Improving academic primary care

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Goals for this presentation

• The crisis in primary care access
• Reasons for the crisis
  – How academic primary care aggravates the crisis
• Can we improve academic primary care practices?

Dwindling Numbers

<table>
<thead>
<tr>
<th># US grads entering family medicine residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
</tr>
<tr>
<td>2005</td>
</tr>
</tbody>
</table>

Pugno, Fam Med 2005;37:55

Dwindling Numbers: Career Choices of Third-Year Internal Medical Residents


Dwindling Numbers

• 2005 survey of internal medicine physicians who received board certification in early 1990s (in practice 10-15 years):
  • Had left practice entirely
    – Primary care internists 21%
    – Medical specialists 5%


EXHIBIT 2
Generalist physician graduates, 1995 to 2005

SOURCE: Colwell, unpublished manuscript
NOTES: Figures include Allopathic and Osteopathic physicians, US graduates and IMGs. Total includes pediatricians.
NP/PAs to the rescue?

- Nurse practitioner graduates have fallen from a peak of 8,200 in 1998 to 5,900 in 2005. Physician Assistant graduate numbers have remained stable at about 4,200 for several years. Probably fewer than half of NP/PAs are in primary care as they are increasingly employed in specialist offices, emergency rooms, and inpatient settings.

Colwill et al. Will generalist physician supply be adequate to meet tomorrow’s demand? Unpublished manuscript.

Access to primary care

- A 2006 national survey: 24% of Medicare beneficiaries (10 million people) and 25% of privately insured patients reported having a problem obtaining a new primary care physician. A Data Book: Healthcare Spending and the Medicare Program. Medicare Payment Advisory Commission, June 2007

- A 2006 California survey: 46% of patients visiting the ED said that they went to the ED because they could not access their primary care physician. Emergency Department Utilization in California. California Healthcare Foundation, Harris Interactive Inc, October 2006

Access to primary care

- In the U.S. the average time a patient spent with a primary care physician over the course of a year (2001-2002) was 29.7 minutes, compared to 55.5 minutes in New Zealand and 83.4 minutes in Australia.

Bindman et al. BMJ 2007;334:1281

Access to primary care

- A 2006 international survey found that the US has the smallest proportion of primary care practices that provide after-hours care if needed (not ED):
  - US 40%  
  - Canada 47%  
  - Germany 76%  
  - Australia 81%  
  - UK 87%

Schoen et al. Health Affairs, November 2, 2006
The crisis in primary care

- Patients are already having difficulty accessing primary care
- The primary care workforce is shrinking while the population is aging and demand increasing
- Patient access to primary care will certainly get worse unless more primary care clinicians enter the workforce

Goals for this presentation

- The crisis in primary care access
  - The reasons for the crisis
    - Primary care-specialty income gap
    - Uncontrollable worklife
    - How academic primary care practices aggravate the crisis
  - Can we fix academic primary care practices?

Median compensation, 1995-2004 -- MGMA data
In thousands of dollars, before taxes

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2004</th>
<th>10-yr increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>All primary care</td>
<td>133</td>
<td>162</td>
<td>21%</td>
</tr>
<tr>
<td>Family practice</td>
<td>129</td>
<td>156</td>
<td>21%</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>138</td>
<td>169</td>
<td>21%</td>
</tr>
<tr>
<td>All specialists</td>
<td>216</td>
<td>297</td>
<td>38%</td>
</tr>
<tr>
<td>Invasive cardiology</td>
<td>337</td>
<td>428</td>
<td>27%</td>
</tr>
<tr>
<td>Noninvasive cardiology</td>
<td>239</td>
<td>352</td>
<td>47%</td>
</tr>
<tr>
<td>Dermatology</td>
<td>177</td>
<td>309</td>
<td>75%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>210</td>
<td>369</td>
<td>76%</td>
</tr>
<tr>
<td>Heme/Oncology</td>
<td>189</td>
<td>350</td>
<td>86%</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>302</td>
<td>397</td>
<td>31%</td>
</tr>
<tr>
<td>Radiology</td>
<td>248</td>
<td>407</td>
<td>64%</td>
</tr>
<tr>
<td>Surgery, general</td>
<td>217</td>
<td>283</td>
<td>30%</td>
</tr>
</tbody>
</table>

2007 Medicare payment for 30 minutes physician time

Assumes geographic index approximately 1.0

The primary care-specialty income gap and uncontrollable worklife

- Average medical student debt is $120,000 for public, and $180,000 for private, medical schools
- The primary care pipeline is dwindling in part because of the primary care-specialty income gap
- An even stronger factor reducing primary care career choices is uncontrollable worklife
- The income gap and uncontrollable worklife are related: primary care practices cannot survive without very large patient panels, and large patient panels create the uncontrollable worklife

Dysfunctional academic practices

- Academic primary care practices are the models experienced by medical students and residents
- When these practices do not work well, medical students and IM/FP residents hate working in them
- As a result of these negative experiences, medical students and IM/FP residents look for any career except primary care

Views from the literature on academic primary care practices

- Weak ambulatory training fails to support the formation of continuous healing relationships between patients and physicians, undermining one of the most cherished aspects of becoming an internist. [IOM. Crossing the Quality Chasm: Washington, DC: National Academy Press, 2001]

- Exposure to dysfunctional ambulatory settings leads students and residents to choose career paths other than general internal medicine and/or primary care. [Weinberger et al. Ann Intern Med 2006;144:927]

- Few internal medicine residency graduates have the skills needed to function effectively in the ambulatory setting. If one does not feel confident doing certain work, one avoids that work. [McGlynn et al. NEJM 2003;348:2635]

- Only 13% of internal medicine residency training takes place in continuity clinic. [Bowen et al. JGIM 2005;20:1181]

- Moreover, continuity clinic is often not continuity clinic; many residents are seeing other people’s patients.

Views from the literature on academic primary care practices

- Hospital out-patient medical clinics are often frustrating, chaotic places to practice
- Patients often see unfamiliar physicians
- Physicians often see unfamiliar patients
- Lack of continuity experiences is a factor turning residents away from primary care careers

Association of Program Directors in Internal Medicine position paper. Ann Intern Med 2006;144:929

Academic primary care practices

- Leaders might respond: “It’s not our fault. Research shows that 3rd year internal medicine residents are more likely to choose primary care careers than first year residents. So we’re doing an excellent job.”
- That’s great, but the % of internal medicine residents going into primary care dropped from 54% to 20% from 1998 to 2005 (a 30 percentage point drop), and the increase from year 1 to year 3 is 6 percentage points. Moreover, the data came from only 14% of all internal medicine residents. [Sox, Ann Intern Med 2006;145:782]

Summary: why is primary care in crisis?

- Reimbursement is low compared to specialist reimbursement
- Uncontrollable lifestyle
- Negative experiences in medical school and residency

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- The crisis in primary care access
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  - How academic primary care practices aggravate the crisis
- Can we fix academic primary care practices?
Continuity of care

- 2 adult patient surveys in the late 1990s
- 3/4 of adults place high priority on continuity of care (seeing their PCP when they need care)
- Only 16% prioritized access and convenient appointment times over continuity


Continuity of care

- Continuity of care is associated with
  - Improved receipt of preventive services including cancer screening
  - Decreased frequency of ED visits
  - Fewer hospital admits
  - Greater patient satisfaction


Continuity of care

- “Hand-offs” from one clinician to another are a necessary feature of discontinuous care
- Communication failures in hand-offs is a major source of medical errors
- Continuity of care is safer


Continuity of care

- Review of 40 studies reporting 81 outcomes
- Positive association with continuity of care in 51/81
- Outcomes included
  - Preventive care
  - Quality of doctor-patient relationship
  - Chronic illness measures
  - Maternity care outcomes

Saultz and Lochner, Ann Fam Med 2005;3:159

Continuity of care

- 20 studies were reviewed for associations between continuity of care and
  - Reduced hospitalizations
  - Reduce emergency department visits
  - Declines in overall costs
- 19/20 studies: significant association between continuity of care and at least one cost measure. Strongest was for reduced hospitalizations

Saultz and Lochner, Ann Fam Med 2005;3:159

Continuity of care

- Danish study of 474 primary care physicians and 1136 patients with diabetes
- Patients who were well known by their physician had lower HbA1c than those not well known by their physician

Drivsholm and Olivarius, Fam Pract 2006;23:192.
Continuity of care

- Patients with asthma who have increased continuity of care (seeing the same clinician) have a reduced use of the ED, fewer hospital admissions and hospital days
  

Continuity of care

- Continuity of care with a primary care physician for patients with type 2 diabetes is associated with improved processes of care and better glycemic control
  

Continuity of care

- It is unusual for a health system property to have so much evidence supporting it
  - Patient satisfaction
  - Outcomes
  - Costs
- Continuity of care is a winner
  
  Thom et al Health Affairs 2004;23:124.

Continuity + Trust

- Trust is a patient’s expectation that the clinician will act to enhance the patient’s well-being
- Trust involves patients’ perceptions of a clinician’s
  - Technical ability
  - Interpersonal skills
  - Concern for the patient’s welfare
  
  Thom et al Health Affairs 2004;23:124.

Continuity + Trust

- Trust and adherence to physician recommendations
  - Highest quartile of trusting the physician: 62% adherence
  - Lowest trust quartile: 14% adherence
  
  Thom et al Health Affairs 2004;23:124

Continuity + Trust

- Patients who trust their physician stay with their physician; those who don’t are far more likely to leave their physician. So trust increases continuity
- Continuity (long relationships) can increase trust
- So, trust and continuity are interrelated
  
  Thom et al Health Affairs 2004;23:124.
Continuity + Trust

- Safran et al linked attributes of primary care to 3 outcomes: adherence to physician advice, patient satisfaction, and health status.
- The primary care attributes most closely associated with those outcomes were:
  - Physicians' knowledge of the patient (the "whole person") – which is related to continuity
  - Patients' trust in the physician.


For elderly Medicare beneficiaries, the longer the relationship with a physician the greater the:
- Physician knowledge of the patient
- Trust
- Delivery of preventive services

Parchman and Burge. Fam Med 2003;36:22

How do we fix academic primary care practices in order to:
- Make them more satisfying for students and residents?
- Improve care for patients?

Visions of a new academic primary care practice

- How do we organize an academic primary care practice based on continuity of care when residents necessarily rotate?
  - Change how residents rotate (e.g. the long block)
  - Establish a team in which someone else is the glue creating continuity
  - Both

Visions of a new academic primary care practice

- Full-time NP or PA as the glue
- Patients are panelized to the NP/PA
- A few residents become a "pod" which cares for the panel of one NP/PA. The fewer residents in each pod, the greater the continuity
- Each resident in the pod is responsible, with the NP/PA for a portion of the patients in that panel
Visions of a new academic primary care practice

- If NP or PA is not available, the glue could be a RN
- In that case, the care she/he could provide would be more limited and more consultations would be needed with the resident

Teams are proposed as the solution to almost anything.
Research on teams is discouraging; many studies of teams reveal that they are often dysfunctional.
One uncooperative person can destroy team cohesion.
Team members must have clear division of labor, training, and clear modes of communication.
A team of 3-4 people needs to communicate constantly. The more the work is divided up, the more handoffs are needed. More handoffs mean more fumbled handoffs.


Teamlets

- If the problem with teams is the transaction costs of handing off work from one team member to another, perhaps a team of 2 would allow for the advantages of a team while minimizing the disadvantages.
- At SF General Hospital Family Health Center, we have large teams; when we created small teams of 2 people we called them teamlets (a subunit of the team or a small team).

The teamlet concept is an attempt to address the fundamental pathology of primary care -- squeezing everything (preventive, chronic, acute, care coordination, relationship building) into the 15 minute visit.
Instead of a doctor seeing a patient in 15 minutes, the teamlet encounter involves a doctor plus another person seeing a patient for more time -- previsit, visit, postvisit, between visit care.

Who is the Teamlet Coach?
- It could be RN, health educator, medical assistant, community health worker.
- Coaching means helping patients and families to learn the skills and knowledge needed to be active, informed participants in their care.
- Good coaches make visits more meaningful for patients because they are longer and more things are done.
- Good coaches make worklife better for physicians because they offload work that one doesn’t need an MD degree to do.
Teamlets

- Teamlets can address continuity of care
- A patient is panelized to a resident and a teamlet coach
- If residents are in clinic 3 half-days per week, each coach works with 3 residents
- The coach is present all clinic hours and is available to the patient during clinic hours
- The coach can contact the resident if the patient needs a physician
- The coach can make more or fewer decisions depending on whether the coach is RN or MA

Teamlets at SFGH Family Health Center

- Coaches are mainly MA, community health worker
- Coaches ethnic/language concordant with patients: Spanish, Cantonese, Mandarin, Burmese, Cambodian, Laotian, Vietnamese, Russian, Bosnian
- 11 coaches working with first-year family medicine residents in Thursday afternoon chronic care clinics
- Coaches in visit (may translate) plus do post visit and between visit care
- Patients can call coach if problems develop between visits, and coaches can contact resident
- Goal is continuity between patient, resident and coach - logistically difficult to achieve

Final thoughts

- There is a growing crisis in the primary care workforce, and in patient access to primary care
- Reasons for the crisis
  - Primary care-specialty income gap
  - Uncontrollable worklife
  - Negative training experiences in academic primary care practices
- Our responsibility as primary care educators is to fix academic primary care practices, in particular to re-design curricula and practice organization to maximize continuity of care for patients, residents, and medical students