

The logo for HIMSS 14, featuring the word 'HIMSS' in a dark blue, sans-serif font, followed by '14' in a larger, bold, blue font. A small blue dot is positioned above the '14'.

Annual Conference
& Exhibition

FEBRUARY 23-27, 2014
ORLANDO, FLORIDA

A circular inset image showing a woman and a man in white lab coats. The woman is in the foreground, looking slightly to the right. The man is behind her, also looking to the right. They appear to be in a professional setting.

INNOVATION. IMPACT. OUTCOMES.

ONWARD

Strategic Expansion of Analytics Capacity through Knowledge Management

February 26, 2014

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Conflict of Interest Disclosure

Joe Kimura, MD MPH

Abby Clobridge, MS

Has no real or apparent conflicts of interest to report.

Learning Objectives

- Describe why the explosion in healthcare analytics will create knowledge management challenges for delivery systems that will lead to ineffective and inefficient analytics
- Describe the role of development a knowledge management strategy to help mitigate those risks
- Demonstrate how knowledge management can improve collaboration and sharing across siloed or geographically distributed teams
- Describe the importance of organizational culture in facilitating collaboration and knowledge sharing
- Illustrate how knowledge management techniques rooted in organizational culture can complement and enhance technology based approaches

An Introduction to the Benefits Realized for the Value of Health IT



E

ELECTRONIC INFORMATION/DATA: Increases the capacity of your analytics department to more data, more consistent data, and better data out to your organization



S

SATISFACTION: Improves the professional satisfaction of data analysts within the organization through the promotion of a collaborative culture



S

SAVINGS: Maximizes analytic capacity of existing staff within an analytics and reporting department

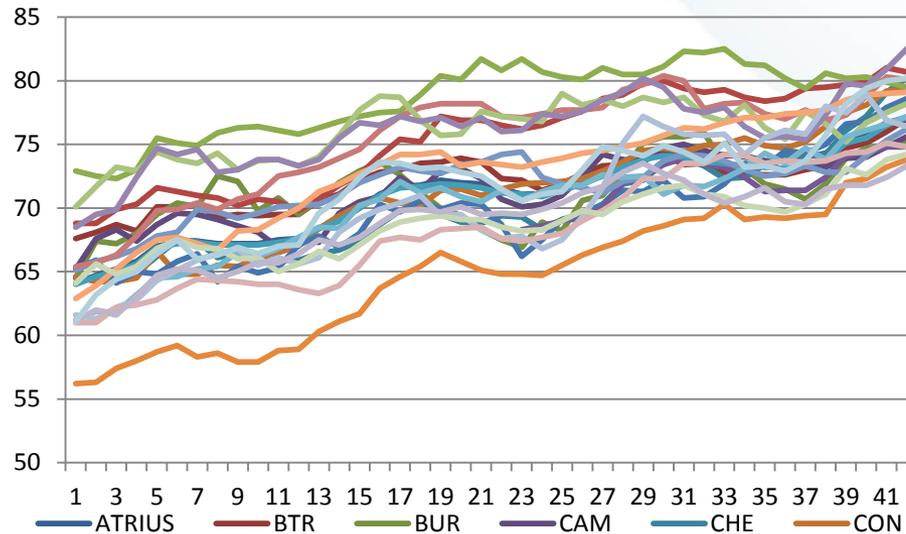
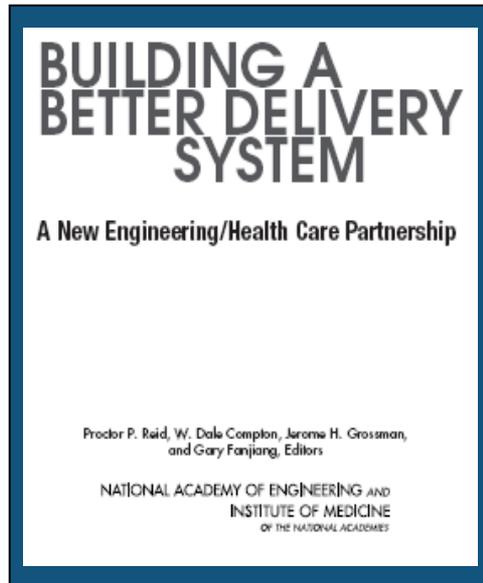
Overview

- Background – A Case for Change
- Introduction to Knowledge Management (KM)
- Case Study: The KM Process
 - Assessment of the Current Environment
 - Strategic Plan
 - Tactical Plan
 - Implementation
- Final Thoughts
- Q&A

Background: A Case for Change

Analytics are a core competency of an adaptive learning delivery system.

- Change management in physician organizations is facilitated by shared data review
- ACOs must innovate, adapt, and improve (Continuous improvement = Continuous Learning)
- Data informed decision making is critical as reimbursement levels drop



Practice Variation Reduction: Hypertension Management - Hypertension control <139/89: Mar 2009 - Aug 2012

Background: A Case for Change

- Healthcare analytics as an exploding area
 - Value based accountability for cost, quality, and patient experience
 - Global risk financial arrangements
 - Emphasis on operational process improvement
- The complexity of healthcare analytics is also exploding
 - Expanding data sources, data types, data volume
 - Increasing sophistication of data analytic methods
 - Increasing sophistication data visualization and reporting
- Highly competitive market for well trained analytic staff
 - Large time investment in onboarding new analyst
 - Ongoing maintenance of skills & knowledge is a challenge

Background: A Case for Change

- Past - Simple, silo-ed financial, quality, or operational reporting
- Today - Complex integrated reporting
- Demand and complexity require analytic staff to work better together

“Need to work together better”

“Duplicating efforts”

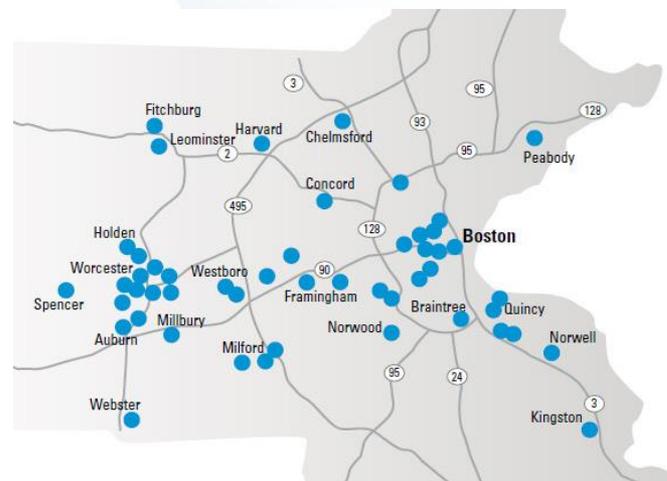
“Reinventing the wheel”

“Inconsistent across silos”

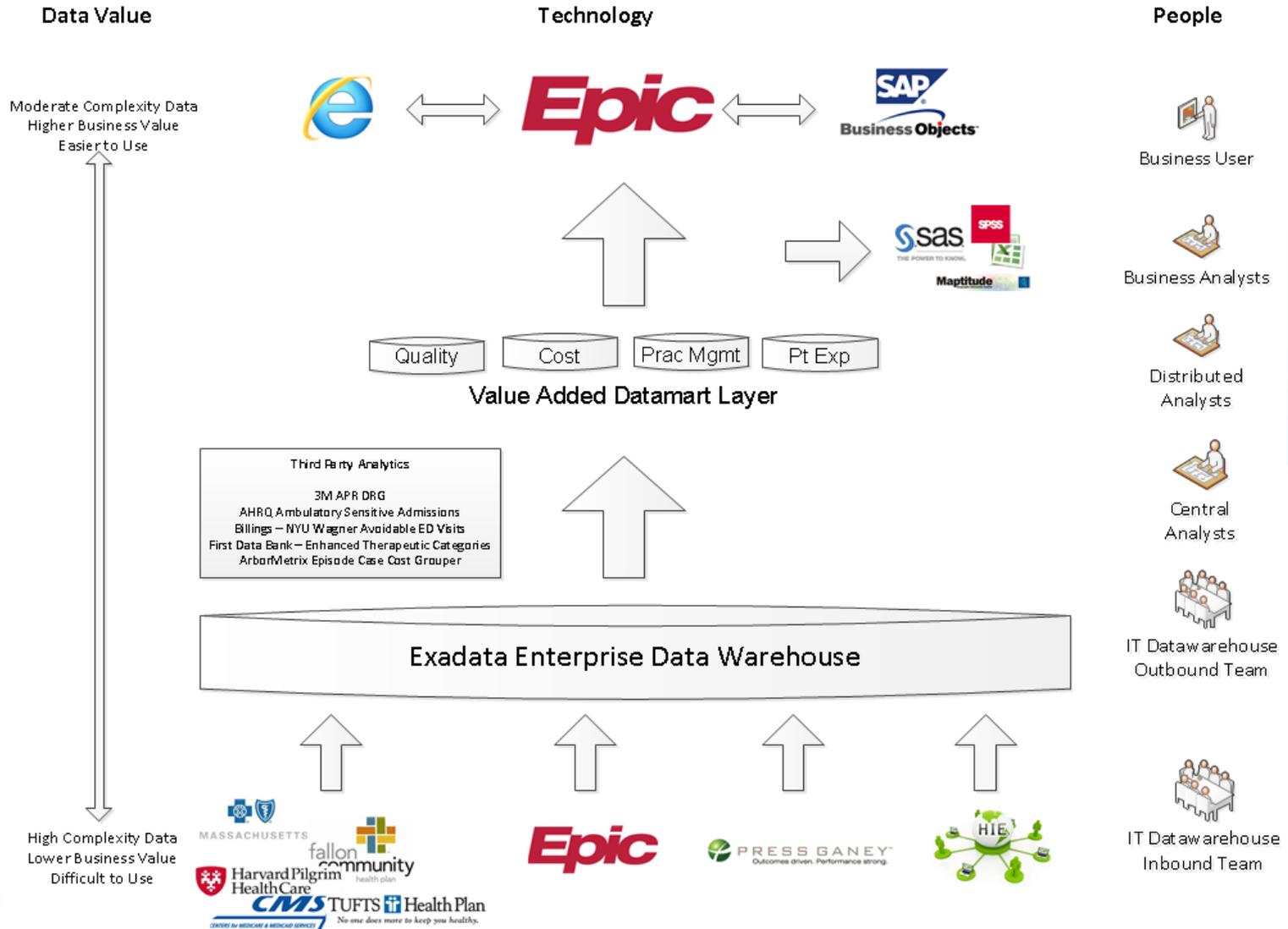
“Can’t find what we’re looking for”

Background: A Case for Change

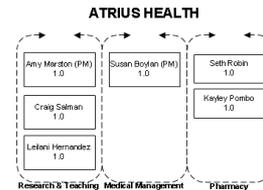
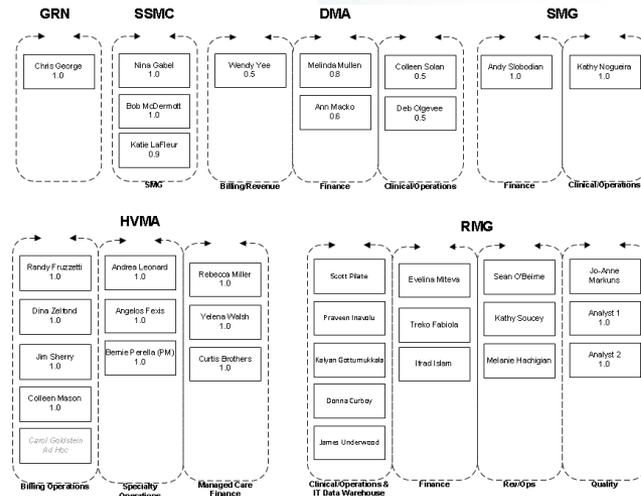
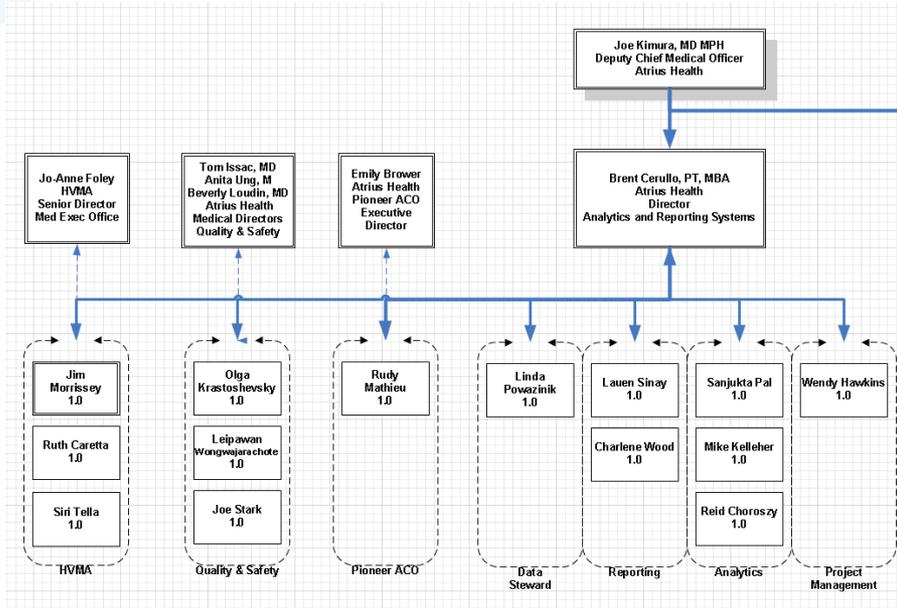
- Non-profit alliance of six leading independent medical groups + VNA service
- ~ 1,000,000 adult and pediatric patients
- 1100 physicians across 35+ specialties
- 100% of physicians on Epic
- Enterprise Data Warehouse
- HIMSS Level 7
- NCQA Level III Advanced Medical Home Accreditation at 30 practice sites
- CMMI Pioneer ACO Organization



Background: A Case for Change



Distributed Analytic Resources



Road to Knowledge Management

- Concerns that analysts were duplicating each other's work by re-creating code or re-running the same reports
- Investing too much time & resources replicating processes
- Challenges with information organization & classification across systems and across silos
- More consistent organization of information via an improved taxonomy?

Common symptoms of KM challenges

“Need to work together better”

“Duplicating efforts”

“Reinventing the wheel”

“Inconsistent across silos”

“Can't find what we're looking for”

Introduction to Knowledge Management

Overview of key concepts and frameworks

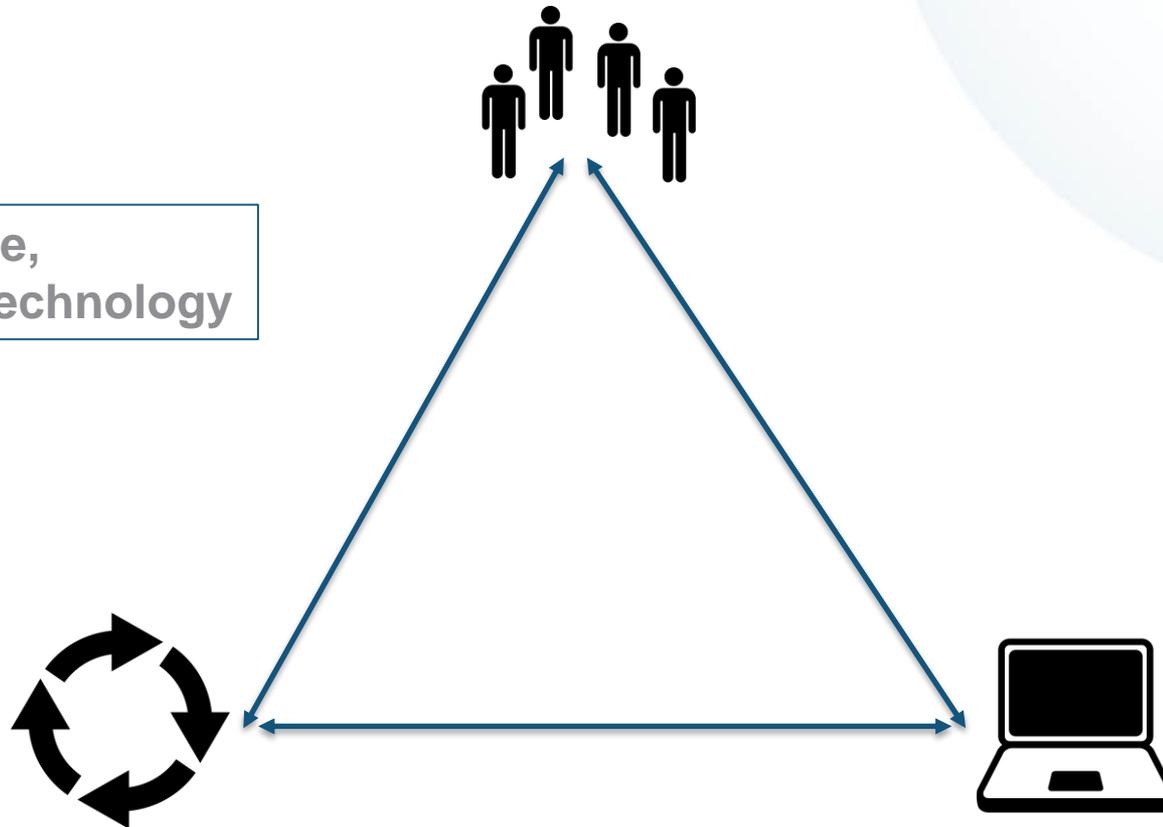


What is Knowledge Management?

- Range of practices, processes, and activities that together encompasses how an organization approaches knowledge
- Levels and approaches to KM: top down vs. bottom-up, organizational vs. departmental
- Elements of KM are tied to:
 - Organizational structure
 - Organizational culture
 - Operational processes
 - Technology adoption
 - Information management
 - Organizational learning and professional development

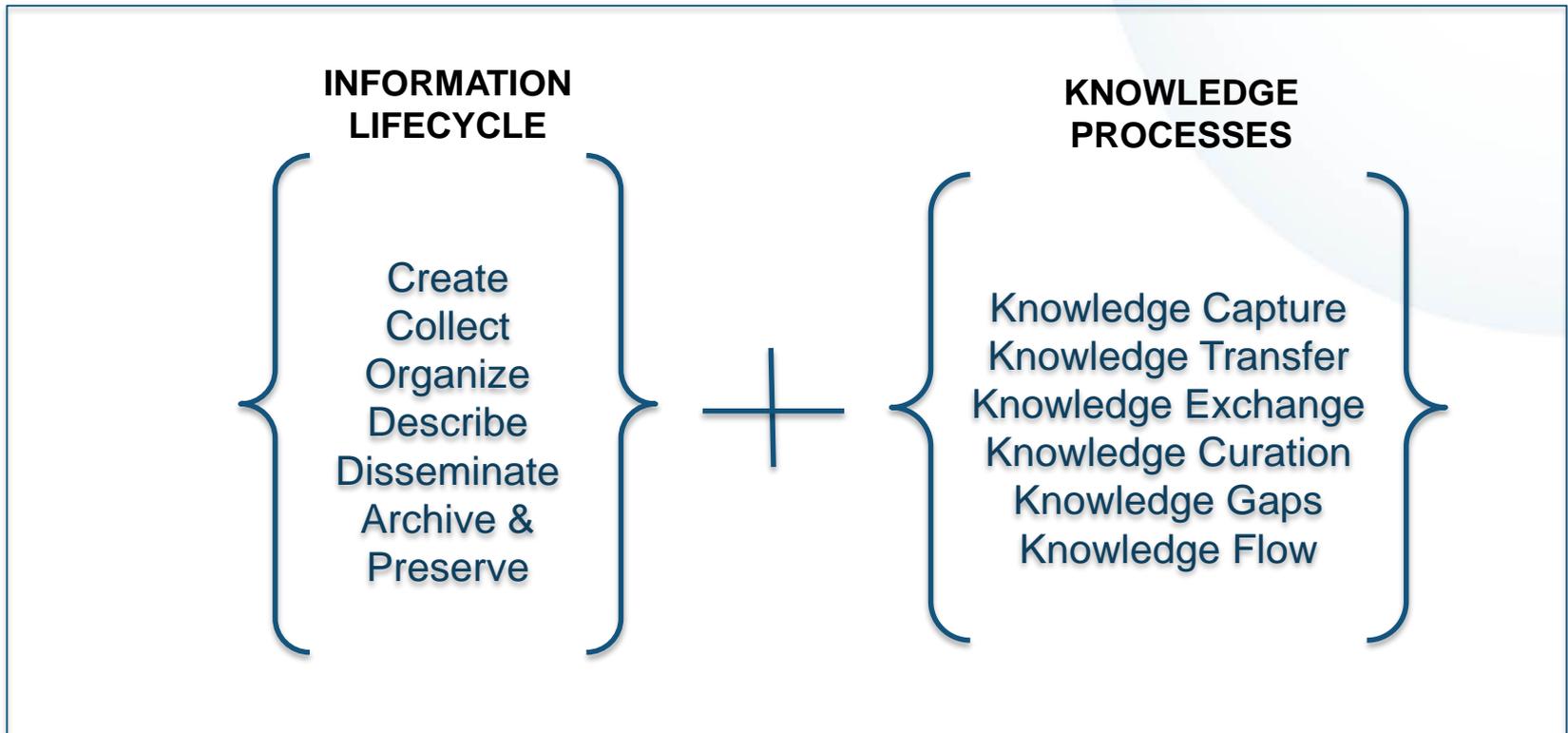
Knowledge Management

Framework for systematically and consistently capturing and sharing organizational knowledge to achieve operational excellence.



Knowledge Management:

FIND or DISCOVER Information & Knowledge:
to promote the re-use, uptake, adoption, adaptation of organizational knowledge



Knowledge Exchange & Transfer

- Converting from tacit knowledge (in people's heads) to explicit knowledge (articulated and captured, stored in a knowledge asset)
- Staff turnover – exiting staff, retirements, onboarding new staff

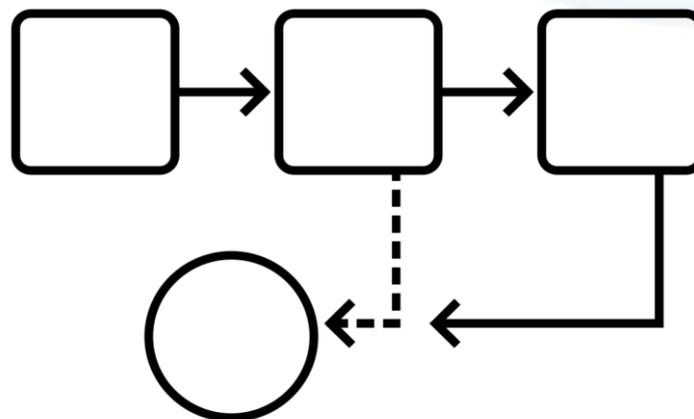
Areas to target:

- Organizational ways of working: typical or standard methods, practices for conducting everyday work
- Institutional memory: when and why key decisions were made, processes put in place, organizational changes
- What worked, what didn't? What could be done differently in the future?



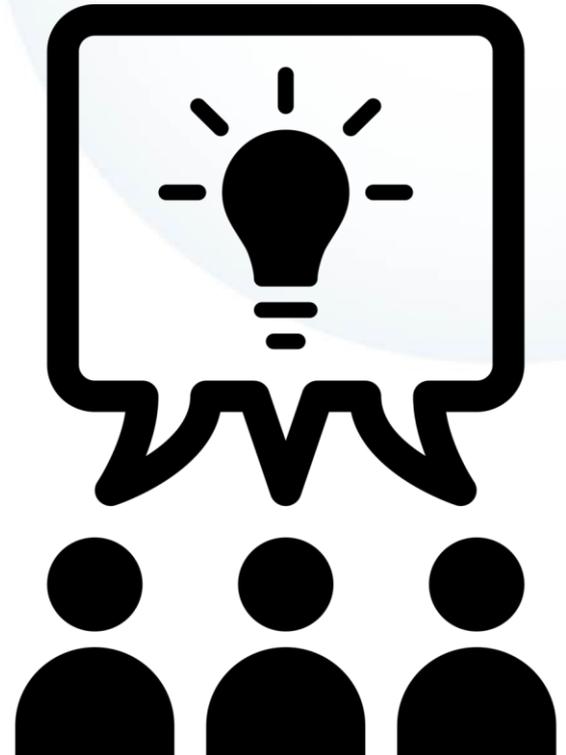
Knowledge Flow

- Look for gaps in or barriers to knowledge flow
- Where does knowledge flow break down? Why/how is it an impediment?
- “Open” vs. “closed” states within the organization
- Different models – spoke and wheel/hub vs. networked model



Why encourage knowledge sharing?

- Foster innovation and creativity
 - “Better together”
- Improve, enhance, build on existing knowledge
- Improve connections between staff
- Internal transparency → increased trust
- Reduce duplication of efforts
- Single stream of information



Case Study: The KM Process

Assessment > Strategic Plan > Tactical Plan > Implementation

Timeline

- February Current State Assessment
 - Interviews & analysis
 - Preliminary Current State Summary Report
 - Workshop (Half-day All Analyst Meeting)
- March Future State, Gap Analysis, Strategy
 - Report on Current Gaps + Proposed Strategy
 - Workshop (Half-day All Analyst Meeting)
- April Tactical Plan Development
 - Online Moderated Brainstorming & Rapid Development Cycle
 - Tactical Planning – Timing & Deliverables & Assessment
- May Final Report & Handover
- Q3, Q4 Begin Implementation
 - Organizational changes
 - New framework for All Analyst group
 - Technical development

Current State Assessment

Re: meetings – if you miss it, it's gone...

Lots of disconnect between silos....

Who is doing what, when they did it, if they did it, where it is... If we knew that someone had done something before and when, we could just tweak the code rather than reinventing the wheel.

Lots of this knowledge is in [one person's] head [and nowhere else].

As long as no one leaves, we're ok.

We don't know what we know or what we do across silos

Speed is starting to cause mistakes and issues

The issue is finding out [if a request has been done before].

You don't even know what you don't know.

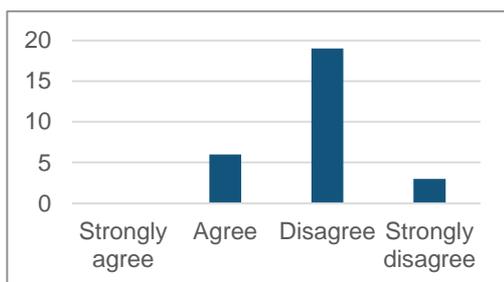
We need to harness all of this tacit knowledge that we have somehow.

As someone new to the org... it would be very helpful to know what everyone is doing... [I] felt like transparency was missing....

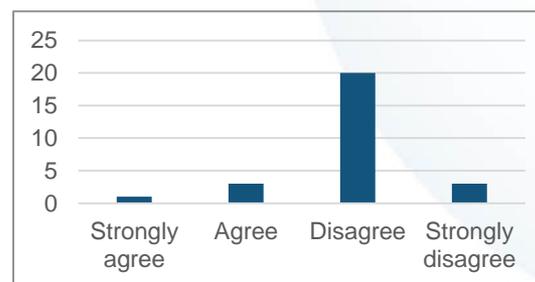
Collaboration | Communication | Documentation | Duplication of efforts | File organization | KM and clients | Knowledge capture | Knowledge sharing | Organizational structure | Speed and pace | Training

KM Survey (Analysts)

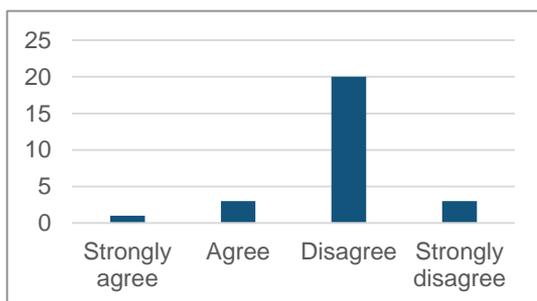
Knowledge sharing across group boundaries is recognized and rewarded. (N=28)



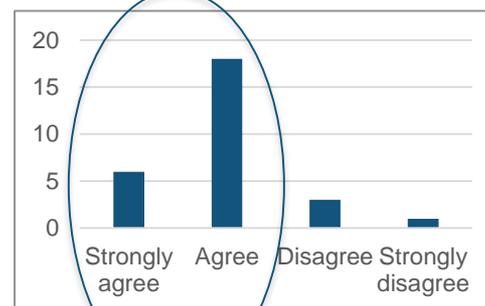
Best practice guidance is widely available and integral to our work practices. (N=27)



Lessons are systematically and routinely learnt, shared, and applied. (N=27)



My colleagues willingly share their knowledge with me. (N=28)



Strategic Plan: Defining the Vision

Through effective knowledge management, analysts aim to efficiently and effectively identify, capture, transfer, share, re-use, and facilitate the application of key knowledge necessary for analysis to help achieve the Triple Aim:

- Improving Population Health
- Improving Patient Experience
- Decreasing the Cost of Care

Strategic Plan: Defined Goals

Strive for operational excellence

Through the effective flow of knowledge, we aim to improve the ways in which analysts:

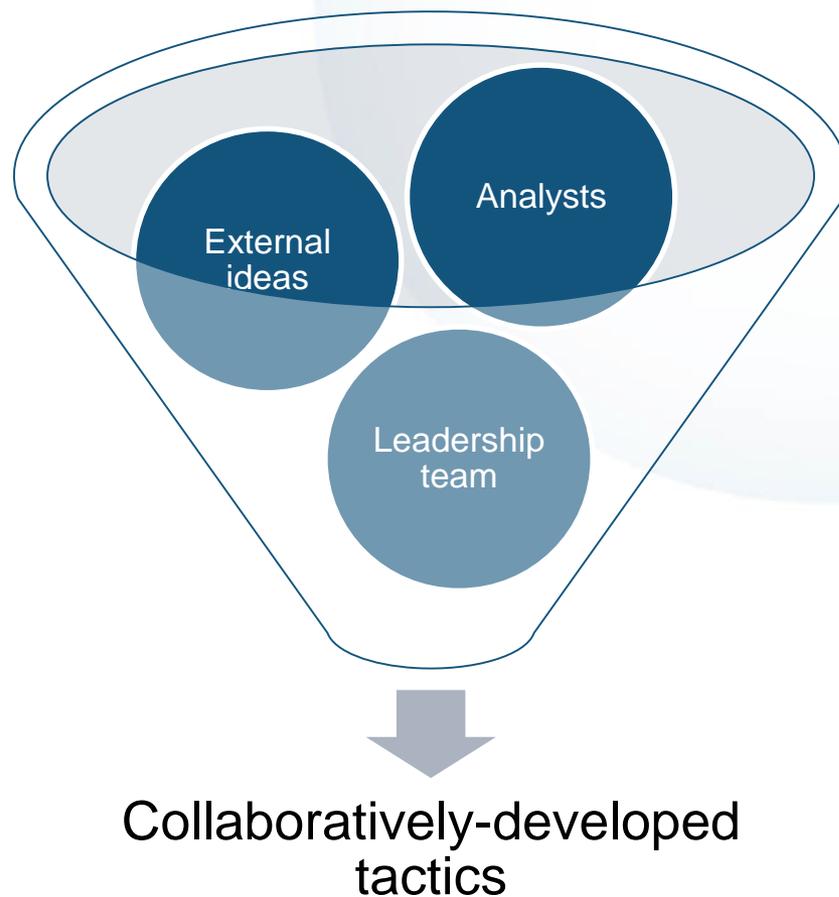
- Work together through coordinated efforts across silos, through improved teamwork and collaboration, and by maximizing use of the group's collective knowledge and expertise
- Work independently through direct access to key knowledge, knowledge assets, and each other

Support organizational use of data and analytics

- *By serving as subject matter experts within the organization, take a leadership role in guiding the appropriate use and adoption of data and analytics to support the delivery of health care and operational effectiveness*

Tactics Development

- Kick-off brainstorming workshop
 - All analysts
 - Half-day
- Rapid development cycle
 - Two weeks
 - Small groups (3-8)
 - Membership across traditional silos
 - Self-selecting groups
- Continued development of all tactics



Rapid Development Process

The screenshot shows the TitanPad web interface for user 'KMrriverside'. The top navigation bar includes 'Home', 'Pads', 'My Account', 'Help', and 'Admin'. The user is logged in as 'aclobridge@clobridgeconsulting.com' with a 'sign out' link. The main content area is divided into two columns. The left column contains a 'Welcome Abby Clobridge (Administrator)' message, a 'Latest News' section with two news items (dated October 15th, 2012 and April 10th, 2010), and a 'TitanPad Team' signature. The right column features a 'Create new pad' button and a 'Your Recent Pads:' section with a table listing various pad titles.

KMriverside aclobridge@clobridgeconsulting.com [sign out](#)

[Home](#) [Pads](#) [My Account](#) [Help](#) [Admin](#)

Welcome Abby Clobridge (Administrator)

Latest News

October 15th, 2012

Since we provide this service free of charge and had more success than we anticipated we needed to define a deletion policy for unused domains. Starting by August 2012 we will delete all private subdomains which haven't been accessed for more than two years. To prevent your domain from being deleted it suffices to log in every 12-18 months to be on the safe side.

You can find more information at the TitanPad blog [here](#) and [here](#).

You can also help us by deleting pads which you don't need anymore.

April 10th, 2010

Welcome to your free TitanPad Account! Please report bugs by sending email to [<support@titanpad.com>](mailto:support@titanpad.com).

If you have any questions, just email [<support@titanpad.com>](mailto:support@titanpad.com) and we will respond to your inquiries.

We hope you enjoy TitanPad!

TitanPad Team

Create new pad ✨

Your Recent Pads:

Title
New Analytics Staff Development Program
Atrius Knowledge Cafe Tactics Development
Untitled 23
HIMSS 2014
Expertise Database
Knowledge Base - 4/9 Meeting & Ideas
Meeting -- 4/12/2013
Announcements & Questions
Report Management Database
KnowledgeBase

[View all pads...](#)

TitanPad – Real-time, web-based collaborative writing tool (similar to Google Docs)
<http://titanpad.com/>

B I U S List Bulleted Numbered Undo Redo

1 |

2 **Tactic: New Analytics Staff Development Program**

3 |

4 **Team members:** Katie LaFleur, Siri Tella, Lauren Sinay, Charlene Wood, Kayal Chandrasekaran, Linda Powazinik, Liz Suwinski, Vera Yanovsky

5 |

6 **Purpose:** Develop a formal training program designed to train and acclimate new analytics staff members in consistent, systematic ways that break down barriers between silos. When and how often should formal training begin - whenever an analyst starts? usually analysts start at different times -

7 |

8 |

9 Checklist of tools and training needed, accesses required to various databases and applications and whom to contact for access

10 |

11 **Beginner's Check list:**

12 1. Access to Business Object

13 2. Access to Clarity database

14 3. Access to Claims database

15 4. Access to Epic

16 5. Access to Data Warehouse collaboration page

17 6. Access to ASAR collaboration page

18 7. Access to Data Steward collaboration page

19 8. Access to Verisk Sightlines (if applicable)

20 9. Access to the Report Management Database

21 10. Info on joining one of the Community Development groups, e.g., New Analysts

22 11. Access to Mytime

23 12. List of programs to look for on their computer(make sure they have all the programs they need i.e. Toad, Crystal, etc.)

24 13. Get added to DWUG list in Outlook (or whatever the new group is called)

25 14. Attend a DWUG meeting: put faces to names.

26 15. List of important phone numbers (i.e. Help Desk, Weather Number etc.)

27 16. Phone numbers for all analysts? (updated each time a new analyst starts)

28 |

29 |

30 What should be covered in a Training Program - Overview of Atrius Organizational Structure; Overview of Analytical Groups spread across departments and sites;

31 Introduction to Data Warehouse (Clarity, Claims, Datamarts, Testing and Production Environments, Reference and Mapping Tables, Business Rules, Report Management Database)

32 I think also, on top of all of this-- how it all fits together, creating a 'big picture' overview, why things are done the way they are.

33 LP 03/27 Add overview of EPIC

34 Overview of DASC and working groups

35 |

Abby Clobridge

[Invite](#) other users and they will show up here.

[Share this pad](#)

March 26, 2013

Sireesha Tella: Hello 11:36

Lauren Sinay: hi siri 11:36

Yelena Walsh: hi 11:37

March 27, 2013

Kayal Chandrasekaran: Hi, I have started the checklist, please feel free to add on to it. 8:20

Liz Suwinski: I have added a few suggestions in neon green, as opposed to the pastel green-- those are Kayal's comments. They really could not have picked colors that are more close together... 11:00

Lauren Sinay: I've added a few of the "new" KM deliverables 13:18

Abby Clobridge: I really like this idea -- I think also, on top of all of this-- how it all fits together, creating a 'big picture' overview, why things are done the way they are." 13:38

Abby Clobridge: I think that would be very helpful! 13:38

Liz Suwinski: Thanks! I know as I've learned more and more about why rather than just how things are done, I've had so many things finally click for me. Once that happens, the knowledge generally tends to be cemented in my brain. 14:00

Liz Suwinski: This could make for more effective training 14:01

Abby Clobridge: I know what you mean -- I'm the same way in terms of processing information. You need to be able to make sense of things. 14:56

Abby Clobridge: What about having some sort of list of commonly-used acronyms and abbreviations? 14:57

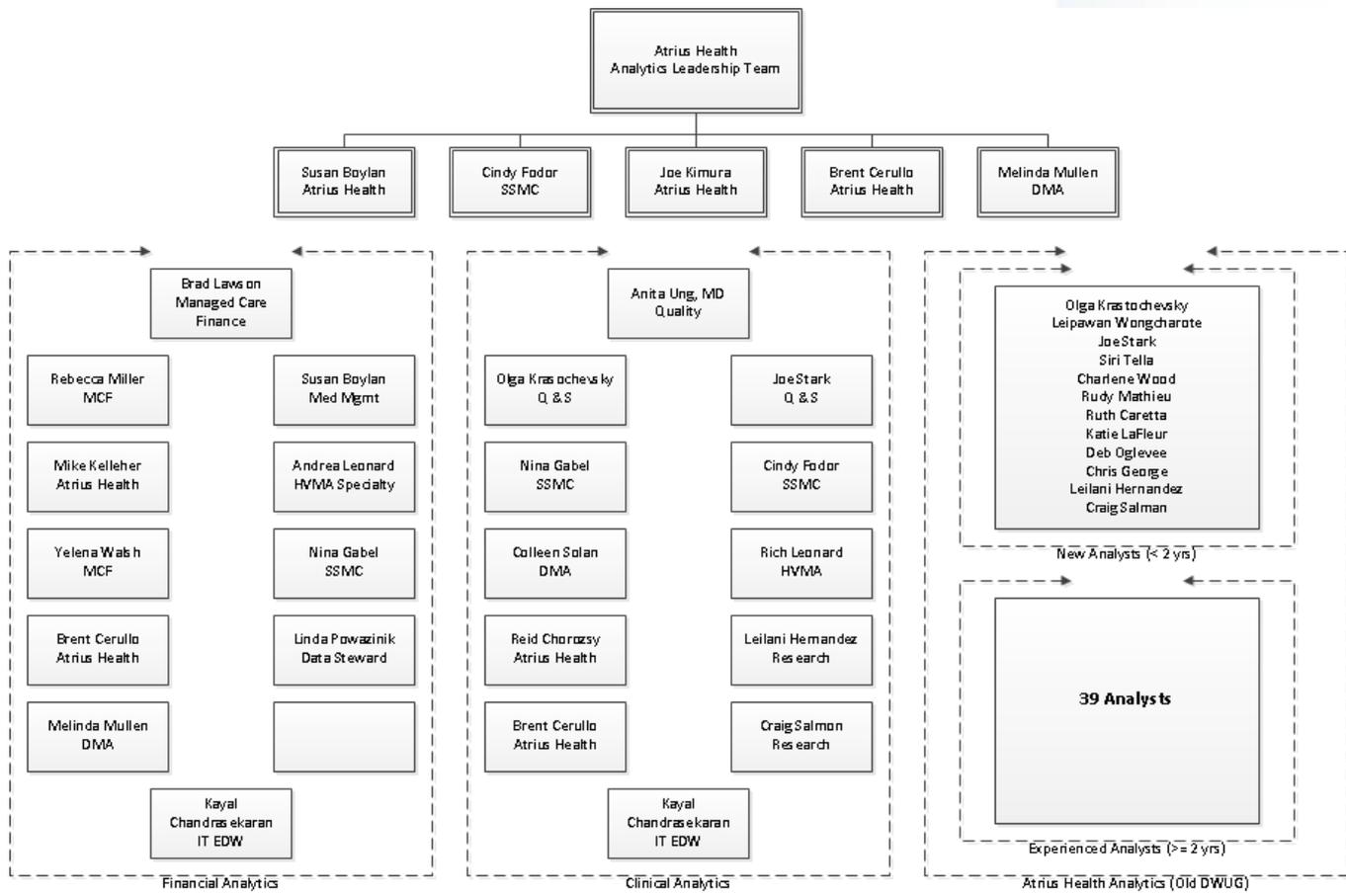
Strategy and Tactical Summary – 2013/14

Strategic Domain	Issues Addressed
Organizational Culture	<ul style="list-style-type: none">• Analysts structured into siloes by organization• Chasm felt between some groups of analysts• Limited common ethos except personal relationships• Difficult for analysts to establish new relationships
Infrastructure	<ul style="list-style-type: none">• No common request system, no way of knowing who works on what• Broad geographic dispersion makes it difficult to collaborate• Analysts find it difficult to know background and experience of analysts in different silos
Workflow & Processes	<ul style="list-style-type: none">• Unstandardized process for seeking help from others• Unstandardized process for training new analysts• Varying expectations about who is obligated to help whom
Investment in People	<ul style="list-style-type: none">• Very long 12-18+ month process to “train” a new analyst• Limited opportunities to continue to develop as an analyst

Strategy and Tactical Summary – 2013/14

Strategic Domain	Tactical Plan
Organizational Culture	<ul style="list-style-type: none"> • Create Analytics Collaborative Group (AGC) Leadership Team • Establish two peer groups based on Org Experience • Redesign monthly meeting formats for greater value
Infrastructure	<p>Central analytics space within SharePoint:</p> <ul style="list-style-type: none"> • Standardized request catalog • Online analytics Knowledge Base • Online moderated discussion board • Expertise Directory
Workflow & Processes	<ul style="list-style-type: none"> • Established process for analyst to seek answers to questions • Use of online resources for self-service answers to questions
Investment in People	<ul style="list-style-type: none"> • New analyst onboarding process, curriculum, structure • Ongoing professional development program (for all analysts)

Core Hybrid Structure of Analysts



Implementation (in progress)

- SharePoint: Collaboration space for all analysts (development underway)

The screenshot shows the 'Analytics Collaboration Group Home' page in a browser window. The page layout includes a search bar, a breadcrumb trail, and several content areas. Annotations with arrows point to specific features:

- Announcements:** A box with a 'Message.....!' placeholder. Annotation: 'Space for short announcements – to replace emails sent to entire group'.
- Recent Blog Posts:** A list of posts including 'Lessons Learned -- Notes from April (Joe)', 'Report Spotlight: Pharmacy XYZ (Seth)', 'Favorite Clarity Tables (Sue)', 'Knowledge Base Pages Updated in April (Rebecca)', and 'ACO Day in April -- Notes for Analysts (Reid)'. Annotation: 'Roll-up of recent blog posts – longer notes to the group, fully archived, emphasis on sharing knowledge'.
- Group Calendar:** A calendar view showing events for May 2013 (DASC, Financial Analytics WG, Clinical/Operations WG, Professional Development Brown Bag Lunch) and June 2013 (Professional Development Brown Bag Lunch, DASC). Annotation: 'Calendar of events; tied to Outlook'.
- AGC Tools:** A list of links: 'Report Catalog', 'Discussion Board', 'Knowledge Base', and 'Expertise Directory'. Annotation: 'Direct links to most-used tools and pages within the ACG SharePoint site'.
- Discussion Board Posts:** A list of recent posts: 'Clarity - Enterprise ID (Person 1)', 'TOAD - Create Tables Query (Person 2)', 'TOAD - Table Access Permission? (Person 3)', and 'Tip - How to Automate TOAD Queries (Wina)'. Annotation: 'Roll-up display of most recent 3-5 items posted to the discussion board (title of post + author's name)'.
- Working Groups & Project Spaces:** A list of links: 'Professional Development Team', 'Knowledge Transfer Team', 'Knowledge Cafe & Outreach', 'New Analyst Checklist and Training Materials', and 'Etc.'. Annotation: 'Links to subgroup/team spaces housed within the ACG space'.

Continued Efforts & Ongoing Challenges

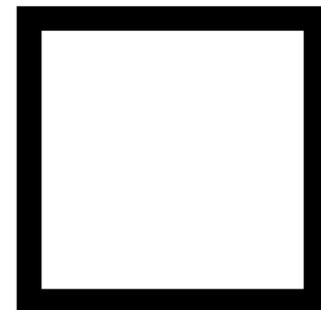
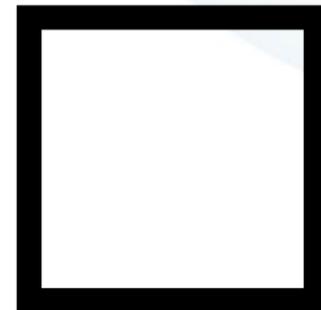
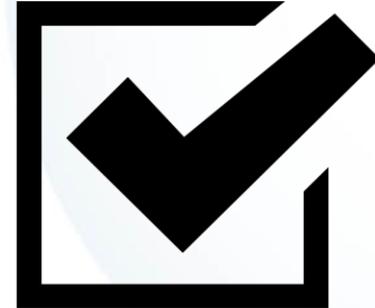
- Governance: centralized vs. de-centralized vs. hybrid model
- Finding time to continue focusing on organizational development
- Incentives and rewards for knowledge sharing
- Iterative development process: continued work to assess, tweak, adapt
- Long-term assessment efforts

Final Thoughts

KM best practices & techniques

Best Practices in KM

- Focus on KM & organizational culture
- Communities of Practice
- Best Practices and lessons learned
- Tech-based tools
 - Expertise Directory
 - Knowledge Bases
 - Online discussion forum
- Taxonomies and user-generated tags



Best Practices: Technology to Promote Knowledge Sharing

- Asynchronous collaboration, knowledge sharing, knowledge exchange
- Expand connections between staff, between silos, between groups, across geographic lines
- Transparency and trust within closed groups
- **Consistent and systematic** adoption of tools
- Collaborative writing & collaboration spaces
- Shifting from email to online platforms
- SharePoint, collaboration, and knowledge sharing

Indications of KM Challenges

Are we making the most of existing tools and processes to share knowledge?

Are we making the most of staff members' knowledge, skills, expertise, and know-how?

We don't know who does what

Concerns with upcoming retirements and institutional memory

If only we knew what we know...

We're not doing things consistently across silos

Challenges getting new staff up to speed

Reinventing the wheel

Concerns with duplicating each other's work

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Questions?

Thank You!

Joe Kimura, Medical Director for Analytics and Reporting Systems
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