

DEPARTMENT OF FAMILY MEDICINE
10th Year ANNIVERSARY CELEBRATION

Boston University School of Medicine
Boston Medical Center

December 8, 2007



Table of Contents

Department of Family Medicine: 10 Years later	1
Our Valued Partners	2
Ambulatory Services	3
East Boston Neighborhood Health Center	4
Codman Square Health Center	5
Our Practice in Yawkey	6
Boston HealthNet Rounder Inpatient Service	7
Family Medicine Residency Program	8
Medical Student Education	10
Departmental Grant Funding	11
Maternal and Child Health	12
Global Health Primary Care Initiative	13
eLearning: Health Technology	14
Re-Engineered Discharge (RED)	15
Primary Care Sports Medicine	16
The Boston Healing Landscape Project	17
Integrative Medicine	18
Geriatrics	19
Student Health Services	20

Boston University / Boston Medical Center Department of Family Medicine: 10 Years Later

Thank you for joining us for the 10th Anniversary of the Department of Family Medicine at Boston University and Boston Medical Center. It has been a whirlwind 10 years – a time when many dedicated faculty, residents, fellows and staff have joined the department; and a time in which we have been introduced to the family of Boston Medical Center and Boston University.

When we first arrived, BMC itself was a new concept -- with the excitement and breathtaking opportunities of a new organization. Throughout the years, we have grown with BMC staying true to our mission –

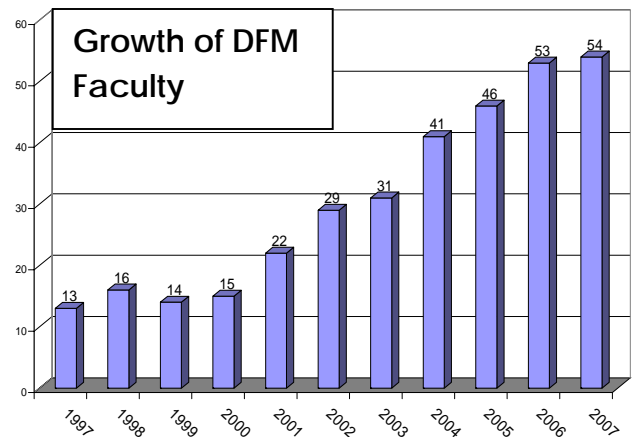
The Boston University Department of Family Medicine will provide leadership to the development of family medicine and primary care regionally, nationally and internationally, through its research, education and clinical activities.

Over the 10 years we have worked closely with Boston Medical Center leadership and our community health center partners to be responsive to the increasing primary care needs of the greater Boston region, and especially its underserved communities. We have experienced tremendous growth, some of which is documented in these pages.

- We now have over 54 faculty
- Our ambulatory sites now see over 85,000 visits each year
- Our inpatient volume now exceeds 10,000 patients each year with a length of stay well under the BMC average

In addition, the scope of services we provide has increased, reflecting the strengths of family medicine. These now include:

- Primary care at 6 practice sites
- Inpatient care including perioperative and consultation services
- Prenatal and delivery care, including C sections
- Integrated newborn and postpartum care of the mother
- Student Health
- Sports Medicine
- Occupational Medicine
- Nursing home and home bound care including of those with disabilities
- Complementary & alternative medicine



We are very appreciative of the hard work of the faculty and staff reflected by activities described on these pages. I would like to thank all the many people who have assisted the department over these last 10 years – many of these partners are listed on the next page.

On our 10th Anniversary we say “thank you” to our valued partners.....

Boston Medical Center

Boston University

Boston HealthNet

Boston Medical Center HealthNet Plan

BMC Faculty Practice Foundation

South Boston Community Health Center

Codman Square Health Center

East Boston Neighborhood Health Center

Dorchester House Multi-Service Center

Geiger Gibson Community Health Center

Harvard Street Neighborhood Health Center

Mattapan Community Health Center

Roxbury Comprehensive Health Center

South End Community Health Center

Uphams Corner Community Health Center

Whittier Street Neighborhood Health Center

Manet Community Health Center

B.U. Medical Center Anesthesiologists, Inc

B.U. Cardiac & Thoracic Surgical Foundation

Boston University Dermatology, Inc

Boston Emergency Physician Foundation, Inc

Evans Medical Foundation, Inc

Department of Medicine

Boston University Geriatrics Group

Boston University Neurology Associates, Inc.

Boston University Neurosurgical Associates, Inc

Boston University Obstetrics and Gynecology Foundation, Inc

B.U. Orthopaedic Surgical Associates, Inc

BUMC Otolaryngologic Foundation, Inc

Child Health Foundation of Boston, Inc

Boston University Psychiatry Associates, Inc

Boston Rehabilitation Medicine Associates, Inc

Boston University General Surgical Associates, Inc

Boston University Medical Center Urologists, Inc

Boston University Eye Associates, Inc

Boston University Plastic Surgery Associates, Inc

Quincy Medical Center

Boston University Student Health Services

Boston University Athletic Department

Boston College Athletic Department

Pine Manor College Athletic Department

M.I.T. Medical Department

M.I.T. Athletic Department

Vinfen Corporation

Harbor Lights Nursing Home

Hancock Manor Nursing Home

Parkwell Nursing and Rehabilitation Center

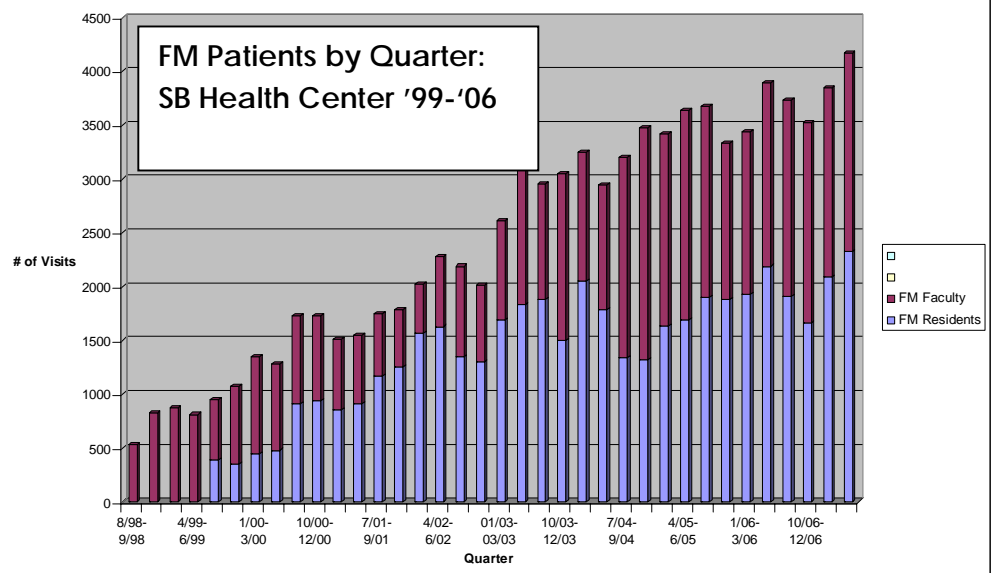
Hart Associates

Ambulatory Services: Caring for the People of Boston

A major focus of the Department of Family Medicine at Boston University has been to provide primary care in the community. The Boston HealthNet community health centers (CHCs) have provided a strong framework upon which to build. We have gradually developed practices in many of the CHCs and provided support for family physicians in all the HealthNet CHCs. There are now family physicians at every HealthNet CHC -- highlighted are some major sites.

South Boston Community Health Center (SBCHC): The South Boston Community Health Center has been serving the community since 1972 with a commitment that "all who seek care are welcome here." Since August 1, 1998 when Dr. Thomas Hines saw his first patient there, the Department of Family Medicine (DFM) has valued its partnership with SBCHC. The SBCHC family medicine unit is a core teaching site for the Boston University DFM Residency Program and a teaching site for BU medical students. The Health Center provides over 60,000 visits per year and serves nearly half of South Boston's population.

To help meet the growing need for primary care in the community, the FM unit has continued to add physicians since its inception. Shortly after Dr. Hines saw the first patient, Dr. Laura Goldman joined him as the co-founder of our SBCHC practice. In July '99, the first six Family



Medicine residents arrived. Since then, our SBCHC group has grown to seven FM faculty members and twelve FM residents. Over the years, the Department of Family Medicine has become an integral component of primary care in South Boston, now providing nearly 40% of the total primary care visits at the SBCHC.

In addition to its clinical services, education is a primary focus of the unit. Thirty-eight physicians have completed or are in the process of completing their FM residency training at SBCHC. Training in an inner-city, urban community health center, residents learn not only how to provide high-quality medical care, but to do so in a compassionate manner that is understanding of challenging social circumstances.

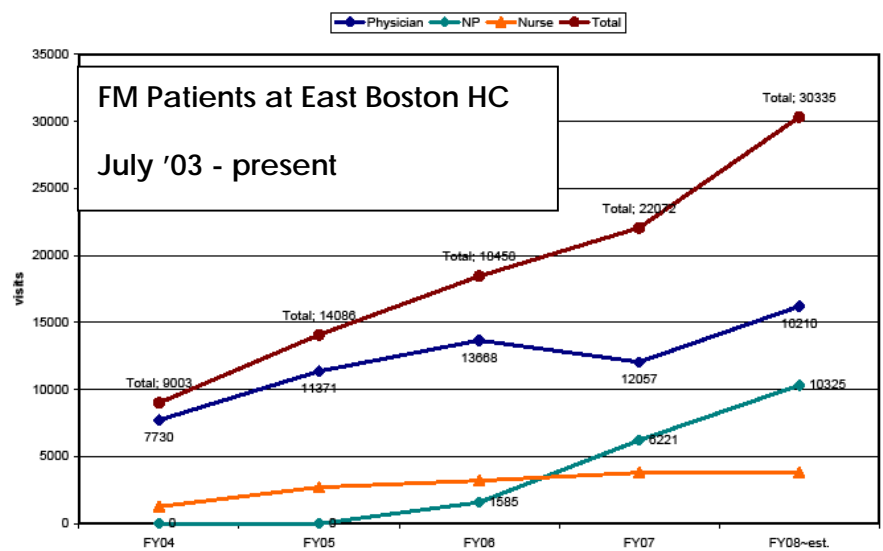
More than half of the residency graduates from the SBCHC training program have gone on to work in a community health center or similar practice sites.

East Boston Neighborhood Health Center and Family Medicine:

Founded in the early 1970s, East Boston Neighborhood Health Center (EBNHC) is one of the largest community health centers in the country with 45,000 primary care patients, many of them new to the United States, and a total of ~320,000 visits each year. East Boston's unique geography – an island -- accounts for a very high community enrollment at EBNHC. In the last 15 years, immigrant populations are from Central and South America. In late 2002, founder and Chief Medical Officer Dr. James Taylor approached the department about starting a Family medicine unit at EBNHC to help with the critical shortage of primary care providers at the center. Together the DFM and EBNHC opened this unit to patients on July 21, 2003 with one physician, one clerical assistant, and a part time nurse. Over the last 4 years our group has continued to grow steadily and now includes 12 physicians and 4 NPs, almost all of whom speak Spanish. Some highlights are:

- Computing: From the first day we have served as the computing laboratory for the center and have been the pilot practice for total charting, computerized order entry, and electronic billing.

- Prenatal care: With our arrival at EB we have offered a Family Medicine approach to maternal child health services and the number of families served has grown steadily.



- In 2006 our group was a vital part of establishing BMC as the preferred delivery site for all EBNHC prenatal patients.
- Team Model: In December 2005 we employed our first nurse practitioner and over the next year added 3 more – all full time. We now have a team model in which NPs serve as clinical anchors for patients with each working with 1-3 physicians.
- Inpatient: In January 2004, anchored by the EB group, family physicians began to serve as the attendings for EBNHC adults on the medicine service at BMC.
- Education: Our practice is a vibrant learning space currently hosting medical students, and NP, MA and translator trainees.
- Work, Life, & Babies: While doing this our EBNHC family physicians have welcomed 10 new babies of their own!

Codman Square Health Center

Since the Codman Square Health Center opened in 1979 in the basement of the former Codman Square library, it has been vital to the rebuilding of the Codman Square community and a model of community health that has inspired other communities around the globe. Its initiatives address the social, emotional, and educational needs of adults and youths while celebrating the cultural and ethnic diversity of the community. Family physicians have been the core of the Codman Square Health Center medical staff for over 20 years, and provide leadership in medical services, strategic initiatives and educational activities that go far beyond the surrounding neighborhood.



As the Department of Family Medicine planned its residency program, the Codman Square physicians, its vision of the role medical services in the community, and the active engagement of its family physicians in all aspects of the residency was key to its success. Its initial faculty group of 4 family physicians has expanded to 10, who are joined by 6 residents and 2 physician assistants.

Of the 12 residency graduates who have completed their training while practicing at Codman Square Health Center, 3 have stayed on the faculty at the Center, and 5 others have taken positions with other Boston HealthNet CHCs and CHCs in other areas of the country.

Codman Square Health Center and the Dorchester House Multi-Service Center ("Dot House") have formed Dotwell, a collaboration through which they share many common services and quality innovations in response to community need. Much of the professional leadership is provided by CHC family physicians on our faculty. We are delighted to have started our newest Department-CHC collaboration with "Dot House" this past summer with the recruitment of three faculty. They are building a new family practice at the Center, and also will be initiating services at a Nursing Home in the community.

"To be able to truly make an impact on the conditions that affect the health of our low income communities, a health center needs to engage individuals, families and community, and understand how each relates to the others. Family Medicine's philosophy matches perfectly with that concept"

Our Practice in Yawkey

The Family Medicine Center in the Yawkey Ambulatory Care Building of Boston Medical Center opened its doors in October 1997, as the first clinical practice of the new Boston University Department of Family Medicine. It began and remains staffed by the faculty and fellows of the Family Medicine Department.

The patient population reflects that seen at BMC and includes large numbers of new immigrants from Africa, Latin America, Asia, the Middle East, and Europe. The patients carry a high burden of illness that includes diseases not often seen in most US medical centers. Cultural practices and beliefs play a major role in the health and illness of our patients. The practice benefits from BMC's large and well-trained Interpreter Service and also from its own ethnically diverse staff. Several of the providers participate in the Center for Refugee Health and Human Rights working with refugees who have been the victims of political violence and torture.



The YACC practice embraces innovation:

- In 1999, it became the pilot for a BMC electronic medical record.
- We were the first group at BMC to open evenings and Saturdays.
- In 2001 we were the first to initiate "Open Access."
- Sports Medicine and Complimentary and Alternative Medicine trained family physicians are an integral part of the practice.
 - Acupuncture is available once weekly and is provided by an instructor of acupuncture.
 - Yoga classes are free for practice patients who are interested in participating.
- For many years, nurse case managers have improved the care of pre-natal, asthmatic, and diabetic patients and patients with opioid addiction who are being treated with bupinorphine.
- A social worker performs psychotherapy with patients in the practice.

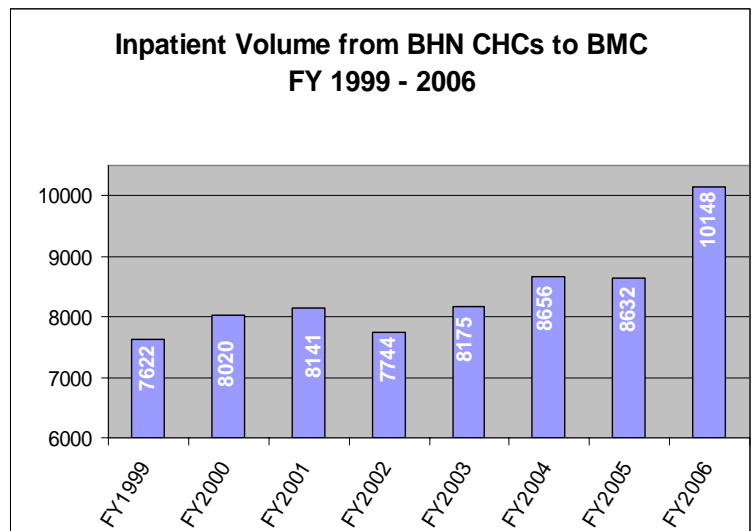
Our mission is to provide exceptional care without exception for the underserved of Boston in a setting that fosters inventiveness and new approaches to patient care.

Boston HealthNet Rounder Inpatient Service

Since the founding of the department, we have directed the Boston HealthNet (“Rounder”) Inpatient Service. Boston HealthNet is a consortium of 15 CHCs linked to BMC through the Boston HealthNet Rounder Service. Faculty from CHCs and the department staff the service in one or two week blocks. They function as the attendings for Boston HealthNet patients admitted to medicine housestaff and physician assistant teams and to the family medicine inpatient team. The attendings are assisted by 3 RN case managers who assess patient readiness for discharge & coordinate transfer to long term care facilities, post discharge follow up services, and utilization review and an administrative coordinator who generates daily patient lists, manages billing, tracks census data, and faxes all discharge summaries in real time to primary care physicians.

The inpatient service also provides pediatrics, nursery and maternity attending coverage and medicine consult services, thus maintaining continuity of care for families from our YACC and CHC-based practices, BU Student Health Services, and from our nursing home and home bound services. At the request of the Department of Orthopedics, our attendings also provide perioperative care of non-trauma orthopedic patients.

From one attending and 8 to 10 patients daily, it grew to 3 rounders covering both the Menino & East Newton campuses with an average daily census of 25 by 2005. Today there are 4 daytime rounders with a daily census of 35 to 60 patients. This fall we added a fifth rounder, who staffs the East Newton Pavilion from 5 to 11 pm.



The rounder service has a very positive impact on reducing length of stay. Over the years this has been 0.8 to 1.2 days shorter than the general medicine average opening beds for additional admissions. The latter is critical both to reducing Emergency Department diversions, and to supporting BMC’s goal of continued growth.

In 2006, Boston HealthNet conducted its 5th Boston HealthNet Rounder Inpatient Service survey of primary care physicians’ assessment of the service.

- 87% report the system has improved the quality of inpatient care and an equal number would recommend adoption of a similar program to other medical groups.
- 78% believe the rounder system has improved the continuity of patient care.

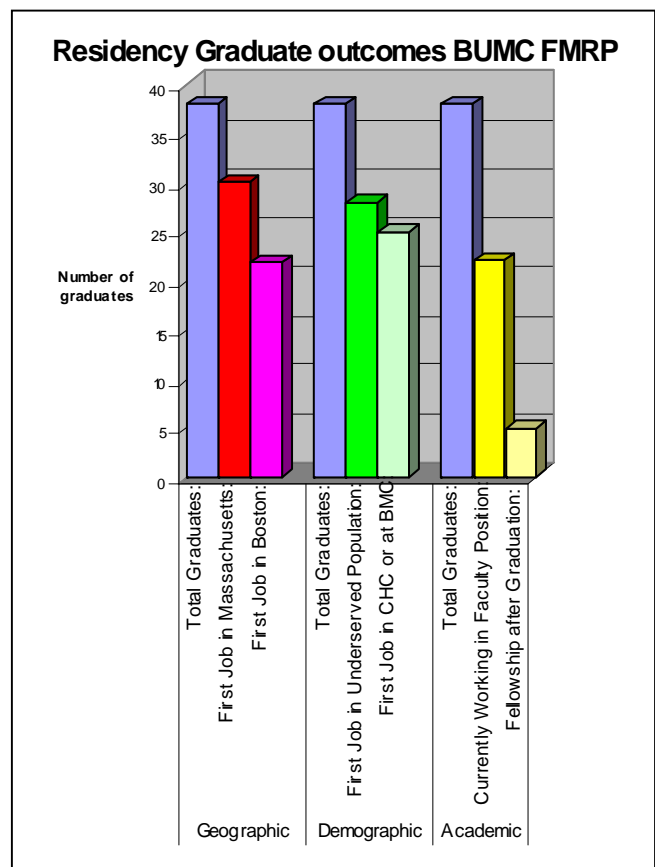
Family Medicine Residency Program

In June 1999, eight Family Medicine residents had their picture taken forming a human pyramid in a Roxbury park overlooking the Boston skyline. They were about to embark on a journey of discovery and learning, becoming the first Family Medicine residents based in one of Boston's venerable teaching hospitals. Over the following eight years, this group and those who have followed in their footsteps have made great strides in changing the face of primary-care medicine in the city of Boston.

That first group, the class of 2002, was most certainly imbued with a pioneer spirit. With the residency's initial accreditation arriving too late for participation in the ERAS electronic application system, the applicants found us, largely through word-of-mouth, and cast their futures with a new and ambitious department. Their commitment to patients and excellence in clinical care gave instant credibility to the fledgling residency. In the years since that auspicious beginning, each residency class has left its own mark on the residency and on Boston Medical Center.

The class of 2003 helped to shape the structure of the "B4 service," the first Family Medicine inpatient resident team at BMC and in the City of Boston, helping to firmly establish our clinical and educational presence at BMC.

The entry of the class of 2004 brought another outstanding group of residents. They helped to consolidate our inpatient training and provided leadership to the institution through prominent roles in the House Officer Association and the Graduate Medical Education committee. Assuming faculty roles after graduation, many have continued to offer leadership and commitment to the department, in the residency, in our new Sports Medicine fellowship, and at South Boston Community Health Center, East Boston Neighborhood Health Center, Codman Square House Center, and Harvard Street Health Center.



The class of 2005 developed the "B4 web site" offering a wealth of clinical information to residents and faculty, provided leadership to our psychosocial programs, and offered

multiple opportunities for the residency to demonstrate its family-friendly qualities. The class of 2006 helped pioneer our health alliance with the country of Lesotho and brought a new sense of responsibility and commitment to the role of Chief Resident in our program.

The class of 2007 participated in major changes in our maternal child health experiences, including the collaborative staffing of labor and delivery with the Department of Obstetrics and Gynecology and the establishment of the new Mother-Baby inpatient service. They assumed full management of the Monday noon conference schedule, and continued to expand our department's international horizons with clinical work in Lesotho, Ecuador, Vietnam, and Bolivia. Five out of six members are joining our faculty, adding depth to our Family Medicine practice at the East Boston Neighborhood Health Center, anchoring our new collaboration with Dorchester House Multiservice Center, and helping to build and shape our inpatient rounder service and our newly established residency in Lesotho.

Our current residents and faculty share in this already rich tradition of excellence. This year residents have already established a new Wednesday noon clinical case conference, and are developing our new Family Medicine team at the East Newton Pavilion.

Perhaps the most important achievement of the Family Medicine Residency Program at Boston University Medical Center over the past decade has been the impact of its graduates on health care for the underserved in Boston and in Massachusetts.

As the residency moves forward into the next decade, we know that it builds on a solid foundation of excellence in teaching and clinical care as well as a commitment to Boston's most vulnerable populations. Secure in that already well-established tradition, it will continue to shape the direction of primary-care in the city--one Family Physician at a time.

In keeping with the departmental mission, out of the 38 graduating residents

- ***30 have remained in Massachusetts practicing primary-care***
- ***24 have remained in Boston***
- ***24 assumed positions in a community health center, most with the Boston HealthNet***
- ***28 took jobs after residency working with underserved populations.***

Medical Student Education

The medical student education program in the DFM has grown from 8 department faculty in 1998 at the inception of our first educational program, the third year clerkship, to nearly 40 core faculty engaged in teaching medical students in 2007. Prior to the introduction of the clerkship, no medical school in Boston had a required third-year clerkship in Family Medicine. Faculty are now engaged in teaching medical students in all 4 years at BUSM, starting with the Introduction to Clinical Medicine early in the first year, through electives in the fourth year of medical school. In addition, a cadre of over 60 community-based preceptors teach clerkship and other students in their offices.

The remarkable growth in the teaching program is paralleled with success in obtaining external grant support to implement innovative educational programs. The Department has had a long and fruitful collaboration with the BUSM Geriatrics Division, resulting in development of a case-based curriculum which spans the FM and geriatric clerkships, designed to teach students how to manage functional problems among older patients.

These resources have supported novel programs including:

- innovative approaches to teaching communication that are now a required component of the 1st year curriculum
- a popular online component to the 3rd year clerkship which addresses medical humanism and evidence-based medicine
- a robust geriatric component in the clerkship
- a cultural competence curriculum

Since its inception, our clerkship has consistently received among the highest student ratings of all clerkships at the medical school.

We also have initiated a special track throughout all four years of medical school for students interested in family medicine as a career. This track has enrolled progressively greater numbers of students each year, with 25% of the current 1st year class enrolled. We anticipate that this track will support and promote interest in family medicine, translating into increased numbers of students matching into family medicine from the medical school.

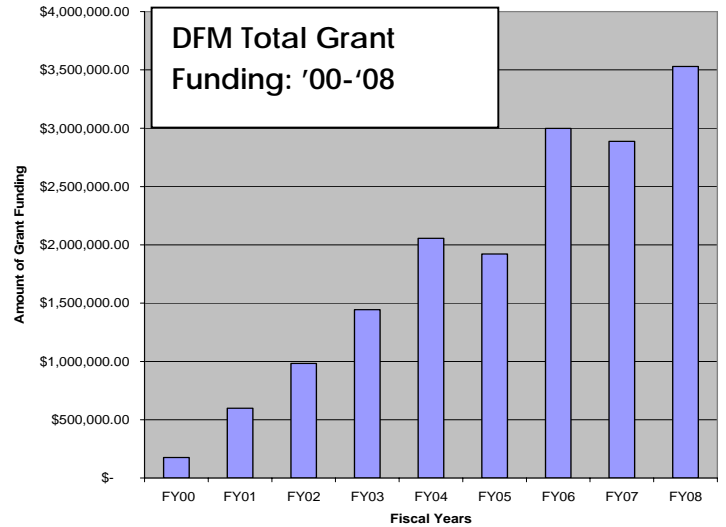
The department offers a number of electives to fourth year students, including a subinternship in inpatient family medicine, maternal and child health, ambulatory family medicine, and others. The department also introduced a very popular first year elective course, The Healer's Art, designed to promote and sustain a humanistic approach to patient care.

The future is bright for family medicine student education at BUSM. We plan expansions in the student track program to accommodate growing student interest, addition of a student scholars program, increased support and faculty development of our community preceptors, and new international elective programs.

Departmental Grant Funding: Creating New Knowledge in Primary Care

After an initial four years of establishing its clinical and educational programs the department initiated its research activities. In the years since, we have experienced tremendous growth in the total grant funding received by the DFM. The titles of the grants funded this year illustrate the diversity of the department's interests.

- Academic Administrative Units in Primary Care Services
- A Randomized Control Trial To Reduce Cardiopulmonary Rehospitalizations
- Virtual Patient Advocate to Reduce Ambulatory Adverse Drug Events
- Lesotho Health Sector Survey
- Transforming District Health in Lesotho
- Developing Family Medicine in Laos
- Can Tho Family Medicine Project
- Academic Career Development in CAM Research and Education
- Boston HealthNet Perinatal Network
- Boston Healing Landscape Project
- Improving the Primary Health System at the Rural Commune Level in Vietnam
- Chinese Healing and The United States 1849-2004
- Therapeutic Massage for Cancer Patients at BMC
- Making Healthy Connections: Mentoring, Monitoring, Measuring
- TV Based Self-Management Platform for Children with Asthma
- Solving the Adoption of Innovation for Solo and Small Group Practices



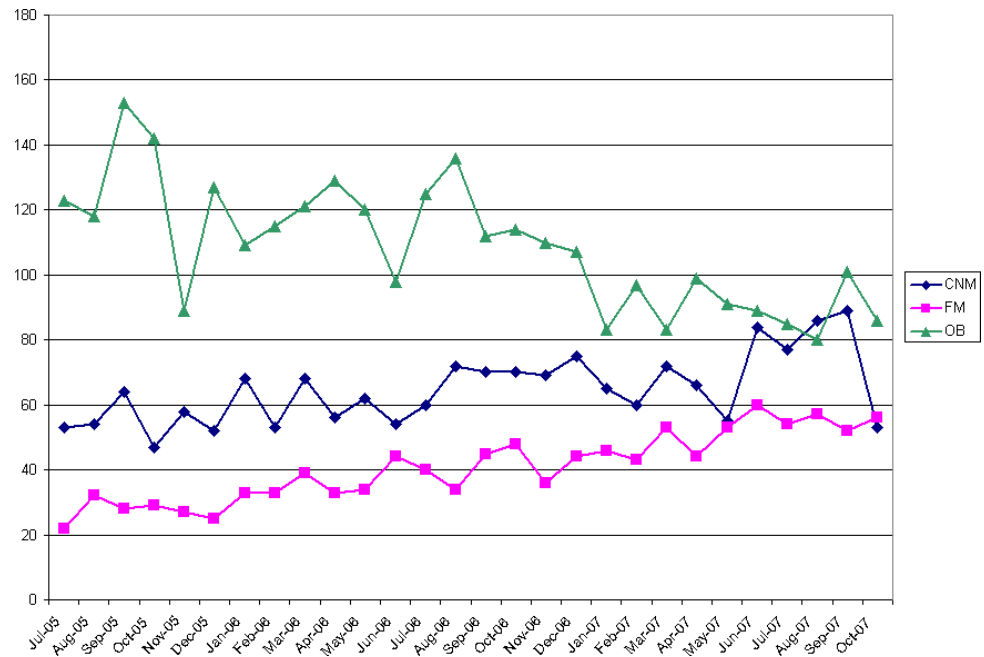
In fiscal year 2008, the DFM will receive over \$3,500,000 in funding to support its scholarly initiatives.

The DFM continues to develop young research-focused faculty through its support of the Academic Fellowship Program. This degree granting faculty fellowship is run as a joint undertaking with the Division of General Internal Medicine, with fellows obtaining a Masters from the BU School of Public Health. Beginning with Julie Taylor, we have now graduated a total of 13 fellows. The Department also has been instrumental in building the framework for involving Boston HealthNet CHCs in research conducted by BUMC principal investigators.

Maternal and Child Health: Caring for Young Families in Boston

The Maternal Child Health activities in our department have changed drastically in the last few years and it continues to evolve. In part because of the work of the DFM and its graduates, the volume of deliveries at BMC has increased from about 1500 to over 2700 in the past ten years. In order to care for this enlarging patient population and to imbue the service with the principles of patient safety and high quality, a truly unique collaboration among the DFM, the Department of OB-GYN and the nurse midwifery service has evolved maternity care into a true group practice format. Together our departments established ten

principles to guide us in providing consistently excellent care to all our patients. The collaborative meets regularly to monitor and ensure that we are fulfilling our defined principles. As a result, DFM faculty members are now or present as attendings on Labor & Delivery 24 hours a day, 7 days a week with other members of the "collaborative team."



We have 16 faculty family physicians who deliver babies; five of these are fellowship trained and do c-sections. The babies delivered by the three services is shown in the figure.

Our department is providing leadership in creating a "Mother-Baby Service" in cooperation with the Department of Pediatrics and the midwifery service. It provides comprehensive family-centered postpartum care for women and newborn infants. It is team based and champions patient education, family oriented patient services, and close coordination of inpatient care and CHC-based follow-up after discharge.

The DFM, Department of OBGYN and nurse midwifery are partnering with CHCs to create the Boston HealthNet Perinatal Network to improve perinatal care for African American women and their infants. It aims to set up community-oriented medical and psychosocial guidelines for high risk women and families and will involve a broad group of community based services. In the last year, our residents at SBCHC established a group prenatal visit program based on a model of care called "Centering Pregnancy." This approach has been shown to reduce preterm delivery, increase breastfeeding initiation, and we are excited that our residents have taken the initiative to bring this program to their patients.

Global Health Primary Care Initiative

The creation of the Global Health Primary Care Initiative in July of 2007 with Alain Montegut MD as the first director, solidified the Department of Family Medicine's long-term commitment to improving health access and providing primary care services for the underserved globally. Since the late '90s, faculty members have provided consultations and project leadership in many countries including Russia, Hungary, Romania and Albania; in Africa in Lesotho. They have consulted in Egypt, Saudi Arabia, and Brunei in the Middle East and China, Vietnam, Laos and Cambodia in East Asia. The Global Health Primary Care Initiative is now a sustainable and robust program that will work with the residency program and the medical student programs, department faculty and other groups at BU and at other academic centers to offer international opportunities for training and educational growth. It currently offers experiences in clinical work, medical education development and health system development.

The Initiative has two funded long term projects to improve health through enhanced management and the development of Family Medicine training underway since the 1990s in Lesotho and Vietnam, with the latter extending now into Laos. In bringing together many people with diverse international experiences, the Initiative is able to enhance its portfolio of projects while leveraging the resources available to all to improve health around the globe. Current on-going programs:

- Albania – Retraining the generalist physicians through training of trainers
- Hungary – Faculty development through Master's level training in the Family Medicine Academic Fellowship at BU School of Medicine
- Laos – Retraining of rural physicians to enhance their skills as primary care providers
- Lesotho – Enhancing management of district health centers, residency training of family physicians, improving health for those with HIV/AIDS, improving nursing education
- Vietnam – Development of FM residency programs, development of a program to retrain rural physicians, development of a FM faculty development center
- WHO – Development of e-learning modules for training of trainers in use of WHO Guidelines
- Consultations planned in: Armenia, Cambodia, Georgia, India, Oman, and Saudi Arabia.

The vision of the Initiative is that as a proven leader, it offers expertise in the development and implementation of locally sustainable models of primary care. The mission is to raise the level of health care for underserved populations world-wide by enhancing primary care through medical education, improving health systems management, increasing access to high quality clinical services and promoting research and evaluation.

eLearning: Health Technology to Teach FM Around the World

Dr. John Wiecha formed a new unit in the DFM in 2004 to develop eLearning programs at the medical student and post-graduate levels. Since 1998, the DFM has had eLearning activities, starting with support from the Robert Wood Johnson Foundation to develop online activities for 3rd year students in our clerkship. These students are placed in community-based locations throughout New England for their 6 week required clerkship, and therefore have fewer opportunities to interact with peers and core departmental faculty. The online clerkship was developed to enhance such communication, and to introduce additional curricular elements amenable to online teaching.



From the educational models developed during the clerkship experience, several continuing medical education programs have been developed. Current projects include an eLearning project on common ambulatory conditions for primary care physicians; a project to train obstetrical providers worldwide in new models of antenatal care; and two research projects on the use of telemedicine approaches to patient communication.

Grant sources have included The RWJ Foundation, The US Public Health Service, Healix Corporation, Glaxo-Smith-Kline Corporation, World Health Organization, Physicians Foundation, The Commonwealth Fund, and the NIH.

Awards and Recognition include:

2007 DEH paper selected as key medical education literature of 2006, presentation at Annual meeting Society of General Internal Medicine.

2006 DEH publication is designated a "Notable Publication in Biomedical Informatics" by the American Medical Informatics Association.

2006 Research selected as "Best Faculty Abstract," BU School of Medicine Medical Education Day.

2005 DEH publication is Winner of the 2004 Medical Library Association Research Award.

2002 Online course on diabetes receives national award for "Best Online CME Course" by the eHealth Institute.

Re-Engineered Discharge (RED): A Patient-Centered Transition

The hospital discharge is a 'hand-off' characterized by errors resulting from the discontinuity and fragmentation of care that places patients at high risk of post-discharge adverse events and rehospitalization. With funding from the Agency for Health Research and Quality (AHRQ), a Department of Family Medicine research team led by Brian Jack, MD used process mapping, failure mode effect analysis, qualitative analysis, and iterative group process, to create the Re-Engineered Discharge (RED), a set of ten discrete and mutually reinforcing components. Using these principles, the RED team created the "After Hospital Care Plan" (AHCP), a spiral-bound, color booklet designed as a tool to clearly present the components of the RED to each patient at discharge. The information booklet is designed to be accessible to individuals of all literacy levels. The "AHCP" was tested in a RCT of 750 subjects at BMC comparing the RED delivered by a nurse to usual care. The AHCP was shown to:

In 2007 the RED was endorsed by the National Quality Forum (NQF) as one of 30 national "Safe Practices."

- be highly reliable in delivering a comprehensive discharge and highly acceptable to patients
- improve self reported "readiness for discharge" and "understanding of medications and appointments"
- be especially effective in patients with limited health literacy
- improve follow-up with primary care physicians
- a decrease emergency room visits by 30%.



Louise

The RED team has received two recent awards:

- AHRQ Grantee of the Month in September 2007 (Brian Jack MD)
- 2007 Patient Care Award for Excellence in Patient Education Innovation

One of the main barriers to dissemination of this program is the time needed to deliver the RED intervention. With R01 funding from the NIH, the RED team, in collaboration with Dr. Tim Bickmore of the computer science department at Northeastern University has developed an 'animated embodied agent', an animated character ("Louise") programmed to teach the AHCP. The RED team is now initiating a second RCT to determine how well Louise can teach the AHCP.

Primary Care Sports Medicine: Caring for the Areas Athletes

Since Dr. Matthew Pecci came to BMC in 2000 as the first faculty with sports medicine training, sports medicine has been an integral part of the Department of Family Medicine. During the early years, we developed a role for primary care sports medicine with Boston University Athletics, and developed a link between the Department of Family Medicine and the Boston University undergraduate campus, and collaboration with the Department of Orthopedics at BMC. Dr. Pecci formed relationships in the sports community throughout the city which would be integral to start of the sports medicine fellowship. In 2006 Dr. Pecci joined our faculty at the BU Student Health Center to build bridges between it and BU's athletic programs. After completing our residency, Dr. Shawn Ferullo stayed within the department and helped create a Primary Care Sports Medicine Fellowship Program. The program received ACGME accreditation in January of 2005. Currently, the program is in its third full year, attracts applicants from throughout the country, and is recognized both regionally and nationally as an excellent training program in primary care sports medicine. This summer two new fellowship trained faculty members have joined the department. The program continues to expand, currently providing sports medicine services at:

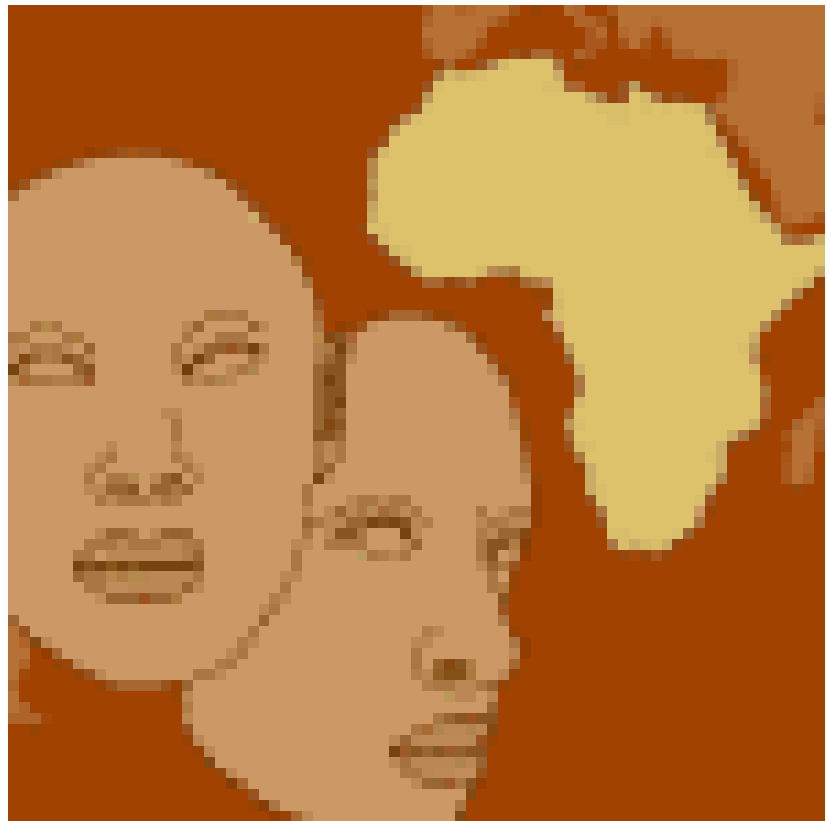
- Yawkey Orthopedics Clinic
- Boston University Athletics Department
- Massachusetts Institute of Technology (head team physician)
- MIT Medical for the general student body, and faculty
- South Boston Community Health Center
- South Boston High School
- Codman Square High School
- Boston College and Pine Manor College.

From a faculty of one, our department has become one of the leaders of primary care sports medicine in Boston. Our 4 person faculty, and fellow are currently responsible for the care of athletes at Boston University, MIT, Boston College, Pine Manor College, Cambridge Ringe and Latin High School, South Boston High School, and Dorchester High School. We currently care for greater than 6,000 competitive athletes per year.

We currently provide a variety of sports rotations for our Family Medicine Residency program for interested BU Medical Students, have begun a formal seminar series with the family medicine interest group, and are currently developing a formal 4th year elective in primary care sports medicine.

The Boston Healing Landscape Project A Center for the Study of Cultural, Religious and Medical Pluralism

The Boston Healing Landscape Project examines how, over the past thirty years, the medical landscape of the U.S. has changed. This richly textured world of healing represents the new face of culturally and religiously grounded complementary and alternative medicine in America. It confronts the medical community with the challenge of shaping a positive response to the multiple approaches to healing being pursued by patients and their families. The BHLP is documenting these changes, with Boston as its field site. We explore how their presence is transforming our understanding of cultural, therapeutic, and religious pluralism in the U.S.



We integrate what we learn into medical education across the curriculum at BUSM, with the objective of transforming physician self-understanding and the patient-doctor relationship. Our work represents the introduction of a highly focused approach to the study of world religions into the training of physicians. Our data is disseminated to broader public arenas through the BHLP website (<http://www.bu.edu/bhlp>), reports to the communities being studied, national conferences, and published work.

Current BHLP research projects include Chinese Medicine and Healing in America: 1849-2009 (Linda L. Barnes): a social history and ethnography of Chinese medicine and healing practices in the United States from 1849 to 2009; Muslims and Healing Projects (Lance D. Laird, senior consultant to the BHLP); The Role of Medical Interpreters as Cultural Brokers (Justine de Marrais, Sharon Touw, and Linda Barnes).

The BHLP is starting (Fall, 2008) a Masters Program in Medical Anthropology and Cross-Cultural Practice through the Division of Graduate Medical Sciences with its faculty based in the DFM.

Integrative Medicine:

In 2004 the Department recruited Rob Saper, MD, MPH, as Director of Integrative Medicine to develop clinical, research, and education programs focused on the underserved. Paula Gardiner, MD MPH joined in 2007 as Assistant Director of Integrative Medicine. Dr. Gardiner's research interests include the safety of herbs and supplements in pregnancy and children.

In 2004 Dr. Saper reported in JAMA that 20% of South Asian herbal remedies sold in Boston ethnic markets contained harmful levels of lead, mercury, or arsenic. This report was a major impetus for the Government of India to set new standards for toxic contaminants in Ayurvedic medicines and led to changes in national regulatory standards on every continent. It also led to the DFM collaborating with researchers and traditional practitioners from SASTRA University in India to evaluate the safety and efficacy of Ayurvedic medicines.

Dr. Saper offers outpatient integrative medicine consultations in the YACC where he frequently employs mind-body techniques such as meditation, deep breathing, yoga and lifestyle counseling including nutrition, exercise, stress; and Japanese acupuncture.

Yoga for Low Back Pain (YLBP) is a RCT of hatha yoga for chronic low back pain underway at the Dorchester House Multiservice Center. Funded by the NIH National Center for Complementary Alternative Medicine Research, YLBP is testing whether yoga improves pain and quality of life and lowers pain medication use. In collaboration with Dr. Streeter (BUMC Psychiatry), subjects also undergo magnetic resonance spectroscopy to assess whether yoga increases brain GABA levels, and if these correlate with a response to yoga.

Free weekly yoga classes for BMC patients and staff were started in 2005. With support from the Massage Therapy Foundation, DFM in 2006 employed BMC's first licensed massage therapist, Sha Hannah, LMT. In collaboration with the BMC Department of Hematology and Oncology, Ms. Hanna provides free therapeutic massage therapy to cancer patients while they receive chemotherapy in BMC's new Moakley Building. Soon thereafter, with initial support from the Ford Foundation, Ellen Highfield, LAC, an experienced licensed acupuncturist joined the DFM to offer free acupuncture to patients in the YACC Family Medicine Clinic and to cancer patients in the Moakley Building. Our outcomes for massage and acupuncture in cancer show that pain, fatigue, anxiety and depression often decrease up to 50%.

The DFM has developed an integrative medicine curriculum for our family medicine residents. Through seminars, journal club, clinical shadowing, experiential workshops, and online curricula residents are provided with the knowledge and experience to better counsel patients about the use or avoidance of different complementary therapies.

Geriatrics: Caring for the Elders of Boston

As the population ages, the family physicians of the future will spend more time caring for older adults. With funding from the Reynolds Foundation and in collaboration with the Boston University Division of Geriatrics, we developed a robust curriculum in geriatrics for both our pre-doc and residency programs. This innovative geriatrics curriculum in the third year clerkship uses web-based video, on-line and small group case-based discussions, and home visits with older patients. It has received high ratings from medical students. Likewise, the Geriatrics in Primary Care Seminar Series, a series of 7 seminars given to second year residents, teaches recent advances in geriatric medicine using innovative education techniques. A monthly noon conference is dedicated to a case-based discussion of a resident's own geriatric patient.



Eight of our faculty have participated in the year-long Hartford Foundation funded Center of Excellence in Geriatrics Faculty Scholars Program at Boston University. Each year, our two chief residents and residency program director attend the "Chief Resident Immersion Training in Geriatrics". This weekend long retreat gathers leaders from multiple specialties together to discuss the challenges of caring for the elderly.

The department began a nursing home practice in 2004 at Harborlights Rehabilitation and Nursing Center near the South Boston Community Health Center. Residents spend one half day per month for 24 consecutive months caring longitudinally for nursing home patients. A second nursing home, Hancock Manor, was added to the practice in August 2007. It focuses on serving patients with multiple disabilities. The geriatric group practice now includes one fulltime nurse practitioner and 5 faculty. Plans to expand the practice are underway with the addition of two geriatric fellowship trained faculty, a second nurse practitioner and a third nursing home. In addition, our director has assumed medical directorship of Hancock Manor.

We are proud that we have extended the electronic health record to the nursing home. When hospitalized, our nursing home patients are cared for by our inpatient family medicine team, often by residents who know them well, and previously cared for them at the CDC. This type of continuity of care is highly unusual for this fragile population.

Student Health Services at Boston University

Student Health Services at Boston University's Charles River Campus is one of the newest ventures for the Department of Family Medicine. Prior to the Department's recruitment of Dr. David McBride as its new Director in September of 2006, SHS was an "old style" college health center, complete with a license for eleven inpatient beds. With the hard work of the staff, SHS is becoming a source for a comprehensive scope of state of the art medical care for our college aged population.

Closure of the Infirmary was a major undertaking. Shifts in staffing dollars in this process have allowed significant "staffing up" in the outpatient area, particularly in Behavioral Medicine. We have added an experienced new Director of Behavioral Medicine and recruited five new professional staff for the area. The focus of Behavioral Medicine has become not only providing excellent patient care, but also outreach to the student population and academic units to improve visibility and access to care. We have created a number of groups addressing students with bipolar disease, grief and first year student concerns.

In 2006, the Department of Family Medicine took responsibility for student health at Boston University.

On the medical side, we have added support staff in the outpatient area and redesigned our physical space to increase rooms for outpatient visits. Our care is being delivered with a team approach, physicians, nurse practitioners, nurses and medical assistants working together. We have implemented a new electronic record with promise of new opportunities for e-based communication with students. We have also significantly increased our scope of services, now offering procedural medicine and sports medicine. This fall we completed a major initiative to bring all students up to date on immunizations.

Overall, SHS is moving toward being a current and highly valued service on the Charles River Campus. As we grow, more collaboration with the medical campus, in particular in providing care to students on the medical campus, is a goal. We welcome staff from the Medical Campus to come by and visit our space and our great staff.