The University of Chicago Hospitalist Scholars Program

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February 3, 2014
Growth of Hospitalists

- **Community Based Hospitalists**
  - Growth dates at least to 1980s
  - Why? Decreased PCP incentives to see hospitalized patients (Meltzer, Chung, 2011)
  - Increasing ambulatory volumes
  - Decreasing work hours
  - Improved communications
  - Increased travel costs

- **Academic Hospitalists**
  - Wachter and Goldman, NEJM, 1995
  - Why? Similar forces plus:
    - Belief hospitalists improve outcomes/costs
    - Increasing attention to housestaff supervision
    - Housestaff substitute with duty hours
Effects of Hospitalists

- Some evidence of improved outcomes/costs
  - Improve with experience (Meltzer et al. 2001)
- However, burnout and turnover common
  - 30% hospitalist have burnout (Hinami et al., 2011)
  - Turnover: 10-20% per year
  - For academic hospitalists, same problems + limited prospects for career advancement by scholarly paths without fellowship
    - Hospitalists do increasing amount of inpatient teaching
    - Hard to recruit top medical students and residents
    - Rising salaries, 6-7 month per year jobs show inefficiencies/costs

<table>
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<tr>
<th>Predictors of Burnout</th>
<th>Reasons for challenges</th>
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<td>Organizational climate</td>
<td>New and low in influence</td>
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<td>Care quality</td>
<td>Volume pressures</td>
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<td>Fairness</td>
<td>Subspecialty power and commodification</td>
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<td>Personal time</td>
<td>Night and weekend work</td>
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<td>Relationship with leader</td>
<td>Very few experienced leaders</td>
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<td>Compensation</td>
<td>Little reward for experience</td>
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<td>Large supply of trainees</td>
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<td>Relationship with patients</td>
<td>Episodic</td>
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Training for Sustainable Academic Hospitalist Jobs

• Hospitalists burnout when they do too much clinical work (nights, weekends)
  – Need diastole (costly)

• Can improve effectiveness/efficiency by gaining complementary skills to fill diastole, reduce systole
  – QI / operations (locally limited)
  – Education (locally limited)
  – Research (not locally limited but very competitive)
  – Need skills: Hospitalist Scholars Program
    • QUESTION: How to finance training?
Financing Human Capital

- Becker “Human Capital” 1964
  - Cost of schooling: tuition, time
  - Return: Higher earnings
  - Net (social) return
    - In theory, return on similarly risky asset in equilibrium
    - Reality: Higher return, falling?
  - Financing
    - General vs. specific human capital (many firms vs. 1 or few)
    - Individual will pay for general HC, but firm must pay for specific HC
    - In competitive market, firm cannot recoup costs of general HC investment because trained workers will leave for elsewhere so individuals or others (government?) must pay for general human capital
University of Chicago Hospitalist Scholars Program

- Objective: To provide a sustainable, economically viable model to provide training in research, medical education and quality improvement to support the development of academic hospitalists

- Two year training program that provides didactic instruction and mentorship

- Financed primarily by clinical work and trainee investment of their own time
  - ½ time clinical work for ½ salary
History

• 1995-2006: RWJ Clinical Scholars Program at UC
  – 3-5 entering scholars per year
  – Intensive summer program, Master’s degree, mentored research

• 2001-2004: First hospitalist fellow
  – Vineet Arora MD, MPP

• 2005-2007: First Hospitalist Scholars
  – Dana Edelson MD, MA (UC Department of Health Studies)
  – Jeanne Farnan MD, MHPE (UIC Dept Medical Education)

• 2006-
  – 1-2 entering scholars per year
  – 4 entering scholars in 2013, 2014
Outcomes

• Vineet Arora MD, MPP ‘04
  – Assoc. Prof., Asst. Dean for Scholarship and Discovery, Dir. of GME Clinical Learning Environment, U Chicago
  – K23, R01, multiple research, education, leadership awards

• Jeanne Farnan MD, MHPE ‘07
  – Assoc. Prof., Dir. Clinical Skills, Clinical Performance Center, Curricular Evaluation, U Chicago
  – SGIM Scholarship in Medical Education Award

• Dana Edelson MD, MA ‘07
  – Asst. Professor, Dir. of Resuscitation and Resiliency, UCM
  – K23, multiple industry grants, multiple research awards
More Recent Graduates

- Elizabeth Marlow Schulwolf MD, MPP ‘08
  - Chief, Section of Hospital Medicine, Loyola University
- Lisa Shah MD, MA ‘08
  - American Cancer Society Career Development Award
- John Yoon MD ‘09
  - NIH/MCMHD Loan Repayment Award, UC Bucksbaum Scholars Award
- Valerie Press MD, MA ‘10
  - American Lung Assoc. Career Development Award, NHLBI K Award
- Milda Saunders MD, MA ‘10
  - NCI KM1 Award and CTSA KL2 Award
- Mai Pho MD, MPH ‘12
  - K99/R00 Award

- One dropout, all graduates have remained in academic medicine
  - UCx8, UCSF, Northwestern/Stroger, Loyola, SUNY Albany
Nuts and Bolts

• Recruitment/Admission
  – Local word of mouth, own residents
  – As part of interview process
  – Web
  – Rolling admission 2 years to 6 months in advance
    • Apply to degree programs (w/ financial aid if not UC program)

• Program structure
  – Jul-Aug: Summer Program in Outcomes Research Training (SPORT)
    • Epidemiology, Biostatistics, Health Services Research, Research Proposal Development Workshop
  – Next 2-3 years: Masters, Mentored research project, 3 mo/yr clin. svc.
    • Time clinical work to avoid courses (nights, weekends, holidays)
    • Primary mentor, mentorship team (non-hospitalists), qtrly learning plan
Major Types of Hospitalist Scholars

• Research (Multiple mentors)
  – Coursework
  – Mentored papers
  – F32, K Award

• Education (Vineet Arora MD, MPP, Jeanne Farnan MD, MHPE)
  – Coursework
  – Mentored papers
  – Institutional service and connections

• Quality Improvement (Chad Whelan MD)
  – Coursework
  – Mentored projects, papers
  – Institutional service and connections

• Global Health (Evan Lyon, MD)
Finances

• Salary
  – $75K vs. $150-165K for starting clinical hospitalists
• Malpractice, space are fixed costs per FTE
• Reduced secretarial support
• Tuition: waived by CTSA or via financial aid
• Further reduction in clinical work if get support by individual F32 or institutional T32
  – Individual or institutional
• Net cost to institution: ~ $0
Challenges

• Institutional buy-in
  – Need response to “we don’t pay for education”

• Adequate mentorship
  – Diversify mentor pool outside hospital medicine
  – Often great need for guidance/focus; control mentor ‘shopping’

• Trainees with unclear commitment to career path
  – Be selective early on in program
  – Recognize multiple acceptable paths

• Med Ed and QI receptors limited, especially locally

• Integration into rest of hospitalist program
Conclusions

- Hospitalist Scholars program has provided a low-cost strategy to promote academic development of academic hospitalists at the University of Chicago.
- Model likely generalizable to many other institutions.
- Could also work for other clinical areas as long as trainees have needed inpatient clinical skills.
  - Reduces need to hire hospitalists.
Acknowledgements

• The University of Chicago
  – Vineet Arora MD, MPP
  – Chad Whelan MD
• NIA K24 Award
• AHRQ Institutional T32 Award
• AAMC Learning Health Care System Challenge Award