Departments of Medicine of the Future: The Department of Medicine in 2030

Department of Medicine
Grand Rounds
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February 20, 2015

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No financial interests or financial COI

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Outline

Why undertake this exercise?

What is holding us back?

Department's Strategic Plan

What are others saying?

Future of our core missions

Pressures on Academic Medicine

Organizational approach

Departmental Leadership in 2030

How should we prepare?

“It’s tough to make predictions, especially about the future”

Yogi Berra

“It is Always Wise to Look Ahead but Difficult to Look Farther than you can See”

Winston Churchill

Why Undertake this Exercise?

Departments of Medicine are inherently preparing for the future: "What will we need to know? How can we do this better? How can we make progress on this disease?

Balance **proactive** view with a reactive view

Pace of change is accelerating

- Quality, cost, patient and provider satisfaction (4 Aim)
- Advances in technology creating new opportunities

Society needs academic departments of medicine to **succeed**

What is Holding us Back?

Can we *really* shape our future? Are we **empowered** to do so?

Growing power of institutions - Individual **autonomy is declining**

Difficulty in seeing the future?

What if we **don't like** the way the future looks?

Five Key Elements of 2015 Department of Medicine Strategic Plan

Excellence: The department should strive for a level of achievement that is outstanding relative to external benchmarks

Health Equity: The department's programs should include strategies to reduce disparities in health outcomes attributable to race, gender, and socioeconomic status

Faculty empowerment and engagement: The department's faculty should have favorable impact on stakeholders in our core mission areas by acquiring the necessary skills, knowledge, and authority to exercise their influence.

Innovation: The department should encourage and support new approaches to clinical care, education, and discovery

Communication**:** The department should have multiple and effective approaches designed to sustain bidirectional communication within the department and with institutional affiliates

What are Others Saying About the Future of Medicine?

AAMC Workforce Summary Report October 2012

33 State Reports (2004-12) project growing physician shortages

22 specialty groups (2003-12) project physician shortages in their respective specialties

National Reports raise concerns about shortage of physicians:

- Physicians Foundation 2009
- AAMC 2008 (shortfall of 124,000)
- Association of Academic Health Centers 2008
- DHHS 2006 (shortfall of 60,000, greatest in non-primary care specialties).

AAMC Center for Workforce Studies Projections Through 2025

The nation is likely to experience a **shortage of physicians** which will grow over time

Though the supply of physicians is projected to increase modestly between now and 2025 (30%), the **demand for physicians is projected to increase even more sharply**.

Aging of the population may drive demand sharply upward for specialties that predominantly serve the elderly.

Growth in **future demand could double** if visit rates by age continue to increase at the same pace (Baby Boomers **more likely to seek medical care** than previous generations).

AAMC Center for Workforce Studies (con't)

Any future shortages are likely to be distributed **unevenly;**

Concerns with the supply of **primary care physicians are likely to intensify**;

Future **demand for physicians would be significantly reduced** if physician assistants and nurse practitioners play a larger role;

Given the evidence that minority physicians are more likely to provide care for poor and underserved communities, **increasing the diversity of the physician workforce** should continue to be a priority.

AAMC Center for Workforce Studies: Recommendations

Continue to promote changes in medical school capacity and GME positions to **address physician shortages**;

Promote efforts to make **more effective use** of the limited physician supply;

Recognize and respond to physician **life-style concerns**, including part time work;

Improve data collection and workforce studies.

DRAFT Results ABIM Survey

Medicine

- Knowledge/procedures will continue to grow resulting in more complex diagnostic, therapeutic, and preventive options

Technology

- New tools for managing encounters, knowledge, and patient data will become available

Patients

- To become more informed, empowered and demanding

Teamwork/organizations

- Increasing need to work as part of inter-professional teams, within large organizations

Roles

- Increasing system emphasis on cost-effective, proactive care for populations
- Physicians will play more specialized roles within the larger system

Identity

- Aforementioned will impact physicians' practices and identities

Institute of Medicine 2014 Report on Graduate Medical Education

Keep GME support at present level but **distribute the funding differently** (reduction to AHC's)

Create a **GME Policy Council and GME Center** within Center for Medicare and Medicaid Services

Create an **Operational Fund** and a **Transformational Fund**

Change GME Payment Methodology by **eliminating IME/DME formulas**

Provide **Incentive-based payments** based on findings of Transformation Pilot Awards

What Does a Peek at the Past Tell Us?

A Look Back - 15 years Ago

2000

Clinical

- Admissions 13,800
- Length of Stay 5.2 d
- Visits 185,000
  - Primary Care 105,000
  - Specialties 80,000

Education

- Number residents 144
- # Ward/ICU weeks (PGY 1) 39

Research

- Funding $75 m
- Pilot Awards 2

2015

Clinical

- Admissions 9,600
- Length of Stay 5.2 d
- Visits(projected) 308,000
  - Primary Care 120,000
  - Specialties 188,000

Education

- Number residents 144
- # Ward/ICU weeks(PGY 1) 25

Research

- Funding $116 m
- Pilot Awards 13

Clinical Future of Departments of Medicine

Forces Influencing the Clinical Future of Departments of Medicine

Societal (political) expectations of **quality and cost**

Payment for clinical services- FFS vs. capitation, hospitals become cost centers>revenue centers, growing pressure to **reduce costs**

Regulatory environment including **self-regulation**

Manpower needs **likely to grow** in specialty and primary care

Power of Health Systems - who is leading Health Care?

Maturation of the **Sciences of Quality Improvement and Implementation**

Emerging Technology: EHR, devices, biosensors, management tools

Demographics of patient population including life expectancy

Ethics-distribution of Health Care resources?

Case Presentation
Clinician Educator Position in 2030

A 30 yo MD is receiving an offer for a job in the Department of Medicine as a general internist. What will be the nature of the expectations for this clinician educator?

Elements of Academic Clinician's Job

Compensation will be based on qualitative and quantitative performance of **team and individual**

Management of a target **panel of patients**

Will work in an **interdisciplinary team**

Care of patients will be **integrated** across care spectrum

Will have substantial **practice infrastructure**

Performance of team and individual will be monitored through improved clinical metrics, and **faculty will design improvement strategies**

Patients will play a role in assessing clinicians/team

Education of students/trainees will be key component

Continuous **self-education** and **performance improvement** will be expected

A customized **faculty development plan** will be implemented

Future of Medical Education in Departments of Medicine

Factors Influencing our Future in Medical Education

Payment reform: who pays for this common good and how do we align educational content with payment system?

Evolution of **Evaluation Sciences**: Competency-based assessment

Technological Aids - translating information to knowledge, simulation, real time feedback

Evolution of **Team-based care**

Communication skills

Manpower needs, including needs for diversity

Self-regulation: certification process

Evolution of **mentoring** (peer-peer)

Competencies for the Graduating Medical Resident - 2030

Patient care: history taking, physical exam, and clinical reasoning, use of Health Information Technology

Medical knowledge: individualized medicine

Practice-based learning: information retrieval and assessment

Interpersonal and communication skills: telepresence (email, text messages, social media), care transitions

Professionalism: cost effective care, continuous learning, self assessment, health equity

Systems-based practice: quality improvement, determinants of patient experience, population health management; inter-professional teamwork

Case Presentation
Applicant for Residency Training 2030

A 26 yo medical student is considering internal medicine training in the Department of Medicine at BMC. How will the training differ from today?

Residency Training in 2030

Skills in **information retrieval and critical thinking** related to cost, effectiveness of diagnostic and therapeutic interventions, individualized care, population management

Continuous assessment, with **competency-based promotions**

Communication training prominent, including inter-professional communication and teamwork

Proficiency in **Quality Improvement, Implementation/change management, system improvement**

Scholarship will be required

Leadership training will be integrated

More outpatient than inpatient time, inpatient rotations will be weighted towards the end of residency, intern inpatient work partly replaced by Hospitalists and NPP's

Tracks will be further developed with specific competencies

Future of Medical Research in Departments of Medicine

Factors Influencing Future of Medical Research

Public view of science and medicine- will drive **funding level and regulatory environment**

Technology Rigorous and diverse research approaches will be needed to transition from **Information Commons to a Knowledge Commons** (e.g., biome-phenome relationships, biosensors, EHR, human cohort studies, point of care evaluation, implementation science)

- Exposome
- Signs and Symptoms
- Genome
- Epigenome
- Microbiome
- Other patient data (EHR)
- Individual patients (preferences, circumstances, culture, SES)

Industry-academic partnerships

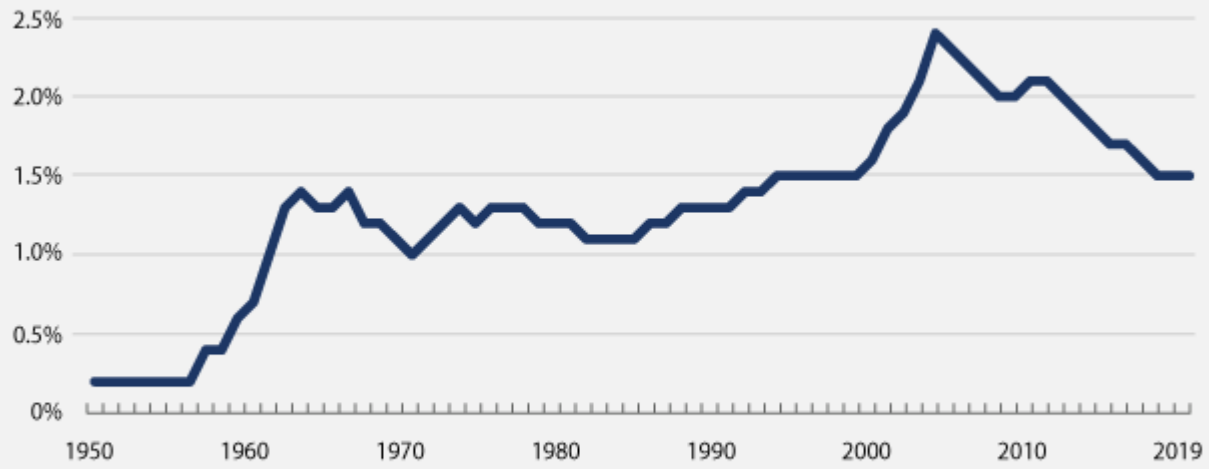
Manpower needs

Ethics of human research

NIH Funding Trend

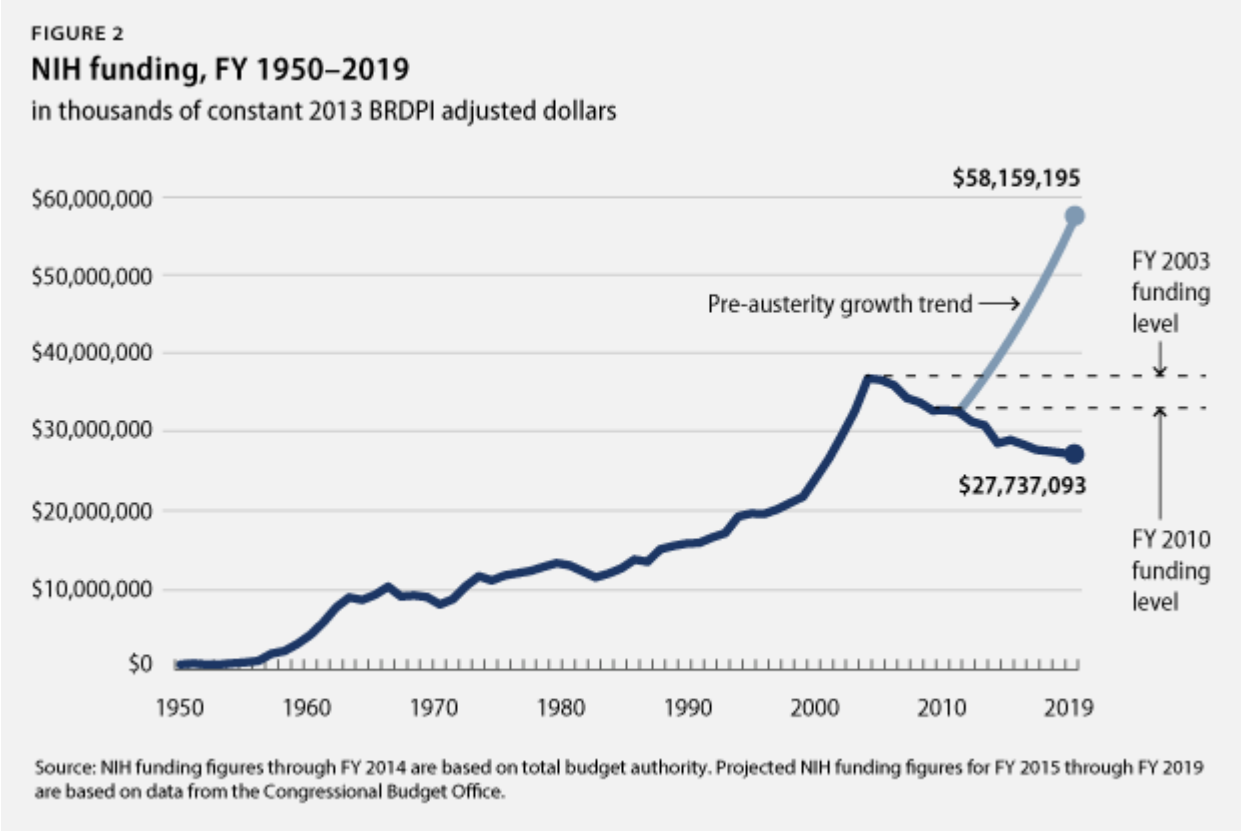
FIGURE 1

NIH funding as a share of GDP, FY 1950–2019



Source: NIH funding figures through FY 2014 are based on total budget authority. Projected NIH funding figures for FY 2015 through FY 2019 are based on data from the Congressional Budget Office. GDP figures are based on data from the Office of Management and Budget Historical Tables, Table 1.2

NIH Funding Trend in 2013 Inflation Adjusted Dollars



Case Example
Physician Investigator in 2030

A 32 yo F is offered a job as a physician investigator in the DOM. What are the key elements of her job?

DOM Research Faculty Positions in 2030

Available resources for faculty start up will be **concentrated in fewer individuals**

Funding agencies will be **less inclined to support faculty salaries**

Fewer research faculty will be hired in total

Faculty will more actively participate in **interdisciplinary research teams** - promotion criteria will evolve

Mentoring will be intensified, diversified, and sustained

Bridge funding, pilot funds, research infrastructure-particularly IT will become more important to faculty and departmental success

Broader array of funding partners (e.g., more non-governmental funding)

What Factors in Academic Medicine Will Impact Departments of Medicine in the Future?

Factors Influencing Academic Medicine

Government funding level (clinical, education, research)-up to **10% of revenue of AHC's may be at risk**

Globalization of academic medicine, increased international competition

Success in **engaging key stakeholders** (public, patients, practitioners, politicians, media, payers, health systems)

Extraordinary **opportunity to bring value** to health systems

Pressure to **standardize in education and clinical care**

Need for **better business practices and proof of value**

More **philanthropy**

Academic institutions likely to be **more different from one another**

Public availability of **quality ratings**, tie to reimbursement

Growing **power of Health Systems**

What will Departments of Medicine Need in the Future from Their Leaders?

Case Presentation
Departmental Chair Candidate

Dr. Jones is a 54 yo AAF presenting to the DOM Chair Search Committee on June 15, 2030 seeking consideration to become the next Chair of the Department of Medicine at BU/BMC.

- What key personal commitments will you be looking for Dr. Jones to make in order to help insure her success?
- What organizational changes should Dr. Jones implement to help the department be more successful in 2030?

A Framework for Transformational Leadership into the Future: *Five Key Commitments*

1. Something ***Larger than Herself***
2. High Performing ***Transactional <u>and</u> Transformational*** *Leadership*
3. Effective ***Communication***
4. Model and Enforce Standards of ***Integrity***
5. ***Professional and Personal Development***

Organizational Structure of DOM of the Future

Less hierarchical, more diversity, co-creation, crowd sourcing

More **nimble** decision-making structures

Professionalized **business/financial** functions

Methodologically-oriented groups with expertise in Evaluation science, cost effectiveness, implementation-Improvement science, analysis of large datasets of the human biome and phenome, population management

Strong **cores to support education and research**

Robust Faculty Development programs

Clinical sections, with **interdisciplinary clinical programs**

Research sections with facilitated **translational** links

Interdisciplinary Research Sections/Centers mixed with faculty from BUSPH and basic science departments

What Else is Critical to Planning for Our Future?

Our Future's True North: Tenets of Medical Professionalism

Subordinate own interests to those of others and to society

Adhere to **high ethical and moral standards**

Evince **humanistic values** including honesty, integrity, altruism, respect for others

Accountable to input from peers, patients, and society

Recognize and mitigate **conflicts of interest**

Commit to **excellence, competence, self-regulation, continuous improvement, scholarship and advancing the field**

Provide wise **stewardship** of health care resources

Successfully **manage complexity and uncertainly**

Respect and recognize **cultural influences in clinical care**

Conclusion: How Should we Prepare for the Department of Medicine of the Future?

Define a **Mission/Vision: Don't rely on the rear view mirror** to find the future

Define our **Values-align with tenets of medical professionalism**

Listen carefully to trends in clinical care, research, and education: **what does society need from us?**

Create **new structures** that position us to meet new challenges

Align our rewards with our Values

Measure and reward quality, and not solely quantity

Seize the extraordinary opportunity and accept some risks

Mindful of ***privilege and obligation of our profession***