Training Tomorrow's Comprehensive Primary Care Internists: A Way Forward for Internal Medicine Education

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Introduction

The ground has shifted in US health care. With President Obama's reelection in November 2012, the Affordable Care Act is here to stay, and tens of millions of Americans soon will gain access to health insurance. Numerous experiments are underway to better organize and coordinate care at the levels of the individual practice, the "medical neighborhood," and the larger health system.[1–5] Underlying these activities is a fundamental switch from a reactive care system oriented toward sickness (in which individual providers were paid for discrete elements of care) to a proactive care system oriented toward wellness, where teams and systems share accountability for the health of individual patients and populations.

How can internal medicine graduate medical education (GME) help meet this challenge? This article presents the evidence-based recommendations and opinions of selected leaders in general internal medicine based on iterative conversations before, during, and after the 2011 Society of General Internal Medicine (SGIM) Education Summit.

Recognizing that today's physician training programs may not adequately prepare physicians for tomorrow's models of health care delivery,[6,7] there have been many calls over the past decade for medical education reform.[8–14] As we consider the future of US health reform, it is clear we need to address at least 3 interdependent problems. We must (1) improve quality, (2) drive out waste, and (3) expand the notion of health care to include the social determinants of health that account for 70% of the burden of disease.[15] These problems require us to reconsider the formation of tomorrow's workforce.

Our article focuses on the specific implications of US health reform for internal medicine GME. We describe the required competencies that will allow tomorrow's comprehensive primary care internist to thrive in a proactive US care system. We then propose 3 recommendations for reforming internal medicine GME training to foster that vision.

The SGIM Education Summit

In 2011, the Josiah Macy Jr Foundation and others sponsored and advised a SGIM Education Summit to address 2 questions: (1) What are the educational implications of current practice transformations to primary care home models? (2) What must we do differently to prepare internal medicine residents for their futures practicing in and leading patient-centered medical homes? The summit included 7 work groups,[16] with each group having engaged in prework literature reviews and conference calls to generate preliminary recommendations. A single face-to-face meeting was convened where work groups' concepts and recommendations were shared, debated, and refined. This report is the result of deliberations among the policy work group members.

The Vision

The comprehensive primary care practice of the future should be the place where most patients can receive most of their care. For this to be true, tomorrow's primary care internists will need to specialize in managing

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comprehensive care, becoming effective members of patient-centered teams, and empowering community-oriented partnerships. What follows here is a brief summary of the essential competencies needed to perform each of these key roles.

Managing Comprehensive Care For sake of brevity, we assume that readers are familiar with the Accreditation Council for Graduate Medical Education (ACGME) requirements for resident education in internal medicine.[17] In addition to this vital foundation and the 6 ACGME competencies, we emphasize 2 additional competencies: comprehensive scope of care and longitudinal care planning.

Comprehensive primary care practices will need to expand their scope of care in the areas of advanced chronic disease, common outpatient procedures, and inpatient continuity of care. Two innovations will be important for managing advanced chronic disease: (1) patient registries, with responsibilities shared across the interprofessional primary care team,[18,19] and (2) decision support by subspecialists, selected and incentivized to promote high-quality care in the comprehensive primary care practice.[20]

Tomorrow's comprehensive primary care internist, similar to current family practice physicians, will be able to competently perform common outpatient procedures needed by their patient population (eg, intrauterine device placement, colposcopy, suture of lacerations, incision and drainage of abscesses, joint injection). In some settings, comprehensive internists will provide integrated care by managing their patients in both the inpatient and outpatients arenas. The frequency of the need for the procedure or service, the individual's ability to develop competency in performing them, and ongoing quality monitoring should determine the scope of any physician's practice. At stake in each of these elements of expanded practice is the need to optimize continuity with a longitudinal care team.

Longitudinal planning refers to creating care plans congruent with patients' preferences and the time horizons for their conditions. For diagnoses of limited expected duration (eg, minor orthopedic injuries), care plans will be relatively short, ending when the episode of illness concludes. For chronic diagnoses expected to last a lifetime, care planning should encompass interventions to slow the progression of illness, reduce the severity and frequency of acute exacerbations, and when appropriate, facilitate end-of-life planning. During vulnerable transitions between care sites, longitudinal planning should begin with input from patients, their families, and their primary care team, and then optimize coordination between sending and receiving providers.

Becoming Effective Members of Patient-Centered Teams In the area of effective team membership, 2 additional competencies are needed: team leadership and team "followership." Team leadership requires skills in process improvement, workflow refinement, purposeful delegation, responding to performance metrics, and providing ongoing team member education and mentoring.[21] Equally important is team followership and creating conditions that foster trust and enable others to act. At the heart of interprofessionalism is the recognition that multiple kinds of expertise (clinical, social, system, population, etc.) are needed to deliver comprehensive primary care.[22,23] Tomorrow's internists must therefore practice participant leadership, inviting other team members to lead in turn, using their specific expertise to meet the patient or population needs at hand.

Empowering Community-Oriented Partnerships Substantial evidence indicates that social determinants of health have a profound bearing on the public's health.[15,24] Yet actions to modify those social determinants have traditionally fallen outside the purview of the health care sector. The comprehensive primary care internist of the future should actively seek out community partners and work to amplify their reach and impact. The physician's role is to adopt an open, community-oriented stance, foster trusting relationships with key community stakeholders, and then work with those stakeholders to identify priority social determinants and develop integrated clinical and community-based interventions to address them. This approach harkens back to the original US community health centers in Boston, Massachusetts, and Mound Bayou, Mississippi.[25,26]

The Way Forward for Internal Medicine GME

Assuming the development of payment models congruent with optimal primary care, what educational reforms are needed to prepare internal medicine graduates to thrive in the comprehensive primary care practices of the future?

We propose 3 reforms, discussed below and summarized in the TABLE.

Training Reform 1: Teach Comprehensive Care Management, Team Membership, and Community Partnership to Primary Care Residents Formal training in these areas should include classroom-based learning, project/goal-directed learning, and longitudinal reflective practice (ie, both "reflection-in-action," which occurs in the workplace, and "reflection-on-action," which occurs later).[27] Assessment of developing competency in these areas should proceed throughout residency training. For residents to be capable of caring for most problems with which patient populations present, patient need, rather

TABLE **Recommendations for Internal Medicine Graduate Medical Education Reform**

Training Reform	Recommendations
Teach comprehensive care management, team membership, and community partnership to primary care residents.	■ These competencies should be emphasized during residency and assessed for board eligibility.
	■ Faculty may need to develop competency in new procedures; in the meantime, residents should learn from appropriate mentors.
	■ To learn effective community partnership, residents should spend time working with local leaders and community care teams outside of the clinic.
Redesign training programs to prioritize comprehensive, longitudinal care.	■ Experience delivering comprehensive, longitudinal care should become the central priority.
	■ Mastery takes time: total duration of training in patient-centered ambulatory care settings must be sufficient.
	■ There is no single "right" redesign model; creativity and flexibility in partnership with clinical leaders will be required.
Improve the performance of primary care teaching practices.	■ Primary care teaching practices should become exemplars of high-quality, efficient, comprehensive community-oriented care.
	■ Bold leadership and institutional commitment will be needed to integrate primary care delivery and training.
	■ Current initiatives may help "lower the bar" for public-private partnerships to scale these models to other academic centers and community programs.

than traditional specialty boundaries, should drive the skills taught in residency. This will require that faculty develop competency in new procedures and, in the meantime, that residents learn these skills from the appropriate mentors.

We recommend that part of the evaluation for board eligibility include direct observation of performance in teams of various types (eg, multilevel inpatient teams, interprofessional medical home teams). We recognize that learning advanced teamwork and communication skills is a lifelong endeavor. The graduates' early years in practice should deliberately supplement residency learning in these domains.

Primary care residents should also spend time learning from, and working alongside, leaders in their local communities outside the confines of the clinic. Residents could, for example, be embedded in community care teams composed of social workers, behavioralists, dieticians, and home health nurses. Community dwell time may be needed if residents are to learn how to build durable and productive relationships with community partners.

Training Reform 2: Redesign Training Programs to Prioritize Comprehensive Longitudinal Care Currently, most internal medicine training—even in primary care–oriented residencies—occurs in the hospital.[17] As a result, graduates pursuing careers in primary care are underprepared for ambulatory practice.[28] For training programs to produce graduates with the necessary skill sets, experience delivering comprehensive, longitudinal care must become the central priority.[29]

During the past few years, many internal medicine residency programs have implemented block-rotation approaches to meeting Residency Review Committee requirements for ambulatory training.[30,31] Although current block models do provide an immersion experience for trainees, the program design remains fundamentally discontinuous. Little is known about the optimal duration of these ambulatory blocks as a strategy to inculcate the knowledge, skills, practices, and values needed for mastering competencies in managing comprehensive care, providing effective team membership, and empowering community-oriented partnerships. Mastery takes time. Total duration of training in patient-centered ambulatory care settings must be sufficient for residents to have a chance at becoming competent.

There is no single best way of restructuring residents' ambulatory experiences to ensure longitudinal and comprehensive training; creativity and flexibility in partnership with clinical leaders will be required. At the very least, residency programs must abolish the common practices of "flexing" clinic days and no-clinic rotations to accommodate inpatient service needs. Without predisposing any particular rotational design solution, residency programs must be held to a minimum *patient-centered and learner-centered continuity* requirement. This stability is a precondition for incorporating residents into longitudinal teams, which will be necessary for them to observe, learn, and practice effective teamwork.[32]

Training Reform 3: Improve the Performance of Primary Care Teaching Practices Many primary care teaching practices do not exemplify the highest standards of comprehensive care management, patient-centered teamwork, or community partnerships to modify the social determinants of health. As a result, primary care residents are taught 1 thing and shown another. This is not only a setup for suboptimal learning but also a promotion of cynicism, burnout, and avoidance for a primary care

career.[33] Learning environments matter.[34,35] We propose that primary care teaching practices should become focal points and exemplars of high-quality, efficient, comprehensive community-oriented care.

Teaching practices cannot achieve a transformation of this magnitude in isolation. Bold leadership and institutional commitment will be needed to integrate the primary care delivery mission with the education and training missions within academic centers. Clinical leaders must identify resources to catalyze necessary changes in personnel, work flows, space, and so on. Community training programs, by virtue of their smaller size and reduced "inertia," may actually be better positioned to develop exemplary teaching practices. Learning collaboratives should be organized to share and build on lessons learned from their experiences.

Three relevant initiatives are underway. The Harvard Medical School Center for Primary Care has launched an Academic Innovations Collaborative to foster innovation in education and care delivery at 18 Harvard-affiliated primary care teaching practices. Students and residents work with practice leaders to improve performance in 4 areas: (1) team-based care, (2) management and prevention of chronic illness, (3) management of patients with multiple illnesses, and (4) patient empowerment and behavioral change.[36] Meanwhile, the Kraft Center for Community Health (currently in Boston but with plans to expand to western Massachusetts in the coming year) has developed a 2-year fellow and practitioner program to foster hybrid leadership careers in community health. Kraft trainees practice primary care in a community health center, have protected time to participate in formal learning sessions and complete a mentored scholarly project, and receive loan repayment in exchange for a 2- to 3-year service obligation in a federally qualified health center.[37] In addition, the Veterans Health Administration is funding 5 Centers of Excellence in Primary Care Education to redesign education and training for health professionals, including internal medicine residents, nurse practitioners, pharmacists, and psychologists, among others.[38] Faculty, trainees, and clinical team members are collaborating to improve learning about and delivering patient-centered care in interprofessional, team-based, primary care practices. Experience from these initiatives may help lower the bar for public-private partnerships to replicate and scale these models to other academic medical centers and freestanding community training programs.

Conclusion

We envision comprehensive primary care practices of the future as the places where most patients can receive most of their care. If tomorrow's primary care internists are to thrive in such practices, their residency training will need to invest them with additional competencies in managing comprehensive care, becoming effective members of patient-centered teams, and empowering community-oriented partnerships. We propose 3 reforms for internal medicine GME: (1) teach comprehensive care management, team membership, and community partnership to primary care residents; (2) redesign training programs to prioritize comprehensive, longitudinal care; and (3) improve the performance of primary care teaching practices. We believe internal medicine GME has a vital role to play in US health reform: preparing future primary care internists to succeed in comprehensive primary care practice.

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