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SUCCESSFULLY IMPLEMENTING TRANSFORMATIONAL TECHNOLOGY IN HOSPITALS AND HEALTH SYSTEMS

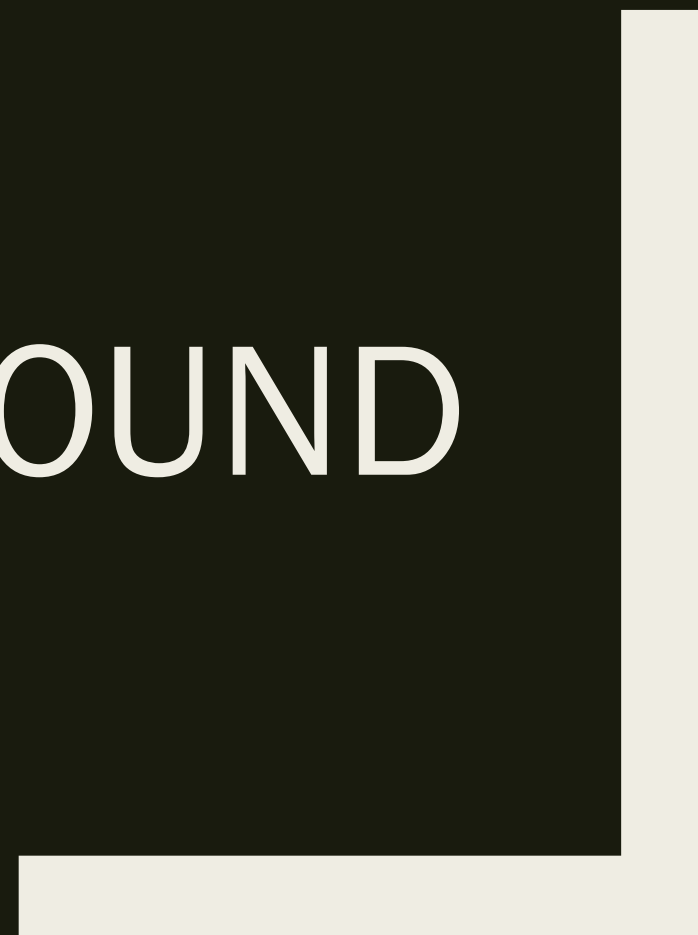
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Georgia HFMA/Georgia HIMSS – August 2, 2017

Outline

- Background
- Objectives/Takeaways
- Why This Topic Matters
- Status of the Industry
- The Two Big Buckets of Healthcare Technology
- The Four Fronts of the Health Technology Revolution
- Requirements for Success
- Avoiding Pitfalls

BACKGROUND



Background

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OBJECTIVES/ TAKEAWAYS



Objectives/Takeaways

- A framework to help you understand technology's many complexities, including:
 - *The importance of this topic*
 - *Status of the industry*
 - *An outline for categorizing technology developments*
- Strategic insights to help you see how technology can achieve your corporate goals
- Practical advice to help you successfully implement emerging technology initiatives

What This Session's Purposes Are and Are Not

- It is not designed to be in any way technical
- It does not deal with the details of EHRs, IT infrastructure, interoperability, or compliance requirements
- It is designed to provide an overview of technology's strategic nature and role and how to get technology implemented

WHY THIS TOPIC MATTERS



How Technology Relates to the New World of Healthcare Delivery

■ The Reactive

- *Compliance*
- *New Payment Incentives*

■ The Proactive

- *Clinical Breakthroughs*
- *Coordination of Communication*

The New World of Healthcare Delivery - Reactive

■ Compliance

– *Privacy*

- HIPAA and other privacy requirements

– *Interoperability*

- Medicare Access and CHIP Reauthorization Act
 - *Merit-Based Incentive Program System*
- 21st Century Cure Act – information blocking and interoperability

The New World of Healthcare Delivery - Reactive

- New Payment Incentives and Penalties
 - *Value-Based Purchasing*
 - *Readmissions Reduction Program*
 - *Hospital Acquired Conditions Reduction*

Implications of Not Complying with Reactive Requirements

- Financial penalties
 - *Reduced payments*
 - *Penalties*
- Legal action
- Public relations fallout

Dealing with Reactive Requirements

- Make sure the organization thoroughly understands the requirements
- Commit adequate technical resources and expertise to fully comply
- Set up monitoring processes to respond to changes in requirements and meet all requirements

The New World of Healthcare Delivery – The Proactive

- Clinical Breakthroughs
- Population Health Management
- Care Coordination

You Heard It Here First

“It is virtually impossible to maximize quality, manage populations, coordinate care, reduce costs, manage resources, comply with regulatory requirements, and operate under the new financial realities without tapping into emerging technologies that were not around even five years ago.”

Glenn E. Pearson, FACHE

August 2, 2017

So healthcare technology should be a strategic priority for all healthcare delivery organizations

Leadership Reactions – The “Great Divide”

- Many “get it”
- Some more traditional clinicians and executives avoid
 - *Nuclear Power Plants*
 - *“I’ve been able to avoid my whole career”*

STATUS OF THE INDUSTRY



Status of the Industry

- Clearly in rapid growth mode
- But still woefully behind other industries

Why So Slow?

- Splintered industry
- Complex environment
 - *“Health care is the most difficult, chaotic and complex industry to manage today” – Peter Drucker*
- Conservative nature of clinical care
- Expense

So Why Is It Changing Now?

- Internet revolution of late 1990s
 - *Changed mindset and expectations*
- The Cloud
- SaaS
- Explosion of smart phones and tablets

Why Changing? (continued)

- Futurist Eric Topol: Smartphones will soon be able to:
 - *Capture physiological data from any organ or system*
 - *Run routine labs*
 - *Perform medical-grade scans*
 - *Track environmental exposure to hazards*
 - *Do most of physical exams*
 - *Connect with physicians and others instantly*

Why Changing? (continued)

- Futurist Joe Flower: Internet of Things –
Sensors in:
 - *The toilet*
 - *The mirror*
 - *TVs*
 - *Health watches*
 - *Contact lenses*
 - *Smart patches and implants*

Summary – Why Healthcare Technology Matters

- New demands from the environment
 - *Regulatory requirements*
 - *Payment changes*
 - *Patient expectations*
- New capabilities
 - *Incredible medical breakthroughs*
 - *Revolutionary communications capability*

THE TWO BIG BUCKETS OF HEALTHCARE TECHNOLOGY



“Traditional” Technology

- IT Infrastructure

- EHRs

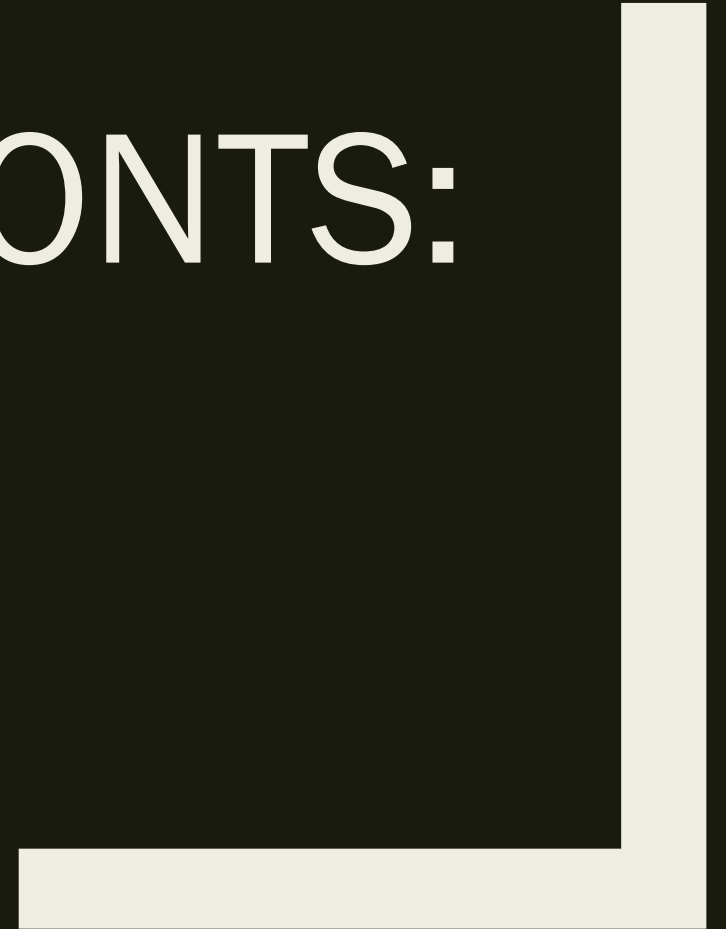
- Compliance

Emerging, Disruptive, Transformational Technology

- Telemedicine
- Telehealth
- Smart phone-based peripherals
- Mobile apps
- Mobile patient/provider communications
- Big data
- Predictive analytics
- Personalized medicine
- Wearable technologies
- 3-D printing
- Bionic limbs
- Genomics and DNA sequencing

THE FOUR FRONTS:

1. Patient-Touching
2. Personalized Medicine
3. Communications
4. Business Functions



1. Patient-Touching

- Diagnostics
- Intervention
- Devices and Implantables

2. Personalized Medicine

- Evidence-based and data-driven customization of care based on my personal traits and circumstances
- Merger of:
 - *Population Health*
 - *Big Data*
 - *Predictive Analytics*
- Two categories
 - *Largely clinical*
 - *Largely care coordination*

Implications According to Futurist Eric Topol

- Clinical algorithmic recommendations –
“IBM Watson to the 4th power”
- “Planetary medical knowledge resource”

3. Communications

- Between patients and providers

- *To monitor patient progress, allowing for early intervention*

- Among providers

- *Post-discharge to track patient progress and determine whether patient actually following care plan*

4. Business Functions

- Clinical applications
- Non-clinical applications – Standard business activities

The Four Fronts - Summary

1. Patient-Touching

- *Diagnostics*
- *Intervention*
- *Devices and Implantables*

2. Personalized Medicine

- *Clinical*
- *Coordination*

3. Communications

- *Between Patients and Providers*
- *Among Providers*

4. Business Functions

- *Clinical Applications*
- *Standard Business Activities*

THE FOUR FRONTS – REQUIREMENTS FOR SUCCESS



All Four Fronts Require These – From Perspective of “Internal Enthusiast”

- Internal support of key staff
- Underlying infrastructure to support
 - *IT*
 - *Ability to modify operations*
- Ability to be actionable
 - *If ER too small and land-locked and no capital budget, not helpful to have data telling you what you already know*
- Solid and credible ROI
 - *Anticipate skepticism*

3 Biggest ROI Mistakes

1. Selling a project on efficiency improvements when those efficiencies can't be captured
2. Promising additional revenue
3. Not recognizing that not all new volume is a financial plus

1. Patient-Touching

- Compliance with rigid regulatory requirements
- Support of key clinical staff

2. Personalized Medicine

- Rock-solid underlying data and clinical algorithms to withstand possible challenges from clinicians, including:
 - *Disagreeing with clinical logic*
 - *Objections about “old” data*
 - *Resistance over “machine can do better” idea*
 - *Lack of local peer providers in comparison sets*

3. Communications

- Identification of key communications connection points
- BAAs or other privacy requirements

4. Business Functions

- Nothing beyond the requirements for all functions

GLOBAL PITFALLS



Global Pitfalls

- Underestimating the possible disruption to existing operational processes or concern for additional workload
- Underestimating resistance from people or departments whose status or revenue could be threatened

Global Pitfalls (continued)

- Having to run all technology-related offerings through IT and getting squeezed out by other priorities
- Possible preference for “single source” supplier rather than “best of breed”
- Possible resistance from “incumbent” vendors

Global Pitfalls (continued)

- Lack of senior executive enthusiasm
 - *“Would you rather manage a nuclear power plant or buy healthcare technology?”*
- Extreme sensitivity about security vulnerabilities, especially if project involves off-shore data storage
- Concerns about assuming additional risk

Parting Thoughts

- Technology one of the few areas where healthcare delivery can actually be improved
 - *Hundreds of small changes result in revolutionary change over time*
- There are many challenges in getting it done
- Great place to be!

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