

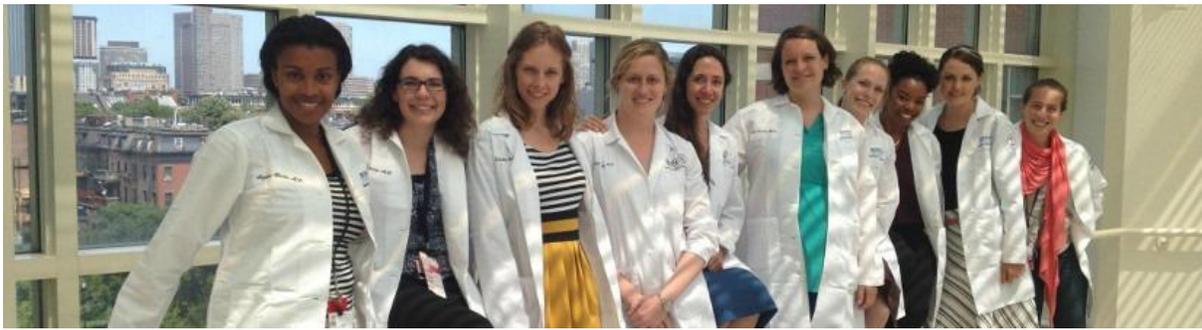
Boston University School of Medicine

Boston Medical Center

Department of Family Medicine
20th Year Anniversary Celebration
Looking Back On Our Journey



December 15, 2017



To Current and Former Faculty, Residents, Staff and Friends of the Department,

Welcome to the 20th Anniversary Celebration of the BU/BMC Department of Family Medicine! Twenty years ago, Larry Culpepper had a vision for an academic department of family medicine in one of the most subspecialty oriented cities in the world. With great support from BMC, one of the most historic safety net hospitals, we designed a department committed to working with our Community Health Center partners to provide primary care for the people of Boston, to train residents and students, and to conduct research in a community context.



Through the hard work of many of you who are here today, we together have achieved a great deal in the last 20 years as documented in these pages. Some of the highlights are:

- 84 faculty members working at 12 sites generating over 100K patient visits in AY17, collectively changing the face of primary care in Boston.
- Our collaboration with the CHCs in the Boston HealthNet is a model for the nation.
- 147 residency graduates with 55% staying to work at Community Health Centers or at BMC. Among residencies whose mission is to train residents to care for the underserved, this is among the best retention rates in the country.
- Doubling the size of the residency and launching a FM-Psychiatry residency program.
- A collaborative maternity care with Ob/Gyn and Midwifery, which serves as a model of teamwork in US hospitals.
- The FM/Boston HealthNet geographical inpatient service admitted over 3800 patients last year and was among the leaders in the hospital in quality metrics.
- The DFM teaches BU medical students throughout all 4 years, including the *Essentials of Public Health* course, and the FM clerkship consistently places among the highest rated clerkships at BUSM.
- The DFM runs the two most continuously funded FM Global Health Programs in the US.
- DFM faculty have generated nearly 85 million dollars to fund research program and trained over 20 academic fellows to be primary care researchers of the future.
- DFM faculty run a Master's program in *Health Professional Education* and the *Medical Anthropology and Cross Cultural Practice* is well integrated into the department.
- The *Program for Integrative Medicine and Health Care Disparities* and the Sports Medicine program and fellowship continue to grow and provide much needed services.

Thank you to all who have contributed to this monograph including Charles Williams, Chris Manasseh, Katherine Gergen Barnett, Ted Constan, Laura Goldman, Tom Hines, Doug Comeau, Jen Pfau, Linda Barnes, Rob Saper, Molly Cohen Osher, Larry Culpepper, and Jordan Yarnell.

I hope you all enjoy the party tonight – as we celebrate the past 20 years and look forward to building on this foundation over the next 20 years.

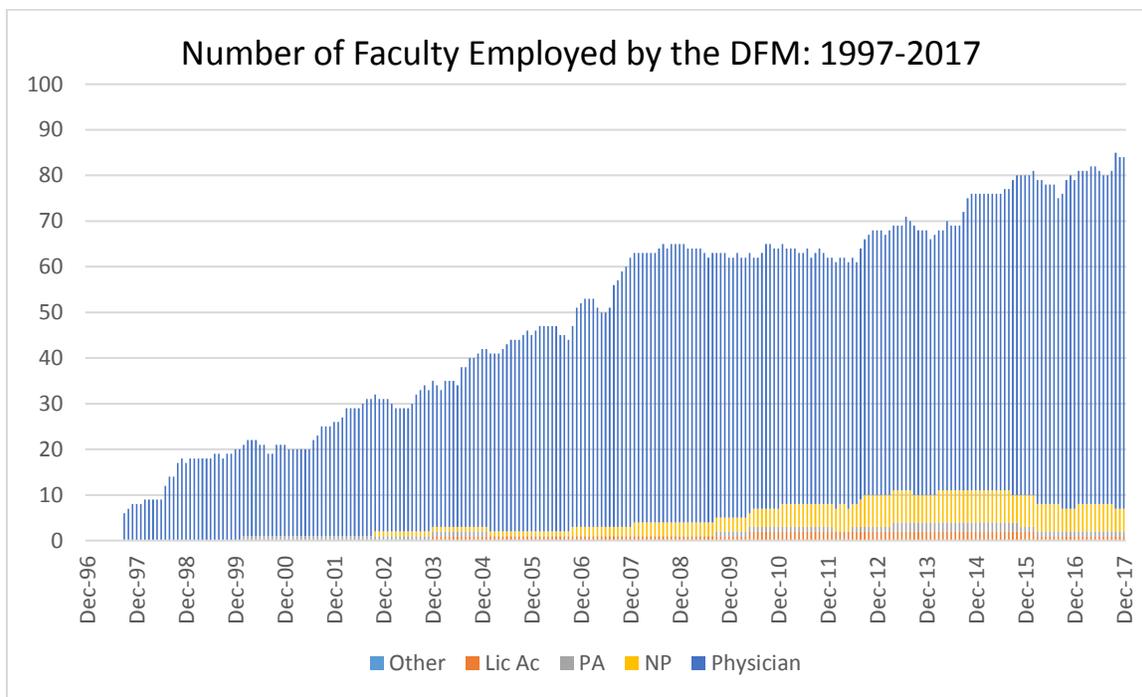
A handwritten signature in black ink that reads "Brian Jule". The signature is written in a cursive, flowing style.

Table of Contents

| | |
|---|----|
| Growth of the Department of Family Medicine | 4 |
| Providing Primary Care Services for the City of Boston | 4 |
| <i>DFM Values Diversity, Equity and Inclusion</i> | 5 |
| <i>Improving Quality in the Network</i> | 6 |
| <i>Boston Medical Center’s Family Medicine Practice</i> | 7 |
| <i>Boston University Charles River Medical Practice</i> | 8 |
| <i>DotHouse Health</i> | 8 |
| <i>Codman Square Health Center</i> | 8 |
| <i>East Boston Neighborhood Health Center</i> | 9 |
| <i>Mattapan Community Health Center</i> | 10 |
| <i>Greater Roslindale Medical and Dental Center</i> | 10 |
| <i>South Boston Community Health Center</i> | 11 |
| <i>South End Community Health Center</i> | 11 |
| Family Medicine Geographical Inpatient Service | 12 |
| Maternal Child Health Collaborative..... | 13 |
| Family Medicine Residency Education | 14 |
| Medical Student Education | 15 |
| Program for Integrative Medicine and Health Disparities | 17 |
| Sports Medicine and Clinical Sports Medicine Fellowship | 18 |
| Global Health Initiative | 20 |
| Medical Anthropology and Cross Cultural Practice | 21 |
| Research to Improve the Health of Underserved Populations | 22 |
| Administration and Finances that Support Our Values | 23 |

Growth of the Department of Family Medicine

Over the past twenty years, the Department of Family Medicine (DFM) has steadily grown so that we now employ 84 faculty members, and have a total of 220 faculty members credentialed in the Department. Our faculty work at over 12 sites in the most disadvantaged neighborhoods of Boston. In a real sense, over these twenty years, we have succeeded in changing the face of primary care in the city of Boston.



Providing Primary Care Services for the City of Boston

Since its inception 20 years ago, the DFM has partnered closely with the Boston HealthNet, the consortium of Community Health Centers (CHCs) in the neighborhoods of Boston, as a key strategy for improving the health of our community through clinical work, education and research. In 1997, there were a few family physicians in the CHCs at centers such as Codman Square and Upham's Corner. Through the years we have worked with the CHCs to recruit faculty who provide primary care services in these community sites. The residency program partnered with two community health centers, Codman Square and South Boston, as way to educate family doctors in the settings in which we hoped they would be working. Over the years, the primary care workforce has grown tremendously. As the residency has expanded, the residency sites have expanded to now include East Boston, Roslindale and in July 2018 will include South End CHC.

Figure 1 on the next page shows the CHCs sites and DFM faculty who are now working at each of these sites.

DFM Faculty and Boston HealthNet Sites: 2017

BMC ACC

Tu Mai Tran
 Huong Tran
 Nidhi Lal
 Sarah Hale
 Aileen Roman
 Dana Mars
 Jessica Koval
 Brian Pentti
 Sharon Phillips
 Keri Sewell
 Paula Gardiner
 K.Gergen Barnett
 Lana Habash
 Brian Jack
 Chris Manasseh
 Rob Saper
 Alysa Veidis
 John Wiecha
 Elizabeth Doran
 Avra Goldman
 Marielle Baldwin
 Darline Joseph
 Melissa Fullerton

South Boston

Lydia Wlasiuk
 Meena Kumar
 Evelyne Chiakpo
 Laura Goldman
 Tom Hines
 Aram Kaligian
 Heather Miselis
 Steph Gove-Yin

South End

Mekkin Lynch
 Lauren Scott
 Maya Mauch
 Glenn OGrady

Roslindale

Jen Lo
 Aileen Richmond
 Jordana Price
 Ilija Coka
 Marissa Hamrick
 Jennifer Trieu
 Rebecca Dallman

Codman

Eric Hwang
 Maria Wusu
 Erica Mintzer
 Suki Tepperberg

East Boston

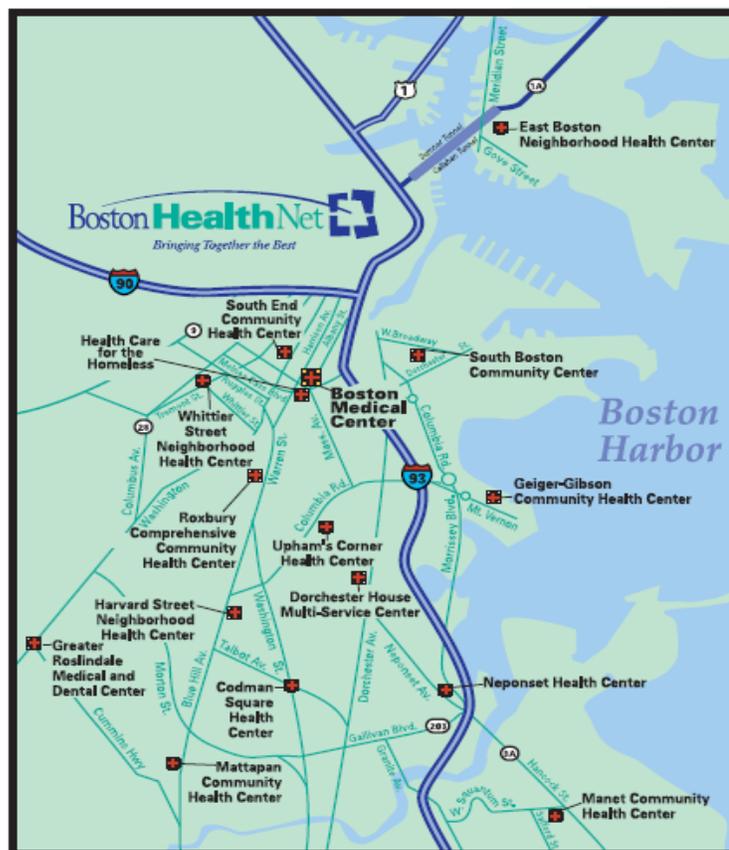
Lindsay Corse
 Amanda Deloureiro
 Anne Dwyer-Wilmer
 Elizabeth Ferrenz
 Karin Leschly
 Cheryl McSweeney
 Rachael Mott-Keis
 Jen Pfau
 Charlie Williams
 Lilia Cardenas
 Caroline Mullin

Mattapan

Michelle Dalencour (2)
 Aimee Williams (1)
 Stephanie Charles (1)

DotHouse

Jessica Gray
 Yen Lo
 Scott Simmons



Charles River

Amola Shertukde
 Kelly Kruczek NP
 Nathan Cardoos
 Kelsey Perkins

Uphams

Meredith Amos

Student Health

Judy Platt

Ryan Center

Doug Comeau
 Stephen Huang
 Deanna Corey
 Alysa Green
 Cath Mygatt Naden
 Scott Simmons

Manet

MaryAnne Dakkak

DFM faculty in leadership positions among Boston HealthNet CHCs has steadily increased over the years with 10 faculty in such positions in 2017. Ambulatory visits by our faculty continues to grow and in AY 2017 reached over 104,000 visits!

DFM Values Diversity, Equity and Inclusion. We believe that a diverse community adds valuable perspective that is critical for excellence in patient care, education and research. We strive for faculty, staff and residents who are broadly representative of the patients and communities we serve. In addition, we aim to have all members of the department feel valued, supported and integral to the important work we do.

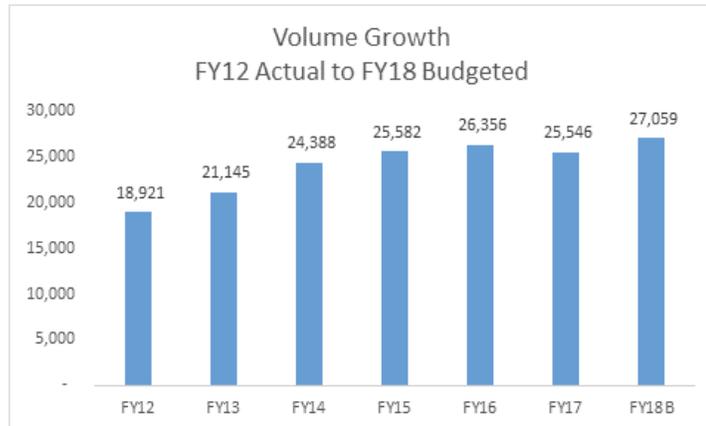
To this end, we formed a Diversity Committee, now known as the *Committee on Equity and Inclusion*, in Spring of 2016 in order to articulate our commitment. The committee, consisting of faculty, staff and residents, drafted a Diversity Policy which is posted on the department website. Its first activity was a faculty retreat in fall 2016 entitled “*Perspectives on Equity and Justice: Identifying and Addressing Racism in Clinical Care and Medical Education*”. A morning of activities included a workshop by Abigail Ortiz MSW, MPH; round table discussions following a trigger video of an intern on morning rounds experiencing racial microaggressions by members of the team, and TED style talks by members of the BMC community who are active in diversity efforts. In a post-retreat survey, faculty requested more training activities. As a result, committee members participated in a course, “The Cultural Formation of the Clinician” adapted and taught by Linda Barnes Ph.D., MTA, MA, who is a member of the DFM and also the Director of the Master of Science Program in Medical Anthropology and Cross-Cultural Practice at BU. The course consisted of seminars on the cultural genogram, gendered identity, sexual orientation, social class identity, racialized identity and immigrant identity. As a result of this course, the committee is now working on a curriculum for all residents and faculty.

Committee members have revamped the admissions process for the residency, to incorporate what is known about ways to reduce bias and result in a more equitable assessment of under-represented minorities. The new system is in use this academic year.

Improving Quality in the Network. We have been intimately involved with many initiatives to improve the health of our communities over the last two decades including providing leadership for the health disparities initiatives, the Massachusetts Patient Centered Medical Home Initiative (2011 – 2013) in which all practices transformed and became NCQA certified PCMHs, the Primary Care Payment Reform Initiative (2014 – 2016) which brought integrated behavioral health and pay for quality, and moving towards the Mass Health Medicaid ACO (ACO bylaws 2010, pilot ACO 2017). We have also helped lead the introduction of in the electronic medical record into our practice site (2001 – 2003 Logician, 2014 – 2016 Epic–OCHIN), lead the way in establishing reliable data systems to report of the health of populations (e.g. Health Network Compass), and implemented clinical quality improvement initiatives using this data (e.g. HTN improvement in 2017). In 2015, we contributed a conceptual model of how to orient and monitor progress towards more optimally functioning network based on IHI’s Triple AIM and translated to real BHN network data – The Health Network Compass. Over the years we have participated in many quality improvement initiatives, most recently we have focused on population health views of quality improvement. Over the last two years, seven HealthNet sites (16,124 people diagnosed with hypertension) have collaborated with the Boston HealthNet through the iCHIP grant initiative to produce a meaningful improvement in blood pressure control. In this population there are 821 new patients diagnosed with hypertension in the registry and 1,483 people with controlled blood pressures who previously were not. We calculate that over the next 5 years this improvement will prevent: 12 deaths, 22 strokes and 15 heart attacks.

Each of our Family Medicine Practice sites is a vibrant practice with its own character serving different areas of Boston. Each is described on the following pages.

Boston Medical Center’s Family Medicine Practice. The Boston Medical Center Family Medicine Clinic opened its doors in the fall of 1997 and is joining the Department of Family Medicine in its 20th anniversary. The ACC is a full-spectrum primary care practice and in 2013 was awarded a National Committee for Quality Assurance certificate as a Patient Centered Medical Home (PCMH) model; in the ensuing years it has become a level 3 PCMH. The clinic is composed of 23 providers and offers newborn, prenatal, adult, and geriatric care to a diverse, urban, underserved population



environment. A panel of approximately 8,000 patients generates over 25,000 visits per year (with 28,000 predicted in the coming year), many coming to us as families. (See figure).

The patient population is diverse ethnically, culturally, and linguistically, as well as varied in health beliefs and degrees of health literacy, contains a significant number of work disabled patients, chronic health conditions, and patients with substance abuse issues. A large proportion of the ACC clinic’s patients are foreign-born and many have English as a second language. In response to unstable housing, challenges to care coordination, and the complexity of patients’ medical and social needs, the clinic has integrated multiple supports into its care practice, including interpreters, social workers, psychiatrists, patient navigators, pharmacists, as well as case management for prenatal patients and those with substance abuse, diabetes and other high risk chronic conditions. In recent years, the ACC has led the way for integrated behavioral health services, addiction services, patient navigation and research, patient experience (increasing in 15/18 domains of CGCHAPS), group medical visits (for suboxone, chronic pain, depression, diabetes, and hypertension) integrative medicine services (including integrative medicine consults, tai chi, acupuncture, karate, meditation and massage), screening for social determinants of health such as homelessness and food insecurity, and multiple research initiatives. Our piloted models of care have been presented both locally and nationally. In 2018, the ACC will

move to its practice to Melnea Cass in order to continue to pursue BMC’s vision of “making Boston the healthiest urban community in the world”. The ACC’s motto is “Let our Family Take Care of Yours” and our staff is much like a family. Many of us have been working in the clinic for years and have taken care of each other and our patients through loss and joys. We are truly thankful.



Boston University Charles River Medical Practice.

Boston University Charles River Medical Practice officially became part of the DFM in December 2014. Since 2013, we've converted what was once an adult medicine practice into a successful family medicine practice. Since DFM became involved, we've been able to increase patient volume by 57%. We currently see adults, children, travel visits, women's health and contraceptive management visits. Several BMC specialists also practice at our site including: Dermatology, Otolaryngology (Ear, Nose, and Throat) and Reproductive Endocrinology.



DotHouse Health. A holistic approach to patient well-being has always been core to DotHouse Health. We formally launched our Family Medicine practice in 2005 to better support individual patients and families throughout the life cycle. Family Medicine provides greater continuity of care for our community, and allows our providers more flexibility in responding to patient needs. With over a decade at DotHouse Health,



we have been able to offer a variety of services, including acupuncture, integrative medicine, prenatal/pediatric care, colposcopy, Coumadin clinic, Suboxone clinic, high risk case management and office-based procedures such as injections, LARC, and simple dermatologic procedures. We are a team of dynamic clinicians, supported by our leadership, to test new innovations to improve community health from leading chronic disease group visits, to applying integrative medicine to treat chronic pain, to using population health strategies to improve cancer screening.

Codman Square Health Center. Codman Square Health Center is a community-based, outpatient health care and multi-service center in the heart of Dorchester. We opened our doors in 1979 with a dream: to build the best urban community in America. As part of this dream, we recognized that though health care begins by alleviating sickness, the journey to a true "culture of health" is achieved through the health of the whole person and the whole community. Our two-physician staff that summer of



1979 may have been small, but our commitment to the community was deep. Today, we have grown to a staff of over 300 multi-lingual and multi-cultural expert clinicians, medical staff and employees, most of whom reside in the neighborhoods surrounding Codman Square. We boast more than 109,000 client contacts each year, and have developed an astounding depth and breadth of community programs, as well as strong partnerships with other community organizations in order to meet our mission most effectively. The largest department is Family Medicine, staffed by 10 attending physicians, 4 mid-level providers, and 12 Family Medicine residents. In addition to a large primary care practice, we provide group medical visits for well-

baby/well mom care, diabetes, weight management and integrative medicine. We support a busy urgent care department and are leaders in many grants and initiatives throughout the organization and community.

The Family Medicine tradition at Codman spans over 30 years. We recently celebrated Sal Molica's 30th anniversary at Codman. Our family medicine providers have practiced OB and performed deliveries at Boston Medical Center for over 25 years and were for many years the only family doctors performing deliveries in Boston. The successes at Codman and the commitment to the FM model demonstrated by our founding Executive Director, Bill Walczak, was one of the reasons that BMC decided to create a Family Medicine Program. And we are proud to be a founding practice for the residency program.

We are also proud of our commitment to education and training. In addition to our wonderful partnership with the BU Family Medicine Program and the 12 FM residents practicing at Codman, we provide training for health care professionals across the spectrum of health care roles and also focus on providing opportunities for mentoring and training members of our wonderful community. One special way we do this is through a partnership with Codman



Academy, a K-12 public charter school co-located within our health center. The school inspires us by providing children from our community with a supportive educational environment geared toward success with college entrance and college graduation.

East Boston Neighborhood Health Center. Founded in the early 1970s, East Boston Neighborhood Health Center is one of the largest community health centers in the country with 70,603 patients and in 2016 we saw a total 306,722 visits. East Boston's unique geography – essentially an island -- accounts for a very high community enrollment. In the last 25 years recent immigrants have been primarily from Central and South America, and Spanish is the majority first language in East Boston. In late 2002, founder and Chief Medical Officer Dr. James Taylor approached the BMC department with the goal of starting a Family Medicine unit at EBNHC to help with the critical shortage of primary care providers at the health center. Together the DFM and EBNHC started recruiting and opened to patients on July 21, 2003. The first year there were 5 physicians (Charlie Williams, Mari Bentley, Cheryl McSweeney, Miriam Hoffman and Kate Ellis). The group has grown steadily and is now comprised of 19 attending physicians, 2 physician assistants, 12 nurse practitioners and 6 resident physicians, almost all of whom speak Spanish. Some highlights are:



- *Team Model.* In December 2005, we hired our first nurse practitioner. We now have a team model where an NP or PA serves as the clinical anchor working with 1-3 physicians. Care is shared for all patients; the NP is not the PCP for any patient, but

supports the PCP in care of all the patients. There is a designated nurse for each team and the MAs work primarily with the same providers.

- *EMR.* From day one, we served as the computing laboratory for the health center and in 2003 were the pilot practice for total electronic charting and billing.
- *Prenatal care.* With our arrival at EB we have offered a Family Medicine approach to maternal child health services, and our numbers have steadily grown to where we manage over 100 prenatal patients annually. In 2006, our group was a vital part of establishing BMC as the preferred delivery site for all EBNHC prenatal patients.
- *Education.* EBNHC became a family medicine residency site in 2011 and now hosts 6 residents, who have brought a culture of learning to the practice. Our practice is a vibrant learning space for many, currently hosting Medical, NP, PA, Nursing students and Behavioral Health Interns. Family Medicine led the MA role development at EBNHC, augmenting it to include depression and well child screening, diabetic pre-visit “scrub”, nursing vaccination and fluoridation.
- *Inpatient.* In January 2004, anchored by the EB FM group, the department began to cover all EB adults admitted to the medicine service at BMC. EB providers continue to provide a significant portion of adult, pediatric and maternal-child inpatient services, which mirrors the proportion of EB patients at BMC.
- *Winthrop Clinic.* EBNHC serves not only East Boston, but also Chelsea, Revere and Winthrop. With the goal of meeting patients where they are, the health center opened a satellite clinic in Winthrop in the summer of 2015, as an extension of Family Medicine. This new site has an open access model and true team based care.

Mattapan Community Health Center. DFM began to partner vigorously with Mattapan Community Health Center when in January 2014 Ramon Cancino, MD became CMO. Ramon leant his considerable experience in QI and research and began to revitalize the clinical team at Mattapan. In the fall of 2015 Dr. Michelle Dalencour began her practice there and Drs. Stephanie Charles and Aimee Williams began in the fall of 2016.



Greater Roslindale Medical and Dental Center. Greater Roslindale Medical and Dental Center has been a licensed clinic of Boston Medical Center since 1999 and has employed many family medicine physicians since it opened in 1975. We primarily serve the Roslindale, West Roxbury, and Hyde Park neighborhoods of Boston, culturally diverse communities with large Albanian, Greek, Arabic and Hispanic populations. Our services include, adult medicine, pediatrics, obstetrical care, and behavioral health. In 2016, GRMDC became the fourth continuity clinic site for the Boston University Family Medicine Residency Program. In addition to our three current residents, we have six family medicine physicians practicing at the clinic and two others who help out with precepting, all of whom are members of the Department of Family Medicine.



GRMDC plans to expand our staff as the residency practice program grows to its full complement of six residents

South Boston Community Health Center. Founded in 1972, the South Boston Community Health Center has been providing full service health care to the community for 45 years. With a staff of over 150, the health center provides over 60,000 visits per year, to almost half of the South Boston population. The Family Medicine Department was founded in 1998 by Drs. Thomas Hines and Laura Goldman as one of the first 2 residency continuity sites in our program, and has produced many graduates who have gone on to become leaders in Family Medicine. Our 10 Family physicians, 1 FMNP and 12 Family Medicine residents offer full spectrum primary care. Family Medicine faculty offers services in Integrative and Functional Medicine, Sports Medicine, Obstetrics, Office-based opioid treatment and Colposcopy. Our department is also home to the HRSA grant funded ICC clinic, which teaches multidisciplinary teams of trainees to care for our most complex and highest need patients. Family Medicine now sees patients at a rapidly growing second site in the Seaport District.



South End Community Health Center. SECHC has achieved accreditation as a Patient Centered Medical Home-Level 2 by the National Committee for Quality Assurance (NCQA) and is a Federally Qualified Health Center. SECHC was founded in 1969 by pediatrician Dr. Gerald Hass and neighborhood activists in response to health care disparities and lack of access to quality health care in Boston's South End. Family Medicine developed ties with South End when Dr. Pablo Hernandez began as Medical Director in 2010. Since that time Family Medicine's presence has continued to grow and we now have four providers; Drs. Lauren Scott, Mekkin Lynch, Glenn O'Grady and Maya Mauch, working there. We are now recruiting our first class to start in June 2018 of a combined Family Medicine – Psychiatry residency program in collaboration with the Department of Psychiatry.

SECHC's multicultural and multilingual staff of 215 serves over 14,000 patients accounting for 80,000 visits annually. The main clinic, located at 1601 Washington Street and just steps from the South End's Blackstone and Franklin Squares, is a 48,000 square foot state-of-the-art facility. SECHC serves men, women and children of all ages, races and ethnicities. Furthermore, those living in public or assisted housing, or experiencing homelessness or housing



insecurity, receive comprehensive coordinated care at SECHC. Nearly 70% of our patients are covered by public insurance (e.g. Medicaid/MassHealth) or are uninsured. 68% of our patients live below the federal poverty level. The South End is also a community of great income inequality according to the US Census, the South End is home to high percentages of both low income and high income households.

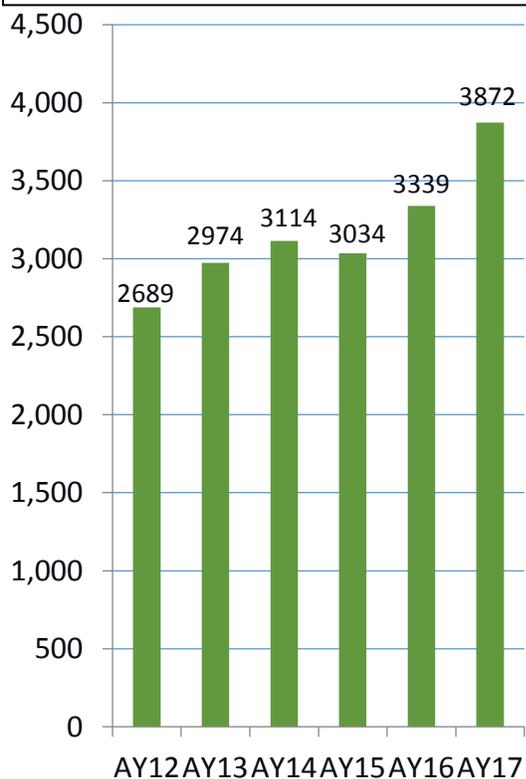
Family Medicine Geographical Inpatient Service

The Department of Family Medicine (DFM) at Boston Medical Center was established in 1997 with a dual clinical and academic mission. Clinically, our mission is to provide both comprehensive primary care and continuity of care in our inpatient service. Simultaneously, we aim to build the academic infrastructure for Family Medicine at Boston University School of Medicine (BUSM), including a post-graduate training program for Family Medicine residents. The goal of DFM is to strengthen the relationship of BMC with the community it serves by providing a model for partnership between the hospital-based inpatient service and the community health centers.

DFM faculty from participating community health centers staff the inpatient service, giving them an opportunity to maintain inpatient skills and become familiar with consult services while giving medical students with an interest in family medicine role models who provide comprehensive care to their patients. By 2003, the first class of family medicine 3rd year residents were able to run an inpatient team under the supervision of a family medicine attending, paving the way for a 24-7 family medicine inpatient team by 2007.

From 2006-2008, under the leadership of Brian Jack, the DFM led clinical trial called the Re-Engineered Discharge (RED) to test the clinical effectiveness of an 11-point systematic approach to hospital discharge on reducing 30-day readmissions. Project RED last between 2006 and 2008. The trial demonstrated that a systematic approach to hospital discharge could reduce avoidable readmissions by 30% and has now been adopted by the National Quality Forum

**FM/BHN Geographical Inpatient Service
Number of Inpatient Admissions AY 2012-17**



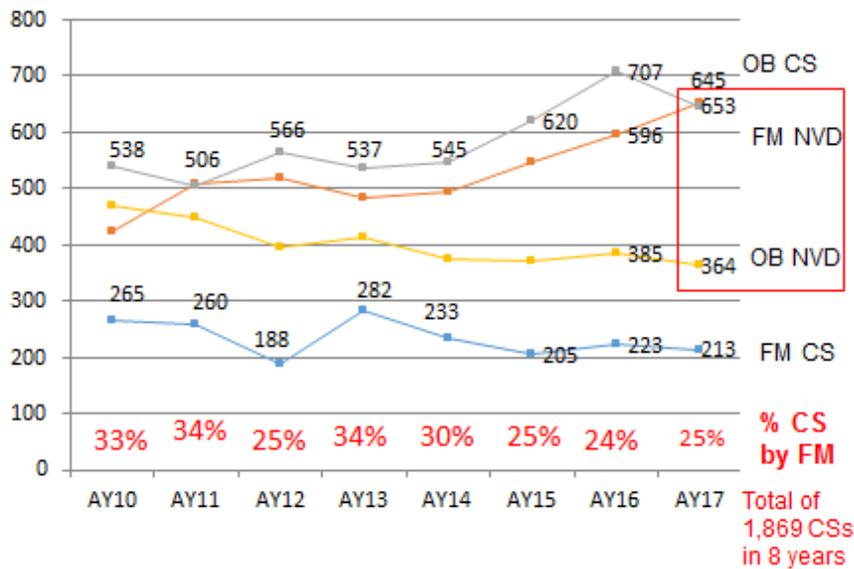
(NQF) as a best practice for hospital discharge and received the Peter Drucker Award for Innovation in 2013. In 2009, a locally operated, consumer-governed health plan, Commonwealth Care Alliance (CCA) contracted with the Boston HealthNet and the DFM to provide inpatient coverage for its medically complex patients admitted to BMC.

Since 2011, the Family Medicine HealthNet Inpatient Service has been housed on an entire unit of BMC, containing 27 beds with overflow onto adjacent floor if needed. This physical and temporal continuity creates an opportunity to provide a more supportive interpersonal and professional environment, allows for more rapid and frequent exchange of information between providers, and creates an opportunity to greatly improve for the interdisciplinary learning environment. The inpatient service has met or exceeded expected hospital mortality trend rates, average length of stay and 30-day readmission rates.

Maternal Child Health Collaborative: Working with our Peers

Collaboration with ObGyn and Midwifery. The DFM participates in an innovative and unique collaborative model of maternal and child health care that allows a rich training environment for our learners. Our collaborative model has a central focus on communication and teamwork. Nineteen family medicine faculty members (seven of whom are operative and have completed an OB/MCH surgical fellowship) staff Labor and Delivery 365 days a year/24 hours a day

FM does more vaginal deliveries than OB, 25% of cesarean deliveries, and covers the postpartum service!



alongside the obstetricians and nurse midwives from the Department of Obstetrics & Gynecology. Together we manage over 2,700 deliveries as a collaborative attending team, with a steady increase in our delivery volume over the last 10 years. The FM Labor and Delivery faculty are highly involved not only in the provision of clinical services, but also with the teaching and supervision of our

learners (residents from the departments of family medicine, obstetrics, and emergency medicine, as well as medical students). This clinical capacity provides a robust model of family physicians performing a complete scope of care, incorporating primary care principles for the benefit of a high-risk multicultural urban population. In addition to inpatient maternity and newborn services, DFM faculty members provide prenatal care at each of our affiliated CHCs. At one of our residency CHCs (Codman Square), we have an opt-out group prenatal care model (“Centering Pregnancy”) and have initiated group care for infants and mothers (“Centering Parenting”).

Collaboration with Pediatrics. Our MCH collaboration led to a request from the Department of Pediatrics that we also share responsibility for the well-baby nursery. We initiated a “Mother-Baby” service that provides attending services postpartum for families who receive care in the Department of Family Medicine at Boston Medical Center and the CHCs. This allows us to model the care of postpartum couplets (mom and baby) for medical students and residents. The mother-baby attending also provides care for our hospitalized pediatric patients, teaching and supervising both family medicine and pediatric residents. Our special collaborative model of care has led to increased educational and clinical collaboration between the departments of Family Medicine, Obstetrics & Gynecology and Pediatrics.

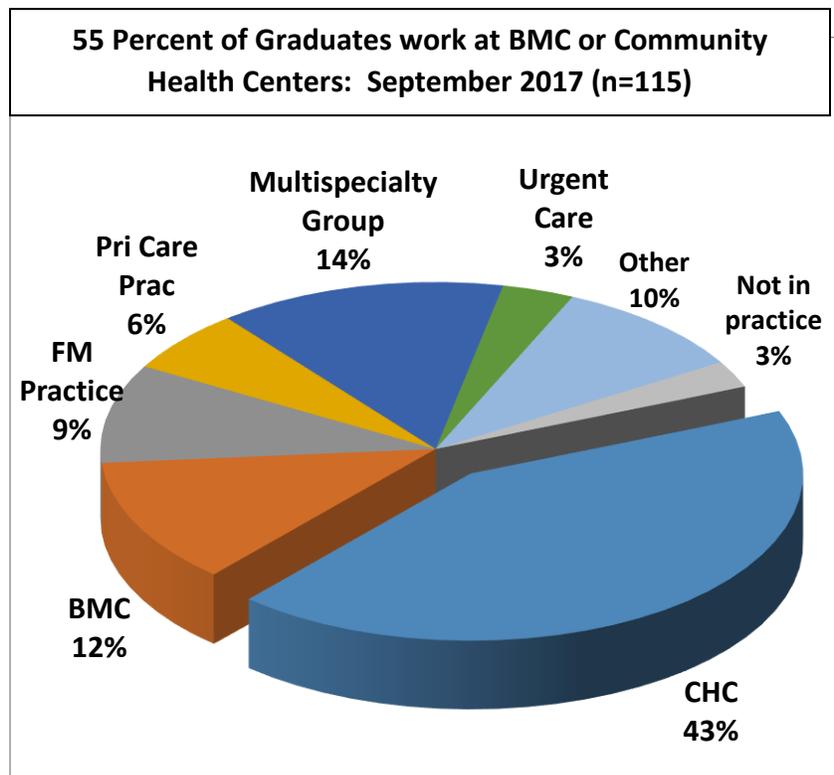
Family Medicine Residency Education

From the day we welcomed our first group of Family Medicine residents to Boston Medical Center in the summer of 1999, the Boston University Medical Center Family Medicine Residency Program has focused on providing its physicians-in-training with the skills and expertise needed to thrive in a variety of clinical settings, with a special emphasis on urban underserved care in Community Health Centers. Originally the program trained six residents per year in the three-year residency, with Family Medicine Practices for resident continuity experiences at two of the City’s Federally Qualified Health Centers, the Codman Square Health Center and the South Boston Community Health Center.

After successfully competing for HRSA funding through the Primary Care Residency Expansion program in 2010 the residency expanded to ten residents per year and added a third Community Health Center continuity site at East Boston Neighborhood Health Center. In 2015

the program collaborated with the Edith Nourse Rogers Memorial Veterans Hospital in Bedford, MA in securing VA disbursement funding for two additional positions, raising the total resident complement to twelve per year and adding a fourth CHC site at the Greater Roslindale Medical and Dental Center.

Many of the accomplishments of the residency over the past 20 years mirror those of the department as a whole. A strong emphasis on community-based care, excellence in hospital medicine, collaboration in the provision of high quality maternal and infant care, and



access to some of the finest experiences in areas such as global health, integrative medicine, and sports medicine have allowed the program to develop a truly national reputation, and resulted in the recruitment of residents of the highest caliber. The 147 residents who have joined our residency since 1999 hail from 62 medical schools, with the most frequent being UMass (23), BU (19), Tufts (10), Brown (8), Harvard (7), Yale (6), and UNECOM (5). As we have grown, applications to our residency have steadily increased. From 2012 to 2017, total applications have increased from 713 to 1225, while applications from LCME and U.S. Osteopathic schools have jumped from 287 to 513.

Perhaps the most important marker of the impact of our program on health care in the city of Boston and beyond can be seen in an analysis of what our graduates are doing and where. A breakdown of our graduate's practice settings is shown in the accompanying figure on page 14.

Building on our successful recruitment efforts, several residency faculty who serve on the department's Committee on Equity and Inclusion have completely revamped the admissions process for the residency, to incorporate what is known about ways to reduce bias and result in a more equitable assessment of under-represented minorities. The new system, in use for this academic year, should further the goal of recruiting trainees who more accurately reflect the diversity of the population BMC serves.

Moving forward, we continue to innovate and build on our current successes. With the establishment of the new 2 residents/ per year (for a total of five years) in the combined Family Medicine/Psychiatry residency, we once again position the residency to be cutting edge leaders, helping to define the training of the next generation of family physicians, fulfilling our mission to meet the Primary Care needs of the people of the City of Boston and beyond.

Medical Student Education

The Department of Family Medicine established a required 3rd-year 4-week FM clerkship in 1998, expanded to six weeks in 1999, and since then has grown the Medical Student Education (MSE) Division to direct many courses, electives, and educational programs and to assume multiple leadership positions in the Boston University School of Medicine. The goals of the MSE division are to provide the highest quality education, mentorship and training; to be educational innovators, leaders and scholars; and to transform the healthcare system to one that has a robust primary care workforce and values and understands the importance of primary care.

Family Medicine Clerkship equips students with the knowledge, skills, and attitudes to make them physicians in *all* fields who understand the value of family medicine, provide the highest quality evidence-based care, and have a strong understanding of what a well-designed healthcare system is. Students learn the value of a patient-centered, continuous model of care, how to care for a patient in the context of their family and community, how to use techniques of evidence-based preventive medicine, health promotion, population health, and health management, and about the importance of primary care in the healthcare system. The clerkship core curriculum is based on two simulated, multigenerational and ethnically diverse families. Students work in small groups and use patient records, growth charts, and lab reports to work through cases that highlight the most common visit types in family medicine. Students also "care" for these model family members in standardized patient sessions where they practice advanced communication skills such as motivational interviewing, breaking bad news, working with a translator and discussing opioid misuse. Students see these family members one final time during an end-of clerkship OSCE. The FM clerkship is unique at BUSM in its use of case-based learning, standardized patients/high fidelity simulation, and an OSCE. The Office of Medical Education data consistently places the FM clerkship among the highest rated clerkship since its first year in 1998.

Department of Family Medicine Faculty Involvement in BUSM Curriculum

| Blue= DFM faculty direct/lead Green= DFM faculty participate/teach | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 |
|---|--------|--------|--------|--------|
| REQUIRED COURSES | | | | |
| Academy of Advisors | | | | |
| Essentials of Public Health | | | | |
| Integrated Problems | | | | |
| Introduction to Clinical Medicine | | | | |
| Family Medicine Clerkship | | | | |
| Obstetrics Clerkship | | | | |
| EBM/Information Mastery | | | | |
| Sub-internship in Family Medicine | | | | |
| ELECTIVES | | | | |
| Healer's Art | | | | |
| Embodied Health | | | | |
| Physician Resiliency | | | | |
| Maternal and Child Health | | | | |
| Sports Medicine | | | | |
| Advanced Outpatient | | | | |
| Narrative Medicine | | | | |
| Latino Health | | | | |
| Lesotho Elective | | | | |
| Advanced Communication in Healthcare | | | | |
| Summer Externship in Family Medicine | | | | |
| QI/Hotspotting Program | | | | |
| ENRICHMENT ACTIVITIES | | | | |
| Family Medicine Interest Group | | | | |
| AMP | | | | |
| BU CHAMPs | | | | |
| Second Year Launch | | | | |
| Field-Specific Advising | | | | |
| BUSM ADMINISTRATION AND COMMITTEES | | | | |
| Clerkship Curriculum Subcommittee (CCS) | | | | |
| Pre-clerkship Subcommittee (PCS) | | | | |
| Medical Education Committee | | | | |
| BUSM Educational Quality Improvement Committee | | | | |
| BUSM Curriculum Re-Design Executive Committee | | | | |
| Admissions Committee | | | | |

Essentials in Public Health (EPH) is a course in the first year of medical school designed to teach the social, ethical, political, and economic context of health care. The goal of this course is to produce well-rounded students prepared to practice medicine with robust knowledge of the population level factors influencing clinical practice. Topics covered include social determinants of health disparities, epidemiology and biostatistics, quality improvement and practice transformation, legal and ethical issues relevant to the clinical practice of medicine, health policy and the structure and organization of health care systems. These concepts are taught in a largely case-based format with emphasis on interactive discussion and problem-solving in class.

Family Medicine Interest Group and FaMeS (Family Medicine Track) provides support and early clinical experience to students at the BU School of Medicine who are interested in family medicine. These students have the opportunity to participate in many extracurricular experiences and workshops that promote family medicine and are mentored and supported in

the family medicine residency application process. FMIG/FaMeS students have the advantage of integrating several different curricular requirements so that they can have the ongoing support of faculty in the Family Medicine department.

Action and Mentorship Program (AMP) is a 4-year track for students interested in population and community health and primary care. AMP provides opportunities for community engagement and service learning, family medicine mentorship and peer community support to BUSM students. The AMP community has a shared mission centering on the value of population health and primary care in the healthcare system, the importance of engaging in community outreach and action, and the vital need to support each other's personal and professional growth during medical training. AMP includes a summer leadership program for students to develop community partnerships and plan community engagement and the AMP curriculum for the following year. Going forward, AMP plans to partner students with specific community health centers to focus their community projects and clinical work through their four years of medical school.

BU Community Health Alliance of Medical Professionals (BU CHAMPS) provides an opportunity for medical students who are interested in community health, practice re-design, and patient-centered team-based care to get involved in both clinical care and educational and healthcare innovation from the start of medical school. Funded by a HRSA grant, students from five Boston University programs work collaboratively in interprofessional teams to provide quality care for complex patients in the context of a Level 3 patient centered medical home. Students develop skills to engage in multidisciplinary collaboration, reflection, leadership, and professional work. Trainees learn about teamwork, care management, patient outreach, effective communication, quality measures, resiliency, and community health.

Program for Integrative Medicine and Health Disparities

Established 13 years ago by Drs. Robert Saper and Paula Gardiner, the Program for Integrative Medicine and Health Disparities was founded out of a strong conviction that safe and effective integrative therapies should be available to everyone without regard to ability to pay. Integrative medicine and health reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic and lifestyle approaches, healthcare professionals and disciplines to achieve optimal health and healing. BMC's mission - "*Exceptional care without exception*" - directly influences our work. Unfortunately, most hospitals and academic medical centers offer integrative medicine services on a cash-only basis, thereby making this innovative form of health care inaccessible to individuals in lower socioeconomic groups who have little or no discretionary income. As federal, private, and academic stakeholders invest millions of dollars into integrative medicine research, education, and clinical services, we believe that multicultural communities and vulnerable populations have equal access.

Our *vision* is a health care system which offers safe and effective integrative health care for all. Our *mission* is to create a national model at BMC to demonstrate the role integrative medicine can play in improving the health and quality of life for our patients regardless of income; advance this model through rigorous research and dissemination; and educate the

health care providers of tomorrow about the benefits of this model. Our work is guided by four strategic pillars where wholeness, health and healing, social justice, and partnership are central.

The *Program for Integrative Medicine and Health Care Disparities* has initiated innovative integrative medicine clinical services –all offered at low or no cost that include: integrative medicine consults and group visits, individual and community-style acupuncture, therapeutic massage, yoga, tai chi, and nutrition classes in our teaching

Stand for wholeness in healthcare delivery

Make the breath, movement, stillness, healthy food, wise touch and loving connection the foundation for healing

Care for those who have not been able to care enough for themselves

Strengthen our vitality on behalf of our vision

demonstration kitchen. Self-care, empowerment, and education are core to all of our services. Federal grants, private foundations, and individual philanthropy has been critical for funding research published in high impact journals on innovative approaches to common problems, such as yoga for chronic low back pain, integrative medicine group visits for chronic pain and depression; and music therapy for medical inpatients. Education initiatives have hospital-based internships for acupuncture students; integrative medicine rotations for family medicine and preventive medicine residents, and helping sponsor an annual integrative nursing conference.

The Program for Integrative Medicine and Health Disparities is grateful to be part of the Department of Family Medicine and looks forward to being part of the next twenty years of success and innovation.



Sports Medicine and Sports Medicine Fellowship

The division of sports medicine began in 2001 with its founder, Dr. Matthew Pecci, and has substantially grown by number of providers and care for colleges, universities, and the community over the past 16 years. The sports medicine division provides care at multiple Boston Medical Center and community sites. The flagship clinic is the Ryan Center for Sports Medicine, which serves as BMC’s sports medicine clinic and is located on the Charles River Campus in the heart of Boston University. The Ryan Center is the first full-spectrum sports medicine center in Boston, including primary care sports medicine, orthopedic sports medicine,

athletic training services, physical therapy, and sports nutrition. Dr. Douglas Comeau currently serves as medical director for BU and BMC sports medicine, BU athletic training services, BU PT, the Ryan Center, BU AT education, and the concussion clinic. The concussion clinic at the Ryan Center is the only clinic in Boston that offers all services of concussion management: initial evaluation, neurocognitive testing, computerized balance testing, cognitive, cervical, vestibular, and ocular rehabilitation, and return to activity progression. Three of our sports medicine providers coordinate the procedure clinic. The procedure clinic offers diagnostic musculoskeletal and ultrasound-guided injections.



Besides the Ryan Center, the sports medicine division provides care at BMC Orthopedics, East Boston Neighborhood Health Center, South Boston Community Health Center, Codman Square Health Center, Dorchester House, Emerson College Health Services, Boston College Health Services, and Boston University Health Services.

The sports medicine division coordinates care and provides event and athletic training room coverage at Boston University, Boston College, and Emerson College. In 2015, Boston University sports medicine and athletic training services was recognized by the CMO of the NCAA as the model sports medicine practice for Division 1 athletics. The Boston University model of care reflects the medical model of sports medicine, in which all of the athletic trainers serve under Dr. Comeau. Thus, athletic trainers are treated as health care professionals, making medical decisions outside of the purview of the athletics department.

Dr. Comeau serves as the Massachusetts state representative on AMSSM policy and practice committee. He has given multiple regional, national and international lectures on concussion, OMT, and exercise prescription. He also serves as Associate Editor of Athletic Training and Sports Health Care, a peer-reviewed journal. Dr. Alysia Green serves as head team physician of USA women's gymnastics and has represented the sports medicine division annually at the world championships and also will be attending the upcoming winter Olympic games as a team physician for the USOC medical staff. Locally, all of the sports medicine division serve as finish line medical tent physicians at the Boston Marathon and also coordinate care for the summer Baystate Games at UMass-Boston. Dr. Comeau serves as medical director for the Boston Triathlon. The sports medicine division and BU athletic training services also provide BPS football covered and pre-participatory exams for all student athletes in May.

The DFM sports medicine fellowship program started in 2005 and has graduated eleven sports medicine fellows who work alongside the DFM's five sports medicine CAQ certified faculty at BU, MIT, Boston College, Emerson, three inner-city high schools, and at three CHCs. This faculty group provides students and residents with role models of family physicians skilled in this aspect of medicine. Graduates currently work in a variety of roles, including medical director, fellowship director, and team physician, at tertiary medical centers, family medicine clinics, MIT, BC, University of Memphis, FIU, and California-Berkeley.

Global Health Programs in the Department of Family Medicine

Fifteen years ago, Brian Jack and Bill Bicknell joined forces to develop the Family Medicine Specialty Training Program in Lesotho, and the Lesotho-Boston Health Alliance (otherwise known as LeBoHA), was born. At the peak of the AIDS crisis, LeBoHA was established as a long-term commitment to support the Ministry of Health respond to the HIV/AIDS epidemic through strengthening human resources for health. Since then, LeBoHA has led numerous capacity-building initiatives for physicians, nurses, and civil society organizations in Lesotho.



Shortly after the creation of LeBoHA, BU DFM recruited Alain Montegut and Steve Cummings to bring their Vietnam Family Medicine Development Project to Boston. With this move, BU DFM formed the new Global Health Collaborative, a global health initiative to bring together two of the most successful international Family Medicine development programs in the world and promote best practices in primary care reform. The Collaborative has since provided trainings around the world in both FM and general medical education.

The Collaborative has had remarkable success in the past 20 years. Recently, LeBoHA received full accreditation for the Family Medicine Specialty Training Program (FMSTP), making it the first medical training program of any kind in Lesotho to receive such a distinction, and has recruited the first ever cohort of ten native Basotho physicians back to train in the country and eventually become recognized, and compensated, by the Lesotho government as specialist physicians. In addition, LeBoHA raised funds and constructed a crucial home base for both trainees and volunteers in Leribe in memory of Bill Bicknell. The Bill Bicknell Academic Center now acts as an academic home for training all FMSTP registrars, as well as provides local lodging for all international volunteers.



The Vietnam project has experienced unprecedented success as well. Over 700 family physicians have been trained to date as first degree specialists, with more than a thousand additional physicians receiving 3-month “short course” training in FM. In addition, programs for 2nd degree specialists and a Master’s degree in FM have also been initiated in Vietnam. Equally vital, the Collaborative has hosted countless visitors from Vietnam including the Minister of Health, resulting in the inclusion of Family Medicine as a core pillar of the current strategic national health plan. Building on our success, the Collaborative has now spread across Southeast Asia to include Cambodia, Laos and Myanmar. While each country has its own needs and specific challenges, our partners appreciate Family Medicine is the core specialty for creating a health care foundation built upon primary care. We look forward to the next 20 years to see how and where the Collaborative can use Family Medicine to



promote greater health equity by transforming health systems to meet the new U.N. Sustainable Goal for Health: *Ensure healthy lives and promote well-being for all at all ages.*

Medical Anthropology and Cross Cultural Practice

Human experiences of affliction, suffering, and sickness are deeply influenced by the historical and cultural contexts in which they arise. Medical anthropology is the interdisciplinary branch of cultural anthropology that addresses all such aspects of health, illness, and disease. Medical anthropology formulates and addresses both theoretical and applied problems, with the goal of conducting research that will contribute to the social sciences, and to different domains of healthcare and public health. This application of anthropology to the study of illness and health brings the field into dialogue with scholars and practitioners in the medical sciences.



Drawing on methods and types of data from the different branches of anthropology and other disciplines, medical anthropology examines relationships between biological and cultural factors that contribute to the epidemiology of disease. It explores the meanings that cultural groups assign to these experiences, along with the different healing traditions, healers, and health care practices and systems in different cultures that have arisen in response. Common analytical frameworks include social, cultural, political, economic, gendered, racial/ethnic, and other analytical strategies, particularly in relation to the effects of globalization.



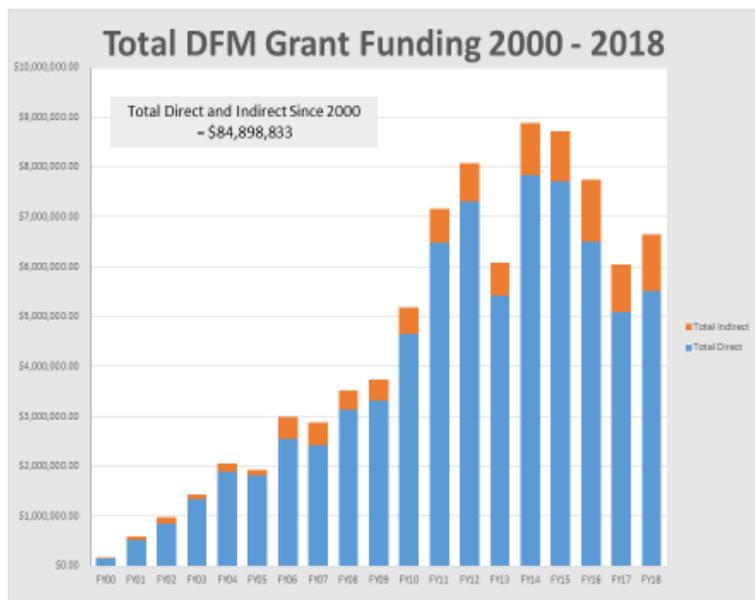
2016 MACCP students and alums at 2016 American Anthropology

Founded in 2009, and based in the Division of Graduate Medical Sciences at Boston University School of Medicine, the M.S. in Medical Anthropology and Cross-Cultural Practice program provides interdisciplinary training in the theory and methods of medical anthropological and qualitative research, and in the

student's own area of concentration, as well as in applied practice. Program faculty hold their primary appointments in the Department of Family Medicine at BUSM. The Department has warmly welcomed students in the program, particularly through the weekly Research-In-Progress group, where students present their initial research objectives during their first year, and their thesis findings during their second year. Graduates have gone on to leadership positions in health promotion, consulting, research, and social media, and to doctoral programs at Brown, UCLA, Johns Hopkins, the University of Southern Florida, Boston University, and Brandeis.

Research to Improve the Health of Underserved Populations and the FM Academic Fellowship Program

The Department of Family Medicine prioritized research and scholarship from its founding and is one of the most successful family medicine research departments nationally. Our research



focuses on primary care systems that improve the health of low-income high-risk populations, particularly focusing on medical conditions that have a major impact on these populations. Since 2000, the Department research grant funding totaled \$84.9 million. As evidence of the DFM's research success, our peer-reviewed publications and book chapters have increased steadily and number over 495. Faculty have published in world renowned high impact journals including *JAMA*, *Annals of Internal Medicine*, *Annals of*

Family Medicine, and *Academic Medicine*. Department faculty are co-PIs in 3 very large PCORI grants, currently have 3 NIH R01s, and are recipients of a 5 year T-32 National Research Service Award from AHRQ. Our highlighted research areas of focus are: health disparities, health information technology for health education, yoga for chronic low back pain, integrative medicine group visits, transitions in care, global health, culture of health, and interprofessionalism.

The Family Medicine Academic Fellowship. The Department of Family Medicine offers an academic family medicine fellowship program designed for physicians whose professional goals include productive research careers. The goal of the fellowship is to prepare fellows for academic family medicine careers through the development of research, teaching, leadership and management skills. The fellow receives research training in the BU School of Public Health and the Graduate Program in Medical Sciences in the BU School of Medicine, leading to an MSc in Epidemiology or in Health Services, with the opportunity to continue on for doctoral studies. The fellowship functions is part of a combined primary care academic fellowship program with General Internal Medicine and Pediatrics. The fellowship provides the necessary knowledge, experience and skills in quantitative and qualitative research methods for beginning a primary care research career. This occurs mainly through coursework at the Boston University School of Public Health, mentored research, and fellowship seminars. Committed fellowship faculty mentors devote substantial time to guide fellows through research projects from study inception to design, data collection to analysis, and presentation to publication. The fellowship offers several options for concentration based on faculty expertise, including health services

research, preventive medicine, women’s health, and addiction. Since 1998, the fellowship program has trained 19 family medicine fellows and currently the majority are in academic positions across the country and hold institutional and national positions of prominence in primary care research, education and service.

Administration and Finance that Support Our Values

From its inception, the Department of Family Medicine has viewed budgets and finance less about numbers and more about our values. Primary care departments in Family Medicine have long been challenged to grow sustainably within the structure of the domestic health finance system. As a department, we write budgets to enable, rather than restrict, our ability to achieve our clinical service, teaching, and research mission. Along with BMC and our regional economy, we have seen both lean years and growth years. By our 20th year, we have grown to over a \$20 million organization!

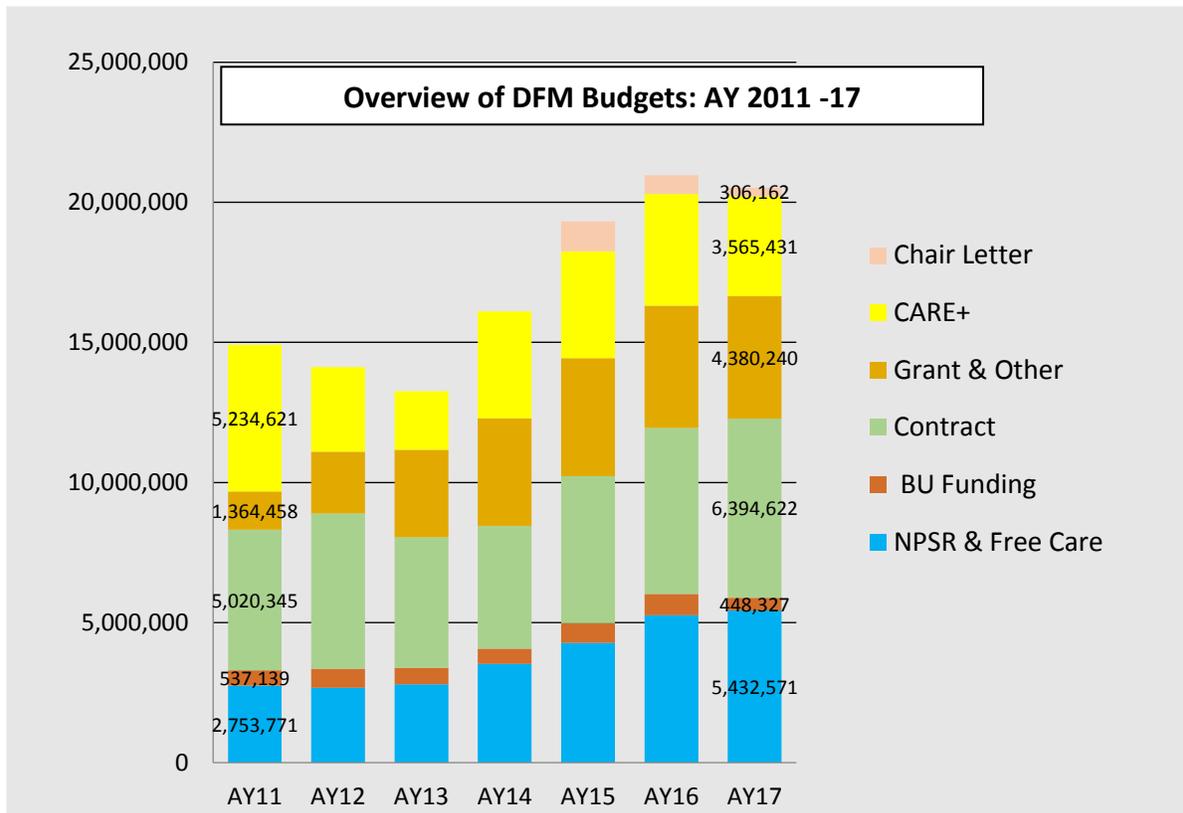
We have been steadfast and consistent over the years in advocating for support for three of our top strategic priorities.

Growing the Family Medicine Workforce. A fully empaneled and productive primary care physician is able to raise in patient revenue funds close to the costs of employment, including salary, fringe, billing fees, CME and malpractice. With support from the hospital, as a department we are able to “break even.” Building a panel of patients, however, can take a number of years, so the department loses money during this ramp-up period. In addition, many of the core elements of the patient-centered medical home model, such as integrated behavioral health and care management, require additional investments without a direct source of revenue. The department has prioritized raising funds from a variety of sources to meet this critical strategic goal as we enter the accountable care era with its focus on quality care for covered lives.

Family Medicine / Boston HealthNet inpatient floor. For all its strength in quality metrics and transition of care communication, our inpatient floor service delivery model does have expense. We provided 24/7 attending level and resident coverage, as well 7 day advanced practice clinician coverage. As we can only submit one professional claim per day, sustaining this seamless team coverage is a serious challenge. Based on our strong results and advocacy, BMC has provided this gap coverage as part of its strategic program support.

Labor and delivery collaborative. Our model of providing a family medicine MD attending to join the OB attending and a nurse-midwife 24/7 on the L&D floor has been a core innovation for many years. The family medicine department, however, collects no direct patient revenue to support this service, as deliveries are billed through the Ob/Gyn department. We have successfully won sufficient support, whether from Ob/Gyn or from BMC, to cover the costs by contract for our physicians.

As in any resource-constrained environment, our leadership has needed to be creative to close our budget gap each year. We have sought to avoid fragility in our finances by diversifying our efforts across the various domains: Since our most basic goal is community-based care, our largest single source of money is **contracts** with our community health centers. These partners, of course, face their own financial challenges from year to year.



Budget Overview. The history of departmental funding sources over the past 7 years is detailed in this graph. Payments from insurers or patients for clinical care, referred to as net patient service revenue (NPSR) serves as the starting point for our budget. Unfortunately, this source is limited by our high percentage of government payers (Medicaid and Medicare) as well as unfavorable (relative to our well-heeled competitors in town) commercial contracts. Our department has invested a lot of effort, especially in recent years, in maximizing our NPSR by optimizing the various components of the complex revenue cycle program. Research and philanthropic **grant support** is the next largest source of funding. Whether in primary care innovation, patient education platforms, integrative medicine, or global health, our faculty has been enormously effective in generating and implementing ideas attractive to institutional, foundation, and individual donors.

Strategic investments in our department by Boston Medical Center, referred to as **CARE+**, is a key component of our budget. While the levels have fluctuated over the years based on BMC’s financial outlook, our strategic choices have aligned well with BMC’s values. Our innovative and expanding residency program is funded through this mechanism.

In recent years, a portion of BMC funding has come through support of Dr. Jack’s first years, referred to as **Chair Letter**. Dr. Jack directed these funds to primary care expansion as well as supporting some faculty needing protected time to generate grant proposals.

The **Boston University** School of Medicine has been the major funder of our medical student education program for many years.

Though successful year by year, our major challenge is that all these revenue streams combined, while supporting our strategic priorities, are failing on two key measures. First, we

have been unable to pay our faculty at median salary amounts relative to their peers in the region. While it is understood that working with the underserved limits our resources, achieving median salary remains our aspiration. Second, we have been unable to build substantial reserves to solve cash flow or provide for meaningful one time investments. We are working closely with our parent, the Boston University Medical Group (BUGM), to develop solutions to both of these problems.

While stressful in the moment, our future seems to promise more of the same. We will work hard generating patient and contract revenue with productivity and efficiency. We will advocate for every additional penny from institutional and external sources using high quality innovation as our hallmark. We hope to reach \$50 M by the time we are 50 years old!