Teaching Health Policy to Residents—Three-Year Experience with a Multi-Specialty Curriculum

S. Ryan Greysen, MD, MA[1,2], Travis Wassermann, BS[2], Perry Payne, MD, JD, MPP[2], and Fitzhugh Mullan, MD[1,2]

[1]School of Medicine, George Washington University, Washington, DC, USA; [2]Department of Health Policy, School of Public Health and Health Sciences, Washington, DC, USA.

INTRODUCTION: Most residents have limited education or exposure to health policy during residency.

AIMS: We developed a course to (1) educate residents on health policy topics applicable to daily physician practice; (2) expose residents to health policy careers through visits with policy makers and analysts; (3) promote personal engagement in health policy.

SETTING: Residents registered for a 3-week elective offered twice annually through the George Washington University Department of Health Policy.

PROGRAM DESCRIPTION: The course format includes: daily required readings and small-group seminars with policy experts, interactive on-site visits with policy makers, and final team presentations to senior faculty on topical health policy issues.

PROGRAM EVALUATION: One hundred thirty residents from 14 specialties have completed the course to date. Seventy completed our post-course survey. Most participants [59 (84%)] felt the course was very or extremely helpful. Participant self-ratings increased from pre- to post-course in overall knowledge of health policy [2 (3%) good or excellent before, 58 (83%) after], likelihood of teaching policy concepts to peers [20 (25%) vs. 62 (86%)], and likelihood of pursuing further health policy training [28 (37%) vs. 56 (82%)].

CONCLUSIONS: This 3-week elective in health policy improves self-reported knowledge and interest in health policy research, advocacy, and teaching.

KEY WORDS: health policy; residency education; curriculum; medical education.

J Gen Intern Med

DOI: 10.1007/s11606-009-1143-1

INTRODUCTION

Physicians receive little formal education in health policy and even less is known about the health policy knowledge, attitudes, and experiences of US residents despite several recent calls for increased attention to health policy in both the undergraduate and post-graduate education of physicians.[1–3] Until recently, published accounts of actual programs or outcomes at the post-graduate level have been scant,[4–8] although several excellent and long-standing programs exist.[9–13]

In 1999, the Accrediting Council for Graduate Medical Education endorsed six general competencies expected of all residents, including "systems-based practice." Many of the specific skills encompassed by this competency, such as the ability to work effectively in various health care delivery systems, the incorporation of resource allocation considerations, and advocacy for quality patient care, require a broader knowledge of the health care system.[14] More recently, a report from the Society of General Internal Medicine Task Force for Residency Reform recommended increased training to reduce health disparities, which should include curricular innovations to address social and cultural issues of care, health policy, and health economics.[15]

The George Washington University (GWU) Residency Fellowship in Health Policy is an elective rotation created to address these gaps in training. It is designed for residents but open to enrollment by students, fellows, or other physicians as space allows. The experience is intended to be an intense exposure to health policy, requiring active participation from 9 a.m. to 5 p.m. every weekday for 3 weeks with readings and group assignments to be completed largely outside classroom hours. The course name was changed from "rotation" to "fellowship" after 1 year because the latter is a commonly used term to describe a brief, intense period of study and/or exposure in Washington policy-making environments, whereas the former was unfamiliar and confusing to most non-physician instructors involved in the course.

SETTING

Residents from all post-graduate training programs at the GWU Medical Center are invited via e-mail by program directors for their specialty. Additionally, many residents learn about the program from peers or seniors who have completed the course. All residents in training at GWU are eligible to participate in the Fellowship provided that they can arrange their schedule to accommodate the fall or spring dates for the

NB: Dr. Greysen is now a Robert Wood Johnson Clinical Scholar at the Yale University School of Medicine and West Haven Veterans Affairs Medical Center.

Electronic supplementary material The online version of this article (doi:10.1007/s11606-009-1143-1) contains supplementary material, which is available to authorized users.

Received March 9, 2009
Revised July 31, 2009
Accepted September 29, 2009

Published online: 28 October 2009

course. Participating departments are asked to clear resident schedules except for continuity clinics and night call similar to elective months. Participants are not allowed to schedule vacation during the fellowship weeks.

AIMS

We developed a course to (1) educate residents on health policy topics applicable to daily physician practice; (2) expose residents to health policy careers through visits with policy makers and analysts; (3) promote personal engagement in health policy.

PROGRAM DESCRIPTION

To meet our first objective, residents are presented a curriculum of lectures and interactive group seminars with policy experts (online Appendix A) and assigned a reading list keyed to the sessions (online Appendix B). Our second objective is met through a series of site visits with policy analysts and policy makers that allow residents to engage with the challenges in policy affecting health care. We strive to achieve both synergy and balance between seminars and site visits so that experiential activities underscore or expand knowledge gained from didactic sessions. Typically, seminars occur in the mornings with site visits in the afternoon. These trips include visits to Congressional staff offices, professional associations, senior administration officials, physician-managers at community health centers and school health sites, and non-governmental organizations and foundations, such as the Kaiser Family Foundation, AARP, the New America Foundation, and the Heritage Foundation. These exposures are meant to cement the knowledge base acquired in readings and seminars/lectures and also to realize our third objective.

By exposing residents to real-world settings of policy research, advocacy, and implementation where physicians often play important roles, we hope to demonstrate to physicians-in-training that they can become involved in shaping health policy through a very wide range of activities at levels from novice/volunteer to expert/full-time. Finally, to further model career options for physicians in health policy, we have recently created a career development panel session during the last week featuring young physicians engaged in policy work. Each participant explains how he/she became interested in policy, found their current positions, and what they hope to do in the future.

Our third educational modality is a group project in which residents must research a topic and present their findings and policy recommendations. The topics are assigned by faculty based on currently active health legislation or controversy, and team presentations are made to the entire class orally, typically with the aid of PowerPoint slides and handouts referencing the pertinent literature. Distinguished policy experts and senior faculty, including the deans of the School of Medicine and School of Public Health, and all course instructors are invited to this final seminar.

Instructors

The course co-directors (Mullan and Payne) teach and oversee all sessions, but during the course of 3 weeks approximately 45–50 different individuals deliver didactic material or participate in group discussions/seminars. Approximately half are GW faculty at either the Department of Health Policy of the School of Public Health or the School of Medicine (SOM); the other half are affiliated with outside organizations. Approximately half of all instructors are women, and half are non-physicians. The costs of the Fellowship are the time invested by course co-directors (Mullan and Payne ~15% time combined) and course coordinator (Wassermann 20% time), honoraria of $200 for outside lecturers, and some modest food costs. These costs are covered by a generous gift from an almnus of the Department of Health Policy and GWU Medical Center. GW lecturers contribute their time pro-bono.

Course Content

Table 1 illustrates the teaching modalities used to cover five broad areas of health policy content covered by the course during the most recent offering in the fall of 2008. Our senior author (FM) was recruited in 2005 to create this course by senior leadership in both schools of medicine and public health based on his long career in health policy. Initially, it was assumed that the residents entered with a basic understanding of the functioning of the government, but it was found that they needed a "Government 101" style session as a refresher. Other topics such as basic history and economics of health policy were chosen to give residents a foundation for more advanced or detailed discussions later in the course. Additional topics were added to the curriculum based on interest and expertise of the course directors, GW colleagues in medicine and public health, and outside instructors. Given the large number of speakers and topics, we have found it beneficial to create several thematic days focused on mental health, child health, and global health to give the course breadth while maintaining a streamlined flow of concepts. We also strive to achieve balance in political orientation in our visits to political offices (both Democratic and Republican offices are visited in Congress) and non-governmental think tanks (liberal and conservative).

PROGRAM EVALUATION

We collected basic information (gender, specialty, training year) for all participants (N=130). All participants were also invited to complete an optional anonymous exit survey after completion of the course (N respondents=70) that included retrospective assessment of pre-fellowship knowledge and attitudes, post-fellowship assessment, and course evaluation questions. All questions used 5-point scales and were analyzed using McNemar's test (SAS 9.2).

As shown in Table 2, most participants were from three specialty programs (Internal Medicine, Pediatrics, and Psychiatry), but the range of specialties represented was very broad, involving residents from nearly every program at our institution. Of note, many course participants were visitors from other programs (16/130 or 12%), many of which were outside the Washington area. Overall, residents reported very high levels of satisfaction with the course (see Table 3) and significant improvement in their overall understanding of health policy from "poor" or "moderate" (68/70, 97%) before to "good" or "excellent" (58/70, 83%) afterward. Residents also expressed increased confidence in their degree of health policy in five specific areas as a result of completing the course.

Table 1. Course Topics (Fall 2008) Stratified by Content Areas and Teaching Method

Teaching modality	Lectures by George Washington University faculty	Presentations by outside experts and panel discussions	Offsite visits
Content Area 1: Structure of Health Care System	1. Basics of Health Economics	1. "Overtreated: Why too much medicine is making us sicker and poorer"	1. New America Foundation
	2. Public vs. Private Health Insurance	2. Aging in America	2. Institute of Medicine
	3. Employee Health Plans and Disability Benefits	3. Health Care Reform Panel: The Best Way Forward	3. Heritage Foundation
	4. Health Information Technology		4. America's Health Insurance Plans
			5. Pharmaceutical Companies and Physician Practice
Content Area 2: Politics of Health Care Content	1. Federal Budget Process	1. Lobbying: The Fine Art of Political Representation	1. Politics of Health Policy: Capitol Hill Visit (Democrat and Republican)
	2. Law-Medicine Interactions	2. Government Relations and Political Action Committees	2. Health Care Quality and Policy: National Quality Forum
	3. US Government Overview		
	4. State Health Policy and Public Health Infrastructure		
	5. Genetics and Policy		
	6. Vaccine Policy		
Content Area 3: The Role of MDs in Health Policy	1. A Short History of Health Policy in the United States	1. Private Practice and Policy Challenges	1. Politics of Health Policy: Capitol Hill Visit (content overlap)
	2. Health Policy Analysis in Practice	2. Harold Hirsh: A 20th Century Health Policy Career	2. The Robert Graham Center
		3. Health Policy Career Options for Physicians	
Content Area 4: Health Policy for Vulnerable Populations	1. Safety Net and Health Disparities	1. Childhood Obesity: Center for Science in the Public Interest	1. Kaiser Family Foundation
	2. Social Determinants Impacting Health	2. National Coalition of Mental Health Consumer/Survivor Organizations	2. Community Health Center visit
	3. Civil Rights and Health Care		3. High School Health Center visit
	4. Maternal/Child Health		4. Homeless Shelter visit
	5. Mental Health and Substance Abuse		5. Veterans Administration visit
	6. Long-Term Care		
Content Area 5: Global Health	1. Health Professionals and Workforce Issues	1. President's Emergency Fund for AIDS Relief	1. Pan-American Health Organization
	2. Immigration Health	2. Salud! (Multi-media presentationon Cuba's doctors as ambassadors)	
		3. Global Health Panel	

As shown in Table 3, residents reported being very interested in further practical exposure to health policy by participating in "externships" or professional societies. Residents also reported increased likelihood to pursue some aspect of health policy after residency: only 26/70 (37%) reported that they had been likely to pursue these interests before the course vs. 57/70 (82%) after. Finally, we asked residents about their perceived ability to teach peers or medical students about basic policy concepts (example: explaining if a patient would qualify for Medicaid on rounds). Only 17/70 (25%) reported they had been likely to teach before the course vs. 60/70 (86%) afterwards.

DISCUSSION

Residents participating in our intensive 3-week elective felt they learned a great deal and were more likely to seek out other health policy opportunities and even teach basic concepts to their peers or students. Certainly, our course benefits greatly from our location in Washington D.C. and proximity to health policy experts. Nonetheless, we believe our approach to teaching health policy to residents could be modified for many other settings.

First, while having many different policy experts as instructors increases diversity of perspective, a small group of dedicated faculty with interest or experience in health policy could directly deliver or facilitate the didactic content, readings discussions, and final projects we describe. Moreover, many university-based health centers could also draw faculty from multiple disciplines (public health, history, sociology, political science, etc.) to serve as instructors, but even smaller or non-academic programs could approach leaders at local hospitals, departments of health, community organizations, and City Hall. Site visits to these locations could also be highly beneficial for the experiential course component. Similarly, we posit the use of the state capital with emphasis on state health policy issues could substitute for our visit to Capitol Hill, especially considering that most local policy is derived at the state rather than federal level. The possibility of partnering with a health policy-oriented organization or institution to develop curriculum or provide distance learning sessions

Table 2. Course Participant Demographics, 2005–2008

Total	N=130 (100%)
Gender	
Men	44 (34%)
Women	86 (66%)
Specialty	
Internal medicine	39 (30%)
Pediatrics	35 (27%)
Psychiatry	25 (19%)
Emergency medicine	11 (12%)
None (medical student)	5 (4%)
Obstetrics/gynecology	3 (2%)
Anesthesiology	3 (2%)
Surgery (any specialty)	2 (1.5%)
Family medicine	1 (<1%)
Neurology	1
Critical care	1
Pathology	1
Cardiology	1
Public health	1
Community medicine	1
Year in training	
Medical student	5 (4%)
PGY-2	34 (26%)
PGY-3	60 (46%)
PGY-4	13 (10%)
PGY-5	2 (1.5%)
PGY - 6	1 (<1%)
Fellow (PGY unknown)	5 (4%)
Private practice	5 (4%)
Unknown	5 (4%)
Class size	
Fall 05	11 (9%)
Spring 06	16 (12%)
Fall 06	17 (13%)
Spring 07	25 (19%)
Fall 07	18 (14%)
Spring 08	24 (19%)
Fall 08	19 (15%)

might also help to build up a curriculum. Finally, ambitious programs might culminate with a visit to Washington or their state capitol as part of their curriculum in which many of the site visit aspects of the GW program could be replicated.

We also encountered several challenges that would likely be encountered at any institution attempting to expose residents to health policy. First, we encountered some resistance from program directors who didn't believe that health policy had relevance to their trainees. Some of these attitudes have softened over time and following positive experiences by trainees in their program. Schedule conflicts such as job/fellowship interviews, "backup" coverage, etc., represent another challenge. These have been managed on a case-by-case basis, but they point to the underlying problem of inadequate time for non-clinical activities that characterize most residency programs. Finally, while it has at times been challenging to recruit and retain instructors to teach our broad range of topics, these health policy experts are typically very "networked" and usually refer us to suitable substitutes when unable to teach for a given session. This, in fact, has helped us to maintain a high degree of diversity in perspectives and helps keep the course content "fresh" over the years.

Our course evaluation has several limitations. First, self-selection by some residents may have exaggerated the perceived course impact although several programs have required some or all of their residents to take the course over the 3-year period described. Second, we did not use a validated survey instrument, and our knowledge-assessment questions were inherently subjective as course content changes in step with participant interests. Third, residents' perceptions of their pre-course attitudes are subject to recall bias. Finally, follow-up assessments of both participating and non-participating residents will be necessary to determine long-term impact.

In summary, we have created an innovative opportunity for residents to learn about health policy. While our course is

Table 3. Overall Course Impact, 2005–2008

Question	Topic	Favorable responses* (total N=70)		P-value†
		Before RFHP	After RFHP	
"How helpful/useful was the course to you overall?"		n/a	59/70 (84%)	n/a
"Would you recommend this course to a fellow resident?"		n/a	66/70 (94%)	n/a
"How likely are you to pursue interests in health policy via:"	Health policy research	n/a	29/70 (41%)	n/a
	Brief "externship" with organization like IOM, AHRQ, etc.	n/a	38/70 (54%)	n/a
	Involvement in professional organization like AMA, AAMC, etc.	n/a	58/70 (83%)	n/a
"How likely are you to pursue some aspect of health policy in your post-residency career?"		28/70 (40%)	56/70 (70%)	<0.001
"How likely are you to teach students, interns, or others about health policy?"		20/70 (29%)	62/70 (89%)	<0.001
"How would you rate your overall understanding of health policy?"		2/70 (3%)	58/70 (83%)	<0.001
Please rate your knowledge of:	Access to care and safety net issues	3/70 (4%)	41/70 (58%)	<0.001
	Mental health care issues	8/70 (12%)	30/70 (43%)	<0.001
	Quality of care and patient safety issues	1/70 (2%)	43/70 (61%)	<0.001
	Role of federal government in health policy	4/70 (6%)	57/70 (81%)	<0.001
	Medicare/Medicaid	4/70 (6%)	51/70 (73%)	<0.001

*Favorable response = "good" or "excellent," "very helpful" or "extremely helpful," "recommend" or "strongly recommend," or "likely" or "very likely" depending on the question

†p value for pre-test vs. post-test using Fisher's exact test

AMA = American Medical Association, AAMC = American Association of Medical Colleges, IOM = Institute of Medicine, AHRQ = Agency for Healthcare Research and Quality

uniquely poised to expose residents to national health policy aspects, we believe our model of education, exposure, and engagement with emphasis on local policy resources can be replicated at many programs outside the Washington D.C. area.

Acknowledgements: *Preliminary findings (at 18 months experience) were presented as a poster at the Educational Innovations Session of the 2007 Society for General Internal Medicine Annual Meeting in Toronto, Canada. The authors thank Karen Jones, GWU Senior Research Scientist, for assistance with statistical analyses. The GW Residency Fellowship in Health Policy is supported in part by a generous gift from the late Harold and Jane Hirsh to the Department of Health Policy and GWU Medical Center.*

Disclosures: *None disclosed*

Corresponding Author: *S. Ryan Greysen, MD, MA, Department of Health Policy, George Washington University, 2121 K Street, NW, Suite 200, Washington, DC 20037, USA (e-mail: Ryan.Greysen@gwumc.edu).*

REFERENCES

1. **Clancy TE, et al.** A call for health policy education in the medical school curriculum. JAMA. 1995;274(13):1084–5.
2. **Agrawal J, et al.** Medical students' knowledge of the US healthcare system and their preferences for curricular change. Acad Med. 2005;80(5):484–8.
3. **King BF, et al.** Internal Medicine chief residents suggest need to improve health care delivery and public policy education. Internist. 1990;31(7):3–15. suppl.
4. **Bischof RO, Plumb J, Nash DB.** Administrative and health policy training for residents. Hosp Pract. 1996;31(8):93–4.
5. **Short SED, Hodgetts PG.** A Curriculm for the Times: an experiment in teaching health policy to residents in family medicine. CMAJ. 1997;157(11):1567–9.
6. **Furin J, Farmer P, Wolf M, et al.** A novel training model to address health problems in poor and underserved populations. J Health Care Poor and Underserved. 2006;17:17–24.
7. **Foster T, Regan-Smith M, Murray C, et al.** Residency education, preventive medicine, and population health care improvement: The Dartmouth-Hitchcock leadership preventive medicine approach. Acad Med.. 2008;83:390–8.
8. **Strelnick AH, Swiderski D, Fornari A, et al.** The Residency program in social medicine of montefiore medical center: 37 years of mission-driven, interdisciplinary training in primary care, population health, and social medicine. Acad Med.. 2008;83:378–89.
9. UCSF Internal Medicine "Areas of Distinction:" Medical Education, Health Equities and Advocacy, Global Health. Cite accessed June 22, 2009: http://medicine.ucsf.edu/education/residency/program/distinction.html
10. U. Pittsburg Internal Medicine - Global Health, Women's Health, Geriatrics. Cite accessed September 23, 2009: http://residency.dom.pitt.edu/Program_Overview/tracks.html
11. U. Washington Family Med: "Leadership Academic Focus Track". Cite accessed September 23, 2009: http://www.fammed.washington.edu/residency/media/AcademicFocus.pdf
12. U. Rochester Pediatrics: "Child Advocacy Resident Education". Cite accessed September 23, 2009: http://www.urmc.rochester.edu/smd/gme/prospective/pediatrics/program_details/care_program.cfm
13. U. Michigan Preventive Medicine: "Health Mgmt and Policy Track". Cite accessed September 23, 2009: https://practice.sph.umich.edu/practice/pmr_hmp.php
14. ACGME - Outcome Project: General Competencies. Site accessed September 23, 2009: http://www.acgme.org/outcome/comp/GeneralCompetenciesStandards21307.pdf
15. **Holmboe ES, et al.** Reforming internal medicine residency training: a report from the society for general internal medicine's task force for residency reform. JGIM. 2005;20:1165–72.