



eHEALTH INITIATIVE
Real Solutions. Better Health.

Data & Analytics Council

Are We There Yet? A Look into the Analytic Capabilities of Healthcare Organizations' Infrastructure and Workforce

Friday, March 21
11:00am-12:00 pm ET

Reminder:

- Please mute your line when not speaking (* 6 to mute, *7 to unmute)
- This call is being recorded

Agenda

- Welcome and introduction
- Speakers
 - Jack Phillips, Co-Founder and CEO, International Institute of Analytics
 - Nancy Garrett, Chief Analytics Officer, Hennepin County Medical Center
 - Pamela Peele, Chief Analytics Officer, UPMC Insurance Services
- General Discussion

National Council on Data & Analytics

The Council is chaired by:

- **Deborah Bulger, CPHQ**
Executive Director, Product Management
McKesson Enterprise Intelligence



ARE WE THERE YET?

A LOOK INTO THE ANALYTIC CAPABILITIES OF HEALTHCARE ORGANIZATIONS'
INFRASTRUCTURE AND WORKFORCE

National Council on Data & Analytics
eHEALTH INITIATIVE

March 21, 2014



INTERNATIONAL
INSTITUTE FOR
ANALYTICS™

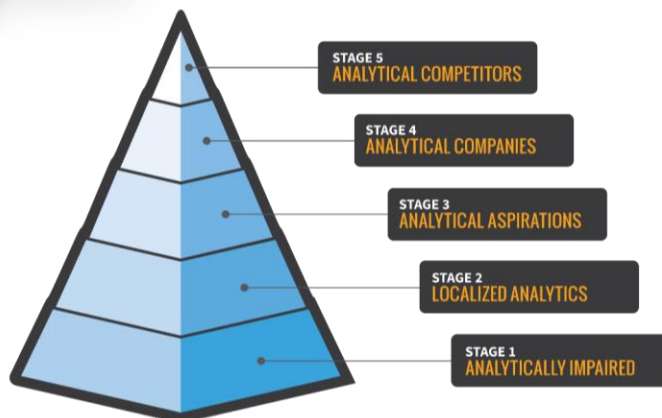


ANALYTICS CAPABILITIES

Organization

(Infrastructure)

- What capabilities define high-performing analytics organizations?
- How can we measure/evaluate those capabilities?
- How can we compare our results to others in our industry...outside our industry?



Workforce

(Data Scientists, Analysts, Clinicians, Execs)

- Which part of the workforce are we talking about?
- Which capabilities are necessary by role?
- How does the workforce gain these capabilities?
- How do we certify these capabilities?



Published Research

Quantifying Analytical Talent. January, 2013. International Institute for Analytics.

Demystifying Analytical Talent, February, 2013. International Institute for Analytics.

Four functional clusters of Analytics Professionals, August, 2013. International Institute for Analytics.

HIGH PERFORMANCE CAPABILITIES: ORGANIZATIONS

- Relentless search for new data and metrics
- All key analytical resources centrally managed
- Strong leadership passion for analytical competition
- Analytics support the firm's distinctive capability & strategy
- World-class professional analysts and attention to analytical amateurs

Source: *Analytics at Work: Smarter Decision, Better Results*



DEMO HOSPITAL SYSTEM

DELTA-Powered Analytics Assessment PREMIUM REPORT

Spring 2014



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SAMPLE

DEMO HOSPITAL SYSTEM

A total of 233 respondents from Demo Hospital System completed the survey:

Analytics Enablers: 51

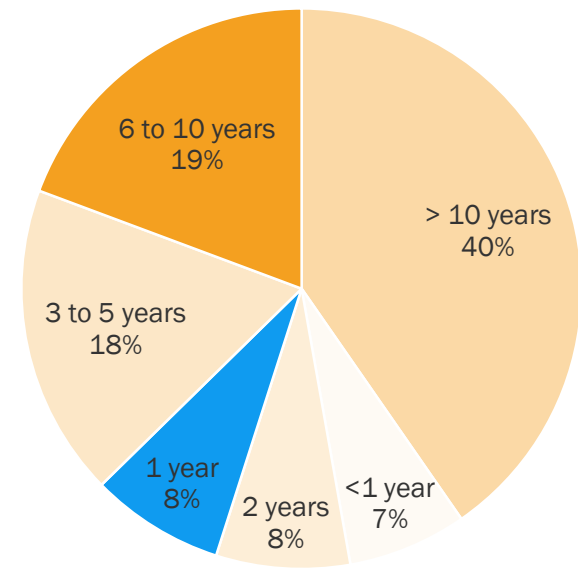
Analytics Providers: 57

Analytics Users: 125



Job Title		
	N	%
President or CEO	1	0%
CXO, Sr or EVP or Board Member	15	6%
Division Head, VP or GM	26	11%
Department, Unit Manager or Director	40	17%
Manager, Administrator or Supervisor	68	29%
Non-management position	83	37%
Functional Role		
	N	%
Corporate Administration / General Management	42	18%
Information Technology / Systems	39	17%
Analytics	23	10%
Clinical: Outpatient Services	23	10%
Administrative / Clerical	22	9%
Quality Control / Assurance	16	7%
Clinical: Inpatient Services	16	7%
Finance / Accounting / Claims	14	6%
Clinical: Ancillary Services	11	5%
Human Resources / Education / Training	6	3%
Other	21	9%

Tenure



ANALYTICAL MATURITY & DELTA MODEL SCORE

The following reports Demo Hospital's score in each of the DELTA model categories, and overall.
The scores represent your organization's effectiveness in each competency, weighted by the competencies' importance to organizational performance. Scores range from Analytically Impaired to Analytical Competitor.

Overall Score

Demo Hospital's overall score:

2.93

Demo Hospital's Analytical Maturity:



Analytical Aspirations

Benchmark Comparison: Overall scores places it as better than **63%** of organizations in the Healthcare benchmark.

Most and Least Effective Categories

Most Effective

The DELTA model categories at which **Demo Hospital** performs most effectively:

-  Data
-  Analysts

Least Effective


The DELTA model categories at which **Demo Hospital** performs least effectively:

-  Leadership
-  Enterprise
-  Targets

Demo Hospital vs. Benchmark

More Effective

The DELTA model categories at which **Demo Hospital** performs more effectively:

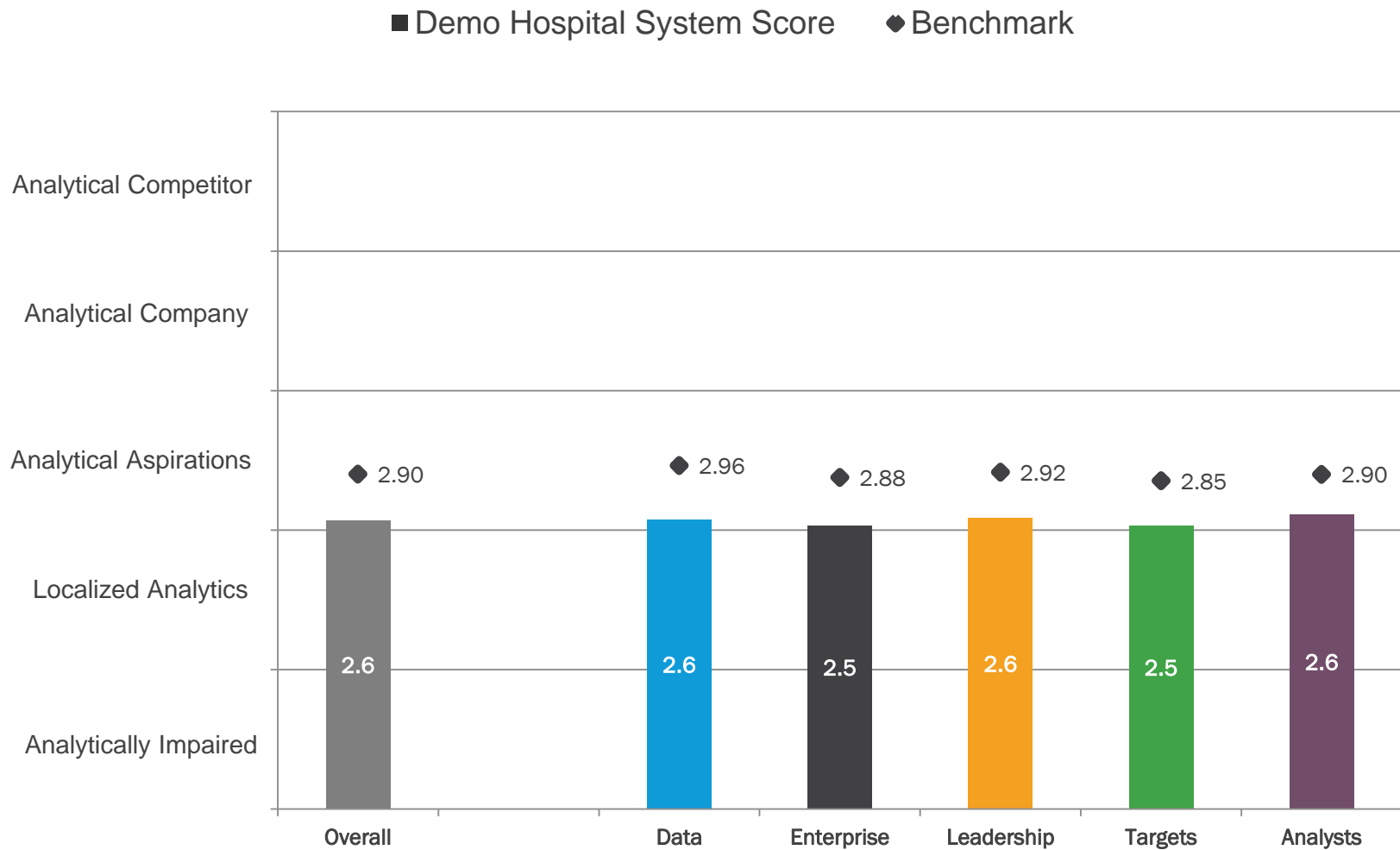
-  Data
-  Analysts

Less Effective

The DELTA model categories at which **Demo Hospital** performs less effectively:

-  Enterprise
-  Leadership
-  Targets

DELTA MODEL SCORES



ASSESSMENT COMPETENCIES

The survey measures 33 competencies based within the DELTA model framework to assess the importance of each competency to the organization and the organization's effectiveness in performing each competency:

Data

- Data capture
- Data quality
- Data integration
- Use of external data
- Data consistency
- Data trustworthiness
- Analytical tools
- "Big Data" utilization

Enterprise

- Enterprise tech management
- Organization of talent
- Funding adequacy
- Non-management utilization
- Data scalability
- Clinical tools
- External reporting
- Government mandates

Leadership

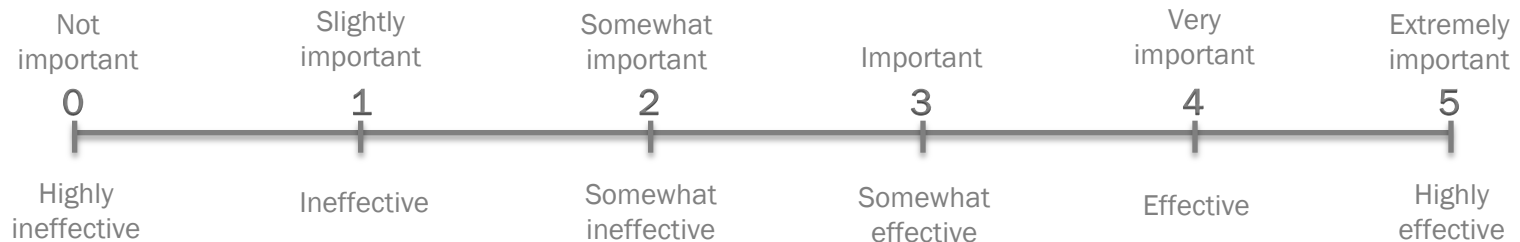
- Strategic input
- Executive advocacy
- Executive utilization
- Management utilization
- Enterprise collaboration
- Medical staff practices

Targets

- Predictive modeling
- Goal setting
- Prioritization
- Iterative approach
- Opportunity identification
- Experimentation

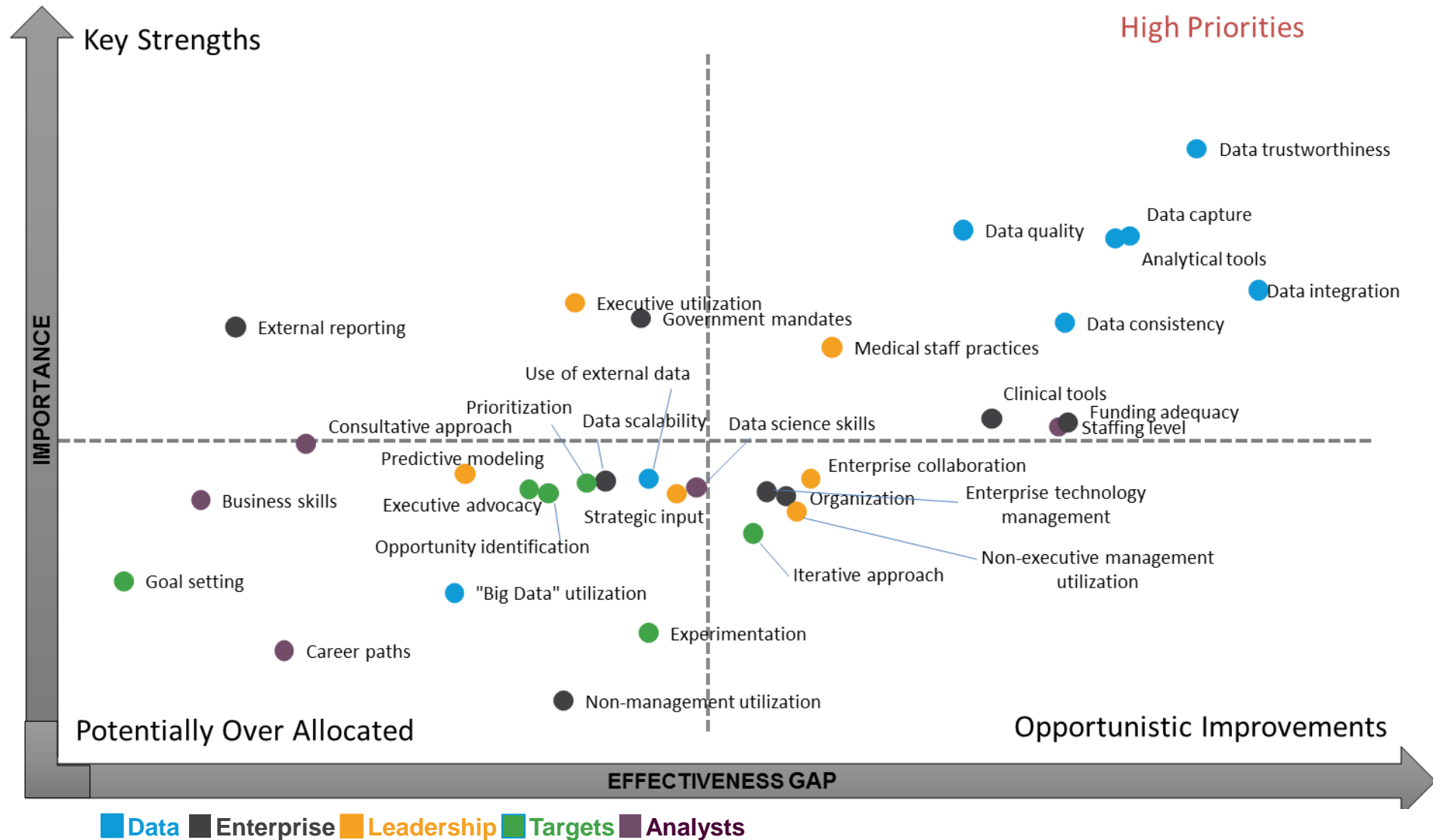
Analysts

- Staffing level
- Consultative approach
- Business skills
- Data science skills
- Career paths



Note: For a full description of each individual competency see Appendix.

PRIORITY MATRIX



SUMMARY RECOMMENDATIONS: ADVANCING FROM STAGE 2+ TO 3

Data

- Find or develop some unique data that the organization can exploit with analytics.
 - Motivate and reward business people for cross-functional data contributions and participating in data stewardship and management, and discourage data hoarding.
-

Enterprise

- Publicize analytics successes to build momentum, but be careful not to overreach.
-

Leadership

- Have business leaders help develop and then commit to a roadmap for building analytical capabilities – data, technology, processes, talent.
-

Targets

- Target one or two (and not too many) cross-functional or enterprise applications and enlist sponsorship for them.
-

Analysts

- Form an enterprise analytics group to focus on cross-functional initiatives and serve as a center of excellence supporting local analytics groups.
- Provide analysts with training, coaching, and support, and rotate them among business areas and problem domains.

DPAA CERTIFIED EDUCATOR PROGRAM

Open to healthcare IT vendors interested in leveraging DPAA with clients to drive improvement across DELTA categories

Training & certification program for executives who want to become DPAA certified

Use of “certified educator” logo and collateral





Analytics Center
of Excellence

The Changing Role of Analytics at a Safety Net Provider

March 20, 2014

Nancy Garrett, Ph.D.

Chief Analytics Officer

Hennepin County Medical Center, Minneapolis, MN



Context



- We've spent lots of time and money getting data into the EHR!
- Stage 7 HIMSS Award for EHR Adoption
- Eight years on Epic – Ambulatory and Inpatient

Current challenges



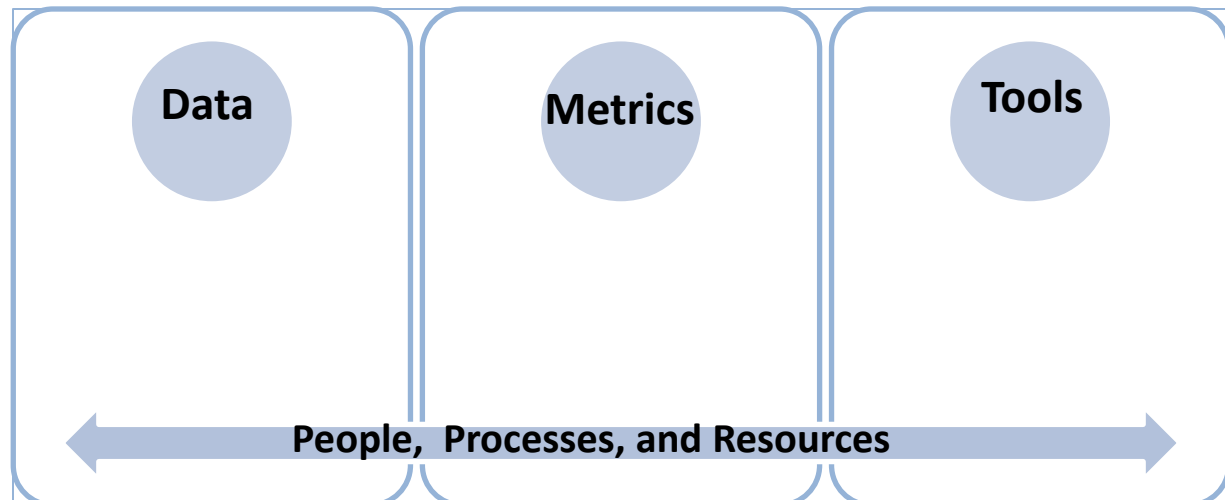
- Getting data out of our EHR and integrating it with other data sources is hard!
- Enterprise performance measures are developed and housed in many systems across the organization, often with overlap and disparate definitions.
- Operational managers and other organizational leaders are not always equipped with a comprehensive set of measures that they are accountable for.
- Manual processes are common in measures production, even where automation is feasible.
- Over 2,000 tracked measures
- Most analytic reporting does not use the data warehouse, but is run directly from operational data sources that are not integrated with other enterprise systems.
- Concept definitions are frequently implemented on a report-by-report basis.
- Validation of data reporting sources is infrequent and inconsistent

Analytics Vision

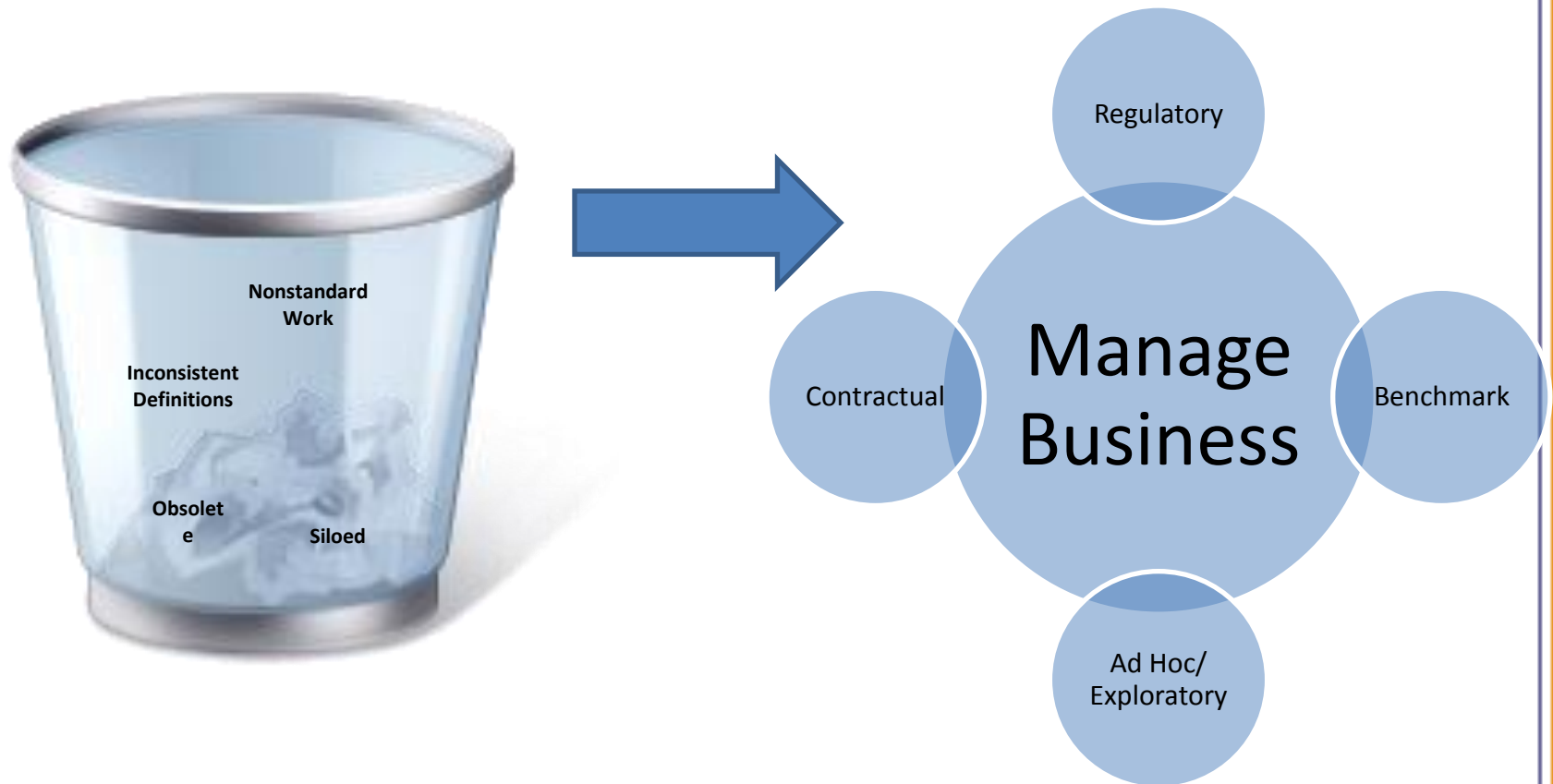


Centralized data, reporting and analytics function to support the enterprise transition to data-driven decision making.

Goal: become an organization that uses analytics capabilities to develop information-driven solutions to the delivery of healthcare.



Moving to Deployed Metrics



A bold restructure...



- Instead of a CIO, a Chief Analytics Officer
- Leads Information Technology and Analytics
- Recognizes the importance of technology to improve operations and provide data that allows us to make better decisions
- Reports directly to the CEO
- In the process of defining the role and how it will advance us – involves culture change, innovation and disruption
- Vision of technology and analytics working seamlessly together to improve care

Analyst team



- Small centralized team with increasing connections to decentralized analysts
- Industry and clinical knowledge that intersects with technical skills
- Partnership with Electronic Health Record team
- Goal of creating common intake for all analytic work and enterprise data governance
- We can't have enough analysts...

A message from the CEO



“It is clear that the future of healthcare calls for a culture that **uses information** to support key operational decisions and to manage population health.”

-Jon Pryor

General Discussion

- How can the business case for analytics be made more clearly to leadership?
 - Is it too early to talk about ROI?
- How should organizations make HIT personnel decisions for the next 5 years?
- How should providers approach purchasing decisions when there are so many analytics solutions in the marketplace?
- What are the major barriers to implementing analytics to drive business intelligence?

Next steps

- Audio recording and slides will be available online at <http://www.ehidc.org/issues/data-and-analytics/data-and-analytics-council-materials>
- Next meeting: April 18, 2014



May 21-22, 2014 | Washington, DC

REGISTER NOW



**Meet & network with your fellow
workgroup members!**

*Join hundreds of researchers, industry leaders, providers, payers and more
focused on the use of analytics to improve clinical, financial and
administrative decisions at critical points in the healthcare system.*

FORUM INFO AVAILABLE AT:

<http://ehidc.org/events-landing/daf-2014>



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HEALTH LEVEL
uncommon insight

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TECHNOLOGIES



**Director of Analytics at CMS to Keynote at eHI's
*National Forum on Data & Analytics May 21!***



Niall Brennan, M.P.P.

**Director, Office of Information Products and Data Analytics
Centers for Medicare and Medicaid Services (CMS)**



May 21-22, 2014 | Washington, DC

REGISTER NOW



What You Would Miss:

- [FREE Analytics Class for Registrants on DAY 1](#)
- **Networking Opportunities with Analytics Community**
 - **Unparalleled Participants & Data Experts**
- **Cutting Edge Data & Analytic Technologies & Practices**



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Upcoming webinar from eHI Member

FasterCures webinar on crowdsourcing data challenges

Wednesday, March 26, 2014 (1:00 – 2:00 p.m. EST)

Can crowdsourcing be the answer to your biggest scientific challenge? [Join FasterCures for this FREE webinar](#) about computational challenges that are moving solutions directly from the crowd to the clinic. You will hear from experts at Dialogue for Reverse Engineering Assessments and Methods (DREAM) and Sage Bionetworks about the history and successes of this model, as well as their current efforts to crowd source solutions to complex biomedical questions in cancer, rheumatoid arthritis, and Alzheimer's disease. Find out how to get involved, apply these systems to your own disease area, and get results.

- **Stephen H. Friend**, President, Co-Founder, and Director, Sage Bionetworks
- **John Wilbanks**, Chief Commons Officer, Sage Bionetworks, and Senior Fellow, FasterCures
- **Gillian Parrish (Moderator)**, Associate Director, Communications and Outreach, FasterCures

Thanks for participating!