

Competing on Healthcare Analytics

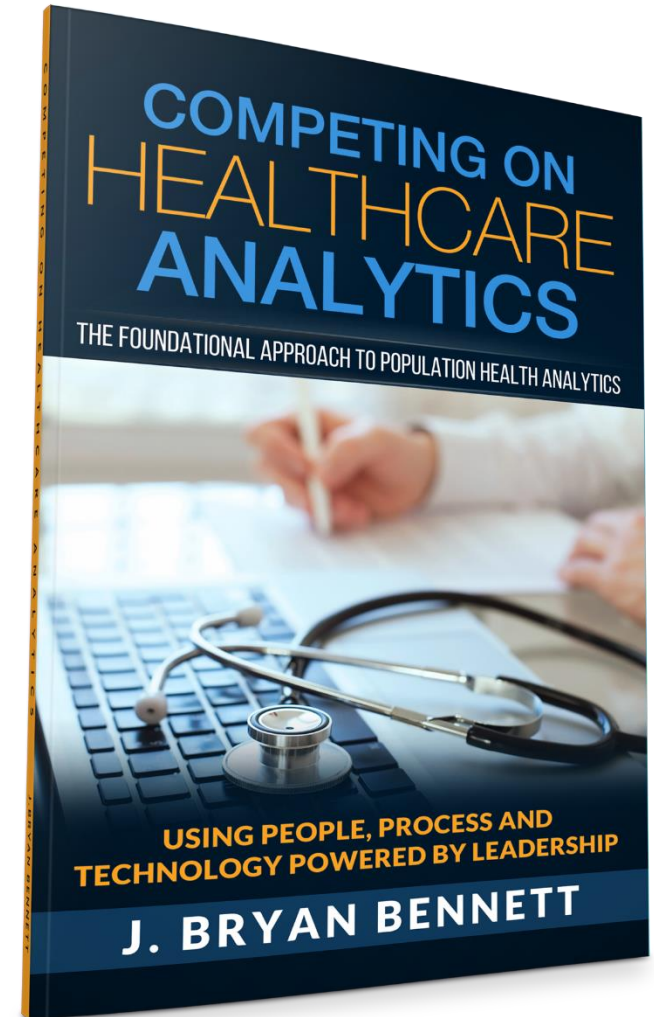
THE FOUNDATIONAL APPROACH TO HEALTHCARE
ANALYTICS

PROFESSOR J. BRYAN BENNETT

Agenda



- Healthcare Transformation Model
- Challenges of Implementing Healthcare Analytics
- The Foundational Approach to Analytics
- Becoming a Healthcare Analytics Competitor
- Recommendations



How Most Analytics are Implemented



Without the proper foundation the analytics implementation will fail!



Healthcare Analytics Approach

Healthcare organizations should approach analytics from a transformational viewpoint

- Requires enterprise-wide participation
- Requires changes in workflows
- Requires cultural changes

Not just a technological solution



Healthcare Transformation Model

THE STARTING POINT



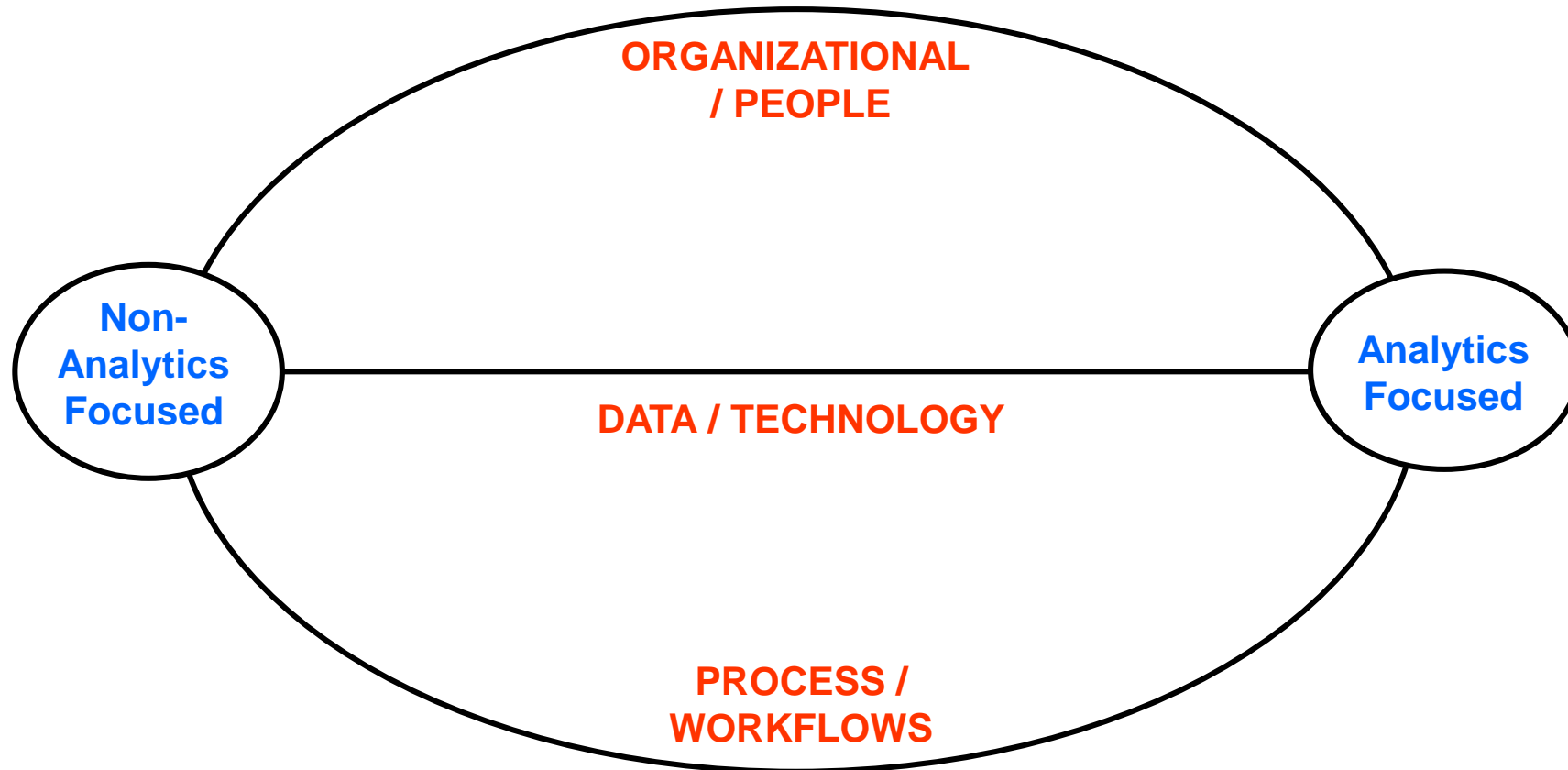
Healthcare Transformation Change Model

Developed in 2013 to help healthcare organizations understand the requirements to become an analytics-focused healthcare organization

Concepts based on a Gartner recognized model co-developed in mid-1990s

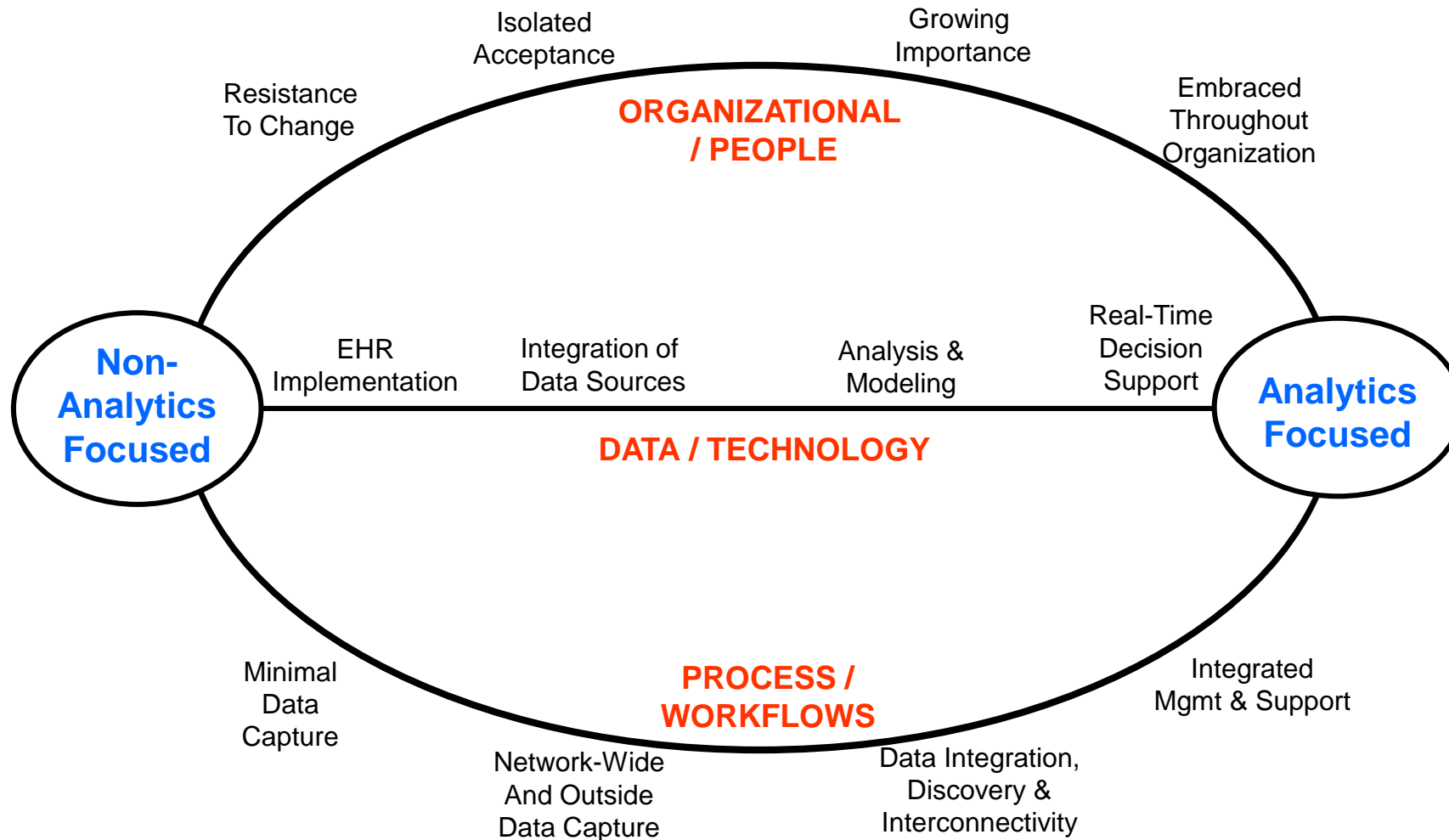


Healthcare Transformation Change Model





Healthcare Transformation Change Model





The Challenges of Implementing Healthcare Analytics

MORE CHALLENGING THAN MOST BELIEVE



During a Recent Workshop...

Participants were asked what they believe to be the top challenges they face in implementing analytics at their healthcare organization.

They each were asked to identify as many as five challenges they faced and then were put into groups to develop three solutions to overcome those challenges.



What Do You Believe are the Greatest Challenges to Implementing Healthcare Analytics?



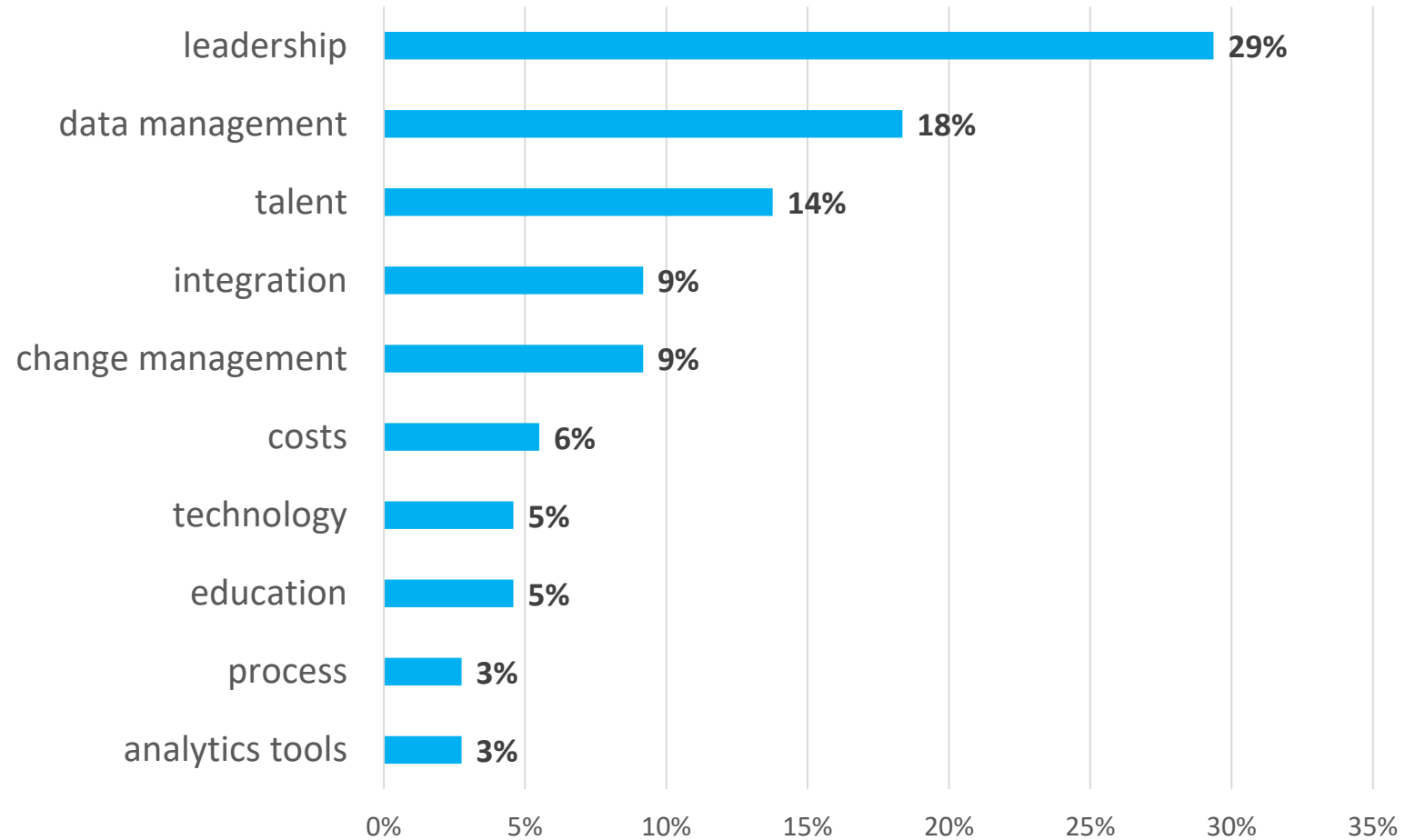
Results Classified into 10 Categories

analytics tools	integration
change management	leadership
costs	process
data management	talent
education	technology



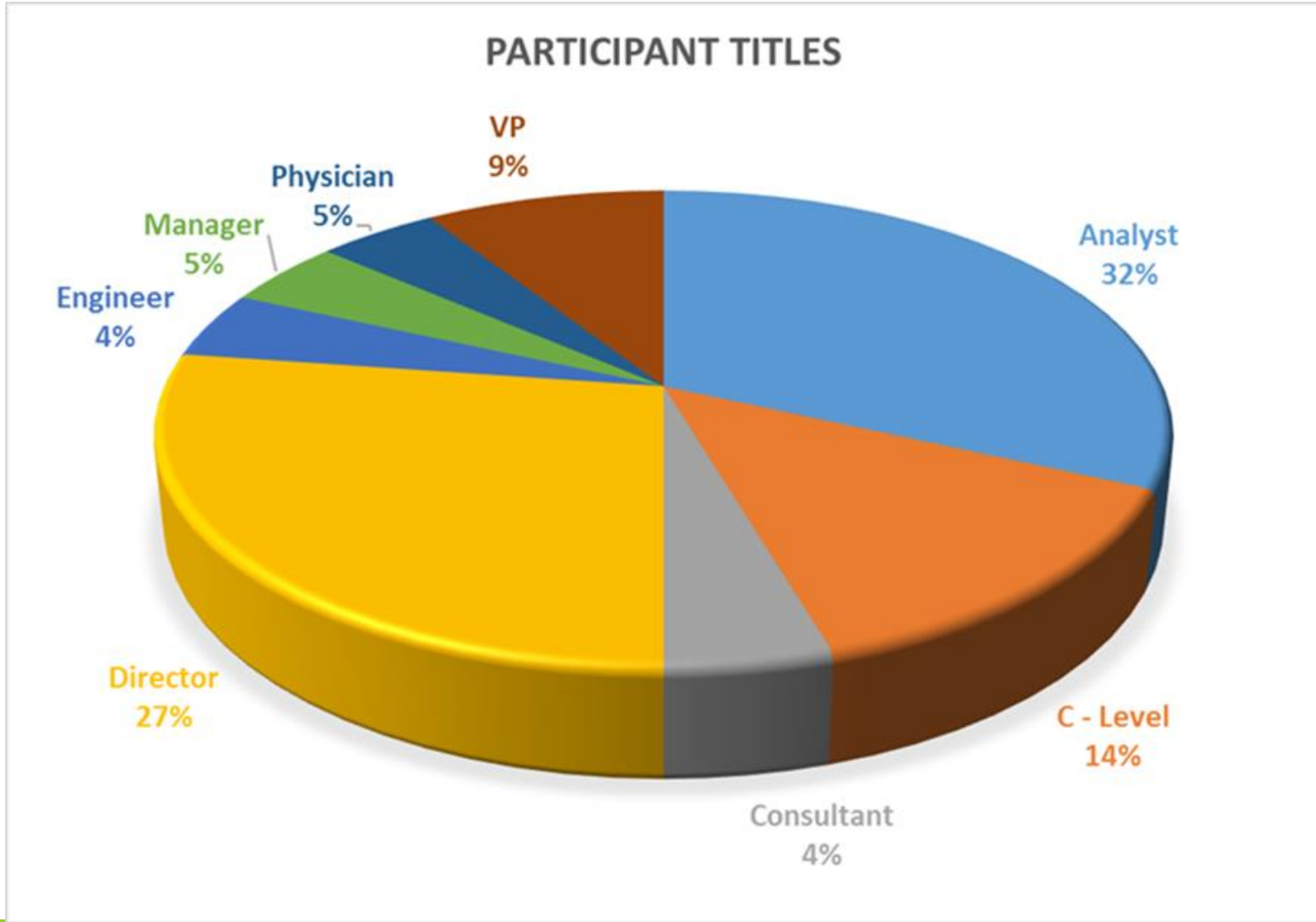
Challenges Study Results

Challenges Facing Healthcare Analytics Implementation





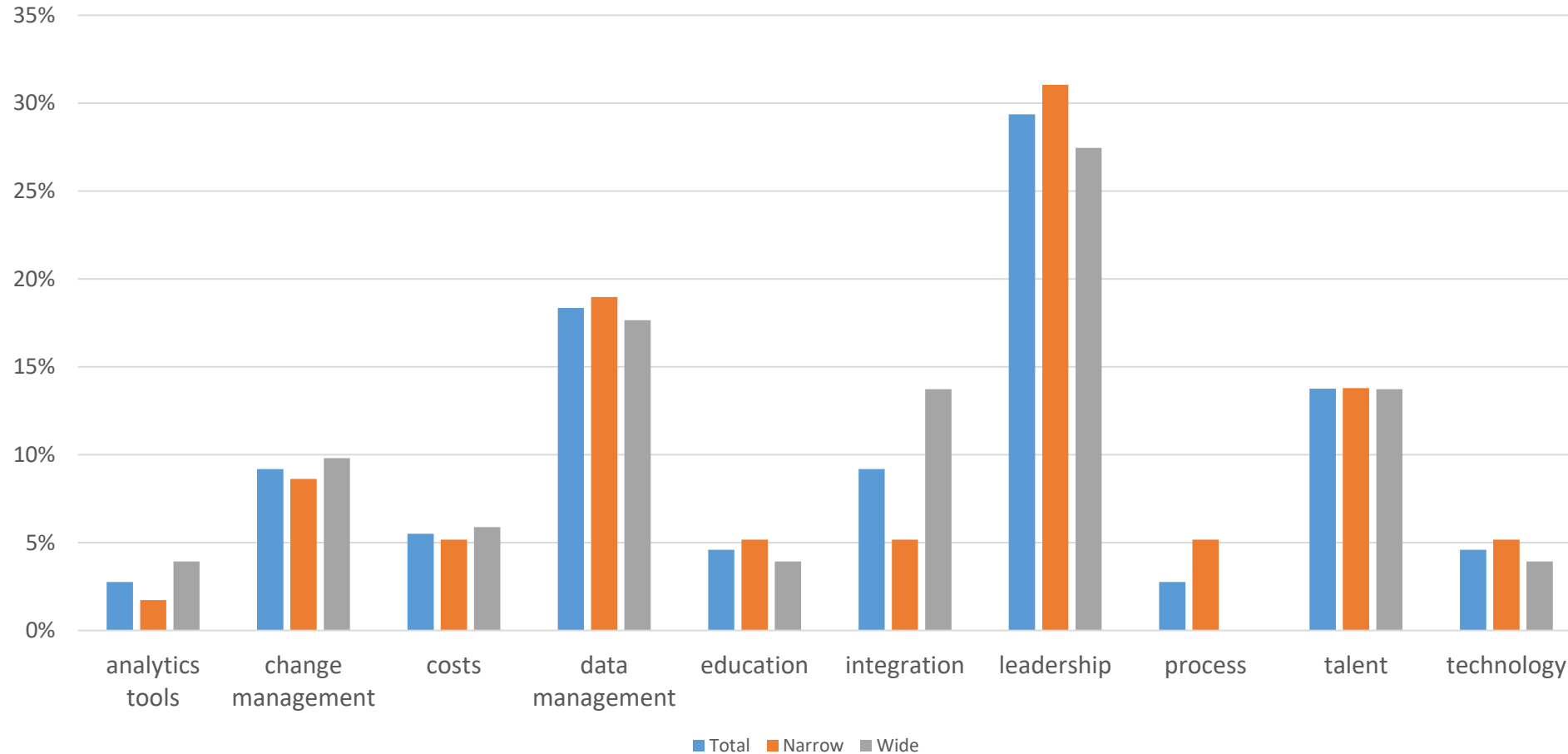
Who Were the Participants?





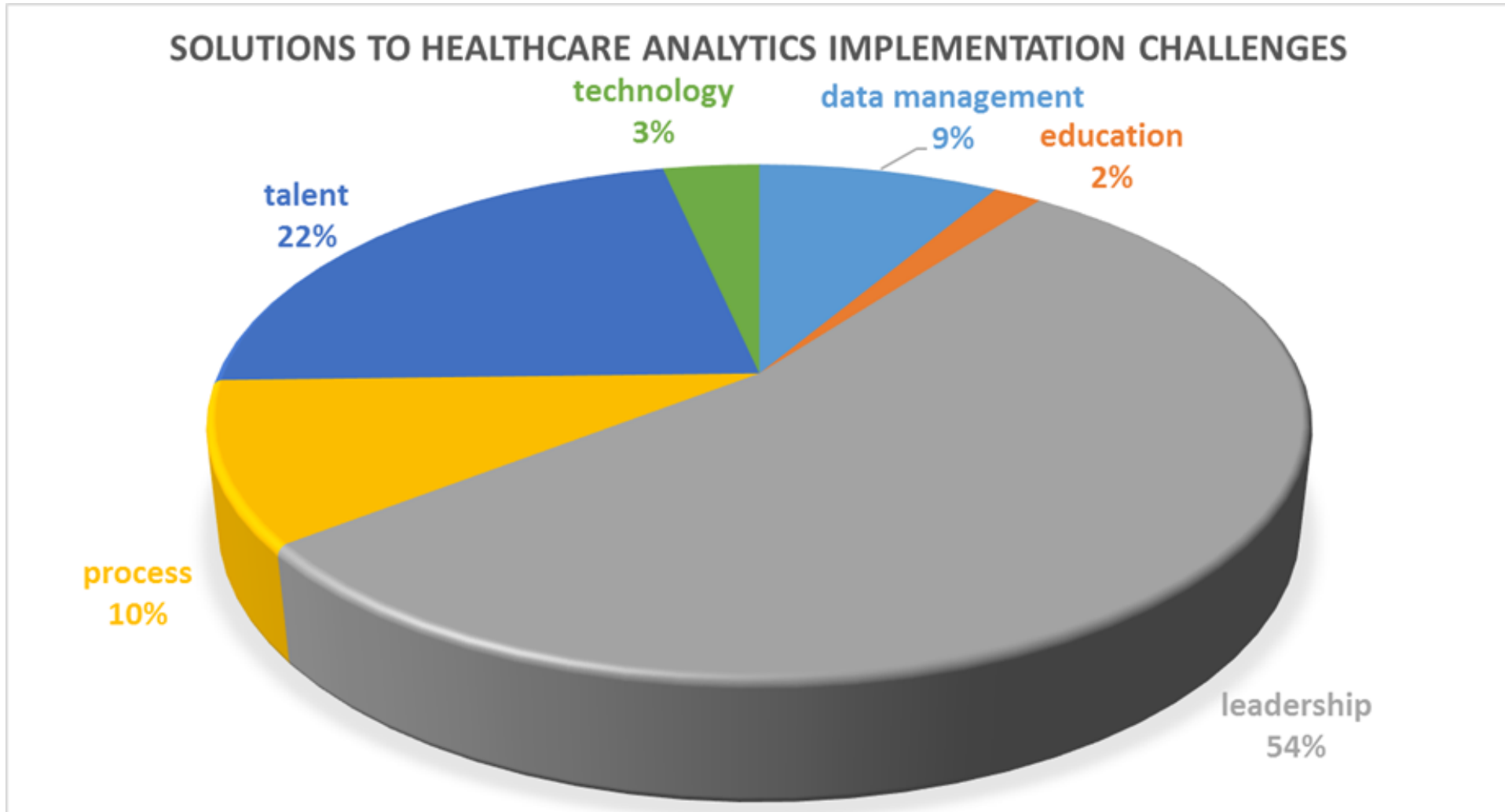
Where Are The Leaders?

Challenges By Span of Control





Suggested Solutions





Study Conclusions

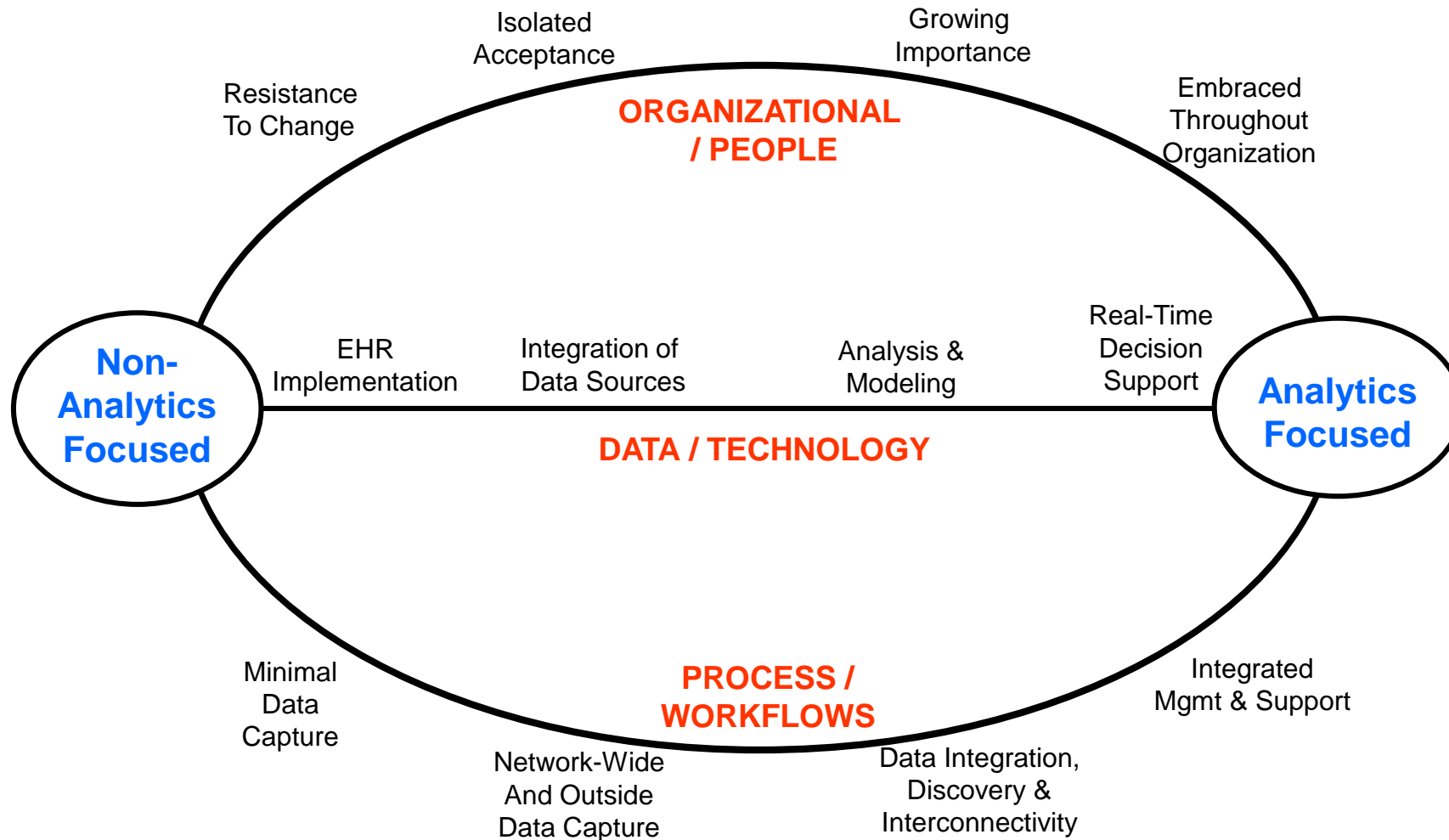
Leadership is the top challenge to implementing healthcare analytics

Leadership is also recognized as the top solution to implementation

The people in the leadership positions may not recognize their role in the implementation process

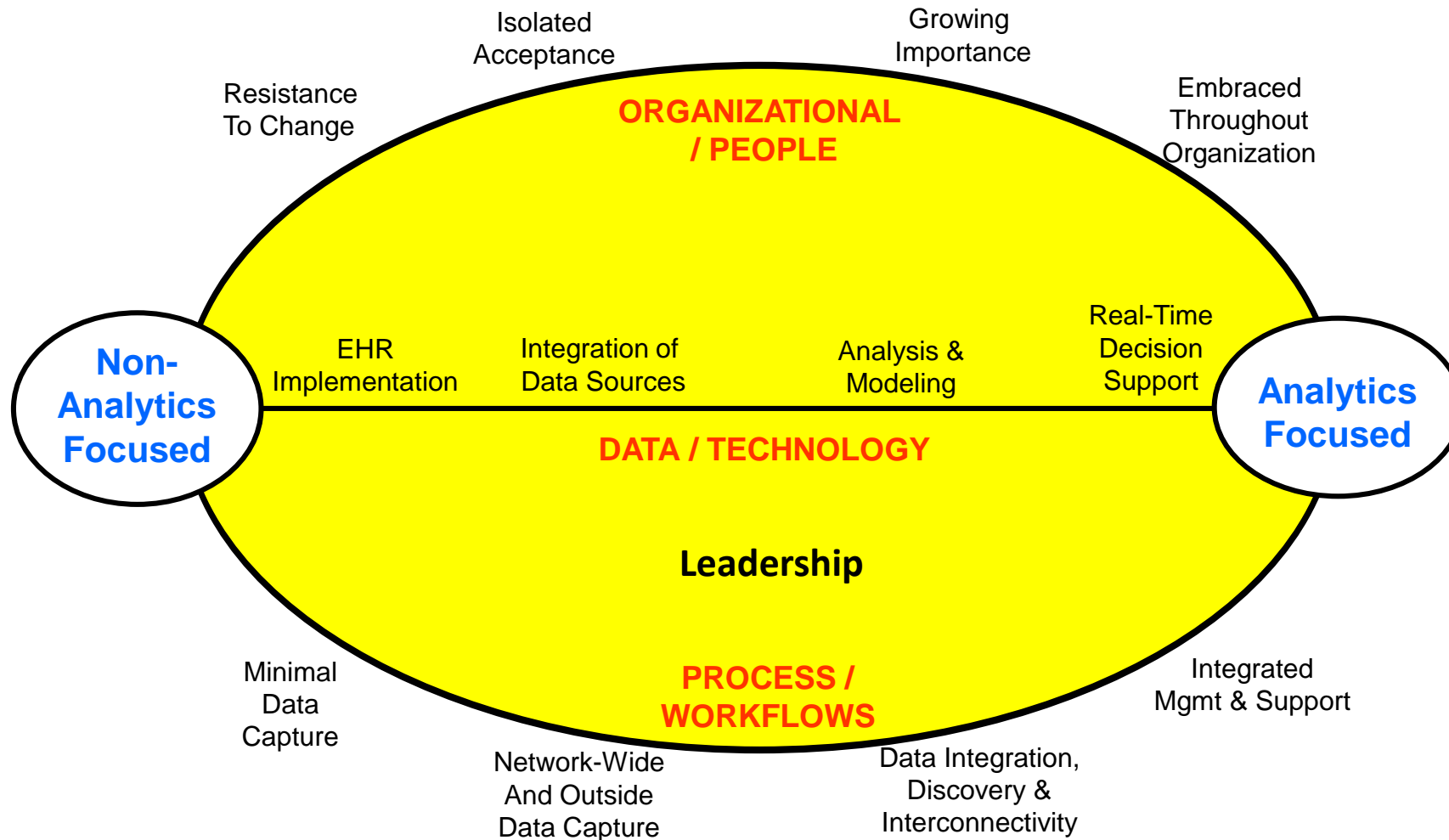


Healthcare Transformation Change Model





Healthcare Transformation Change Model





Executive Leadership

Not a continuum

Must be present in each stage of each continuum

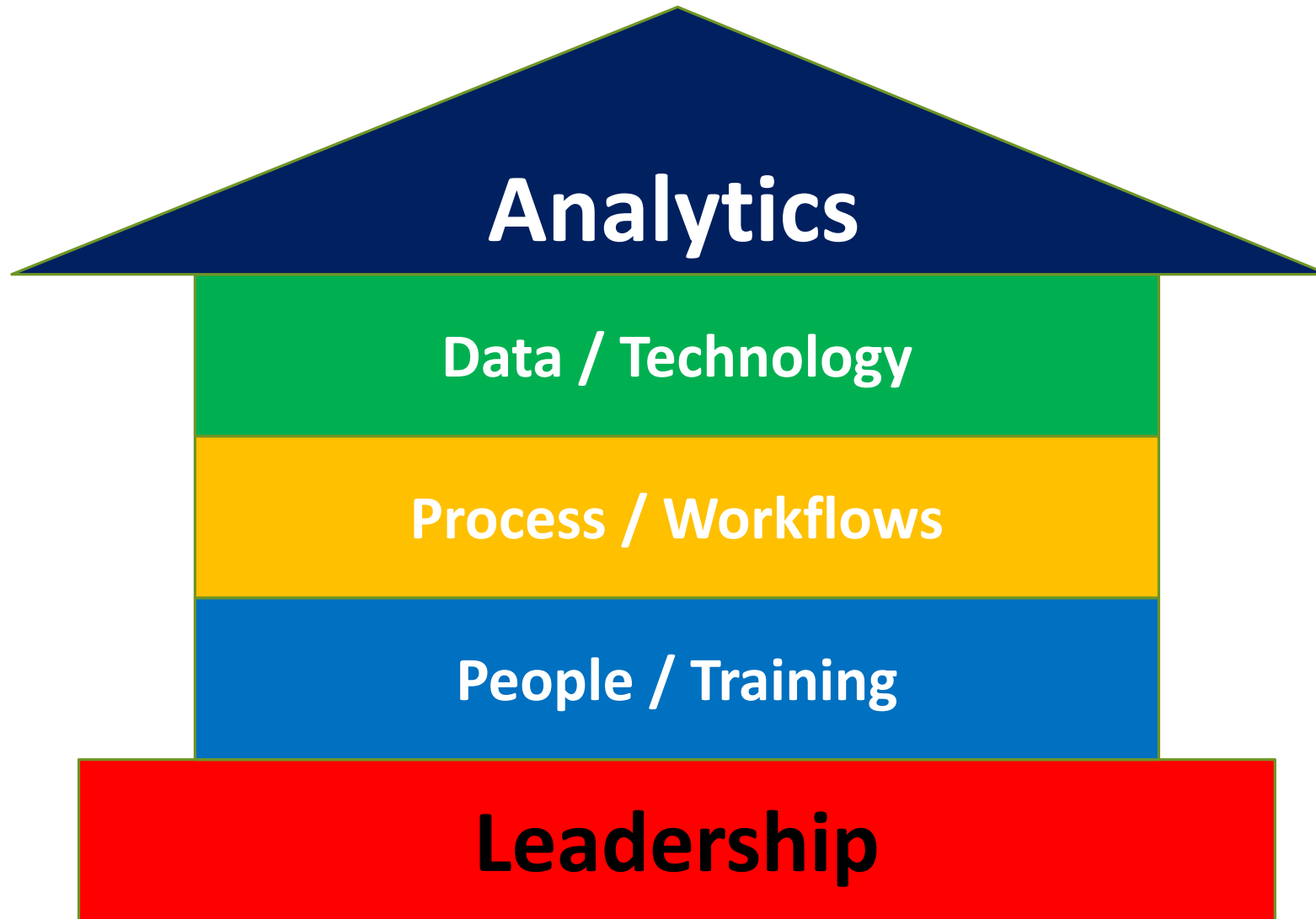
- Consistent throughout transformation

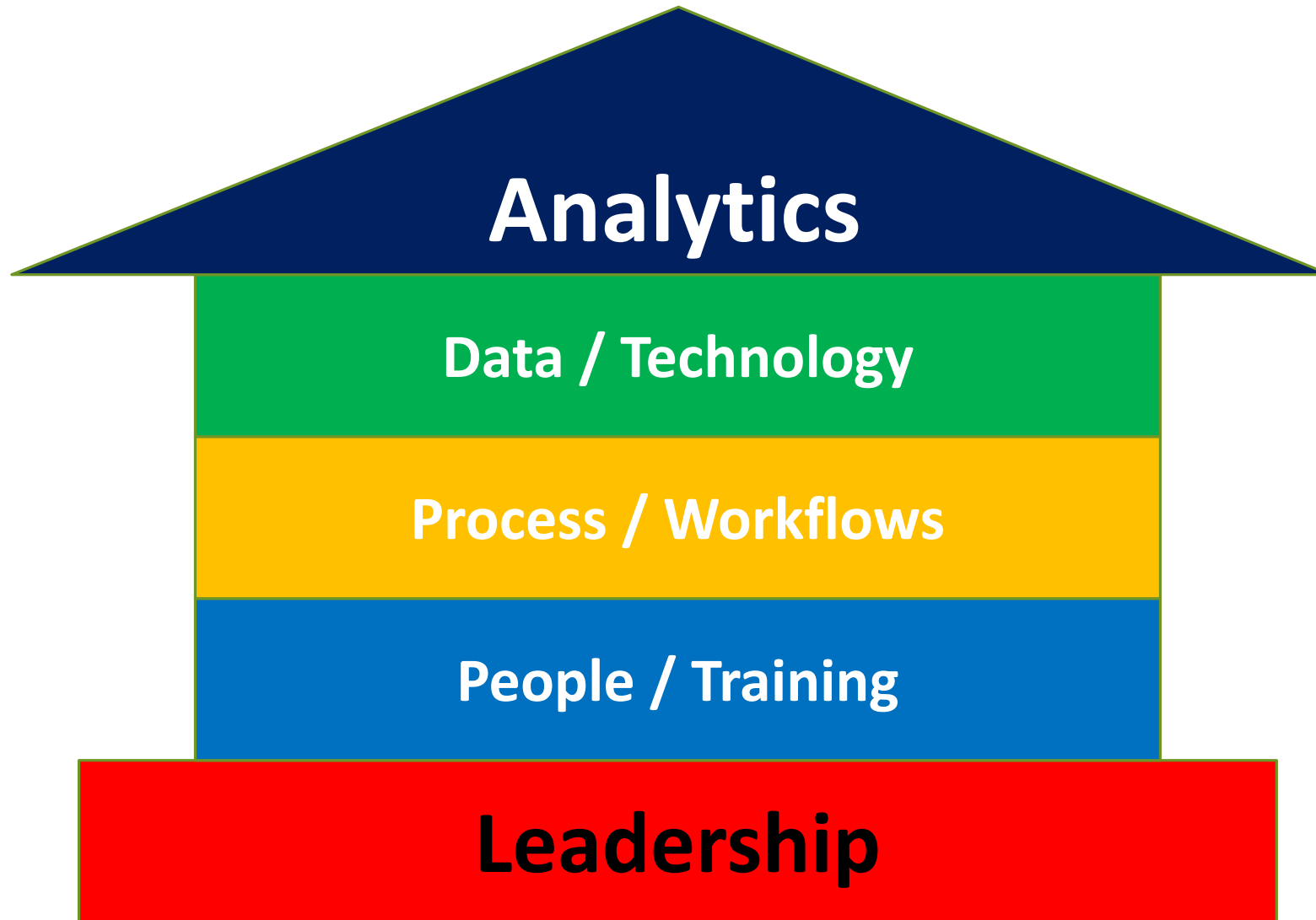
Most important critical success factor in any change management situation

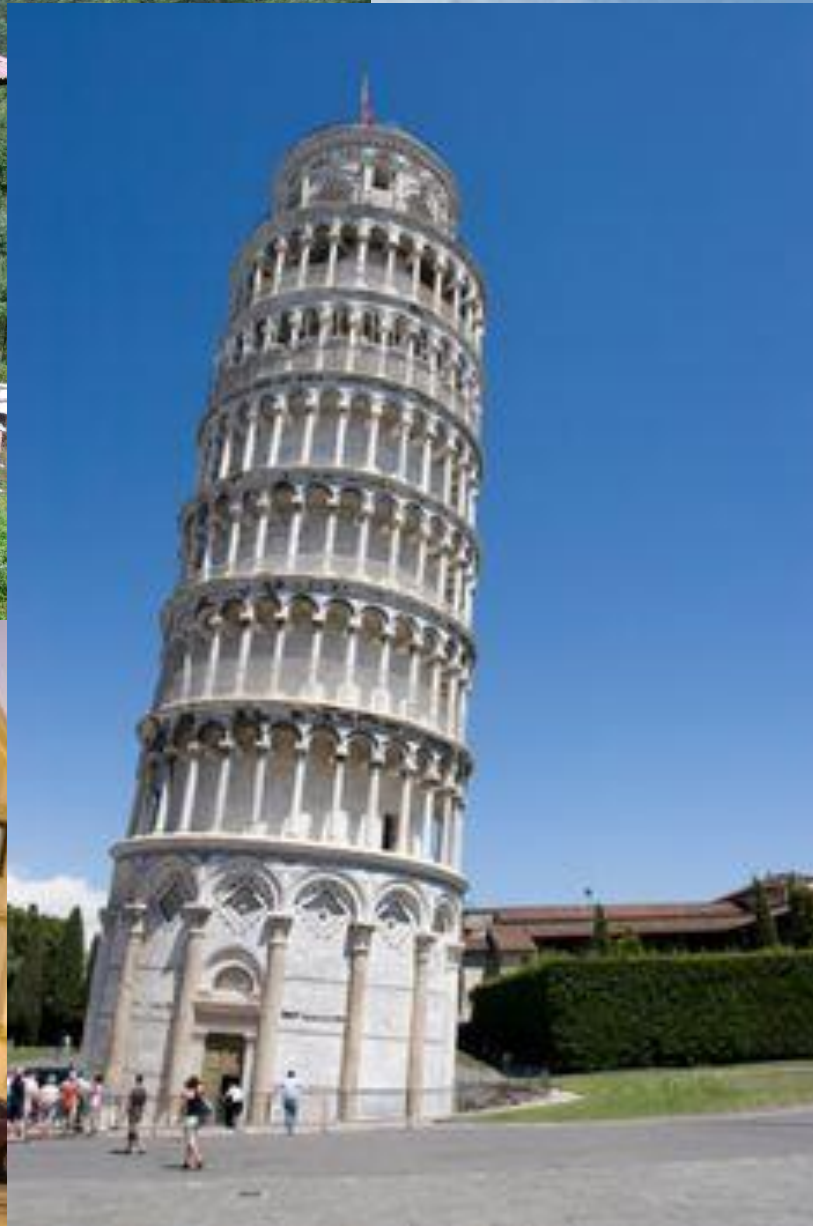
- Also known at **Executive Sponsorship**
- Lean Six Sigma
- Project Management



The Foundational Approach to Analytics







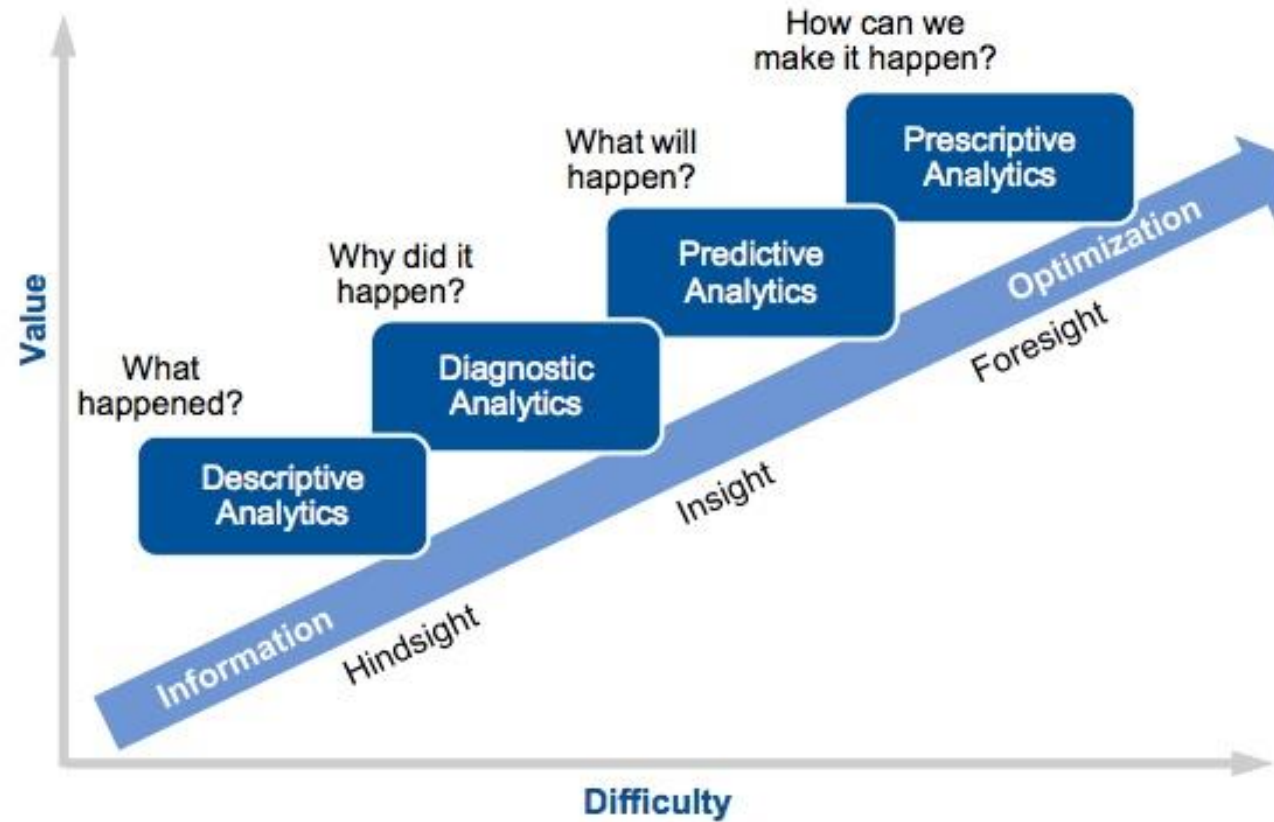
Don't Let Mayhem Happen To You!





Gartner Analytic Ascendancy Model

Figure 2. Gartner Analytic Ascendancy Model



Source: Gartner (March 2012)



Gartner Analytic Model Examples

Type of Analytics	Question Answered	General Business Example	Healthcare Example
Descriptive Analytics	What Happened?	How many cars did we sell last year?	How many patients were diagnosed with HBP last year?



Gartner Analytic Model Examples

Type of Analytics	Question Answered	General Business Example	Healthcare Example
Descriptive Analytics	What Happened?	How many cars did we sell last year?	How many patients were diagnosed with HBP last year?
Diagnostic Analytics	Why Did It Happen?	Why did we only sell x cars last year?	Why did these patients develop HBP?



Gartner Analytic Model Examples

Type of Analytics	Question Answered	General Business Example	Healthcare Example
Descriptive Analytics	What Happened?	How many cars did we sell last year?	How many patients were diagnosed with HBP last year?
Diagnostic Analytics	Why Did It Happen?	Why did we only sell x cars last year?	Why did these patients develop HBP?
Predictive Analytics	What Will Happen?	If I run x advertising programs, how many cars can we sell?	What are the chances Mr. Jones' HBP will result in a stroke?

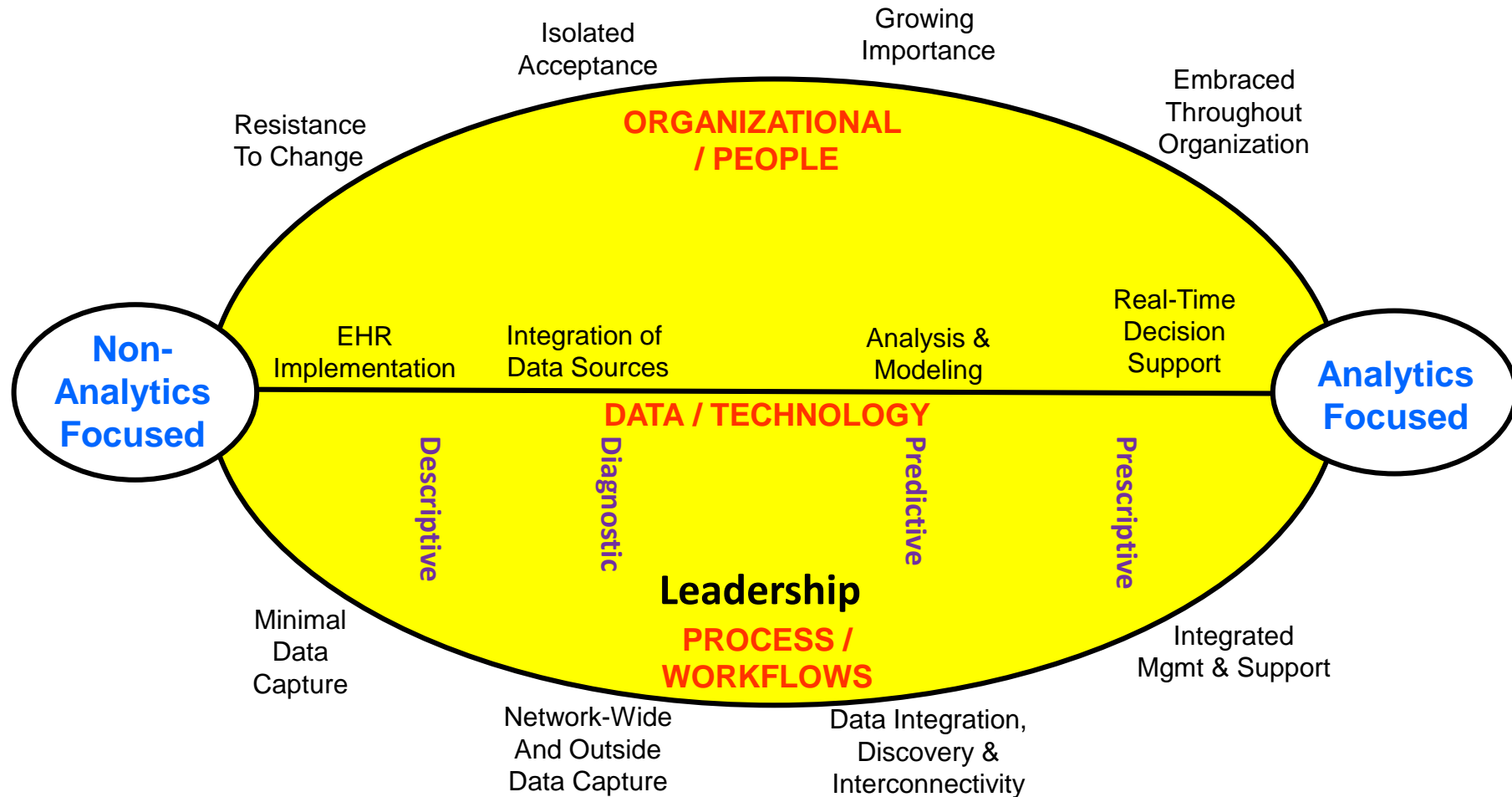


Gartner Analytic Model Examples

Type of Analytics	Question Answered	General Business Example	Healthcare Example
Descriptive Analytics	What Happened?	How many cars did we sell last year?	How many patients were diagnosed with HBP last year?
Diagnostic Analytics	Why Did It Happen?	Why did we only sell x cars last year?	Why did these patients develop HBP?
Predictive Analytics	What Will Happen?	If I run x advertising programs, how many cars can we sell?	What are the chances Mr. Jones' HBP will result in a stroke?
Prescriptive Analytics	How Can We Make it Happen?	What do we need to do to sell x number of cars?	Mr. Jones should be put on x medication to prevent his HBP from resulting in a stroke.



Population Health Analytics Transformation





State of Healthcare Analytics

Most organizations can do some form of **Descriptive Analytics** from their current legacy or EHR systems

With some additional data management, many are capable of performing some **Diagnostic Analytics**

Predictive Analytics are being implemented by many advanced, well-led, healthcare organizations

Prescriptive Analytics is only being implemented by the most elite organizations



Becoming a Healthcare Analytics Competitor



Competing on Healthcare Analytics

Using advanced analytics to create an organization that provides better care at a lower cost on a profitable basis

Achieved in many industries for years

- Just coming to healthcare
- Electronic data to analyze

Healthcare can use many of the same principles to not only be more competitive but also more efficient



Competing on Healthcare Analytics

Most analytically sophisticated and successful firms have four common key characteristics

1. Support a strategic, distinctive capability
2. Enterprise-wide approach and management
3. Senior management commitment
4. Company made strategic bet on analytics-based competition



Support a Strategic, Distinctive Capability

What sets the organization apart from its competitors

What makes it distinctive in the marketplace

- Netflix – predicting movie preferences
- Amazon – suggesting add-on or new products
- LinkedIn & Facebook – identifying new connections



Distinctive Capability In Healthcare

Represented by patient-focused care

- Personalized
- Improved quality of care

Identifying health trends

- Using demographic and geospatial data analysis

Distinctive in the marketplace

- Mayo Clinic (diabetes & endocrinology)
- Cleveland Clinic (cardiology and heart surgery)
- Johns Hopkins (ear, nose & throat)



Enterprise-Wide Approach and Management

Analytical activities are not relegated to just one group within the company or a collection of disparate employees across the organization

Manage analytics as an organization or enterprise

Results made available throughout the organization



Enterprise-Wide Approach In Healthcare

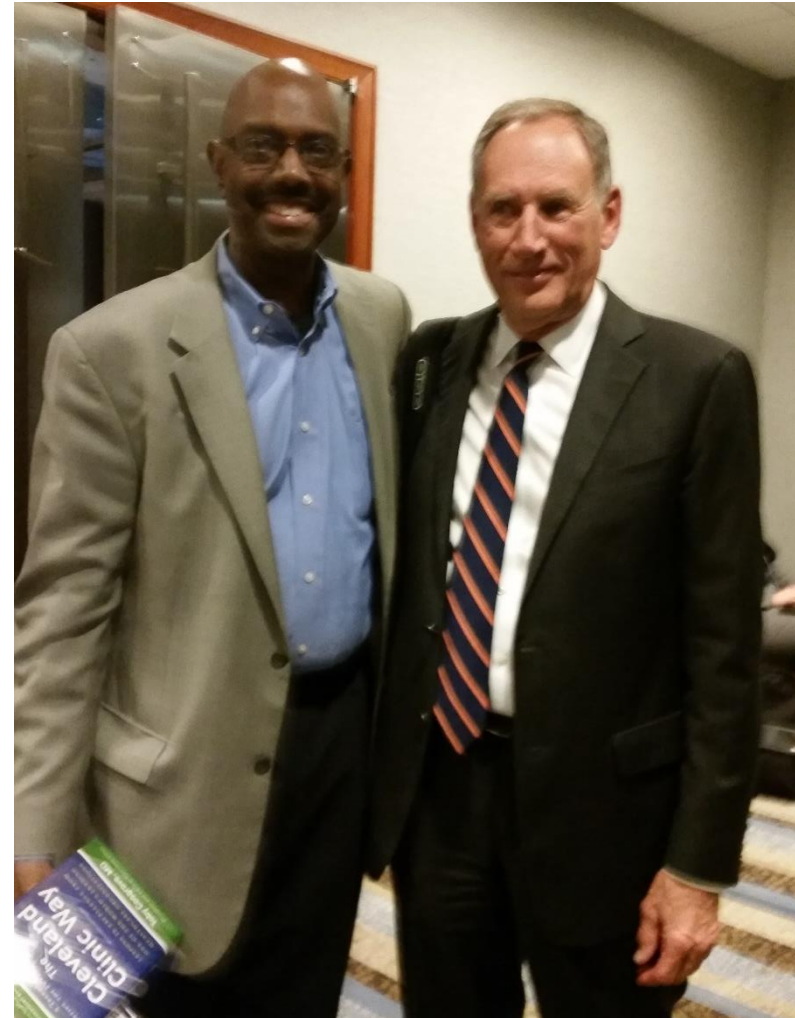
Better sharing of data internally

- Interconnectivity preparedness

Better coordination of care

Protocol-based treatment

- Based on best practices
- Quality focused





Senior Management Commitment

Broad analytical approach requires changes in culture, process, behavior and skills for multiple employees

- “Unlock the silos”
- Share information

Usually led by CEO

- Without push from the top, the cultural changes necessary may not take place
- Importance of **Executive Leadership**



Senior Management In Healthcare

Capability to drive change through organization

- Need broad business experience

Visionary and Communicator

- Dr. Laura Forese, COO
 - New York-Presbyterian

Strong relationship management skills





Strategic Bet on Analytics-Based Competition

Companies bet their future success on analytics-based strategies

Measured in cost savings, revenues, profits, market share and customer loyalty

- If no impact on critical measures then company not really competing on analytics.



Strategic Bet on Analytics In Healthcare

Improved operational efficiencies

- Using scorecards and dashboards

Drive sustainable and profitable growth

Increased transparency

- Cost data
- Quality information

To Sustain a Competitive Advantage Analytical Capabilities Must Be



1. Hard to duplicate
 - Not easily copied by a competitor
 - Personalized models
2. Unique
 - Based on organization strategy or position
3. Adaptable to many situations
 - From providers to patients to management

To Sustain a Competitive Advantage Analytical Capabilities Must Be



4. Better than the competition

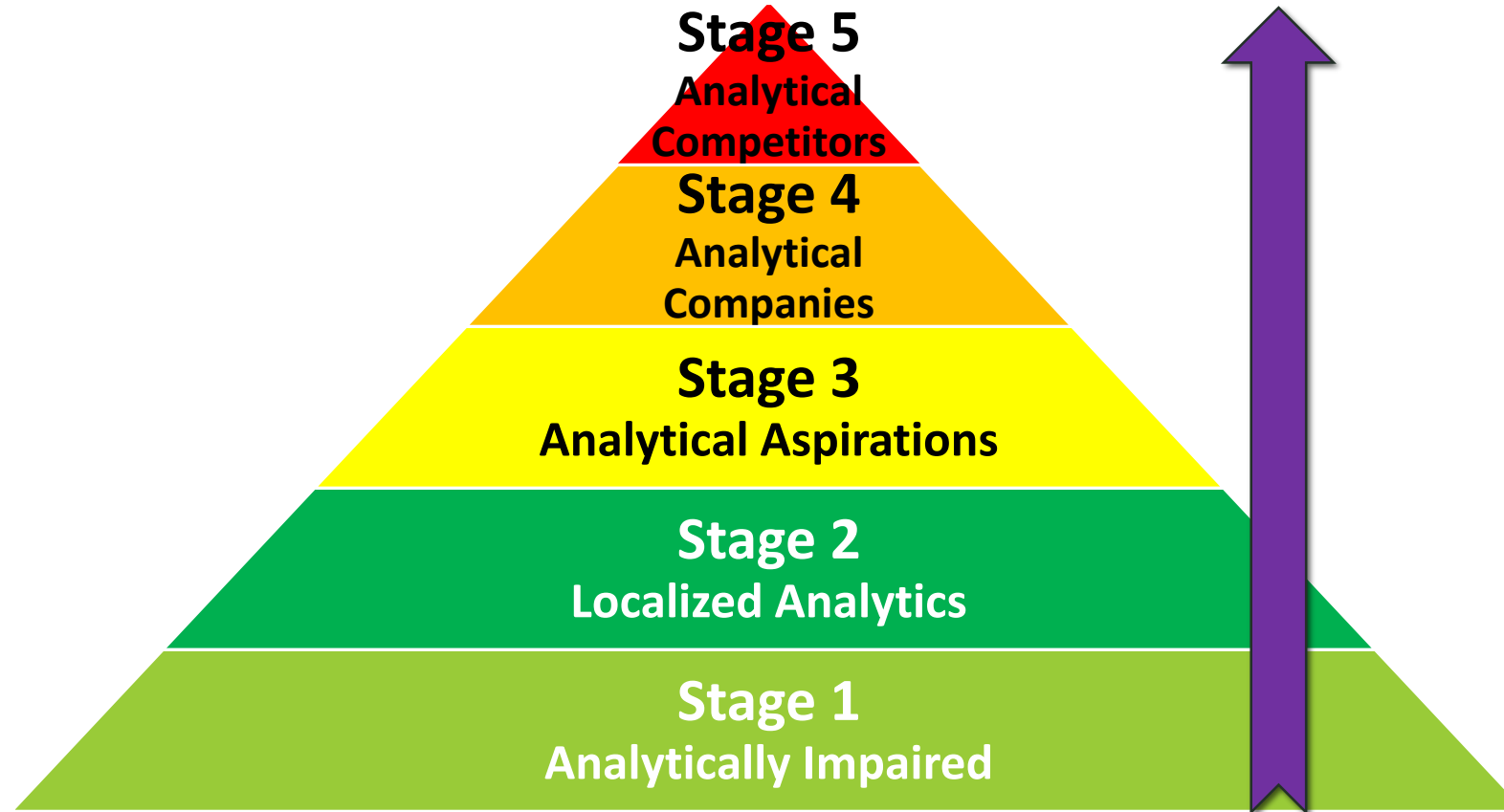
- Enabling smarter decisions
- Name Competitors: Amazon, LinkedIn, Facebook
- Top 4 healthcare systems

5. Renewable

- Continued improvement and reinvestment
- Journey not a destination



Stages of Analytical Competition Model





Recommendations



Recommendations

Understand and document where your organization is on your analytics implementation

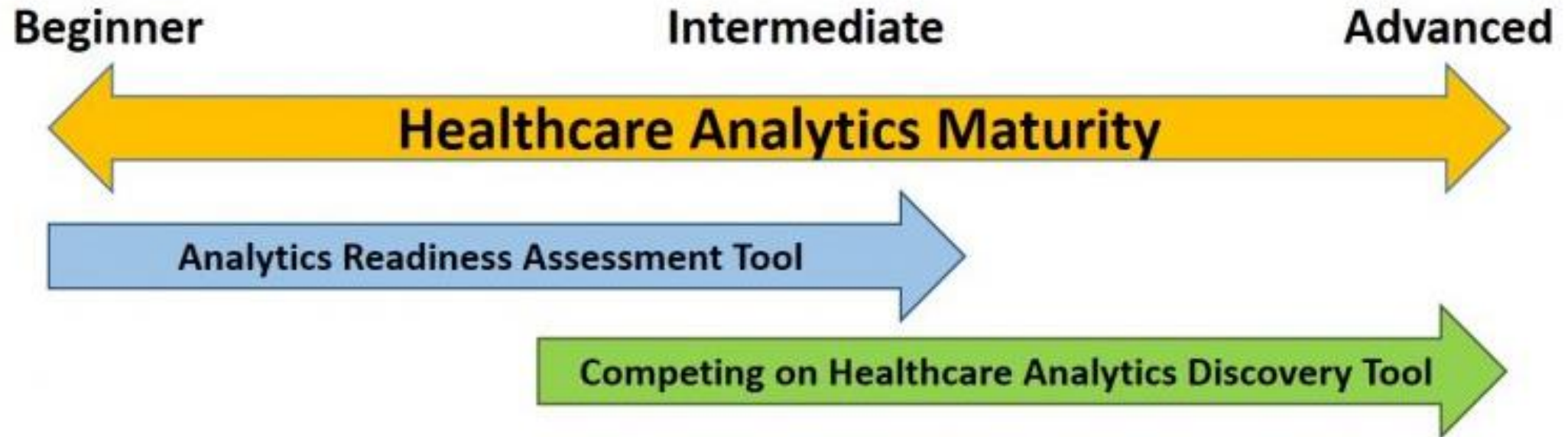
Overcome talent gap

Invest in leadership development

- Prescribing Leadership

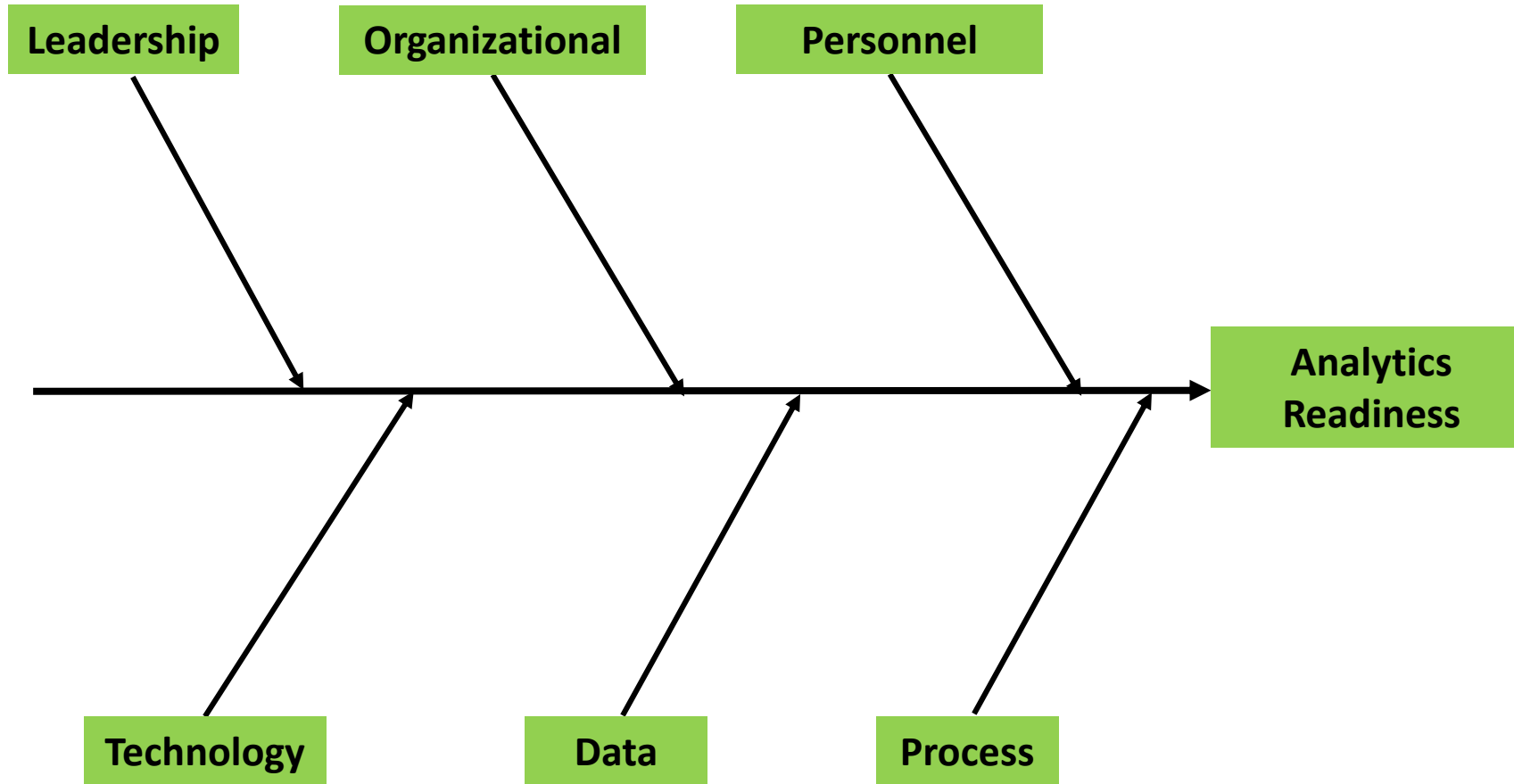


Which Tool is Best For You?





Analytics Readiness Assessment





Analytics Readiness Assessment Tool

For organizations at the beginning or at the intermediate level of their analytics journey

Enables the organization to document their analytics readiness, and includes:

- 6 dimensions of readiness
- 60 total readiness requirements
- 15 critical success factors
- Mapping of critical success factors to requirements
- Suggested documentation to support the requirements



Competing on Healthcare Analytics Discovery Tool

For organizations well on their way to becoming a healthcare analytics competitor

Helps organizations contemplate, articulate and document how they will become better healthcare analytics competitors

Features four healthcare specific key characteristics of most analytically sophisticated and successful firms



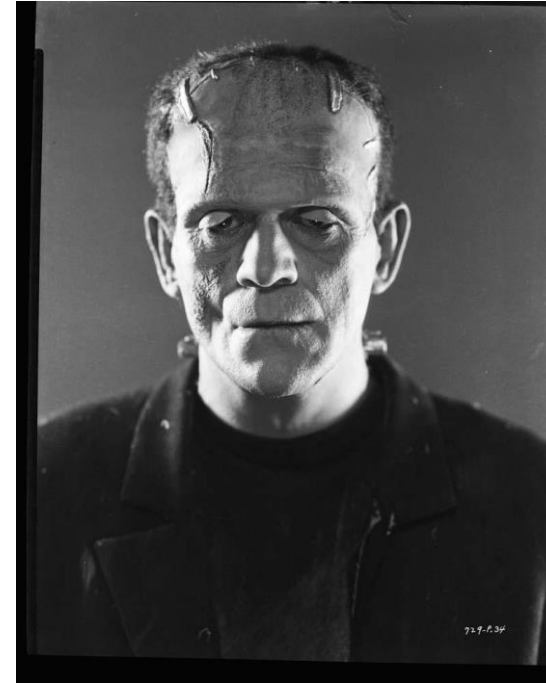
Build a 'DataScienceStein'

Data Scientist are hard to find and very expensive

- Many skills not fully utilized

Building data scientist out of a team of people currently on staff or readily available in the marketplace

- Modeled after Mary Shelley's Frankenstein monster
- Build a data scientist team with people with a variety of skills





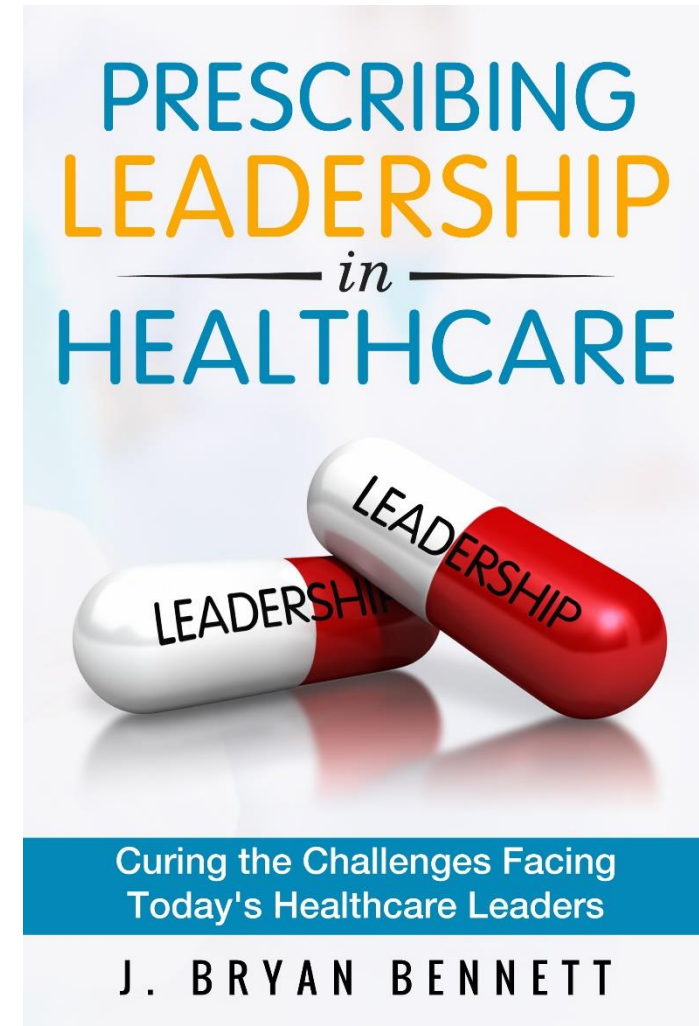
Leadership Development

Leadership is a process that must be prescribed like a maintenance drug and practiced every day

- Same process professional athletes around the world have followed their prescribed training regimen for decades

Development based on proprietary a 5-step process

Focused on creating “Professional” leaders



Most Leadership Training Fails Because



- Skills based versus process based
- One size fits all approach
- Minimal focus on reflection
- No follow up or feedback loop



In Conclusion

To Compete on Analytics:

- Requires extensive leadership skills
 - Leadership is a process, not a position
- Be creative with the analytics team
- “Break down” the data silos
- Create effective analytics programs
- **It's a Journey, Not a Destination**



How Leadership is Like Golf

Coming June 2018



Questions?

Contact Information:

- Healthcare Center of Excellence
 - Bryan Bennett, Executive Director
 - bryan@healthcarecoe.org
- Website / Blogs
 - www.healthcarecoe.org
- Twitter: [@healthcarecoe](https://twitter.com/healthcarecoe)
- Facebook:
facebook.com/healthcarecoe
- Get FREE sample of leadership book chapter at:
 - www.healthcarecoe.org/beckers

