Demonstrating and Creating Value with Analytics

John Hendricks & Betsy McVay
• 15th largest nonprofit health system
• 15 hospitals, 8 regions
• 88 Communities served by 280 physician clinics
• 14 community network hospitals
• 7 UnityPoint at Home locations
• 4 accredited colleges

• Admissions: 127,812
• Births: 15,310
• Yearly patient visits: 4 Million
• Total employees: 24,176
• Total operating revenue: $2.7 Billion
UnityPoint Health Analytics 1.0

- 5 EMRs with more to come
- Claims data from multiple sources
- Benchmarking data
- Cost and G/L data
- Multiple vendor products
- Multiple teams doing much the same
- Governance in place but lacked effectiveness
- Minimal senior leadership support
- Changing healthcare landscape
• Developing analytic capabilities is critical to success as UnityPoint moves to an environment based on caring for populations and being paid for the value created
  – The healthcare landscape is quickly changing
  – Requests for information cannot be satisfied quick enough
  – Data is growing at an alarming rate
  – The skillsets of team members today will not be sufficient for tomorrow

• Moving to 2.0: Develop a future state analytics model and roadmap for the system
  – Conduct research and incorporate best practices
  – Interview internal and external contacts
  – Explore or seek partnership opportunities in order to propel the strategy forward more quickly
Analytics Framework

To Lead Healthcare and Compete on Analytics

Advanced Analytics
• Where do we go from here?
• What’s the probability of success?
• Predictive Modeling/Optimization
• Linkage Research, Regression

Analytics
• Why are things happening?
• What’s the plan?
• Forecasting, Scenario Planning
• Cluster Analysis, Data Mining, ROI

Metrics & Reporting
• What is happening?
• Where is it happening?
• Scorecards, Recurring Reports
• Ad hoc Reports & Queries

People, Process, Technology

UnityPoint today for hospital based measures only
Value of Analytics at UnityPoint

- Self service and automation
- Remove waste
- Embrace standard definitions
Value of Analytics at UnityPoint

Create Value

- Improve care and outcomes
- Ensure sustainability
- Understand employee and consumer behavior
Value of Analytics at UnityPoint

- Ask the right questions
- Establish priorities
- Make Decisions based on data
- Program must be accountable and “pay for itself”
### Future State Possibilities

#### Current State
- Disparate systems, reporting tools, and corporate teams
- Limited understanding of future business needs and scalability opportunities
- Focus on retrospective, non standard data, reports, and operational definitions
- Limited focus on consumer and employee behavior patterns

#### Future State
- Consolidated corporate team supported by well managed data with the right complement of tools
- Improved knowledge of future payment models, care/cost variability, employer direct contracts, etc.
- Combination of retrospective and prospective information to provide insight into data
- Better understand drivers of healthcare consumerism, employee engagement & attrition
Analytics Program and Business Relationship

**Analytics Role**
- Aggregates and maintains data from several source systems
- Drives strategic vision of analytics program
- Consults with stakeholders to identify best use or practice with data
- Facilitates data standards, integrity and quality initiatives
- Supports automated reports and tools
- Provides advanced analytic capabilities

**Business Role**
- Pulls meaningful and standard data/reports online via dashboards and web tools
- Performs ad-hoc queries and derives metrics as needed on standard information
- Participates in data quality and standardization
- More time spent taking action and improvement from data
## Analytics Program & Business Area Roles

<table>
<thead>
<tr>
<th>Technology</th>
<th>Data Integrity &amp; Quality</th>
<th>Analytics Consultant</th>
<th>Actionable Reporting &amp; Metrics</th>
<th>Advanced Analytics &amp; Modeling</th>
<th>Business Super-User</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Develops and supports data architecture</td>
<td>• Maintains data dictionaries and report library</td>
<td>• Consults with regions and drives to right questions, data and processes</td>
<td>• Supports end users in output tools</td>
<td>• Performs predictive modeling – what will happen in the future</td>
<td>• Pulls information and takes action from self-service tools</td>
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<tr>
<td>• Manages data movement between systems</td>
<td>• Manages data validation and quality</td>
<td>• Engages internal and external peers to identify the best solution</td>
<td>• Triages and tracks requests</td>
<td>• Solves problems and performs advanced modeling – where to go from here, seeks answers</td>
<td>• Uses dashboards and KPI information to drive performance</td>
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<tr>
<td>• Completes data transformation and derivation</td>
<td>• Identifies and supports standardization opportunities and compliance</td>
<td>• Focuses on strategic, high-value initiatives</td>
<td>• Performs ad hoc requests - builds queries and reports</td>
<td>• Uses all branches of necessary modeling methods</td>
<td>• Seeks answers with drill down tool capability</td>
</tr>
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<td>• Manages data security</td>
<td>• Supports regulation type reporting</td>
<td>• Provides project leadership across functional teams</td>
<td>• Identifies and supports automation and self-service opportunities</td>
<td>• Models with the right information - comfortable with limited data</td>
<td>• Creates ad-hoc queries/reports from self-service tools</td>
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<td>• Supports applications and manages vendors</td>
<td>• Quality and process innovation</td>
<td>• Addresses data issues with regions</td>
<td>• Business and process innovation</td>
<td>• Analytic and statistical method innovation</td>
<td>• Provides input into standard definitions and strategic analytics work</td>
</tr>
<tr>
<td>• Technology innovation</td>
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<td>• Collaborates with corporate team to address complex issues and innovation</td>
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# Enabling Analytics Capability Through Technology

## Current State

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<tr>
<th>Data Foundation (Data Warehouse)</th>
<th>• Traditional DB platform + vendor systems</th>
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<th>• Traditional BI platform + vendor solutions</th>
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## Future State (2-3 years)

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Governance Model

• Executive Steering Committee
  – Focus
    • Set priority and program direction
    • Assist in resolving implementation issues
  – Membership
    • Senior leader stakeholder group aligned with strategic priorities
    • Highly influential across the system
Governance Model

• Working Committee (Subject Matter Experts)
  – Focus
    • Define system standards and definitions
    • Support quality and validation processes
    • Provide implementation support
  – Membership
    • Population health analytics teams
    • Service line affinity groups
    • Regional quality teams
Executive Support

Gain commitment from executives to support program development.

1. Is the program scoped appropriately to add value?
2. Are you comfortable with the timeline and key milestones – too fast, too slow, key items that are missing?
3. Can you commit to possible budget needs – mitigated by partnerships and efficient use of resources and purchased services?
4. Can you support the changes needed to make this program successful?
   - Standardized reporting and processes
   - Deliverables will be prioritized based on strategic initiatives, value added, and program governance
   - Continued support throughout program and team development
Initial Deliverables

• Executive and operational leader identified
• Implementation plan developed
• Corporate team centralized and governance established
• Provide additional capacity and output for population health & claims analytics as well as clinic & hospital report output
• 2014 priorities identified
• Continued technical foundation build
Questions?

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Deciding Factors
Build versus Buy

John Hendricks
Build versus Buy

• Analytics Projects
  – Risky
  – Expensive
  – Can take a real long time

• Healthcare
  – Analytics programs struggle to meet the challenges
  – Landscape keeps changing
  – Data continues to grow at alarming rates
Build versus Buy

• Shift the paradigm
  – Requests from months/years to days/weeks
  – Agile data aggregation
  – Self-service information delivery
  – Choice computing for information delivery options
Build versus Buy

• UnityPoint Health
  – Purchased and EDW build
    • Explorys, Informed
    • MS SQL Server 2012 w/Panorama Necto

• HenryFord
  – Purchased but customized
    • Information Builders
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Thoughts/Follow Up?

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