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The Urgency Of Preparing Primary Care Physicians To Care For Older People With Chronic Illnesses

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ABSTRACT **Population trends are driving an undeniable imperative: The United States must begin training its primary care physicians to provide higher-quality, more cost-effective care to older people with chronic conditions. Doing so will require aggressive initiatives to educate primary care physicians to apply principles of geriatrics—for example, optimizing functional autonomy and quality of life—within emerging models of chronic care. Policy options to drive such reforms include the following: providing financial support for medical schools and residency programs that adopt appropriate educational innovations; tailoring Medicare's educational subsidy to reform graduate medical education; and invoking state requirements that physicians obtain geriatric continuing education credits to maintain their licensure or to practice as Medicaid providers or medical directors of nursing homes. This paper also argues that the expertise of geriatricians could be broadened to include educational and leadership skills. These geriatrician-leaders could then become teachers in the educational programs of many disciplines. This would require changes inside and outside academic medicine.**

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In 2011 the first cohort of the American "baby boom" generation—those born between 1945 and 1966—will reach age sixty-five. By 2030, the older adult population will swell to more than seventy million and account for one in every five Americans.[1] Many older people, especially the "oldest old," have multiple chronic diseases (for example, hypertension, heart failure, and diabetes) and geriatric syndromes (for example, falls, incontinence, disability, and cognitive decline) that require expert health care.[2] Good geriatric chronic care is often provided by interdisciplinary clinical teams that address not only specific diseases and syndromes but also the interactions of medical, social, and mental health factors that affect many older people and their families.

Unfortunately, the fragmented U.S. health care system often fails to provide well-coordinated, high-quality chronic care.[3–5] Contributing to this failure, much of today's physician workforce is inadequately trained to provide complex chronic care. Despite vigorous efforts, there is also a growing shortage of specialists in geriatrics, the discipline most focused on providing and teaching complex chronic care.[4]

Medicare beneficiaries who have four or more chronic conditions generate 80 percent of all Medicare spending,[2] which totaled $468 billion in 2008.[6] Without greater efficiency in the delivery of care to such beneficiaries, the trust fund that finances Medicare Part A (which pays for inpatient hospital stays, skilled nursing facility stays, and home health services) is projected to become insolvent in 2017.[6] Federal and state Medicaid budgets that support long-term care of the elderly and disabled populations will also be threatened.

Some Medicare expenditures could be avoided if patients with multiple chronic conditions received regular monitoring and good chronic care.[7,8] Averting these impending health and budgetary crises will, however, require four successful simultaneous initiatives: increasing the workforce of primary care physicians; paying adequately for high-quality chronic care; developing and disseminating cost-effective models of chronic care; and preparing primary care physicians to provide expert geriatric chronic care within these new models.[9]

In this paper we address the last of these initiatives, primary care education, with an emphasis on federal and state policy options for bringing about rapid improvements in geriatric chronic care competency.

Recent History Of Education In Geriatric Chronic Care

Three decades ago, the new discipline of geriatric medicine was seen by many as the solution to the chronic disease challenges associated with the "graying of America" in the first half of the twenty-first century. Physicians who complete three years of residency training in internal or family medicine and who complete a year of fellowship in geriatric medicine are familiar with chronic care and generally eligible to become board-certified geriatricians. Yet despite vigorous efforts to promote careers in this specialty—including a shortening of the required fellowship training in most settings from two years to one year in 1999—and high satisfaction ratings reported by geriatricians,[10] the number of board-certified geriatricians grew slowly and then reached a plateau. In recent years, the number of physicians entering American geriatric medicine fellowship positions, 72 percent of whom are international medical graduates, has remained essentially unchanged: 290 in 2003 and 293 in 2008.[11,12]

ADEQUACY OF GERIATRICS WORKFORCE The U.S. workforce of fellowship-trained geriatricians is thus undersized for providing health care, with one geriatrician for every 10,350 Americans age seventy-five or older in 2004.[1] In total, there are only 920 full-time equivalents in the United States devoted to teaching geriatrics to medical students and residents.[13–16] This is far fewer than the number needed to train those who will care for most older Americans during the coming decades.[17] Clearly, whatever strategy the nation has pursued to date to train enough geriatricians to teach and provide chronic care for an aging population has not succeeded and does not show promise.

Theoretically, medical educators with backgrounds in general internal medicine or family medicine could teach basic geriatric chronic care, much as they teach the essentials of cardiology and endocrinology. However, many report discomfort with teaching geriatrics.[18] Consequently, 77 percent of medical schools do not require students to take a course in geriatrics.[15] Residents in internal medicine and family medicine receive little training in the comprehensive management of patients with multiple conditions. And two-thirds of America's internists report being undertrained in chronic care.[19]

IOM RECOMMENDATIONS The Institute of Medicine (IOM) recommended in 1993 that by 1999, all primary care residency programs should include at least nine months of geriatrics.[20] Nonetheless, only 9 percent of internal medicine residencies require six or more weeks of geriatrics training.[21] Only 26 percent of family medicine residencies require four or more weeks of geriatrics.[22] In a recent study, most residents' older patients were primarily the young old (ages 65–74) and were relatively healthy, compared to the typical older patients seen by practicing physicians.[23]

As a result, few young physicians are prepared to screen for, recognize, or manage the common and devastating problems in older patients. These include dementia, incontinence, functional dependency, repeated falls, depression, and excessive use of multiple medications. Additionally, internal medicine residents and faculty acknowledge that they often feel overwhelmed when caring for older patients. They encounter particular difficulties in recognizing and addressing the complex, multifactorial nature of illness; setting priorities for care; communicating with patients with cognitive disorders and with families; and knowing how to prepare patients for discharge from hospitals and link them to community services.[24]

OPTIONS FOR TRAINING GERIATRICIANS We clearly cannot count on having enough geriatricians to care for all older adults with multiple conditions. As a result, the training of other physicians in the basics of geriatric chronic care has received increasing attention. Essential geriatrics competencies have recently been identified for medical students[25] and residents in internal, family, and emergency medicine.[26,27]

Further, philanthropic foundations, educational institutions, and professional organizations have recently launched interdisciplinary educational programs to improve the geriatrics expertise of the professionals who will provide primary care to older patients in the future. The John A. Hartford Foundation funded forty medical schools to develop a geriatrics component in their undergraduate curricula, and it funded

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Geriatrician

In 2004 there was 1 geriatrician for every 10,350 Americans age 75 and older. The number of full-time-equivalents teaching geriatrics in U.S. medical schools is an estimated 920.

general internists to work with geriatricians to improve geriatric graduate education.[28] The Donald W. Reynolds Foundation has funded forty-six academic health centers to strengthen their geriatrics education for medical students, residents, and practicing physicians, including four universities that now offer one-year teaching fellowships and brief geriatrics "mini-fellowships" for nongeriatrician faculty members. The American Geriatrics Society and several foundations have launched programs to improve the geriatrics training provided by medical and surgical postgraduate educational programs, 70 percent of which do not include geriatrics in their current curricula.[29]

Preparing Physicians To Practice In New Models Of Care

Knowledge and skills in geriatric chronic care are essential to physicians' ability to provide high-quality, cost-effective health care to patients with chronic conditions. But these alone will probably not be sufficient. Most primary care physicians will also need competency in several "nonmedical" processes to practice effectively in the team-based models of chronic care of the future.

A recent review of high-quality research identified nine models of chronic care for older patients that have produced better results than traditional care (for example, better quality of care, greater functional autonomy, and lower health care costs). All of these models may include primary care physicians in the near future. The available scientific evidence about the positive effects of the nine models is summarized in Appendix Exhibit 1.[30] Details about the operation of these models and their results have been published elsewhere.[31]

A reasonable goal might be expecting replications of these models to produce gains in health care quality and outcomes similar to those reported from controlled trials. In that case, primary care physicians operating in these models would need to possess an array of "nonmedical" skills. These would include using information technology (IT) efficiently, working within (as well as leading) interdisciplinary teams, counseling diverse patients effectively on improving health-related behavior, communicating collaboratively with other health professionals, supporting family caregivers, and participating in quality improvement processes. The specific "nonmedical" skills needed to practice in each of several variants of one of the emerging models of chronic care—interdisciplinary primary care—are summarized in Exhibit 1.

Requisite nonmedical skills for chronic care models are just beginning to appear in the curricula of medical schools, in postgraduate residency training, and in continuing medical education programs. They are not now required for graduation, board certification, or professional licensure. Teaching these skills to physicians will depend not only on curricular revisions and educational requirements, but also on a sharp increase in the availability of educators who are qualified to teach the skills. In its June 2009 report to Congress, the Medicare Payment Advisory Commission (MedPAC) noted that resident physicians need, but are not receiv-

EXHIBIT 1

Competencies Needed By Primary Care Physicians Practicing In Interdisciplinary Models Of Care

	Competencies needed by primary care physicians					
Interdisciplinary primary care model	**Geriatric medicine**	**Motivational interviewing**	**Team care**	**Care coordination**	**Information technology**	**Continuous quality improvement**
GENERAL						
Program of All-inclusive Care for the Elderly (PACE)	XX	X	XX	XX	X	X
Geriatric Resources for Assessment and Care of Elders (GRACE)	X	X	XX	X	X	X
Care Management Plus	XX	X	X	X	XX	X
Guided Care	XX	XX	X	X	X	X
CONDITION SPECIFIC						
Congestive heart failure care management	X	X	X	X	X	X
Improving Mood-Promoting Access to Collaborative Treatment (IMPACT; for depression)	X	XX	X	X	X	X
Dementia care	X	X	X	X	X	X

SOURCE Authors' consensus. **NOTES** X = moderate degree of competency required; XX = advanced degree of competency required. In some interdisciplinary models, the competencies required of primary care physicians are offset by the competencies possessed by other team members (for example, in the GRACE model, the primary care physician needs fewer competencies in geriatric medicine because the team includes a geriatrician).

ing, training in similar areas that are essential to health care reform.[32]

Public Policies To Improve Physician Education

Preparing a professional workforce capable of providing high-quality geriatric chronic care within new delivery models will require comprehensive new public policies. These policies will have to drive aggressive reforms at all levels of professional education and certification.[9] This is not just an issue for primary care medicine. Reforms are needed also in the education of specialty physicians, nurses, physician assistants, social workers, psychologists, rehabilitation therapists, pharmacists, and other health care professionals who care for older adults.[9]

Medical schools, residency training programs, and continuing medical education programs may evolve their curricula gradually by adopting new chronic care and model-specific content over time. To drive such reforms rapidly, however, federal funding and modified educational requirements for medical schools, residencies, and fellowship programs are essential.

One possible approach would be modifying Title VII of the U.S. Public Health Service Act to provide financial support for medical schools and residency programs that adopt the educational innovations needed to care for an aging society. In recent years, Title VII has received $200–$300 million per year, down from the annual equivalent of $2.5 billion (in 2009 dollars) in the 1970s.[33] As part of the American Recovery and Reinvestment Act (ARRA) of 2009, Title VII received an additional $200 million, but the future priorities and funding of Title VII are uncertain.

Similarly, the Medicare program, which provides teaching hospitals with large annual subsidies for graduate medical education, could make continued educational funding contingent on rapid reforms in the training of resident physicians and specialty fellows. Medicare's "direct" graduate medical education payments, $2.9 billion in 2007,[32] support the teaching aspects of residency programs: residents' salaries and benefits, supervisory teachers' salaries, and administrative costs. Additional annual "indirect" medical education payments, $6.0 billion in 2007, compensate teaching hospitals for their higher costs of providing care. Current utilization patterns reveal important opportunities to better leverage these funding streams. A recent analysis estimated that half of the indirect payments are not necessary to offset the extra costs of providing care in teaching hospitals.[34] Moreover, hospitals tend to use the nontargeted direct and indirect educational subsidies to support subspecialty residencies, rather than primary care or geriatrics programs.[35]

A policy option would be to extend Medicare graduate medical education funding to nonhospital clinical training sites, such as nursing facilities.

To drive swift educational reform, new Medicare policy could link a sizable portion of teaching hospitals' annual direct and indirect medical education payments to the amount of training they provide in primary care, chronic care, and geriatrics. Because Medicare funds are intended to enhance the care of Medicare beneficiaries, there would be compelling logic to requiring hospitals to give high priority to training physicians to provide excellent care for chronically ill older patients. Another policy option would be to extend Medicare graduate medical education funding to nonhospital clinical training sites, such as assisted living and nursing facilities.

In addition to leveraging Title VII and Medicare funding, federal pressure could also help raise the standards for competency in geriatrics and chronic care required for physicians to be certified at all levels—from medical school graduation through specialty board certification and recertification. Furthermore, state policies could require geriatric continuing medical education credits for physicians to maintain their licensure or to practice as Medicaid providers or medical directors of nursing homes.

Strong support from stakeholders such as AARP, private health insurers, and health care provider organizations would greatly facilitate the development and implementation of such new policies for reforming physician education.

Strategies And Tactics

To teach the necessary competencies in chronic care, educational institutions will face a difficult challenge: providing the requisite educational content without an adequate supply of faculty qualified to teach geriatrics and new models of

The nation needs a network of academic centers equipped to provide rigorous training in clinical geriatrics and the management of innovative care models.

chronic care.

Some argue that we should give high priority to recruiting and training more "one-year" geriatricians.[36] Although increasing the number of geriatricians would help, one year of geriatrics training after a residency in internal medicine or family medicine, which imparts skill in caring for older people in clinics, hospitals, and nursing homes, does not equip geriatricians with skills in educational methods. Others disagree, preferring that resources be allocated to academic primary care programs to train large numbers of primary care physicians to teach and provide geriatrics and chronic care.[37] It is true that internal medicine, family medicine, and many subspecialties have large workforces. However, these disciplines' current lack of expertise in teaching geriatrics and chronic care threatens the feasibility of this approach.[18]

A more productive strategy may be to merge these two approaches, broadening the expertise of geriatricians to include educational and leadership skills, incorporating these geriatrician-leaders into the educational programs of many disciplines, and training nongeriatricians to teach geriatrics and chronic care in their own disciplines. The success of this approach would require several simultaneous changes inside and outside academic medicine.

Changes In Geriatrics

Geriatricians' expertise in chronic care could be leveraged most productively if geriatricians were not only skilled clinicians, but also effective leaders in medical education or health care delivery. Acquiring these skills would require each physician to complete, after the required year of clinical geriatrics training, additional leadership training in educational methods or organizational management. Those focusing on education would then collaborate with academic internists, family physicians, and subspecialists in leading programs to teach the principles of geriatrics and chronic care at all levels of medical education. Those emphasizing organizational management would lead initiatives to improve chronic care in organizations that provide or purchase health care or in governmental agencies that monitor or regulate such care. Both varieties of geriatrician-leaders would continue to provide direct care for vulnerable older adults with complex medical problems.[38]

To prepare physicians for these geriatrician-leader roles, the nation would need a network of academic centers equipped to provide rigorous training in clinical geriatrics, leadership, educational methods, and the management of innovative models of care. Geriatrics centers of excellence, now supported by philanthropic organizations such as the Hartford and Reynolds Foundations, could become the foundation for such a network. Additionally, training centers could build upon experiences of the Practice Change Fellows Program supported by Hartford and the Atlantic Philanthropies.

Also needed are efforts to disseminate educational programs that have already shown the capacity to create clinician-educators who can teach geriatrics and chronic care, such as the Curriculum for the Hospitalized Aging Medical Patients (CHAMP) program for hospitalists,[39] the Chief Resident Immersion Training (CRIT) program for chief residents and program directors,[40,41] and the federal Health Resources and Services Administration's (HRSA's) Geriatric Academic Career Awards (GACA) for young geriatricians.

Adequate funding to support the advanced training of geriatrician-leaders would be crucial for this approach to succeed. Medicare would need to continue and expand its support of one-year clinical geriatrics fellowships through graduate medical education funding. Stipends for supporting supplemental training could be provided by HRSA (for fellows focusing on educational methods) and by state governments, private insurance companies, and large employers (for fellows focusing on organizational management).

Changes In Academic Medicine

Leaders of academic geriatrics, internal medicine, and family medicine would need to conduct ambitious campaigns to set and enforce rigorous

standards for teaching geriatrics to health care professionals. To make up for the small numbers of geriatricians, these leaders will need to support the training of nongeriatricians to become "geriatric champions" in their institutions. These champions could be trained by geriatrician-leaders with the help of dissemination programs such as CHAMP and CRIT.

Success would require the cooperation of many influential organizations in requiring adherence to such standards at all levels of training. Organizations such as the Association of American Medical Colleges, the National Board of Medical Examiners, the Liaison Committee on Medical Education, the Accreditation Council for Graduate Medical Education, the American Board of Internal Medicine, the American Board of Family Medicine, other specialty and subspecialty boards, and the Centers for Medicare and Medicaid Services would have to enforce these educational standards. To comply with these new educational requirements, academic institutions would need to invest substantial resources to upgrade the geriatrics and chronic care components of their educational programs. Internal medicine, family medicine, and other medical and surgical specialties would need to incorporate geriatrician-leaders into their educational and clinical programs.

Controversies

The approach outlined above for improving geriatric chronic care in America provokes controversy in five areas.

FINANCING IMPROVEMENTS IN MEDICAL EDUCATION The costs of training geriatrician-leaders, revising medical school and postgraduate curricula, and underwriting loan forgiveness programs could be shared by federal and state governments, philanthropic organizations, and private health care insurance and provider organizations. But stakeholders have only begun to build popular and political support for the expenditure of additional public funds and to reach consensus about an equitable sharing of these educational costs.

FEASIBILITY OF EXPANDING GERIATRICS FELLOWSHIP PROGRAMS Currently only 59.7 percent of first-year geriatric fellowships are filled.[42] Would requiring a minimum of two years of fellowship training that focuses on educational and organizational leadership reduce or increase the number of qualified applicants? The answer may depend on the degree to which public and private investment in improving geriatrics and chronic care can overcome the career obstacles that have thwarted recruitment into geriatrics in the past: ageism, relatively poor remuneration,[43] scarcity of faculty role models,[13,44] underfunded education and research programs, lack of curricular access to medical students and residents,[37] trainees' average debt load (greater than $113,000),[43] unattractive practice image,[45] and waning interest in careers in all primary care specialties.[46] Geriatrics is the only specialty in which an additional year of training results in lower incomes. In 2008 the median income for general internists in private practice was $191,198, compared to $179,150 for geriatricians.[47]

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Recommendations for policy actions to overcome these obstacles, such as training grants, career development awards, loan forgiveness programs, secure jobs, and higher incomes, have been articulated by many experts.[9,36,48,49] However, the authority to implement such recommendations is widely dispersed, and leaders in the executive and legislative branches of government have only begun to formulate plans to address the health-related challenges of the aging U.S. population.

An alternative to extending geriatrics fellowships beyond a year of clinical training (which would prolong the financial hardship of trainee status) would be to provide the necessary leadership training to graduates of geriatrics fellowships after they become (higher-paid) junior faculty members. Coupled with loan forgiveness, support for such faculty development would provide incentives for more physicians to pursue leadership roles in geriatrics.

EXPENDING RESOURCES TO SUPPORT GERIATRICIAN-LEADERS There is currently no business model for supporting geriatrician-leaders except for them to rely on clinical income. Although this approach could work in a well-reimbursed discipline, it cannot apply to geriatrics—where low reimbursement doesn't even cover clinical time. Some academic leaders may oppose using scarce resources to support geriatrician-leaders rather than to enhance other areas they feel are more important to their missions, strategic plans, or budgets.

FEASIBILITY OF CREATING AN ADEQUATE-SIZE WORKFORCE Some stakeholders would doubt that enough geriatrician-leaders could be created to serve the aging U.S. population in a timely fashion. However, a conservative workforce simulation has projected that the U.S. workforce of geriatrician-leaders could number 3,100 by 2027.[16] This would provide the ten faculty members needed by every U.S. medical school,[50,51] plus almost 2,000 more to guide the evolution of cost-effective geriatric chronic care by the nation's health care insurers, delivery organizations, and governmental agencies.

REINVENTING GERIATRICS Leaders of geriatrics disagree about which of three possible paths the discipline should follow. The first, continuing to train modest numbers of one-year clinical fellows in hopes that they will both care for large numbers of patients and revitalize other disciplines' capacity for chronic care, is unrealistic. The second, redoubling existing efforts to recruit more physicians to the field, would likely fail, too. The third, reinventing geriatrics as a discipline of geriatrician-leaders, holds the most promise, but it requires a commitment to new educational models (such as geriatrics-focused training during residency, longer fellowships, and postfellowship training), a new business model, and a new way to gain academic credibility in medical schools, where promotion and prestige traditionally depend on the publication of original research.

Summing Up

The geriatric imperative of the twenty-first century requires major, rapid changes in the U.S. health care system, including programs for educating general internists, family physicians, and other primary care professionals. Competency in practicing evidence-based geriatric chronic care within emerging models of care will be essential.

Efforts to achieve such educational reforms have begun, but their effects on the nation's physician workforce have been modest. Through reforms at the state and federal levels affecting the development of primary care providers, policy makers can catalyze the dramatic workforce changes necessary for delivery of cost-effective chronic care to the rapidly swelling ranks of older Americans. ■

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NOTES

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