Academic Health Centers
Vulnerabilities and Disruption

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AHCs are a unique hybrid of business and academics.

Business is Patient care

Academics is education and research
What is leading the disruption?

- Changes in societal needs and values
- Disease Patterns
- Economics
- Globalization
- Politics
- Population demographics
- Market consolidation
- Consumer empowerment
- Policy changes
- Entrepreneurism
- Science and technology
Vulnerabilities

- High reliance on uncertain funding sources to support the missions
  - Especially since education and research costs are usually not self-supporting
- Lack of clear measures of accountability for mission areas, given no real standardization of accounting and finance systems
- Leadership conflicts (e.g., University, Deans, Hospital, Health System, Departments, Institutes, Centers, etc.)
Thus the *status quo* is increasingly unsustainable

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

- Making internal inefficiencies unaffordable
- Downward pressure on tuition and related costs
- Pushing the seamless integration of academics and health care in new ways
As a result, AHCs are 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?

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So what is going on with our members?

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- Less angst this year than last
  - Institutions are coming to terms with strategic directions in a fairly chaotic environment

- Dominant concerns
  - Clinical funds flows
  - Consolidation
  - Research funding
So what is going on with our members?
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• Clinical market consolidation
  • Enhance “provider power”
  • Resulting in an “interesting” mix of cultures, priorities, and leadership styles

• There are lots of new leaders out there (at many levels)
Early results from our current member profile survey (n=49)

• 41% are undergoing major expansions of their hospital or physician network
• 37% are embarking upon large scale cost-reduction initiatives
• 36% are opening a new health professions school or new branch campus
• 31% are changing their governance structures or significant reporting relationships
The impact of disruption on academic health center missions

Education  Research

Patient Care  And Payment
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
On average, external grants and contracts are the largest funding source for U.S. medical schools.
On average, 35% of total research expenses are funded by U.S. medical schools with internal funds
(95% confidence interval of 27%-42%)

Note: Internally funded research expenses are academic expenses attributable to research that are NOT funded externally (e.g., sponsored research, government appropriations).
Multiplier Effect: For every $1.00 increase in research expenses funded by external grants & contracts, U.S. medical schools pay an additional $.52
Impact of disruption on research

A confluence of Factors

• Socio-Political
• Rise of “Big Science”
• Economics
Besides funding, some other research disruptors

• Implications of cloud- and crowd-sourcing
• What constitutes a clinical trial?
• Management of huge data sets
• “Control” of research
Strapped Scientists Abandon Research and Students

Budget cuts have led 47% to abandon a key study, 62% to reduce lab staff, and 42% to advise students to pursue careers outside academia.

Less Money, Less Science

Budgets are tighter than ever. In a Chronicle survey, more than half of those who led a lab for more than six years said this year was the toughest to date.

When have you felt the most financial pressure on your lab?

Based on 8,115 respondents who had led a lab for more than six years.

- 50% Within the past year
- 29% One to three years ago
- 5% I have not felt such pressure
- 6% More than six years ago

Scientists and students seek new sources of funding and short-term contracts to avoid cuts.
Figure 2: Absolute numbers of full-time clinical M.D. faculty by tenure status, 1984-2009
Brief Aside
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**
A possible outcome

Academic health centers may become more differentiated 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 of disruption of their research mission
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”
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.”

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 sides are adapted from Dr. Robert Berenson
One probable outcome

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

- Changes the incentives and care delivery models
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
Impact of disruption on patient care

- Care is moving from a *fixed setting* to *wherever* the patient may be
- *Real-time* continuous monitoring of patients
- *Big clinical data sets*: how to manage and operationalize them
- The Pandora’s Box of technology and new entrepreneurial income streams
- Patient empowerment
- Shifting from provider control to “crowd control”
Besides funding, some other research disruptors:

- Implications of cloud- and crowd-sourcing
- What constitutes a clinical trial?
- Management of huge data sets
- “Control” of research
Key shifts required for academic health centers to manage disruption
Shifts

• Shift *from* a compartmentalized inefficient model *to* a highly aligned efficient one

• 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
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
Academic health centers need to avoid the “default reaction”

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

- Clay Shirky