Future of Internal Medicine (Training)

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Conflicts of Interest

As an officer of the American College of Physicians I have no direct financial relationships with commercial entities producing healthcare-related products and/or services.

I am a paid employee (faculty) of the University of Missouri
Overview

Medicine in the United States...
• History and the Oslerian tradition
• Work Force: Specialization, team care
• GME: Future funding and alignment
• Cost & high value care in training & practice
• Physician fatigue and burnout
• Telehealth, eHealth, and remote care
• Population Health and social determinants
Birth of Medicine Training in U.S.

- Sir William Osler, M.D., C.M., 1st Baronet
  - July 12, 1849 – December 29, 1919
  - Canadian pathologist, physician, educator, bibliophile, historian, and author
  - First to bring students from the lecture hall to the bedside
  - Created first IM residency program (Johns Hopkins)
  - 1874 McGill University (1st journal club)
  - 1884 Chair Medicine U. Penn. (Aequanimitas)
  - 1889 Johns Hopkins - 1st Professor; founded Medicine Service
  - 1905 Oxford Regius Chair of Medicine

Source: The Osler Symposia
http://oslersymposia.org/about-Sir-William-Osler.html
Patterned after Medicine Training in Europe


- Osler sabbatical in Germany 1872-1874
  - Internal medicine introduced as a specialty in Berlin, Gottingen, and Vienna
  - Importance of, “...obtaining and applying knowledge...”
  - “Medicine is an art based on science.”
  - Powers of observation and analysis: integrated *inductive* (*empirical*), *deductive* (*analytical*), and *humanistic* reasoning

- Art of clinical observation & analysis began earlier...
  - Sydenham 1655 (England)                      Laennec (France)
  - Virchow (Germany)                           Pasteur (France)
  - Rutherford (Scotland)                       Boerhaave 1729 (Dutch)
  - “medicina interna “ in Boerhaave’s *Method of Studying Physics* (1729)
Transforming Medical Education and Practice in the U.S.

The Flexner Report 1910
“Medical Education in the U.S. and Canada”

Abraham Flexner
November 13, 1866 – September 21, 1959

Commissioned by the Carnegie Foundation to investigate and make recommendations for national policy to regulate the practice and instruction of medicine.

Legitimized evidence based medicine.
Higher admission and graduation standards.
Strengthened state licensure.

1904, 160 M.D. schools, 28,000+ students
1920, 85 M.D. schools, 13,800 students
1935, 66 M.D. schools
Medicine as we remember it...
The Future of Medicine as Doctors see it...

AmericanEHR Blog
Has EHR Increased Your After-Hours Workload?

Work-Life-Balance
BURNOUT

Balancing
Care
Costs

Inappropriate
Paperwork

Malpractice
Expenditure

Documentation
Best Practices

Inadequate
Companies

Bureaucracy
Consultants

Tired
Financial

Medicaid
Relational

Medicare
Staff Phone EMR

EMR
Paper

Hospitals
Capital

Ongoing
Morrison

Medicare
Overwhelming

Documentation
Balance

Paperwork
Medicaid

Balancing
Care

Costs
Future of Medicine as Patients see it...


The Pharos, Summer 2015
"I hear there's a new ICD-10 code for carpal tunnel syndrome caused by clicking too many times in an EMR system."
Medicine is Rapidly Transforming

• Access and the Affordable Care Act - signed into law March 23, 2010
  • Increasing access...insures for more, older, complicated patients
  • Meaningful Use...carrots and sticks
  • Increased regulation and oversight
  • Accountable Care Organizations

• Medicare Access and CHIP Reauthorization Act (MACRA) and Alternative Payment Models - signed into law April 16, 2015
  • HIT, digital innovation, and the EMR ("meaningful use")
  • Innovation with new Biologics and other pharma/device advances
  • HIV cocktails...Hep C the "new AIDS"

• Concern for Cost ($3 Trillion) and High Value Care: penalties for readmission
• Decreasing reimbursement: lack of Medicaid expansion; challenges to HIEs; loss of Medicare enhancement and MC/MC parity;
• Decreasing services in and loss of small and rural hospitals
• Burgeoning admissions to tertiary care hospitals
• Team Care (PCMH) the "new primary care"
• Work force concerns and future of primary care
• Diminishing joy and fulfillment in practice
Internal Medicine Training in the U.S.

- 4 years of college/university for BA/BS
- 4-6 years of professional school for MD/DO
- 3 years of residency
  - 4th year as Chief Resident-selective and competitive
  - Eligible to sit for the ABIM secure board examination
  - Standardized for all states and territories
- Subspecialty training following residency
  - 2-5 years of additional training
  - Standardized boards
- Licensure required in all states
- Certifying exam required in all specialties/subspecialties
Internal Medicine Training in Europe

• 27 Countries (survey)
• IM primarily hospital based
• Roles comparable-influenced by subspecialization
• 4-6 years training (commonly 5)
• Subspecialty typically grounded by IM training
• Inpatient service primary setting for training
• **Final Certifying exam in 14 countries**

Conclusion: Feasible to harmonize training & qualifications
Supply and Demand of Doctors

Credit: University of Missouri Health System
National Resident Match Program

Salsberg E. The 2014 GME Residency Match Results: Is there Really a “GME Squeeze”? Health Affairs Blog – http://healthaffairs.org/blog

- Record high of 29,666 resident positions offered in 2014
  - Up 2.2% from 2013
  - ? Effect of “all in” policy
- 22,300 MD/DO U.S. seniors competing
- 6,350 IMGs matched in 2014 of which 2,722 [43%] U.S. citizens
- 975 U.S. students unmatched in 2014
- 1,097 unmatched 2013
  - 526 still unmatched after SOAP (Supplemental Offer Acceptance Program)
  - 99.4% of residency positions ultimately filled in 2013
- 11 of 141 med schools increased enrollment more than 10 % since 2006
- Growth in osteopathic schools → 313 more grads in 2013
- Residency positions have increased by only 8 % since 2002
- No increase in federally supported primary care residency positions

- 2014: 991 unfilled positions
- 2013: 1,041 unfilled positions
- 2012: 1,246 unfilled positions
- 2011: 1,138 unfilled positions
- 2010: 1,142 unfilled positions
2015 Resident Match Results

Match Results for 2015

- 30,212 Positions
- 99.4% Position Fill Rate
- 34,905 Applicants Submitted Preference Lists
  - U.S. Allopathic Seniors (93.9% match rate)
  - U.S. Allopathic Graduates (43.6% match rate)
  - U.S. Osteopathic Students & Graduates (79.3% match rate)
  - U.S. Citizen IMGs (53.1% match rate)
  - Non-U.S. Citizen IMGs (49.4% match rate)

U.S. Allopathic Seniors:
- Match rate for seniors: 93.9%
- % of matched seniors who get one of top 3 choices: 78%

Primary Care

- 4,018 (15%) dedicated PC positions offered
  - 3,859 filled
  - 2.9% increase in PC positions offered from 2014
  - No change in fill rate
Comparison of Internal Medicine (All Types) and Pediatrics (All Types) Positions Offered and Filled with U.S. Seniors in March 2005 – 2015

NOTE: Positions in Internal Medicine/Pediatrics combined programs are included in “IM Positions Offered” and “IMFilled U.S. Seniors.”
Internal Medicine Match Results from 18,025 U.S. allopathic and 2,949 osteopathic applicants

• Categorical Internal Medicine
  • 3,317 in 2015
  • 3,167 in 2014
  • 3,135 in 2013
  • 2,941 in 2012
  • 2,940 in 2011
  • 2,772 in 2010
  • 3,884 in 1985

• IMGs: 37.5% in 2011 and 43.9% in 2015

• 20 to 25% of internal medicine residents eventually choose general internal medicine, down from 54% in 1998.
PHYSICIAN WORK FORCE

32 MILLION NEWLY INSURED

75 MILLION BABY BOOMERS ACCESSING MEDICARE

50 MILLION NEW PATIENTS, 2000 – 2020

HOW MANY MORE PCPS AND SPECIALISTS ARE REALLY NEEDED?
With population growth and aging the total number of office visits to primary care physicians will increase:

- 462 million in 2008
- 565 million in 2025

With insurance expansion, the U.S. will require nearly 52,000 additional primary care physicians by 2025.
There will likely **NOT** be new funding available for GME

Maintain Medicare funding as main source

System redesign is needed.

Questions “physician shortage”
IOM Recommends

1. Maintain current Medicare support

2. Build a GME policy and financing infrastructure
   - Create a GME Policy Council at HHS
   - Establish a GME Center at CMS

3. Create a single Medicare GME fund
   - Operational fund for approved positions
   - Transformation fund for creative initiatives and new positions
IOM Recommends

4. Modernize Medicare GME payment methodology
   - Replace IME and DME with one payment
   - Set a national per-resident amount
   - Redirect GME funds to sponsoring organizations
   - Implement performance-based payments

5. Maintain Medicaid GME at states’ discretion

6. “Not a physicians shortage” due to evolving innovative care strategies (teams, PCMH, other providers), HIT, telehealth, and EMR
By 2025 the U.S. may be short 46,000 - 90,000 physicians

12,500 to 31,100 primary care
28,200 to 63,700 non-primary care - most notably surgery

"The doctor shortage is real -- it's significant -- and it's particularly serious for the kind of medical care that our aging population is going to need."

AAMC President and CEO Darrell Kirch, M.D.
Work Force Expansion

“Simply adding more doctors to the current mix is not a thoughtful solution to workforce challenges.”

Why a Future Physician Shortage is Unlikely in the US

✓ The changing health delivery system: driven to improve efficiency and effectiveness (ACOs, bundled payments, patient centered medical homes, demonstrations, etc.)
✓ The growing supply of physicians (slow, but growing)
✓ Rapidly growing supply and expanded use of “other providers”: NPs, PAs, pharmacists, therapists, nurses, assistants, community health workers and others (team care)
✓ Technology/EHRs/telehealth/eHealth
✓ The flexibility and creativity of health providers (supply and demand are not static/independent)
American Association of Academic Health Centers (AAHC) Response to IOM

• GME reform must be considered in the context of national health workforce policy
  • Not in isolation

• National health workforce policy must be driven by what makes sense for the future of health care
  • Not what is desirable for a particular discipline or industry

http://www.aahcdc.org/Home.aspx
Confounders to Choosing Internal Medicine

• Cost of education
• Workload and stress
• Complexity of the patients
• Team (Accountable) care
• Changing practice environment
• Dissatisfied mentors and physicians in practice due to administrative burden, EMR, MOC, payment inequity/reform, complexity of outpatient care
U.S. Students’ Attitudes about Internal Medicine*

Survey: 1244 students, 16 schools, 1990
1177 students, 11 schools, 2007

Comparing 2007 to 1990...

Women: 52% vs 37%
Mean debt: $101,000 vs. $63,000
IM as “meaningful career”: 82% vs. 68% (“esteem”)
Planning career in GIM: 2% vs. 9%
(siting: “types of patients, workload, stress”)

## Indebted Graduates, Class of 2013*

<table>
<thead>
<tr>
<th></th>
<th>Public</th>
<th>Private</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>$162,736 (↑4%)</td>
<td>$181,058 (↓1%)</td>
<td>$169,901 (↑2%)</td>
</tr>
<tr>
<td>Median</td>
<td>$168,000 (↑5%)</td>
<td>$190,000 (↑0%)</td>
<td>$175,000 (↑3%)</td>
</tr>
<tr>
<td>Graduates with Debt</td>
<td>87%</td>
<td>84%</td>
<td>86%</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>79%</td>
<td>79%</td>
<td>79%</td>
</tr>
<tr>
<td>$150,000 or more</td>
<td>62%</td>
<td>66%</td>
<td>63%</td>
</tr>
<tr>
<td>$200,000 or more</td>
<td>34%</td>
<td>48%</td>
<td>40%</td>
</tr>
<tr>
<td>$250,000 or more</td>
<td>14%</td>
<td>27%</td>
<td>19%</td>
</tr>
<tr>
<td>$300,000 or more</td>
<td>5%</td>
<td>11%</td>
<td>7%</td>
</tr>
</tbody>
</table>

* Source: AAMC 2013 Education debt figures include premedical education debt
Cost of Medical Education in the U.S.
Is it worth the investment?

Comparing Med Specialty

Comparing Occupations

Source: Cornell Chronicle October 23, 2013 and
Asch D, Nicholson S, Vujicic M. Are We in a Medical Education Bubble Market?
NEJM. 2013; 369:1973-1975
Compensation for U.S. Physicians

Source: Medscape
Growth of Hospital Medicine

Source: Society of Hospital Medicine
Hospitalist Evolution
Collins T. The Hospitalist. 12-2-12
http://www.the-hospitalist.org/tag/growth-of-hospital-medicine/

Slightly more than 56% of hospitalists work in practices owned by hospitals/integrated delivery systems (IDS); 26% work in physician-owned groups

Hospitalists’ pay has jumped more than 27% since 2008, While wRVUs have dropped slightly (0.17%)
Changing Demographics Worrisome

- Half of graduating residents now female
- Increasing volume—6% more visits 2000 → 2010
- More subspecialization
- Hospital medicine now a specialty
- Only 2% choose primary care (2007)
- ABIM recertification requirements (MOC)
- 1 in 6 of general internists leave practice early compared to 1/25 for subspecialists
- Widespread dissatisfaction
High Value Care (HVC)

Impact of Escalating Healthcare Costs

“The major driver of our long-term liabilities, everybody here knows, is Medicare and Medicaid and our health care spending. Nothing comes close.”

President Obama
Why are Diagnostic Tests are Overused and Misused?

• Lack of guidance/guidelines
• Lack of knowledge
• Patient expectations
• Inadequate time
• Fear of malpractice
• Habit
• Personal gain
HVC and Residency Training

• Habits start early in training

• Joint initiative to develop HVC program for residents: AAIM, ABIM Foundation, ACP
Academic Medicine

2011 Question of the Year

“What improvements in medical education will lead to better health for individuals and populations?”

Response to the 2011 Question of the Year

Educating Trainees About Appropriate and Cost-Conscious Diagnostic Testing

Steven E. Weinberger, MD

Teaching High-Value, Cost-Conscious Care to Residents: The Alliance for Academic Internal Medicine–American College of Physicians Curriculum

Cynthia D. Smith, MD, on behalf of the Alliance for Academic Internal Medicine–American College of Physicians High Value, Cost-Conscious Care Curriculum Development Committee*

Health care expenditures are projected to reach nearly 20% of the U.S. gross domestic product by 2020. Up to $765 billion of this spending has been identified as potentially avoidable; many of the avoidable costs have been attributed to unnecessary services. Postgraduate trainees have historically received little specific training in the stewardship of health care resources and minimal feedback on resource utilization and its effect on the cost of care. This article describes a new curriculum that was developed collaboratively by the Alliance for Academic Internal Medicine and the American College of Physicians to address this training gap. The curriculum introduces a simple, stepwise framework for delivering high-value care and focuses on teaching trainees to incorporate high-value, cost-conscious care principles into their clinical practice. It consists of ten 1-hour, case-based, interactive sessions designed to be flexibly incorporated into the existing conference structure of a residency training program.


For author affiliation, see end of text.

* For a list of committee members, see the Appendix (available at www.annals.org).

This article was published at www.annals.org on 10 July 2012.

Bringing HVC into the Training Environment

- **Knowledge**: understanding of what helps patients vs. what is superfluous or even harms patients
- **Approach**: focus on appropriate care rather than saving money
- **Culture**: recognition that more ≠ better
- **Faculty development**: trainees mimic faculty
- **Regulation**: cost consciousness in resident competency requirements
Accreditation Council for Graduate Medical Education (ACGME) “Milestones” 2009

- 22 sets of required observable behaviors in residents
- Designed to secure six core competencies
  - Patient Care
  - Medical Knowledge
  - Professionalism
  - System-based Practice
  - Practice-based Learning
  - Interpersonal and Communication Skills
- Next Accreditation System (NAS) 2012
  - Continuous self assessment and improvement
Providing High-Value, Cost-Conscious Care: A Critical Seventh General Competency for Physicians

Steven E. Weinberger, MD

There is general agreement that the U.S. economy cannot sustain the staggering economic burden imposed by the current and projected costs of health care. Whereas governmental approaches are focused primarily on decreasing spending for medical care, it is the responsibility of the medical profession to become cost-conscious and decrease unnecessary care that does not benefit patients but represents a substantial percentage of health care costs. At present, the 6 general competencies of the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS) that drive residency training place relatively little emphasis on residents' understanding of the need for stewardship of resources or for practicing in a cost-conscious fashion. Given the importance in today's health care system, the author proposes that cost-consciousness and stewardship of resources be elevated by the ACGME and the ABMS to the level of a new, seventh general competency. This will hopefully provide the necessary impetus to change the culture of the training environment and the practice patterns of both residents and their supervising faculty.
Challenge for Program Directors

• Focus on cost reduction and minimizing overuse/misuse of diagnostic testing

• Questions-
  • Why did you order that test?
  • Was it the most appropriate and cost-effective test?
  • What are you going to do with the results?
  • Will it change your management?

• Most important ingredient for success-
  • Effective mentoring (faculty development)
Multidisciplinary Team Based Training

• Health care is inherently a team-based activity
• In teams quality and patient safety are stressed
• Health care cost is considered (High Value Care)
• Fosters better coordination of what is currently fragmented care
• Adopts our ability to move electronically into the 21st century
• Primary care (training) of the future.
Patient Centered Medical Home

- Personal physician
- Team directed medical practice
- Whole person orientation
- Care coordinated and/or integrated
- Quality and safety emphasis
- Enhanced patient access to care
- Payment structure recognizes service and value

Team-based care:
- NP/PA
- RN/LPN
- Medical Assistant
- Office Staff
- Care Coordinator
- Nutritionist/Educator
- Pharmacist
- Behavioral Health
- Case Manager
- Social Worker
- Community resources
- DM companies
- Others...

http://www.acponline.org/running_practice/pcmh/demonstrations/jointprinc_05_17.pdf
Principles Supporting Dynamic Clinical Care Teams: An American College of Physicians Position Paper

Doherty R and Crowley R, for ACP’s Health and Public Policy Committee

Ann Intern Med. 2013;159(9):620-626

• Responsibilities for a patient's care within a collaborative and multidisciplinary team should be based on what is in the patient's best interest.

• ACP reaffirms the importance of patients having access to a personal physician.

• Teams must have the flexibility “to determine the roles and responsibilities expected of them based on shared goals and the needs of the patient.”

• Well-functioning teams will assign responsibilities to advanced practice nurses, other registered nurses, physician assistants, clinical pharmacists, and other health care professionals for specific dimensions of care.

• A cooperative approach by physicians, advanced practice nurses, other registered nurses, physician assistants, clinical pharmacists, and other health care professionals in collaborative team models will be needed to address physician shortages.

• A unique strength of multidisciplinary teams is that clinicians from different disciplines and specialties bring distinct training, skills, knowledge bases, competencies, and patient care experiences to the team.
AAMC: Moving the Medical Home Forward
Innovations in Primary Care Training and Delivery

• Highlights academic practices that have successfully incorporated the PCMH into care delivery and training.

• Survey of 126 member institutions in AAMC Group on Faculty Practice (GFP) - 36 responses:
  • Enhanced access and communication (92%)
  • Team based care and care coordination (76%)
  • Quality monitoring and improvement (100%)
  • HIT/EHR (96%)

Source: AAMC Report  November 2010
Future of Primary Care in the U.S.

2010 population of U.S. internists

- Total IM: 142,000
- Active IM: 124,000

Legend:
- SS
- GIM
Tough Practice Environment

- Payment reform slow in coming (SGR repeal, PCMH)
- Medical Legal issues persist (tort reform)
- Burden of Practice: EMR, precert, compliance regulation, meaningful use, MOC
- Increased patient volume
- Higher patient acuity in clinics and hospitals
- Emphasis on “value” (control cost/enhance quality)
- Increasing office expense
- Physicians increasingly frustrated
<table>
<thead>
<tr>
<th>Specialty</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Orthopedics</td>
<td>87%</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>86%</td>
</tr>
<tr>
<td>Oncology</td>
<td>86%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>83%</td>
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<tr>
<td>Cardiology</td>
<td>79%</td>
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<tr>
<td>Neurology</td>
<td>79%</td>
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<tr>
<td>Pathology</td>
<td>79%</td>
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<tr>
<td>Anesthesiology</td>
<td>76%</td>
</tr>
<tr>
<td>All Physicians</td>
<td>74%</td>
</tr>
<tr>
<td>Surgeons</td>
<td>70%</td>
</tr>
<tr>
<td>ER Docs</td>
<td>66%</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>62%</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>60%</td>
</tr>
<tr>
<td>OB/GYN</td>
<td>59%</td>
</tr>
</tbody>
</table>

Sermo Physician Poll • Mar 2014 • 2926 Respondents
Physician Dissatisfaction in the U.S.

NerdWallet Finds High Dissatisfaction Among Doctors

<table>
<thead>
<tr>
<th>Best Specialty Ranking</th>
<th>Salary</th>
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<tbody>
<tr>
<td>Gastroenterology</td>
<td>$342,000</td>
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<tr>
<td>Orthopedics</td>
<td>$405,000</td>
</tr>
<tr>
<td>Radiology</td>
<td>$349,000</td>
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<tr>
<td>Oncology</td>
<td>$278,000</td>
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<tr>
<td>Cardiology</td>
<td>$357,000</td>
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<tr>
<td>Emergency</td>
<td>$270,000</td>
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<tr>
<td>Anesthesia</td>
<td>$337,000</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>$263,000</td>
</tr>
<tr>
<td>Neurology</td>
<td>$216,000</td>
</tr>
<tr>
<td>OB/GYN</td>
<td>$242,000</td>
</tr>
<tr>
<td>General Surgery</td>
<td>$279,000</td>
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<tr>
<td>Psychiatry</td>
<td>$186,000</td>
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<tr>
<td>Pediatrics</td>
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<tr>
<td>Family</td>
<td>$175,000</td>
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<tr>
<td>Internal Medicine</td>
<td>$185,000</td>
</tr>
<tr>
<td>Average</td>
<td>$270,467</td>
</tr>
</tbody>
</table>

How many would choose the same specialty?  How many would choose a career in medicine?

Burnout


*Arch Intern Med.* 2012;172(18):1377-1385

Burnout is more common among physicians than among other US workers.

Nearly 1 in 2 U.S. physicians report at least one symptom of burnout.

Physicians in specialties at the front line of care seem to be at greatest risk.
Burnout in European Family Doctors: the EGPRN study

3500 questionnaires distributed in 12 European countries; 1393 returned - response rate of 41%
- 43% high for emotional exhaustion
- 35% high for depersonalization
- 32% high for personal accomplishment
- 12% high in all three dimensions
- Just over one-third did not score high for burnout in any dimension
ACP Position Paper: Redesigning Training for Internal Medicine
Weinberger S, Smith L, Collier V. Ann Int Med. 2006;144:927-932

• **Students:**
  - High quality experiences late in 3rd and 4th years
  - Revisit pathophysiology and mechanisms of disease
  - Translate knowledge into best practices
  - Develop analytic and interpretive (deductive reasoning ) skills
  - Prepare for resident training with at least one high intensity clinical experience

• **Residents:**
  - No less than 3 years - 2 “core” years followed by 1 “customized” year
  - Balance education and service needs (workload)
  - Enhance ambulatory training
  - Team based Care
  - Faculty selection and development
  - Stress professionalism
Core Components of IM Training-Competency Based
AAIM 2007-Steve Weinberger, M.D.

• Formative Application of Core knowledge content and skills
  • Understanding of basic scientific principles (basic science, pathophysiology, genetics)
  • Commitment to lifelong learning
  • Continuous incorporation of scientific evidence

• Competence in patient care
  • System-based practice
  • Practice based learning and improvement

• Competence in communication and interpersonal skills
• **Embrace** the philosophy that patients and families are essential components of high quality, cost efficient health care.

• **Cultural change** is needed in training institutions
  
  • Shift from inpatient to ambulatory setting
  • Integrate humanistic as well as scientific aspects of training-compassion, respect, and collaborative communication
  • Promote active participation of patients and families
  • SOAP2-adding the patient’s perspective as the “second P”
  • Incorporate patient and family perspectives in conferences and rounds
  • Faculty development of attitudes and skills
Challenges and Concerns
Training for the 21st Century...are we prepared?

• “...the milestones overemphasis on nondiagnostic aspects of medical practice is troubling.”

• “Clinical competence is not defined by the knowledge, skills, and attitudes that physicians acquire during training but rather by how they incorporate those attitudes [and skills] into actual patient care.”

• “APDIM and ACP position papers...lack 2 crucial elements: endorsement by those empowered to make the necessary changes and, most important, a strategy for uniting internal medicine around a future course of discipline.”

• We need to “...putt or get off the green.” (ambulatory training)
Challenges to Redesigning IM Training

• Deep rooted tradition of the “Oslerian Method”
• We do not control the resources: CMS → hospital → departments → programs
• Accreditation - under control of ACGME
• Certification - under control of ABIM
• Licensure - under control of the state
• Ambivalence about primary care
• Overbearing nature of health care costs
• Overbearing nature of administrative burden
Medicine Training of the Future

• Continue 3 years of residency training - likely
• Recognize:
  • Concern that clinical and diagnostic skills may be diminishing
  • Core skills and knowledge are still needed
• Expand and enhance ambulatory training
• High Value Care concepts and principles will be deployed
• Team Care training models will be developed
• Continued press for subspecialty training difficult to curb
• (Customized 3rd and 4th year of training—primary vs specialty)
• (Humanistic and Communication skills for patient and family centered care will be emphasized)
Devices and Remote Care

Jimmy Daly, “13 Impressive Statistics About Mobile Device Use”
http://www.edtechmagazine.com/higher/article/2013/03/13-impressive-statistics-about-mobile-device-use

- 31% American adults own a tablet computer
- 87% American adults own a cell phone
- 84% cell phone owners could not go a single day without their device
- 81% growth of smartphone usage in 2012
- 70% growth of global mobile data traffic in 2012
- 51% Traffic on mobile devices was video in 2012
- 45% American adults own a smartphone
- 44% cell phone owners have slept with their phone nearby because they didn’t want to miss a notification
- 24% cell phone owners say the worst thing about their device is that they are always connected
- 7 x difference in mobile data usage on laptops compared with mobile devices
- 12 x mobile traffic in 2012 versus entire Internet in 2000
- 2013 when mobile devices exceeded the world’s population
• Nearly **200 telemedicine networks**, with **3,500 service sites** in the US.
• Nearly 1 million Americans currently using remote cardiac monitors.
• In 2011 the Veterans Health Administration delivered over 300,000 remote consultations using telemedicine.
• >350 biomedical journal articles with Telemedicine as major heading (AHRQ Telehealth Evidence Map 2015)
• **Over half of all U.S. hospitals** now use some form of telehealth.
• Millions of patients worldwide use telemedicine to remote monitoring.
• Both consumers and physicians increasingly download health and wellness applications for use on their cell phones.

Source: [www.effectivehealthcare.ahrq.gov](http://www.effectivehealthcare.ahrq.gov) 9-11-15
Tehelealth and Remote Monitoring

Clinical uses of telehealth
• Store and forward – radiology, dermatology
• Face to face between patient and healthcare provider for clinical assessment
• Groups or individuals exchanging health services or education live via videoconference (real-time telehealth)
• Transmission of data for diagnosis or disease management (remote monitoring)
• Prevention and treatment of disease (Project ECHO)
• Emergency medicine (teletriage)

Nonclinical uses of telehealth
• Distance education and training research on telehealth
• Online information and health data management
• Healthcare system integration
• Healthcare system management
• Patient movement and remote admission

Remote monitoring
• Home-based nocturnal dialysis
• Cardiac and multi-parameter monitoring of remote ICUs
• Disease management (COPD, CHF, DM, Coagulation, Depression, Dementia, Frailty).
Future of Telehealth and Remote Monitoring

- 48% of employers offered telehealth to their employees in 2014. By 2016, it will be 74%. ([National Business Group on Health; (Pinsker, Reuters, 8/12):](http://www.ihealthbeat.org/articles/2015/8/14/74-of-employers-expected-to-offer-telehealth-services-by-2016)


- Over the past 15 years, many studies have documented improved quality, cost savings, patient satisfaction and support for telemedical services. ([ATA:](http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.VecNTE3luUk))

- IOM Tehelealth Guide (1996) and workshop (2012) on the potential for health care to serve geographically isolated individuals and extend the reach of scarce resources while also emphasizing the quality and value in the delivery of health care services. ([IOM:](http://iom.nationalacademies.org/Reports/2012/The-Role-of-Telehealth-in-an-Evolving-Health-Care-Environment.aspx#sthash.rxNU361y.dpuf))

- CMS provides limited and specified coverage. 24 States + DC mandate private coverage. In almost every state Medicaid covers at least some telehealth.
Population Health

The health outcomes of a group of individuals, including the distribution of such outcomes within the group.

Kindig DA. Understanding Population Health Terminology. Milbank Quarterly. 2007;85(1), 139-161

Policies and Programs influence change in determinants and factors that then influence health outcomes.

Aim: to improve the health of the entire population.
ICD-10 and the Social Determinants of Health (SDOH)

More than five times the current number of ICD-9 codes, providing more detailed classifications to assess the health and risk of patient populations.

New ICD-10 Codes track factors that influence health status and risk:

- Environmental
- Socio-Economic
- Household
- Behavioral
- Social & Community
- Health System
- Psychological
- Biological
- Working and Living Conditions

In the US, SDOH are estimated to account for 70% of avoidable mortality.

McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Affairs. 2002;21:78–93
ICD-10 Impact on Health centers

• Useful for funding proposals, managed care contracting, care coordination, quality improvement, meeting meaningful use criteria, and more.

• More appropriate reimbursement, improved outcome indicators (QI reporting), reduced potential compliance issues, and fewer claims denials.
OUR DIFFERENTIATING VALUE-ADDED STRATEGY IS TRANSFORMATIONAL CHANGE.

HOW WAS THAT? DOES ANYONE FEEL DIFFERENT?

MY URGE TO HURL HAS INCREASED A LITTLE BIT.

THAT'S WHAT CHANGE FEELS LIKE.
We’re still internists!
Take aways...

• We are in a transformational time
• More older and sicker patients, often with greater complexity, coming our way
• The pipe line will not keep up with demand for new physicians so we will need to evolve with new models of care, especially primary care.
• GME will be transformed in how it is funded and organized, but no more training slots
• The loss of professional fulfilment is a major concern - attempts will be made to enable us to “recapture the joy of medicine”
• Our practice, policy, research, and training will be ever driven and transformed by information technology, telehealth, and eHealth.
• Patients will be empowered and increasingly drive decisions about health care
• High Value Care is the new mantra by which we will be judged and paid
• Population health is the new impetus for both individual providers and HC systems to will be paid by being mindful of and documenting patients’ social and environmental circumstances.
• What we do is still better than working for a living.
Thank you!

“Harris, when I said ‘any questions’ I was using only a figure of speech.”