitability and sustainability
- Drive decisions
- Detect and prevent fraud
Where to Begin?

Most organizations are starting with clinical analytics and preparing by investing in IT systems for data capture.

Which types of analytics did your organization address, or do you plan to address first?*

- **57%** Clinical data analytics
- **49%** Outcome analytics
- **46%** Operational performance analytics
- **43%** Financial analytics

What steps has your organization taken to prepare for and use analytics?**

- **57%** Invested in data capture
- **53%** Invested in data storage
- **53%** Invested in data processing
- **51%** Educated senior managers
- **51%** Hired IT professionals

*Respondents asked to select all that apply  **Based on those who are implementing or already benefitting from analytics and respondents asked to select all that apply
Promising Results

- Organizations implementing analytics are experiencing benefits across the board. Interestingly, they have experienced more clinical benefits than operational benefits to date

Top **clinical** benefits:*  
1. Improved patient care **82%**  
2. Reduced readmission rates **63%**  
3. Improved overall health outcomes **62%**  

Top **operational** benefits:*  
1. Improved financial reporting capabilities **54%**  
2. Improved hospital operational performance **50%**  
3. Improved management decision-making **49%**  

61% of organizations say their score for 30-day outcomes* have improved with analytics and 81% expect it to improve after full analytics implementation

*Based on those who are implementing or already benefitting from analytics; respondents asked to select all that apply  
**Centers for Medicare and Medicaid Services (CMS) Hospital Compare Score, encompassing unplanned readmissions and death rates
# Possible Complications

- Organizations say their top analytics challenges are combining data, managing data volumes and ensuring interoperability

What are the biggest challenges your organization has faced with the implementation of or preparation for analytics?*

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Combining different kinds of data from different sources</td>
<td>45%</td>
</tr>
<tr>
<td>Managing volumes of data effectively</td>
<td>37%</td>
</tr>
<tr>
<td>Interoperability between technologies</td>
<td>36%</td>
</tr>
<tr>
<td>Defining the data that needs to be collected</td>
<td>35%</td>
</tr>
<tr>
<td>Lack of funding</td>
<td>32%</td>
</tr>
<tr>
<td>Cultural shift/resistance to change</td>
<td>30%</td>
</tr>
<tr>
<td>Lack of knowledgeable staff</td>
<td>27%</td>
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<tr>
<td>Creating the data model</td>
<td>23%</td>
</tr>
<tr>
<td>Lack of industry standards</td>
<td>21%</td>
</tr>
<tr>
<td>IT infrastructure cannot support the influx of data</td>
<td>19%</td>
</tr>
</tbody>
</table>

*Respondents asked to select all that apply
Patient Outlook

- Organizations plan to increase analytics spending in 2015, to an average of **$1.9M**

How do you expect your 2015 analytics spending to compare to your 2014 spending?*

- 65% Increased
- 14% Remained the same
- 6% Decreased

29% say spending will increase by more than 10%

What will your organization spend your analytics budgets on?**

- **41%** IT infrastructure to optimize data storage
- **41%** IT systems/solutions to optimize data processing
- **39%** IT systems/solutions to improve data capture
- **36%** Enhanced data security
- **35%** Real-time data analytics applications
- **34%** Data warehouse/data models

*15% of respondents selected “unsure”  **Respondents asked to select all that apply
THANK YOU.

FOR ALL MEDIA QUESTIONS AND INQUIRIES, PLEASE CONTACT:

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