Approaches to Recruiting Premedical and Medical Students and Residents to Careers in Geriatric Medicine

The first in a series of publications on geriatric academic career development, based on the work of the John A. Hartford Foundation Centers of Excellence in Geriatric Medicine and Training
# Approaches to Recruiting Premedical and Medical Students and Residents to Careers in Geriatric Medicine

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The CoE Network Resource Center Advisory Group provided valuable input on the content, development and dissemination of practical information on geriatrics recruitment and career development for use by the CoEs and other geriatric academic programs.

As the primary author of this manual, Dr. Crystal Simpson made considerable contributions to researching and compiling the CoE recruitment and training approaches described here, and to developing the introduction on geriatrics recruitment.

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Preface

This manual, Approaches to Recruiting Premedical and Medical Students and Residents to Careers in Geriatric Medicine, contains descriptions of successful approaches to geriatrics recruitment implemented at various John A. Hartford Foundation Centers of Excellence (CoEs) in Geriatric Medicine and Training. This is one of three manuals in a series that will be completed by the end of 2008.

The impetus for creating this manual was the recognition that were no formal mechanisms among the Hartford CoEs for sharing their expertise with colleagues throughout the CoE network. With a grant from the Hartford Foundation, the American Federation for Aging Research (AFAR) established the Hartford CoE Network Resource Center (NRC) to collect and disseminate successful approaches to geriatrics recruitment and career development.

In 2006 the CoE Network Resource Center conducted an Inventory of CoE Geriatrics Career Development Initiatives. The project team also reviewed recent literature on recruitment and academic program development in geriatrics and related disciplines, and conducted interviews with CoE faculty. A comprehensive list of recruitment and career development strategies was developed and distributed to the CoE directors in November 2006.

After reviewing these strategies, the CoE directors identified three key issues as the highest priorities in supporting the CoEs’ efforts to enhance the development of academic geriatricians:

- The recruitment of premedical and medical students and residents to careers in geriatric medicine
- The recruitment of candidates to advanced fellowship training and faculty positions in academic geriatrics
- The management of programmatic growth and development in academic geriatrics.

The CoE directors felt that having a manual for each of the above topics would greatly aid their efforts. The resulting manuals contain descriptions of successful approaches to geriatrics recruitment and career development identified by the CoEs through the Inventory. Specific tools (brochures, curricula, evaluation forms, etc.), websites, published articles about these approaches, and a contact person for implementation advice supplement each program description.

The manuals are available at www.geriatricsrecruitment.org in both an interactive online format with links to referenced articles and websites, and as downloadable .pdf files. The manuals were created for the faculty and staff of Hartford CoEs and other geriatric academic programs, to support efforts to enhance geriatrics recruitment and training within their institutions. The approaches described in these manuals can be used as models for new program development and as examples for medical school administrators and potential funders of how other institutions have met the vital need for recruiting and training a new cadre of academic geriatricians.
Introduction to Geriatrics Recruitment: Opportunities and Challenges

One of the main reported reasons people decide to become physicians is that they want to help people and make a positive difference in the lives of their patients and families. Geriatric medicine is one of the specialties that most emphasizes personal and sustained relationships with patients and families. Geriatric medicine has the potential to meet a major goal of prospective physicians, one that leads to career satisfaction and fulfillment.

The data support this: In a 2002 survey, geriatrics was ranked first in job satisfaction among physicians. But even though geriatricians report high career satisfaction and the field meets some initial career objectives of prospective physicians, the number of geriatricians remains low and is currently declining. In fact, there are many barriers to choosing a career in geriatric medicine.

- The earning potential of geriatricians is the lowest of all medical specialties.
- Throughout the course of medical school, many students receive the impression that geriatrics is a field that is not respected by other physicians.
- Too often, residency programs reinforce the stereotype of older patients as unmanageable or difficult because residents only meet hospitalized elders who are, by definition, among the most ill and frail.
- Medical trainees often encounter positive geriatrician role models too late in their training, after their career choices have been made.

Since 2004 about 10% of each year’s graduating class of medical students who choose a residency in internal medicine or family medicine have indicated an interest in pursuing geriatrics. But residency programs seem to deter many potential geriatricians: In internal medicine, of the 2,638 residents who took the IM-ITE, only 1.3% indicated they were planning to pursue a career in geriatrics. These numbers point to opportunities as well as challenges. There is a larger potential pool of students and residents interested in geriatrics than many are aware of. But to encourage and sustain their interest, geriatrics must be a respected, valued career choice for doctors.

The Institute of Medicine’s April 2008 report, Retooling for an Aging America: Building the Health Care Workforce, acknowledges that “as the population of older adults grows to comprise approximately 20 percent of the U.S. population, they will face a health care workforce that is too small and critically unprepared to meet their health needs.” If aging Americans are to continue to stay in the best health possible, bold initiatives designed to “boost recruitment and retention of geriatric specialists and health care aides” are needed. According to the report, “Geriatric specialists are needed in all professions not only for their clinical expertise, but also because they will be responsible to train the entire workforce in geriatric principles.”

Geriatrics Recruitment in the Context of the Formal, Informal, and Hidden Curriculums

Given the uneven incentives for pursuing a career in geriatric medicine cited above, it is important for those charged with recruiting into geriatrics to understand the multiple points at which students can be influenced in their career choices. What leads to trainees’ waning interest in geriatrics as they progress through their medical training can be considered in the
context of what Hafferty\(^7,8\) has conceptualized as the formal, informal, and hidden curriculums within medical education.

The *Formal Curriculum* is the group of explicit goals and objectives for a specific set of skills that students need to master to become a physician. The extent to which geriatrics is included in the formal curriculum for medical trainees varies widely. The Hartford CoEs and the Donald W. Reynolds Foundation Aging and Quality of Life grant programs are making considerable progress in integrating geriatrics into the formal curriculum for medical students and residents. Some examples of CoE formal curriculum for medical students are highlighted in this manual. These educational activities can provide a valuable means of geriatrics recruitment by exposing trainees to positive role models and clinical experiences that help to dispel common misconceptions about caring for older adults and to reinforce the unrecognized positive aspects of working in geriatrics.

Underlying the formal curriculum is the *Informal Curriculum*—the unscripted, predominantly ad hoc, and highly interpersonal form of teaching and learning that takes place among and between faculty, fellows, residents, and students. It usually occurs outside of formal learning environments. The informal curriculum is communicated primarily through role models, and deeply influences trainees’ values, professional identities, and career choices.

Many CoE recruitment efforts have focused on communicating the positive aspects of geriatrics through the informal curriculum, not only to trainees but to faculty and medical school administrators as well. Some of these approaches are described in this manual.

The *Hidden Curriculum* is defined as a set of influences that function at the level of organizational structure and culture. It is what the leaders of the institution most value. There are four components to the hidden curriculum:\(^7,8,9\)

1. Institutional polices
2. Evaluation activities
3. Resource allocation
4. Institutional “slang”

The hidden curriculum impacts both the formal and informal curriculums. Medical school leaders have objectives for the institution that lead to an emphasis on what is taught and valued. For example, when a new initiative in a medical school is announced, there are undertones to that announcement that convey what is valued. Leaders may offer incentives to those who help to meet these objectives.

Negative attitudes about the field of geriatrics are often communicated to trainees by medical school faculty and leaders. As a result, an important strategy to recruiting and retaining trainees in geriatrics has been to increase nongeriatrics faculties’ appreciation of geriatrics as a discipline. Further, when geriatrics is integrated into all four years of a medical school curriculum or is a required rotation for residents, the message is that the field is valued by the institution at large. As noted, many CoE activities are focused on increasing geriatrics training throughout the medical school curriculum. These efforts can influence the hidden curriculum as well as the formal and informal curriculum, all of which have the potential to enhance recruitment of trainees to geriatrics.
Where to Focus Geriatrics Recruitment Efforts

Geriatric medicine professionals who are assigned the task of recruiting the next generation of geriatricians need to keep the formal, informal, and hidden curriculums in mind as they develop recruitment efforts. They should seek opportunities to increase awareness of the hidden curriculum among faculty, students, and trainees, and make the case for geriatrics. For example, they can:

- **Join the admissions committee.** Geriatrics faculty can identify and support premedical students who already show an interest in geriatrics prior to medical school admission. The other committee members will in turn know to alert geriatrics faculty when they read a student statement indicating an interest in geriatrics. The geriatrics faculty can also advocate for premedical students with geriatrics interest during the selection process.

- **Speak with the Dean of Admissions** about the growing older adult population and the critical need to identify and support students with an interest in geriatrics.

- **Join faculty committees** such as the medical education committee. The interaction with faculty in other specialties raises awareness about and increases the stature of geriatrics, and offers opportunities to influence the school’s hidden curriculum. For example, when a student mentions to another committee member his/her interest in caring for older adults, the committee member will refer the student to the geriatrics faculty member. Having geriatrics faculty on the medical education committee also enables geriatrics teaching to be infused throughout different aspects of the medical school curriculum and enables the other medical specialties to see the value added aspect of geriatrics.

- **Join the internship selection committee.** This can enable the geriatrics faculty to identify and support medical students who already show an interest in geriatrics. The geriatrics faculty is also present at the rank list meeting to act as an advocate for students who show an interest in geriatrics.

- **Meet with the local internal medicine and family medicine program directors** and offer to give lectures in geriatrics or allow their residents to rotate through the geriatrics program.

- **Be aware of the possibility of “losing” students at the transition points between levels of training.** There are four main transition points for promoting positive models of geriatrics and recruiting students. Approaches to each of these are included in this manual.
  - **Premedical to Medical School**
    Connect early on with students who demonstrate an interest in geriatrics and foster that interest. Make sure that the geriatrics program is visible to applicants as an important and attractive feature of the medical school.
  - **Preclinical to Clinical Years**
    Provide opportunities for students to have exposure to geriatrics throughout the first and second years of medical school, e.g., encourage students to apply for the Medical Student Training in Aging Research (MSTAR) Program. Remain in contact with and foster these students throughout all of their clinical rotations. This leads to good will about geriatrics that students communicate to their peers.
Medical School to Internship
This may be the most critical transition, during which promising students in geriatrics may fall through the cracks due to competing priorities and the challenges of internship.
Help students through the internship application process by listening to them discuss their specialty choice, reading their essays, and writing letters of recommendation. When students receive their match, provide them with the geriatrics faculty contacts at their residency program, and contact the geriatrics faculty to alert them that the student is entering a residency at their school.
Residency to Fellowship
Support residents throughout their clinical rotations by listening to their concerns about taking care of patients, providing positive exposure to the care of older patients, and helping them choose a fellowship.

References


# The Pennsylvania Governor’s School for Health Care Geriatrics Concentration for High School Students

at the University of Pittsburgh School of Medicine

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<td>High-school juniors</td>
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<td><strong>Purpose</strong></td>
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<td>To expand knowledge of issues affecting the health of today’s aging population and attract students to careers in aging</td>
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<td><strong>Program</strong></td>
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<td>A five-week summer residential program for approximately 30 high school juniors</td>
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<td><strong>History</strong></td>
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<td><strong>Operating Costs</strong></td>
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<td>Program administration and faculty time, which are part of the ongoing fellowship and mentoring activities of the University of Pittsburgh Institute on Aging</td>
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<td><strong>Outcomes</strong></td>
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<td>Students gain a better understanding of the aging process and the need for communication and collaboration in both service and research efforts</td>
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## Program Overview

The Pennsylvania Governor’s School for Health Care was started in 1991 and is the only Governor’s program jointly funded by the Departments of Health and Education. It is a five-week residential program held in June and July for 110 academically talented high school juniors from across the state who are interested in learning more about health care and health care careers. Each enrolls in one of four areas of concentration, including geriatrics. The program for geriatrics focuses on the health care delivery system, the importance of geriatric primary care and multidisciplinary teams, and how to serve as a community advocate to address the health care needs of Pennsylvania’s rural, urban, and underserved regions.

To encourage students to consider careers in geriatrics and gerontology, the University of Pittsburgh School of Medicine’s Division of Geriatric Medicine and the University of Pittsburgh Institute on Aging partner with the Governor’s School to expand students’ knowledge of issues affecting the health of today’s aging population through a Concentration in Geriatrics course.

The primary goals of this course are to:
- transmit a sense of the value, relevance, and rewarding nature of work in aging
- develop insights into the experience of aging or caring for an aging loved one
- learn about health care teams and roles
- learn how clinical services and research complement each other
**Program Operations**

Academically talented high school students who are juniors at the time of the application deadline may apply to the Governor’s School for Health Care. Applicants are asked to demonstrate academic achievement, especially in the sciences, an interest or potential in health care, and a record of leadership and service activities.

Over the course of the five-week program, faculty members from the Division of Geriatrics and other affiliated specialties offer an in-depth look into the field of geriatrics through a variety of 90-minute, interactive, case-based sessions that include topics such as:

- successful aging and health promotion for older adults
- disability in aging
- memory problems and dementia
- movement problems (falls and difficulty walking)
- chronic pain
- mood disorders
- sensory disorders involving vision and hearing
- multidisciplinary teams
- community programs for older adults.

Students also have opportunities to:

- visit with older adults
- interview and shadow health care professionals
- visit clinical and research settings.

**Staffing Requirements**

The administrative coordinator spends approximately 200 hours per year in planning, scheduling, coordinating, attending classes, and evaluating the program. Clinical and research faculty volunteer their time. The faculty spends approximately 30 hours each year on course preparation and delivery of the program.

**Program Costs and Funding Sources**

The faculty offers the program as a voluntary activity. The cost for the administrative support is estimated to be $6,500.

The Commonwealth of Pennsylvania provides tuition, room, board, instructional materials, and curricular activities for all participants. The Division of Geriatric Medicine and the University of Pittsburgh Institute on Aging cover the faculty and staff costs associated with the Concentration in Geriatrics course.

**Process and Outcomes Data**

Between 28-30 students participate in the geriatric concentration. There are fifteen 90-minute sessions each year.

In addition to attending lectures by the faculty, the students do site visits and have an opportunity to interact with older adults in home, community-based, and institutional settings. These site visits have the most positive impact on the students in considering geriatrics as a career option.

Pre- and post-program evaluations as well as evaluations after each session are conducted by the staff coordinator. Students gain a better understanding of the aging process and the need for communication and collaboration between older adults, families, health professionals, and community service agencies in both service and research efforts. Students are not tracked in terms of career choices, so any information on geriatrics as a career choice is anecdotal.

**Implementation Lessons**

- Know your audience—survey students before the program starts to find out what they know and what they would like to know.
- Keep in mind that, in addition to a large age gap between staff and students, students at this level also have a limited amount of basic science knowledge, and little to no medical knowledge.
• Bringing in older adults to discuss their health issues and dealings with health care and the health care system is a great way to "bring everything home."

**Available Materials**

**Tools/Resources**
• 2006 Syllabus

**Website**
• The Governor's School website:  
  www.aging.upmc.com/educators/education/high-school.htm

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This document is part of a compilation of approaches to geriatrics recruitment, career development, and programmatic expansion, based on the work of the John A. Hartford Foundation "Centers of Excellence in Geriatric Medicine and Training." For more information, visit  
www.afar.org/recruitment or www.jhartfound.org.
Year-Long Freshman Course on Frontiers in Human Aging: Biomedical, Social, and Policy Perspectives

at the University of California, Los Angeles

SUMMARY

Target Audience
All entering undergraduate freshmen

Purpose
To introduce students to aging from a multidisciplinary perspective; to introduce them to career opportunities in gerontology and geriatrics; and to train doctoral teaching fellows

Program
A year-long course comprised of lectures, small-group seminars, and hands-on experience in clinical settings

History
The course began in 2000

Operating Costs
Approximately $175,000 annually, including faculty release time and stipends for teaching fellows

Outcomes
Growth in the number of undergraduates introduced to the field of aging, increasing the possibilities for their entering careers in geriatrics/gerontology; 25 participating doctoral teaching fellows have gone on to faculty positions in the field of aging

Available Materials
Syllabus, course description and materials

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Program Overview

The phenomenal increase in life expectancy has made aging a major issue that UCLA recognizes as deserving attention in the general education (GE) of undergraduates. The year-long Frontiers in Human Aging course is one of the innovative “clusters” UCLA has created to focus on “compelling, complex phenomena.” Rather than presenting aging as a distinct specialty area, the cluster approach makes aging an intrinsic part of the undergraduate general curriculum, not only an elective. It presents an alternative model of gerontological and geriatric education to help students view the lifelong process of aging from psychological, sociological, and policy perspectives.

The goals of the Frontiers in Human Aging course are to involve students in a stimulating multidisciplinary exploration of the challenging and timely topic of aging and to introduce them to career opportunities in geriatrics and gerontology.

The UCLA Multicampus Program in Geriatric Medicine and Gerontology (MPGMG) seized the opportunity to introduce aging to undergraduates when it submitted a proposal in 1999 to the College of Letters and Science to add a course on aging to the Freshman “cluster” series. The innovative Frontiers in Human Aging: Biomedical, Social, and Policy Perspectives cluster, open to all entering freshmen, began in 2000 with 80 students. It now averages 180 freshman students from a variety of majors. Approximately 1,040 students have completed the cluster, which has the lowest drop-rate of any cluster. This is an indication that freshmen students are indeed interested in the topic of aging.
**Program Operations**

The General Education (GE) Cluster Program aims to:

- increase understanding of the interdisciplinary nature of major complex phenomena
- strengthen writing and oral communication skills
- develop critical, interpretive, and analytical skills from information in the media and scientific literature.

Specific learning objectives of the *Frontiers in Aging* program are to:

- illustrate the interdisciplinary relationship between the biological foundation of aging and psychological and social constructs, and the policy implications of these phenomena
- gain understanding of the science of gerontology and geriatrics and the evolving knowledge base
- explore diversity in human aging across the life course
- become sensitized to principles of successful and intergenerational aging
- appreciate continuity of aging over the life span within a socio-historical context
- view aging within various cultures through literature, art, and the media
- facilitate “hands-on” and virtual learning experiences in aging
- introduce viable career opportunities in gerontology and geriatrics.

A learner-centered approach relates aging to a young student body through a truly interdisciplinary approach across campus schools and departments.

During Fall and Winter quarters, students attend two lectures weekly for the presentation of key concepts and content. These lectures are linked to weekly two-hour small-group discussion sections led by teaching fellows, where the course material is examined in depth and integrated with various types of written assignments to enhance writing skills.

Highlights of the course include:

- an elder-interview project
- film review to link class content with the popular media
- structured debates on timely controversial topics
- a career panel to provide students with the opportunity to explore the multitude of career paths that are linked to the aging population.

During the Winter quarter, students complete 20 hours of structured “Service Learning” at various organizations that serve the ethnically-diverse older Los Angeles community. Examples include a “Cyber-Cafe” for seniors and an intergenerational day care center.

A broad spectrum of small-group seminars are offered in the Spring quarter, allowing close interaction among students and faculty. The culminating student project is a library research paper on a topic of their choice.

**Staffing Requirements**

Staffing requirements include three faculty, four teaching fellows, a Service Learning Coordinator, and an additional seminar leader each year. The teaching fellows are doctoral students from the departments of the teaching faculty and provide half-time support for the full academic year.

**Program Costs and Funding Sources**

The College of Letters and Science (“the College”) provides approximately $175,000 annually, covering student materials, faculty release time, and stipends for the teaching fellows. A special fund was established to cover the purchase of curricular materials and learning aids for students. The University provides direct support and incentives for faculty to encourage their participation in the cluster program. The Vice Chancellor of the College negotiated “release time” (equal to one course) with the dean or chair of each cluster faculty’s department. The teaching fellows receive additional reimbursement and
enhanced learning opportunities for their own preparation as future faculty members. The College provides other campus resources, which include consultation with a designated member of the English Department to help develop skills in teaching within the clusters, and librarians to train students and teaching teams in information literacy skills.

Process and Outcomes Data
The Frontiers in Human Aging cluster began in 2000 with 80 students. It now averages 180 freshman students from a variety of majors. Approximately 1,040 students have completed the cluster, which has the lowest drop-rate of any cluster. This is an indication that freshmen students are indeed interested in the topic of aging.

This course has dramatically increased the number of undergraduates introduced to the field of aging and thus has increased the possibilities for their entering careers in geriatrics and gerontology. In addition, 25 doctoral teaching fellows have been trained in this innovative, interdisciplinary method of teaching and have now gone on to faculty positions in the field of aging.

In 2002-2003, the UCLA cluster administrative team, in collaboration with cluster faculty and members of the Office of Undergraduate Evaluation and Research, prepared a Self-Review Report of the entire Freshman Cluster Program from 1998-2003 (see Available Materials). The results are based on a year-end survey of students, interviews with participating faculty, and focus groups with teaching fellows.

Implementation Lessons
- The College initiated the development of clusters in different topics; the geriatrics/gerontology program suggested to the Vice Provost that one be in aging. It is recommended that geriatric medicine and gerontology programs look for and initiate opportunities to link with colleges in order to provide broad aging education within general education. The idea was presented to the appropriate people, and then a proposal was tailored to fit their needs, since they were already moving in interdisciplinary ways.

Available Materials

Tool/Resources
- Fall 2007 Syllabus, Course Description, and Aims & Objectives
- Winter 2007 Syllabus

Websites
- Link to additional course materials: [www.sscnet.ucla.edu/07F/ge80a-1/](http://www.sscnet.ucla.edu/07F/ge80a-1/)
- Library Research Homepage (references, how to write an aging-related research paper) [www.library.ucla.edu/libraries/college/ge/cluster80/index.htm](http://www.library.ucla.edu/libraries/college/ge/cluster80/index.htm)

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Positively Aging® Curriculum for Middle School Students and High School Students
at the University of Texas Health Science Center at San Antonio

SUMMARY

Target Audience
Middle school and high school students (some curriculum materials are also available for younger grades)

Purpose
To provide the knowledge, skills, and attitudes needed for today’s adolescents to age successfully, and to interest students in careers in aging and health

Program
A six-week summer seminar to develop material for an interdisciplinary health science curriculum designed by teachers and scientists

History
The program has been funded since 1997

Operating Costs
Annual budget of approximately $500,000 for staff and materials

Outcomes
314 teachers and educators have participated since 1997; qualitative and quantitative measures of the curriculum’s effectiveness have shown significant results

Available Materials
Characteristics of participants; publications; teacher and student program reviews; website with free curricular materials

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Program Overview
The Positively Aging® program was created to infuse aging concepts and information into the primary and secondary school curriculum. During adolescence, children are changing physically, socially, emotionally, and intellectually. These years offer an opportune time to help students develop positive lifestyle habits that will enhance the quality of their lives as they age.

The goals of this multidisciplinary health science curriculum are to:
• provide teachers with innovative, effective teaching materials that center on scientific discovery and math
• help students learn to make critical, life-determining decisions that will promote good health throughout their lives
• help students develop an enduring interest in scientific research and medical careers, particularly in aging-related fields
• help students develop sensitivity to the needs and concerns of the aging population.

Program Operations
Curriculum Development through Teacher-Scientist Collaboration
Primary and secondary school teachers from the San Antonio area and scientists from UT San Antonio collaborate to create engaging interdisciplinary lessons and learning activities based on the Gerontologic and Health Sciences, using current biomedical research. Lessons are continually updated.

The Positively Aging® materials are written by teachers for teachers. Teachers who develop these materials attend an interactive, six-week summer
CoE Network Resource Center- Manual 1

seminar where teachers have vital interactions with practicing scientists. As a team they become “translators” of health science information, bringing high-level research to students in a format that engages learners and meets different instructional needs.

**Student Activities and Curriculum Dissemination**

The curriculum currently consists of 346 activities designed to gradually move students toward a more future-oriented and empathetic mind set toward aging. The curriculum encourages student involvement in cross-generational relationships and family research.

The student activities are available for free at [http://teachhealthk-12.uthscsa.edu](http://teachhealthk-12.uthscsa.edu). The website also features teacher and student resources, slide presentations, conference and publication abstracts, teacher and student comments, pre- and post-test information, other evaluation strategies, and concept maps.

The program materials are also shared with educators through local, regional, state, national, and international conferences, workshops, and presentations. Over the years, other organizations have sought permission to use these materials in their work, including universities, museums, departments of education, health periodicals, councils on aging, and senior centers.

**Staffing Requirements**

The project maintains a staff of nine at the University of Texas Health Science Center at San Antonio:

- the principal investigator
- a full-time project director
- two full-time educational specialists
- a full-time research associate
- a full-time graphic artist
- a full-time programmer analyst
- a full-time administrator
- a part-time statistician.

In addition, 20 teacher-affiliates research and write curriculum, implement activities, conduct pre- and post-tests of materials, network within their school districts, and present their work at local and state educational venues.

**Program Costs and Funding Sources**

The project’s annual budget is $500,000 (based on 2007). The National Institutes of Health is the primary funding source. The Science Education Partnership Award from the National Center for Research Resources and the National Institute on Aging provides over half of the funding. The Minority K-12 Initiative for Teachers and Students from the National Heart, Lung, and Blood Institute provides the remainder of the funding.

Periodic community and local family foundation supplemental funding has enhanced the project’s ability to include more teachers in the project, provide professional development opportunities for teachers, and provide workshop supplies.

**Process and Outcomes Data**

As of 2007, 314 educators have participated in the program as curriculum writers or workshop participants. Most of these were teachers of science or language arts at the middle school level. Over 65 San Antonio NIH-funded researchers have volunteered their time to work with teachers in the development of curricular pieces.
Teacher feedback has been overwhelmingly positive. Teachers are excited to learn how to incorporate health and aging topics into their subjects.

Cooperating scientists have found elements from the curricular materials to be useful in educating medical, nursing, dental, and allied health students regarding patient education and interactions, as well as in delivering aspects of health science course content.

As of 2008, 14 articles about the program have been published or are in press in peer-reviewed journals. (See Available Materials). The papers include two controlled trials of the Positively Aging® project in public schools.

**Implementation Lessons**

- It takes persistence and face-to-face conversations to build the necessary relationships to maintain a project of this scope. The cooperation of teachers, principals, and school district personnel is necessary to meet goals.
- It is crucial to involve campus Institutional Review Board (IRB) personnel in decisions regarding study design and data collection in order to evaluate the curriculum’s effectiveness.
- All of the project personnel need to share leadership and assume multiple roles. Regularly scheduled meetings of the core project team are essential.
- Collaborative and reciprocal networking with local scientists is imperative in educating teachers, informing curriculum content, accessing research documents, and observing laboratory practices.
- Gaining complete acceptance by the state educational community is an ongoing task, as administrative personnel, educational goals, and political agendas change. Educational priorities may vary from school district to school district and over time. Aligning with state-mandated curricular expectations is necessary but cannot dictate the unique content of the teaching materials.
- Pre- and post-testing with cooperating teachers requires additional coaching, mentoring, and monitoring. As teachers become more experienced with this aspect of the project, they become more independent investigators.
- Website development and maintenance requires: a team with content, design, construction and maintenance expertise; consistent curriculum formatting; relevant teacher updates; access to additional project opportunities and teacher resources; and responsiveness to teacher/user insights. The project’s flexibility in providing discussion boards and calendar information for various users provides an invaluable communication opportunity.

**Available Materials**

**Tools/Resources**

- List of Publications from the Positively Aging® Program 1997-2007
- Characteristics of Participants in the Positively Aging® Program 1998-2007
- Anecdotal Comments from Teachers and Students Using the Positively Aging® Materials

**Website**

- [http://teachhealthk-12.uthscsa.edu/](http://teachhealthk-12.uthscsa.edu/)

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Integrated Four-Year Elective Geriatrics Track for Medical Students at Baylor College of Medicine

SUMMARY

Target Audience
All medical students

Purpose
To prepare students to provide professional care for older adults and to interest students in careers in geriatrics

Program
A four-year elective program consisting of a variety of clinical and research experiences in geriatrics

History
The Geriatrics Track was started in 2001 as an outgrowth of a longstanding Student Geriatrics Interest Group

Operating Costs
Course director, nine additional faculty, and staff administrator; student research scholarships to attend American Geriatrics Society Annual Meeting

Outcomes
During the first year, two students completed the track; in 2008, six to eight will complete all aspects of the track

Available Materials
Geriatrics Skills Workshop syllabus and credit and grading system; Geriatrics Track website and timeline overview

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Program Overview

In order to provide quality care for our nation’s elderly population, all medical trainees need opportunities to learn about the unique aspects of geriatric care, under the guidance of geriatrics faculty and research mentors.

The Geriatrics Track for Medical Students was created in 2001 to prepare medical students to provide this care and to interest students in careers in geriatrics. The program aims to:

- increase students' knowledge base and sensitivity to the issues of aging adults
- introduce the principles of inpatient, outpatient, nursing home, and home care for older adults
- teach functional, social, cognitive, and physical assessment skills
- facilitate research activities and critical thinking.

The Geriatrics Track was developed in response to faculty and staff observations that first-year students who were enthusiastic participants in the Geriatrics Interest Group were being "lost" when they started their clinical rotations. As part of the four-year program, the Geriatrics Track provides beginning second-year students with hands-on clinical experiences, an attractive feature for students who are eager to begin working with patients.

Program Operations

The Geriatrics Track includes various preclinical and clinical electives for students interested in learning more about the care of older adults. Students participate in patient care in a variety of inpatient and outpatient settings. Faculty mentors work with students throughout the four-year program, which includes the design and completion of a clinical or basic sciences research project.
Students who complete the Geriatrics Track receive a Certificate of Educational Achievement in Geriatrics and a letter of accommodation in the medical school file. All students are welcome to elect any of the Geriatrics Track components without having completed previous Track courses.

The Geriatrics Track consists of the following components:

Year 1: The Texas Geriatrics Interest Foundation (TGIF)
Students are introduced to geriatrics and gerontology through a joint University of Texas School of Medicine and Baylor College of Medicine student interest group. Monthly activities include didactic lunch conferences, panel discussions, social activities with geriatric medicine faculty, and community service experiences with agencies that support seniors. All students, in any year, are welcome to attend.

Year 2: Aging-related Themes and Geriatric Skills Courses
Aging-related Themes Course: During the Fall of Year 2, all Baylor medical students receive 10 hours of lecture on the Physiology of Aging, given by faculty from the Baylor Huffington Center on Aging.

In addition, a preclinical elective, the Geriatric Skills Workshop, offers eight 90-minute evening sessions providing hands-on training in the assessment of older adults. Workshop topics include:

- sensory assessment, including sensitivity training with impaired vision eyeglasses and other tools
- gait and balance assessment
- physical, occupational, and speech therapy
- use of common medical devices
- mental status evaluation
- history and physical exam skills
- wound care – assessment and treatment
- communicating with older people
- breaking bad news
- care for the dying patient.

Year 3: All Baylor medical students participate in a one-year Longitudinal Ambulatory Care Experience (LACE) one afternoon a week. For students participating in the Geriatrics Track, the LACE requirement can be fulfilled by participation in the GeriHomes Track, in which medicine and care coordination is taught through two home visit programs consisting of house calls in homes, assisted living communities, and nursing homes. Students also visit adult day centers, hospices, and other community agencies for older adults. A project to improve the home visit program or community it serves is required at the end of the year. Participation in the GeriHome Track is by application, with space for 6 students per year.

Year 3-4: Geriatrics Clinical and Research Rotations
During the third or fourth year, students in the Geriatrics Track participate in a 4-week geriatrics clinical care rotation in a hospital setting.

Students also conduct a clinical or basic sciences research project that will have a positive impact on the care of seniors. A research faculty mentor helps students develop the research question, design a study, collect data, and analyze the results. Competitive scholarships are available for travel to the American Geriatrics Society (AGS) Annual Meeting to present the research project.

Staffing Requirements
A Huffington Center on Aging faculty member serves as the Geriatrics Track director, and nine additional faculty support the clinical and research experiences in the Geriatrics Track.

Geriatrics fellows play an additional teaching role; for example, significant responsibility was given to one second-year fellow whose research focused on educational issues. The Geriatrics Track requires about 25% time for an administrative staff person.
Program Costs and Funding Sources
In addition to faculty and administrative staff time, program costs include student scholarships to attend the AGS Annual Meeting and costs of the geriatrics skills course, which can reach $1,500. Research support for each student is about $2,000, and up to three students are supported every year.

This program is supported by the Hartford Center of Excellence grant with minimal supplemental funds from the institution.

Process and Outcomes Data
During the first year, two students completed the track. In 2008, six to eight will complete all the aspects of the track.

At least two of the students that have passed through this program have reported that they will become geriatricians.

A similar Geriatric Skills course is in progress at Saint Louis University, indicating that this approach has "traction."

Implementation Lessons
- The biggest challenge is marketing: being present at "club" events where all student activity groups enroll members, and using other student venues.
- Another challenge is letting the students choose the topics for Student Chapter noon conferences.
- After implementing the program, it was shown that there are no advantages to excluding those who do not want to participate in the entire track.
- The administrative and logistical burden is significant, especially because the students tend to do everything "at the last minute."

Available Materials
Tools/Resources
- Geriatrics Skills Workshop syllabus, including course goals and overview
- Geriatrics Track timeline overview

Website
- Geriatrics Track Homepage: www.bcm.edu/osa/handbook/?PMID=6148

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**Program Overview**

The goal of the Summer Institute is to stimulate interest in careers in academic geriatric medicine and aging-related research. This program was established in 1986 as one means to address the shortage of academic geriatricians available to train health care professionals in the principles of geriatrics. Up to 20 third or fourth year students are selected each year and given opportunities to learn more about the field and interact with mentors.

**Program Operations**

Activities of the week-long Summer Institute include clinical and research seminars on key geriatrics/aging topics, site visits to clinical programs, and small-group development of a research proposal. Faculty members and mentors include nationally recognized academic geriatricians and Boston University faculty conducting aging research.

Applicants must have U.S. citizenship or permanent resident status (due to Federal funding). Selection is based on:

- a clearly demonstrated, strong interest in geriatric medicine, as reflected by curricular and extracurricular involvements
- prior relevant clinical or basic science research experience
- a letter of recommendation from a faculty member
- the content of a short essay (200 words or less) outlining career goals, interest in geriatrics, and reasons for applying

**Staffing Requirements**

Two administrative staff devote portions of their time to recruitment, organization, and evaluation. Twenty-seven interdisciplinary faculty participate in the program.
Program Costs and Funding Sources
Airfare, dormitory housing, and a small daily food stipend are funded in full for each student. Transportation is provided between the dormitories and the Medical Center. Visiting guest faculty members receive an honorarium, and faculty travel/hotel costs are covered as needed.

The program is sponsored by the American Geriatrics Society (AGS) and the Boston University School of Medicine. Funding is through the National Institute on Aging (NIA) R13 mechanism.

Process and Outcomes Data
80% of the students who participated in the program from 1995-1999 were tracked using surveys and electronic databases. As of 2005, 15% were AGS members, 7% had the Certificate of Added Qualifications in Geriatric Medicine, and four participants held faculty appointments in geriatrics. Of the 21 participants from the 2003 program who are now finishing their residency training, three (14%) are pursuing fellowship training in Geriatric Medicine.

Implementation Lessons
- It is challenging to track students over time to obtain outcome data.
- The most effective way to recruit students directly is through electronic strategies.
- As more schools develop geriatrics curricula at the student level, crafting a curriculum that meets diverse student needs is challenging.

Available Materials
Tools/Resources
- Schedule for the Week
- Program Evaluation Form

Website
- Summer Institute website: www.bmc.org/geriatrics/educationMedicalStudents_SIGM.htm

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Increasing Aging-Related Content in the Mandatory Medical Student Curriculum

at the Warren Alpert Medical School of Brown University

**SUMMARY**

**Target Audience**
All medical students

**Purpose**
To increase the amount of aging-related content and exam questions in all mandatory courses for medical students

**Program**
An ongoing multiyear effort. A project team works with course directors to add geriatrics content to lectures and exams, and medical students are compensated for recording and evaluating course material throughout the school year.

**History**
The program was launched with a 2006-2007 school-wide curriculum redesign initiative.

**Operating Costs**
Faculty and staff time; stipends for medical student curriculum reviewers

**Outcomes**
More than 45 hours of new aging-related content added to the first-year courses and approximately 30 hours to the second-year courses during 2006-2007.

**Available Materials**
Online content outlines, slide sets, syllabi, and video clips

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**Program Overview**

With the rapid growth of our aging population, most physicians will be spending the majority of their time caring for older patients, and need to be trained in the fundamentals of geriatric care, regardless of their specialty. Increased training in geriatrics may also serve to interest more students in pursuing careers in geriatric medicine.

To increase the amount of aging-related content and exam questions in all mandatory courses for every medical student, leaders in the Division of Geriatrics took the opportunity to present new aging-related content in the first- and second-year curriculum when the Brown University medical school underwent a curriculum redesign. Planning began in 2005, and implementation started in 2006 with the class of 2010. Preparation and integration of the new aging-related curriculum content began in the 2006-2007 school year, and continues.

**Program Operations**

After the medical school curriculum redesign began, the first step in increasing geriatrics content was to identify aging-related content in all course materials, including an estimate of how much lecture time and how many syllabus pages were dedicated to geriatrics subjects. This was accomplished by:

- interviewing lecturers individually to see how much time they estimated they spent on aging-related content
- recruiting several first- and second-year medical students to attend every course and record the amount of aging-related material for each lecture daily. The students evaluated their level of understanding of the material and made suggestions for improvement.
• assigning geriatrics faculty to review course syllabi and slides, to create detailed outlines of aging-related content for every first- and second-year course, and to write exam questions for these courses
• reviewing course materials and aging-related exam questions with the course directors to negotiate how much of the material is appropriate to first- and second-year students, how much material is essential knowledge, and how much material is included already in their lectures.

Several first- and second-year students also participated in a more qualitative program evaluation, through journaling. Students received two or three questions weekly via e-mail to gauge their reactions to the aging content in their courses that week and their responses to encounters with older persons in clinical settings. For example, “What are your experiences, reactions, and insights related to the geriatrics content you have received in your medical school courses?” “What are your experiences, reactions, and insights regarding the older patients (>65) you have encountered in your community mentoring through the Doctoring course?”

**Staffing Requirements**
The core staff includes:

- Director, Division of Geriatrics (50% time)
- Clinical associate professor in community health (70%)
- Associate of the above clinical professor (50%)
- Fourth-year medical student, taking a year off (60%)
- Junior faculty clinician educator in geriatrics (50%)
- Six additional geriatricians (5-20% each)
- Secretary (20%)
- Non-geriatrician faculty from Internal Medicine, Family Practice, and Emergency Medicine (15%).

The program is managed largely by the Principal Investigator of the Donald W. Reynolds Foundation Aging and Quality of Life grant. Four faculty/staff participate in a weekly evaluation meeting to review progress on ongoing activities related to geriatrics inclusion in the curriculum. In addition, a coding and analysis group of five faculty/staff meets weekly to review transcripts of student journals for relevant themes.

**Program Costs and Funding Sources**
Student evaluators receive a stipend of $125 per semester.

Support is provided by a grant from the Donald W. Reynolds Foundation Aging and Quality of Life Program.

For many salaried faculty on the project, their home bases at Brown donate substantial time as part of the match required by the Reynolds Foundation, in addition to the cash match. Geriatrics fellows do a modest amount of case discussions with students and residents, but no classroom teaching.

**Process and Outcomes Data**
Almost all of the aging-related material that was to be integrated has been added into 21 mandatory courses across the first- and second-year medical student curricula. This has resulted in adding more than 45 hours of new aging-related content to first year courses and approximately 30 hours of aging-related content to the second year curriculum during 2006-2007. This represented a 33% and 300% increase in the aging content, respectively.

A variety of evaluation mechanisms are being used, including student journaling and tracking of course content, focus groups, pre- and post-implementation quizzes, course director interviews, and geriatrics faculty reviews of lectures and syllabi.
Fifteen students participated in the course content tracking and journaling program in 2006-2007, after implementation of aging content began. Eleven completed the semester. For 2007-2008, 13 participated in and completed the first semester and 13 are participating in the second semester, with a few repeaters overall. The students' reports provide great information on course content and really help with targeting areas that need to be "beefed up." Focus groups will be transcribed and qualitatively analyzed for codes and themes, and compared with journal analyses.

**Implementation Lessons**

- Writing exam questions is probably the most effective way to embed aging-related content into existing courses.

- It is important not to be "greedy" in the content negotiations. Suggest the aging-related content and let the course director tell you what is essential. Integration is key here. Help the faculty integrate the material into their routine content and become comfortable teaching aging-related material. Ask to include only the content that every student really needs to know to care for older patients. Strive to minimize the impression that the aging content is new and additional. The look of the new content should be assimilated with the old (e.g., same font on slides).

- It is helpful to make allies with the medical students by buying them pizza, asking for feedback, noting that their feedback helps modify the content, and giving them handouts or pocket-sized information cards that they can use and enjoy.

- Two huge assets helped in implementing the program. First, the PI served as interim dean for three years. Second, the school-wide curriculum redesign began simultaneously with the onset of the Reynolds grant funding. This allowed the project team to be at the design table and launch pad to integrate adequate aging-related content as the curriculum redesign proceeded.

- The Deans of Medicine and Medical Education provided tremendous support. Offering the resources of the geriatricians helped, as did making the argument, to both students and the administration, that our society is aging and medical students will be spending the majority of their careers working with older patients regardless of their specialty. Bringing this message to preclerkship students represents a paradigm shift in medical education; until now, medical students could persist in thinking that their chosen medical specialty might not include a largely older population.

**Available Materials**

**Tools/Resources**

- Index of the wide range of geriatrics-related curricular materials for medical students and residents, including content outlines, slide sets, syllabi, and video clips, that can be found on the course website at: Mycourses.brown.edu. User ID: reynolds.guest Password: aging

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Medical Student Four-Year Scholarly Concentration in Aging
at the Warren Alpert Medical School of Brown University

SUMMARY

Target Audience
First-year medical students

Purpose
To provide an opportunity to conduct a project that is scholarly and related to the broad field of aging. Students are expected to master clinical and clinically relevant basic science information on aging beyond the core curriculum.

Program
A combination of self-directed learning, coursework, lecture, clinical experience, small-group discussion, and relationship with an "Elder Guide" supplement the centerpiece of the concentration – the scholarly project

History
The Aging Concentration began in 2007

Operating Costs
Program director, codirector, and project coordinator; student research and travel stipends

Outcomes
Aging is the second most popular concentration; in the first year of the Aging Concentration, interest in the program exceeded the number of available slots

Available Materials
Detailed program description

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Program Overview
To prepare medical students for a variety of possible careers in geriatrics, the Scholarly Concentration in Aging (hereafter referred to as the “Aging Concentration”) addresses the broad areas of aging, encompassing the basic sciences, social sciences, community health, psychology, ethics, and medical education that are central to an understanding of health care and society.

Beginning in their second semester of medical school, first-year students can elect to participate in the Scholarly Concentration Program at the Warren Alpert Medical School of Brown University, in which they choose a broad thematic area in which to do a scholarly project over the following three years. The Aging Concentration, launched in 2007, is one of 12 content areas offered.

Students who select the Aging Concentration are expected to master (appropriate to the student level) a defined body of clinical information and clinically relevant basic science information on aging beyond that in the core medical school curriculum.

Program Operations
Over their four years of medical school and under the guidance of a mentor, students design and implement a project that explores a particular clinical issue or health/public health area related to older adults and that results in a publishable paper, new curricular content, or an innovative pedagogical approach.
Students in the Aging Concentration will be able to demonstrate:

- mastery of geriatrics materials developed for the new integrated medical school curriculum, whether they have experienced the content in course-related work or not
- extensive knowledge of a particular aspect of aging, of a disease important in older patients, or of a geriatrics syndrome, and understand the social, clinical, epidemiological, and psychological consequences of the chosen topic
- extensive clinical experience in working with older patients in a variety of settings, including nursing home, assisted living facility, hospital, hospice, outpatient clinic, or office
- an appreciation of the experience of healthy aging, as well as a deeper understanding of the experience of living with chronic and multiple medical conditions often associated with aging.

Students will be expected to:

- undertake self-directed learning that deepens their knowledge of geriatrics beyond the core curriculum and relates to their final product/project
- choose and work closely with a faculty mentor for guidance in the pursuit of the concentration
- attend the summer lecture series on geriatric medicine and psychiatry (if they are in Providence for the summer following Year I)
- participate in an aging-related summer experience (e.g., Summer Research Assistantship)
- shadow a geriatrician
- meet at least twice each semester as a group with Aging Concentration directors and mentors to discuss important issues related to aging and complex cases (not-so-grand rounds) and to go on “field trips,” such as to an inpatient hospice site or Alzheimer’s daycare center
- establish and maintain an “elder guide” relationship with an older person from within the community with whom the student spends a minimum of one evening or afternoon a month for three years.

The larger Scholarly Concentration program of the medical school actively promotes the Aging Concentration program during the first semester of the first year of medical school. Several evening information sessions are held, each highlighting three or four areas of concentration; the Aging Concentration directors attend the presentation to describe the program. In addition to these evening meetings, noontime individual scholarly concentrators give presentations about their ongoing work on their projects to all medical students and faculty. One Aging Concentration student has presented her work thus far.

**Staffing Requirements**

The overall Scholarly Concentration program is managed by one medical school staff member. The Aging Concentration program is codirected by two faculty members (an assistant professor from the Geriatrics Division, and the Director of the Resource Center for Geriatrics Education), with assistance from a project coordinator in the Center for Gerontology.

**Program Costs and Funding Sources**

Aging Concentration medical student participants are supported through various sources, including the NIA/AFAR/Hartford Medical Student Training in Aging Research (MSTAR) scholarships, American Medical Student Association scholarships, and the Donald W. Reynolds Foundation Aging and Quality of Life Program.

Faculty costs are supported by their appointing departments. The Reynolds grant supports infrastructure for the Aging Concentration and a small amount of faculty time. The grant also supports some of the medical school’s core infrastructure for the broad Scholarly Concentration Program.
**Process and Outcomes Data**

Interest is growing, as the word spread in the program's opening year. In the first year the Aging Concentration has been offered, eleven first-year students have expressed interest in participating. Of these, six have been accepted and five are in discussion. Evaluation data of the medical school curriculum suggests that the extensive mandatory curriculum in geriatrics that medical students are now receiving has stimulated interest in the Aging Concentration.

Out of the 12 areas in which concentrators may focus, aging is the second most popular in the first year. This is significant, because a majority of these concentrators will eventually work in geriatrics, though most likely through specialties such as dermatology and surgery. Some, however, may accept a geriatric fellowship. This program is truly training future leaders in geriatrics.

The Aging Concentration has instituted student and program evaluations that will consist of the following components:

- At least twice a year, students complete a self-evaluation of individual progress and an evaluation of the program.
- Following the first summer, Aging Concentration students present their work to the program’s Oversight Committee.
- The Oversight Committee meets 2-3 times each year to evaluate the students and the program.
- Students are evaluated by mentors.
- Geriatrics physicians and nurse practitioners evaluate students related to shadowing activities.
- Individual student conferences with Aging Concentration directors occur twice a year.
- Discussions are held once or twice a year with the students’ Elder Guides to get feedback about the program and suggestions for improvement.

**Implementation Lessons**

- A key to attracting new Aging Concentration students is to excite first-year medical students about the area of aging. Strategies that have yielded enthusiastic participants in the program include providing lectures and opportunities for small-group discussions in the medical school curriculum about the positive potential for healthy aging and the rich opportunities for exciting scholarship and curriculum in geriatrics.
- To enhance what the Geriatrics Division faculty can provide, Aging Concentration mentors are sought beyond the Gerontology Center.
- Aging Concentration students periodically shadow geriatrics nurse practitioners, in addition to geriatrics physicians, in various sites for this activity.

**Available Materials**

Website
- A detailed description of the program goals, learning objectives, activities, sample projects, evaluation processes, faculty, and funding sources can be found at: [http://bms.brown.edu/students/curriculum/concentrations/aging.html](http://bms.brown.edu/students/curriculum/concentrations/aging.html)

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Introduction to Geriatrics for First-Year Medical Students
at Emory University School of Medicine

SUMMARY

Target Audience
All first-year medical students

Purpose
To expose students to people over age 80 who are functionally independent and aging successfully

Program
A four-hour experiential session at a residential setting for aging adults

History
The program started in February 2004

Operating Costs
Dinners with older adult “senior teaching associates”; faculty time for a nurse gerontologist and geriatric medicine fellow

Outcomes
Since the start of the program, student geriatric electives have increased ten-fold

Available Materials
Program manual, including session agendas, facilitator’s guide, and evaluation forms

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Program Overview

In the course of their clinical training, medical students are often confronted with older adults who are frail and sick, rather than functional. This may lead to negative stereotypes and unfortunate preconceptions when students interact with older patients.

The goal of the Introduction to Geriatrics Program is to expose all first-year medical students to people over age 80 who are functionally independent and aging successfully. All first-year medical students are required to participate in this four-hour program, which allows them to interact with healthy older people early in their training, prior to clinical experiences where students are more likely to encounter older people who are ill. This experience better prepares students for the diversity of the older population.

The session is designed to:

- orient students to levels of care and services provided at the Wesley Woods Center on Aging at Emory, and to the Center facilities
- introduce students to transitions of care
- provide examples of the demographic imperative
- provide a supervised intergenerational educational experience for students in which they spend quality time with older people living independently
- provide opportunities for students to experience the world through the eyes of older adults.

The session was initially tested in 2002 with a small group of seven AFAR scholarship students. It was revised and expanded to include all 120 first-year medical students in February 2004, using Reynolds Foundation funding.
Program Operations

All first-year medical students (110-112 per year) are introduced to geriatrics with a large group lecture on the Basics in Geriatrics (BIG) 10 Principles. These principles provide the theoretical framework for this session and differentiate the care of older patients from that of other patient populations. (Example: “Aging is not a disease”; most older adults are living independently and actively participating in the world around them; chronological age has very little to do with how we age.)

In the seven weeks following the large group lecture, 15 to 20 medical students per week visit the Emory Geriatric Center, a multilevel complex designed for older adults. All first-year students participate in the small-group sessions over the course of the seven weeks, which include an “aging simulation” of visual and functional barriers, using special eyeglasses and gloves; a tour of the Geriatric Center that offers multiple levels of care; an interactive discussion session with “Senior Teaching Associates” (healthy residents who are 80 to 100 years old); and dinner one-on-one with the Senior Teaching Associates. The interactive session with the Senior Teaching Associates focuses on “What I need from my health care system and my doctors.” Throughout the four-hour small-group sessions, related demographic data are introduced.

Staffing Requirements

The program uses one nurse gerontologist faculty member and a Geriatric Medicine fellow. The Geriatric Medicine fellow serves as a resource for the simulated aging component of the program described above.

Program Costs and Funding Sources

The small-group sessions require four hours of faculty time per session. The program pays for the cost of dinners with the “Senior Teaching Associates.” Five mini kits of simulated aging materials were initially ordered from “The SECURE Project for Sensitivity Training” at a cost of $150. The program was originally tested with an Emory funded Teaching Grant and expanded with funds from the Donald W. Reynolds Foundation Aging and Quality of Life Program. Currently the program is supported through Department of Medicine funds, donations, and the CoE.

Process and Outcomes Data

Student geriatric electives have increased ten-fold (from 1-2 to 12-20 electives/year) since the start of this program. Students are asked to fill out an evaluation at the end of the day’s session. Student ratings for this training session are very high. (See Available Materials for more session details and evaluation data.)

Implementation Lessons

- This program can be replicated at any site that offers multiple levels of care for older adults and includes opportunities to interact with healthy older adults.
- Small groups of 15-20 students/session are more effective than larger groups.
- Ending the day with dinner often leads to additional interactions between students and older adults, such as return student visits, students providing musical entertainment, and/or student assistance at health fairs.

Available Materials

Tools/Resources

- 2007 Program Manual, including session agendas, a facilitator’s guide, and evaluation forms and data

Website

- The SECURE Project for Sensitivity Training: www.leememorial.org/shareclub/secure.asp
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Incorporating Geriatrics into the History and Physical Exam for Second-Year Medical Students at Harvard Medical School

**SUMMARY**

<table>
<thead>
<tr>
<th>Target Audience</th>
<th>Second-year medical students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>To provide students with the knowledge and tools to enhance their interviewing and physical exam skills with older adults</td>
</tr>
<tr>
<td>Program</td>
<td>A combination of a didactic session and clinical experiences with both simulated and actual elderly patients</td>
</tr>
<tr>
<td>History</td>
<td>This is a new program that was piloted in the 2007-2008 academic year</td>
</tr>
<tr>
<td>Operating Costs</td>
<td>Salary support for six core faculty and an administrative assistant; transportation for students to clinical sites; refreshments for students</td>
</tr>
<tr>
<td>Outcomes</td>
<td>The experience was highly rated by students immediately post-session. Data on how the geriatrics training was incorporated into the mandatory year-end H&amp;P exam have not yet been analyzed</td>
</tr>
<tr>
<td>Available Materials</td>
<td>Template for didactic session; Instructions for Standardized Patient; Final Simulation Checklist; Exam Assessment Checklist; Letter to students regarding session change</td>
</tr>
<tr>
<td>For More Information</td>
<td>Anne Fabiny, MD Cambridge Health Alliance (617) 665-1029 <a href="mailto:afabiny@cha.harvard.edu">afabiny@cha.harvard.edu</a></td>
</tr>
</tbody>
</table>

**Program Overview**

The second-year Patient Doctor course (Patient Doctor II) at Harvard Medical School, which is normally highly decentralized and conducted at numerous clinical sites, was redesigned for the 2007-08 academic year. Specific topics in the Patient Doctor curriculum were offered as Central Sessions, during which all students came to a central clinical teaching site. Geriatrics was the topic of one of the Central Sessions. This provided the opportunity for contact with almost all 172 second-year medical students.

The goals of the Geriatrics Central Session are to:

- teach second-year medical students some fundamental principles of clinical geriatric medicine in the context of learning to conduct a history and physical exam
- provide students with tools to make their interviews and exams of older adults more effective
- devise and implement a teaching intervention that is innovative, engaging, and meaningful to the students, and that will result in both short- and long-term behavior change
- measure the efficacy of the geriatrics teaching intervention
- raise medical students’ awareness about both the care of older adults and geriatric medicine as a career choice

**Program Operations**

All second-year medical students are required to participate in the Geriatrics Central Session. The students are divided into four groups and participate in four weekly afternoon sessions at the Beth Israel Deaconess Medical Center Simulation Center.
The intervention has three components:

- A 30-minute didactic session on the elements of the Geriatric History and Physical Exam
- Two interactions with standardized patients in the Simulation Center. The simulated scenarios are an 80-year-old nursing home resident presenting to the Emergency Department with dizziness and an 80-year-old community-dwelling elder presenting with dizziness. After both interactions, there is time for debriefing with a faculty member and the standardized patients.
- After the didactic and simulation sessions, the students are transported by bus to the Hebrew Rehabilitation Center where pairs of students spend two hours with a patient and a geriatrician. The students have an hour to interview and examine the patient using a template provided during the didactic session, followed by an hour of debriefing and instruction from the preceptor.

Half of the students in each of the four groups start the afternoon with the simulated interactions and half start with the didactic session. Then they rotate activities. The benefit of having the students work with an actual patient is that they are able to practice immediately what they have learned with the simulated patient while being observed and debriefed by a faculty member. This helps to reinforce the history and physical exam skills being taught and increases the students’ sensitivity to issues unique to working with older patients.

Staffing Requirements
A core group of six faculty members devised and implemented the educational intervention. One administrative assistant helped with program implementation and an administrator at the rehabilitation center helped with transportation and logistics there. About 20 other faculty members and fellows volunteered as preceptors at the rehabilitation center.

Program Costs and Funding Sources
A Donald W. Reynolds Foundation Aging and Quality of Life grant provided partial salary support for four of the six core faculty and the course administrative assistant. The Simulation Center was available free of charge. There were minimal costs for bussing students to the rehabilitation center and providing students refreshments at the end of the afternoon training.

Process and Outcomes Data
All participating students complete a satisfaction survey at the end of the session. The experience has been overwhelmingly rated as useful, enjoyable, and a valuable use of time.

All participating students will submit an older adult patient write-up from before and after the intervention. (There is currently about a 49% response rate.) A checklist will determine if the post-intervention write-ups contain elements of the geriatrics history and physical that were taught.

All students in the course must have an end-of-year Checkout Exam during which they perform a full history and physical exam on a patient while being observed by a faculty member. The preceptor fills out the Exam checklist (which contains geriatrics items) and will determine if the students incorporated any of the learned geriatrics elements into their Checkout Exams.

The Patient Doctor II course administers an Objective Structured Clinical Exam every year to assess students’ physical exam and interview skills. This year a new geriatrics station was instituted that assessed students’ abilities to conduct a mental status exam on an older adult patient. The performances of the intervention group will be compared with the control group’s performance.

Sixteen students served as a control group and did not participate in the program.
**Implementation Lessons**

- Developing this program was a significant logistical undertaking. It required the combined efforts of and numerous hours of work by many individuals to: test the model; train the standardized patients; ensure that the standardized patients came on the right days; create and distribute schedules for the students ensure that there were no technical glitches in the simulation center; get students on the bus each day and keep track of the students at the rehabilitation center; arrange for patient participants at the rehabilitation center; and enlist faculty volunteers and ensure their attendance on the assigned day.

- The Hebrew Rehabilitation Center is a vitally important partner in this endeavor. They provide the bus, many faculty members, the site for the clinical interactions, and the opportunity to recruit patients in their facility as participants.

**Available Materials**

**Tools/Resources**

- Template for didactic session
- Instructions for Standardized Patient
- Final Simulation Checklist
- Exam Assessment Checklist
- Letter regarding session changes

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One-Month Chronic Disease Disability: Improving Quality of Life Rotation for Medical Students
at The Johns Hopkins University School of Medicine

SUMMARY

Target Audience
All third- and fourth-year students

Purpose
Exposure to the knowledge, skills, and attitudes necessary to provide high quality and compassionate care for persons with chronic diseases and disabilities

Program
One-month rotation consisting of clinical experience, internet modules, group discussion, and simulation exercises. The clerkship is currently elective, but will become mandatory in spring 2010

History
The clerkship has been offered since April 2007

Operating Costs
Faculty time; weekly conference space

Outcomes
Changes in the knowledge and confidence levels among alumni of the medical school will be measured; no formal feedback survey has been conducted

Available Materials
Learning Objectives, Educational Strategies, and Evaluation Mechanisms

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Program Overview

125 million people in the U.S. have chronic illnesses, which account for over three-quarters of all health care expenses. Patients with chronic illness and disability perceive their physicians as poorly prepared to deal with the issues most pertinent to their quality of life. There is growing evidence of safety concerns among patients with chronic illness as they transition through a fragmented health care system.

With more than 75% of most medical student/resident training focused on acute hospital/inpatient medicine, exposure to issues outside the inpatient setting is greatly limited. Because of this structure, physicians-in-training may attach less value to the care of people with chronic illnesses.

By improving students' attitudes toward people with chronic disease, interest in geriatrics as a career choice can be increased. Through this curriculum, all graduating students of the Johns Hopkins University School of Medicine will possess the knowledge, skills, and attitudes to provide compassionate and high quality care for persons with chronic diseases and disabilities.

Program Operations

Negative attitudes, such as viewing chronic illness as “incurable, life-altering, and terminal,” can be improved through innovative teaching techniques. These include patient presentations on stereotypes; team meetings and home visits’ and simulated experiences, such as a day in a wheelchair. These learning experiences will help medical trainees develop empathy and a sense of empowerment in caring for disabled and chronically ill patients.
Major areas of knowledge include:
- the epidemiology of disability and chronic illness
- falls
- incontinence
- dementia and cognitive deficits
- mood disorders
- chronic pain
- poly-pharmacy
- childhood development.

Key skills are teamwork, patient communication, rehabilitation prescriptions, functional evaluation, anticipatory management, transition among levels of care, and utilization of resources for optimizing independence.

**Clinical Experience**
Students/residents can tailor the rotation to their interests by selecting two primary clinical sites from a choice of four. They spend two weeks at each site. These sites, each of which serves a different population in terms of age, diagnoses, and social situations, serve as a "home base" for the trainees, but there is a common centralized didactic program and overlap among them for outpatient and community experiences.

All sites provide opportunities for experiences in an inpatient rehabilitation unit and visits to a subacute or chronic care facility and to outpatient clinics that emphasize care of disabled and chronically ill patients, as well as home visits. Inpatient acute care is deemphasized. Students participate in interdisciplinary team meetings and patient/family conferences.

**Internet Modules**
Knowledge-based objectives are primarily addressed in self-study internet modules posted on Blackboard®. The modules take approximately 20-30 minutes to complete; trainees are required to complete one or two modules weekly. The modules include interactive pre- and post-module quizzes. Instructors are available for e-mail questions, and there is a Frequently Asked Questions (FAQs) bulletin board. Topics include:
- epidemiology and socioeconomic impact of chronic disease and disability
- interdisciplinary team concepts
- pain management
- poly-pharmacy
- nutrition
- bladder, bowel, and sexual dysfunction.

**Discussion Groups**
All ten students on the clerkship participate in discussion groups that meet 3-4 hours weekly at a central location for the month. The groups are led by faculty members, fellows, senior residents, or allied health professionals. Patients also lead some groups. Problem-based learning and interactive role-playing are incorporated into the sessions. Topics for discussion include:
- attitudes toward people with chronic disease and disability
- team communication skills
- socioeconomic issues
- functional evaluation
- poly-pharmacy
- pain management.

**Simulation Exercises**
Highly interactive and engaging simulation exercises enable trainees to experience some aspects of having a disability or chronic disease. Trainees in the rotation are required to participate in at least two simulation activities. These may include:
- a paraplegic in a wheelchair
- a hemiparetic, aphasic, or hemianopsic stroke survivor (using a knee immobilizer, hand splint, and goggles)
- a visually impaired individual (using specialized goggles)
- a patient with several chronic diseases on multiple medications (using placebo candies and a restricted diet).

During these activities, students maintain a journal and participate in a discussion group about their experiences the following week.
Staffing Requirements
The following personnel are needed:

- Co-course directors, one from Geriatrics and one from Physical Medicine and Rehabilitation (PM&R), at 0.25 FTE each. A 1.0 FTE administrative assistant is also required.
- An Advisory Council of patient advocates, faculty, therapists, nurses, and student representatives. The council meets quarterly to review program evaluations and do strategic planning.
- Faculty of geriatricians and PM&R physicians, psychologists, social workers, therapists, and nurses. Geriatrics fellows and senior PM&R residents are also utilized for some of the discussion groups.

Program Costs and Funding Sources
The program requires faculty time and utilization of a conference room for 15 people one half day per week. Minimal equipment is required.

The program is funded through the School of Medicine. Additional support from private foundations is being sought.

Process and Outcomes Data
Evaluation Design
The internet module quizzes use a pre- and post-test design (O1 X O2). Student perceptions of adequacy of exposure to chronic illness, etc., are evaluated using cohort comparisons of the Association of American Medical College Graduation Questionnaire. The remainder of learner and program evaluations are only post-test.

Evaluation Methods and Instruments
- Participation Passports: Much of this course is experiential in nature. Participation Passports have two purposes. The first is to ensure that students know the clinical experiences expected of them during the month and that they are able to evaluate these experiences. The second is to ensure that teachers (attending physicians, therapists, etc.) know why the student is there, and what they are expected to teach the student on that particular day. By knowing the goals of the session using the Passport, the attending faculty or therapist can provide ongoing learner feedback. This communication is particularly important given that students will be at multiple clinical sites and will have various teachers from month-to-month and day-to-day.
- Internet module quizzes: Pre- and post-quizzes are the most efficient way to evaluate students for knowledge-based objectives. They can also help focus the learner on key points that should have been learned from the module or lecture. The aggregate data can also be used to measure the effectiveness of each module.
- Reflection Journals: The reflection journals can be a powerful tool to help students think about the experiences they are having during the course and how these experiences are making them more aware of their own biases and assumptions, and changing their attitudes about chronically ill patients. The journals will also provide qualitative feedback about the course and help enrich group discussions.
- 360-Degree Evaluations: Students will be evaluated by attending physicians, other team members, and possibly patients. The 360-degree evaluations teach the student the importance of working well with all team members and of communication skills.

Implementation Lessons
- When presenting a clerkship like this to a curriculum committee, one needs to stress the benefits to all physicians, irrespective of ultimate specialty choice.
- It is highly useful to do a learner needs assessment before drawing up goals and objectives.
Available Materials
Tools/Resources
- Learning Objectives, Educational Strategies, and Evaluation Mechanisms

Publications

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## SUMMARY

### Target Audience
First-, second-, and third-year students

### Purpose
To develop a strong foundation in patient-centered medical care for older adults with chronic illnesses

### Program
A clinical experience through which students develop longitudinal relationships with older patients as part of the chronic illness care team, observing healthy aging, the impact of aging on health, and coping with chronic disease

### History
Created in 2005 for first-year students, it has since been rolled out to three incoming first-year classes and continued into the second and third years of medical school. The Seniors as Mentors concept has been operating in medical schools nationwide since 2000

### Operating Costs
Program coordinator; materials for a few meetings for student, doctor, and mentor

### Outcomes
Research is ongoing to determine whether student participation in the program effects favorable change on their patient-centeredness and attitudes towards older adults

### Available Materials
Detailed Program Description; Medical Schools with Senior Mentor Programs in Geriatrics, 2005; Publications List

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### Program Overview

The pilot Seniors as Mentors Program was introduced in 2005-06. It utilizes community-dwelling functional older adults living with chronic illnesses as adjuncts (Mentors) in conveying geriatric content. Mentors are diverse in age, race, religion, ethnicity, education, sexual orientation, and socioeconomic status. The Program matches first-year students, in groups of two or three, with older adults. The primary purpose is to ensure that students see patients as people, not just as diseases and organs. Students establish a long-term relationship with their Mentors over the course of the academic year. Students observe firsthand the challenges faced by these older patients, how their medical conditions impact their quality of life, and the coping mechanisms they have developed to live with the challenges their chronic illnesses pose.

The Seniors as Mentors program is a required clinical experience for all first-, second-, and third-year medical students. The program goals are to:

- have students develop a strong foundation in patient-centered medical care through longitudinal relationships with older patients (Mentors)
- promote team learning and team care
- have students understand transitions of care.

This program is inspired by the 23 medical schools which established Senior Mentor Programs as part of the AAMC-Hartford Geriatrics Curriculum Program in 2000 and 2001, modeled after the University of South Carolina's original program.

### Program Operations

Course objectives for students are to:

- reflect with fellow students and the primary care physicians about developing and maintaining a longitudinal relationship with a patient
• recognize the burden of chronic illness and the importance of the chronic care model
• recognize the complexity of coordinating care for older adults
• understand the influence of the home environment on the patient
• learn how to prioritize and balance patient responsibilities with competing professional and personal responsibilities
• work as part of a primary team to manage a patient longitudinally.

Students are precepted by their Mentor’s primary care physician and are regarded as junior members of their Mentor’s medical team. All physicians involved in the program are geriatricians. They serve as faculty preceptors and formally meet with their medical students four times over each academic year to discuss and analyze the Mentor’s health status, as well as to review the patient’s medical information. Multiple informal meetings have also occurred outside these set formal meeting times.

Students form relationships with their patient care teams as their Mentors navigate the health care system. Students have the opportunity to experience chronic illness from both the patients’ and the health care providers’ points of view. They learn about the challenges of, and the opportunities to advocate for, coordination of care. When a Mentor is hospitalized, the first- and second-year students are notified; they then visit the Mentor in the hospital and learn about the inpatient experience. A “SWAT” team comprised of geriatrics and palliative care faculty works with the patient and the student to assure that appropriate emotional support is available for students.

During the years of medical school, the students follow their Mentors as they age and traverse the various sites of care in the health continuum. Students become an integral part of their Mentor’s chronic care management team. They have the opportunity to witness firsthand the role of health care providers and the need for and importance of communication, coordination, and teamwork in patient care.

**Staffing Requirements**

The program is overseen by a leadership team of clinician-educators in the departments of Geriatrics and Medical Education. The program is taught by faculty Course Directors in the mandatory first- and second-year “doctoring”/clinical skills courses (The Art and Science of Medicine I and II), as well as in the third-year clerkship (Integrated Internal Medicine-Geriatrics Clerkship). The Course Directors are medical doctors whose specialties are internal medicine and geriatrics (in years one and two), and geriatrics (in year three).

Geriatrics faculty preceptors, who work with the students to understand the patients’ care, are an essential feature of the program’s success. Currently there are 25 geriatrics faculty preceptors for the program.

A full-time Program Coordinator manages day-to-day operations. The Program Coordinator is a trained geriatrics social worker who serves as a liaison between the Mentors, students, faculty, and Course Directors. The coordinator also helps facilitate relationships between the students and Mentors, and sends reminders of upcoming formal meetings as well as e-mails to students about inpatient admissions to, and discharges from, the hospital.

**Program Costs and Funding Sources**

The primary expense is the salary of a full-time Program Coordinator to help with scheduling and communication. Additionally, one or two social activities are held yearly for the Mentors to meet with their doctors and the students.

Initially funded through donations, the program is now being absorbed into the medical school’s Chronic Care curriculum. It is anticipated that about half of the students
will be paired with a senior when this occurs; the rest will work with other patients with a chronic illness, such as HIV or chronic kidney disease.

Process and Outcomes Data
Focus groups of Mentors reported that participating in the Seniors as Mentors program provided them with a sense of utility and purpose in their lives; valuable social connections with the students; the opportunity to become more aware of their health status; and a sense of empowerment, as they helped future physicians dispel common misconceptions about aging.

Research is also ongoing to determine whether student participation in the Seniors as Mentors Program effects favorable change on their patient-centeredness and attitudes toward older adults.

Implementation Lessons
• The Seniors as Mentors Program owes its success, in part, to the collaborative efforts of the departments of Geriatrics and Medical Education, and to the support of the Dean for Medical Education.
• During the 2007-08 school year, the program continued to build on the lessons learned in the first two years of the program, and a pilot program has been launched for third-year medical students. The extension of the program into the third year integrates the "lessons learned" by students during the first two years into their actual care of patients during their clerkships in geriatrics and internal medicine.
• The educators hope that students will enhance their comfort and skill in relating to older people and those with chronic illness; understand how age-associated changes affect health and coping with chronic illness; and recognize the roles of physicians and other members of the health care team in helping to manage illness and enrich lives. It is hoped that the students will become more receptive to working with older and chronically ill patients, and more eager to acquire the skills needed to work effectively with these patients over time.

Available Materials
Tools/Resources
• Detailed description of the Seniors as Mentors Pilot Program
• 2005 Listing of U.S. Medical Schools with Senior Mentor Programs in Geriatrics

Publications
• Gearing up for a graying generation
  Croasdale, M
  American Medical News
  June 9, 2008
• Special Issue focusing on Seniors as Mentors Programs
  Gerontology and Geriatrics Education, 2006
• University of South Carolina School of Medicine
  Roberts, E, Richeson, N, Thornhill, J, Eleazer, GP
  Academic Medicine
  2004;79(7 Suppl):S161-7

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Integrated Medical Student Curriculum in Geriatrics

at the David Geffen School of Medicine at University of California, Los Angeles

**SUMMARY**

**Target Audience**
All medical students

**Purpose**
To provide medical students with the foundation to provide competent, compassionate care to older patients

**Program**
A curriculum through which basic science and clinical knowledge, skills, and attitudes are taught using lectures, small-group discussions, and CD-, web-, and video-based exercises

**History**
Curriculum development began in 2000 and is ongoing

**Operating Costs**
Faculty time; development and support of multimedia resources and web-based teaching methods

**Outcomes**
There has been improvement in satisfaction of exposure to geriatrics; however, this is difficult for students to rate because geriatrics is spread intermittently throughout the curriculum

**Available Materials**
Table of Curriculum Learning Objectives, Teaching Methods, and Staffing; catalog of educational products; CD of additional curricular materials

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**Program Overview**

The UCLA Multicampus Program for Geriatric Medicine and Gerontology integrates geriatrics into all four years of the medical school curriculum. The overall goal is to provide medical students with the foundation for competent, compassionate care of older patients, regardless of what specialty the student pursues. This increased exposure to geriatrics training and positive geriatrician role models also serves to interest more medical students in careers in geriatrics.

The curriculum learning objectives were derived from the American Geriatrics Society’s Areas of Basic Competency for the Care of Older Patients for Medical and Osteopathic Schools. The competencies cover attitudes, knowledge, and skills that are needed to care for older people, such as:

- basic science knowledge—epidemiology, physiology, pathology, pharmacology
- clinical knowledge—risk, signs, symptoms, diagnosis, work-up, prevention of common geriatric syndromes
- skills—geriatric and pre-operative assessments
- attitudes—awareness of myths about aging, appreciation of individual differences, compassionate care.

**Program Operations**

A variety of teaching methods have been developed and are utilized across the four-year curriculum, including:

- didactic lectures
- small-group discussions
- case-based exercises
- CD-based learning exercises
- video-based case examples
- web-based exercises
- innovative educational games
- large-group audience participation formats.

A complete list of curriculum learning objectives can be found in the Available Materials.

**Staffing Requirements**

The curriculum is provided largely through problem-based learning in small groups of 4-8 students with two preceptors. They meet for 2-4 hours twice a week during the fall and spring semesters for both first- and second-year curriculums. Approximately 75 faculty preceptors from all specialties (including geriatrics) and basic science departments contribute to the learning groups. Geriatric cases are included throughout this curriculum along with all other medical school content. Detailed tutor notes, teaching suggestions and content background are provided. Students change groups about every 6-9 weeks to insure consistency of content and exposure to a large number of excellent preceptors.

A complete list of staffing requirements for the geriatrics curriculum can be found in the Available Materials.

**Program Costs and Funding Sources**

In 2000, UCLA received a grant from the Association of American Medical Colleges (AAMC) and the John A. Hartford Foundation to develop and support multimedia resources for undergraduate medical education in geriatrics. This was supplemented by a grant from the US Department of Education's Fund for the Improvement of Postsecondary Education (FIPSE).

Funds from these small grants were used to develop specific problem-based learning cases related to geriatrics; multimedia program development such as Geriatric Jeopardy; video-enhanced learning modules; and Audience Response Systems programs. Funds also provided a small amount of faculty support and enabled consultations for specific content areas.

**Process and Outcomes Data**

The content developed has been enhanced and maintained by a small committee of geriatrics faculty since its inception. These efforts have led to geriatrics faculty appointments to the larger UCLA curriculum committees for the preclinical years and for the clinical years, which meet on a monthly basis.

A variety of formal methods are utilized to evaluate each component of the curriculum.

Direct student evaluations are required at the end of each lecture, block, clerkship and workshop. These are usually conducted online through the Dean's office and then forwarded to the Geriatrics Education Program Director in the Division of Geriatrics.

Objective Structured Clinical Examination (OSCE) cases specific to geriatrics are required at the end of year two and year three. Class means and item analysis are discussed in the curriculum committee meetings and distributed to the Geriatrics Division.

AAMC Senior Questionnaire results include approximately 10 questions on geriatrics content each year.

Outcomes from fourth-year student surveys indicate that students have recognized an increase in exposure to geriatrics content since about 2003-04, which has been sustained. In addition, student performance in geriatrics, based on AAMC national senior content examinations, has also improved.

Many of the multimedia teaching tools developed at UCLA have been exported extensively to other levels of training, to other disciplines, and to other universities across the country.
**Implementation Lessons**

- Multimedia presentations, web-based programs, and patient demonstrations require tremendous preparation, attention to technical limitations, and often labor-intensive efforts to ensure a good presentation. These methods should be reserved only for content areas that require the advantages of this methodology and should not be used without substantial forethought and preparation.

- Once curricular elements are developed, tested, and proven to be successful, substantial effort is needed to maintain them in the curriculum from year to year. In an over-crowded curriculum, problem-based cases, small-group discussions, and even core lectures are often lost to other content areas if there is no strong advocacy for maintaining them in the curriculum and the elements are not updated frequently.

- Get the Dean’s office involved in recruiting faculty from other departments to incorporate geriatrics curriculum and handle the small teaching groups.

- Using funds to support non-geriatrician faculty to insert more geriatrics into the core courses can be an effective strategy.

**Available Materials**

**Tools/Resources**
- Table of Medical Student Geriatrics Curriculum Learning Objectives, Teaching Methods, and Staffing Requirements

**Publications**


**Website**

- A catalog of UCLA educational products created for Medical Student Geriatrics Education, including ordering information, is available at: [http://www.medsch.ucla.edu/public/geriatrics/orderform.htm](http://www.medsch.ucla.edu/public/geriatrics/orderform.htm)

  For a CD of additional curricular materials, please contact:

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Mandatory Rotation in Geriatric and Palliative Medicine for Fourth-Year Medical Students
at the John A. Burns School of Medicine at the University of Hawaii

SUMMARY

Target Audience
All fourth-year medical students

Purpose
To provide an overview of Geriatric and Palliative Medicine in outpatient, inpatient, home care, and nursing home settings, and to interest students in careers in these fields

Program
A mandatory four-week rotation using clinical experiences and didactic sessions

History
The rotation began in July 2005

Operating Costs
Faculty time; curricular materials

Outcomes
Since 2005, 173 medical students have successfully completed the required rotation

Available Materials
Course handbook and templates; rotation schedule; rotation survey; program abstracts; published references

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Program Overview

Increased exposure to geriatrics and palliative care can serve to interest more students in pursuing careers in these fields and result in an improvement in the quality of care they will eventually provide to their older patients, particularly those with chronic and terminal illnesses.

Begun in July 2005, this four-week mandatory rotation provides all fourth-year medical students with a balanced overview of Geriatric and Palliative Medicine in the outpatient, inpatient, home care, and nursing home settings.

The University of Hawaii’s Department of Geriatric Medicine has made permanent changes in the Geriatric and Palliative Medicine curriculum of the John A. Burns School of Medicine (JABSOM), incorporating required training in geriatrics in all four years of the medical school and in most of the residency training programs. This additional mandatory 4-week rotation expands the knowledge base and clinical skills of medical students and supports the three key roles in the care of older people: managing those with the most complex needs; setting standards of good practice; and disseminating good practice through training, education, and research.

Program Operations

Detailed objectives regarding attitudes, skills, and knowledge are listed in the curriculum handbook (see Available Materials). In summary, the objectives are to:

• understand the differences between normal aging and disease, and variability in functioning with increasing age
• be knowledgeable about safe use of medications in older people
be familiar with social, demographic, and cultural issues in the aging population
be familiar with health care costs and financing for older people
demonstrate skills in diagnosing and treating the major medical and psychiatric illnesses of late life
demonstrate skills in communicating with older adults
demonstrate skills in evaluating common geriatric syndromes, including atypical presentations of illness in older patients
demonstrate skills in providing a comprehensive geriatric patient assessment, including medical, cognitive, psychiatric, functional, and social aspects, working with an interdisciplinary team
demonstrate skills in performing a mental status examination and a depression screen (e.g., Geriatric Depression Screen or GDS)
demonstrate knowledge of health maintenance recommendations for older patients
demonstrate knowledge of the role of rehabilitation in the care of the elderly
demonstrate skills in discussing advance directives with older patients
demonstrate knowledge about pain management and palliative care.

A variety of instructional methods are utilized, including clinical experiences and didactic sessions. The geriatric clinical placements are scheduled for six half-days each week. Each student is placed on a nursing home rotation for two consecutive weeks and then assigned to either an inpatient or an outpatient training site for the other two weeks. The palliative medicine clinical experience is scheduled for two half-days each week for four weeks at the same site. Lectures and seminars on core geriatric and palliative medicine topics are held two half-days per week. (See Available Materials.)

All students are required to pass a multiple-choice, 60-question written test at the end of the rotation, and a clinical skills exam in the third week of the rotation. Evaluation of students includes the following components:
evaluation of clinical performance – 40% of final grade
final written examination – 20% of final grade
final clinical skills examination – 20% of final grade
participation in seminars – 20% of final grade.

Staffing Requirements
The core staff consists of:
Course Director and Codirectors – 50% FTE (total)
Course Coordinator – 100% FTE
Lecturers – 200 hours annually
Seminar Facilitators – 200 hours annually
Clinical Teachers and adequate clinical sites available for trainees – 8 Geriatric Medicine clinical sites, 9 Palliative Medicine clinical sites, 1 combination clinical site

The Department of Geriatric Medicine includes 36 geriatrics faculty, including 14 who are board certified in Palliative Medicine. There are additional faculty in the department from other disciplines, such as Geriatric Psychiatry, Neurology, Cardiology, and Epidemiology.

Program Costs and Funding Sources
Cost for this course is currently absorbed into the general Department of Geriatric Medicine budget.

When this course was being developed, grant support was received for faculty salaries from the John A. Hartford Foundation and the Donald W. Reynolds Foundation. These two grants were complementary and provided protected time for faculty for curriculum development and implementation.
**Process and Outcomes Data**

Since July 2005, 173 medical students have successfully completed the required rotation. The course is evaluated from several perspectives:

- Medical students use a comprehensive rotation evaluation instrument, which they must submit on the day of their final written exam. Data are used to evaluate clinical and didactic experiences, change in attitudes and skills, confidence in skills, and impact.

- The department uses the comprehensive rotation survey and feedback provided at exit interviews on an ongoing basis. Minor adjustments are made in response to feedback throughout the year. However, major curricular changes are only made between academic years.

- The Office of Medical Education evaluates the course annually using a Geriatrics Survey, which includes 16 quantitative items, as well as a request for written comments. The survey, a component of the larger “Unit 7 Survey,” is administered to students at the end of their fourth year.

- All graduating U.S. medical students complete a comprehensive survey by the American Association of Medical Colleges, which includes questions about geriatrics. Feedback is provided to the medical school about their own scores in comparison with national scores.

- Every three years, the Curriculum Committee of the medical school performs a formal review of each rotation and provides recommendations to the department.

Overall, the rotation has been well received by medical students. The majority of students have rated the rotation “4,” or very good, on a 1 to 5 scale.

Since the required rotation only began three years ago, it is too soon to tell whether more students will be attracted to the field of Geriatric Medicine. However, the medical school distributes a graduate survey annually, and it will track this outcome in the future.

**Implementation Lessons**

- Two major factors contributed to the program’s successful implementation. The first was receiving grant support for faculty salaries from the John A. Hartford Foundation and the Donald W. Reynolds Foundation. These two grants were complementary and provided protected time for faculty for curriculum development and implementation.

- The second factor was getting strong support from the medical school leadership. The dean, vice dean, and director of medical education were very supportive and helped to champion this effort through the approval process. They recognized the importance of Geriatric and Palliative Medicine. They also recognized that providing formal training in these areas would help the school with the Liaison Committee on Medical Education accreditation.

**Available Materials**

**Tools/Resources**

- Course handbook
- Course templates
- Rotation schedule
- Comprehensive rotation survey
- Abstracts from the Association of American Medical Colleges’ Western Group on Educational Affairs Annual Conference, April 2007

**Publications**

- The Impact of Curricular Changes on the Geriatrics Knowledge, Attitudes, and Skills of Medical Students

- Knowledge and Attitudes about Geriatrics of Medical Students, Internal Medicine Residents, and Geriatric Medicine Fellows
• Using Standardized Patients to Assess the Geriatric Medicine Skills of Medical Students, Internal Medicine Residents, and Geriatric Medicine Fellows
  Nagoshi, M, Williams, S, Kasuya, R, Sakai, D, Masaki, K, Blanchette, PL.
  *Academic Medicine* 2004;79(7):698-702

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Area of Concentration and Geriatrics Certificate Program for Medical Students

at the University of Pittsburgh School of Medicine

SUMMARY

Target Audience
All medical students

Purpose
To promote interest in aging as part of a medical career, regardless of chosen specialty and clinical or academic path

Program
A variety of activities to introduce students to geriatrics, including a voluntary four-year program leading to a Certificate in Geriatrics in addition to the MD degree

History
The Area of Concentration Program began in the 1990s; Geriatric Medicine was the second of eight areas created

Operating Costs
Faculty coordinator (5%); administrative assistant (5%); group meetings; case studies; summer training

Outcomes
The program has had 20-35 new participants each year and 8-10 complete the Certificate annually. Of these, one to three go on to pursue a career in geriatric medicine

Available Materials
Program Outline; Case Series Description and Approach to Case Presentation; Scholarly Project Overview; GEMS Topics and Interview Questions

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Program Overview

The Area of Concentration in Geriatric Medicine aims to encourage students to consider a career in aging by promoting an interest in aging as part of a medical career, regardless of chosen specialty and clinical or academic path. Completion of the four-year program leads to a Certificate in Geriatrics in addition to the MD degree. The program combines clinical and research experiences with didactic instruction to enhance students’ understanding of the complex health issues affecting older adults.

The Area of Concentration program began in the 1990s because students were interested in medicine-related activities outside of the usual medical school activities. The Geriatric Medicine Concentration was the second of eight concentration areas that were created.

Program Operations

During the first year, students participate in a home visit program, completing six home visits over the school year, as well as six monthly group sessions to talk about their home visits with peers.

Between the first and second year, about 20 students each year complete a summer research experience. During the second year, students participate in a monthly geriatrics case series linked to the organ system based curriculum. Up to 60-70 primarily second-year students participate in a clinical discussion that focuses on the age-related aspects of the organ system they are studying. This helps integrate patient care with class learning, as well as giving the students a perspective on how age affects a person's organs.
Students are also involved in a scholarly project related to aging, which must result in a manuscript to be published or a paper to be submitted to faculty. (Note: all medical students are required to do a scholarly project).

In the third year, students participate in a month-long clinical rotation.

In the fourth year, students choose an aging elective for research or a focused clinical activity and attend a variety of social events.

Students who complete a research project present at the American Geriatrics Society annual meeting during their second or fourth year.

Students in all years attend a series of evening sessions with visiting speakers. Student leaders organize and promote most of the activities. Students are welcome to participate in any components of the four-year program without being required to complete the Area of Concentration in Geriatrics.

**Staffing Requirements**
A faculty member from the Geriatrics Division serves as the program coordinator (5% FTE) and an administrative staff coordinator handles program logistics (5% FTE). Lectures, mentoring of research activities, and clinical experiences are all provided by faculty volunteers.

**Program Costs and Funding Sources**
The medical school pays 5% of the faculty member’s salary to coordinate the program. Costs for group meetings and case studies reach a few thousand dollars and are covered by foundation and internal sources. Summer training costs are covered by training grants, and administrative costs are 5-10% of a secretary’s time.

Funding comes from the Hartford Center of Excellence, the Geriatrics Division, National Institute on Aging T32 and T35 grants, and the American Geriatrics Society state affiliate. The Geriatric Medicine program collaborates with the medical school’s Hartford Center of Excellence and T32 program in Geriatric Psychiatry.

**Process and Outcomes Data**
The program has an average of 25-35 participants per year, with 8-10 obtaining the Certificate in Geriatrics. Not all students participate in all Area of Concentration in Aging activities, and not all participants complete the entire program. It is estimated that one to three of those who obtain the Certificate pursue a career in geriatric medicine.

Measures of success include:
- number of student participants by year
- number of participants in summer research programs
- number of students who select an aging topic for the required medical school scholarly project
- number of graduates with a Certificate in Geriatrics
- initial and long-term career choice.

**Implementation Lessons**
- Students become engaged in and excited about the program in the first year because it provides opportunities for encounters with patients. These students become the program’s best recruiters, particularly through word-of-mouth.
- Consistency of faculty leadership has been important to the program’s ongoing success and has resulted in wide acceptance within the medical school.
Available Materials

Tools/Resources
- Program Outline
- Case Series Description and Approach to Case Presentation
- Scholarly Project Overview
- GEMS Topics and Interview Questions

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Year-End Professional Skills Assessment Geriatrics Case

at the University of Wisconsin-Madison
School of Medicine and Public Health

SUMMARY

Target Audience
All third-year medical students

Purpose
To evaluate clinical competencies in geriatrics at the end of the third year

Program
Multiple 15-minute clinical examinations and interviews with volunteer patients

History
The program began in 2002

Operating Costs
Faculty time for case development, administration, and remediation; training for volunteer patients; instructional design expert

Outcomes
Of the 750-plus students who have been assessed, only about 2% have had marginal or failed performances on their cases

Available Materials
Example of geriatric medicine competencies for third-year medical students; example case, script for standardized patient; checklist and direction for case evaluators; schedule for evaluators

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Program Overview

The Year-end Professional Skills Assessment program in geriatrics was created to evaluate third-year medical students to ensure that they have developed the clinical competencies in geriatrics necessary to proceed with their medical education.

These include:

- recognizing how the features of the aging process are distinct from those of age-related illness
- identifying psychosocial and economic risk factors for older adults that predispose them to illness and loss of function
- performing the basic components of a geriatric assessment
- recommending age-appropriate preventive care for older adults
- demonstrating knowledge of basic approaches in screening for and managing geriatric syndromes/illnesses
- adjusting treatment strategies.

Incorporating a geriatrics-specific case in the overall Year-end Professional Skills Assessment program provides greater visibility for geriatrics as an important area of specialization, with the possibility of interesting more medical students in careers in the field.

Program Operations

A comprehensive, objective-structured clinical examination is administered to students at the end of Year 3 of medical school. It is a degree requirement and must be passed before the student is allowed to graduate from the School of Medicine.
Students rotate through multiple 15-minute clinical stations during which time they have ten minutes to interview the patient. Each case aims to assess the student’s communication skills, knowledge, and ability to synthesize information elicited from the standardized patient. During the final five minutes, faculty ask programmed questions to assess the students’ synthesis of the information elicited. A case evaluator videotapes each student’s performance. These cases are intended to assess competency rather than differentiate average from excellent students. As such, they attempt to screen for the small subset of students who do not have the interviewing skills, knowledge, or capacity to synthesize the key concepts of the case.

Each station is based on a clinical core competency list that is developed by the third-year clerkship directors and the geriatrics education liaison. It is distributed to students at the beginning of Year Three. At Wisconsin, geriatrics is one of the few non-departmental cases in the Year-end Professional Skills Assessment.

The geriatrics case can also be used for assessment of performance in other learning venues such as a clerkship or an elective rotation. To incorporate it into a larger skills examination requires the following steps:

- meeting with faculty who oversee the skills assessment at the medical school for buy-in and consensus
- identifying the competencies to be tested
- creating the case with school experts in instructional design and geriatrics
- reviewing the case with the Year-end Professional Skills Assessment committee
- educating standardized patients and case evaluators for uniformity in the administration and evaluation of the case
- scheduling evaluators if multiple cases are to be run simultaneously
- storing the assessments into an electronic database, e.g., PC tablets and concurrent video capture of all cases
- creating remediation processes for those students who obtain marginal or failing grades on this case.

Once there is completion of a case description, a script for standardized patients and a checklist for evaluators, then the case is embedded into the larger skills examination and infrastructure.

**Staffing Requirements**

Different staffing requirements exist within the three phases of the program. The case development phase requires geriatrics faculty member content expert(s), an administrative staff member with expertise in instructional design, and a seasoned standardized patient to help translate the key concepts and details into a script. The evaluators’ checklist must also be created by the case developer.

The case administration phase covers the actual six half-day testing session. Over 150 medical students are tested. Typically, two geriatrics stations are run simultaneously for 12 students per half day. This requires two case evaluators per half day and one back-up faculty to fill in for any evaluator who cannot be present. A Year-end Skills Professional Assessment administrator needs to coordinate this schedule and ensure that the faculty adjust their schedules and are reminded several days prior to the examination.

The remediation phase typically requires one faculty member or a small working group. They must identify the component(s) of the case that a student performed poorly on and create a remediation plan to help improve the student’s skills or knowledge base prior to readministering the examination five months later.
Program Costs and Funding Sources

The following personnel and training are required:

- Six to eight hours of development time by a geriatrics faculty member
- An instructional design expert (either internal staff or a consultant)
- Paid time of an experienced standardized patient who helps develop the case script
- Faculty time to administer the cases within the examination and proctoring time of the Year-end Professional Skills Assessment administrators (the exact program costs for this aspect of the program depend on the number of students tested)
- Extensive training for the volunteer standardized patients (the cost for training these individuals is usually integrated within the infrastructure of the schools testing center)
- The cost for the faculty time to conduct the remediation dimension of the program, with a typical remediation meeting and follow-up to enact the plan taking between two and three hours per student

In addition to funds from the school testing center, earmarked faculty time and money are released from the Geriatric Research Education and Clinical Center and the geriatrics section. The GRECC has faculty time earmarked for education and the geriatrics section releases faculty time and money for these activities.

Process and Outcomes Data

Out of the 750-plus students who have been assessed over the past five years, approximately 2% have had marginal or failed performances on their geriatrics cases. No students have argued that the case was unfair or did not test the competencies that were emphasized.

Four distinct geriatrics cases have been developed since 2002; a fifth case is currently being adapted from an earlier case. The geriatrics case directly aligns with topics from the written geriatrics competencies of the medical school curriculum. Information from the case examination is analyzed and given back to course directors as feedback and presented to the Educational Policy Committee to determine if the curriculum is meeting the needs of our students.

Several levels of evaluation occur to test the internal validity of the cases to distinguish between students who do and don’t demonstrate the core competencies tested. During the initial case development, test students evaluate each case. Once the cases are employed in the larger examination, analysis occurs to determine how failures on multiple cases correlate. Typically, students who struggle in one case also show inadequate performance in other cases. If a specific case fails more students than the mean or does not detect any marginal or failing students, then closer scrutiny occurs regarding that case. This has not occurred to date with the geriatrics case. Video capture also helps to corroborate if the evaluator appropriately assessed the student by allowing another evaluator to independently judge the student’s performance.

Long-term educational outcomes have not yet been gathered regarding the students’ performance on the geriatrics case and the capacity of this evaluation tool to predict performance on standardized tests or measures of proficiency in caring for older persons at the residency or practicing-physician level.

Implementation Lessons

- For initial acceptance of the geriatrics case, the geriatrics program director needed to work closely with the Year-end Professional Skills Assessment committee and key administrators of the student testing site to gain buy-in. The program director also worked with the Associate Dean for Curriculum to demonstrate the need for a geriatrics case that is distinct from cases delivered by the Departments of Medicine and Family Medicine. The Year-end Professional Assessment Skills
program has flourished due to strong institutional support from key curriculum leaders. Aligning the case topic with both local competencies and the forthcoming geriatric competencies supported by the Association of American Medical Colleges persuaded leadership to proceed with support for the geriatrics case.

- It typically takes two to three months for case development from conception to administration of the beta-cases to students acting as test subjects. The case developer needs to identify a test population that will be comparable to the students being evaluated. This typically has been either fourth-year medical students or third-year students from other schools who have the integrity to maintain the security of the case. Feedback from the 3-5 test students has resulted in cases with higher ratings for quality than cases tested by fewer student test subjects.

- The evaluation of these cases leads to three categories of performance: pass, marginal, and fail. Given the wide variety of faculty views regarding student performance, it is essential that evaluation criteria and an explanation of these criteria occur with all case evaluators. The evaluation checklist attempts to help the evaluators identify the presence or absence of discrete skills or behaviors to enhance uniformity amongst testers.

**Available Materials**

**Tools/Resources**

- Example of geriatric competencies for third-year medical students
- Example case
- Script for standardized patient
- Checklist and direction for case evaluators
- Schedule for evaluators

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**For More Information**

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Aging Organ Systems
Curriculum for Second-Year Medical Students
at Wake Forest University Sticht Center on Aging

SUMMARY

Target Audience
Second-year medical students

Purpose
To introduce the spectrum of physiological changes and common disease processes of aging across the second-year curriculum

Program
A combination of lectures and case-based, interactive learning for each of 10 organ-based topics

History
The program was launched in 2004 following a school-wide curriculum redesign, begun in 1998, which did not adequately address geriatrics content

Operating Costs
Faculty and staff time are part of the ongoing educational activities of the Office of Undergraduate Medical Education

Outcomes
Students’ perception of their level of exposure to geriatrics has increased greatly since the new curriculum was introduced

Available Materials
Lecture objectives and sample cases; lecture slides from various departments (available upon request)

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Program Overview
Traditionally, geriatrics was taught as a stand-alone course in the second year of the Wake Forest medical school curriculum. Beginning in 1998, an overall curriculum redesign provided an opportunity to integrate geriatrics content, including the demographics of aging, aging physiology, and common age-related diseases, across the entire medical school curriculum. For the second-year curriculum, this entailed integrating geriatrics into 10 organ-based topics. In addition to the educational goals, this curriculum was also intended to raise students’ awareness and interest in geriatrics as a career choice.

The integration of geriatrics content first occurred by modifying the small-group case-based learning curriculum, which supplements content taught in lecture format. While this worked well in introducing clinical decision making for older people early in the curriculum, it did not sufficiently introduce the spectrum of physiological changes with aging or common disease processes in older adults.

Additionally, the weighting of course content from the cased-based component of the curriculum on the examinations has been lower than that of the lecture curriculum. Thus, teaching geriatrics only in the case-based content sent a message to students that geriatrics knowledge was not “worth” as much as other disciplines. Therefore, a need was identified to integrate geriatrics into the lecture-based curriculum as well.

Program Operations
A geriatrics faculty member who served as the Lecture Coordinator oversaw the development and integration of “Aging Organ Systems” lectures into the Year 2 curriculum. With the support of the
CoE Network Resource Center- Manual 1

Associate Dean for Undergraduate Medical Education and the Year 2 Curriculum Director, a key faculty member was identified to deliver the geriatrics curriculum for each topic area.

The learning objectives for the geriatrics lectures in each of the 10 organ-based topic areas are to:
- describe changes in susceptibility to disease with aging
- distinguish "normal" aging from disease
- recognize characteristics of the older patient that may affect outcomes or treatment strategies

The lectures usually begin with a case that prompts a brief discussion to engage students in the topic. An electronic curriculum allows lecturers to use technology to enhance active learning in real time in the classroom. For example, a Student Response System is used to introduce common misconceptions about aging of the nervous system. Students (who all have school-issued laptop computers) log in to a site where the lecturer has posted four True-False questions about aging of the nervous system, such as “Significant memory loss is a normal part of aging.” The students submit a response and the system allows the lecturer to display aggregate results to the class. The displayed results serve as a springboard for an initial discussion. To keep students engaged, the correct answers are given during the body of the lecture.

**Staffing Requirements**
A Lecture Coordinator (geriatrics faculty member) is needed during the first year to focus on integrating geriatrics content into the organ-based curriculum, at approximately one calendar-month of dedicated effort. Each course has a departmental leadership structure overseen by the Office of Medical Education, with ten faculty members needed to plan and deliver the organ-based lectures. Their time is covered by funding provided by the Office of Undergraduate Medical Education, routed through the various departments.

Ongoing support by the medical school for individual lecturers and continued Lecture Coordinator oversight is needed at approximately 0.5 calendar-months per year. A dedicated administrative assistant is helpful in the ongoing monitoring of lectures. The Lecture Coordinator is funded through the geriatrics section of the Office of Medical Education.

**Program Costs and Funding Sources**
The primary program cost is the faculty and staff time delineated above. Development of the program to integrate geriatrics into the Wake Forest curriculum was funded through a U.S. Health Resources and Services Administration Geriatric Academic Career Award (GACA).

**Process and Outcomes Data**
114 medical students go through the second-year curriculum each year. The AAMC graduation survey found that students’ perception of their level of exposure to geriatrics at Wake Forest has increased greatly since this project was introduced in 2004. In the 2003 graduating class, 31% of students agreed or strongly agreed that geriatrics/gerontology education was part of all four years of their medical education. In 2007, 63.8% of the graduating class agreed with this statement (compared with 48.1% nationally).

**Implementation Lessons**
- A key aspect of the success of this type of program is not only commitment from the dean’s office and course directors, but also centralized project oversight. As faculty leave and new faculty arrive, programs such as this can become lost in the shuffle because lecturers are based in different departments. The electronic curriculum at Wake Forest allows quick perusal of the lecture line-up for the entire year, and any concerns can be addressed by the Lecture Coordinator.
• While technology is very useful in getting important physiology or disease points across, there is no substitute for real patient contact to impact attitudes toward older adults. For example, in addition to discussions regarding hematological diseases in the older adult, the hematology/lymphatic lecture features a healthy elderly survivor of lymphoma who discusses his/her experiences with chemotherapy.

• In the initial implementation of the project, the Lecture Coordinator met with the faculty responsible for the "Aging Organ Systems" lectures to review the purpose and scope of the project and to discuss important aspects of aging related to the organ-system. In the first lecture of the series, a greater emphasis is placed on the demographic imperative for having the series and the plan for evaluation of content through all the topics.

• Five of the ten initial lecturers for this program had been participants in the John A. Hartford Foundation-funded Geriatrics Education Retreats (GERs), designed to train faculty about the importance of integrating geriatrics training into the subspecialties of Internal Medicine. Therefore, they easily grasped the concept of integrating geriatrics into organ-system education. Those who did not have this experience required a little more direction and development and were directed to review articles and other materials.

• The Lecture Coordinator served as the lecturer for the nervous system topic and attended all other lectures in person (or listened to the audio lectures online) and gave direct feedback. This process allowed for refinement of the initial series. Any change in the lectures or lecturers is reviewed by the Lecture Coordinator.

• In addition to working with the individual lecturers to develop content, the Lecture Coordinator can also identify unnecessary duplication of content or essential components that may be left out of the curriculum. The program also records all lectures, and sampling of quality of the lectures is routinely done online.

Available Materials
Tools/Resources
• Lecture objectives and sample cases
• Lecture slides from various departments

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Ambulatory Geriatric Care Rotation for Third-Year Medical Students and Internal Medicine Interns

at the Wake Forest University School of Medicine

SUMMARY

Target Audience
Third-year medical students and Internal Medicine interns

Purpose
To provide valuable learning opportunities in the care of older patients prior to the time when medical trainees’ career choices have been set

Program
A mandatory one-month rotation in a variety of clinical settings: long-term care, home, hospice, primary care clinics, and consultative geriatrics clinics

History
The program began in 2000

Operating Costs
Faculty time

Outcomes
As of 2007, 192 students and 144 interns have completed this program. Students’ perceptions of the amount of geriatrics training have risen steadily over the last 3 years; upper-level internal medicine residents score in the 97th percentile for geriatrics on the in-training examination

Available Materials
Rotation Curriculum; Geriatric Lecture Series Schedule

For More Information
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Program Overview

A one-month rotation in the Acute Care for the Elderly (ACE) unit is required for all upper-level Internal Medicine residents. However, by the time many residents complete this rotation, their career paths have been set and post-residency training plans have been determined.

The one-month Ambulatory Geriatrics Experience Rotation was created in 2000 to reach students and interns before those critical career decisions are made, as a means to attract more medical trainees to careers in geriatrics. Because the strongest tool for attracting trainees to geriatrics is clinical role models, trainees develop relationships with outstanding geriatrician mentors during the rotation, while developing their core clinical skills.

This rotation was made mandatory for all Internal Medicine interns in 2007. Third-year medical students have previously been randomly assigned to participate in a two-week experience as part of their Ambulatory Internal Medicine rotation. The goal is to provide this experience for all third-year students.

The Rotation’s main goals are to:

- dispel the common misconception that older patients receive the majority of their medical care in the inpatient setting
- help students and interns develop an appreciation for the health care system for older people
- integrate essential geriatrics knowledge and skills into medical trainees’ clinical practice, regardless of the ultimate specialty they choose.
Program Operations

Students are given the opportunity to provide care to older patients in a variety of clinical settings: long-term care, house calls, hospice, primary care clinics, and consultative geriatrics clinics. The program objectives are for participants to:

- demonstrate communication and professional skills necessary to work productively with older adults
- demonstrate sensitivity to patient preferences and cultural backgrounds
- practice competent internal medicine for older people (expectations adjusted for student or resident status)
- demonstrate knowledge of and attentiveness to geriatric syndromes
- demonstrate a rational approach to drug prescribing in the older adult
- identify the basic structure, financing, and challenges of the health care system for older people, including transitions of care between settings.

The Ambulatory Geriatrics Experience rotation includes the following:

- **Geriatric Memory Assessment Clinics:** Within the weekly clinic, learners observe neuropsychological testing and learn from the geriatrics attendings and fellows how to differentiate between various types of cognitive impairment, address safety concerns, and administer pharmacological and nonpharmacological aspects of treatment.

- **Primary Care Outpatient Clinic:** Learners work with geriatrics attendings, fellows, and a geriatric nurse practitioner. Third-year medical students progress from shadowing to active evaluation, while more advanced learners practice history-taking, physicals, and medical decision making.

- **Physician's House Call Program:** During weekly house-call visits with the geriatrics fellows, learners get a first-hand glimpse of the patient's home environment. During orientation, learners are asked to evaluate social settings and pay particular attention to care strategies that disabled patients and their families use to remain at home. This allows students to see not only the medical but also the social aspects of geriatric care.

- **Long-Term Care (Nursing Home and Assisted Living):** Learners conduct weekly rounds at various long-term care facilities. They are encouraged to read hospital discharge summaries and use them to guide their decision making. Students also learn the common pitfalls encountered when patients make the transition to a long-term care setting and the importance of appropriate discharge summaries. Students participate in case-based discussions led by the attendings. They attend lectures on how to determine the appropriate level of care for patients, health care financing, and long-term care issues, such as caring for chronic wounds, reducing polypharmacy, and addressing advanced directives.

- **The ACE Transition Program:** Learners and the geriatrics fellow make an investigative visit to a patient who has been discharged from the ACE unit. The ACE team has daily interdisciplinary meetings where cohesive discharge plans are discussed and implemented. The ACE Transition Program visit helps to determine how well the patient is making the transition to home; to assess the need for subacute or acute rehabilitation or hospice from the inpatient setting; and to assess how the individual patient and caregivers are coping. For example, when a patient is discharged from the hospital to rehabilitation at a nursing home for the first time, the information gathered from the ACE Transition Program visit is presented to the interdisciplinary ACE team on a weekly basis. In this way, teaching rounds focus on continuous quality improvement and interdisciplinary education.

- **Didactic Teaching:** Learners participate in the ongoing Geriatrics lecture series, which includes topics such as wound care, rehabilitation, theories of aging, cognitive behavior therapy, and falls.
Students and residents are also active participants in a bimonthly Journal Club, and residents work together to present a journal article each month. A notebook of readings is also provided to each trainee, containing material from the American Geriatrics Society *Geriatrics Review Syllabus* and additional core reading material on levels of care, health care financing, and individual geriatric syndromes. A goal for the next year is to develop electronic modules with associated prerecorded “minilectures” to supplement the ongoing lectures and provide consistency of learning for each rotating trainee.

- **Pre- and Post-test:** A knowledge-based multiple choice and fill-in-the-blank test is given at the beginning and the end of each rotation.
- **Research Opportunities:** Learners, particularly fourth-year medical students, are exposed to the ongoing research within the Sticht Center on Aging and are encouraged to develop research projects.

The curriculum was written in accordance with Accreditation Council for Graduate Medical Education guidelines for competencies in patient care, medical knowledge, practice-based learning and improvement, interpersonal skills and communication, professionalism, and systems-based practice.

**Staffing Requirements**

All six clinical geriatrics faculty participate in some aspect of the Ambulatory Geriatrics Experience rotation, including the nursing home medical director; the clinic director, as preceptor for the outpatient clinics; and the ACE attending who facilitates the interdisciplinary team meeting and the ACE Transition Program reports. An administrative staff member handles all the scheduling for the rotation (10% effort).

Additionally, PhD faculty participate actively in Journal Clubs, the Aging Conference, and the Core Conference Series.

**Program Costs and Funding Sources**

The medical school provides financial support to cover approximately 5 -10% of each faculty member’s effort. The medical school also recognizes teaching excellence for faculty devoted to medical student education, which can be used as part of the published promotion process.

**Process and Outcomes Data**

Students’ perceptions of the amount of education in geriatrics have steadily risen over the last three years, as measured by the American Association of Medical Colleges (AAMC) graduation survey. The in-training examination results for geriatric medicine have also steadily risen over the last three years: upper-level internal medicine residents score in the 97th percentile for geriatrics.

Students rate the Ambulatory Geriatrics Experience rotation, the outpatient clinic, the nursing home, the consultation clinic, house calls, and the ACE Transition Program on a scale of 1 (very poor experience) to 10 (very best experience ever). They can also indicate what they liked and didn’t like about their experience. Students can also evaluate specific faculty attendings, fellows, nurses, mid-level practitioners, etc. Of the feedback from 40 interns between 2006 and 2007, the average rating was 7.83/10.

A dedicated tracking system is planned to quantify the outcomes of the program and track future careers in geriatrics. There is also a plan to include a reporting system to identify students who choose a career in geriatric medicine.
Implementation Lessons

• The feedback provided by learners through their evaluations continually informs the rotation curriculum. Feedback has been generally positive. The ACE Transition Plan portion is the newest addition to the AGE rotation and has received varied responses from "very interesting to see how people actually live" to "sometimes we travel to unsafe places." The Geriatrics Primary Care Clinic uniformly receives praise, and learners express the desire to spend more time there.

• It is essential to have “champions” among the institution. The program has outstanding support from the Internal Medicine Residency office, the Residency Program Director, and the coordinator for the Ambulatory Internal Medicine rotation for third-year medical students. The positive feedback and the institutional support have been leveraged to make the Ambulatory Geriatrics Experience rotation mandatory for all Internal Medicine residents.

Available Materials

Tools/Resources

• Ambulatory Geriatrics Experience Rotation Curriculum
• Geriatric Lecture Series Schedule

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Geriatrics Is Your Future: A Regional Resident Recruitment Program at Baylor College of Medicine

SUMMARY

Target Audience
Second- and third-year Internal Medicine and Family Practice residents from training programs in Louisiana, Oklahoma, and Texas

Purpose
To expose participants to various topics in geriatrics and to encourage applications to geriatrics fellowships

Program
A one-and-a-half day event, with a Friday evening dinner and a full-day program on Saturday

History
The program has been held annually since 2000

Operating Costs
$8,000 to $10,000 annually for travel and hotel, meeting space, catering, AV, some faculty expenses

Outcomes
Baylor has recruited one fellow in each year of the program; other schools have also filled geriatrics fellowship training slots

Available Materials
2007 Registration Form, Advertisement, and Agenda

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Program Overview
The “Geriatrics Is Your Future” (GIYF) program is designed to expose second- and third-year Internal Medicine (IM) and Family Practice (FP) residents from training programs in the Louisiana, Oklahoma, and Texas regions to various topics in geriatrics and to encourage applications to geriatrics fellowships.

GIYF was developed on the premise that there are significant numbers of potential Geriatric Medicine fellows among IM and FP residents who are unaware that a geriatrics fellowship training pathway exists. Many of the 30 Internal Medicine and 28 Family Practice residency training programs in the Louisiana, Oklahoma, and Texas region have only loose or no affiliations with an academic geriatric medicine fellowship program.

This program has been held annually since 2000 and is populated by second- and third-year Internal Medicine and Family Practice residents who self-identify or are identified by the residency program directors.

The number of residents participating has gradually increased each year, to more than 35. The number of geriatrics fellowships participating has been as high as seven. The GIYF meeting is held in conjunction with the Texas Geriatrics Society meeting so that there is exposure to “real-life” geriatricians, as well as a saving of money and time.

Program Operations
The one-and-a-half day event begins with a Friday night dinner. On Saturday, six 45-minute clinical care updates on various topics (e.g., delirium, falls, wound care, advance directives, pain management)
are taught primarily by junior faculty from Geriatric Medicine Fellowship programs in the region who are invited to participate. A luncheon with current geriatrics fellows from area programs provides an opportunity to answer residents’ practical questions and concerns. (Faculty are not present, to allow for more candid discussion.) This forum can also be used to highlight potential academic careers for interested residents.

Time and effort are required to create or reinforce ties between Baylor’s Center of Excellence (CoE) and the other Geriatric Medicine fellowship programs in the area to encourage participation. All participating programs are given an unparalleled opportunity to recruit in an enriched pool. In return, they are invited to contribute a speaker—either a current or previous-year fellow or another program spokesperson—and to send IM or FP residents who are interested in geriatrics from their home institutions.

To promote program participation, communication now includes “save the date” cards and e-mails to past program participants (who are great recruiters) and the residency program directors, and, if allowed, direct e-mails to the residents themselves.

Self-nomination is permitted, but nomination by the program directors is preferred. Applications are submitted by fax. Unless there are unusual circumstances, almost all applications are accepted.

Follow-up with participants is conducted by the individual programs to encourage application to their program.

**Staffing Requirements**

The first GIYF program required almost the full-time services of the CoE administrative staff person as well as significant part-time effort from the Baylor College of Medicine CoE physician faculty to make all of the arrangements, place calls to Geriatric Medicine fellowship directors and IM and FP residency directors, and take care of other logistical issues. In subsequent years, there has been a decrease in the time required from all staff.

**Program Costs and Funding Sources**

The annual budget is approximately $8,000-10,000 for 40 to 60 total participants (including faculty and fellows). It includes all travel and hotel expenses for the residents from the tri-state area, a hotel meeting space, catering, and AV costs.

Faculty expenses are paid by the faculty’s institution, where possible, or by the CoE. The participating programs are also invited to contribute to the cost of GIYF, and are expected to pay for their own fellows and faculty. Any program that wants to participate but cannot provide funding has been welcome to attend. At least five regional programs (fellowship programs) have participated in all years.

**Process and Outcomes Data**

All 58 residency programs in the tri-state region collaborate, with an average of 20 residents participating each year. In 2007, 31 residents attended. The program has fostered significant cooperation between the residency programs, resulting in an increase in the number that participate. When the program began, only programs in Texas participated. That has now expanded to include programs from Louisiana and Oklahoma.

Baylor has recruited one fellow in each year of the program. Other schools have also filled geriatrics fellowship training slots through this program. Many program participants reported that they did not realize there was an area of specialization in geriatrics with viable career options. Even those participants not interested in geriatrics fellowships report having a positive learning experience that will change the way they view and care for older adults.
**Implementation Lessons**

- Relationships need to be developed with residency program directors, many of whom have no link to the “Ivory Towers.” This tends to require more effort than originally anticipated and remains an ongoing task. Much improvement in the overall marketing of geriatrics is still needed.

- Substantial cost and time savings are realized by negotiating room and catering rates in conjunction with the Texas Geriatrics Society’s annual meeting. Efforts are made to get a pharmaceutical company representative to host the Friday night dinner. Support is acknowledged at the event.

**Available Materials**

**Tools/Resources**

- 2007 Registration Form
- 2007 Advertisement
- 2007 Agenda

**For More Information**

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Annual Resident Award Summit
at the Southeast Center of Excellence in Geriatric Medicine (Emory University and the University of Alabama at Birmingham Schools of Medicine)

SUMMARY

Target Audience
Selected Internal Medicine and Family Medicine residents

Purpose
To increase knowledge of career opportunities in geriatrics and the likelihood of residents’ pursuing additional geriatrics training, and recruit potential fellows into the Emory and UAB fellowship programs

Program
Weekend of educational sessions, tours, and discussions

History
125 residents have attended since the program began in 2004

Operating Costs
Average of $16,500 annually for resident and faculty travel expenses; materials; meeting space; food

Outcomes
Between 2004 and 2006, 9 of 22 fellowship positions have been filled with participants from this program

Available Materials
2007 Program Agenda and Participant Evaluations; 2006 Project Budget

For More Information
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Program Overview
The Hartford Foundation Southeast Center of Excellence in Geriatric Medicine (SCEGM) is a collaborative CoE between the Emory University and University of Alabama at Birmingham (UAB) Schools of Medicine. Since 2004, the CoE has held an annual resident recruitment program entitled the “Resident Award Summit” to:

- recruit potential clinical or research fellows into the Emory and UAB training programs
- expose Internal Medicine and Family Medicine residents to various topics in geriatrics
- increase the residents’ knowledge of career opportunities in geriatrics
- increase the likelihood of the residents pursuing additional training in geriatrics
- provide an overview of post-residency Geriatric Medicine fellowship opportunities at Emory and UAB.

This program is modeled on the successful “Geriatrics is Your Future” resident recruitment seminar developed by the Baylor College of Medicine CoE.

Program Operations
Each spring, 99 Residency Program Directors in seven southeastern states are contacted via regular mail and e-mail and asked to nominate up to two of their most outstanding residents, at any level, who are interested in the care of older adults. Residents nominated to receive the SCEGM Resident Award are required to submit a personal statement describing why they should be chosen to attend the weekend event.

The SCEGM Leadership Committee selects approximately 35 residents to attend the program each year. Selection is based on the strength of the
Residency Program Director’s recommendation and the resident’s demonstrated interest in geriatrics. The invitees selected are contacted via regular mail and e-mail and congratulated on receiving the nomination and being chosen to receive the SCEGM Resident Award. Invitees are asked to sign a contract of attendance before travel arrangements are made by SCEGM staff and University travel agencies.

The one-and-a-half day weekend program includes an introductory “geropardy” session; breakout sessions on a variety of geriatrics clinical and care delivery topics; and plenary sessions on geriatric medicine career trajectories and post-residency geriatrics opportunities at Emory and UAB. Breakout sessions are in the form of didactic lectures and roundtable discussions.

All participants receive an award certificate at the conclusion of the program, together with a variety of take-home materials, including the American Geriatrics Society publication Geriatrics at Your Fingertips; a geriatric medicine textbook; handouts from the event’s didactic sessions; and specific information about the various fellowship training programs.

**Staffing Requirements**
Approximately 20 faculty members and 8 current and/or recent past fellows participate in the program to provide the didactic lectures, lead roundtable discussions, and interact with residents. The Geriatric Education Manager handles the program planning and implementation. Two administrative staff assist by creating a program-nominee database and helping with logistical arrangements.

**Program Costs and Funding Sources**
Conference space, housing, and catering costs differ greatly by location. The budget generally depends on the location, but with fuel prices increasing, travel costs will increase. The total budget will be approximately $30,000 this coming year in Atlanta, though in the past it has averaged $16,500. Costs are reduced by taking advantage of affordable local air travel and free conference space from UAB, and the cost for catering from UAB Hospital is about half that of using a hotel caterer.

Emory and UAB each contribute $7,500 from the CoE grant. Any additional funds have been provided by the UAB Center for Aging. These funds cover all resident and faculty travel expenses, materials, meeting space, and food. The average cost of the program per resident is approximately $518 in Birmingham and $1,036 in Atlanta.

**Process and Outcomes Data**
125 residents have attended the event since its inception in 2004. Six states were represented in 2007; 17 participants that year were in their second year of residency and 15 were in their third year.

Between 2004 and 2006, 9 of the 22 fellowship positions at Emory and UAB have been filled with participants from this program. Several other attendees have been interviewed, but were not offered positions.

**Implementation Lessons**
- A group size of 30 to 35 residents allows for a more personal, cohesive environment, with more meaningful and participatory small- and large-group discussions and opportunities for relationship building.
- It is important to have both current and recent fellows attend, to interact with the residents and answer their questions.
- Include a variety of educational sessions (games, group lectures, didactic break-out sessions, and facility tours) so the focus isn't entirely on promotion of the fellowship program.
Break-out sessions and social events provide important opportunities for more intimate interactions with peers and mentors.

If possible, the event should be held in a location that requires minimal transportation between meeting venues. When the event is in Birmingham, the Saturday portion of the meeting is held in the University Hospital Conference Center, which is adjacent to the hotel where residents the stay and where the Friday evening program is held.

**Available Materials**

**Tools/Resources**
- 2007 Program Agenda
- 2007 Participant Evaluations
- 2006 Project Budget

**For More Information**

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Chief Resident Immersion Training in the Care of Older Adults
at Boston University School of Medicine

SUMMARY

Target Audience
Chief residents in surgical and medical specialties

Purpose
To increase chief residents’ knowledge and skills in the care of older adults and to better prepare medical students, interns, and residents in the management of hospitalized, complex older patients

Program
A two-and-a-half day retreat consisting of mini-lectures, small-group interactive case presentations, skills training, mentoring, and social events

History
The program began in 2005 with funding from the Donald W. Reynolds Foundation

Operating Costs
$57,000 for the retreat facility, meals; faculty and support staff time; program materials; follow-up with chief residents and residency program directors

Outcomes
Participants’ scores on a geriatrics knowledge test and self-reported knowledge and confidence in teaching geriatrics increased significantly

Available Materials
2007 Retreat Agenda

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Program Overview
The Chief Resident Immersion Training (CRIT) program was developed as part of Boston University Medical Center’s Comprehensive Geriatric Education project, funded by the Donald W. Reynolds Foundation Aging and Quality of Life Program. The CRIT program was established to:

• incorporate geriatrics principles into chief resident teaching and administrative roles, including: focused training on geriatrics syndromes; functional assessment of older patients, including decision-making capacity; preoperative and postoperative evaluation and management; and discharge planning

• develop the teaching and leadership skills of chief residents with a focus on the care of complex older patients

• enhance chief residents' ability to collaborate with other disciplines in the management of complex older patients

• develop an "achievable" project focused on a geriatrics clinical or educational issue that can be carried out during the chief residency year.

The program is targeted to chief residents because of the key roles they play in: the quality of patient care; medical student and resident training; mediating between faculty, nursing staff, and residents; and communicating with patients and families. Residency Program Directors or other faculty responsible for residency training also participate in the retreats.

The experience is intended to foster positive attitudes toward caring for older adults and to encourage collaboration and collegiality among a variety of disciplines in the management of complex older patients.
The program can increase the visibility and stature of the Geriatrics Program within the medical school, enhancing awareness of careers in geriatrics among medical students, interns and residents.

**Program Operations**

During the intensive two-and-a-half day retreat, participating chief residents (an average of 15 per year) receive focused training to increase their knowledge of geriatric principles and to enhance their leadership and teaching skills. The group attends interactive case presentations, small-group discussions, mini-lectures, and individual mentoring sessions to plan a geriatrics clinical or educational project that will be completed during the chief resident year.

Social events provide important networking opportunities among chief residents and faculty from various medical school departments that help to foster greater collaboration and a multidisciplinary team approach to the care of hospitalized elderly patients.

**Staffing Requirements**

A multidisciplinary team of five to six faculty develops and teaches the retreat curriculum and supporting materials, with each faculty dedicating 5-10% time over the year. One administrative staff person handles the retreat and other ongoing program logistics (10-15% time throughout the year). A second administrative staff person is needed one to two months prior to the retreat, with 100% time of both administrative staff in the two weeks immediately preceding the retreat and one week following it.

**Program Costs and Funding Sources**

Program costs are approximately $57,000 per year. Approximately half of this amount is for costs associated with the retreat, including production of all materials. The remaining costs cover faculty and administrative staff support time for program planning, implementation, evaluation, and ongoing contact with chief residents throughout the year following the immersion training. The program was developed under the Donald W. Reynolds Foundation Aging and Quality of Life Program. The John A. Hartford Foundation is currently funding a national dissemination project to develop the CRIT program at other medical schools around the country.

**Process and Outcomes Data**

Three cohorts totaling 47 trainees and 18 faculty mentors from 13 medical and surgical disciplines participated over three successive years (2005-2007). Evaluation included pre- and post-program tests and self-report surveys and an 11-month follow-up survey or interview. In 2006 and 2007, scores on a 12-item objective knowledge test increased significantly (p<.001) from prior to CRIT to immediately following it.

Self-reported knowledge and confidence in teaching geriatrics also increased significantly (p<.05) in all formally covered topics. Mean enhancement of chief resident skills was 4.3 (1=“not at all,” 5=“very much”). Eleven months following the first CRIT, 75% of chief residents had implemented at least part of their action projects. They reported improved care of older patients, better leadership skills, more and improved geriatrics teaching, and more collaboration among disciplines.

**Implementation Lessons**

- To encourage participation, retreats should be held at a resort-type off-site location that is within easy traveling distance of the medical school or hospital.
- Mixed learning methods (interactive cases, small-group discussions, mini-lectures, one-on-one mentoring) sustain learners’ attention.
• Having chief residents attend with a Residency Program Director or other faculty member reinforces the importance of the training and provides ongoing support for the completion of chief residents’ projects.

• Social events provide opportunities for continued discussion about topics presented during the educational sessions and encourage collegiality and collaboration between various disciplines and departments that continues after the conclusion of the weekend retreat.

**Available Materials**

**Tools/Resources**

• 2007 Retreat Agenda

**Publication**

• Chief Resident Immersion Training in the Care of Older Adults: An Innovative Interspecialty Education and Leadership Intervention
  Levine, SA, Chao, SH, Brett, B, Jackson, A.H, Burrows, A B, Goldman, LN, Caruso, LB.

*Note:* Schools interested in applying for a grant to replicate the CRIT program through the Hartford Foundation national dissemination project should go to: americangeriatrics.org/adgap/crit/default.asp. All institutions with full-time academic geriatrics program directors are eligible to apply.

**For More Information**

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One-Month Rotation in Acute-Care Geriatric Medicine for Senior Residents
at the David Geffen School of Medicine at the University of California, Los Angeles

SUMMARY

Target Audience
Internal Medicine Residents in their final year

Purpose
To teach basic geriatrics and clinical and interpersonal competencies, and to interest residents in careers in geriatrics

Program
A one-month rotation in acute inpatient geriatric care consisting of clinical teaching, lectures, and team meetings

History
The program has been part of resident training since 1997

Operating Costs
Two full-time geriatrics faculty in one-week rotations, funded by the UCLA Department of Internal Medicine and the Division of Geriatrics

Outcomes
Since the rotations began in 1997, 17 geriatrics fellows have been recruited from UCLA’s internal medicine residency programs and 3 fellows have been recruited from family practice programs

Available Materials
List of rotation lecture topics; CD containing all educational materials

For More Information
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Program Overview
The UCLA Division of Geriatrics provides training in Geriatric Medicine to three affiliated residency programs in internal medicine. Since 1997, this training has included a four-week acute-care inpatient rotation in geriatrics for senior residents in Internal Medicine and Family Practice. All patients admitted to this inpatient hospital service are ambulatory care or nursing home patients of the UCLA Geriatrics Practice physicians who staff the service.

The goals of the Geriatric Medicine residency rotation are to:
- demonstrate competence in the comprehensive care of hospitalized geriatric patients, concentrating on issues more specific to older adults
- recognize differences in disease presentation in the elderly population
- learn how to apply evidence-based, cost-conscious strategies to diagnosis and disease management in older patients
- understand functional status and how it relates to outpatient and inpatient geriatrics and discharge planning
- learn how to function as a member of an interdisciplinary team caring for geriatric patients in both inpatient and skilled nursing facility settings
- participate in family meetings and be an effective communicator
- understand utilization of resources and appropriate levels of care in geriatric patients
• learn how to address end-of-life issues with patients and family members
• understand the multiple factors involved in effective and successful discharge planning in geriatric patients
• gain experience in working in a community hospital environment and a skilled nursing facility
• learn how to manage medical problems over the phone
• recruit primary care residents to advanced geriatrics training and careers in Geriatric Medicine.

Training is conducted at the UCLA-Santa Monica Medical Center and Orthopedic Hospital.

**Program Operations**

In addition to the clinical teaching that occurs during inpatient rounds led by the geriatrics attending physicians, residents attend a 30-minute lecture/discussion five days per week on 20 clinical topics in geriatrics such as: orientation to the geriatrics service, functional assessment, delirium, rehabilitation services, malnutrition, and pain management. The rotating attending geriatrician usually leads the lectures.

One of the most notable learning activities is the residents’ participation in the daily 30-minute geriatrics interdisciplinary team meetings. The team consists of the primary nurses; staff from physical therapy, occupational therapy, and speech therapy; a dietitian; a social worker; a discharge planner; and physicians. The medical residents lead the meetings, which provide unique opportunities for them to improve communication, clarify patient outcomes, and improve quality of patient care. The team reviews individual patient progress and does discharge planning. Moreover, there is continuous sharing of information and learning for all members of the team.

At the completion of the rotation, the residents are expected to:

• demonstrate baseline competency and improvement in medical interviewing and physical diagnosis
• formulate a differential diagnosis and plan for evaluating and managing patients admitted to his/her service
• recognize common geriatric syndromes and be able to manage them
• efficiently and effectively chart daily progress notes in the medical record
• effectively cross cover patients when other team members are not available
• demonstrate an understanding of appropriate utilization of consult services and diagnostic testing
• function effectively as a member of a multidisciplinary team to ensure proper care and welfare of patients
• participate in family meetings and communicate effectively to patients and their families
• determine appropriate level of care upon discharge

Rotating geriatric physicians receive standardized lecture materials, which include power point slides, handouts, and sample board review questions. Guest lecturers are provided with guidelines for their lecture content, with annual review and suggestions for improvement.

**Staffing Requirements**

Two full-time UCLA geriatrics faculty staff the rotations in one-week rotations. Outpatient clinic preceptors are provided largely by one or two of the geriatrics faculty in the geriatrics ambulatory care clinics.

**Program Costs and Funding Sources**

UCLA received a 1994 John A. Hartford Foundation grant to increase geriatrics content in primary care residency training. This funding provided leadership support and development for the curriculum and evaluation process. Today these ongoing and
recurring costs are funded largely by the UCLA Department of Internal Medicine and the Division of Geriatrics. In addition, faculty contribute their time and effort to update and maintain educational activities, evaluation methods, and teaching skills.

Process and Outcomes Data
One of the most powerful outcomes of the program has been the opportunity to recruit geriatrics fellows from the primary care residents rotating on the inpatient geriatrics service. Since the rotations began in 1997, 17 fellows have been recruited from UCLA’s internal medicine residency programs and three fellows have been recruited from family practice residency programs. Some residents have also participated in research experiences with UCLA geriatrics faculty.

The Internal Medicine House Staff program conducts retreats and feedback sessions with the residents. These sessions are often attended and evaluated by members of the geriatrics faculty. Information from resident feedback is brought to the Geriatrics Division Executive Committee, where plans for improvement and updates in the program are discussed and implemented.

This activity is uniformly valued among the residents and they consistently report a high satisfaction with this activity on their evaluations.

Implementation Lessons
- The acute inpatient resident education program has been the most successful recruitment tool for new geriatrics fellows.
- A successful inpatient rotation for senior residents in internal medicine requires a balance of steady patient care responsibilities, learning opportunities, and inspiring role models.
- Advanced trainees require careful attention for “the teachable moment” and a close working relationship with an experienced role model who can add value to their practice experience.
- The organization and function of the entire interdisciplinary team is important. Residents are most impressed by the team’s daily meetings, which result in timely and effective discharge placements as well as appropriate implementation of community-based resources.

Available Materials
Tools/Resources
- A list of topics covered in the 20 lectures given during the 4-week rotation
- A CD containing UCLA Geriatrics Division educational materials

For the materials CD, contact:
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First-Year Internal Medicine Resident Training in Transitions of Care from Hospital to Home

at the University of Rochester School of Medicine and Dentistry

SUMMARY

Target Audience
First-year Internal Medicine residents

Purpose
To change the way trainees care for older adults and potentially to attract primary care residents to careers in geriatrics

Program
During their first year, residents make videotaped hospital and home visits to assess older adults transitioning from hospital care to home. Residents then present video sessions to medical trainees at noon conference in second week.

History
The program was introduced in 2001

Operating Costs
Staff time; equipment

Outcomes
Participants report that the experience will change the way they practice geriatric care; several have gone on to geriatrics fellowships

Available Materials
Published article describing program

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Program Overview

The goal of the Hospital to Home Program, which was introduced in 2001, is to expose first-year Internal Medicine residents to the care of older adults who are transitioning from hospital to home. This exposure to the principles of geriatric care and to geriatrician role models aims to change the way trainees care for older adults, and offers the potential to attract primary care residents to careers in geriatrics. The program's educational and recruitment objectives are enhanced by having participating residents present their experiences to other medical trainees in interactive noon conferences.

Program Operations

All first-year Internal Medicine residents comprehensively assess an older patient in the hospital immediately prior to discharge with an emphasis on functional status, medications, and discharge planning. Within a week, the same resident visits the older person in their home to assess the success of the discharge plan. Segments of the hospital and home visits are videotaped by an accompanying biopsychosocial fellow.

Every intern (about 22 per year) completes the Hospital to Home Program and presents at a noon conference in their second week of the rotation. Each resident gives a presentation during this regularly scheduled, interactive resident conference, to educate their peers on careful discharge planning and geriatrics issues based on their experience.

This is a key conference where attendees get to see the "value added" aspect of geriatrics, with at least one and often two geriatricians present to
visually share and emphasize important geriatrics competencies. Noon conference attendees range from third-year medical students through geriatrics fellows, and include Internal Medicine, Family Medicine, and Medicine/Pediatric residents.

**Staffing Requirements**

It is essential to have one person responsible for identifying patients in the hospital, obtaining consent, scheduling hospital and home visits with residents, and helping residents prepare for the noon conference. While this person has been a postdoctoral fellow in psychology, an administrative assistant could fulfill many of these functions.

The geriatrician attends the noon conference one hour every other week. Videotaping and coordinating the hospital and home visits is done by a post-doc psychology fellow (biopsychosocial fellow) who is funded by the Department of Medicine. No time is spent by the residency program director on this.

**Program Costs and Funding Sources**

The following staff time, resources, and materials are needed:

- **Biopsychosocial Fellow (PsyD):** Requires 6-8 hours per week at a cost of approximately $15,000 per year; originally funded by a Donald W. Reynolds Foundation Aging and Quality of Life project grant and now funded by the Internal Medicine Department
- **Original Equipment:** Approximately $11,000; funded by the Reynolds grant
- **Ongoing Equipment:** Under $5,000 over a 3-5 year period; originally funded by the Reynolds grant and now by the Internal Medicine Department
- **Equipment:** Macintosh computer with video-editing and DVD-burning capability (preferably one with a large screen, large hard drive, fast video card, and extra memory); digital video camera with USB or FireWire port; directional audio microphone, camera bag, tripod, spare camera battery and spare battery charger
- **Software (included with Mac):** iMovie, iDVD (required); it’s also helpful to have Microsoft PowerPoint or Apple Keynotes, which costs approximately $100
- **Supplies:** Approximately $300 per year for mini DV tapes, DVD+R discs

The program is sponsored by the American Geriatrics Society (AGS) and the Boston University School of Medicine. Funding is through the National Institute on Aging (NIA) R13 mechanism.

**Process and Outcomes Data**

All first-year Internal Medicine residents (approximately 24 per year) participate in the hospital and home visit program with older patients. Since its introduction in 2001, all of the 132 first-year Internal Medicine residents have completed videotaped hospital and home visits and presented at a noon Home to Hospital conference, in addition to attending an additional 5-10 conferences. Several of the residents featured in the videos have gone on to geriatrics fellowships.

Since 2001, over 350 learners (third-year medical students, Internal Medicine and Family Medicine residents) have participated in noon conference presentations in which the hospital/home visit video footage is presented. Approximately 12-20 learners participate in the noon conference about 24 times per year. Two psychology teaching fellows have been involved in the project to date.

Evaluation is now aggregated with resident evaluations of their teaching conferences at Highland Hospital. There is no specific ongoing evaluation at this time. Feedback obtained from the residents by direct interview at the end of the rotation has been consistently positive. Most residents report that the Home to Hospital Program experience will change the way they care for older adults.
**Implementation Lessons**

- Integrating any new experiences into an existing residency rotation can be challenging from a scheduling perspective. Having the strong support of the educational leadership has eased some of the challenges of coordinating patients' and participants' time around other first-year resident activities. Scheduling flexibility demonstrated by leadership, residents, and teaching fellows to facilitate home visits has been invaluable. After the initial scheduling challenges were managed, the shared faculty time from the Department of Medicine has been sustainable.

- After the initial start-up costs, including digital video recording, editing, and presentation equipment, the program requires minimal financial support. Digital equipment has many benefits over other forms of audiovisual recording and editing, including ease of use, smooth presentation, and better archival quality and durability for ongoing teaching purposes. Some programs may already have access to such equipment and technical support through their training programs.

- The video creates a shared learning experience for the residents at the noon conference who usually do not know the patient. The intern presents the video of the patient in the hospital. Everyone discusses the potential problems the patient may face upon discharge, and the residents predict how the patient will fare at home. The home video is then presented to show how the patient actually functioned at home and there is discussion. It has been found that “showing” instead of “telling” is a powerful tool.

**Available Materials**

**Publication**

- Hospital to Home: Improving Internal Medicine Residents' Understanding of the Needs of Older Persons after a Hospital Stay
  *Academic Medicine*
  2003;78(8):793-7

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Using Resident Applications to Identify and Engage Geriatrics Trainees at the University of Texas Health Science Center at San Antonio

**SUMMARY**

**Target Audience**
Incoming Internal Medicine and Family and Community Medicine residents who are undecided about an area of specialization

**Purpose**
To attract residents into geriatrics fellowships

**Program**
Outreach and mentoring opportunities through clinical rotations, didactic, and social experiences during residencies

**History**
This recruitment approach began in 1998

**Operating Costs**
Faculty time; social events

**Outcomes**
This program has reached approximately 400 residents. Geriatrics fellows recruited through this approach have gone on to faculty positions at UTHSCSA and other institutions

**Available Materials**
List of recruitment events; CoE website

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**Program Overview**

The goal of this approach is to attract residents into geriatrics fellowship training slots at the University of Texas Health Science Center at San Antonio through mentoring by a geriatrician. Research indicates that forming a personal relationship with a role model or mentor in a given field is an effective recruitment strategy.

Second-year Internal Medicine and Family and Community Medicine residents who are undecided about an area of specialization or who have already expressed an interest in geriatrics fellowships are invited to participate in the program, which began in 1998 under the San Antonio Hartford Foundation Center of Excellence in Geriatric Medicine and Training.

**Program Operations**

Geriatrics faculty review all the annual applications, scores, and personal statements of trainees entering Family and Community Medicine (FCM) and Internal Medicine (IM) residencies. This includes 25 second-year IM residents and 12 second-year FCM residents (out of a total of 36 FCM residents who enter the program annually). They are triaged into three categories:

- residents who are unlikely to pursue geriatrics because they have already indicated another subspeciality interest
- residents who are undecided about a specialty
- residents who have already expressed an interest in geriatrics or an interest in an academic career in any field.
Family and Community Medicine
During the first year, geriatrics faculty establish informal relationships with the targeted residents. They begin their three-year continuity training at long-term care facilities with an orientation during the month of training. About eight times a year, at an assigned long-term care facility, residents spend a half day with a geriatrician.

Residents are invited to various didactic activities and social events during their second year, such as a welcoming dinner, where they meet fellows, former fellows, and other residents interested in geriatrics. This exposes them to the geriatrics community at San Antonio and enables them to get to know geriatricians better. Geriatricians are “pitched” as a select group of individuals pursuing a unique and challenging discipline.

Residents are also invited to attend the “Geriatrics is Your Future” resident recruitment weekend at Baylor College of Medicine and to lunch with a geriatrician who has completed a fellowship. Former geriatrics fellows are the most credible and effective recruiters. During this year, residents are approached about applying for the fellowship and told what it involves.

Third-year residents complete a two-month rotation in geriatrics. One month is spent at an inpatient facility, and one month at a nursing home. During the third year, the application process is facilitated for those residents who have chosen a geriatric fellowship.

Internal Medicine
The Extended Care Treatment Center at the VA hospital is one of the sites where second-year IM residents can be assigned for continuity training, and where they then receive mentoring. Assignment is based on an expressed interest in geriatrics. In addition, all second-year residents have a required rotation in geriatrics. These two clinical rotations give geriatricians a chance to serve as mentors and to form relationships with potential fellowship candidates.

Staffing Requirements
There are no additional staffing requirements. Faculty and current and former fellows are asked to attend several social evenings each year to get to know the residents.

Program Costs and Funding Sources
There are modest costs for social events, covered by the Hartford Foundation Centers of Excellence budget.

Process and Outcomes Data
Since the start of the program nine years ago, 24 residents have been recruited: six former fellows are in academic slots at San Antonio; one is in an academic position at UAB; and two are associate faculty at the UT extension campus on the Texas-Mexico border.

During this time, the number and qualifications of fellowship program applicants has improved steadily.

Implementation Lessons
- Recruitment efforts should not be targeted at interns. Interns indicated that attempts to get them to commit to geriatrics during this overwhelming first year added too much pressure and thus were counterproductive.
- Recruitment messages have to be personalized and should be tailored to each individual as much as possible. Messages must address concerns that prevent trainees from pursuing geriatrics, such as how to fund research training and how to pay off student loans. Having current or recent fellows address solutions to these issues is most effective.
- It is important to emphasize the breadth and variety of possible career paths in geriatrics and to communicate information about salaries and career satisfaction in the field.
Available Materials

Tools/Resources
- List of recruitment events

Website
- UTHSCSA CoE website:
  geriatrics.uthscsa.edu

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Four-Week Elective in Geriatrics for Internal Medicine Residents
at the Yale School of Medicine

SUMMARY

Target Audience
All Internal Medicine residents who have completed the required four-week inpatient geriatrics rotation

Purpose
Exposure to geriatrics and geropsychiatry in subacute, long-term, assisted-living, and home care settings

Program
Two- or four-week elective rotation with optional conferences and meetings

History
Yale was one of the first medical schools to mandate a required rotation in geriatrics for all of its Internal Medicine residents, over twenty years ago

Operating Costs
Occasional meetings and conferences; education coordinator and program assistant time, covered by the geriatrics division’s endowment fund

Outcomes
Approximately three residents per year participate, and over 15 years several participants have gone into geriatrics

Available Materials
Rotation schedule; list of rotation events

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Program Overview

All Internal Medicine (IM) residents at Yale School of Medicine complete a four-week rotation in an inpatient geriatric setting. Approximately one half are assigned to the Veteran’s Administration Medical Center and the other half to the Acute Care of the Elderly (ACE) Unit at Yale New Haven Hospital. During this required inpatient rotation, the residents are exposed to diagnostic and management issues involved in the care of hospitalized older patients.

The goal of the elective rotation in geriatrics, which complements the required inpatient rotation, is to expose IM residents to geriatrics and geropsychiatry in a variety of nonhospital care settings, including subacute, assisted living, nursing home, outpatient clinic, and home.

This program is designed to help residents:

- understand care delivery in a variety of settings including both the services available and the role of the physician
- appreciate the different ways that the goals of care can be met in these settings, and the unique opportunity that they afford to avoid hospitalization
- understand the role of geriatric syndromes in the quality-of-life of individuals in these settings, and gain skill in diagnosing and managing the patient’s illnesses, given their multifactorial nature
- have opportunities to further their skills in end-of-life and palliative care through interactions with the hospice, palliative care, and geropsychiatry teams
- appreciate the need for appropriate information transfer in transitions in care.

A 2005 geriatrics education needs assessment conducted with Yale medical students and Internal Medicine residents revealed that trainees
experienced frustration with the traditional medical model of care (disease-focused, cure-oriented) in caring for older patients because of the multifactorial nature of many illness states, barriers to communication, and differences in goals for outcome in older adults. This residency rotation is designed to help the learner move from a disease-management model to a geriatric holistic model of care. Improving trainees' geriatrics knowledge and skills can help change their attitudes toward, and skills in, caring for older people, and may help to encourage more trainees to pursue careers in geriatrics.

Program Operations
The rotation is tailored to the differing levels of the residents' prior experiences and interests. Residents can choose either a two-week or four-week elective. Please see Available Materials for an example of a four-week schedule.

The two-week elective is an introduction to sites of care. Residents spend at least two full days on home care, and four full days in the nursing home setting, doing both admission evaluations and care plans for patients admitted for subacute medical care, and monthly reviews of longer-term residents. The residents spend two half days in the geriatric assessment and management consultation center learning geriatric assessment and interdisciplinary team skills. The other two days are tailored to the residents' interests. Examples of activities chosen include a geriatric musculoskeletal clinic with a geriatric rheumatologist, a wound care specialty consultation, and an electroconvulsive therapy session with a geropsychiatrist.

In the four-week elective, the resident gradually takes on more responsibility. In the Extended Care (long-term) setting they see assigned patients once a week over the four weeks, including new, complex patients in subacute facilities and hospices. A preceptor initially accompanies residents to see patients in their homes and in assisted-living settings, but residents may make follow-up visits on their own. They spend one full day with the Agency on Aging and a half-day at an adult day care center.

The residents are encouraged to participate in the didactic activities of the geriatrics division, including geriatrics journal club, research in progress, and geriatrics grand rounds. (See Available Materials.)

Staffing Requirements
The education coordinator and an administrative assistant organize the program; the education coordinator is the main preceptor at the clinical sites. There is additional time required of the other geriatrics faculty who incorporate resident supervision and education into their clinical activities.

Program Costs and Funding Sources
There are minimal costs for occasional meetings and conferences. The time of the education coordinator and of the program assistant is covered by the geriatrics division's endowment fund.

Process and Outcomes Data
Residents complete online evaluations. Data are still being collected for the two years of online evaluations.

Implementation Lessons
- The residents must have direct patient responsibilities and be held responsible for attendance.
- The residents should have at least one half day off (and sometimes two) to help them remain invested during their days at the facility.
- Avoid having residents visit two different sites in one day unless it is absolutely necessary, as residents find the travel time and switching gears very disruptive. Full-day blocks are better.
- Observation days should be limited to one day out of five.
Available Materials

Tools/Resources

- Rotation Schedule
- Schedule of Rotation Didactics, Grand Rounds, Journal Clubs, Seminars, and Workshops

Publications

- Perceived Needs for Geriatric Education by Medical Students, Internal Medicine Residents, and Faculty
  Drickamer, MA, Levy, B, Irwin, K, Rohrbaugh, R
  *Journal of General Internal Medicine*
  2006;21(12):1230-4

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To view appendices for each program, please see these links:

**Introduction to Geriatrics Recruitment: Opportunities and Challenges**
www.geriatricsrecruitment.org/ManualOne/Introduction

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**CoE-Affiliated Programs Targeted to Middle School, High School and Undergraduate Students**

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<tr>
<td>The Pennsylvania Governor’s School for Health Care Geriatrics Concentration for High School Students at the University of Pittsburgh School of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/HSGeriConcentration">www.geriatricsrecruitment.org/ManualOne/HSGeriConcentration</a></td>
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<tr>
<td>Year-Long Freshman Course on Frontiers in Human Aging: Biomedical, Social, and Policy Perspectives at the University of California, Los Angeles</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/FreshmanAgingCourse">www.geriatricsrecruitment.org/ManualOne/FreshmanAgingCourse</a></td>
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<td>Positively Aging® Curriculum for Middle School Students and High School Students at the University of Texas Health Science Center at San Antonio</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/Mid-HSPositivelyAging">www.geriatricsrecruitment.org/ManualOne/Mid-HSPositivelyAging</a></td>
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**CoE Recruitment Approaches Targeted to Medical Students**

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<tr>
<td>Integrated Four-Year Elective Geriatrics Track for Medical Students at Baylor College of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/4YearMSElectiveTrack">www.geriatricsrecruitment.org/ManualOne/4YearMSElectiveTrack</a></td>
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<td>Medical Student Summer Institute in Geriatric Medicine at Boston University Medical Center</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/MSSummerInstitute">www.geriatricsrecruitment.org/ManualOne/MSSummerInstitute</a></td>
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<tr>
<td>Increasing Aging-Related Content in the Mandatory Medical Student Curriculum at the Warren Alpert Medical School of Brown University</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/MandatoryAgingCurric">www.geriatricsrecruitment.org/ManualOne/MandatoryAgingCurric</a></td>
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<tr>
<td>Medical Student Four-Year Scholarly Concentration in Aging at the Warren Alpert Medical School of Brown University</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/MS4yrconcentration">www.geriatricsrecruitment.org/ManualOne/MS4yrconcentration</a></td>
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<tr>
<td>Introduction to Geriatrics for First-Year Medical Students at Emory University School of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/1YIntroToGeriatrics">www.geriatricsrecruitment.org/ManualOne/1YIntroToGeriatrics</a></td>
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<tr>
<td>Incorporating Geriatrics into the History and Physical Exam for Second-Year Medical Students at Harvard Medical School</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/2YHPExam">www.geriatricsrecruitment.org/ManualOne/2YHPExam</a></td>
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<tr>
<td>One-Month Chronic Disease Disability: Improving Quality of Life Rotation for Medical Students at the Johns Hopkins University School of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/MS-ResChronicCareRotation">www.geriatricsrecruitment.org/ManualOne/MS-ResChronicCareRotation</a></td>
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<td>Seniors as Mentors Program at Mount Sinai School of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/SeniorsAsMentors">www.geriatricsrecruitment.org/ManualOne/SeniorsAsMentors</a></td>
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<td>Integrated Medical Student Curriculum in Geriatrics at the University of California, Los Angeles</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/IntegratedMSCurric">www.geriatricsrecruitment.org/ManualOne/IntegratedMSCurric</a></td>
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<td>Mandatory Rotation in Geriatric and Palliative Medicine for Fourth-Year Medical Students at the John A. Burns School of Medicine at the University of Hawaii</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/GeriPalliRotation">www.geriatricsrecruitment.org/ManualOne/GeriPalliRotation</a></td>
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<td>Area of Concentration and Geriatrics Certificate Program for Medical Students at the University of Pittsburgh School of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/MSGeriMedConcentration">www.geriatricsrecruitment.org/ManualOne/MSGeriMedConcentration</a></td>
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<td>Year-End Professional Skills Assessment Geriatrics Case at the University of Wisconsin-Madison School of Medicine and Public Health</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/YEPSA">www.geriatricsrecruitment.org/ManualOne/YEPSA</a></td>
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<tr>
<td>Aging Organ Systems Curriculum for Second-Year Medical Students at Wake Forest University School of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/2YAgingOrgans">www.geriatricsrecruitment.org/ManualOne/2YAgingOrgans</a></td>
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<td>Ambulatory Geriatric Care Rotation for Third-Year Medical Students and Internal Medicine Interns at the Wake Forest University School of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/3Y-InternGeriCareRotation">www.geriatricsrecruitment.org/ManualOne/3Y-InternGeriCareRotation</a></td>
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</tbody>
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**CoE Recruitment Approaches Targeted to Interns and Residents**

<table>
<thead>
<tr>
<th>Program</th>
<th>Link</th>
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<tbody>
<tr>
<td>Geriatrics Is Your Future: A Regional Resident Recruitment Program at Baylor College of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/GIYFResidentRecruit">www.geriatricsrecruitment.org/ManualOne/GIYFResidentRecruit</a></td>
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<td>Annual Resident Award Summit at the Southeast Center of Excellence in Geriatric Medicine (Emory University and the University of Alabama at Birmingham Schools of Medicine)</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/ResidentAwardSummit">www.geriatricsrecruitment.org/ManualOne/ResidentAwardSummit</a></td>
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<td>Chief Resident Immersion Training in the Care of Older Adults at Boston University School of Medicine</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/ChiefResidentImmersion">www.geriatricsrecruitment.org/ManualOne/ChiefResidentImmersion</a></td>
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<td>One-Month Rotation in Acute-Care Geriatric Medicine for Senior Residents at the David Geffen School of Medicine at the University of California, Los Angeles</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/SrResAcuteCareRotation">www.geriatricsrecruitment.org/ManualOne/SrResAcuteCareRotation</a></td>
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<tr>
<td>First-Year Internal Medicine Resident Training in Transitions of Care from Hospital to Home at the University of Rochester School of Medicine and Dentistry</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/IMResHospToHome">www.geriatricsrecruitment.org/ManualOne/IMResHospToHome</a></td>
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<tr>
<td>Using Resident Applications to Identify and Engage Geriatrics Trainees at the University of Texas Health Science Center at San Antonio</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/RecruitResToGeriFellow">www.geriatricsrecruitment.org/ManualOne/RecruitResToGeriFellow</a></td>
</tr>
<tr>
<td>Four-Week Elective in Geriatrics for Internal Medicine Residents at Yale University</td>
<td><a href="http://www.geriatricsrecruitment.org/ManualOne/4WRotationinGeri">www.geriatricsrecruitment.org/ManualOne/4WRotationinGeri</a></td>
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