Chasing Zero: Welcome to the Arena
It's Personal…!

Charles Denham MD
January 2013
Top 10 Potential Technology Hazards 2013

1. Alarm hazards
2. Medication administration errors using infusion pumps
3. Unnecessary exposures and radiation burns from diagnostic radiology procedures
4. Pediatrician examinations in ORMs and health IT systems
5. Interoperability failures with medical devices & IT systems
6. Air embolism hazards
7. Inattention to the needs of pediatric patients when using “adult” technologies
8. Inadequate reprocessing of endoscopic devices and surgical instruments
9. Caregiver distractions from smartphones & mobile devices
10. Surgical fires

Source: Top 10 Health Technology Hazards for 2013, ECRI, November 2012

Optimistic predictions by RAND in 2005 helped drive explosive growth in the EHR industry…$81 billion saving is overstated


Forrest Gump Factor

“Cocktails at 5…Pistols at Dawn”

Ronald Reagan Teddy Kennedy Tip O’Neill
Models for Consideration:
- Overuse, Underuse, and Misuse: Popularized by IOM.
- Leadership-Practices-Technology: The high performance sweet spot
- The Sociotechnical System
- Idealized Design and Best Achievable Performance: Working back from ideal with reason and wisdom.
- Closing the Performance Gap
- The 4 T's of Leadership: Truth, Trust, Teamwork, and Training.
  - Engaging the Head, Heart, Hands and Voice
  - THE EXAMPLE: The 5 Rights of Imaging:

The High Performance Envelope

The 4 T's of Leadership
- Truth
- Trust
- Teamwork
- Training

The 5 Rights of Imaging

At the Leadership-Practices-Technology Intersection

Performance Gap Model

The 4 A’s Innovation Adoption Model
- Awareness: of performance gaps
- Accountability: of those who must change behavior to close the gaps
- Ability: of those who must act to close the gaps
- Actions: that must be taken to close the gaps
Our Gap

What is our GAP… where are we?

Our Trajectories: Unsafe, Good, and Great Care

Health at a Glance 2011

The New Game: Harm Documentation

Adverse Events in Hospitals: Measurement and Results

A Briefing on the OIG Report
Incidence Rates – of all beneficiaries

- Adverse Events (NQF, HAC, F-I Level) 13.5%
- NQF Serious 0.6%
- Medicare Conditions 1.0%
- Temporary Harm Events (E Level) 13.5%
- NQF Serious 0.6%

15,000 Seniors die per month!

Developing a Method to Track Regional and National Changes in Rates of Harm Due to Medical Care

Christopher P. Landrigan, MD, MPH
Associate Professor of Medicine and Pediatrics, Harvard Medical School
Research Director, Inpatient Pediatrics Service, Children’s Hospital Boston
Director, Sleep and Patient Safety Program, Brigham and Women’s Hospital

TMT High Performer Webinar
December 16, 2010

Slope: 0.98 (95% CI 0.93, 1.04 p = 0.47)

Trends in All Harms Over Time: External

> 30 preventable deaths per hour
> 1 of 4 families have had an adverse event causing suffering, disability or death
> 1 of 3 doctors families - same.
> 2 of 5 imaging and lab studies done due to missing prior studies
> 100 prescriptions written, only 60 are filled and of those who even take the medicine, 25% have an adverse drug event.

Magnitude of U.S. Error and Harm

Closing the Gaps

Our Performance Gap

Overuse, Underuse, and Misuse

Solutions for Leaders

The No Outcome- No Income Tsunami is Here: Are You a Surfer, Swimmer, or Sinker?

Charles R. Denham, MD
National Collaboratives Provide Performance Metrics: CFO Validated Performance Impact

The Second Curve

Today 2014 - 2017 2017+

Current Model Curve (Fee for Service) 2

Overuse, Underuse, and Misuse

Systemic Migration to Boundaries: Deviation IS NORMAL

Leadership, Practices, and Technologies

Current state of health IT

- Magnitude of harm and impact of health IT on patient safety is not well known because:
  - Heterogeneous nature of health IT products
  - Diverse impact on different clinical environments and workflow
  - Legal barriers and vendor contracts
  - Inadequate and limited evidence in the literature

Recommendation 8

The Secretary of HHS should recommend that Congress establish an independent federal entity for investigating patient safety deaths, serious injuries, or potentially unsafe conditions associated with health IT. This entity should also monitor and analyze data and publicly report results of these activities.

Recommendation 7-8

Technology Alone IS NOT ENOUGH

Features of safer health IT

The High Performance Envelope

The Sociotechnical System: IOM HIT Report

The High Performance Envelope

Technology Alone IS NOT ENOUGH

Leadership, Practices, and Technologies

Current state of health IT

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Recommendation 7-8

Technology Alone IS NOT ENOUGH

Features of safer health IT

The High Performance Envelope

The Sociotechnical System: IOM HIT Report
Technology and Practices ARE NOT ENOUGH

Leadership

Practices

Technology

One Focus Area: NQF Safe Practices

Culture

Care and Medicine

Workforce

Information Management & Care Delivery Solutions

Medication Management

Consent & Site Specific Practices

One Focus Area: NQF Safe Practices

Information Management and Continuity of Care

Medication Management

Healthcare-Associated Infections

Condition- & Site-Specific Practices

Consent & Disclosure

Culture

Workforce

Information Management & Care Delivery Solutions

Medication Management

Consent & Site Specific Practices

The Intersection of Leadership-Practices-Technology

At the Leadership-Practices-Technology Intersection

Technology

Practice

Leadership

Fanatical Discipline

Empiric Creativity

Productive Paranoia

"Animated by Level 5 Ambition"

Idealized Design

And

Best Achievable Performance

Performance Gap Model

Idealized Design
Performance Gap Model

The 4 A's Innovation Adoption Model

- Awareness: of performance gaps
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Performance Gap Model

Leaders-Practices-Tech and 4 A's

Leadership

- Leadership
  - Accountable for Staff AND Leaders
  - Adopt Best Practice
  - Close Gaps
- Accountability
  - Accountable for Staff AND Leaders
  - Adopt Best Practice
  - Close Gaps
- Ability
  - Accountable to Leaders
  - Adopt Best Practice
  - Close Gaps
- Action
  - Accountable to Leaders
  - Adopt Best Practice
  - Close Gaps

CT Accident Sites

- Leaders
  - Accountable for Staff and New
  - Adopt Best Practice
  - Close Gaps
- Practices
  - Accountable to Leaders
  - Adopt Best Practice
  - Close Gaps
- Technologies
  - Accountable to Leaders
  - Adopt Best Practice
  - Close Gaps

Surprised Thought Leader Site

- Leaders
  - Accountable for Staff and New
  - Adopt Best Practice
  - Close Gaps
- Practices
  - Accountable to Leaders
  - Adopt Best Practice
  - Close Gaps
- Technologies
  - Accountable to Leaders
  - Adopt Best Practice
  - Close Gaps

High Performer Site

One Focus Area: NQF Safe Practices

- Culture
  - Consent and Disclosure
  - Workforce
  - Information Transfer and Other Communication
  - Medication Management
  - Health Care System Information
  - Leadership
  - Site Specific Practices

Performance Gap

The 4 T's of Leadership
Charles Denham Keynote Presentation

Our Performance Gap

TRUTH
HEAD

TRUST
HEART

TEAMWORK
HANDS

TRAINING
VOICE

Loved Ones Caring for Loved Ones
The Power of Leadership to create safe, effective, and compassionate care for ALL!

Daniel Pink: Motivation Operating Systems

Motivation Operating Systems

Motivation 1.0 – Biology: Food and Sex

Motivation 2.0 – Carrots and Sticks: Positive and Negative Stimulus

Motivation 3.0 – Intrinsic: Joy of Work

S.U.C.C.E.S and Switch

Simple Unexpected Concrete Credible Emotional Stories

The 5 Rights of Imaging

Right Study

Right Action

Right Report

Right Review

Speed and Excellence = Siamese Twins
Speed and Excellence = Siamese Twins

Hill Country Memorial Image Gently™

Hill Country Memorial Image Gently™

Measure of Success: Touching People’s Lives

What is next?
The 5 Rights of Imaging Children™

Forbes Clay Christensen: The Survivor

Global Collaboratives Provide Performance Metrics: Impact Calculators Provide CFO Validated Performance Impact

Forbes: What We Can Learn From Walmart: How Our Healthcare System Can Save Lives and Dollars