



Association of Academic Health Centers®

*Leading institutions that serve society*

# The Changing Business of Academic Medicine

## Positioning to Benefit from Disruptive Innovation

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# Learning objectives

1. Examine the political and funding environments that impact academic health centers
2. Analyze the current academic model including strengths and weaknesses
3. Review potential steps to address the coming disruptive innovations in academic medicine

# Outline

1. The academic health center today
  - Definition
  - Strengths and weaknesses
2. Disruptors impacting our missions
  - Education
  - Research
  - Patient care and payment (extended)
3. The Path Forward

# The academic health center has been relatively well-positioned in the market

**Evolution**



**Structure**



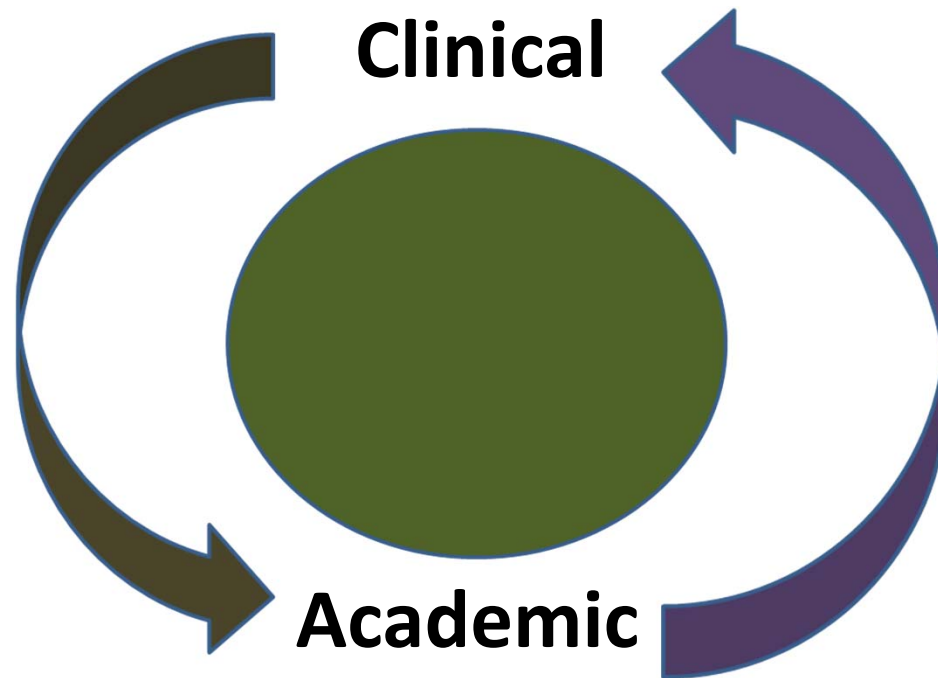
**Appeal**



# The premise has been:

The clinical and academic missions support each other in order to make each better

## *The “Virtuous Cycle”*



# Distinctive strength (idealized)

*A unique hybrid* of business and academics



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# Distinctive weaknesses (*not* idealized)

- Reliance on clinical margins to support the missions because:
  - Education is *not* profitable
  - Research is *not* profitable
- Unclear accountability measures so *efficiency* is hard to measure
- Leadership conflicts (e.g., University, Deans, Hospital, Health System, Institutes, Centers, etc.)

# The weaknesses are increasingly sustainable

The current and coming environment is forcing changes in the ways universities and health systems operate:

- Making internal inefficiencies unaffordable
- Pushing the seamless integration of academics and health care in new ways



# **As a result, we have become susceptible to “disruptive innovation”**

- “Disruptive innovation,” a term coined by Clayton Christensen
- Describes a process by which a product or service takes root initially at the bottom of a market and then relentlessly moves up market
  - Eventually displaces established competitors by creating a new market and value network.

# What is leading the disruption?

- Changes in societal needs and values
- Disease Patterns
- Economics, including the marketplace
- Globalization
- Politics
- Population demographics
- Science and technology

# The impact of disruption on academic health center missions



# Impact of disruption on education

## Some examples

- Electronic/digitized education platforms
- Information overload (what and how to teach)
- Tuition pressures
- Perceived job market
- Designing and executing interprofessional teaching in a sustainable fashion

# Impact of disruption on research

## Some examples

- Implications of cloud- and crowd-sourcing
- The single lab-based PI a dinosaur?
- What constitutes a clinical trial?
- Management of huge data sets
- “Control” of research
- *New research cost structure needed*

# [So what is the current cost structure of research?]

## *AAHC Benchmarks and Metrics Initiative*

1. Create an analytical tool for AHCs to:
  - build a peer set based on demographics
  - benchmark financial performance against their peers, and
  - develop metrics for best practices and optimized performance at the individual school level
2. Enable AHCs to communicate the true cost of research with public policy makers and other stakeholders

# AAHC conducted a study of “all-in” research funding



## A key finding for research

For every dollar of research funding expended at the medical school (including indirect costs), an additional \$0.26-\$0.40 of expense is subsidized by the academic health center.

**This is higher than many expected.**



# So for research the questions now become

- What is the “right” number?
- How do we substantially improve “research efficiency”?
- What is a research FTE?

*\*\*Note that these same questions apply to the costs of education and administration\*\**

# Disruptors in clinical payment mechanisms

“There are many mechanisms for paying physicians; some are good and some are bad. The three worst are fee-for-service, capitation, and salary.”<sup>1</sup>

1. Robinson JC. Theory and Practice in the Design of Physician Payment Incentives. Milbank Q 2001;79 (2)

# Evolving payment mechanisms\*

- Global payment
- Episodic/condition/bundle/case-specific
- Pay for performance
- Trend towards “value-based” fee structures

\*Acknowledgment: this and the following 3 slides are adapted from Dr. Robert Berenson

# Two views of value-based payment

- View #1: Similar to pay-for-performance
  - Measure quality and costs and then reward higher measured value
- View #2: More opportunistic
  - Adopt payment methods that have a higher demonstrated relationship to desired outcomes of care

# There are many confounders to most payment systems

- Contextual influences on provider behavior
  - Professionalism, demand-side incentives, regulations, organizational culture, etc.
- Specific design features
  - Size and immediacy of any marginal incentive
  - Attempts to address loopholes

# One probable outcome

- Blended/Hybrid model\*
  - PMPM with FFS carve outs
  - Shared savings (for ACOs)
  - Partial capitation

\*With or without public reporting and/or pay for performance

# Impact of disruption on the delivery of clinical care

## Some examples

- Care is moving from a *fixed setting* (e.g., the hospital, office or clinic) to the patient *wherever* she or he may be
- *Real-time* continuous monitoring of patients
- *Big clinical data sets*: how to manage and operationalize them

# Impact of disruption on clinical care

## More examples

- The Pandora's Box of technology and new income streams
- Entrepreneurial and patient empowerment
- Shifting from provider control to “crowd control”



**What's needed:**

**A new “physics” of patient care**

# The new “physics” of patient care

$$E = mc^3$$



$$E = mc^3$$

The Emerging model of healthcare<sup>a</sup>, where:

- m = the population, both individually and collectively
- c<sup>3</sup> =
  - c<sup>1</sup> = care anywhere
  - c<sup>2</sup> = care in teams
  - c<sup>3</sup> = care by large data sets

a. Inspired by Eric Dishman's Ted Talk at [http://www.ted.com/talks/eric\\_dishman\\_health\\_care\\_should\\_be\\_a\\_team\\_sport.htm](http://www.ted.com/talks/eric_dishman_health_care_should_be_a_team_sport.htm).

# Care anywhere (c<sup>1</sup>)

- Technology is moving with and inside the patient's body, wherever the patient may be
- Large, fixed infrastructures are necessary, but could be configured differently
- Consumers want convenience and one-stop shopping

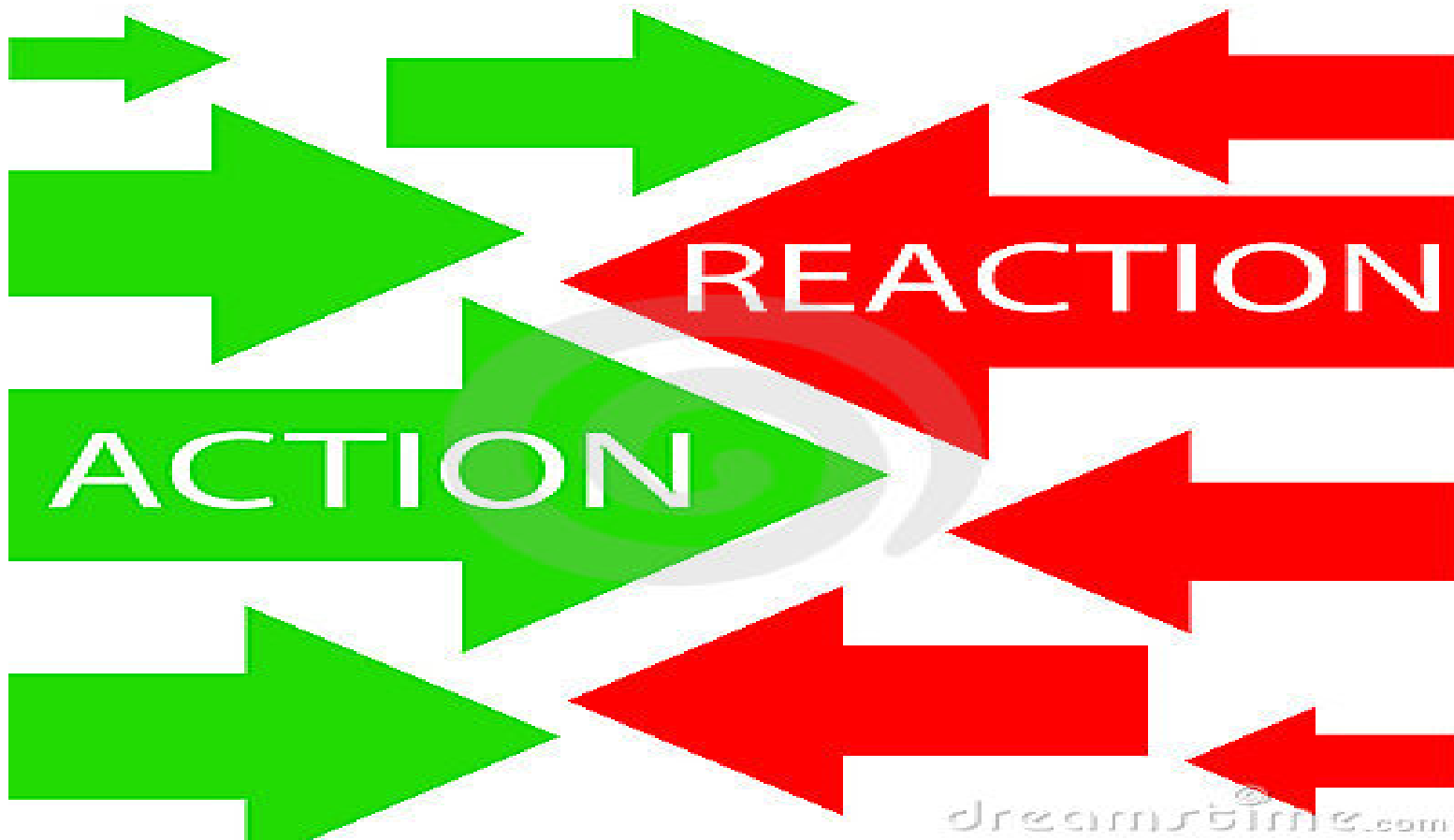
# Care in teams (c<sup>2</sup>)

- The sacrosanct one-to-one doctor patient relationship is being replaced by relationships with multiple health professionals
- Figuring out how to gain the most value from team care is key
- Reimbursement must be supportive
- Scope of practice needs careful re-design

# Care in large data sets (c<sup>3</sup>)

- Collections of huge meta-data sets are becoming standard for patients, eventually leading to continuous monitoring
- A new interpretive and functional infrastructure to is required to manage this data
- Locus of decision-making is shifting
  - New marriage of mind and machine

# So how can academic health centers respond?



# The default reaction

“Institutions seek to preserve the problem to which they are the solution.”

- Clay Shirky



# Or...try to be part of the solution

## Let's remember the guiding principles of academic health centers

- Our value proposition is *applying knowledge to improve health and well being*
- Our future is through *building the knowledge economy and applying it in patient care*

# How to be part of the solution

## 1. Broaden our understanding of what we do

- Shift view of mission from management of individual patients to management of community and population health (locally, regionally, nationally, and globally)
- Actively incorporate disciplines previously viewed as external (e.g., engineering and business management) as core healthcare disciplines to facilitate health system change
- Address the social determinants of health

# How to be part of the solution

## 2. Focus on the next generation of education, research, and patient care

- Meet the challenges of constrained resources by transforming how we teach, conduct research, and deliver patient care
- Collaborate widely

# How to be part of the solution

## 3. Train health professionals for new roles



# How to be part of the solution

## 4. Develop methodologies to assess academic and administrative efficiency

- Establish how much an institution is willing to spend to support research and teaching
- Gauge how to account for efficiencies and optimization in these areas
- Determine what is meant by research and education FTEs

# How to be part of the solution

## 5. Improve interconnectivity within and among institutions

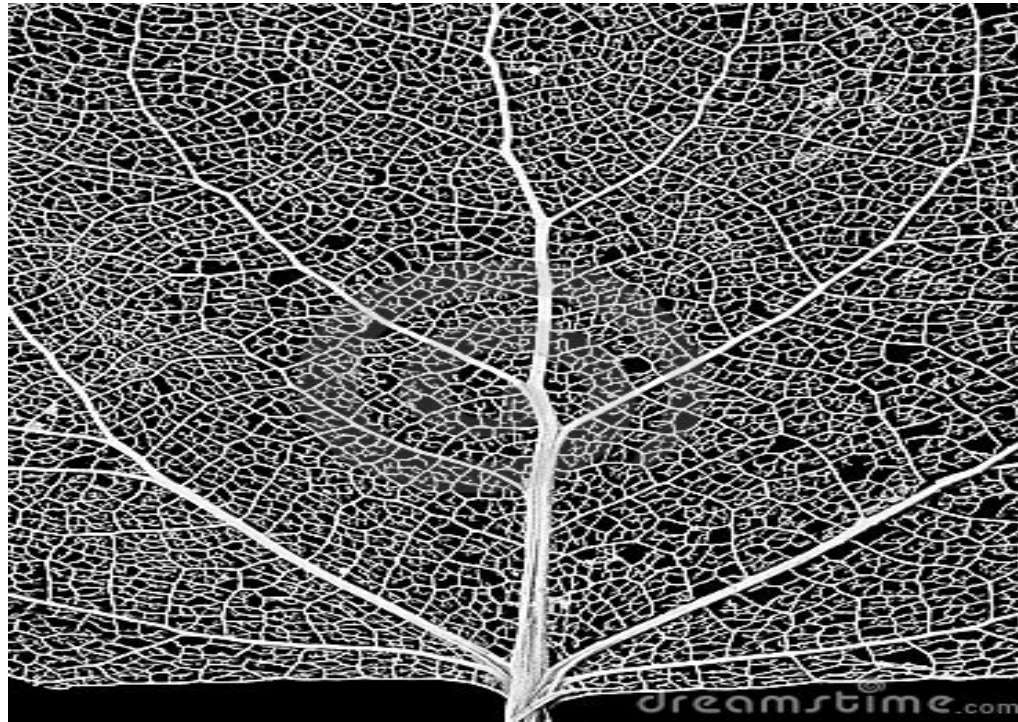
- Shift the operations and leadership of the academic health center from a highly siloed enterprise to an aligned organizational structure
- Develop networked and interconnected consortia with other institutions on a national and international basis

# How to be part of the solution

## 6. Develop an integrated, interprofessional vision

- Seek to capture the combined power of your components
- Address the barriers to true alignment
- Redesign incentives and rewards
- Create new structures and new positions based on best ideas

# Keep in mind



**“Collaboration is the new competition”**



# How to be part of the solution

## 7. Find the right leaders

- Transactional vs. transformational leadership
- Evaluate leadership skills
- Qualities of a good leader
- How to find those qualities

# The key job of the leader: getting people to change their behavior

- Change is great – “as long as it doesn’t apply to me”
- Change should be based on common values and beliefs, not forced from above

CULTURE, CONTEXT AND QUALITY  
IN HEALTH SCIENCES RESEARCH, EDUCATION,  
LEADERSHIP AND PATIENT CARE

# Confluence of Policy and Leadership in Academic Health Science Centers

A professional and  
personal guide

Edited by  
Steven A. Wartman

With comprehensive chapters  
authored by recognized  
AHSC leaders



# How to be part of the solution

## 8. Prepare for the era of no more open-ended funding

- Whether clinical revenue or grants, the funding “pie” is ceasing to increase at the same rate
- Academic health centers will have to become much more efficient in every function of its missions: education, research, and clinical

# How to be part of the solution

## 9. Be ready to assume financial risk for population health

- Risk will be assumed either directly or through networks
- Risk goes beyond the cost and quality of individual procedures

# In conclusion, what is the ultimate impact of disruption for academic health centers?



[dreamstime.com](http://dreamstime.com)

# Shifts required to manage disruption

- Shift *from* improving patient health *to* improving population health
- Shift *from* open-ended funding *to* a more constrained funding model
- Shift *from* incremental thinking *to* more strategic thinking
- Shift *from* a compartmentalized inefficient model *to* a highly aligned efficient one

# A possible outcome

Academic health centers may become more differentiated, especially with regard to research



# One hypothetical scenario

- Top 20% research-intensive institutions get more of the research pie
- The lower 20% will be relatively unchanged
- The middle 60% is at greatest risk from disruption

# There is urgency NOW

- Events and institutions are changing quickly
- The perceived disconnects between education, science, and patient care make academic health centers increasingly vulnerable from the societal and political points of view
- There is a window of opportunity for leading institutions to create new models

# The academic health center is well-positioned to respond...*if*

- It functions as an institution that aligns academics (education of *all* health professionals and biomedical and clinical research) with the care of patients
- It focuses on the next generation in education, research, and patient care
- It has the transformational leaders to change culture and behavior

# Thank You



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