Team-based Care: Answering the Call in Academic Medicine

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Team-based care IS the future of health care
Primary care is a perfect paradigm to examine this future
“The future is already here, it’s just not very evenly distributed”

Attributed to William Gibson, author
Objectives

Identify the \textbf{workforce implications} of team-based care in primary care

Discuss \textbf{innovations} in team-based primary care

Describe the Association of American Medical Colleges \textbf{efforts in promoting interprofessional education and practice}
Growing advocacy for team-based care

IOM Reports: Future of Nursing, Primary Care and Public Health

HRSA funding for expansion of NP, PA training

CMMI: Innovation challenges, Graduate Nurse Education Challenge

IPEC: Interprofessional education competencies and strategies

Multiple groups supporting team-based care innovation and spread: RWJ, ABIM Foundation, California Healthcare Foundation, ASPE, NACHC, AAMC, etc etc
Why the growing support for team-based care?

1. Workforce needs/pressures

2. Efficiency as a growing priority

3. Expanding notion of health care services
### Why Team-based Care #1: Projected shortages for both primary care and subspecialists

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Care</th>
<th>Subspecialties</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>9,000</td>
<td>4,700</td>
</tr>
<tr>
<td>2015</td>
<td>29,800</td>
<td>33,100</td>
</tr>
<tr>
<td>2020</td>
<td>45,400</td>
<td>46,100</td>
</tr>
</tbody>
</table>

Source: AAMC Projections, 2010
Projected shortages for both primary care and subspecialists

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Care</th>
<th>Subspecialties</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>7,000</td>
<td>1,700</td>
</tr>
<tr>
<td>2015</td>
<td>9,000</td>
<td>3,100</td>
</tr>
<tr>
<td>2020</td>
<td>29,800</td>
<td>33,100</td>
</tr>
</tbody>
</table>
Train more: MD and DO medical school growth since 2002

Source: AAMC, AACOM Annual Enrollment Surveys through 2013
Michigan knows a thing or two about Med School Growth....
## Recent increase in MD Matriculant Counts

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>16,210</td>
<td>48,862</td>
</tr>
<tr>
<td>2000</td>
<td>16,291</td>
<td>48,862</td>
</tr>
<tr>
<td>2001</td>
<td>16,361</td>
<td>48,862</td>
</tr>
<tr>
<td>2009</td>
<td>18,382</td>
<td>56,276</td>
</tr>
<tr>
<td>2010</td>
<td>18,664</td>
<td>56,276</td>
</tr>
<tr>
<td>2011</td>
<td>19,230</td>
<td>56,276</td>
</tr>
</tbody>
</table>

↑15%
Changes in Interests of Medical School Matriculants

Student self-report from AAMC Matriculating Student Questionnaire

<table>
<thead>
<tr>
<th>Plan to work in underserved area</th>
<th>1999-2001</th>
<th>2009-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21</td>
<td>24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plan to work primarily with minority population</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Plan to go into Primary Care</th>
<th>48</th>
<th>38</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Practice in a rural town/ small city</th>
<th>14</th>
<th>9</th>
</tr>
</thead>
</table>
## Estimating changes in primary care interest across training

<table>
<thead>
<tr>
<th>Interest upon entry:</th>
<th>PC</th>
<th>Undecided</th>
<th>Other than PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning to do primary care at graduation</td>
<td>50%</td>
<td>26%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Data sources:

- PC interest from AAMC Matriculating Student Questionnaire
- PC plans from AAMC Graduate Questionnaire
- Sample: 2001-2004 MD graduates
Percent of US Medical School Seniors Matching into Family Medicine

* Includes only those US allopathic seniors who were matched
Physician burn-out

~Half of physicians report at least 1 symptom of burn-out
38% of physicians report extreme emotional exhaustion

General internal medicine, family medicine among the specialties with highest burnout levels (peds: a happy bunch)

[27% response rate (itself a marker of physician burnout?)]

Shanafelt et al, Arch Int Med, August 2012
A Typical Day in Primary Care Clinic, circa 2008

18 patients
24 phone calls
12 Rx refills
17 e-mail messages
20 lab reports
11 imaging reports
14 consultation reports

Baron, NEJM, 2008
Why Team-based Care #2: Efficiency in Practice

Workforce impact of team-based care in primary care: a simple hypothesis
A new Premium on Efficiency

- ACOs
- Bundled payments
- Global payments
- Capitation
A New Premium on Efficiency

The Local Government Efficiency Machine

Taxpayer sits on pneumatic cushion (A) forcing air through a tube (B) blowing balloon (C) into candle (D). Exploding balloon scares dog (E) which pulls leash (F) dropping ball (G) on teeter totter (H) launching plans (I) which tilts lever (J). Then pitcher (K) pours water onto plant (L) causing it to grow which pulls string attached to hand (M) that lifts the wallet (N).
Is the day just **full**, or **wasteful**?

40-45% of a physician’s day in the office is spent outside direct patient care

*Clerical duties*: 50% of a physician’s time **during a patient visit** is spent on clerical work

*Administrative tasks*: 30-60 minutes per day on insurance and billing questions

*Inefficient technology*: the simple has become burdensome (~60 minutes/ day on non-value added clicking, scrolling, signing on, etc)

Shipman, Sinsky, *Health Affairs*, 2013; additional citations available on request
A PCP’s view

“I spend 30 minutes before clinic on inbox work and making phone calls… I have a working lunch for charting and inbox work; otherwise I am unable to keep up. I spend another hour at the end of the day completing charts and working on my inbox… I… might spend another 30-60 minutes that night, clearing out my inbox to prepare for the next day. Work on the weekends and days off is generally limited to 1-2 hours to clear out the inbox for the next work day.”

-Group Health primary care physician

Reid, et al, JGIM, 2012
The Cost of Technology

A patient’s view
Efficiency and the workforce... a little can go a long way!

If **30 minutes** of wasted time/day were eliminated by 50% of PCPs...

...15-20 million more visits could be accommodated annually\(^1\)

So team-based care can significantly increase capacity!

Why Team-based Care #3: Expanding notion of health services

- Health is impacted by MUCH more than the traditional medical model can effect

![Diagram](image-url)
What is team-based care?
Connecting the dots for health: the “team” as clinical roles

- Behavioral health specialist
- Nurse
- Community health worker
- PA
- Emerging roles
- Social worker
- MA
- PT, Speech, Occ Therapy
- NP
- Physician
- Clin Pharm
- Patient
- Family

AAMC
Case examples: AAMC Study of Team-based care innovations

University of Utah
Dept. of Family Medicine

Virginia Mason Primary Care, Seattle

Iora Health
Impact of team-based care: Efficiency

Less staff overtime (waiting around for provider to finish his/her day)

Physicians no longer charting after hours at home

Important/abnormal tests and labs addressed more quickly

Improved coordination with other services (inpatient, specialist, ancillary services), more timely and more specific to primary care needs

In FFS practices: seeing more patients per day; able to grow panels, accommodate increasing demand

In global payment practices: higher cost for comprehensive primary care services, savings achieved through reduced ED, inpatient, referrals, imaging, generic meds
Impact of team-based care: Quality

Greater adoption of evidence-based care practices (due to standardization)

Higher adherence to recommended preventive care/ screenigns

Improved chronic disease control metrics
Impact of team-based care: Satisfaction

Increased physician satisfaction, reduced burn-out
- “This is why I went into primary care”

Increased staff satisfaction, retention
- “My opinion matters. I love being a real part of the patient visit and patients’ care”

Increased patient satisfaction
- “You mean I don’t have to pay more for this kind of care?”

Source: Primary care site visits by AAMC
Connecting the dots for health: the “team” across settings

- Primary care
- Specialty care
- Long term care
- Pt’s Work
- Pt’s Home
- Inpatient services
- Social services
- Oral health
- Telehealth/ Technology/ IT
- Ancillary services (e.g. PT, OT, ST)
- Public health
Connecting the dots for health: the “team” as settings of care

- Primary care
- Specialty care
- Pt’s Work
- Inpatient services
- Social services
- Oral health
- Technology/ IT infrastructure
- Long term care
- Pt’s Home
- Ancillary services (e.g. PT, OT, ST)
- Public health

AAMC
Primary care and subspecialty care in the U.S.

FFS environment incents inefficient care patterns

Referral rates up dramatically over time – increased by 50% over the past decade

Comprehensiveness of primary care suffers

Fragmentation increases
PC and SS: A Cultural Gap

Emergence of hospitalist models have led to rare direct interactions between PC and SS in practice.

Growing gap in awareness and confidence in abilities and value of one another.

Dissimilarities seem to outnumber similarities.

Efforts at communication and coordination diminish.

Result: fragmentation.

Ultimately, patients are the unknowing victims.
AAMC and Interprofessional Education

New LCME accreditation standard (a ‘must’)

“The core curriculum of a medical education program must prepare medical students to function collaboratively on health care teams that include health professionals from other disciplines as they provide coordinated services to patients. These curricular experiences include practitioners and/or students from the other health professions.”

IPEC leadership and promotion
Faculty development institutes
Tracking trends in IPE
AAMC/ IPEC Faculty Development Institutes

Goal: Facilitate institutionally-based team projects in IPE

Teams of 3-5 attend to develop a project implementation plan to advance IPE at their institution

Next available date: May 2015

www.ipecollaboration.org
Tracking trends: Medical student experiences

Opportunity to learn with other HP students?

From AAMC Graduate Questionnaire
# 2014 med school graduates HP student exposures

<table>
<thead>
<tr>
<th>Profession</th>
<th>% with experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentistry</td>
<td>28</td>
</tr>
<tr>
<td>Nursing</td>
<td>82</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>35</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>78</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>47</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>63</td>
</tr>
<tr>
<td>Psychology</td>
<td>22</td>
</tr>
<tr>
<td>Public health</td>
<td>20</td>
</tr>
<tr>
<td>Social work</td>
<td>48</td>
</tr>
</tbody>
</table>

~75% of students agree that experiences helped them to better understand how to work with these professions.
Promoting Interprofessional Practice in Academic medicine

Highlighting exemplars:

PCPCC/ AAMC “IPE in PCMH” project
Macy/ UCSF/ AAMC project

Promoting change:

$7M CMMI Innovations award to improve PC-SS interface
Convener for 14 AMCs in CMS bundling demonstration
Thanks!
Questions and Comments?

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202-828-0979
# Changes in Attributes of Medical School Matriculants

*Matriculating student data from MD school applications (AMCAS)*

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Rural Birth County</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Minority (Black/AA, Hispanic, Indian/American Native)</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Parental Education:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD, MD/DO, DDS</td>
<td>29</td>
<td>37</td>
</tr>
<tr>
<td>Less than college degree</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>Mean Parent income, 2011 dollars</td>
<td>$159,500</td>
<td>$172,000</td>
</tr>
</tbody>
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