# **MIT Medical**

Nearly 400 individuals at MIT Medical provide medical care, public health services, and health and wellness services for the 22,000-member community of MIT students, faculty, staff, retirees, and their families. We provide comprehensive care through the entire life cycle, from preconception to geriatrics.

Increasingly, MIT Medical staff members have become incident managers and planners for the care of the MIT community in the face of threats or interruptions, whether infectious, climatological, or political. FY2010 brought many unexpected challenges—however, with challenge comes opportunity.

#### H<sub>1</sub>N<sub>1</sub>

As the 2008–2009 academic year drew to a close, the H1N1 influenza pandemic was looming. MIT Medical staff, working closely with colleagues across the Institute, began a planning and implementation program that has engendered multiple benefits. Although the actual epidemic was, thankfully, not nearly as pervasive or severe as some had predicted, the exercises in cooperation, communication, and coordination with the Emergency Operations Committee, the Division of Student Life, Facilities, student groups, and Human Resources were indeed vital, and the secondary benefits for our campus and our community continue to be significant.

With help from our partners listed above, MIT Medical successfully inoculated 8,500 individuals against H1N1 during numerous clinics. Many of these clinics were scheduled on weekends and holidays and were located in dorms and the Stratton Student Center to offer the greatest possible access for the community.

MIT Medical's "Flu Central" website (http://web.mit.edu/fluinfo/) was the primary flu communications vehicle for the entire campus. The MIT home page linked to Flu Central, which included regular news updates, information from the Centers for Disease Control and Prevention, an active flu FAQ page, transcripts from online chats with parents and other groups, and several informational videos.

# **Community Care Center**

In our ongoing review of how we use our resources to best serve the MIT community, we evolved the proposal for a Community Care Center. There is an increasing need for care coordination in the outpatient setting, and many services that have historically been provided on an inpatient basis are now being done on an outpatient basis. This is both more convenient and safer for the patient. The Community Care Center will feature a core group of nurses who will offer expanded discharge planning, outreach services, and integration of the multifaceted care we currently provide for our patients. The goal is to coordinate and, where appropriate, provide care across a wide range of venues: hospital, rehabilitation facility, dormitory or place of residence, and FSILG (fraternity, sorority, and independent living group).

While new processes are being developed, we will continue our current services through the fall term of the 2010–2011 academic year. Once we have all functions of the Community Care Center in place and have sufficiently tested our systems, we will discontinue overnight stays in the current inpatient unit and discontinue overnight urgent care services. We are redirecting resources to meet the expanding needs in the ambulatory care setting.

During the planning process, we met with approximately 20 groups on campus, used our website for ongoing discussions with the MIT community, and had multiple one-on-one discussions with members of the community. Based on the information we gathered, we were able to modify our thinking and planning. We continue to welcome these conversations.

# **Copayment Collection**

As of January 1, 2010, changes in federal regulations required us to collect copayments for certain types of clinical visits for the first time in our history. This required major changes in our operating and computer systems, as well as intensive staff and patient education and training. We are pleased to report that the transition went smoothly.

# **Patient Privacy**

In response to suggestions from both patients and staff, we formed an internal group to review our facility and systems from a patient privacy perspective. This group made a series of recommendations for improvements. We are currently changing both our physical plant and our procedures for making referrals to enhance patient privacy at the clinical front desks.

# **Safety and Security**

Our building is an "open access" building, as are many at MIT, and is open 24 hours a day, seven days a week. Cognizant of the increased importance of safety and security at college campuses and health facilities nationwide, we engaged our leadership, the Emergency Operations Committee, and the MIT Police to create training sessions on safety and security. All staff members were trained on basic safety precautions; how to handle difficult situations; how to protect themselves, their colleagues, and patients; and when to call the police. This training is now part of our orientation program for new employees. We also made some changes in our physical plant, including limiting access to our building on certain floors. As a result of these measures, we are better prepared in the area of safety and security.

#### **MIT Health Insurance Benefits**

The Institute-wide Planning Task Force report contains a number of recommendations regarding health insurance benefits for MIT employees. We are working collaboratively and closely with Human Resources to review these recommendations, obtain further information, do in-depth analyses, and discuss how to best structure health plan benefit offerings into the next decade and beyond for MIT and its employees.

# **Advancing Diversity and Inclusion**

Our award-winning diversity initiatives continue to grow and develop. We strive to have our staff understand, respect, and build upon the diversity within the department and within the community we serve. Moreover, we believe that high-quality care must be culturally competent and inclusive. We continue to sponsor topics of interest at both administrative and clinical staff lunches. This year's most successful topic, which was repeated at several luncheons, was a presentation involving LBGT@MIT and a transgender individual. Issues regarding both appropriate social interaction and health care needs were discussed.

We were pleased to receive a grant from the MIT Committee on Race and Diversity that allowed us to sponsor three dinners for the MIT community: one regarding Portuguese/Hispanic health care that was held around the time of the appointment of Sonia Sotomayor to the US Supreme Court, one related to Martin Luther King Jr. Day, and one where power and privilege in society were discussed. We also held an internal lunchtime discussion with a guest from the MIT Police to discuss the encounter between sergeant James Crowley and professor Henry Louis Gates Jr. in Cambridge.

# **Community Wellness at MIT Medical**

Community Wellness at MIT Medical, previously known as the Center for Health Promotion and Wellness, continues to grow and prosper in spite of austere financial times. Participation in the getfit@mit annual fitness challenge increases every year, with the program attracting a large cross-section of the campus and Lincoln Laboratory communities. In the coming year, the program's website will undergo major renovations, making it substantially more interactive and suitable for wider applications.

In addition to maintaining the successful Healthy Living workshop series begun in 2009–2010, Community Wellness plans to offer individual and group health coaching on a pilot basis in the coming year.

# **MIT Medical/Lexington Milestone**

MIT Medical/Lexington celebrated its 10th anniversary in November. MIT Medical previously had a long tradition of providing services to the Lincoln Laboratory community in a small office at the facility, but its services were greatly enhanced in November 1999 when we opened a primary care location "up the hill," adjacent to a new fitness center. At this location, family medicine, pediatrics, and internal medicine services are provided to all members of the MIT and Lincoln Laboratory community who live or work in the Lexington area and belong to our health plans. In FY2010, we provided nearly 7,000 visits at this location.

# The Digital March Continues

Technological developments happen quickly in this century, and we strive to keep up. This year, the Radiology Service established a digital system whereby images (x-rays, mammograms, and bone density scans) can be taken at MIT Medical and read remotely. Past images are also accessible online to clinicians. We installed a digital radiography system in our Dental Service as well. Additionally, we shipped out 31,000 archival

paper-based medical records for scanning into our electronic medical record (EMR) system. This has translated into faster clinician access and much-needed space for our Information Systems team.

## Children's Health

MIT Medical's Pediatrics Service has been working on childhood obesity since long before First Lady Michelle Obama made it a national priority. This is a complex issue that usually includes family lifestyle issues. Of the children who have been followed in the program for two to three years, 50% who were initially classified as overweight lost weight, 19% stayed at the same weight, and 31% gained weight. Of the children initially classified as obese, 38% lost weight, 43% stayed at the same weight, and 19% gained weight. We plan to expand our efforts to include entire families in future years.

We are also placing greater emphasis on identifying and documenting children with autism and autism spectrum disorders to obtain appropriate treatment for these children as early as possible.

## **Clinical Services**

During FY2010, MIT Medical conducted nearly 129,000 visits at our Cambridge and Lexington campuses, including services for employees of Lincoln Laboratory, Draper Laboratory, and the Whitehead Institute. Approximately 7,000 of those visits occurred at our Lincoln Laboratory health care facility, which primarily delivers care to MIT community members who live or work in the Lexington area. The following table details our clinical visit statistics by patient demographics.

Visits to MIT Medical, FY2010	<b>Visits</b>	to	MIT	Medical.	FY2010
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Patient Population	Number of Visits
Students, affiliates, and family	56,942
Faculty and staff	56,223
Retirees and family	9,262
Others	6,272
Total	128,699

# After Hours Service—David Shein, MD, Chief

### **Strategic Focus**

The After Hours Service provides continuity and access to medical care for the MIT community. Services are offered on a walk-in basis for ambulatory patients, including students, individuals covered by one of the MIT health plans or another MIT employee health plan, retirees, and employees seeking job-site care and services under the primary care benefit.

At this time, we are in a state of transition as we manage changes in the hours of service with planned overnight closure effective January 2011. The current focus includes adjusting staffing and services for the scaled-back hours of operation. We are arranging with local medical facilities to continue the provision of high-quality care for acute health needs while we are closed and are working to educate patients with non-urgent needs to visit us during usual operating hours.

## **Accomplishments**

Staffing and care require a coordinated effort among After Hours contract physicians, After Hours employees, weekend day pediatricians, and Urgent Care nurse practitioners. Pediatric weekend coverage is coordinated with Harvard University Health Services to provide a day of weekend pediatrician coverage at MIT and one day of service for MIT pediatric patients at Harvard. Through continued collaboration, we have been able to provide ongoing 24-hour care during the academic year.

The After Hours staff worked hard to meet community needs during the recent H1N1 influenza outbreak, accommodating double the typical patient volume without a significant increase in staffing. We remain prepared and require ongoing education to treat potential future public health crises.

MIT Student Ambulance personnel, the Dean on Call network, and the MIT Mental Health Service work closely with the After Hours Service when students are referred to MIT Medical for care and when continuity through community health settings is necessary. If a student suffers an injury or illness and is sent directly to an area hospital, we facilitate and coordinate care. We are cognizant of the challenging issues with patient confidentiality when it comes to medical communication and maintain required training to keep physicians up to date on health privacy rules and regulations.

Besides maximizing the availability of the services we provide on campus, our goals include helping to address the needs of students and MIT Health Plan 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 Plan 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.

#### *Initiatives*

Our primary goal is to maintain the most cost-effective and appropriate mix of after hours services for adults and children within our walls and for those who seek our advice from afar. We will continue to be here for patients needing timely care during evening and weekend hours without the expense and inconvenience of using an emergency room. Also, we will continue to offer a broad range of medical evaluation and treatment services along with basic surgical care such as suturing.

In the next few months, we will be working intensively to manage the transitions that include cutting overnight hours, adding copayments for urgent care visits, and meeting evolving federal and state health care regulations. It is likely that changes to MIT benefits will impact patient volume during the after hours time period; therefore, we will work to monitor and respond to changes in the ways in which our patients seek care.

We are preparing to communicate the change in hours and our plans to redirect non-acute needs to our hours of operation. In addition, we will continue to focus on continuity of care with daytime services for patients needing follow-up, testing, or ongoing treatment after hours.

### 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, emergency treatment, and maintenance. Our clinicians focus on meeting the oral health and dental needs of the community to minimize time away from class or work.

The primary goal of the practice is to deliver the highest level of patient-centered care for students, faculty, staff, and their families to promote good oral health. Since dental care and medical care are coordinated in one system, patients are afforded the unique opportunity to receive integrated treatment on campus. With recent medical studies continuing to link dental care to overall health, we are pleased to offer such comprehensive services at MIT Medical.

### **Accomplishments**

The major focus of improving operations and efficiency centered on the final phase of Dexis, our new digital radiograph system. During this phase, we were able to augment the electronic charting of our electronic dental software system, thus improving efficiency, diagnostic ability, and overall service production.

With the introduction of an endodontist (a root canal specialist), we are now able to expedite the completion of complex treatment plans for our patients.

Direct patient care continued to be the primary focus of the Dental Service. Dentists continued to be active members of the community, supporting MIT's strategic initiatives in health promotion and wellness. Participation continued in pre-professional advising, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) Work Group, the Tobacco Treatment Work Group, and the Health and Wellness Fair.

#### *Initiatives*

For FY2011, we plan to hire an additional prosthodontist (a crown and bridge specialist) in order to serve our patients in a timely fashion. Along with improved treatment possibilities, a positive impact on revenue will be realized as well. We will also continue to make technological advancements with the installation of LED overhead-sensor patient lighting.

## Eye Service—Robert B. Gross, OD, 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**

We continue to meet our goal of low-barrier access to care. On average, routine exams are available with a two-week wait, while urgent care services are available daily.

In collaboration with our Primary Care 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, 78% of our diabetic patients have received a comprehensive eye exam in the past 15 months, well above the national average. This successful program is now in its eighth year at MIT Medical.

The strength of our confocal scanning laser ophthalmoscope—used for optic nerve evaluation and the management of glaucoma—is to look for change over time. Now that the instrument has been in place for four years, patients have undergone multiple exams. The powerful progression software is aiding in the diagnosis and treatment of this challenging population.

As technological advances continue to improve clinical care, the Eye Service is committed to offering our patients access to the most up-to-date diagnostic tools. We have recently purchased the latest-generation optical coherence tomographer. Pioneered at MIT, optical coherence tomography is a noninvasive scan that provides retinal details that can guide care in a wide range of ocular pathologies. This is a truly remarkable device that has revolutionized care in retinal disease.

In our effort to provide the MIT community with the finest in eyewear, MIT Optical has recently moved to its new location in the Stratton Student Center. More visibly located on the basement level, the new shop is 50% larger with all new furnishings. The modernization of the Optical Shop will allow for greater eyewear selection in a far more comfortable environment.

As part of our mission to be a full-service eye care center, the Eye Service operates a very large contact lens practice. This year, as in previous years, we added several new materials and designs to our already-extensive inventory. Our ongoing expansion ensures that MIT Medical patients have access to all of the latest products as they become available.

#### *Initiatives*

As part of MIT Medical's continuing goal to serve more members of the MIT community, the Eye Service began accepting Blue Cross Blue Shield insurance on July 1, 2010. This provides greater choice and convenience to MIT employees and their dependents who wish to take advantage of an excellent service right here on campus.

Looking ahead 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 whatever new techniques, knowledge, or equipment will best serve the MIT community.

## Inpatient Unit-William A. Ruth, MD, Chief

#### **Strategic Focus**

The 18-bed Inpatient Unit (IPU) of MIT Medical is an important and well-appreciated source of personalized care for the MIT community. Recognized by JCAHO, the IPU provides subacute-level care for members of the MIT community, including students, MIT Health Plan members, and retirees. The unit is charged with managing 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 FY2010, the IPU continued to provide integrated care together with our After Hours, Urgent Care, and Primary Care services. Staffed by registered nurses (RNs) with 24-hour physician coverage, the IPU offers services ranging from treatment for acute gastroenteritis to postoperative care and end-of-life care. From June 2009 through May 2010, the IPU had 134 admissions, 451 total patient days, and 675 transient-stay patients (ambulatory patients requiring stays of less than a day for intermittent nursing care such as intravenous hydration, antibiotic therapy, or specialized infusions). With the exception of transient-stay patients, these figures represent a decrease from the previous four years, as shown in the following table.

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Fiscal Year	Admissions	In-patient days	Transient-stays
2009	205	732	742
2008	282	987	543
2007	306	1,176	519
2006	368	1,254	534

The lower number of admissions may be partially explained by the decrease in the number of postoperative transfers. Now patients are usually sent home directly after hip

and knee replacements or cared for in rehabilitation units. Also, in the past two years there has been an increase in the number of intravenous infusions of special medications such as Remicade and intravenous antibiotics, with IPU infusions providing a more convenient and less costly alternative to hospital infusions.

Along with caring for IPU patients, the night nurses provide nursing triage with physician backup from 11 pm to 7 am for the After Hours Service. The IPU nurses complement other medical staff in providing intravenous access service when needed, assisting in influenza clinics, and aiding in ongoing projects with our EMR system. Costsaving measures in FY2010 included closing of the Inpatient Unit during the Christmas vacation as well as during the summer.

#### **Initiatives**

With the financial challenges brought about by the economic downturn and resulting budgetary reductions, together with the decreasing utilization of the Inpatient Unit, the decision was made to phase out IPU overnight coverage by the end of the 2010 calendar year. Services during daytime hours for infusions and backup care for the urgent care area will continue.

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

## Strategic Focus

The Medical Service of MIT Medical aims to provide high-quality and cost-effective primary care to our patients and to coordinate their specialty care. We support and contribute to health promotion for our patients and the MIT community. Beyond their clinical roles, clinicians in the Medical Service provide clinical and organizational leadership and consultation both within MIT Medical and to the MIT community.

The primary strategic focus for FY2010 was to continue to improve access to care, especially for women's health issues and in subspecialty areas, by improving the appropriateness as well as the timeliness of appointments. Particular effort was made to minimize the effect that the redeployment of clinical and administrative resources necessitated by the H1N1 pandemic would have on the quality of routine medical care. Another goal was to continue expanding the implementation and utilization of the EMR system and encrypted electronic communication with patients.

#### **Accomplishments**

During the H1N1 influenza pandemic, the Medical Service and MIT Medical served as the primary resource for the MIT community for medical care, information, and consultation. This collaborative effort resulted in the ability to deal with the pandemic at MIT with minimal disruption of operations and no compromise of the quality of routine clinical care.

The clinical dashboard implemented in 2007 has enabled the assessment of several indicators of clinical performance. Since 2007, we have seen steady improvement in all

clinical indicators, including breast cancer screening, colon cancer screening, prostate cancer screening, influenza immunization for patients over 65, and pneumococcal immunization. Performance rates exceed those of other medical groups used as benchmarks.

Patient satisfaction with care received in the Medical Service as measured by surveys (Press Ganey) rose in most areas surveyed and remains above the levels of benchmarked regional and national medical groups.

The department remains at the forefront in implementing and utilizing the electronic medical record, which incorporates all medical records, laboratory results, prescribing, encrypted email messaging, and appointment scheduling. Electronic prescribing is at 96.8%, and patients' use of secure encrypted email messaging has increased by 103%.

#### *Initiatives*

A primary focus for FY2011 will be to continue to provide the same level and quality of care and services to the MIT community in the face of additional reductions in clinical staffing and, in particular, the closing of the MIT Inpatient Unit and the discontinuation of overnight urgent care services. Access to care and the quality of care will be monitored closely as we continue to strive for the efficient delivery of high-quality medical care.

We will continue to collaborate with other groups—including Community Wellness at MIT Medical and MIT's Emergency Operations Committee and Human Resources Department—to proactively promote wellness in the MIT community.

# Medical Specialties—David V. Diamond, MD, Associate Medical Director

#### **Strategic Focus**

The goal of Medical Specialties within MIT Medical is to provide convenient, cost-effective, and integrated specialty care for the most common specialty needs of our various patient populations. We realize that in modern medical practice, the emergence of subspecialists in many areas makes it impractical to provide expert care in all specialties within our building. With that in mind, we have developed close working relationships with highly regarded physicians throughout the Boston area.

In a related effort, we have developed and continue to seek specific written agreements with hospital and ambulatory testing sites to provide expedited access, testing, and reporting for expensive high-tech procedures at reduced cost to our patients and to MIT.

We closely coordinate care through the shared use of a uniform electronic medical record and messaging system. Access to care and patient satisfaction with care are monitored quarterly and remain at or above MIT community standards.

## **Accomplishments**

In FY2010, we provided on-site specialty care in the following medical subspecialties: allergy, dermatology, pulmonary, cardiology, rheumatology, occupational and environmental medicine, endocrinology, sports medicine, infectious diseases, and neurology. We also continue to provide the following surgical subspecialties on-site: urology, ear/nose/throat, ophthalmology, and orthopedics. We successfully introduced copayments for all specialist visits in January 2010 without disrupting operations or patient care.

No new specialists joined our staff during the past fiscal year. Our dermatologist left for personal reasons in January 2010 after 1.5 years of service, and one of our cardiology consultants retired after 10 years of service.

In FY2010, we targeted cost reductions in Medical Specialties to meet budgetary goals. We achieved our target by taking advantage of staffing departures to reduce on-site contracted hours in cardiology and dermatology. In addition, after careful review of utilization and community resources, we decided to eliminate on-site acupuncture services as of July 2009. To offset these reductions, we developed an off-site referral system to avoid a potential increase in access wait times.

#### **Initiatives**

We continue to monitor access to specialty care on a monthly basis, and we are developing community-based options with consultants as needed to ensure the best care for our patients.

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

#### **Strategic Focus**

Since opening on November 1, 1999, our major goal has been to provide comprehensive on-site care to Lincoln Laboratory employees and to provide a west suburban site for MIT Health Plan members and retirees.

The facility is designed as a family practice to offer comprehensive primary medical care to all age groups. The staff includes a full-time family nurse practitioner/coordinator and a family physician. In addition, Frida Wosk, MD, a pediatrician with a subspecialty in developmental disorders, is on-site one-half day per week. Mental Health Service providers are available every Thursday and Friday for employee assistance and referrals from the primary care providers. Twice a month, David Diamond, MD, provides additional internal medicine coverage as well as occupational health expertise.

Services provided include primary care visits, sick visits, and on-site emergency care for Lincoln Laboratory employees. On-site phlebotomy, point-of-care laboratory testing, EKG and Holter monitoring, and prescription drug pickup are also available. Located within a large research and development facility with approximately 2,500 employees, the medical facility has focused on occupational health, employee screening, and work-related injury care.

Health and wellness promotion has been another strategic focus of MIT Medical. The Lexington staff maintains a close relationship with the Lincoln Laboratory Human Resources Department as well as Lincoln Laboratory administrators to be responsive to health-related concerns and to promote wellness via a series of regularly scheduled talks.

## **Accomplishments**

The focus on health and wellness has remained a priority with the arrival of Katherine Barlett to replace Stacy Hill as the part-time health educator dedicated to the Lincoln Laboratory site. This position was extended in hours and is funded by Lincoln Laboratory. Katherine's goal is to complete an online health assessment of the Lincoln Laboratory community by the end of 2010. Analysis of these data will serve as the basis for future programming.

Extended outreach to the Lincoln Laboratory community to increase access to influenza vaccine resulted in over 2,400 vaccinations, including both seasonal and H1N1 vaccinations.

Medical staff personnel continued to be involved in health-related Lincoln Laboratory activities, including H1N1 flu planning and table-top exercises regarding readiness and response in the event of a toxic gas release.

In November, MIT Medical/Lexington celebrated its 10-year anniversary. We worked with people within and outside MIT Medical to organize an open house that included interactive health maintenance and educational activities in our area and in the adjacent Lincoln Laboratory Fitness Center. The event was well attended by Lincoln Laboratory staff.

The Lexington site continues to receive high Press Ganey scores. Our patients consistently give the providers, support staff, and facility ratings that are well above the national average and MIT community mean. We are proud of that accomplishment and believe it is related to the patient-centered focus of our care and to our cohesiveness as a team.

#### *Initiatives*

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

Based on analysis of the Lincoln Laboratory health assessment, worksite wellness programming will be an ongoing initiative with the goal of analyzing data to demonstrate positive outcomes.

## Mental Health Service-Alan E. Siegel, EdD, Chief

#### **Strategic Focus**

The mission of the Mental Health Service is to address the mental health and counseling needs of the entire MIT community, relieve emotional suffering, and enhance personal resilience. We work with people in the community to identify, understand, and solve problems. For students, we work to enhance their adjustment to college life and help them take full advantage of the academic and social environments at the Institute. Through direct clinical service, active outreach to faculty and staff, education, and prevention, all members of the MIT community can learn to more effectively manage personal problems and situational crises, acquire strategies to cope with academic and personal stress, and increase their knowledge of how to be helpful to other members of our community and direct them to appropriate care.

## **Accomplishments**

During FY2010, we continued to emphasize easy and prompt access to services for people seeking help with problems and for those with concerns about their friends, students, and colleagues. We continue to expand our outreach and participate in efforts to improve the mental health of the MIT community. This year we were challenged by the absence of two clinical staff for personal and medical reasons. Despite this staffing shortage, which lasted five months, there were no delays for those seeking care and no reduction in our outreach and educational activities. All remaining staff rallied to help each other and the community without complaint or hesitation.

#### Access and Responsiveness of Care

This past year, service volumes for students increased between 10% and 15%, despite staffing shortages. For all students, 45% of visits were with undergraduates and 55% with graduate students. The volume of MIT Health Plan member visits remained constant. We continue to have no waiting list for counseling consultations or psychopharmacology consultations. All members of the community seeking urgent clinical consultation were seen or contacted immediately through our walk-in or on-call mental health urgent care systems.

#### Innovative Programming

The American Foundation for Suicide Prevention Online Depression Screening continues to reach out to graduate students using an encrypted survey method that allows students to respond anonymously to the screening and then engage online with an MIT Mental Health clinician. Since June 2006, 6,900 graduate students have been contacted. The number of MIT students replying to the survey continues to be higher than that of other participating universities, as does the number of students who come in for a consultation following the encrypted online "conversation." Once again, students tell us that they would not have accessed services if it were not for this unique outreach approach.

The Mental Health Service's Community Crisis Response Team continues to provide immediate, comprehensive consultation and support to departments and offices on campus whose members have suffered a traumatic experience with the illness or loss

of one its members. This year, following the occurrence of any campus crisis, Mental Health staff were in contact to support students and employees within 90 minutes of the event. Support, education, and individual and group counseling continued in the days and weeks following these occurrences.

The group program at the Mental Health Service continues to expand and diversify. Along with the usual "therapy groups," we provide innovative, content-focused groups in areas such as support for master's- and doctoral-level graduate students who are having difficulties completing their dissertations; skills groups for managing attentional problems; mindfulness-based cognitive therapy groups to help manage depression; stress management groups, and a group that helps foster a healthy relationship with food, exercise, and body image.

# Community Consultation and Education

Consultation and education continues to be an important element of the Mental Health Service's work with the community. This includes events such as Depression Screening Day; luncheon meetings with the faculty and staff of various MIT schools and departments, including Physics, the Sloan School of Management, and the School of Humanities, Arts, and Social Sciences; "When Support Gets Personal" training for staff and administrators; Human Resources' "Brown Bag Luncheons"; our successful alcohol and drug educational program for students in Senior House in anticipation of "Steer Roast" activities; study breaks in residence halls; and specialized workshops for the lesbian, gay, bisexual, and transgender communities on the main campus and Lincoln Laboratory. The Mental Health Service also has played an active role in training and supporting first-line referral sources such as graduate resident tutors, resident advisors, and MedLinks staffers.

# Project to Address Increased Psychological Acuity

Like our Ivy Plus colleagues, we have seen an increase in the acuity and severity of psychological difficulties experienced by our students. This year, we also saw an increase in the number of psychiatric hospitalizations from the previous year. Using our Mental Health Service teams, we more closely managed the processes of clinical review for patients at risk of harm or psychological deterioration to match the intensity of clinical services provided with the clinical needs of patients seeking care. The MIT Mental Health Service staff sees all students who are admitted for psychiatric reasons when they are in the hospital and actively engages with hospital treatment teams in clinical assessments and discharge planning. We want to ensure that students who return to their studies have been thoroughly evaluated and are ready to reengage in their academic and personal lives on campus.

#### **Initiatives and Challenges**

We will be recruiting new clinicians to replace two child/adolescent psychiatrists who are leaving the Mental Health Service to pursue opportunities in different areas of the United States. In addition, we are making every effort to ensure that our standards of ready access to care are maintained during the anticipated reduction of staff time through this transition. One major new clinical initiative will be the formation of the Prescribing Standards Workgroup, which will develop uniform and "best practices"

prescribing standards for all Mental Health Service clinicians who prescribe psychiatric medications. We are also engaging colleagues in the Primary Care Service to work toward consistent prescribing practices for psychiatric medications.

## Nursing Service—Kristine A. Ruzycki, MS, ANP-BC, Chief

### **Strategic Focus**

At MIT Medical, nursing is both a science and an art that focuses on promoting health and wellness within the Institute community. As a member of a multidisciplinary team, the Nursing Service works in partnership with physicians and allied health professionals to provide care to our patients.

Nursing care is provided to the MIT community by adult and family nurse practitioners (NPs), certified nurse midwives (CNMs), psychiatric clinical nurse specialists (PCNSs), and registered nurses (RNs) in the Inpatient Unit, the ambulatory setting, and local acute care hospitals. Within the Nursing Service, physician assistants (PAs) provide medical care to patients under the 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 and community outreach.

## **Accomplishments**

### **Primary Care**

NPs and PAs in Primary Care, 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 Primary Care, Pediatrics, and Family Medicine physicians. This past fiscal year, the Primary Care, Urgent Care, and Pediatrics advanced-practice clinicians provided a total of 22,696 patient visits, which was fairly constant with FY2009 visit numbers.

### Specialty and Subspecialty Care

NPs, PCNSs, CNMs, and PAs provided consultation, specialty, and subspecialty assessments and care; group and individual counseling/therapy; special medical screening and surveillance; sports medicine services; 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 11,739 patient visits, an increase of 37% over FY2009.

CNMs delivered 69 babies, 33% of our total deliveries.

Colposcopy access was limited because of the physician clinic and hospital schedules. To help remedy this problem, one of the NPs working in Urgent Care who was trained and experienced in colposcopies began adding two to three sessions per month in Obstetrics and Gynecology to perform these procedures. She was able to do an additional 72 colposcopies during the fiscal year, thus increasing access.

#### Clinical Precepting

Over the past fiscal year, NPs clinically precepted 10 NP students from five different universities. These preceptorships are built on a strong collaboration between the nursing student and the clinician instructor. We received feedback from students that the MIT Medical experience was both positive and informative.

## Inpatient Unit Nursing

RNs in the IPU cared for a variety of patients, including students, MIT Health Plan members, and retirees. Care included a broad spectrum of medical conditions, from alcohol abuse treatment to end-of-life care. Staffed by RNs 24 hours a day, seven days a week, the IPU had 143 patient admissions during the year. Because of continued low volume, the IPU was closed for July and most of August, as well as two weeks during the Christmas holidays. As part of the FY2011 budget reduction planning, MIT Medical made a decision to develop a new model of care for the community that will increase care management services and end overnight stays in the IPU as of January 1, 2011. Preliminary planning and internal recruitment of nurses for the additional nurse care manager positions took place. The new plan will enhance our already-robust transient patient services and coordination of care for our patients throughout the full spectrum of their medical and nursing care.

Transient patients are ambulatory patients who require intermittent nursing care for a few minutes to several hours. This care includes intravenous hydration, antibiotic therapy, therapeutic phlebotomy, and special medication infusions. During the past fiscal year, there were 675 transient visits in the IPU.

Along with caring for 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. During our eight-week closure in the summer of 2009, we contracted with a national nursing triage company, Fonemed, to take all patient calls from 11 pm to 7 am each night. We found this to be a successful way to ensure that our patients received the advice they needed while we were not open. We plan to engage Fonemed on an ongoing basis once the IPU stops admitting overnight patients and the After Hours Service begins overnight closures in January 2011.

#### Minor Procedure Room

The Minor Procedure Room is staffed by one RN, with backup by the IPU nurse manager. During FY2010, we completed 356 procedures, including surgical procedures, cardiac stress testing, and pretest 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. These include immunization administration, blood pressure monitoring, diabetes and medication inhaler instruction, wound care, allergy immunotherapy injections and monitoring, suture and staple removal, phlebotomy, provider assistance with special

procedures, management of the anticoagulation program, and coordination of other special projects, programs, and services.

The ambulatory nurses provided 7,815 scheduled patient visits during FY2010. In addition, they provided 3,500 to 4,000 unscheduled visits per year to patients who also needed a nursing visit incident to their visit with a primary care or specialty provider.

The Internal Medicine triage nurses are all certified in anticoagulation therapy and continued to manage more than 200 patients enrolled in the anticoagulation program. In addition to the triage nurses, this past fiscal year three IPU nurses were trained and became certified in anticoagulation management. This was done in an effort to provide backup to the triage nurses when needed.

Both the ambulatory and the IPU nurses were part of the Nursing Service's effort to vaccinate the MIT community against influenza. The nurses increased their outreach efforts and were successful in vaccinating our community with both the seasonal and the H1N1 influenza vaccine. Over 16,000 influenza vaccinations were given this past year, which was a 109% increase over FY2009. Community outreach influenza clinics were held for students, their families, and the general MIT community. These clinics took place at a variety of sites throughout the campus.

#### *Initiatives*

We will continue our public health outreach initiatives in relation to influenza vaccinations of not only students and health plan members, but also the MIT community at large. In addition, we will participate in Wellness Week activities and continue to partner with the TECH Health Alliance on its programs.

The development, planning, and implementation of the new Community Care Center will be a major focus for the Nursing Service in FY2011. This will be done in collaboration and consultation with our physician colleagues as well as our partners in the MIT community and local acute care hospitals.

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

### **Strategic Focus**

MIT Medical's Obstetrics and Gynecology Service (Ob/Gyn) is dedicated to providing care to women from late adolescence through their menopausal years. Working in collaboration with Primary Care, 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 management of menopausal issues. Our team of clinicians also provides surgical services and collaborates with other laparoscopic and gynecologic oncology specialists when indicated. Obstetrical care includes options for midwifery or physician care. We also collaborate with maternal fetal medicine specialists and reproductive endocrinologists at Mount Auburn Hospital, Beth Israel Hospital, Brigham and

Women's Hospital, and Massachusetts General Hospital to provide high-risk obstetrical care and infertility services.

# **Accomplishments**

During FY2010, the number of births among MIT Medical patients was higher than in previous years—194 deliveries (which included two sets of twins for a total of 196 births), compared to 183 births in FY2009. The overall cesarean rate (both primary and repeat) was 18.6%.

Dr. Annie Liau and Dr. Chana Wasserman were both nominated for ComMITment to Care awards in June 2009. Dr. Wasserman was selected by *Boston Magazine* as a top doctor in the December 2009 issue.

Tara Gardner-Brown, an Urgent Care nurse practitioner who is also a trained colposcopist, provides two colposcopy clinics each month. This has helped to reduce the wait time for this procedure.

In July 2009, our Ob/Gyn team welcomed Debra Crowley, who replaced Julia Max as our full-time triage nurse. Prior to joining MIT Medical, she had worked as the breast cancer project director and coordinator at the Geiger Gibson Community Health Center since 2003. Debra brings over 20 years of nursing experience as well as a very strong nurse case manager background.

Through collaboration with Internal Medicine and as recommended by the Women's Health Workgroup, we provided educational sessions on endometriosis and new Pap smear guidelines. In addition, we presented at "Schwartz rounds" several times over the past year.

Training the next generation of health care providers has always been a major focus of our department. We continued to instruct third-year Harvard Medical School students through structured case discussions and active participation on labor and delivery and in the operating room at Mount Auburn Hospital. In addition, one of our clinicians mentored the Residents' Gyn Clinic at Brigham and Women's Hospital, and another served as a pre-med advisor at MIT.

Health promotion is an important focus in our department. One of our providers served on both the Tobacco Treatment Workgroup and the Obesity Treatment Team. The Ob/Gyn Service was also represented at the Health and Wellness Fair, which was part of MIT Student Orientation this past fall. We educated new female students and parents on how to access care at MIT Medical related to women's health issues, including breast exams, Gardasil vaccination (Gardasil is used to reduce the risk of contracting the human papillomavirus [HPV] and cervical cancer), contraception, and other topics related to health promotion.

#### *Initiatives*

We continue our health care outreach initiatives to our student population. For example, we use a birth control protocol to help students access various contraceptives and a vaccination protocol to increase the accessibility of Gardasil.

Furthermore, we continue to track our Gardasil vaccination rates in Ob/Gyn and to contact those who miss their HPV vaccine appointments.

In addition to HPV, vaccinating pregnant women against influenza and H1N1 has been a priority. We sent out an email early in the season and arranged for flu vaccination clinics to help vaccinate all of our pregnant patients in a timely fashion. As a result, we had a 100% offer rate and a greater than 90% vaccination rate, with those who were not vaccinated being women who refused it. We will continue with these vaccinations for pregnant women as necessary.

Tdap (diphtheria, tetanus, and pertussis) vaccination for women during the postpartum period is also important. Over the next year, we will be working with Mount Auburn Hospital to coordinate efforts to vaccinate all eligible women with Tdap in order to reduce the risk of pertussis in their newborns.

After increasing to two colposcopy clinics per month over the past year, we have significantly reduced wait times for scheduling appointments, helping increase patient satisfaction. Of note, our Press Ganey scores improved in all aspects during the 2009 calendar year compared to 2008. However, one area that we plan to focus on improving during the coming year is patients' wait time in the exam room before seeing their provider. We have already begun to implement some changes to decrease wait times and will continue to strive for improvements in this area.

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

## Strategic Focus

The goal of these MIT Medical services is to provide the best preventive, consultative, diagnostic, and therapeutic care for potential illnesses and injuries that occur at MIT due to work or the environment. We work closely and in consultation with MIT's Environment, Health, and Safety (EHS) Office and with the clinical staff of MIT Medical.

Our primary strategic focus during FY2010 was responding to the influenza pandemic.

### **Accomplishments**

During fall 2009, we helped organize MIT Medical's internal responses to the outbreak of H1N1 influenza. In the Emergency Operations Center, this involved coordinating various groups across the campus to deliver more than 15,000 flu shots, nearly twice the normal amount.

We continued to work with EHS and Human Resources to coordinate employee health and safety programs at MIT, including optimal management of work-related illness and injury.

#### *Initiatives*

During the upcoming fiscal year, we will be working to develop the operations of the Community Care Center in regard to care of employees 24 hours a day, seven days a week, as overnight on-site services will be eliminated as of January 1, 2011.

We will also review with EHS all of our ongoing medical surveillance programs and further update procedures and policies as appropriate. Moreover, we will work closely with Human Resources and the Safety Office in their initiatives to reduce lost work time.

In addition, we will coordinate with EHS, DAPER (Department of Athletics, Physical Education, and Recreation), and Community Wellness at MIT Medical in a new campus-wide community health initiative, the TECH Health Alliance, looking for opportunities to reduce health risks at work, in the environment, and from personal health behaviors.

## Pediatrics Service-Jocelyn O. Joseph, MD, Chief

### **Strategic Focus**

The Pediatrics Service at MIT Medical provides health care for the children of staff and faculty, graduate student families, postdoctoral scholars, and visiting scholars. We offer families a caring and welcoming environment. Our goal is to honor cultural differences and respect diverse types of families while delivering outstanding pediatric health care.

#### **Accomplishments**

Hiring pediatrics-trained urgent care providers for both holidays and weekends has been beneficial in many ways. Parents can seek care for their sick or injured children on the weekends and can be more confident about the care their children receive. We reduce emergency room utilization when there are trained Pediatrics providers available in After Hours on the weekends. This has also helped to smooth out demand at the beginning and end of the Pediatrics workweek by having skilled pediatric providers available on weekends and holidays.

We have accomplished this more successful utilization of services and improved access through a collaboration with Harvard University Health Services. At one site (MIT/ Harvard), we have a pediatrics provider for each weekend/holiday seeing patients from both institutions. We are also collaborating with Harvard University Health Services to increase the number of providers who are competent and credentialed to see patients.

Our "Meet Pediatrics" group meeting every other month continued to be successful. The program is informal and interactive, giving new and expectant parents an opportunity to see the Pediatrics Service firsthand and to learn how to care for their babies in the hospital and at home. During the event, parents tour our facility, and we distribute vaccine and baby care information translated into several languages.

Serving as mentors or preceptors for high school, graduate nursing, college, and Harvard Medical School students, we continued to be active in the MIT and Boston-area community.

We provide a health care consultant to the MIT Day Camp, as well as to the child care centers on campus and summer teen science programs. In the greater Boston and Cambridge area, we provided health care talks to children and teenagers. We have served as resources for MIT and other college students interested in health care. To meet new federal guidelines on supporting breast-feeding practices in the workplace, we are involved in developing regional breast-feeding and pumping rooms across campus.

Our "5-2-1 Jump Up and Go" lifestyle program continued to be a resource for our families. This program recommends these daily requirements: five servings of fruits and vegetables, no more than two hours of TV or computer screen time, one hour of exercise, and no more than one sugary drink. Research and performance improvements are ongoing. A four-year review in conjunction with Boston College Graduate School of Nursing students and faculty and Pat Bartels, FNP-BC, a visiting scholar at Boston College, shows that we are making a difference in reducing childhood obesity within the MIT community.

Dr. Frida Wosk, a board-certified pediatrician with special training in developmental disorders, continues to serve our MIT community well. We have increased utilization of her behavioral/developmental skills, and the MIT Medical providers and patients are benefiting from her expertise. She is seeing more families who are concerned about their children's social, emotional, developmental, and academic well-being. In addition, she serves as a liaison between Pediatrics Service providers and the Cambridge Hospital psychiatric fellow who sees MIT families in Pediatrics once a week.

## *Initiatives*

In FY2011, the Pediatrics Service will more successfully utilize urgent care services and improve access for families by:

- Collaborating with Harvard University Health Services to increase the number of competent providers who are credentialed to see patients. We would like to have Pediatrics weekend after hours care one hundred percent of the time.
- Collaborating with the MIT administration to clearly define pediatric care and advice after 5 pm seven days a week.
- Continuing our outreach efforts to expectant parents with our "Meet Pediatrics" events.
- Continuing to communicate the benefits of the "5-2-1 Jump Up and Go" lifestyle program promoting healthy eating habits in support of our wellness efforts. In addition, we will continue to work collaboratively with various members of the MIT community to improve patient education and care through increased outreach programming with a goal of quarterly offerings regarding parenting.
- Working collaboratively this fall with the Massachusetts Department of Public Health, as well as with the Work, Family, and Life and Spouses and Partners

groups, to present a workshop on parental stress and shaken baby syndrome. We plan to offer these workshops, aimed at coaching parents on strategies in responding to infant crying and fussiness, on a recurring basis.

- Planning a Family Fun and Fitness Day in the spring where families will have the
  opportunity to engage in fun exercise and pick up tips on healthy behaviors and
  nutrition.
- Working with a cross-disciplinary MIT Medical team to help address adult obesity.
- Continuing to work on patient flow and system issues to ensure patient, provider, and staff satisfaction while being fiscally responsible.

## Surgical Service—Lawrence T. Geoghegan, MD, Chief

## Strategic Focus

The Surgical Service at MIT offers our patients access to all types of surgery, both elective and emergent. Minor surgeries requiring only local anesthesia are usually performed in our procedure room. More complex operations are performed at Mount Auburn Hospital or Massachusetts General Hospital (MGH). A large number of urgent minor procedures are carried out in MIT Medical's urgent care area.

## **Accomplishments**

Despite the reduction in personnel described in last year's annual report, more than 1,000 urgent care patients were cared for in the surgical clinic.

The volume of major surgical cases remained constant, while the case mix included laparoscopic procedures, intestinal resections, breast cancer surgery, hernia repairs, and emergency appendectomies.

Breast cancer management continues its rapid evolution. The use of oncogene screening to predict the risk of recurrence is one example. Dr. Geoghegan attended the breast cancer conference sponsored by the Gillette cancer group at MGH.

## **Initiatives**

Surgical Service reductions caused by budgetary constraints have been successfully managed. Dr. Geoghegan now holds clinics five days a week. This has been critical in maintaining the same volume of patients as in previous years. We have had excellent cooperation from the Mount Auburn Hospital surgical service with respect to providing seamless support for our patients requiring emergency care. We continue to utilize the MGH surgical service for its expertise in a number of areas.

Despite the significant changes of the past year, we are proud of our flexibility in maintaining a high standard of care for our patients.

#### **Administrative Services**

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

### **Strategic Focus**

Information Systems (IS) and Medical Records at MIT Medical seek to improve the health and wellness of our patients by utilizing health care systems technology. Our major areas of focus are data quality, training and education, clinical and financial reporting, and the electronic health record. All of these initiatives made significant progress last year.

### **Accomplishments**

Through continuing collaborative efforts between IS and Radiology, an archival digital storage system went online. This will allow the Radiology Service to have all of its images stored online locally and to have total redundancy of all patient images. Within the past year, radiologists have had the capability to read all of the various radiological images remotely. This enhances the turnaround in diagnosing patient injuries.

Multiple major upgrades were done on the department's practice management system and EMR system. Over the last two years, dictation costs have decreased by more than \$84,000. Two major factors contributed to this continuing decrease. As a result of the improved functionality gained with a new version of speech recognition software that closely interfaces with the EMR, we were able to work with clinicians to help them increase utilization of the software. The other key component in this success is MIT Medical's investment in one-on-one training for multiple clinicians. This higher level of training helped facilitate a smooth transition to cost-effective, self-correcting dictation documentation.

This year, the remaining inactive medical records and all of the Mental Health Service's records were shipped to a specialty vendor that scanned the more than 2.4 million remaining images into our EMR. We now have over five million scanned images in our EMR system. As of this past winter, the Medical Service and Mental Health Service have no paper records.

In January 2010, MIT Medical implemented the collection of copayments in medical specialty areas. The copay "go live" was uneventful due to a collaborative effort among Finance, IS, and staff in the medical specialty areas, who all contributed to making this new workflow process a smooth one for the patients affected.

This past year, a decision was made to make OC11, an off-site robust data center in downtown Boston, the primary site for MIT Medical's servers. Connectivity has been established between E23 and OC11, and some hardware and software services have been relocated to OC11. During the upcoming fiscal year, the transition will be completed—OC11 will be our primary site, E23 will be our secondary site, and we will uninstall our configuration in W91.

Credit card regulations were changed, which required a major upgrade of the credit card operations at MIT Medical. All of the hardware and software in the MIT Pharmacy were upgraded to ensure that new regulations were met. The pharmacy has the highest volume of credit card transactions at the Institute.

Information Systems actively supported the many H1N1 flu shot clinics held during the past year. By having hardware on-site during the clinics, clinicians were able to retrieve patients' current EMR information, ensuring that the proper vaccines were administered.

Continuing advancements were made in the department's reporting capabilities. A dashboard tool called Ensemble has been implemented across the department to track various key clinical indicators for patients, to track key statistics in the multiple clinical service areas, and to monitor Radiology and Pharmacy volumes.

#### *Initiatives*

Many of the strategic initiatives and goals of IS and Medical Records are ongoing and involve work that will lead to a number of process and developmental improvements. As we look ahead to FY2011, we aim to:

- Continue to develop more electronic workflows. An initiative scheduled to begin in FY2011 will record patient charges at the time of the visit versus the present workflow, which consists of charges being keyed manually from an encounter form. This electronic charge posting will lead to more accurate coding of patient encounters, patient encounters will be immediately documented from a billing perspective, and the potential for lost encounter forms will be eliminated.
- Position MIT Medical to ensure that we can take advantage of the federal government's American Recovery and Reinvestment Act (both financially and relative to business processes) as prudently as possible over the next five years.
- Support MIT Medical as the department implements some major changes in the upcoming year, one being the change in care models to a case management infrastructure instead of the Inpatient Unit's 24-hour-a-day services. Also, we will work with MIT Medical and Human Resources to successfully implement the "one health plan" model.
- Implement TeleVox, a patient appointment reminder tool. This messaging system will remind patients about upcoming appointments via voice mail or a text message available in 23 different languages. The TeleVox tool can also be utilized for "campaign-type" broadcast messaging.

#### **Operations—Deborah Friscino, Director**

## **Strategic Focus**

Operations is dedicated to supporting the strategic and operational initiatives of MIT Medical. This year, our ability to respond to unexpected large-scale community health concerns tested our emergency preparedness plans and was a key activity for months.

When not dealing with H1N1, operational areas strategically looked at models for various budget cuts.

## **Accomplishments**

#### H1N1

Last year we reported that "swine flu" (H1N1) occupied some of our time. Little did we know that the fall term of 2009 would see the return of the virus, with hundreds of students and staff members stricken and thousands more immunized.

Despite the uncertainty about the illness, its rate of transmission, and the best ways to treat it, as well as the sporadic availability of the vaccine, the community worked together to contain H1N1 and limit its spread. Previous work with the Emergency Operations Center (EOC) proved invaluable as members from all areas of the Institute came together to respond to the community's medical needs and to plan for any potential impact on academic programs. The group arranged clinic sites and provided staff resources as well as food, furniture, and transportation. We cannot thank them enough.

New systems were set up to improve communication between clinicians and staff in Housing and Dining so that the needs of ill students could be met. Housemasters were notified if students in their areas were confined to their rooms so that they could be cared for and their meals could be delivered. Students unable to attend class were able to let professors know of their absence. Everyone was provided with current information without the need for excessive phone calls. From all reports, the system worked well and is a model for potential future disease outbreaks.

Maintaining up-to-date information was a challenge as news from the Centers for Disease Control and Prevention (CDC) and the Massachusetts Department of Public Health often changed hourly. Clinicians in MIT Medical were identified as medical "experts," and their decisions guided the response of the Institute. Drs. Diamond and Heller met regularly with campus leaders to discuss plans and to inform them about the illness and appropriate responses. Campaigns were launched to distribute hand sanitizers and to remind people to wash their hands and cover their mouths when coughing. Information was distributed about self-care for mild illness, and guidelines were provided for seeking medical care if the illness was more severe. Internally, the MIT Medical website was identified as the primary site for information, and others linked to it. Staff members here were given information as it became available about the best approaches to clinical care as well as operational issues and vaccination clinics.

Because the illness was unexpected, vaccine was not initially available. The federal government halted production of seasonal flu vaccine and shifted production to H1N1 vaccine. Because of the difficulty in manufacturing the product, small batches were released and a priority system was initiated. Members of MIT Medical worked with the EOC to define target groups as vaccine became available. Both large and small clinics were set up. Between September and the end of January, more than 8,500 doses were administered on top of 7,500 doses of seasonal vaccine. It was a busy season.

## Other Activity

At the same time, the department continued its normal functions. The Radiology Service received the annual relicensure of its mammography unit from the Massachusetts Department of Public Health and the US Food and Drug Administration. The Laboratory successfully completed its on-site inspection by the Commission of Laboratory Accreditation of the College of American Pathologists. Congratulations to both groups for maintaining their high standards of excellence.

Providing culturally sensitive care remained at the forefront of departmental activities throughout the year. Two dinners were held, providing everyone the opportunity to discuss pertinent topics. The first looked at health care issues facing the Luso American community, and the second involved a discussion of power and privilege within MIT. Clinical staff education included sessions addressing depression in men, challenges facing transgender patients, and ways for clinicians to better understand the balance between Eastern and Western medicine. Internally, a number of people completed mediation training at MIT and now serve as staff representatives here. Lunchtime training sessions are under way, offering all staff members basic computer training and a place to ask questions they might not ask elsewhere. Peer mentors are assigned to new staff to more easily welcome them to the department and to acquaint them with its culture.

Renovations continue throughout the building. As medical records were archived in an electronic format and storage moved to offsite locations, office areas were remodeled. A number of infrastructure issues were addressed to update electrical systems and heating, ventilation, and air conditioning systems, preparing us for the next stage of building enhancements.

Recently a team was formed to look at privacy issues and team members identified a number of changes that will increase patient privacy. A separate referral office is being piloted, allowing in-depth, personal discussions to take place in private rather than in open waiting areas. White-noise equipment was added to public areas, which will also limit the ability to overhear conversations. We will continue to look for ways to safeguard everyone's privacy.

Fiscally, MIT Medical implemented a number of budget cuts. Staff members identified ways to decrease expenses while maintaining high-quality services. In some cases, vendors were changed; in others, contracts were aggressively renegotiated. Services were restructured as staff vacancies occurred, eliminating a number of staff positions. Through all decisions, the importance of providing consistent, effective patient care remained as the central pillar.

#### **Initiatives**

As we look ahead, it's time to plan for another flu season. This year, MIT Medical will lead an Institute-wide initiative to offer flu vaccine to the entire community. While we hope that one vaccine will be required rather than two, there is no guarantee that this will be the case. This will again require the coordination of efforts from many people, and we look forward to working with peers from around the Institute.

Renovations will continue as well. The next phase involves addressing space needs in the Laboratory and surrounding areas. As we move to the new community care model, changes in space utilization will be identified, and we will work to match patient care needs with available space.

A number of changes that are under consideration have the potential to impact the daily operations of MIT Medical. At present, copayments are collected for some but not all appointments. Based on the requirements of federal regulations, it appears that copayments will be instituted for an expanded array of visits. This will require considerable work by many segments of the department given its impact on workflow, security with respect to safely handling money, information systems, and billing. Making this transition more complex is the possibility of changes in how the Institute administers its health care benefits. If care at MIT Medical is more fully integrated into Blue Cross Blue Shield products rather than functioning as a separate entity, there will be additional changes in multiple systems. Patient communication is an important component of any of these changes, and it will be developed as quickly as possible once final decisions are made.

Another major change under consideration involves a potential change in licensing. While the department is currently licensed as a hospital, we are considering applying for a clinic license with or without special provisions instead, based on the care we provide to the community. Accompanying this is a change in accreditation as well. While we anticipate continuing our affiliation with JCAHO, other accrediting organizations will be evaluated to see if they better match our needs.

Lastly, we will continue our focus on inclusion efforts and providing the best care for an increasingly diverse patient base. Managerial training is scheduled to help staff think about effective ways to bring out the best in each employee and to be aware of barriers that prevent individuals from being successful. We also plan to continue work to capture and analyze data related to health care disparities. It is important to everyone at MIT Medical that each person seeking our services receives the most appropriate, respectful care.

It will be a busy year, with the implementation of many new initiatives. Through it all, members of MIT Medical are committed to the mission of delivering integrated care in support of healthy living.

# Emergency Preparedness—David V. Diamond, MD, Associate Medical Director; Deborah Friscino, Director of Operations; and 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 security and disaster preparedness. We help identify and anticipate hazards that could affect the MIT community by developing emergency response protocols, emergency communications plans, and medical emergency care plans.

## **Accomplishments**

MIT Medical played a key role in the Institute's response to the H1N1 flu outbreak, which began in the spring of 2009 and continued through the first quarter of 2010. Clinical and operational staff worked in leadership roles within MIT's Emergency Operations Center, and MIT's senior leadership relied on the recommendations of our infectious disease experts in determining preparation and response activities on campus.

MIT Medical worked collaboratively with the EOC in offering numerous H1N1 flu shot clinics, which resulted in the department providing over 15,000 H1N1 and seasonal flu vaccinations to students, faculty, staff, and health plan members.

In October 2009, we participated in the contingency planning activities associated with the visit of President Barack Obama.

In March and April 2010, we updated our security training program and provided training for more than 200 MIT Medical employees.

On April 28, 2010, we participated in an "active-shooter" table-top drill with the Emergency Operations Center which was designed to ensure preparedness for a campus violence event involving a threat to life or safety requiring immediate action.

We continued to conduct medical emergency drills to ensure compliance with the JCAHO emergency preparedness standards and to identify opportunities for improving the effectiveness of our preparation and response activities.

In May 2010, our emergency preparedness coordinator attended a two-day emergency communications seminar and received certification as a crisis communications planner.

On June 4, 2010, we participated in the MIT commencement exercises through our representation on the EOC and through our provision of medical support required for the event.

We updated our fire emergency response plan and established a group that is now in the process of revising our mass casualty emergency plan.

We participated in community-wide emergency preparedness efforts with the Cambridge-area Hospital Operations Group, which is a multiagency group of representatives from local hospitals, colleges, and universities, as well as with various city agencies, including the Cambridge Department of Public Health.

#### *Initiatives*

Over the next year, we will continue to refine our emergency response plans and complete the process of updating our mass casualty plan.

Along with continuing to serve in leadership and support roles within the EOC, we will participate in EOC drills and remain active with the Hospital Operations Group.

Throughout the year, we will work with MIT's Security and Emergency Management Office (SEMO) to complete a comprehensive security assessment of our building and will proceed with recommendations to improve security related to that assessment.

We will review and implement any changes in the emergency preparedness plan associated with the proposed change in the licensure of MIT Medical.

## Marketing and Communications—Kim Schive, Coordinator

### **Strategic Focus**

The Marketing and Communications team provides a strong support function for MIT Medical and the Institute in many areas of medical information and health education. We support major initiatives on community health and wellness, the external communications efforts of the MIT health plans, and various clinical and administrative entities within MIT Medical. Our efforts enhance MIT Medical's internal and external communications and also support clinical and health-related research and data collection efforts.

During the past year, the team has put more emphasis on electronic communications through the use of online chats, articles on various websites (MIT Medical's public and internal websites as well as the MIT News Office site), and social media. Our goals are to increase the size and demographic diversity of our audience, achieve fast turnaround, and control spending on more costly print media.

## **Accomplishments**

The Marketing and Communications team reorganized, redesigned, and rewrote two major sections of the MIT Medical website (http://medweb.mit.edu): Community Wellness at MIT Medical (formerly the Center for Health Promotion and Wellness) and Mental Health.

The first set of changes followed a usability study that showed many users were not reading the general (non-MIT-specific) wellness information on the Community Wellness pages and were having trouble finding the information they were actually seeking (for example, going to Community Wellness pages to seek help for mental health concerns). Among other things, the new subsite streamlines navigation by focusing on seven specific program areas and clarifies the class and workshop offerings. The changes to the Mental Health section involved making the service more prominent on the site as a whole and presenting previously hard-to-find information in a more readable and accessible manner.

Other website enhancements include an improved directory and a question/comment form that directs messages via email to relevant areas of the department.

In the fall, we launched insidE23, MIT Medical's new intranet. A successor to MITHIS, insidE23 was designed on the Drupal content-management system platform with many enhanced features. These include regular news postings, the ability to comment on postings, an employee directory that is automatically synched with MIT Medical's

Human Resources employee database, photo galleries, and a system of classifying documents so that they can be flexibly organized. The intranet also allows timesaving electronic collection of data from employees, such as the outside professional activities report and entry forms for a departmental breakfast challenge. A major step toward enhancing internal communications, insidE23 increases interaction among staff members and reinforces a sense of community.

Our team was integral in supporting the Institute's goal of vaccinating all MIT community members against seasonal and H1N1 flu in keeping with state and federal patient priority requirements. In addition to posting frequent news and announcements on our website and using social media, we created a lobby banner, electronic posters for flat-screen monitors around campus, and downloadable posters in several languages that highlighted ways to limit the spread of the epidemic. We also produced two videos that were posted to our public website, TechTV, and YouTube and created and maintained Flu Central (http://medweb.mit.edu/about/news/flu), providing information on prevention and treatment, vaccination announcements, and other news.

After MIT Medical released a proposal to create a new Community Care Center in the location of the current Inpatient Unit, the Marketing and Communications team produced numerous news articles and FAQs, set up an online form MIT community members could use to comment or ask questions, and held two online chats during which people could log in and address questions in real time to several administrative and clinical staff members.

This year, we added more functionality to the website for the getfit@mit annual fitness challenge, including a recipe feature and a more streamlined process for logging in and entering exercise minutes. We also collaborated on the development of a completely new getfit@mit website to be launched at the beginning of next year's challenge, accomplishing the planning, design, and development phases in a compressed time frame.

Other important accomplishments included:

- Supporting communications to patients and families about expanded services for employees not enrolled in an MIT health plan and about a new requirement for copayments for some specialty visits
- Planning the 10th anniversary celebration of our MIT Medical/Lexington facility at Lincoln Laboratory
- Supporting two Parents' Association online chats for the parents of new students with questions about MIT Medical services and student insurance
- Providing training to the department on computer and Microsoft Word basics as well as social media
- Producing brochures for Pediatrics and Mental Health, Women's Health, and Community Wellness
- Creating marketing and registration materials (both web and print) for a new series of "Healthy Living" workshops

#### *Initiatives*

Major initiatives for the coming year include:

- Marketing and communications related to the changes in health insurance choices for MIT employees. This will involve marketing MIT Medical in a new way, making extensive changes to our public website and print publications, and—in partnership with Human Resources and others at MIT—educating the community about new health care options.
- Communications initiatives for several other changes that will take effect in January 2011, including the discontinuation of overnight services at MIT Medical, the opening of the Community Care Center, and federally mandated copayments for primary care visits.
- Continuing to enhance our insidE23 intranet, including reorganized policy and navigation features.
- Launching the new getfit@mit site (in collaboration with Community Wellness at MIT Medical), which we hope will lead to the expansion of getfit@mit to a year-round exercise and fitness tracking site enriched with social media functionality and, eventually, a smartphone app.
- Beginning to plan a new public website that would be based on a content management system and would have additional interactive features.
- Continuing ongoing communications about flu vaccination and prevention.

## Finance—Peggy Meehan, Director

# **Strategic Focus**

Finance 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, Finance is charged with managing patient financial services, budgeting and fiscal management, health plan administration, purchasing, and the organization's capital management.

#### **Accomplishments**

FY2010 was a year of much change, challenge, and success for Finance. Most notably, Finance staff shepherded the department through a second year of budget reductions and introduced visit-based copayments. Fee-for-service revenue was enhanced through process improvements and leveraging new technology implemented the prior year. And, as always, staff continued to modify the employee and student health plans to meet member needs.

#### FY2011 Budget Reductions

MIT Medical was challenged with a second year of budget reductions—a challenge shared by the entire MIT organization for FY2011. While the first year of budget cuts was a difficult one, the target was met with smaller overall reductions, fine-tuning of services, and primarily nonsalary expense reductions. A second year of mandated fiscal shrinkage presented a different exercise for department leadership. It required a line-

by-line review of expenses and associated services and then a rethinking of what we do, how we do it, and how we can do it differently while still providing positive results for patients at lower cost. The department considered alternative models for providing services internally at lower cost. The costs of outsourcing services currently provided internally were calculated and analyzed, keeping in mind the impact on patients, the community, and MIT.

Upon completing the process, a decision was made to close the Inpatient Unit at the end of calendar year 2010 and to implement a new care delivery model focused on nurse care managers who would coordinate care for patients admitted to local hospitals. Although this change has resulted in the layoff of clinical and support staff, several of the clinical staff affected will be redeployed into the community care model and will continue to be members of MIT Medical's clinical team.

### Introduction of Visit-based Copayments

In response to federal mental health parity requirements and following extensive dialogue with legal counsel, in January 2010 MIT Medical instituted \$10 visit copayments in the specialty services, including Mental Health. Prior to beginning the process, the department worked for six months on developing systems and operational changes to accommodate the copayment introduction into the practice management workflow. In addition, extensive training sessions for staff were conducted, and the department engaged in an informational campaign through signage and mailings to acquaint our traditional and flexible health plan members with the new process and the legislation that made this change necessary. With the passage of time since the initiation of the process in July 2009 and the resulting clarification of mental health parity guidelines, it has become evident that the department will need to expand the copayment requirements to all clinical areas, resulting in copayments in all primary and specialty care services. The work on this expansion is already under way and will be operational for the 2011 benefit year.

### Fee-for-Service Billing

Changing rules and other issues present constant challenges with respect to fee-forservice billing for services provided to Medicare patients and others. This year, a number of improvements and changes were made to enhance revenue and to increase business process efficiency.

Increased billable revenue was achieved through a relationship with Harvard University Health Services whereby our pediatricians provide care to Harvard students on weekends. In addition, revenue from Blue Cross Blue Shield (BCBS) was increased through the resolution of a long-standing issue involving the alignment of our billing systems with BCBS's laboratory and radiology claims payment mechanisms. Also, we created relationships with additional commercial payors, which increased billing by 7% among these institutions, and resolved complicated, long-standing issues related to reimbursement for workers' compensation claims and claims associated with automobile accidents.

In terms of business process improvements, we transitioned from a manual to an electronic billing process for Medex and some BCBS claims, decreasing accounts

receivable days and maximizing revenue. We reduced Medicare accounts receivable by 38% in one year through improved coding. Also, we continued to leverage the Enterprise Task Manager and Electronic Eligibility System to improve workflow, increase revenue, and reduce denied claims.

## Improvements to Student and Employee Health Plans

Aligning health plan design to student and employee needs is an ongoing goal of the department. Students enrolled in the Student Extended Insurance Plan who are traveling or need prescriptions during hours when the MIT Pharmacy is closed now have the option to obtain prescription drugs at most retail pharmacies.

From both an administrative and a clinical perspective, it is best for our employees who are enrolled in the MIT traditional and flexible plans to have a primary care provider (PCP) of record. This year, the department targeted those members without PCPs through mailings and made a coordinated effort to obtain the information and convert from a manual to an electronic process. As a result of staff effort, there are now approximately 200 members without PCPs of record, down from the original 700.

Other improvements related to health plans include a change in payment methodology that is more efficient and less costly to MIT, and the introduction of a newsletter for MIT Medical staff with updates on the latest changes in regulations and policies impacting benefits and health plan administration.

#### *Initiatives*

Much of the upcoming year will be devoted to planning and implementing the new employee plan design at MIT Medical. The consolidation of the MIT traditional and flexible health plans into one MIT plan will require significant changes in systems, operations, and finance, necessitating broad education and training for staff. Communications to patients, the community, and MIT staff must be carefully planned and coordinated with MIT Human Resources. Additionally, the introduction of copayments across the department will be planned and implemented concurrently.

Another initiative that will begin in FY2011 is an organized approach to medical-coding training for clinicians. The first in a series of training sessions will begin this fall and will continue on a regular basis. Improvements in coding will reduce back-end work and will position the department for the transition to a more complex coding system to be implemented over the next few years.

#### Performance Improvement and Risk Management—Ruth Fishbein, Director

#### **Strategic Focus**

In support of MIT Medical's goal to deliver accessible, high-quality, culturally sensitive, and personalized health care, performance improvement and risk management activities are integrated into all aspects of clinical and administrative services. We work collaboratively to enhance the quality of the services we provide and to offer care that is patient centered, safe, effective, timely, efficient, and equitable.

## **Accomplishments**

We are successfully transforming department performance improvement and risk management activities from service-specific to department-wide interdisciplinary activities consistent with department goals and priorities.

We have continued to expand electronic capacity for clinical reporting. Quantitative and qualitative patient care data will be available to clinicians in real time, allowing for benchmarking with regional norms via data from the Massachusetts Health Quality Partnership (e.g., on mammography and colonoscopy rates). Electronic systems are now also being used to support clinical practice—for example, through reminder letters for mammography, immunization tracking, test result letters to patients, and management of results for laboratory testing.

Care of patients with diabetes continues to be a clinical priority. This past year, we expanded care management services for high-risk patients (those patients whose diabetes is not in good control), implemented a pilot program for continuous monitoring of patients' blood sugar levels, designed a system to improve lab test compliance (implementation is scheduled for July 2010), and implemented bimonthly interdisciplinary clinical case reviews. A survey of patient interests and communication preferences was completed. Based on the results, in FY2011 we will offer education sessions on exercise, nutrition, and ways to reduce medical complications associated with diabetes. We will also determine the feasibility of developing interactive web-based education programs and online chats.

An interdisciplinary team was established to develop a system of care for patients who are obese or at risk of obesity.

External patient referral management has been improved with the establishment of a dedicated privacy and effectiveness referral management service to track critical referral appointments to ensure patient compliance and to facilitate communication between the referring clinician and specialists. Patient referrals are now handled in a private office instead of at the front desk, resulting in improved patient privacy as well as improved effectiveness and efficiency of this critical function.

Laboratory results management systems have been established to track and ensure patient compliance and clinician receipt of key laboratory test results.

We have made an organizational commitment to improve patient safety by focusing on improving the culture of safety in MIT Medical—acknowledging that our work has inherent risks, committing to taking actions to reduce risks and improve safety, creating an organizational environment where it is safe for staff to report errors, and encouraging collaboration and teamwork to find solutions to patient safety problems.

This past fall, staff members completed the Agency for Healthcare Research and Quality Medical Office Practice Culture of Safety survey to establish a baseline measure of the department's "culture of safety." One hundred six employees responded to the survey, representing a good cross-section of all employee categories. The need for improved

teamwork, communication about errors, and openness of communication emerged as priority areas for staff development. Results were shared with senior management and will be shared with staff in various forums over the next several months.

Other patient safety improvements included interdisciplinary case reviews and care planning for high-risk cases, building security improvements, and improvements in patient privacy.

#### *Initiatives*

The Performance Improvement and Risk Management Committee has begun a planning process to improve the value and effectiveness of department performance improvement activities. The following initiatives have emerged from this process:

- Establish a quarterly report card to update the status of achievements in performance improvement goals and objectives.
- Expand analytic capacity to support activities such as improvements in clinical data analysis and reporting to track individual patient and population outcomes.
- Engage the Performance Improvement and Risk Management Committee in assuming a stronger leadership role in championing performance improvement activities.
- Create a more open environment for communicating performance improvement and risk management activities by providing details on activities and results to the department and the MIT community, soliciting input from staff and engaging staff more actively in activities, and establishing vehicles for patient involvement in these efforts. (We were unable to implement this initiative in FY2010 and have made it a high priority for action within the next few months.)
- Improve the score on the CRICO/RMF Office Practice reevaluation from 81% to 85% or higher. (We had originally planned to complete this activity in FY2010 but deferred to ensure the implementation of recommended improvements in the areas of referral management, test results management, and documentation of patient and family history.)
- Share the results of the Culture of Safety survey with staff and solicit input to establish one or two key activities to improve patient safety, such as improving openness of communication and teamwork between clinicians and staff.
- Determine appropriate accreditation consistent with conversion to the community care/medical home treatment model (Joint Commission Ambulatory Care program or Accreditation Association for Ambulatory Health Care) and take steps to transition to new standards.

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

### Strategic Focus

Community Wellness at MIT Medical (formerly the Center for Health Promotion and Wellness) makes a unique contribution to the health of virtually all parts of the MIT community. We not only guide individuals in learning about and pursuing healthier

lifestyles but also work with groups to build community and create environments where healthier choices are easier.

In addition, we strategically tailor our core content to be easily utilized by students, faculty, staff, and others living and working in MIT's fast-paced, high-achieving culture. A healthier campus supports our highest achievements, improves our lives, and has the potential to minimize the human and financial burden of chronic illness over time.

We have expanded our focus this year to address issues relevant to MIT's response to the global economic downturn and to national health reform initiatives. With the knowledge that chronic illnesses account for over 80% of health care resources and that more than half of all diseases are associated with potentially preventable health risks, we are addressing the following key wellness priorities identified by the US Department of Health and Human Services and the National Institutes of Health:

- Physical activity
- Good nutrition and weight management
- Tobacco treatment
- Adequate sleep
- Stress management
- Sexual health
- Social connectedness/healthy relationships
- Violence prevention

Because we are a very small team with a large mandate serving roughly the population of a suburban city or town, our strategic focus includes constant attention to innovation. We support MIT Medical's pillars of access, quality, community wellness, and diversity.

#### **Accomplishments**

# Expanding Our Reach with People at Risk for Chronic Illness

We piloted a new Healthy Living workshop series in 2009–2010, addressing issues such as tobacco treatment, healthy eating, stress, and sleep. Two hundred people—many referred by their MIT Medical clinician—submitted over 450 registrations for 21 workshops.

We provided three health and wellness continuing medical education sessions for clinical staff at MIT Medical. Increasing clinician capacity in tobacco treatment, stress reduction, and motivational interviewing fosters the integration of healthy behavior change support into each clinical visit MIT Medical provides.

#### Ramping Up Workplace Wellness Programming

We created the TECH Health Alliance, a collaborative effort of Human Resources, EHS, and MIT Medical. The alliance drafted a workplace wellness award for the rewards and recognition process, contributed to the getfit@mit closing event, and investigated opportunities for campus-wide environmental health improvement strategies.

In addition, we designed and piloted the "Seven-Day Breakfast Challenge" (for MIT Medical staff) to bring programs directly to workplaces.

At Lincoln Laboratory, we conducted an employee health interest survey, facilitated the Weight Watchers at Work program, and started a monthly nursing mothers' support group.

# Strengthening Student Health Programming

We piloted the "Know Your Status Day" HIV prevention awareness and testing campaign.

We incorporated the MedLinks campus-wide undergraduate student network into MIT Medical's H1N1 pandemic response. MedLinks data contributed to real-time analysis of the spread of flu-like illness, and members played a key role in the dissemination of targeted prevention and treatment health communications.

Three health-related student groups merged to provide a stronger, more global program. The Student Health Advisory Committee, Active Minds, and Imperfect@MIT will now be "Thrive@MIT."

# Gaining Efficiency and Expanding Our Impact with Technology

We piloted the use of text messaging to support stress management, in partnership with an MIT alumna. Also, we automated the web platform for matching new participants in the Language Conversation Exchange program and expanded web-based MP3 offerings in mindfulness and stress management.

In addition, we improved our effectiveness while meeting our budget target. We increased the efficiency of getfit@mit, our 12-week signature fitness challenge collaboratively run with MIT Medical's Marketing and Communications team. In 2009, we reduced net expenses by 30% while increasing the number of teams to 431 (a 10% increase), the number of participants to 2,996 (a 7.5% increase), and the overall number of minutes exercised to 9,421,770 (a 6.75% increase). Through increasing our wellness class offerings by 40%, we generated additional revenue from these classes. Finally, we began to create "cultures of giving" in key long-term student programs by developing materials with program leaders and working with the MIT Alumni Association.

#### *Initiatives*

Upcoming initiatives include the following:

- Pilot a health coaching program providing four to six weeks of individual or group coaching for people interested in improving one or more aspects of personal wellness
- Expand getfit@mit to allow participants to enter exercise minutes year-round
- In collaboration with Human Resources, develop a two-year pilot program formalizing and evaluating employee health and wellness initiatives at Lincoln Laboratory

# **FY2010 Appointments and Separations from Service**

# Medical and Administrative Staff Appointments

Debra Crowley	Registered Nurse	07/20/09
Gregory Baker	Health Educator	10/15/09
Veronique Saint Clair	Registered Nurse	10/26/09
Katherine Barlett	Program Manager	03/30/10

# **Separations of Service**

Program Manager	07/11/09
Psychologist	09/01/09
Assistant Laboratory Manager	09/12/09
Program Manager	12/03/09
Chief of Oral Surgery	12/09/09
Program Manager	01/09/10
Dermatologist	02/01/10
Nurse Practitioner	02/06/10
Program Manager	04/06/10
Chief Pharmacist	04/16/10
	Psychologist Assistant Laboratory Manager Program Manager Chief of Oral Surgery Program Manager Dermatologist Nurse Practitioner Program Manager

William M. Kettyle, MD Medical Director

Annette Jacobs Executive Director

More information about MIT Medical can be found at http://medweb.mit.edu/.