



Advancing Geriatrics Fellowship Programs Through a Community-Based Residency Network

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BACKGROUND AND OBJECTIVES: Our nation faces unprecedented challenges in caring for older adults. Geriatricians who provide care and teach geriatrics are underrepresented in the workforce, especially in non-metropolitan communities. In Michigan, geriatricians and geriatrics fellowship (GF) programs are clustered in the Southeast, suggesting that training site demographics may influence fellows' career location decisions. A project was undertaken at Michigan State University to determine if an established family medicine residency network (FMRN) could facilitate the accreditation of new GF programs in non-metropolitan communities, recruit fellows, and retain graduates to practice and teach in neighboring areas.

METHODS: A team (department chair, appointed GF network director, site program directors, and education specialists) conducted participating site needs and readiness assessments, facilitated collaboration between GF programs, assisted with completion of new program applications, led development of a curriculum utilizing shared instructional resources and evaluation tools, and provided career counseling to fellows.

RESULTS: Two GF programs were accredited and accepted applicants. Ongoing cooperative efforts resulted in the writing of a GF curriculum, organization of a joint Observed Structured Clinical Evaluation (OSCE), and monthly information-sharing teleconferences with program directors. Following training, graduates have chosen to practice in areas underserved by geriatricians in Michigan and elsewhere.

CONCLUSIONS: Early experience with this model of GF development indicates that new fellowships can be established in community-based residencies that competitively recruit and train fellows who are inclined to practice in areas of greatest need. Creation of more non-metropolitan GF programs could provide a means to stabilize and redistribute the geriatrician workforce.

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The elderly and the cohort that follows are increasing in numbers that literally represent exponential growth. By 2029, all baby boomers will be at least 65 years old.¹ Geriatric medicine, a subspecialty of internal medicine and family medicine, focuses exclusively on health care of older adults, particularly those who have multiple chronic illnesses and functional dependencies. Over the past 50 years, geriatricians have belonged to a small, but remarkably successful, workforce that has made a dramatic impact on the design of effective health care systems for older adults and delivery of high-quality health care.² However, the supply of geriatricians has increased only modestly over the past 2 decades, which has raised concern among health policy experts and the public.²⁻⁶ It has been estimated that by 2030, the United States will need approximately 36,000 geriatricians.⁷ The ominous implications of this trend were underscored by the Institute of Medicine in 2008, and serious doubt was cast that the geriatrician shortage gap would ever be closed without major—and essentially unrealistic—transformative changes to health

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care and medical education financing.⁸ In response to mounting concerns that the specialty of geriatric medicine is imperiled and cannot by itself meet the care needs of the elderly, leaders in the field are advancing efforts to modify and strengthen the existing workforce and develop new geriatrician-directed collaborative models of care to optimize the health of our aging population.^{2,6,9,10}

Over the past several years, there has been a low influx of new residency graduates into the 145 allopathic and 16 osteopathic geriatric medicine fellowship programs. Roughly 40% of available first-year training slots remain unfilled.¹¹ Despite the very high job satisfaction ratings associated with careers in geriatric medicine,¹²⁻¹³ several purported “disadvantages” have been associated with the practice of geriatrics, including insufficient compensation for physicians burdened with medical school loan debt, perceived low prestige, and excessive workloads associated with time-consuming regulatory requirements.¹³⁻¹⁶ These observed shortcomings, coupled with declining numbers of geriatric medicine fellows, have fueled a rising sentiment that fellowship financing should be redirected toward training of non-geriatrician primary care providers in order to improve their mastery of geriatric care competencies.¹⁶ The means by which those providers would be trained is unclear, however, as there are insufficient numbers of geriatrician educators at present, and academic general internists report significant barriers that interfere with their ability to teach geriatrics, including lack of motivation and insufficient knowledge.^{3,17-19}

Despite the formidable challenges facing the subspecialty of geriatric medicine, it is abundantly clear that geriatricians command a distinctive skill set and champion a unique paradigm of care that is well suited to the needs of chronically ill older adults.²⁰⁻²² The role of the geriatrician cannot be completely usurped by a non-geriatrician, and there will still be a critical need to

stabilize and increase the ranks of geriatricians who support the mission of geriatric medicine and serve as leaders, teachers, and facilitators of practice change as our system of health care further evolves.¹⁴

Once trained, geriatricians disproportionately practice in densely populated metropolitan areas. This creates additional barriers to non-metropolitan-dwelling older adults who seek geriatric care and impediments to teaching geriatric medicine to health care providers practicing in that locale.²³ Approximately 90% of geriatricians who provide direct patient care are located in population-dense areas. Sometimes, as is the case in Michigan, these metropolitan areas have a lower proportion of older adults relative to non-metropolitan communities, further adding to the maldistribution of geriatric services.²³ Improving access to geriatricians in non-metropolitan areas has the potential to facilitate delivery of high-quality care to the 20% of older adults who live in those settings—a population that tends to have more functional limitations, poorer self-reported health status, and a greater need for health services compared to its metropolitan counterpart.^{24,25}

To address the need for geriatricians in non-metropolitan areas and develop teachers of geriatrics for family medicine and internal medicine residencies and other health care providers, the Department of Family Medicine at Michigan State University College of Human Medicine (MSU-CHM) has initiated development of a GF network that builds on the infrastructure and professional relationships developed over time through our FMRN. With the intent of creating a mutually supportive fellowship network, this new initiative will increase the number of geriatric medicine fellowships in communities throughout the state at sites where the university already sponsors community-based family medicine residency training programs.

The Department of Family Medicine at MSU-CHM has a

well-established network of eight MSU-affiliated residency programs located across the state of Michigan and annually trains around 200 resident physicians in total across all 3 years of their training. Utilizing a nodal system, rather than hub-and-spoke, the FMRN is designed to foster communication between the university and residency programs, encourage collaboration, exchange resources, disseminate timely information, support scholarly endeavors, and advocate for quality programs with strong hospital support. The FMRN facilitates faculty exchanges, joint research and scholarly projects, electronic curricular activities, and an electronic listserve for faculty dialogue (Figure 1). We hypothesized that the formation of a GF network within an established FMRN, in which all faculty have recognized status and rank with MSU, builds a unique platform for residencies to start new fellowships with greater ease compared to proceeding alone.

Michigan State University's Institutional Review Board (IRB) approved this project and deemed it exempt from full review (MSU IRB #X10-326).

Methods

Creation of the GF network at MSU-CHM was built on the successes of the Family Medicine Department's longstanding FMRN. In addition to providing service to the residencies to meet their needs in education and outreach, the FMRN has also factored significantly in underpinning the MSU-CHM community campus system. Due in large part to the strength of the network alliance, the FMRN program directors were able to effectively collaborate on the GF network model without difficulty. The added involvement of collegial faculty from a well-established, community campus-based, MSU-CHM internal medicine geriatric medicine fellowship program (Flint-Hurley) further unified the working group.

The following steps were taken to enhance the participation of the

Figure 1: Michigan State University-College of Human Medicine Family Medicine Residency Network



FMRN in the development of a GF network:

Establishment of a Division of Geriatrics

Through a grant from the Health Resources and Services Administration (HRSA) in 2008, an academic Division of Geriatrics in the Department of Family Medicine was established to provide a foundation for the facilitated development of an administrative infrastructure to support education, scholarship, and clinical service across Michigan and facilitate the organization and oversight of the GF network. The Division includes a director; three geriatricians who work with fellows in the ambulatory, inpatient, and long-term care settings and on scholarly projects and research; and a PhD

gerontologist to support research and education in geriatrics and gerontology. The division director serves as the program director for a dually accredited geriatrics fellowship program based in Lansing and was appointed to direct the GF network.

Needs Assessment

An analysis of the projected costs and required community resources for fellowship development was carried out in 2008. To provide justification for institutional financial support requests for proposed programs not funded by the Centers for Medicare and Medicaid Services (residency programs over their “cap”), a business plan was developed that included the costs of fellow, faculty, and staff salaries and benefits, as well as operational costs

(Table 1).²⁶ Community-based facilities for the clinical training required by the Accreditation Council for Graduate Medical Education (ACGME) were evaluated for appropriateness; when requirement gaps were identified, other network sites were approached to share resources.

Readiness Survey

An organizational meeting was convened by the department chair in October 2009 to generate enthusiasm, assess unmet planned program needs, and plan for the timing of accreditation applications. This meeting secured a commitment from site FMRN program directors and their proposed geriatrics faculty members to support and contribute to the effort.

Table 1: Business Plan*

Fellow (PGY-4) stipend plus benefits <ul style="list-style-type: none"> • 2011 AAMC survey: mean salary \$55,564 • Mean ratio of benefits to stipend: 0.31 • Total: \$55,564 + \$17,224 = \$72,788
Program director compensation <ul style="list-style-type: none"> • At least 0.2 FTE • 2011 AFMRD survey: mean salary \$217,456 • Total: \$43,491
Program coordinator <ul style="list-style-type: none"> • 0.1 FTE (\$4,870)
Contracted personnel <ul style="list-style-type: none"> • Rotation faculty/preceptors (\$6,500)
Operating expenses <ul style="list-style-type: none"> • Dues, fees, licenses, recruitment, continuing medical education, programmatic materials, meals, miscellaneous (\$13,541)

* Adapted from vanSchagen JE. Geriatrics fellowship development: an analysis of community resources and projected costs. (See reference 19)

PGY—postgraduate year

AAMC—Association of American Medical Colleges

FTE—full-time equivalent

AFMRD—Association of Family Medicine Residency Directors

New Program Accreditation Applications

Two new program sites prepared ACGME accreditation applications from 2009–2010 and assisted each other in the planning (Grand Rapids and Marquette). The ACGME requirements for new family medicine geriatric fellowship programs include: a program director with administrative experience (0.2 full-time equivalents); at least two geriatricians holding a valid certificate of added qualifications (CAQ) in geriatric medicine for a one to two fellow program; subspecialty faculty in palliative care, neurology, gero-psychoiatry, physical medicine and rehabilitation; training sites in acute care, long-term care, ambulatory care, and subspecialty care; a curriculum emphasizing ACGME competencies; schedules for didactics and journal club; an approach to scholarly endeavors by fellows and faculty; and responsibilities for fellows to teach and supervise residents.²⁷

Development of Educational and Evaluation Resources

In the process of developing new fellowship programs, it became clear that training sites needed additional

support in developing a comprehensive curriculum for their programs. Consequently, a series of seminars was organized and led by MSU-CHM faculty development experts in the spring of 2010 to instruct new faculty members on skills required for writing an adaptable geriatric fellowship educational curriculum that met ACGME standards. To better prepare fellows for career roles beyond clinical care, the core curriculum was expanded to include added instruction on research and leadership skills. Additionally, the GF network partners were familiarized with Internet videoconferencing, along with other training and evaluative resources that could easily be shared between fellowship sites. To provide program directors with a comprehensive formative fellow evaluation tool and for the purposes of vetting the network curriculum, fellowship faculty met again during a September 2010 residency retreat to draft a performance-based clinical skills and competencies evaluation methodology for network fellows, based on an Observed Structured Clinical Evaluation (OSCE) blueprint. Plans were formulated to conduct the OSCE twice yearly with

simulated patients using six clinical cases of varying complexity. Following performance debriefing, fellows would be provided with opportunities to receive feedback and advice from network faculty members on their scholarly projects as well as career counseling.

Results

Following the October 2009 organizational meeting, the GF network director identified sites that were prepared to apply for new program status and assisted them with completion of their program information forms. Two new fellowship programs were accredited by the ACGME in 2010 and 2011, increasing the number of programs in the GF network to four (Figure 2). Each of the new programs has accepted and graduated first-year fellows recruited from MSU-sponsored internal medicine and family medicine residency programs, increasing the total number of GF network graduates per year from three to five. Since inception of the GF network, all of the fellow graduates have chosen to practice in areas underserved by geriatricians in the Midwest, and more than half have remained in Michigan.

Curriculum development was accomplished using a four-phase approach (distilled consensus draft written by faculty, draft revision, content validity check, and pilot testing) yielding a final product that was instructionally sound, adherent to ACGME core competency requirements, and adaptable by each of the network communities. The curriculum was written using as a foundation the geriatric fellowship learning objectives linked to the ACGME competencies from the Portal of Geriatric Online Education (POGOe).²⁸ To this resource were added educational goals and objectives, resources for learning, evaluation methods, and outcome expectations. The curriculum is formatted according to major competency domains and is accessible for use and adaptation by community sites through online and paper-based formats.

Figure 2: Michigan State University-College of Human Medicine Residency Network Sites With Accredited Geriatrics Fellowship Programs



Subspecialists were closely involved in editing and revising some of the specialized content (such as gero-psychiatry and palliative medicine). Each fellowship program reviewed its community resources in the process of constructing block rotations for their fellows. Evaluation tools referenced in the curriculum include preceptor and rotation evaluations by the fellow, written examinations, multi-source evaluations, patient surveys, medical records review, checklist evaluation of live performance, and a semi-annual OSCE attended by all network fellows that provides a unique opportunity for each program director to directly observe their trainees in simulated real world practice environments. The curriculum also

includes a journal club and case conferences. In instances where individual sites are challenged to provide a robust rotational training experience for fellows, other GF network programs and faculty have collaborated to provide experiences across programs. For example, visiting fellows can train at one site that has a highly specialized dementia center or another that operates a busy interdisciplinary geriatric ambulatory care clinic.

To maintain collaborative and collegial ties with new GF program directors, monthly teleconferences have been scheduled to discuss strategies to adopt new ACGME training requirements, opportunities to participate in MSU-CHM sponsored scholarship activities and faculty

development seminars, and means to address site-specific problems. The GF network director has also assisted program directors with their local recruiting efforts by personally communicating with prospective applicants who express interest in GF training.

Conclusions

Geriatricians have not multiplied over the past several decades as our society had hoped despite the great demand for their services. The lack of interest among residents in GF training, however, should not reflect disdainfully on the specialty or the highly committed physicians who choose to practice as geriatricians.¹⁶ Despite their low numbers, both geriatricians in academics and

those primarily engaged in clinical practice are being called upon to offer their knowledge and expertise in the process of modifying and adapting the nation's health care system to the betterment of the elderly.²⁹ New partnerships between geriatricians and primary care providers are being suggested to lessen the fragmentation of care that is often proportionate with patient complexity.⁹ In Michigan, 674 geriatricians will need to be trained between now and 2030 to meet the projected need of 892 geriatricians, a goal that is now out of reach.³⁰ Once fully formed, the GF network will have the capacity to train and graduate eight fellows per year. Even though this output is fractional, a small but stable workforce of geriatricians can still make a difference and lead the reform of our health care system while additional means are sought to attract physicians to geriatrics.⁹ The low fill rates of fellowship programs that are mostly located in metropolitan areas coupled with the maldistribution of geriatricians will undermine that effort.

The MSU-CHM model of a GF network aligned to a FMRN has demonstrated success in establishing fellowship programs in non-metropolitan locations in Michigan, utilizing a mutually supportive and integrated approach. There is one family medicine-based geriatric medicine fellowship program dyad in New Jersey (Robert Wood Johnson at CentraState in Freehold and Robert Wood Johnson Medical School in New Brunswick) that shares didactic teaching, peer evaluation, and research/scholarship resources; however, ours is the first integrated, multiple-site network of family medicine geriatric fellowship programs that shares an extensive array of training and evaluation tools, offers assistance to strengthen partnering programs, and facilitates accreditation of new fellowships.

Geriatric fellowship programs in Michigan sponsored by other institutions are clustered around Detroit, in the most population-dense area

of the state. Taking the relatively small annual geriatrics fellowship applicant pool into consideration, the close proximity of those programs to one another may be a deterrent to filling available first-year fellowship training slots. Those programs are competing for fellows, and this may be a contributing factor to the inhomogeneous distribution of fellow graduates outside the Southeast region. Although our results are preliminary, fellowship programs located in our state-wide community-based network appear to be better positioned to recruit (promote) trainees locally into fellowships. Moreover, training outside of metropolitan areas may influence fellows' decisions to build careers in smaller communities, a preference that has been similarly observed among rurally trained family medicine residency graduates.³¹

Institutional support of a geriatric medicine fellowship, both in funding and protected time, is essential to a program's success and in return, hosting institutions may benefit in several ways: institutional status is elevated; access to geriatricians is improved; quality of care for elderly patients served by the facility is enhanced; teaching and role modeling of geriatrics to residents, medical students, and other health professions is facilitated; and hospital systems have more leverage relative to their competitors in their marketplace as they transform to accountable care organizations. Although a key factor in the sustainability of a fellowship program, institutional support alone is insufficient to assure success of an individual training program or a GF network. Problematic issues that must be confronted include recruitment of an adequate number of faculty with requisite teaching experience and credentials (CAQ), challenges in filling available fellow training slots without interruption during each academic year, and idiosyncrasies of navigating a complex asymmetric organization

through affiliations rather than direct ownership.

This model also suggests the feasibility of formation of regional GF networks involving dual or multiple institution-aligned allopathic and osteopathic family medicine and internal medicine residency programs. The potential benefits of this association include facilitating the development of new geriatric fellowship training programs in rural or geographically isolated areas and resource sharing to improve program quality and decrease unintended fellowship closures.

Areas for further research of the benefits of GF networks include assessment of health care outcomes and costs related to fellowship networks, evaluation of the financial implications of fellowship networks and the value of geriatricians to health care facilities, scope of work and career satisfaction among graduates, and assessment of the impact of fellowship networks both on training slot fill rates in metropolitan and community-based programs and the redistribution of geriatricians across statewide service areas.

In conclusion, a new paradigm of network partnership between prospective and experienced fellowship programs must be considered as a means to: perpetuate the mission of geriatric medicine in the United States; improve access to care by geriatricians for frail older adults who live far from them; enhance the education of allopathic and osteopathic residents in geriatric medicine and stimulate their interest in fellowship training; strengthen newly accredited programs through resources sharing, mentorship, and mutual support; and ultimately, increase the supply of practicing geriatricians. The MSU-CHM model of a collaborative GF network closely aligned to a community-based FMRN offers a potential solution to the inadequate supply of geriatricians.

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