

MIT Medical

A Tradition of Care

MIT Medical has served members of the MIT community and their families for more than 100 years. We provide comprehensive, high-quality physical and mental healthcare to students, faculty, and staff. As a multi-specialty practice operating in Cambridge and Lexington, we offer a centralized source for routine and urgent healthcare needs, health insurance, and an extensive roster of health and wellness promotion programs.

In FY2008, we conducted more than 129,000 clinical care visits between our Cambridge and Lexington facilities. At MIT Medical, we are much more than just the on-campus health facility—we are personal health educators, wellness advocates, and qualified clinicians. Our involvement in campus life, informed by issues unique to the MIT community, helps us to improve the wellbeing of our patients through personalized healthcare.

Vision, Mission, and Strategic Focus

The strategic vision of MIT Medical is to be a premier university-based healthcare system that offers comprehensive, collaborative, and affordable care to the MIT community. To implement this guiding vision, our mission is to deliver integrated medical, psychological, and preventive care to promote healthful living for the Institute community in support of learning and research.

Five strategic cornerstones support the basic tenets of our vision and mission. Known as the “mission pillars,” these tenets help us to evaluate the needs of the Institute community, the changing healthcare environment, and advances in medicine and technology. In addition, they assist us in discerning new threats to the health and wellbeing of the MIT community.

Throughout 2007–2008, these mission pillars helped us to focus on delivering premium healthcare in numerous ways.

Improving Patient Access to Care

We increased the access and availability to care and continued to monitor and evaluate process improvement from a multidimensional perspective. This included ensuring greater availability of appointments, improving patient/clinician interactions, and coordinating patient care across the continuum from registration to post-care.

Maintaining Clinical Quality and Excellence

We continued to develop processes and systems to help us maintain a higher level of clinical quality and excellence. With the help of healthcare informatics software, we are able to integrate clinical information from various technological systems into one data warehouse. As a result, we can now generate comprehensive reports to help us identify and understand patient care trends. In particular, we have focused our attention on continually improving medication safety, continuity of care, and data quality.

Enhancing Community Wellness

We collaborated with MIT's Human Resources Department to increase campus-wide community wellness programs. The TECHHealth Alliance, a multi-department employee health and wellness workgroup, was established to develop and implement public health programs within the MIT community. Their first initiative was an MIT-specific smoking cessation program. The group partnered with the American Cancer Association of Boston to launch MIT's first Great American Smokeout.

Likewise, programs such as getfit@mit continue to promote healthful eating, wellness, and stress management to the Institute community. Now in its fourth year, getfit@mit is offered through our Cambridge and Lexington facilities, where interest and participation continue to grow annually.

Managing Healthcare via Finance

We monitored the healthcare financial industry in order to understand how best to manage healthcare costs relative to our patient populations, as well as financial, technology, and treatment trends. Working with the Medical Management Board and MIT's Finance Office, our goals are to have a clear and complete understanding of our finances, a predictive financial model, and the ability to give and obtain the best care for our patients at the fairest cost.

Advancing Diversity

The diversity pillar is the newest addition to our mission's strategic cornerstones. We worked to advance a healthy, balanced community where appreciation of race, ethnicity, class, culture, disability, sexual orientation, and gender exists for everyone, from our patients to our personnel. With the guidance of a Diversity Committee, we conducted a variety of trainings, presented luncheon discussions, published the monthly Diversity Newsletter, and developed a Staff Advocate Program.

Via the help of an outside firm, we recently conducted an in-depth staff diversity and inclusion survey, which garnered an 80 percent response rate. To help further uncover diversity issues and opportunities, we hosted a series of employee focus groups that enabled us to chart our way for the future. For FY2009, we will focus our efforts on providing senior leadership training, promoting cultural competency, and increasing tools and programs that promote diversity best practices.

MIT Medical Department Initiatives

Supporting the health and welfare of the MIT community is the major focus of MIT Medical. The educational and research missions of MIT are enhanced when our community receives convenient and expert healthcare, wellness advice, and support. To that end, we strive to improve the quality and the availability of care and services. During FY2008, we did so with the help of various clinical services and programs.

Community and Individual Wellness

For MIT Medical, attaining and maintaining health are two important goals. When fulfilled, they will enhance both the productivity and the well-being of our community.

Promoting healthful behaviors is a critical, developing component of the services that we provide for this special community, from avoiding such risks as smoking or excessive alcohol use to encouraging healthful lifestyle choices like exercise, proper nutrition, and sleep hygiene. Through our Center for Health Promotion and Wellness, our Mental Health Service, and other medical specialties, we provided specialized health expertise and programs that helped the MIT community acquire knowledge and promote research.

In addition, we cosponsored the Aging Successfully Seminar, participated in independent activities period events, provided preprofessional advice for MIT students, and participated in the BioMatrix Program. These are just a few of the many ways in which members of MIT Medical, from our clinicians to our support staff, participate in the vibrant community that is MIT.

Women's Health Activities

Ensuring user-friendly, available, expert care for women in the MIT community continues to evolve. By scheduling innovations that enabled and supported the delivery of high-quality care in a timely fashion, we facilitated the close collaboration between the Ob/Gyn and Internal Medicine Services departments. Furthermore, adding digital mammography to our menu of radiological services has kept our offerings in the realm of women's health at a state-of-the-art level. The vast majority of women's health service needs are met onsite at our Cambridge and Lexington facilities.

Dental Care

We have installed and deployed a sophisticated dental practice management and record-keeping system. Dentrix® is a premium dental software system that will allow MIT Dental to implement electronic medical records and digital radiography. By improving scheduling and care planning, the system allows for more streamlined care and better use of resources—both personnel and space. Our on-campus dental service not only has significantly increased the number of patients for whom it cares, but also continues to meet many of our community's dental needs by reducing the time spent away from classrooms, labs, and offices.

Operational Advances

The development and deployment of Ensemble®, a sophisticated software data-mining system, has begun to provide important information for both resource management and clinical care. By pulling data from a number of sources and migrating it into a spreadsheet format, we are able to efficiently assess care delivery and resource utilization. For example, we can more easily monitor rates of immunization or screening testing, such as colonoscopy. At the same time, we can monitor the cost of care and the utilization of resources, thereby providing data to inform decision making related to staffing and services offered.

Information Systems

In addition to our new data-mining system, the MIT Medical Information Systems has continued to improve services and to provide strong support in the rapidly evolving realm of medical informatics. We have implemented a new version of our electronic

medical records (EMR) system, which provides seemingly instantaneous access to large volumes of clinical data. As a result, X-ray images are now easily reviewable on the clinician's desktop monitor. For several of our clinicians, the desktop computer has become a vital, dynamic patient teaching and engagement tool. Showing X-ray images or lab data to patients over time can enhance their understanding, thus potentially improving care and outcomes.

Virtually all prescriptions are now written and distributed electronically. As a result, prescriptions are easily sent to our in-house or outside pharmacies.

The enrollment in and use of the Patient Online (POL) portal has continued to grow. This secure, web-based communication system allows patients and clinicians to communicate more efficiently. Although clearly not appropriate for the management of acute problems, the sharing of information in an email-like mode provides a useful, convenient mode of communication for both patients and clinicians.

Our Information Systems group has also facilitated the availability of data from other healthcare institutions. Having data from our affiliated institutions improves the flow and coordination of care, and often reduces the need for repeat or unnecessary testing.

Emergency Preparedness

Working with the MIT Police; the Environment Health, and Safety Office of MIT; and other MIT groups, MIT Medical proactively participates in planning operational pathways for response to local or global catastrophic events. An important component of community preparedness is the need for individual preparedness and for all members of our community to be engaged. At MIT Medical, we have taken steps to assist members of our department in making plans for the wellbeing of their families and themselves in the event of a catastrophic event related to disease, weather, or homeland security.

Cultural Competency

Comfortable care is culturally competent care. The wide diversity among the MIT community spans both a generational and a cultural perspective. We strive to understand the needs of all our community members through their eyes and experiences. To that end, we have initiated programs within our department to increase cultural awareness and sensitivity. In addition, we seek employees and contractors who can enrich our own diversity. By learning from each other, while working with each other, MIT Medical strives to support and enrich the quality of care that we provide.

Clinical Services

During FY2008, MIT Medical conducted more than 129,000 visits at our Cambridge and Lexington campuses. More than 5,800 of those visits occurred at our Lincoln Laboratory healthcare facility, which primarily delivers care to the MIT community members who live or work in the Lexington area. This includes employees of Lincoln Laboratory, Draper Laboratory, and the Whitehead Institute. The following table details our clinical visit statistics by patient demographics:

Visits to MIT Medical, FY2008

Patient Population	Number of Visits
Students, affiliates and family	54,785
Faculty and staff	62,693
Retirees and family	9,618
Others	2,790
Total	129,886

**After Hours Service—
David Shein, MD, Chief*****Strategic Focus***

The After Hours Service provides continuity and access to medical care for the MIT community during nights, weekends, and campus holidays.

Services are provided on a walk-in basis

for ambulatory patients, including students, MIT Health Plans' members, retirees, and employees seeking job-site care and services under the primary care benefit. The advantages of having an in-house physician extend to the MIT Medical Inpatient Unit as well, where the After Hours physician provides on-site support for hospitalized patients, when needed.

Accomplishments

In spite of a national shortage of primary care physicians, we have been able to maintain our staffing levels through competitive reimbursements and attractive hours. We currently have one part-time physician, Dr. Margaret Oakland, and a team of about 10 contract physicians who work rotating shifts. As expected, the part-time position added in FY2008 has improved continuity and follow-up for patients evaluated overnight and during weekends. In addition to incorporating community outreach, this part-time position will facilitate internal quality assurance within the service.

Through collaboration with Harvard University Health Services, we have added the services of contract pediatricians who split weekend day shifts between MIT and Harvard. While our volume of pediatric cases does not justify a full-day after-hours pediatrician, we believe that the provision of services specific to children is important to have available. For a reasonable cost, this solution employs a pediatrics provider who can see patients through age 25. This care model allows our service to expedite the provision of care to our students who fall within this age group and are seen during weekend day shifts in the After Hours Service.

The After Hours Service maintains an important link to campus resources, including the MIT Student Ambulance, the Dean-On-Call network, and the MIT Mental Health Service. Within the confines of medical privacy regulations, our After Hours physicians also provide a vital link to outside medical care. If a student suffers an injury or illness and is sent directly to an area hospital, we help to facilitate and coordinate care.

Besides maximizing the availability of the services we provide on campus, our goals include helping to address the needs of students and MIT Health Plans' members when care is needed outside of MIT Medical. After Hours clinicians routinely assist with medical and health insurance advice by telephone, whether the caller is across campus or around the globe. The service training includes an overview of the health insurance coverage options for students and MIT Health Plans' members. In addition to medical advice, providing documentation for the purposes of insurance referrals, communicating with outside providers, and addressing prescription needs outside of regular office hours are all within the purview of the After Hours Service.

Dental Service—Grace M. Collura, DMD, Chief

Strategic Focus

The Dental Service at MIT Medical is committed to the improvement of oral health and hygiene through preventive care and maintenance. Our team of dental professionals works to identify dental diseases and to intervene with dental and oral health issues.

As always, the primary goal of the service is to render a high level of patient-centered care for students, faculty, staff, and their families in a way that promotes good oral health. Attention is paid to providing routine dental care and to meeting emergency needs quickly so that patients can return to work or class. Since dental care and medical care are coordinated in one system, patients have the unique opportunity to receive integrated care on campus. As recent medical reports continue to link dental care to overall health, we are pleased to offer such comprehensive services at MIT Medical.

Accomplishments

The major focus of improvements to operations and efficiency was with the implementation of the first phase of Dentrrix[®], our new healthcare information technology dental software system. During our first phase, we were able to implement electronic billing, increase the efficiency of scheduling patients, and thus improve our overall dental service productivity.

Direct patient care continued to be one of many priorities for the Dental Service. Our dental clinicians were active members of the MIT community, supporting MIT Medical's strategic initiatives in health promotion and wellness. Doctors Edward B. Seldin, Gretchen A. Anjomi, and Grace M. Collura continued to provide pre-professional advising to undergraduate students and participated in the annual campus wide MIT Health and Wellness Fair.

Initiatives

For FY2009, we plan to implement electronic clinical record keeping and digital radiography, both of which will improve quality and speed of communication between clinicians, as well as between clinicians and patients. With this technological advancement, we will replace x-rays with enhanced quality images and store files within patient records. Electronic clinical records will enable clinicians to present patients with more cutting-edge treatment options, thereby increasing overall dental hygiene and care.

Eye Service—Robert B. Gross, OMD, Chief

Strategic Focus

The MIT Medical Eye Service strives to provide prompt, courteous, comprehensive eye care of the highest quality to the MIT community. We are a full-service eye care center that offers both optometric and ophthalmologic services to patients. In the event that outside consultation is necessary, we have relationships with the area's best specialists. Outstanding customer service is of paramount importance in eye care, as well as in the sale of both eyeglasses and contact lenses.

Accomplishments

In October 2007, a new part-time optometrist, Dr. Michele Cassin, was added to our staff. This has allowed us to maintain our goal of prompt access to both routine and urgent eye care. On average, routine exams are available with a two-week wait, while urgent care services are available daily.

In collaboration with our Internal Medicine Service, the Eye Service coordinates care with MIT Medical's ongoing Diabetes Management Workgroup. Seeking to minimize vision loss caused by diabetes, we regularly notify patients of the need for annual eye exams. Currently, 75 percent of our diabetic patients receive a comprehensive eye exam annually, well above the national average. This successful program is now in its sixth year at MIT Medical.

Our confocal scanning laser ophthalmoscope, used for optic nerve evaluation and the management of glaucoma, has received a software upgrade and is now networked into each exam room. As a result, the clinician can manipulate the data chair-side to better illustrate the course of disease for the patient. This enhanced level of patient education has led to better compliance and improved outcomes among our patient population.

From the customer service perspective, patients now have a third option for paying for their contact lenses. In addition to paying by phone or in person, patients can settle their outstanding charges right from their computer via the web. This new service has been met with an enthusiastic response.

Initiatives

To further improve the contact lens buying experience, we are planning to launch an e-commerce website for the sale of contact lenses in FY2009. This will help to provide a convenient way for patients to purchase contact lenses.

Looking forward in the eye health arena, we will continue to monitor the rapidly changing landscape of detection and treatment of various eye diseases. As improvements become available, we will expand our practice to include new techniques, knowledge, and equipment that will best serve the MIT community.

Inpatient Unit—William A. Ruth, MD, Chief

Strategic Focus

The 18-bed Inpatient Unit (IPU) of MIT Medical provides an important and well-appreciated source of personalized care for the MIT community. Recognized by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), the IPU provides sub-acute level care for members of the MIT community, including students, MIT Health Plans' members, and retirees. The unit is charged with the management of acute non-life-threatening illnesses, as well as with providing postoperative care and end-of-life care for MIT community members. Our special focus is the MIT undergraduate, graduate, and international student population. When students are too ill to be in their dormitory or place of residence, they are cared for in the IPU.

Accomplishments

Throughout FY2008, the IPU continued to provide integrated care together with our After Hours, Urgent Care, and Internal Medicine services. Primarily staffed by registered nurses with 24-hour physician coverage, the IPU had 277 patient admissions during the year, for a total of 985 inpatient days. Medical conditions ranged from acute gastroenteritis to postoperative care to end-of-life care.

Transient-stay patients are ambulatory patients requiring stays of up to several hours for intermittent nursing care, such as intravenous hydration, antibiotic therapy, or specialized infusions, some of which were initiated this past fiscal year. These transient visits totaled 533 for the year. With the training of nurses in applying new medication infusions, the IPU provides easier access for patients together with lower total expenses.

Along with caring for IPU patients, the night nurses provide nursing triage with physician back-up from 11 pm to 7 am for the After Hours Service. During FY2008, the physical therapy service in the IPU was changed to the Mount Auburn Hospital physical therapy team in order to provide a more comprehensive service. The IPU nurses complement the other medical staff in providing intravenous access service when needed, assisting in influenza clinics, and aiding in ongoing projects with our electronic medical records.

**Medical Service—David V. Diamond, MD, Associate Medical Director;
Howard M. Heller, MD, MPH, Chief of Medicine**

Strategic Focus

The Medical Service of MIT Medical aims to provide the best primary care to our patients and to coordinate their specialty care. In addition, we support and contribute to health promotion for our patients and the MIT community. Beyond their clinical roles, physicians in our service provide clinical and organizational leadership and consultation both within the Medical Department and to MIT as a whole.

Our primary strategic focus for FY2008 was to provide patient access to both timely and clinically excellent healthcare services. In addition, we have had the following operational goals: to improve the quality and continuity of our After Hours Service; to enhance the deployment and employment of our EMR system, including a POL portal; to address the need for a more comprehensive approach to women's healthcare; to enhance the quality of our clinician-patient communication during clinical encounters; to improve our response to medical emergencies within the department; to reduce the expense of outside testing by seeking lower-cost high-quality vendors; and to change office appointment schedules to allow more time with patients at routine visits.

Accomplishments

As of September 2007, all primary care clinicians have moved from a 15-minute to a 20-minute routine appointment schedule. The 33 percent increase in time allotted for standard visits has supported better clinical care by allowing improved patient communication and better use of our electronic medical records.

We launched and implemented an online dashboard that details clinical activity and quality measures; this information is available to all clinicians. The dashboard offers reports on vaccination rates, cancer screenings, and disease management indices. Additionally, the dashboard helped clinicians to identify areas of excellence and uncover areas of deficiency in real time to support improved quality. Our actual reporting statistics are excellent, meeting or exceeding similar published metrics for other medical group practices.

As part of a comprehensive Diabetes Management Workgroup, we created a dashboard report on all our diabetic patients, and have hired a certified diabetes educator to consult on-site with our most challenging diabetic patients.

We have continued to incorporate developments in our EMR system with a major upgrade effort in November 2007. Total electronic tasks rose to 79,100, of which 4,110 were patient secure email encounters through our POL portal. Online patient interactions often are the most efficient and effective way to provide clinical access for many patients' needs, and are increasingly well used by our patients.

As of April 1, 2008, Dr. Howard Heller assumed the role of chief of medicine from Dr. David Diamond, who had served in that capacity for eight years. Dr. Diamond was promoted to associate medical director, and will focus his administrative efforts on managing medical specialties and external clinical relations.

Initiatives

For FY2009, we intend to consolidate and build on accomplishments of the past fiscal year. Anticipated new version releases of our POL portal and electronic medical records promise to bring new functions in healthcare maintenance alerts and notifications.

As a new and important focus, in keeping with our revised departmental mission statement, we are working to develop a broad initiative in community health for MIT. Along with MIT Medical's Center for Health Promotion and Wellness and the MIT Human Resources Department, a proposal is being developed to bring personal health assessments to all members of the MIT community. With the aid of these personal assessments, our goal is to use the data to design both personal and community-wide interventions to lower disease risk for individuals as well as for the MIT community. We project that such a program ultimately will reduce the rise in overall medical care expenditures at MIT, while adding to our productivity and wellness.

Lincoln Laboratory/Lexington Facility—Deborah Sigman, APRN, BC

Strategic Focus

The strategic focus of the MIT Medical facility in Lexington is twofold: to provide comprehensive on-site care to the Lincoln Laboratory employees and to provide a west-suburban care site for MIT Health Plans' members and retirees.

Designed as a family practice to offer comprehensive primary medical care for all age groups, Lincoln Laboratory opened in 1999. Currently, we are staffed with a full-time

family physician and family nurse practitioner. Services provided include office visits, emergency and walk-in care, as well as onsite phlebotomy and prescription pick-up. Mental health providers are also available every Thursday and Friday for employee assistance and referrals from the primary care providers.

Additionally, promoting health and wellness continues to be a strategic focus of the Medical Department. The Lexington staff maintains a close relationship with Lincoln Laboratory administrators in order to be responsive to health-related concerns and to promote wellness via a series of regularly scheduled lectures on health topics.

Accomplishments

A recent and welcomed addition to the department's staff is Dr. Frida Wosk, an experienced pediatrician with a sub-specialty in developmental disorders. She is now seeing patients on Wednesdays at Lexington. In addition, our services have been rounded out with the expertise of Dr. David Diamond and, more recently, Dr. Brian Marriott, who both serve as occupational health consultants to the MIT EHS Office. By consulting with the MIT EHS Office in Cambridge, Dr. Marriott helps to coordinate occupational healthcare for those patients who live or work in west-suburban Boston.

September 15, 2007, marked another Lincoln Laboratory Family Day celebration. Occurring every five years, this event allows family members to view the highly secured facility. The Medical Department served on the planning committee to help develop myriad programs for employees and their family members. In particular, we provided health-related activities for children, health screenings, and on-site emergency medical care for the day's events, which were well attended by thousands of participants.

The Lexington site continued to receive the highest Press Ganey scores as compared to the individual clusters in Cambridge. Our patients consistently rate the providers, support staff, and facility well above both the national average and the MIT mean. We take pride in that accomplishment, which reflects our focus on patient-centered care as well our team cohesiveness.

Initiatives

Always an important initiative, MIT Health Plans' membership is steadily increasing. Toward that end, we will continue to be part of Lincoln Laboratory's twice-monthly orientation program and quarterly group leader training programs.

Mental Health Service—Alan E. Siegel, EdD, Chief

Strategic Focus

MIT Medical's Mental Health Service is focused on treating emotional stress and promoting resilience to help the community better manage stress and find newer, more effective ways to live and work at the Institute. The Mental Health Service staff addresses both the diversity of the student community and the need for accessibility and services, seeking to decrease the barrier to mental healthcare with greater responsiveness and improved communication.

Accomplishments

During FY2008, the Mental Health Service focused on achieving several goals related to our strategic purpose of promoting mental health wellness to the MIT community. Primarily, we helped to enhance patient care access, expand our outreach in the MIT Cambridge and Boston communities, and participate in overall efforts to improve the health of the MIT community in a variety of ways. These included:

Access

Our Service volumes were consistent with those over the past two years; for students: 40 percent of visits were with undergraduates, and 60 percent with graduate students. The volumes of the MIT Health Plans remain constant.

We maintained our walk-in clinic hours for urgent matters, Mondays through Fridays from 2 pm to 5 pm. Although other times are reserved each day for unscheduled, urgent consults, we advertised these specialized walk-in hours to faculty, deans, graduate resident tutors, and administrative officers. Through this network, we gained access to students and employees in distress. About 75 percent of people who are seen are self-referred, so that individuals in the community see the walk-in service as a place to come when they are in distress. Walk-in volumes remained constant, although we have seen an increase among new MIT Health Plans' members who are using this service.

We successfully transitioned our patients to a new mental health benefits provider. Blue Cross Blue Shield of Massachusetts Managed Behavioral Health Network replaced the Value Options. This network change was accomplished through the successful collaboration between our service, the MIT Health Plans Office, and the MIT Human Resources Department. In addition to enhancing our members' access to mental healthcare, this network change helps to simplify the claims process. Moreover, the Blue Cross network provides an expanded number of providers both in Cambridge and in the Greater Boston area, including all major teaching hospitals and health centers. Despite the complexity of this network change, our Members' Services teams reported no complaint from any MIT Health Plans member.

Outreach

The AFSP Suicide Prevention Online Depression Screening continued to reach out to 500 graduate students each month. The number of MIT students replying to the survey was higher than that of the other participating universities (12% versus 7%, respectively). Of the students who replied, 30 to 40 percent were identified as meeting criteria for a depression diagnosis. Most students stated that they would not have accessed our mental health services if it were not for this novel outreach approach. All students, except one, identified as being at high risk, participated in a face-to-face consultation.

The Mental Health Service's connection with academic departments was strengthened this past fiscal year, as more formal liaison connections were established with the Chemistry and Economics departments and the School of Architecture. We expect to expand our network so that each academic department will have an identified clinician whom they can easily access. Outreach activities included making educational presentations to academic liaisons, working with problem students, and identifying students who are potentially at risk for aggressive or violent behavior.

Improving the Health of the Community

Members of the Mental Health Service continued their active collaboration with colleagues from the Center for Health Promotion and Wellness, LGBT@MIT, Deans of Student Life, and academic departments, and provided a variety of educational and supportive programs. New in FY2008 was a strong focus on mindfulness and mind-body issues.

Mental Health Service created a new workgroup to aid in violence prevention. This workgroup includes colleagues from the Center for Health Promotion and Wellness, and has engaged the larger MIT group in developing responses to campus violence. We developed educational materials and presentations to help community members learn how to recognize potential aggression or violence in students and employees. Several curricula are in development in collaboration with the MIT Ombuds Office to provide training on the detection and management of employees and students who are at risk of aggressive behavior.

In addition to the array of support groups fostered through the Mental Health Service, several new offerings were developed for the MIT community:

- *PhD dissertation group*: Time-limited groups were developed specifically to assist PhD students who are having difficulty completing their dissertations. This group was oversubscribed within an hour of the posting announcing its availability, and has proven to be helpful for students.
- *Time-limited skill-building groups*: These groups were expanded to assist people at MIT who have difficulties managing the expression of their emotions. Using techniques from empirically validated treatments (e.g., dialectical behavioral therapy), these groups have proven to be most useful to persons with anger management problems, and to those with self-mutilating behaviors. Additional mindfulness groups were developed specifically to help with stress reduction.

Initiatives

During FY2009, we will engage more actively with faculty and faculty departments, providing ongoing consultation and training in matters pertaining to student and faculty stress. We also will undertake a major training initiative to address issues of campus violence. More specifically, we will develop a curriculum for faculty and administrators to help them recognize potential violence in students and others, which includes approaches to managing such situations.

Nursing Services—Kristine A. Ruzycski, MS, APRN, BC, Chief

Strategic Focus

At MIT Medical, nursing is both a science and an art that focuses on promoting wellness and health within the Institute community. Nursing care is delivered via a multidisciplinary approach that assists physicians in delivering care and that helps patients in maintaining care.

Nursing care is provided by adult and family nurse practitioners (NPs), certified nurse midwives (CNMs), psychiatric clinical nurse specialists (PCNSs), and registered nurses (RNs) in both the IPU and the ambulatory setting. Within the nursing service, physician assistants (PAs) provide medical care to patients under supervision of a physician. This past fiscal year, we continued to support MIT Medical's strategic initiative to increase patient access to care and to provide additional student outreach.

Accomplishments

Primary Care

NPs and PAs in Internal Medicine, Urgent Care, and Pediatrics provided comprehensive primary care to patients with acute and chronic illnesses or injuries; educated patients in health promotion and disease prevention; and worked in collaboration with Internal Medicine, Pediatrics, and family medicine physicians. This past fiscal year, the Internal Medicine, Urgent Care, and Pediatrics advance practice clinicians provided a total of 21,363 patient visits.

Through most of the past fiscal year, Urgent Care was plagued with understaffing due to a vacant family nurse practitioner position. This is a difficult position to fill, as the individual must be able to see infants through elders with a variety of ailments and have well-honed assessment skills, as well as minor surgical procedure experience. However, we were able to recruit a well-qualified individual from Wyoming who will begin work at MIT Medical in August 2008.

Specialty and Sub-Specialty Care

NPs, PCNSs, CNMs, and PAs provided consultation, specialty, and sub-specialty assessments and care; group and individual counseling/therapy; special medical screening and surveillance; sports medicine; and community outreach to patients in Dermatology, Occupational Health, Orthopedics, Mental Health, and Obstetrics and Gynecology. This past fiscal year, the advanced practice specialty nurses and physician assistants provided a total of 6,585 patient visits.

Anthony Pasqualone, NP Orthopedics Service, returned to work on December 3, 2007, after a 15-month deployment to active duty in Iraq. In the spring of 2008, he was promoted to full colonel in the US Army Reserves.

CNMs attended at 89 deliveries through FY2008. This constituted 49 percent of the total Ob/Gyn Services' births for the year, which is an increase of 89 percent over FY2007 CNM-attended births.

Clinical Precepting

Over the last fiscal year, NPs and CNMs clinically precepted 11 NP/CNM students from five different universities. These preceptorships are built on a strong collaboration between the nursing student and clinician instructor. We received positive feedback from students that the MIT Medical experience was both positive and informative. In particular, one precepted candidate was an MIT alumna with undergraduate and graduate engineering degrees who wanted to work with patients. In order to fulfill this ambition, she decided to pursue a graduate degree to become a nurse practitioner.

Inpatient Unit Nursing

RNs in the IPU cared for a variety of patients, including students, MIT Health Plans' members, and retirees. Medical care included a broad spectrum of medical conditions, from alcohol abuse to end-of-life care. Staffed by RNs 24 hours a day, seven days a week, the IPU had 282 patient admissions during the year, totaling 987 inpatient days.

Transient patients are ambulatory patients who require medical care for a few minutes to several hours' admission in the IPU for intermittent nursing care. This care includes intravenous hydration, antibiotic therapy, or special medication infusions. Those transient visits totaled 543 for the year, a 1.6 percent increase over FY2007. Our nursing team is trained to administer new medication infusions, such as Remicade[®], which is used to treat such conditions as rheumatoid arthritis, Crohn's disease, and ulcerative colitis. Our goal is to increase medical access to such medication infusions in order to improve patient convenience and to decrease costs.

Along with caring for the IPU patients, our night nursing team provided nursing triage from 11 pm to 7 am for the After Hours Service. In this role, they offer telephone and on-site medical assessments, and work with the After Hours clinicians to provide urgent care to patients.

The IPU closed for one week during the December holiday season. During this period, our patient census is usually low; therefore, we close the unit in order to help decrease unnecessary expenses. However, one RN was on hand during the 11 pm to 7 am shift to triage patients and assist the After Hours clinician.

Minor Procedure Room

The Minor Procedure Room is staffed by Linda Pascuito, RN, with backup by the IPU nurse manager, Cathy Dwyer. During FY2008, we completed 559 procedures/pre-test screenings either assisted by or performed by the RN.

Ambulatory Nursing

RNs provided nursing care to our patients in the ambulatory services of Internal Medicine, Medical Specialties, Urgent Care, Pediatrics, and Obstetrics and Gynecology. Our RN teams support patients with telephone and on-site patient triage in a variety of ways, including immunization administration, blood pressure monitoring, diabetes and medication inhaler instruction, wound care, allergy immunotherapy injections and monitoring, suture and staple removals, phlebotomy, provider assistance with special procedures, management of the anticoagulation program, and coordination of other special projects, programs, and/or services.

The ambulatory nurses provided 10,804 distinct patient visits for FY2008. This number does not include patients already seen by primary care providers.

All three IM triage nurses were trained and certified to manage the department's anti-coagulation clinic. At any given time, approximately 120 to 200 patients are enrolled in the anticoagulation program.

Our Internal Medicine triage nurses were a part of the Diabetes Management Workgroup, where each nurse closely manages approximately 10 patients who are considered the highest-risk diabetics.

Both the ambulatory and the IPU nurses were part of the nursing services effort to vaccinate the MIT community against influenza. The nurses increased their outreach efforts and were successful in vaccinating more than 5,000 MIT Health Plans' members. In addition, campus wide "community" clinics targeting the entire MIT population were held at several sites:

Stratton Student Center	675 vaccinated
EMT's Annual Meeting	50 vaccinated
Z Center IC Athletes	75 vaccinated
Eastgate Graduate Housing	63 vaccinated

The nursing team vaccinated a total of 863 students, which constituted a 72 percent increase over FY2007 influenza student vaccinations.

Initiatives

For FY2009, we will continue our public health outreach initiatives. We will widen the scope of our successful campus wide community flu clinics with additional influenza vaccination and immunization fairs. Our nursing team will continue to partner with the TECHHealth Alliance to create and produce additional health education programs for the MIT community. In addition, we intend to develop a community education initiative to promote the role of our nurse practitioners and physician assistants.

Obstetrics and Gynecology Service—Chana S. Wasserman, MD, Chief

Strategic Focus

The MIT Medical Department of Obstetrics and Gynecology (Ob/Gyn) is dedicated to providing care to women from late adolescence through their menopausal years. Working in collaboration with the Internal Medicine, Surgery, and Mental Health services and the Center for Health Promotion and Wellness, we provide well-rounded and closely integrated care to the MIT community.

Our gynecologic services range from comprehensive offerings in birth control to the management of menopausal issues. Furthermore, our team of clinicians provides surgical services both individually and with other laparoscopic and gynecologic oncology specialists. Obstetrical care includes options for midwifery or physician care. In collaboration with maternal fetal medicine specialists at Mount Auburn Hospital and Brigham and Women's Hospital, we assist with high-risk obstetrical care.

Accomplishments

During FY2008, we attended 182 births as compared to 169 births in FY2007.

Julia Max, RN, recently joined our service as a part-time triage nurse. With a background in family planning, women's health, and sexuality, she is a significant asset to our service.

Through collaboration with Internal Medicine and Mental Health services, and as a recommendation from the Women's Health Workgroup, we helped organize and participate in MIT's annual IAP, offering a menopause series.

Training the next generation of healthcare providers is also a major focus of our department. We educated medical, NP, and CNM students with direct involvement in patient care, and continued to instruct third-year Harvard Medical students on labor and delivery in the operating room at Mount Auburn Hospital. In addition, one of our clinicians mentors the Residents' Gyn Clinic at Brigham and Women's Hospital, and one serves as a premed advisor at MIT.

Initiatives

Currently, we are recruiting for another full-time physician. During this search period, we look for ways to increase patient access in our service. With the addition of Julia Max to the Ob/Gyn team, we are capable of doing full-time nurse triaging and Ob/Gyn intakes, thus allowing the nurse practitioner to increase her or his patient load.

We have continued our healthcare outreach initiatives to our student population. For example, we developed a birth control protocol to help students more easily access birth control and a vaccination protocol to increase the accessibility of Gardasil[®], which is used to prevent the human papillomavirus (HPV) and to reduce the risk of cervical cancer. This also has allowed more time for our nurse coordinator to work on initiatives and improve current workflow and other systems. We intend to develop more healthcare programs targeting our female patient population.

Furthermore, we will continue to track Gardasil vaccination rates in Ob/Gyn. Our goal is to assure that we follow up with our patients to have them complete the vaccination series. We aim to document discussion of the HPV vaccine and its benefits 90 percent of the time during annual exams for females up to age 26. Additionally, we will continue to contact at least 90 percent of the patients who miss their HPV vaccine appointments.

Occupational and Environmental Medicine Service and Employee Health Services—David V. Diamond, MD, Chief; Jacqueline Sherry, RNP

Strategic Focus

The goal of the OEM Service and the Environment Health, and Safety Office (EHS) of MIT Medical is to provide the best preventive, consultative, diagnostic, and therapeutic care for potential illness and injuries that occur at MIT due to work or the environment. We work closely and in consultation with MIT's EHS and with the clinical staff of MIT Medical. Our primary strategic focus for FY2008 was twofold: emergency preparedness and pandemic influenza planning.

Accomplishments

On every floor within MIT Medical, we have installed automated external defibrillators (AEDs) to better address medical emergencies. Key staff members with our Urgent Care and Emergency Care services have been trained to use the AEDs and will train additional medical personnel.

We have developed several campus outreach programs, which include evaluating PCB contamination near residences, consulting on the use of tuberculosis (TB) and vaccinia (small pox vaccine) research materials, identifying *Toxoplasma gondii*, assessing the indoor air quality during campus construction, offering orientation training to lab safety representatives, predicting potential outdoor air pollution related to campus construction, and addressing and preventing ergonomic stress conditions.

Our team of OEM consultants partnered with Draper Laboratory to conduct research using cholinesterase inhibitors, and provided injury management and medical surveillance to Draper employees. We regularly work with Draper EHS to manage laboratory growth and to monitor employees.

Initiatives

For the upcoming fiscal year, we will review with EHS all our ongoing medical surveillance programs and update the procedures and policies, when appropriate. As part of our performance improvement process, we are enhancing our staff influenza vaccination rate and hand sanitation practices. In addition, we will work more closely with EHS to integrate our efforts in a campus wide community health initiative, looking for opportunities to reduce health risks at work, in the environment, and from personal health behaviors.

Recently, we collaborated with the staff at the Broad Institute to ensure the safe operation of the new BL3 Lab, which is working with TB mycobacterium.

Pediatrics Service—Jocelyn O. Joseph, MD, Chief

Strategic Focus

The Pediatrics Service at MIT Medical provides healthcare for children of staff and faculty, as well as for graduate students, postdocs, and visiting scholars. We are known for our warm and welcoming environment. Our focus is to honor cultural differences and to respect diverse types of families, while delivering outstanding pediatric healthcare.

Accomplishments

This past fiscal year, the service hired a Pediatric Urgent Care provider who is scheduled to see only sick or injured children. We hope to accomplish a more successful utilization of a provider and clinical assistant team for this aspect of our care, as well as improve access for families to same-day service.

We continued our Meet Pediatrics welcome series. The Meet Pediatrics Program is geared to help new parents or expectant parents learn about our service and other complementary services, such as Internal Medicine and Ob/Gyn. The program is informal and interactive, giving new and expectant parents an opportunity to see the service firsthand and to learn how to care for their babies in the hospital and at home. During the event, parents can tour our facility; we distribute vaccine information and baby care information translated into our most popular languages. Due to its success, Meet Pediatrics is now offered every two months.

In addition, we have implemented an automated referral follow-up process, now in its second month of use. This process will assist providers in reviewing specialist referral notes and will help us to follow up with patients who have not completed referrals, as well as encourage parents to seek needed specialist appointments, when necessary.

Serving as mentors to high school, graduate nursing, college, and Harvard Medical School students, we continued to be active in the MIT and Boston-area community. We provided healthcare consultants to MIT Day Camp, as well as to the child care centers on campus. Working with our occupational health staff and with MIT's Emergency Response Team, we have developed protocols for campus emergency evacuations.

Our 5-2-1 Jump Up and Go lifestyle program continued to be a resource to our families. This program recommends these daily requirements: five fruits and vegetables, less than two hours of TV or computer screen time, one hour of exercise, and less than one sugary drink. Research and performance improvement are ongoing. A three-year review is in process, in conjunction with Boston College Graduate School of Nursing Students and Faculty, and Pat Bartels, FNP-BC, visiting scholar at Boston College.

We bade farewell to Dr. Barbara Katz, thanking her for more than 17 years of exceptional patient care. Pediatrics welcomed Dr. Frida Wosk, a board-certified pediatrician with special training in developmental disorders, and Phyllis Winn, an administrative coordinator.

Initiatives

For FY 2009, the Pediatrics Service will continue our outreach efforts to expectant parents with our Meet Pediatrics event. In support of our wellness efforts, we will continue to communicate the benefits of the 5-2-1 Jump Up and Go lifestyle program to promote healthy eating habits. In addition, we will work collaboratively with various members of the MIT community to improve patient education and care with increased outreach programming.

Surgical Service—Lawrence T. Geoghegan, MD, Chief

Strategic Focus

The Surgical Service of MIT Medical is dedicated to improving the care of surgical patients who require all types of surgery, from simple to complex procedures. Services are performed at MIT Medical and at both Massachusetts General Hospital (MGH) and Mount Auburn Hospital (MAH). MGH provides emergency, elective, and procedure care, while MAH is a Harvard Teaching Hospital that offers state-of-the-art facilities for surgical care. Routine laparoscopic surgeries, such as cholecystectomy, are performed at both institutions; less routine laparoscopic procedures, such as adrenal surgery, are referred to MGH.

Accomplishments

Treating women with breast cancer has progressed from the radical Halstead surgery of the last century to a more targeted, minimally invasive approach in 2008. The large controlled trials of the 1980s clearly demonstrated that breast conservation surgery in

conjunction with radiation and chemotherapy and/or hormonal therapy was as effective as the radical surgery of the past. Most recently, targeted therapy based on genetic profiling has become available. Along with utilizing the more traditional histological and hormonal markers to evaluate cases, clinicians employed genetic profiling, in many cases, to predict more accurately the overall risk and response to therapy. This allowed us to determine the appropriateness of adjunctive therapy in an individual patient and to eliminate it in low-risk patients.

Digital mammography is the latest iteration in screening surveillance for breast cancer and provides much more detail than the older analog mammography systems. We were able to offer such a level of service through our Radiology Service. In addition to digital mammography, we offered selected patients magnetic resonance imaging (MRI) evaluations and screening. Due to the level of detail that they provide, MRI scans helped providers to assess the extent of newly diagnosed breast cancer. In patients suspected to have a breast cancer gene, an MRI can be used for surveillance in addition to mammography.

In the past fiscal year, Surgical Service has added two MAH-based surgeons to our emergency call rotation: Dr. Russell Nauta, chief of surgery, and Dr. John Schuler, director of medical education. The partnership between MIT Medical and MAH provides us greater flexibility to help address the emergency care needs of our patients.

Administrative Services

Information Systems and Medical Records—Shelagh M. Joyce, Director

Strategic Focus

The Information Systems and Medical Records Department seeks to improve the health and wellness of our patients by utilizing healthcare systems technology. Our major areas of focus are improved data quality, training and education, clinical and financial reporting, and electronic medical records.

Accomplishments

Through continuing collaborative efforts between Information Systems and Radiology services, additional clinical system enhancements went online this past spring. Digital mammography, the industry standard for imaging services, is now available for patients. In addition, our clinicians now use a speech recognition dictation system, which allows report results to be available in a timely manner. With the use of this new speech recognition system, we reduced our transcription salary expenses by \$30,000 annually.

Multiple, major upgrades were done on the department's practice management system and the EMR system. The scope of these projects included changing the building's network infrastructure and systems hardware, as well as upgrading the application functionality. Training was conducted in-house for over 280 staff.

The transition in the Dental Service to the Dentrix dental-specific software system has allowed the dental team the ease and flexibility of submitting claims electronically versus using the outmoded paper claims process. This electronic submission has

resulted in Delta Dental reimbursing MIT Medical within two to three weeks for approved claims versus the four-to-six week reimbursement schedule for paper claims.

Initiatives

The major Information Systems reporting initiative for clinical and financial data has made advancements over the past fiscal year. By utilizing Ensemble®, a product that was purchased in FY2007, multiple clinical and financial data sets are now available on demand, based on job role. MIT Medical will use this data to help inform and positively influence clinical practice and patient safety.

In continuing to promote and improve the utilization of electronic health records at MIT Medical, a priority initiative is to implement an EMR in the Dental Service. As a precursor to realizing a complete Dental EMR, Information Systems and the Dental Service converted the existing dental-specific patient records when Dentrax went live. In FY2009, the Dental Service will be implementing phase two of this system: an electronic medical record for all dental documentation.

Over the last fiscal year, we implemented an online educational tool in collaboration with our Human Resources Department. HealthStream® allows employees to be trained on a variety of healthcare topics in a web-based environment, while offering users the flexibility to train at their own pace. After reviewing each tutorial, employees can verify their knowledge and competency via an online exam that must be completed for certification. This system will help to standardize the content of educational materials, as well as to verify staff knowledge of a particular subject.

Operations—Deborah Friscino, Director

Strategic Focus

Operations is dedicated to supporting the strategic and operations initiatives of the MIT Medical Department. This past fiscal year, our major focus centered on cultural sensitivity as it relates to patient care via MIT Medical's Diversity Initiative.

Accomplishments

Through the Diversity Initiative, members of MIT Medical worked together to evaluate and improve interactions with each other and with patients. Together, we learned to appreciate the unique contributions that each person offers. The Diversity Committee developed a Code-of-Conduct policy to communicate the tenet of respect and developed a variety of informative programs to improve effective communication.

Through our Let's Talk luncheon discussion series, we brought together a diverse group of employees, from clinicians to support staff, to discuss diversity issues in the news. We launched the monthly *Diversity Newsletter* to share pertinent topics on race, gender, and class discrimination. Now in its eighth month of publication, the newsletter features a calendar of events, employee spotlights, and articles geared to raise cultural awareness. The publication received wide distribution throughout MIT Medical, and also is distributed to select members of the MIT community.

Most recently, MIT Medical conducted an employee web-based survey and subsequent focus groups. Our goal was twofold: to help us better understand how to strengthen the work that we have started and to learn how best to leverage our interactions with one another. A member of the Diversity Committee is participating in MIT's presidentially appointed Diversity Council.

Radiology Service improved significantly this year with implementation of digital imaging. All images, including mammography, are now captured digitally, increasing quality and allowing for remote reading of urgent cases by radiologists at Mount Auburn Hospital. The service also received annual relicensure of its mammography unit by the Massachusetts Department of Public Health and the US Food and Drug Administration.

The Clinical Laboratory was re-accredited this year, as well. Biennially, the College of American Pathologists conducts unannounced surveys of each facility. Surveyors who reviewed the lab earlier this year were impressed by both the quality of care delivered and the facility, which resulted in re-accreditation for an additional two years.

Initiatives

As part of the Diversity Program, MIT Medical is launching an exciting new program called the Staff Reps. Modeled after the REFS (Resources for Easing Friction and Stress) Program in other parts of MIT, staff volunteers completed basic mediation training and are now serving as staff representatives. They are willing to listen when troubling workplace issues arise, to advise staff on the resources available, and to make suggestions on effective ways to address concerns.

With approval from the Committee for the Review of Space Planning, we have embarked upon major renovations that will improve patient care. As the renovations in Urgent Care near completion, plans are under way to improve other areas of the first floor, including the clinical laboratory, the pharmacy, pediatrics, and the waiting areas for the laboratory, surgery, and radiology.

Emergency Preparedness—David V. Diamond, MD, Associate Medical Director; Deborah Friscino, Director of Operations; Robert Bright, Facilities and Safety Manager

Strategic Focus

In partnership with Occupational, Environmental, and Employee Health Services at MIT Medical, our senior leadership team, and other MIT offices, we provide preventive, diagnostic, and consultative approaches to disaster preparedness. We help to identify and anticipate hazards that could affect the Institute community by developing emergency response protocols, emergency communications plans, and medical emergency care plans.

Accomplishments

We held two Pandemic Workshops with an interdisciplinary team composed of clinical, support, and administrative staff members. During the workshop, we conducted a tabletop drill and worked on key issues related to emergency supply management,

communications, triage and admissions, staffing, and surge capacity. With information learned from the drill, we have further refined our pandemic influenza preparedness plan. Areas of logistics, services, and communications have been developed to handle anticipated surges in medical demand and possible declines in available medical personnel. New policies have been developed and communicated, while additional supplies and sources of supplies have been identified. This includes emergency response drills that take place within the Medical Department every three months. These drills pinpoint different operational plans to review processes and procedures and to better predict outcomes. We conducted a mock emergency drill with volunteer victims to ensure compliance with the JCAHO Emergency Preparedness standards.

In addition, we are active participants in the Institute's Emergency Operations Center (EOC), which is responsible for the tactical response to major emergencies. Working with the EOC to prepare for a pandemic-related emergency, we developed a written pandemic emergency response plan specific to MIT Medical.

We regularly attended meetings and participated in the planning activities of the Hospital Operations Group, which is a multi-agency group of representatives from local hospitals, colleges, and universities, as well as with various city agencies including the Cambridge Department of Public Health.

Initiatives

For the upcoming fiscal year, we intend to refine our emergency response system with a focus on staff and training, and to participate in additional drills and system testing.

Marketing and Communications—Denise Cummings, Manager

Strategic Focus

The Marketing and Communications Department is charged with working collaboratively and creatively with MIT Medical to develop the voice and image of the department. By developing both short-term and long-range strategic programs, our team of communications advisors, develops internal and external communications to help promote services, health, and wellness to the Institute community.

Accomplishments

getfit@mit

The MIT Medical Marketing and Communications team led the fourth annual *getfit@mit* fitness challenge to another successful year. *getfit@mit* is designed to help promote team camaraderie, individual fitness achievement, and health and wellness to the MIT community. Working in collaboration with the Center for Health Promotion and Wellness; MIT Health Plans; the Department of Athletics, Physical Education, and Recreation; MIT Campus Dining; Lincoln Laboratory; and Information Services & Technology, our team led and managed another successful 12-week fitness event.

This past fiscal year, 2,211 individuals on 318 teams registered for the challenge. The fitness challenge is intended to encourage exercise during a time of year when colder weather and shorter days make it more difficult to stay active. People were asked to

form teams of five-to-eight individuals and register online at the getfit@mit website. To gain prizes, recognition, and improved fitness, these teamed individuals must steadily increase their weekly exercise goals and capture their exercise achievements online. Once again, the fitness challenge was hugely supported by the MIT community:

- A diverse mix of participants comprised the getfit@mit teams. Nearly 55 percent were MIT staff members, almost 30 percent were made up of students, and 15 percent were identified as others (i.e., affiliates, faculty, spouses, and alumni).
- Total exercise minutes exceeded 6.6 million.
- Individuals participated in a combination of fitness or wellness events—developed for individuals or teams, family, and friends.
- For at least 10 out of 12 weeks, 109 teams reached their exercise goal and were eligible for the grand prize drawing. For the first time since the inception of getfit@mit, a team from Lincoln Laboratory in Lexington, Massachusetts—Got Fit?—won the grand prize.
- The Lexington team was composed of a mixture of getfit@mit veterans and some new recruits.
- getfit@mit is known for its creative contest to boost participation and a healthy dose of competition. During the past fiscal year, the following three contests were created and launched: T-Shirt Design Contest, getfit@mit Haiku Contest, and the Red Sox Superstition Contest.

At the conclusion of getfit@mit, we surveyed participants to understand the incentive for participation and how to improve getfit@mit. In total, 1,011 individuals responded to the survey. This response represented almost half of the getfit@mit registrants and also reflected the same demographic proportions. Here are a few of the incentives that the survey revealed:

- 67% of respondents participate in getfit@mit to get in shape or lose weight
- 44% of respondents participate in getfit@mit to enjoy team camaraderie
- 35% of respondent participate in getfit@mit to feel good about themselves

Ask Lucy

“Ask Lucy,” the health-related online advice column, continued to publish a variety of questions and answers every three weeks. The questions ranged from how to figure a basal metabolic rate to the proper protocol for sneezing and coughing in public. Questions are submitted online via the MIT Medical website, and are researched, written, and posted to help the Institute community with health-related matters.

Marketing Programs

Working with the MIT Health Plans staff, the Marketing and Communications team partnered with the MIT Human Resources Department to produce a new open enrollment brochure. The brochure featured information about the MIT Health Plans, getfit@mit, and the many services the department offers. The Marketing and Communications team also continued to work with the MIT Health Plans Office to help update employee, student, and affiliate health plans’ collateral.

Partnering with the Center for Health Promotion and Wellness, the Marketing and Communications team helped to develop a plan to promote MIT's first-ever participation in the Great American Smokeout, sponsored by the American Cancer Association.

Public Relations and Media Activities

The Marketing and Communications team worked extensively with the News Office at MIT to help increase the visibility of MIT Medical. Working together, the two teams identified and sourced various news stories—at least two were placed in nationally circulated magazines.

The August 27, 2007, edition of *Newsweek* featured a story on the MIT Mental Health Service, which focused on the various mental health programs developed by the department under the leadership of Alan E. Siegel, EdD, Chief of Mental Health. In response to the shooting tragedy at Virginia Tech, the article detailed ways in which MIT Medical is partnering with numerous campus stakeholders to build and maintain a network of advocates and responders to address mental health issues.

The April 2008 edition of *Parents Magazine* featured a stress-free guide to bedtime—a primer for new parents. While outlining a variety of methods that caregivers can employ, the article quoted Jocelyn O. Joseph, MD, Chief of Pediatrics.

Initiatives

The all-new redesigned MIT Medical website (<http://web.mit.edu/medical/a-main.html>) is slated to launch in September of 2008. Its primary goal is to serve as a communication tool that provides health information to the Institute community's diverse patient population. In addition to increasing awareness of the care provided at MIT Medical, the new site will inform patients, especially students, how to access care appropriately and help promote health and wellness behaviors.

The website design teams employed a user-centered approach to design the new site. With the aid of one-on-one user interviews, website developers uncovered a wide array of user needs to address. Users want quick access to hours of operations, emergency phone numbers, and access to primary care providers.

To help address the needs of users, the new site will feature new interactive tools that are designed to help patients find and get information. These innovative tools will include an interactive medical directory, homepage and interior-page healthcare communication promotions, a news-and-events calendar, and an expanded health-and-wellness content area.

Finance—Peggy Meehan, Director

Strategic Focus

The Finance Department seeks to support the strategic focus of MIT Medical by delivering cost-effective, patient-focused services with both efficiency and a high level of customer service. As a key operational arm of MIT Medical, the Finance Department is charged with managing patient financial services, health plan administration, and the organization's capital management.

Accomplishments

MIT Medical Finance continued to strive to identify the most optimum and efficient methods to manage the fee-for-service revenue cycle, the employee and student health plan operations, and the budgeting and financial management for the department.

Over the past year, MIT Medical Finance staff advanced these goals by building capacity in the registration and analytic functions, enhancing benefits for employees enrolled in the MIT Traditional and Flexible Health Plans, modifying a financing mechanism for external medical services provided to MIT Health Plans' members, and refining and formalizing a key department reporting tool.

Registration Capacity

The maintenance of accurate patient demographic and insurance information is the foundation of an effective revenue cycle. Lost or delayed revenue from claims denials, additional expense associated with denial follow-up, and patient dissatisfaction may result from inaccurate patient information and delayed data entry of patient information. To improve this function, MIT Medical hired a part-time registration specialist to complement the existing specialist.

Analytic Capacity

A solid analytic team proficient in providing the right data in an efficient manner is the underpinning of sound decisions and precise day-to-day and long-term monitoring. The MIT Medical analytic team's capacity and potential have been expanded by the implementation of Ensemble® by the MIT Medical Information Systems team. Several routine reports, containing key financial and operational information that were formerly produced manually, are now automated through Ensemble®. Not only do the analysts have more time to focus on higher-level work, but also the risk of error has been decreased through report automation.

MIT Traditional and Flexible Employee Health Plans

MIT Medical continuously seeks ways to provide value to members of the Traditional and Flexible Health Plans and to MIT, as well. This past fiscal year, MIT Medical has achieved this goal by changing the payment methodology for external claims, switching mental health service vendors, and enhancing the pharmacy benefit.

Payment methodology. MIT Medical pays Blue Cross and Blue Shield to administer most claims for external services provided to MIT Health Plans' members. Prior to January 2008, Blue Cross required a \$2 million deposit plus the monthly payment of actual claims. The new methodology requires no deposit, saving MIT the expense and lost revenue of maintaining a sum on deposit. A monthly prospective payment based on estimated claims is made to Blue Cross and quarterly settlements are performed.

Mental health services. Based on a recommendation from the 2005 Task Force on Medical Care for the MIT community, MIT Medical switched employee mental health service vendors from Value Options to the Blue Cross Blue Shield of Massachusetts (BCBSMA) Managed Behavioral Health Network. Among other advantages, the change expanded access to mental healthcare and simplified the member claims process for out-of-network care. In addition, using the same vendor for both medical and mental health services improved coordination of care.

Pharmacy benefit. Prior to January 2008, Traditional and Flexible Health Plans' members were required to either fill prescriptions at MIT Medical or pay out of pocket to purchase the medication at a local pharmacy. Currently, members may fill prescriptions at any retail pharmacy that is part of the Express Scripts network with only a co-pay. In addition to providing another option to members, this change also represented a savings to MIT Medical through providing BCBSMA/Express Scripts negotiated discounts, rather than reimbursing members the full cost of medication.

Lines of Business Reporting

The MIT Medical lines of business report accounts for all expenses and sources of support by population served, and serves as the basis for many functions, including student and employee MIT Health Plans' rate setting, business planning, and budgeting. Although the model has been used for a few years, many refinements were implemented in FY2008. In addition, it was presented to the MIT Medical Management Board for the first time as the basis for future financial discussions.

Initiatives

A major initiative for FY2009 will be the evaluation of processes for efficiency and controls, as well as the documenting of policies and procedures. This project will cross many functions, including registration, billing, charge entry, cash and check management, credentialing, and MIT Health Plans' operations. Also, the department's coding function will be strengthened by the addition of a staff member with a medical coding background. Key initiatives that will continue, but will not be new for 2009, are controlling costs, especially external costs, as well as increasing our capacity to plan and address issues proactively through reporting and analytics.

Performance Improvement and Risk Management—Ruth Fishbein, Director

Strategic Focus

In support of the Medical Department's goal to deliver accessible, high-quality, culturally sensitive, personalized healthcare, Performance Improvement and Risk Management activities are integrated into all aspects of clinical and administrative services. In keeping with the Institute of Medicine's definition of healthcare quality, we work collaboratively to continuously enhance the quality of the services we provide and to offer care that is patient centered, safe, effective, timely, efficient, and equitable.

Accomplishments

We have made major strides in using our electronic capacity to support clinical practice. The Internal Medicine dashboard is up and running, providing quantitative and qualitative patient care information to clinicians in real time. For instance, information on colon cancer screening rates, breast cancer screening rates, and the clinical status of our patients with diabetes is now available to clinicians.

This past fiscal year, the Diabetes Management Workgroup, an active interdisciplinary team, significantly enhanced services to our patients with diabetes. Electronic capacity now allows us to track all patients with diabetes to better monitor and manage their care. Clinical medical education was made available to clinicians, and a certified

diabetes educator was hired to provide clinical services to this patient group. Four patient education activities were offered: two presentations by endocrinologists, one by our registered dietician (Diabetes and Meal Preparation), and one by our new certified diabetes educator (Dining Out with Diabetes).

Women's Health Service expanded to include enhanced access for female patients (in both Internal Medicine and Ob/Gyn services), protocols for birth control and emergency contraception, community education, and clinical medical education for providers. Of note were increased availability of appointments for routine gynecological care in primary care and a significant decline in the frequency of complaints about access to Ob/Gyn.

In September 2007 MIT Medical initiated Schwartz rounds, funded by the Kenneth B. Schwartz Center. Focused on improving relationships and understanding between patients and clinical caregivers, these rounds will be held six times per year and will be handled by an outside facilitator. Dr. Evelyn Picker, an MIT Medical internist, is the physician coordinator.

Our grant from the malpractice carrier, CRICO/RMF, on "Enhancing Medication Safety in the Ambulatory Setting Using Human Factors Engineering," has been completed in both the assessment and intervention phases. It is now moving into the project evaluation phase, during which we will assess the effectiveness of interventions implemented in reducing medication errors. The final report will be submitted in September 2008.

Medication reconciliation has been implemented for all Primary Care and Internal Medicine patients. This important patient safety initiative is designed to prevent and/or decrease medication errors and potential adverse drug events for our patients. The goal is to assure that the patient record contains the most complete and accurate list of all patient medications at the time of each outpatient visit. We utilized a multidisciplinary team approach, coordinating among the nursing, medical, and pharmacy staffs.

MIT Medical determined that it would be valuable to take the time to review and evaluate the results of major organizational changes and system improvements in the department. To that end, a process review format was developed and implemented. During the past fiscal year, four reviews of significant changes were completed: the electronic medical records upgrade, the appointment and billing system upgrade, the contract change for outpatient mental health services, and the implementation of the electronic appointment and billing system in the Dental Service.

Our senior management team reviewed and approved recommendations generated by this process, and the Performance Improvement and Risk Management Committee will track the implementation. While lessons learned from conducting process reviews will improve future system changes and implementation projects, the preliminary analysis highlights the need for enhanced training and education programs for MIT Medical personnel. Aggregated results and trends will be shared with the MIT Medical staff.

Initiatives

The Medical Department expects an unannounced survey by its accrediting body, JCAHO, within the next six to nine months. We are working to assure continuous compliance with standards, including focusing on patient safety and conducting mock or simulated patient tracers to prepare staff for the survey. By using a patient's clinical record, JCAHO follows or "traces" a patient through the care process to ascertain the quality and level of care received.

MIT Medical is planning to complete an initial office practice evaluation offered by our malpractice carrier, CRICO/RMF, within the next year. It is designed to assist us in reducing risk and in developing office-based strategies to enhance the delivery of safe patient care. Through years of malpractice claims' analysis and proactive office practice evaluations, CRICO/RMF has found six characteristics that are the foundation for highly reliable office practices. These characteristics include assessment and diagnosis evaluation, disease management, health screening, test results management, referral management, and internal office functions.

MIT Medical is working to further develop data on key clinical measures that will allow us to benchmark our performance with other community-based primary care clinics. One opportunity may be to participate with the Massachusetts Health Quality Partnership.

Clinical Director for Campus Life—Maryanne Kirkbride, MS, MBA, RN

Strategic Focus

The Clinical Director for Campus Life seeks to support the strategic focus of MIT Medical and the Institute community with the following vision and mission statements:

Vision

MIT will be acknowledged as one of the healthiest and highest-achieving university campuses in the country by promoting a climate of individual and workplace health and wellness that is in concert with and supportive of our culture of hard work and excellence.

- We will strengthen our recruitment and retention of the highest of high achievers, who will recognize our tangible commitment to their wellbeing.
- The MIT approach to campus health—incorporating best practices from the fields of community health, employee health, and college health—will significantly enhance the concept of college health as it is commonly understood today.

Mission

To minimize the human and financial burden of disease, while working to optimize wellness, creativity, and personal and professional achievement among our community members.

Strategic Objectives

- To develop a fundable, sustainable multiyear plan for a population-based employee health and wellness pilot program, with the initial implementation phase launched in the upcoming premium year.
- To develop a multi-departmental working group to increase the value of health on campus and to conduct comprehensive health promotion campaigns designed to support healthful lifestyle choices for all members of the MIT community.
- To gain wisdom and insight of MIT Medical clinical and support staff regarding how MIT Medical can better serve as MIT's "Department of Public Health."

Accomplishments

By building bridges between services and departments, by bringing students together to work with clinicians, and by using healthcare data to drive prevention and wellness, we created linkages between existing resources to improve overall health.

New this past fiscal year was the creation of the TECHHealth Alliance, a community-wide health advocacy group whose members represent the diverse population that is MIT. The goal of the health advocacy group is to create healthcare programs that leverage community-wide resources, from academics to athletics. For our first effort, we partnered with the American Cancer Association of Boston to pilot MIT's own version of the Great American Smokeout. To this end, we worked to strengthen and define a real partnership with the MIT Human Resources Department in the area of campus health and wellness.

In addition to establishing the TECHHealth Alliance, we advised the Council for Work and Family in its Workplace 2.0 project to help foster creativity, productivity, and wellbeing in the MIT workplace. Products include a white paper and plans for a campus-wide campaign.

Working in collaboration with the Chancellor's Office, we secured violence prevention and response funding. As a result, we created a health educator's Violence Prevention and Response Advocate position, which will improve care for students with concerns about sexual violence.

To help improve communications internally, we initiated limited TouchWorks tasking between health educators and our Internal Medicine Service. The goal is to increase referrals between the services, where appropriate

To help leverage internal partnerships, we expanded our service offering by welcoming the Spouses and Partners Program into the Center for Health Promotion and Wellness. Established in 1972, Spouses and Partners is a support network for wives, husbands, and significant others of MIT students, staff, and faculty. Spouses and Partners previously was associated with our Mental Health Service.

With the help of the Broad Institute and the Whitehead Institute, we established a public-access defibrillation program within their institutions.

The Center for Health Promotion and Wellness at MIT Medical

Strategic Focus

The Center for Health Promotion and Wellness at MIT Medical works collaboratively with students, staff, and faculty to create a safe and caring environment committed to the academic research and community goals of the Institute. We support the individual and communal practice of healthful living through evidence-based programming to help the MIT community adopt and maintain healthful behaviors, attitudes, and lifestyles.

Accomplishments

Public Health Leadership and Management

As a part of our work to increase health education, we continued to act as health educators and advisors in a variety of venues. We coordinated with the Office of the Dean for Student Life and the Dining Services Blue Ribbon Panel to provide professional development to all residence life staff, assistants, and tutors.

In addition to promoting health and wellness to MIT's Greek community, we convened an interdisciplinary Mind-Body Advisory Committee to help faculty, employees, and students relieve stress through a variety of programs.

We launched MIT Medical's first social networking website, FamilyNet, which is targeted to support members of our Spouses and Partners network.

In June 2008, we established a Violence Prevention and Response Program. The program seeks ways to help prevent violence, stalking, and intimate partner violence through education and interaction, and also responds to those affected by violence.

Nutrition—Eatwell@MIT and Eating and Body Image Concerns

We launched a partnership with the student group known as Fruit Frontiers to provide 4,000 apples to students in residence halls during Undergraduate Wellness Week. This program is considered to be one of the most popular campaigns to support undergraduate wellness. Likewise, we developed a campaign to promote healthful study break options for GRTs, RAs, and housemasters.

In addition, we focused our body image concerns efforts in two ways. We expanded our Making Peace with Food and Body Image 10-week group to three times per year, and provided programming to support lesbian, gay, bisexual, and transgender events to the Rainbow Lounge. One specific workshop focused on Men's Body Image and Mood. In collaboration with the Student Athlete Advisory Council, we developed a Finish Strong sports nutrition campaign for student athletes in collaboration with the Student Athlete Advisory Council.

Stress Management and Flourishing

Our team of health educators trained 1,000 orientation leaders to deliver the stress management program, Drinking from the Firehouse without Getting Soaked. This program was delivered to 1,000 first-year undergraduates at MIT.

Likewise, we offered the Yoga for Stress Management Program twice weekly for undergraduate and graduate students and the ever-popular Cheat Sleep Workshop. We delivered the Cheat Sleep Workshop to MedLinks, Graduate Health Ambassadors, and 100 other campus residents who, in turn, used the information to arm the student population with sleep tips.

We continued to offer our 253-CALM: The MIT Relaxation Line. Available 24/7, this phone line delivers tips to help MIT residents relax. In that same spirit, we distributed our MITOasis and MITOasis² relaxation programs through a variety of electronic media. More than 2,000 CDs were distributed, and tracks were made available for download at <http://web.mit.edu/medical/>.

Violence Prevention

We coordinated and were leading participants in Sexual Assault Awareness Week 2008, which was a huge success with 72 people taking part in at least one of the week's activities. Events included the:

- Supply drive to gather materials for Transition House, a domestic violence shelter
- Program on Heteronormity and Sexual Violence
- "Take Back the Night" rally
- Discussion on Byron Hurt's movie, *Beyond Beats and Rhymes*
- "Help, Healing, and Hope" support luncheon for survivors of, and those affected by, sexual violence
- Activist luncheon, "What You Can Do to Help"

We participated in MIT White Ribbon Day 2008, which helps to promote and establish violence prevention. During the day, we gathered 163 signatures from community members who stated they will never commit, condone, or remain silent about violence against women. To continue this momentum, we brought Jackson Katz, a national speaker, to do a two-hour workshop for 30 members of the MIT community about what men can do to stop violence against women. Most recently, we established the Violence Prevention and Response Program in June 2008. This program addresses the prevention of sexual violence, stalking, and intimate partner violence to those affected by violence, and responds to those affected by violence.

Initiatives

FY2009 will mark the five-year anniversary of the getfit@mit fitness challenge. The challenge was successfully transitioned from our Marketing and Communications Department, and now will be administered and coordinated as a part of the Center for Health Promotion and Wellness. It is our intent to expand and enhance the challenge through a variety of events and venues.

In the spirit of creating community-wide public health programs, we will improve our new Tobacco Treatment Service with innovative programs and visibility in the

MIT community. Our teams of health educators also intend to expand our health and wellness curricula into athletics and student life with our Teacher Training Institute.

FY2008 Appointments, Transfers, and Separations of Service

Medical and Administrative Staff Appointments

Margaret Oakland	Internist	09/01/2007
Haleh Rokni	Psychiatrist	09/17/2007
Thomas Cafarella	Administrative Coordinator	09/17/2007
Michelle Cassin Wong	Optometrist	10/04/2007
Phyllis Winn	Administrative Coordinator	01/01/2008
Stacey LaPierre	Communications Coordinator	01/03/2008
Laurie Ann Barron	Pharmacist	02/11/2008
Anita Berzins	Pharmacist	02/13/2008
Mara Green	Dentist	02/19/2008
Julia Max	Triage Nurse	03/11/2008
David Levy	System Specialist	03/24/2008
Doreen Charbonneau	Financial Analyst	05/19/2008
Frida Wosk	Pediatrician	06/09/2008

Transfers

Jackie Cancell	Webmaster	05/16/2008
----------------	-----------	------------

Separations of Service

Beth Jameson	Administrative Coordinator	07/03/2007
Donna Yvette Westlake	Psychiatrist	07/04/2007
Catherine Wang	Dentist	07/07/2007
Evelyne Lo	Nurse Practitioner	08/01/2007
Kittredge White	Physician Assistant	09/01/2007
Peter Connolly	Internist	11/02/2007
Gayle DeBay	Pharmacist	01/22/2007
Patricia Kravetz	Pharmacist	01/05/2008
Eleanor Barton	Senior Financial Analyst	03/15/2008
Barbara Starr	Nurse Practitioner	05/07/2008

William M. Kettyle, MD

Medical Director

Annette Jacobs

Executive Director

For more information about MIT Medical and its services, visit <http://web.mit.edu/medical/>.