

# Innovation

## Hardwiring an innovation culture

August 2013

# Who am I?

- Executive Medical Director for Tele-Health and clinical innovation.
- PhD St. L. Univ. (pharmacology)
- MD Univ. of Mo.
- Residency – Internal Medicine
- Northwestern - MS – Medical informatics



# MERCY HEALTH SYSTEM

## HOSPITALS & AMBULATORY SITES

- 28 acute care hospitals
- 4 managed hospitals
- 4 heart hospitals
- 2 children's hospitals
- 2 rehab hospitals
- 1 long-term acute care hospital

## AMBULATORY SITES

- 673 physician practices
- 9 outpatient surgery centers
- 14 urgent care sites
- 21 convenient care centers

## MEDICAL STAFF & CO-WORKERS

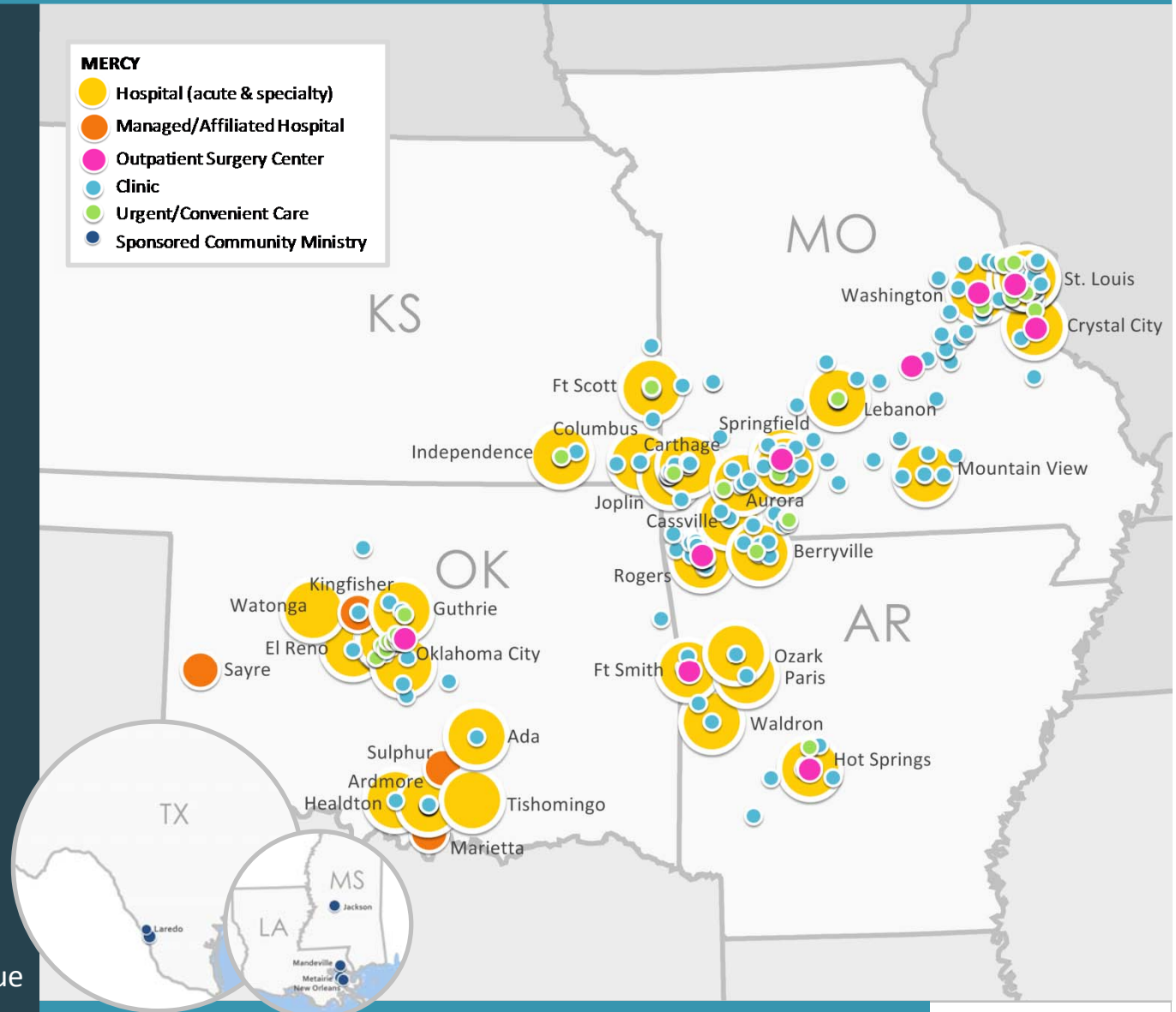
- 39,000 co-workers
- 1,960 integrated physicians
- 700 advanced practitioners
- 5,320 active medical staff

## UTILIZATION

- 4,235 staffed beds
- 174,596 inpatient discharges
- 2,976,598 outpatient visits
- 4,894,162 physician office visits
- 663,400 ED visits

## FINANCIAL INFORMATION

- \$4.6 billion total operating revenue
- \$5.2 billion total assets
- \$240 million in charity care



Mercy is the 7<sup>th</sup> largest Catholic Health System in the US (31<sup>st</sup> overall) based on Net Patient Service Revenue, serving in over 140 communities and seven states.

Source: Modern Healthcare Survey, June 2013



# Innovation is elusive

"There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new order of things..... Whenever his enemies have the ability to attack the innovator, they do so with the passion of partisans, while the others defend him sluggishly, so that the innovator and his party alike are vulnerable."

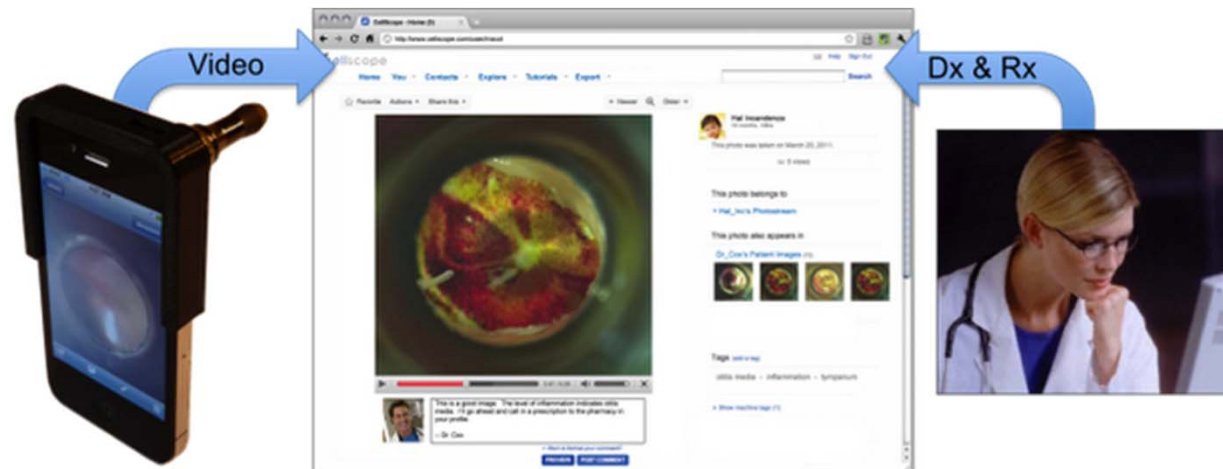
Niccolo Machiavelli  
The Prince  
1513



3M



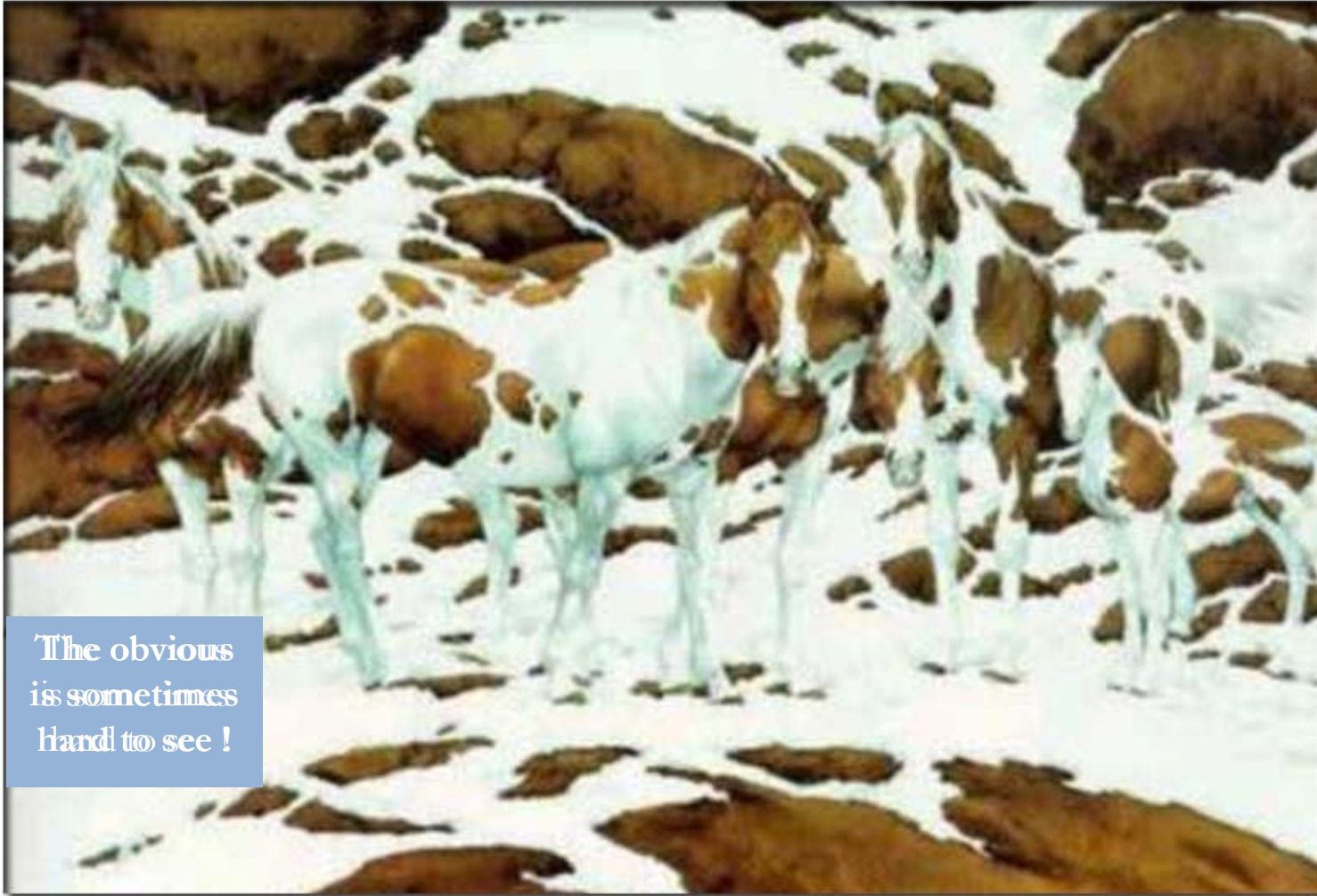
# Imagine



# What is Innovation and what it is not?

- Invention – a device, contrivance, or process originated after study and experiment.
- Creativity – the ability to view the normal and see what is not there.
- Innovation – is change – being able to connect existing “dots” in a new fashion – changing the paradigm.
  - Existing platforms and processes within an organization
  - Platforms and processes outside the organization
  - New inventions
  - Old ideas
  - Creativity





The obvious  
is sometimes  
hard to see !



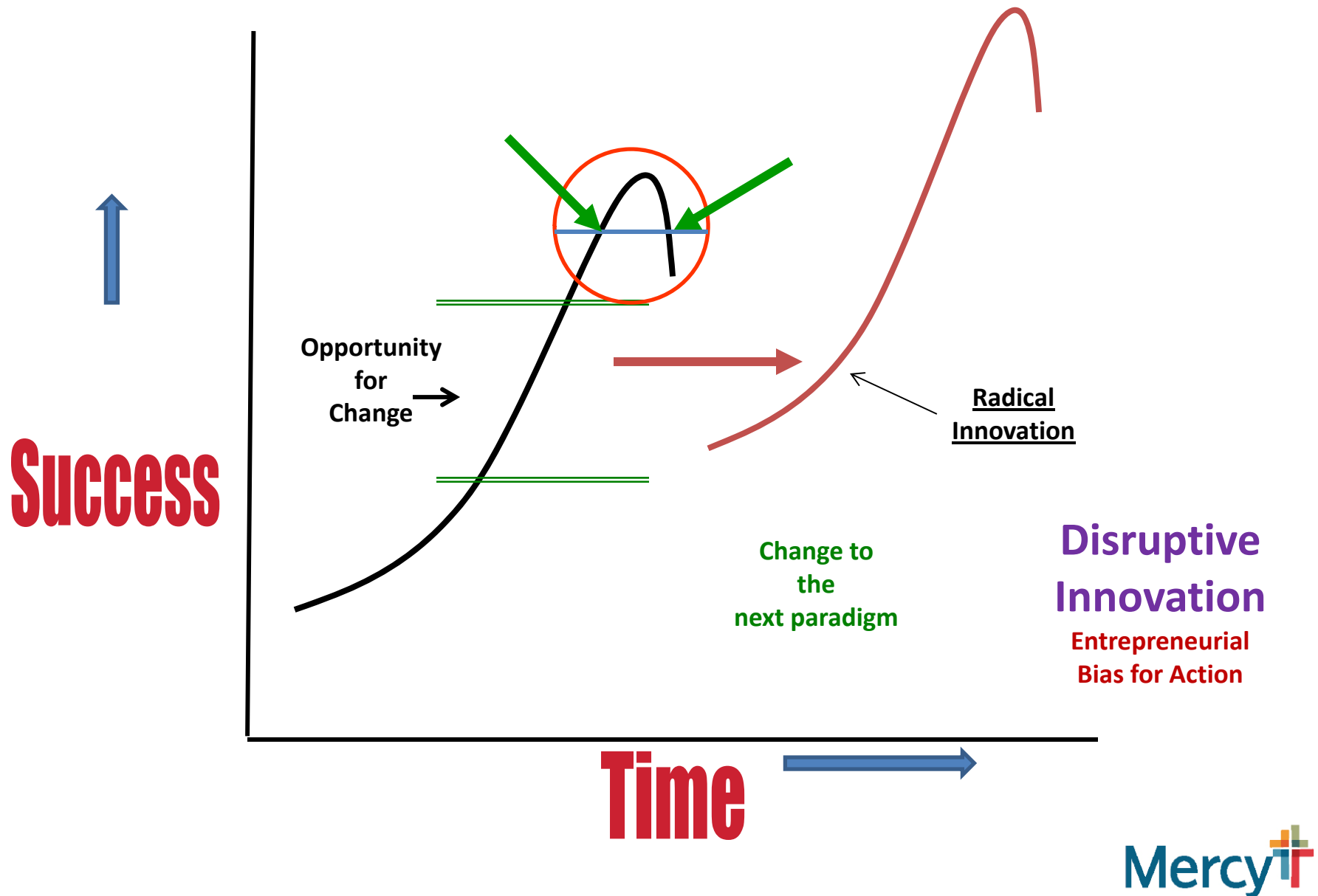


**Innovation is about change**

# Examples of not responding to radical innovations

- IBM and the PC, Xerox and Lisa (forerunner to Apple)
  - In health care this is represented by the transition from FFS and Population Management (FTB & GTV)
- Block Ice
- Kodak – In 1975 Kodak engineer Steve Sasson created the first digital camera.
- Eight track tapes – cassettes – compact discs
- Health care – stethoscope, aspirin, tele-health & population management

Innovation is the most difficult in successful organizations.



## The Ten Types of Innovation™

Innovation Category	Innovation Type	Description of type	Business example
Finance	1 Business model	How you make money	Dell revolutionized the personal computer business model by collecting money before the consumer's PC was even assembled and shipped (resulting in net positive working capital of seven to eight days).
	2 Networks and alliances	How you join forces with other companies for mutual benefit	Consumer goods company Sara Lee realized that its core competencies were in consumer insight, brand management, marketing and distribution. Thus it divested itself of a majority of its mfg. operations and formed alliances with mfg. and supply chain partners.
Process	3 Enabling process	How you support the company's core processes and workers	Starbucks can deliver its profitable store/coffee experience to customers because it offers better-than-market compensation and employment benefits to its store workers--usually part time, educated, professional, and responsive people.
	4 Core processes	How you create and add value to your offerings	Wal-Mart continues to grow profitably through core process innovations such as real-time inventory management systems, aggressive volume/ pricing/ delivery contracts with merchandise providers, and systems that give store managers the ability to identify changing buyer behaviors in and respond quickly with new pricing and merchandising configurations.
Offerings	5 Product performance	How you design your core offerings	The VW Beetle (in both its original and its newest form) took the market by storm, combining multiple dimensions of product performance.
	6 Product system	How you link and/or provide a platform for multiple products.	Microsoft Office "bundles a variety of specific products (Word, Excel, PowerPoint, etc.) into a system designed to deliver productivity in the workplace.
	7 Service	How you provide value to customers and consumers beyond and around your products	An international flight on any airlines will get you to your intended designation. A flight on Singapore Airlines, however, nearly makes you forget that you are flying at all, with the most attentive, respectful, and pampering pre-flight, in-flight and post-services you can imagine.

Delivery	8 Channel	How you get your offerings to market	Legal problems aside, Martha Stewart has developed such a deep understanding of her customers that she knows just where to be (stores, TV shows, magazines, online, etc.) to drive huge sales volumes from a relatively small set of "home living" educational and product offerings.
	9 Brand	How you communicate your offerings	Absolut conquered the vodka category on the strength of a brilliant "theme and variations" advertising concept, strong bottle and packaging design, and a whiff of Nordic authenticity.
	10 Customer experience	How your customers feel when they interact with your company and its offerings	Harley Davidson has created a worldwide community of millions of customers, many of whom would describe "being a Harley Davidson owner" as a part of how they fundamentally see, think, and feel about themselves.

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# Ten Types of Innovation Doblin

# Ten Types of Innovation

## Mercy's approach

- Business Model
- Networking
- Enabling process
- Core Process
- Product Performance
- Product Systems
- Service
- Channel
- Brand
- Customer Experience
- FFS → Managing Populations
- E- ICU collaborations, tele-health
- Pay physicians incentive bonus on top of market comp to manage populations
- Increase access to primary care, utilize the internet for 24/7 access
- My Mercy PHR – e-visits
- Bundle Tele-health Services
- Lean design ambulatory offices
- Buxton Data
- Access to health care 24/7
- Make Healthcare easy

# Incremental Innovation

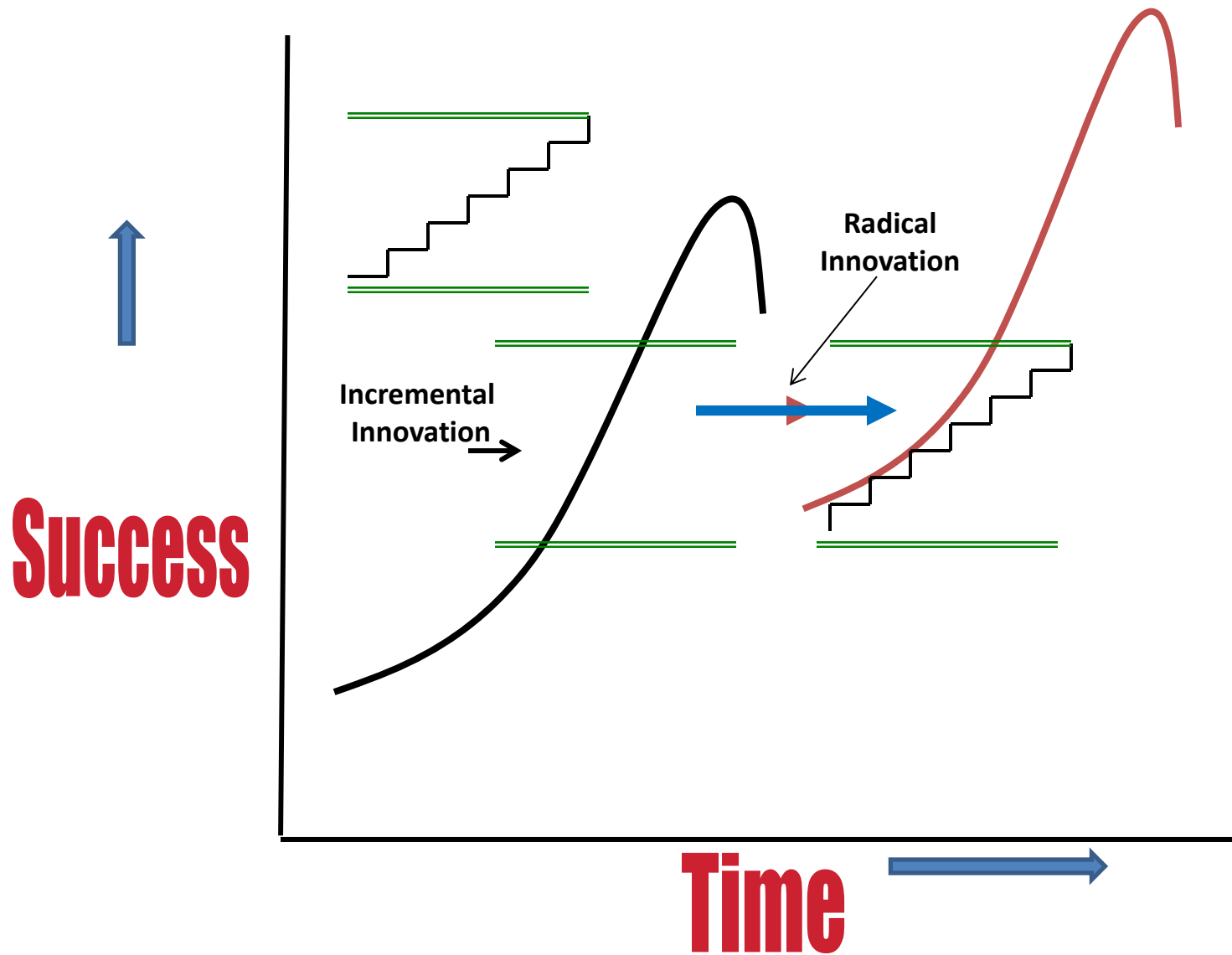
- Exploits existing forms or technologies
- Improves upon and existing product/process or utilizes existing product/process for another purpose
- It can be a modular approach or architectural
- Less likely to be disruptive
- Most common



# Radical Innovation

- Something new to the world
- A departure from existing technology or methods
- Radical innovation is a “big step” – continuous improvement is a “small step”
- May be disruptive

## Incremental and Radical innovations



Innovation

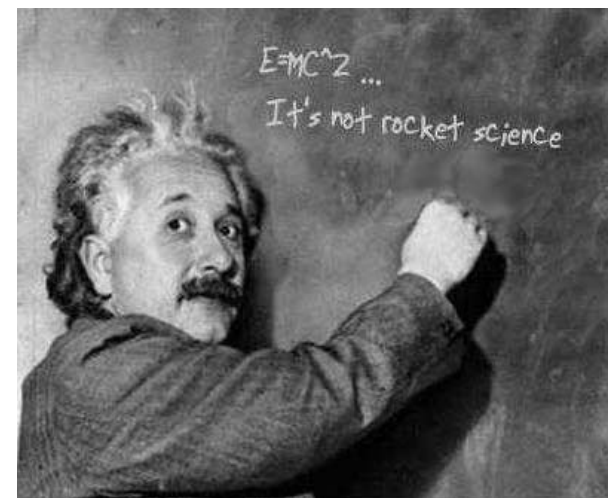
A Health care example

**Sepsis**

# What If...

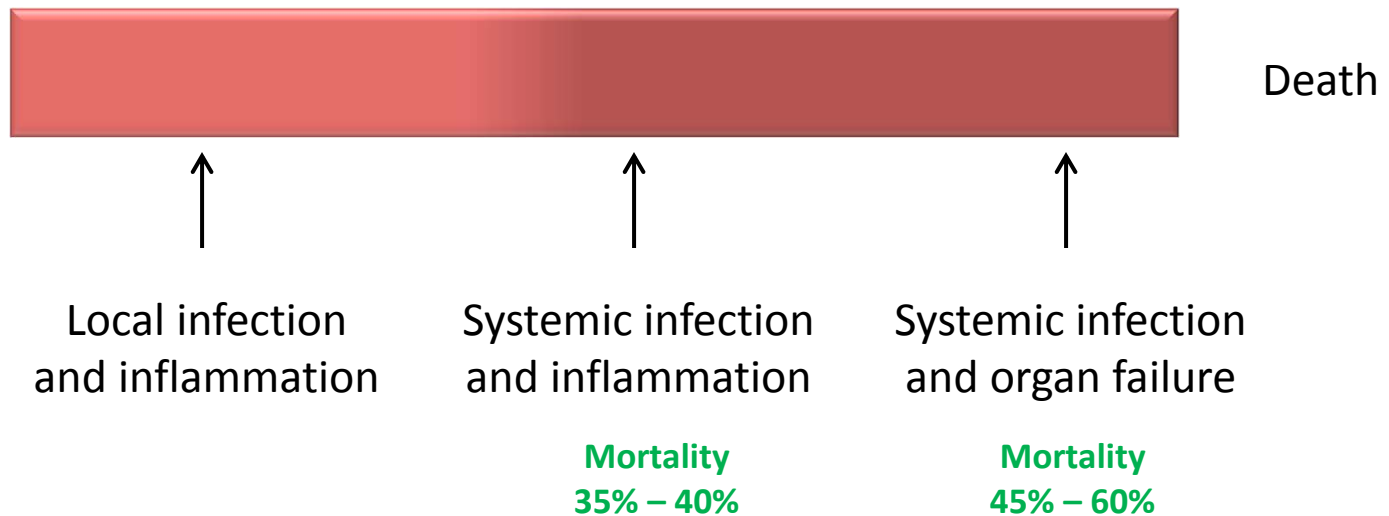
- You discovered a new “wonder drug” that was incredibly useful in a very common, devastating and expensive disorder
- that cut patient mortality in half
- had no side effects
- was relatively inexpensive
- and drastically reduced hospital costs associated with the disorder

Are you interested?



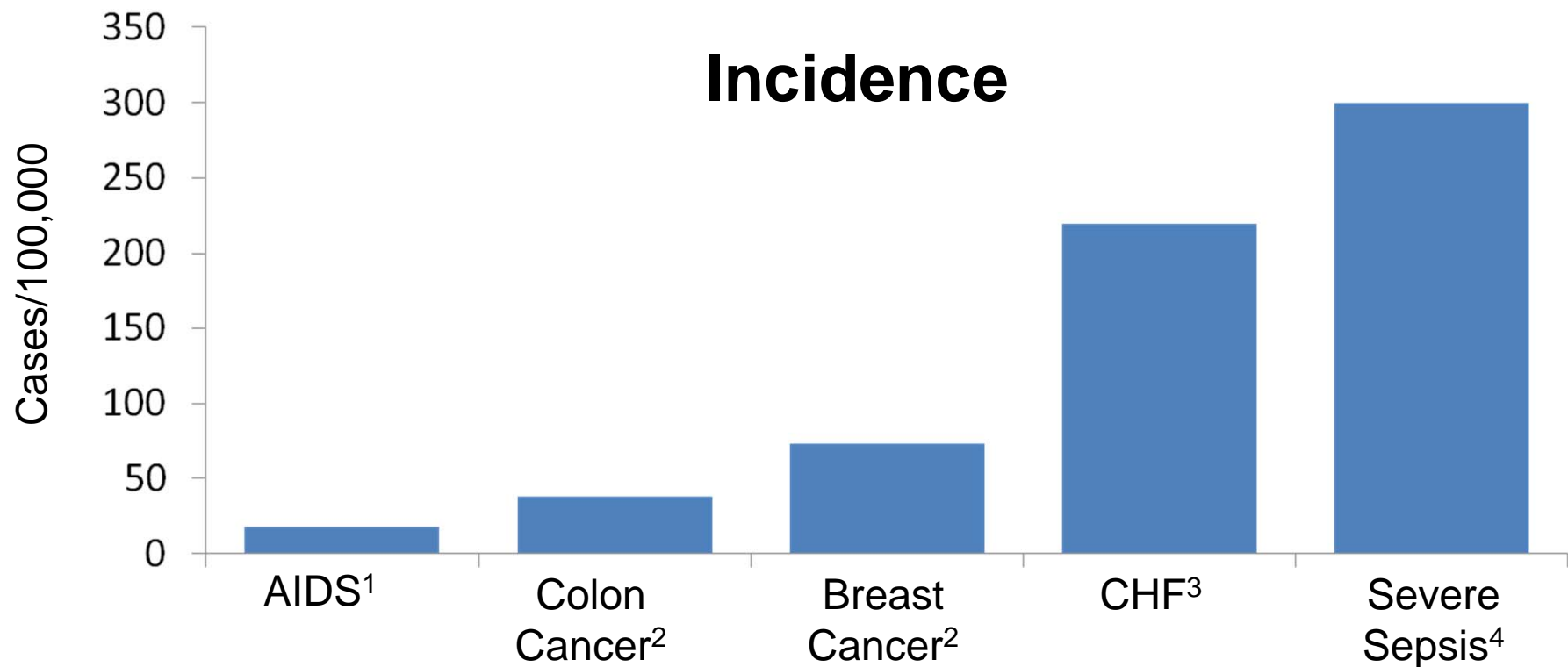
# Sepsis

**Sepsis represents a continuum of conditions beginning with a local inflammation secondary to an infection evolving into a systemic inflammation and infection which can result in to generalized organ failure and death**



# Severe Sepsis Is Common

Severe sepsis is more common than AIDS, colon cancer, and breast cancer combined

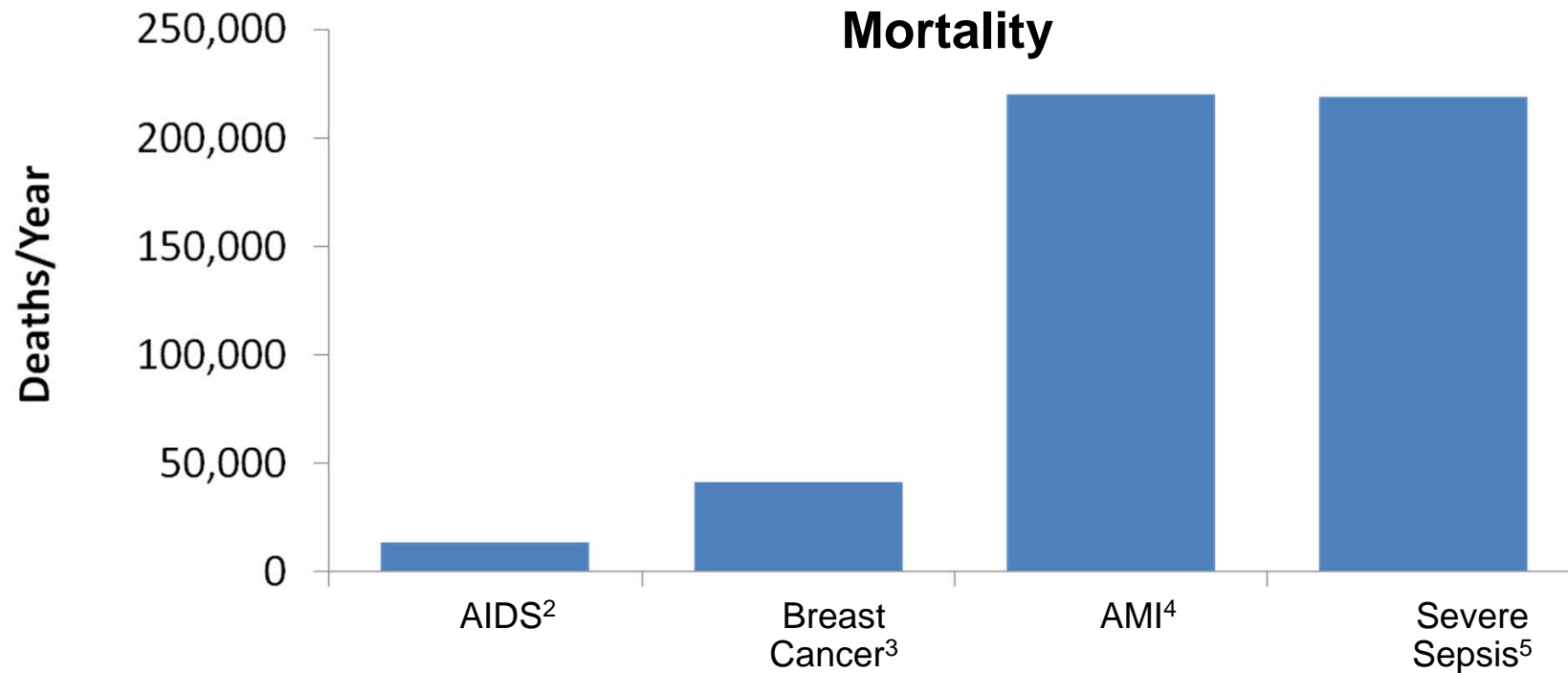


1. National Center for Health Statistics, 2001.
2. American Cancer Society, 2001.
3. American Heart Association. 2000.
4. Angus DC et al. *Crit Care Med.* 2001.



# Severe Sepsis Is Deadly

- Severe sepsis is the #1 cause of death in non-coronary ICUs
- More patients die of severe sepsis annually than AIDS or breast cancer



Sands KE, et al. *JAMA*. 1997;278(3):234-240.  
National Center for Health Statistics, 2001.  
American Cancer Society, 2001.  
American Heart Association. 2000.  
Angus DC et al. *Crit Care Med*. 2001.

# Sepsis Treatment

## Resuscitation Bundle – 6 hrs

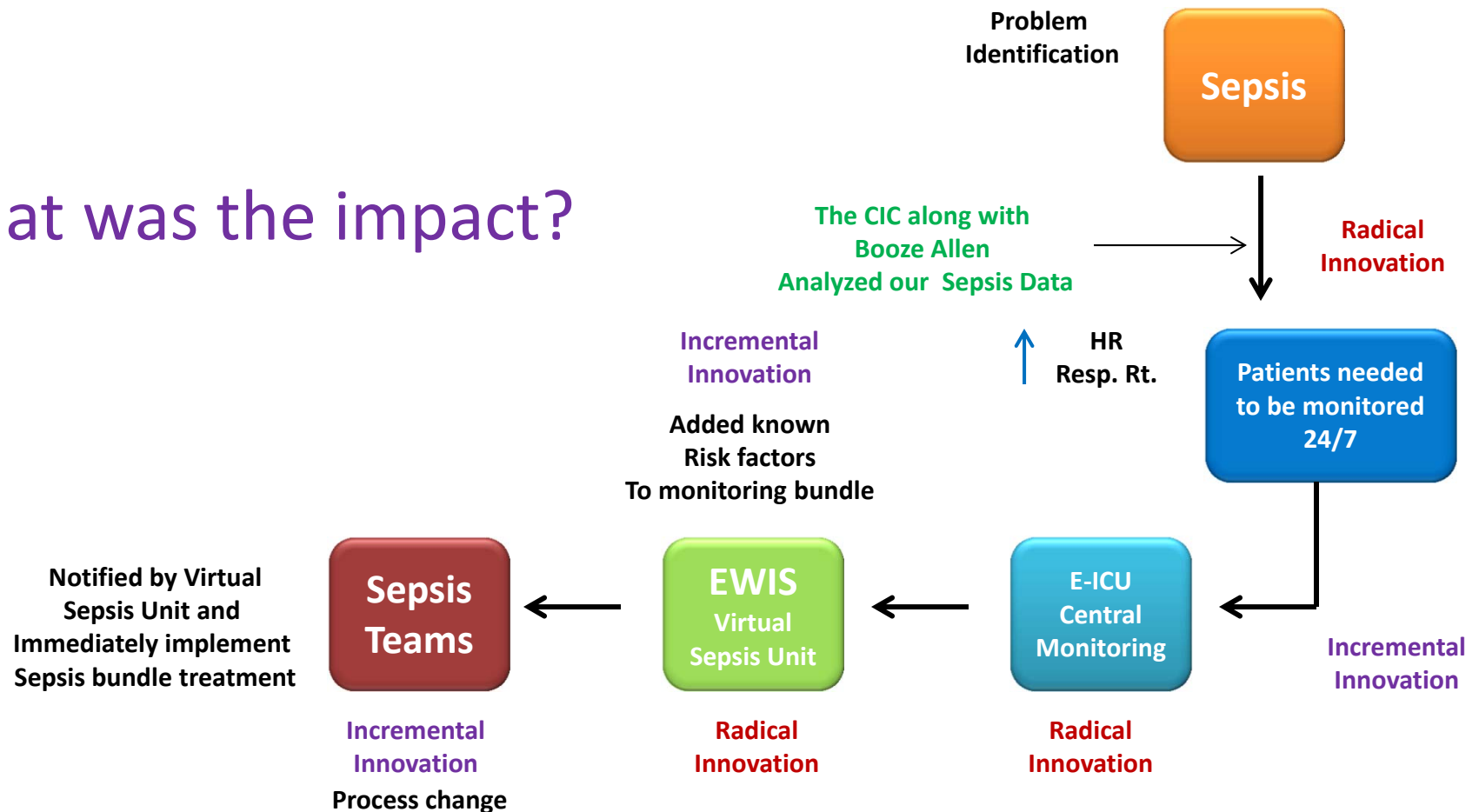
- Serum Lactate measured
- Blood cultures obtained prior to antibiotics administered
- Perform imaging studies promptly to find source
- Administration of broad-spectrum antibiotics within one 1 hour of diagnosis of septic shock and severe sepsis without shock
- Fluid resuscitation and vasopressors
- Maintain perfusion

## Management Bundle – 24 hours

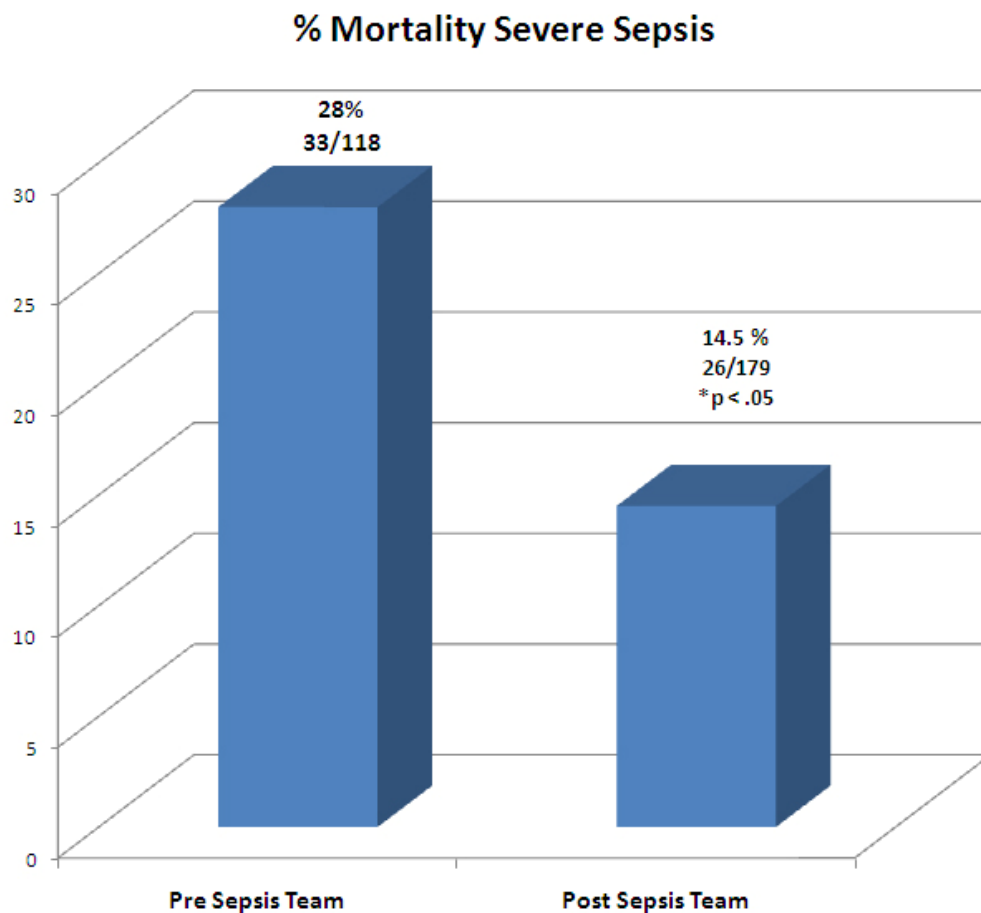
- Low-dose steroids administered for septic shock in accordance with standardized ICU policy
- Drotrecogin alfa (activated) administered in patients with severe sepsis and clinical assessment of high risk of death
- Glucose control maintained (<150 mg/dl)
- Maintain tidal volumes and inspiratory plateau pressures for mechanically ventilated patients.

# Mercy's innovative approach to Sepsis

What was the impact?

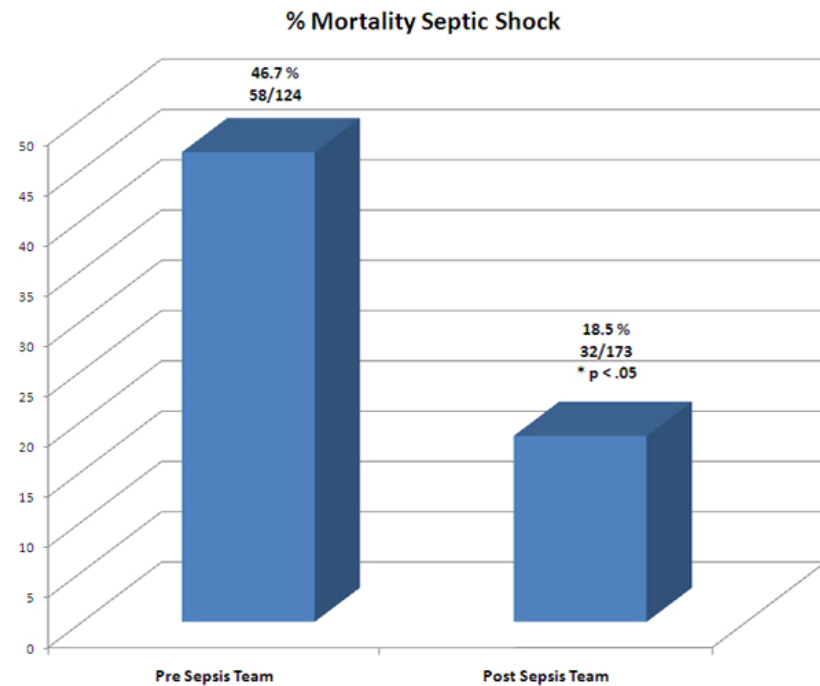
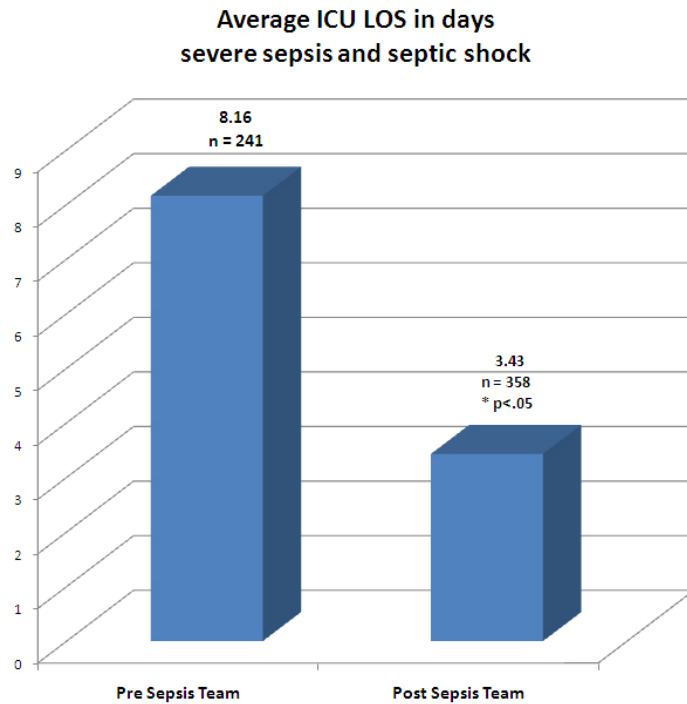


# Tele-Sepsis Impact



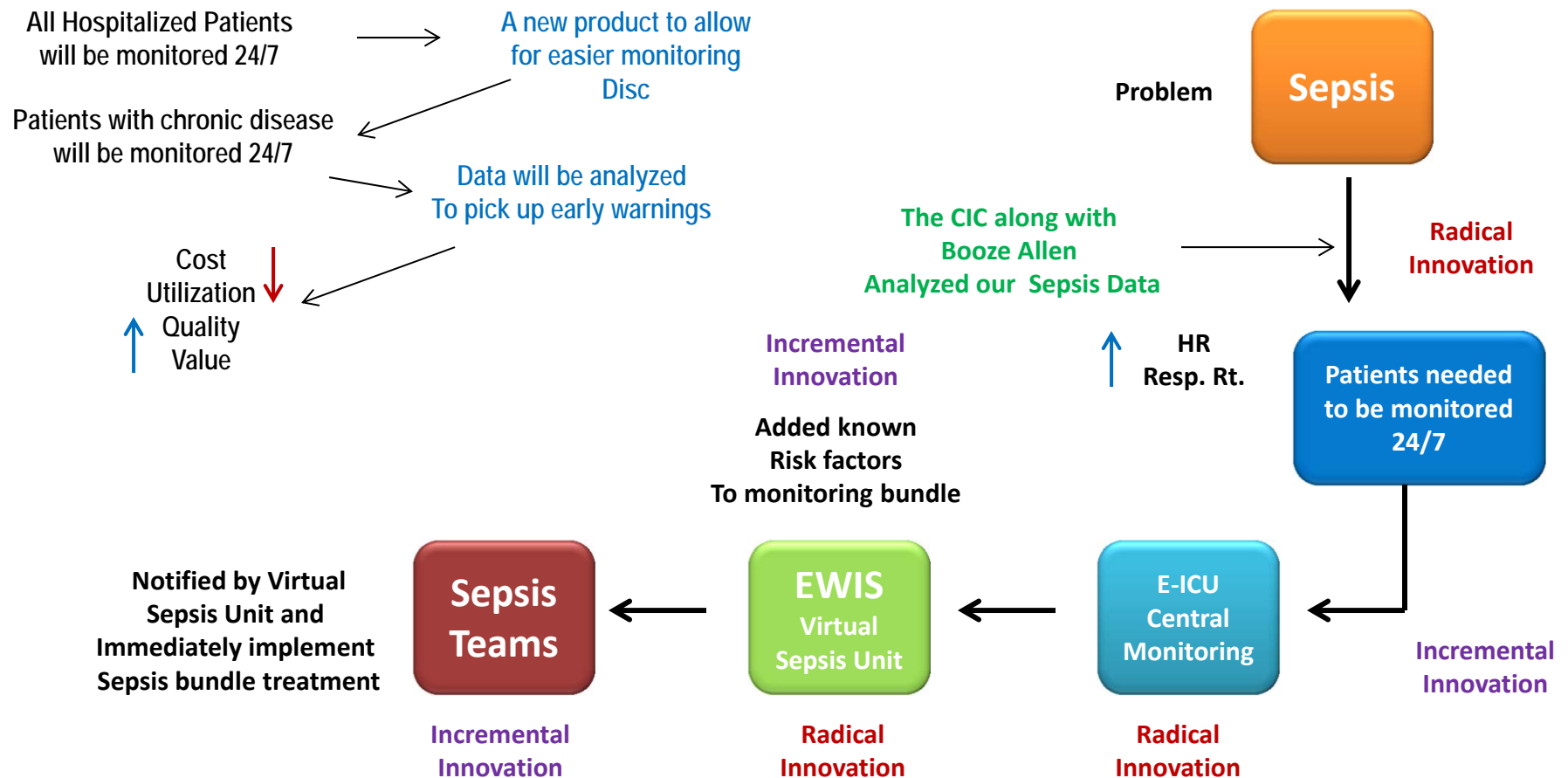
- DATA
  - Analytics
- Process Change
- Tele-Health Infrastructure
  - EHR
  - Central Monitoring
- Leadership

# Tele-Sepsis Impact



# New products and Processes

## What was the impact?





# What does it take to successfully innovate?

- *Leadership*

- It all starts at the top
- Leaders must constantly evaluate their organization to determine if it remains viable, on target with the mission & the strategic direction and is continuing to incrementally improve.
- Pick a team that can act autonomously but in synch with the values and direction of the organization.

# It is all about Leadership

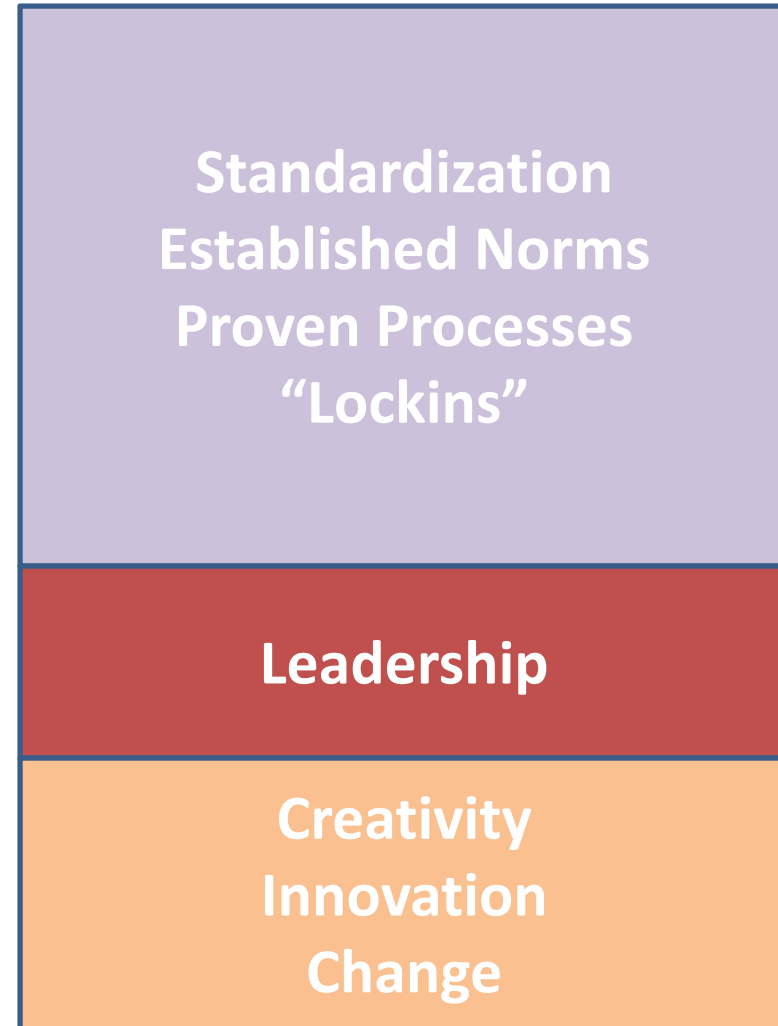


**All that is old is not necessarily bad. Leaders will need to keep Creativity from causing anarchy in thinking and chaos in care models as they are built**

**Leaders live and manage within the interface !!**



**Innovation should not be suppressed by the status quo. Change is not only healthy but required for value to be created**



# What does it take to successfully innovate?

- *Leadership*
- *Team members/coworker characteristics*
  - Creativity – be able to see beyond the obvious
  - Knowledge of the organization and the business – a knowledge of the whole
  - Atmosphere of collaboration
  - Courage and strength of personality to be able to fail

# What does it take to successfully innovate?

- Leadership
- Team members/coworker characteristics
- Culture
  - Be clear about the strategic direction
  - Encourages incremental innovations
  - Protective environment for radical innovators
  - Use pilots – don't eat the elephant all at one sitting
  - Networking with like organizations
  - Looking outside the space to different successful organizations. (fertilize the field and rotate the crops)

# What are the ingredients for successful Innovation

- Mission, vision and strategic direction
- Identify that there is a problem
  - What is the value proposition – target audience, innovation (product) and compensation
- Assess if the organization has the operating model to be able to deliver the innovation, manage the costs and do you have the right people
- Innovation is not an accident
- Leaders create the culture of innovation
  - Systems
  - Policies
  - Actions
- Innovation is similar but not the same as continuous improvement and creativity

# Hardwire innovation in an organization

1. Create it as a strategy within the organization
2. Create opportunities for networking
3. Remove the fear of failure
4. Provide time and a License to Innovate
5. Decentralize Decision Making and Innovation
6. Provide seed money for innovations/make a little-sell a little
7. Develop a method for screening innovations
8. Work with customers (patients) to develop innovations
9. Create opportunities for innovators to grow with their Innovation
10. Recognize Innovation and Innovators
11. Measure and track innovations
12. Develop trust and lead with integrity



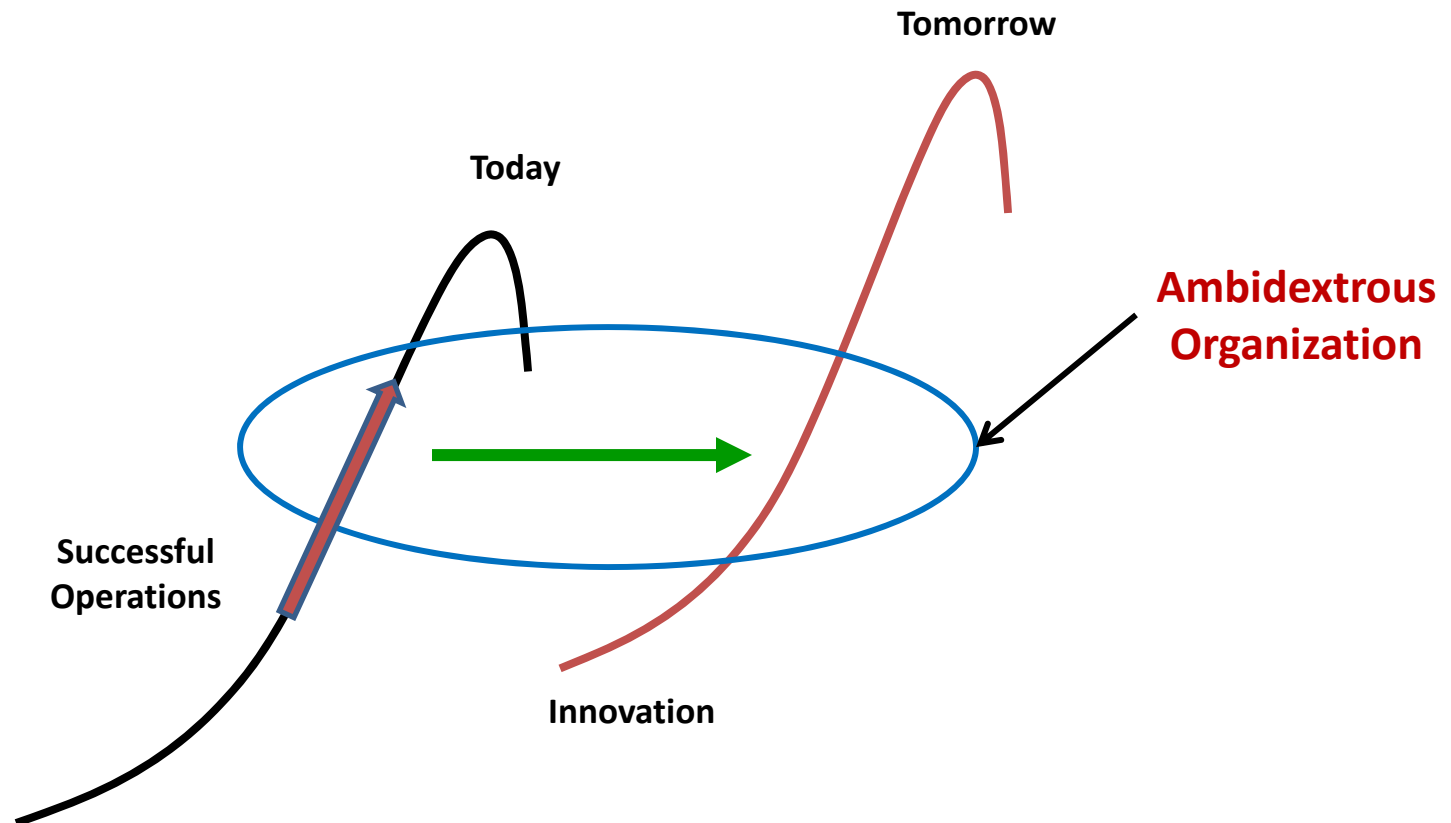
# Innovation Killers

- Perfect gets in the way of good enough
- Failure is not an option
  - Create a portfolio approach
- “We have always done it this way”
- Lack of critical understanding of organizational operations
- Over thinking the problem -Innovations don't have to be complex – don't miss out on the simplicity of a solution
- Don't fall in love with the innovation
- The leader feels the need to be the innovator

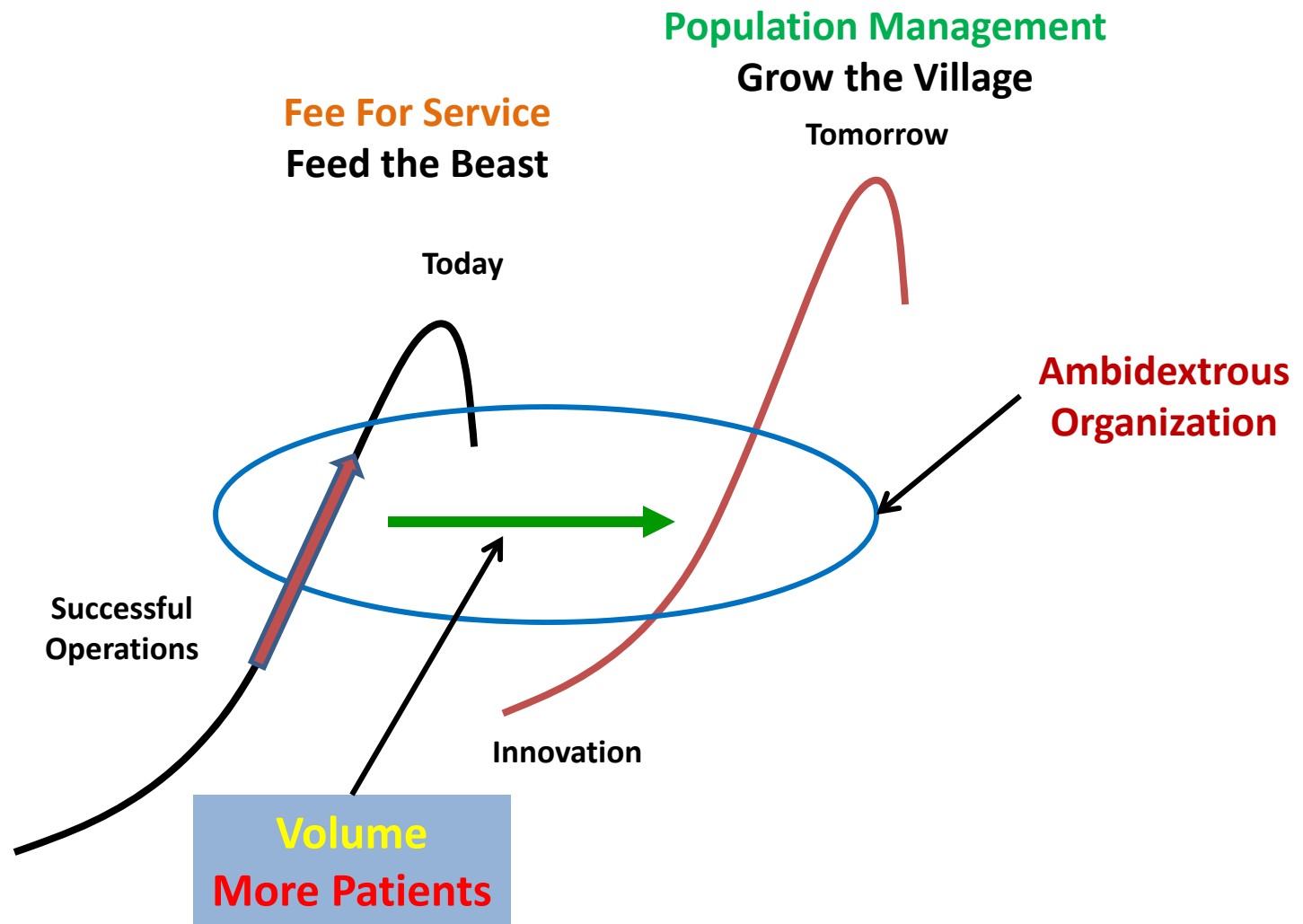
# Is the culture innovation ready

- Has the current success made the organization self-satisfied and complacent
- Is the organization inwardly focused
- Do you punish risk takers who fail
- Are creative people and new ideas unwelcome in the company
- Is there an excessive bureaucracy
- Do we reward creativity

# Create an ambidextrous organization

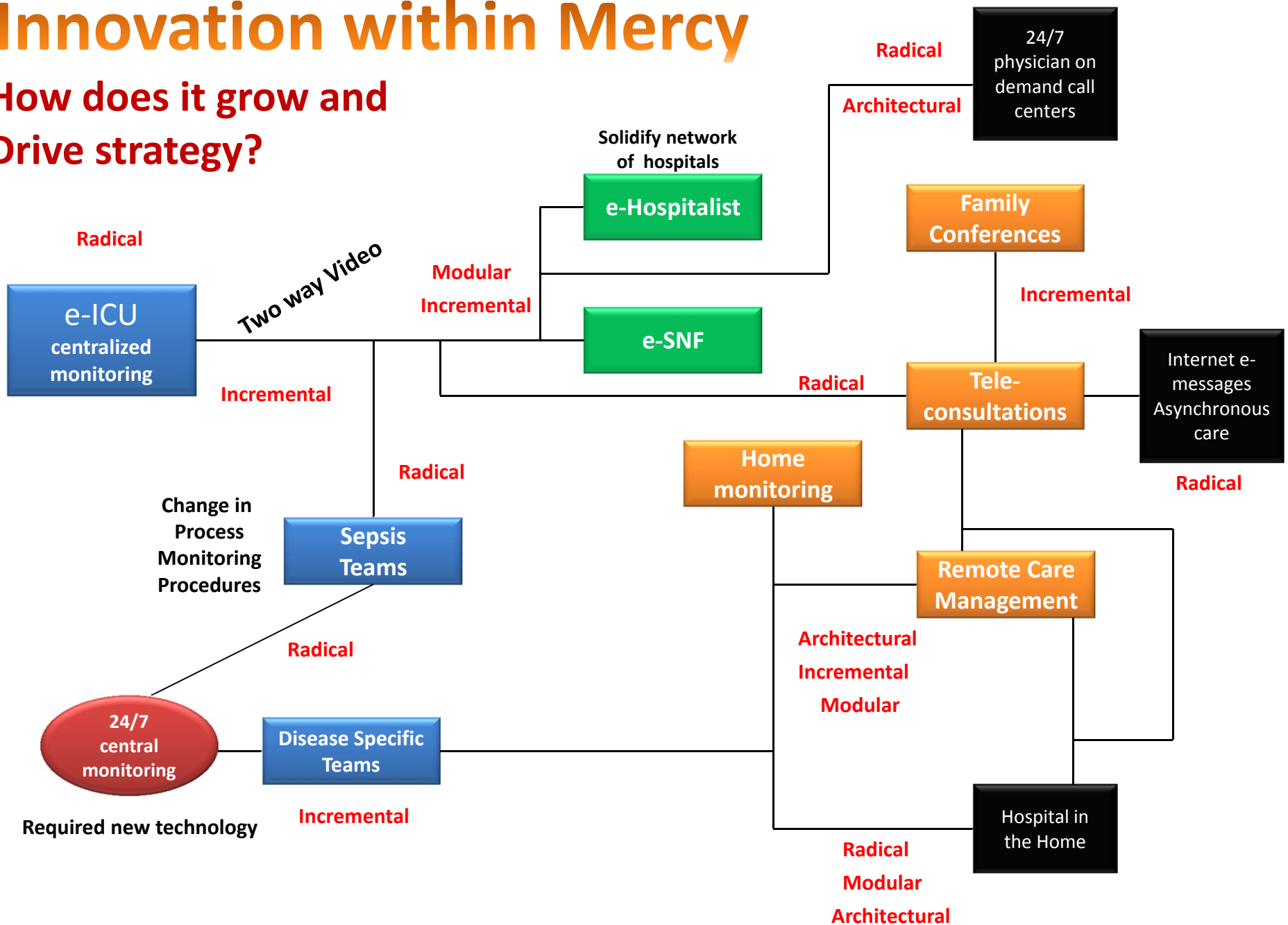


# Mercy's Ambidextrous World



# Innovation within Mercy

How does it grow and  
Drive strategy?



"If we keep doing what we have been doing,  
we'll keep getting what we've always gotten"—  
an expensive, high-tech, inefficient health-care system. “  
The health-care system needs to be redesigned.”

Paul Batalden, MD  
Institute for Healthcare Improvement

*There are three kinds of groups*

*those who make things happen,  
those who wait for things to happen,  
and those who wonder what happened.*