

MIT Medical

FY2020: MIT Medical's Response to a Global Pandemic

FY2020 was a drama that unfolded over two acts: life before COVID-19, and MIT Medical's rapid response to the ongoing, evolving threat of the novel coronavirus. This report has been structured to chronicle MIT Medical's pandemic response as it happened and has been organized into three parts:

1. Operational highlights prior to the COVID-19 pandemic (July–December 2019)
2. Month-to-month breakdown of MIT Medical's operations and response to the COVID-19 pandemic (January–June 2020)
3. FY2020 financials, utilization, and human resources information

About MIT Medical

MIT Medical is a multispecialty group practice and health resource serving the MIT and Lincoln Laboratory communities. For over 100 years, we have fostered a tradition of caring—meeting MIT's personal, occupational, and public health needs. At MIT Medical, more than 325 clinicians and other professionals provide clinical care, wellness programs, public health resources, insurance services, and community support. We serve a diverse population that includes some 23,000 individuals, and approximately half of our patients are students or student family members. Our clinical services range from pediatrics to geriatrics and focus on the unique needs of the MIT community. We also offer community-focused support and service programs to enhance the health and wellness of students, faculty, and staff, including families and retirees.

Operational Highlights Prior to the COVID-19 Pandemic (July–December 2019)

Fiscal year 2020 began with a senior leadership retreat focused on leadership development, strategic planning, and identifying priority areas for the coming year.

Six key initiatives emerged from the retreat and were designated as priorities for FY2020:

Service Excellence

Providing excellent service is essential to ensuring a positive patient and employee experience. Feedback has indicated that our current service levels do not consistently meet the expectations of our patients. This initiative will reevaluate operational workflows and provide training and resources to better position our employees for success in “customer” service.

Faculty Experience

To provide an excellent MIT Medical experience for faculty members, we must conduct outreach to understand their unique needs. Understanding and meeting faculty needs aligns with our efforts to provide the best patient experience for all of our populations.

This initiative includes interviewing representatives of the faculty community to understand the expectations they have for our service, both for themselves and for students and other employees.

Access to Primary Care

Our patients want frequent and consistent access to providers and care teams, often same-day visits. Patients also want the ability to make their own appointments, communicate with providers, and have virtual visits. With this initiative, we will work to structure our services and equip ourselves with the necessary tools to meet these expectations where possible.

Diversity & Inclusion

MIT Medical is a diverse department serving a diverse community, and honoring diversity is at the core of the work we do. In our employee engagement survey, staff members repeatedly stressed a desire to focus on inclusion. This initiative focuses on creating a more inclusive community by hiring a director of diversity, equity, and inclusion, reinvigorating our long-standing Building Inclusion and Diversity Committee, and creating a suite of programming for our patients and employees.

Internal Communications

For our staff to succeed, they must be supplied with up-to-date data, policies, and news. Through feedback collected in departmental meetings and the employee engagement survey, we concluded that internal communications aren't consistently effective in reaching everyone at MIT Medical. This initiative will establish clear expectations for managers in sharing information, standardize formats for communications and feedback collection, and ensure that key messages are communicated clearly and efficiently.

Cerner Learning

After last year's successful implementation of Cerner, our electronic medical record and practice management system, feedback indicates that staff members are eager for more opportunities to learn the system to improve performance in their respective roles. This initiative focuses on developing additional tools and skill sets in training and learning about the Cerner system.

Though implementation of these initiatives faced delays due to COVID-19, MIT Medical was able to accomplish numerous projects, including:

- Hiring a director of diversity, equity, and inclusion.
- Debuting a significantly revised and enhanced phone tree and call-management software platform to enhance customer service and improve access to services.
- Pursuing Health Equity Index certification, the national LGBTQ benchmarking tool that evaluates health-care facilities' policies and practices related to the equity and inclusion of their LGBTQ patients, visitors, and employees.
- Instituting enhanced security measures in the MIT pharmacy (new secure storage for medications; security cameras; dispensing workflows).

- Completing a two-year policy update project, creating a policy-revision cycle, and launching PolicyTech, our policy tracking and editing software.
- Supporting Primary Care moves so clinical teams would be housed in the same location.
- Completing the planning phases of Student Mental Health & Counseling (SMH&C) accreditation, with accreditation anticipated in FY2021.
- Finishing the planning phase for moving the MIT Optical Shop from the Stratton Student Center to Building E23, to be completed in fall 2020.
- Successfully converting our annual department meeting into a poster session featuring 14 different employee-led projects.

MIT Medical Flu Clinic as Template for Pandemic Readiness

On October 3, MIT Medical organized and administered yet another record-breaking flu clinic. A total of 9,378 people on campus received vaccinations—an average of one shot every 3.8 seconds. The success of the clinic took on heightened importance in retrospect, as it presaged the enormous COVID-19 testing effort of 2020, but it also established our preparedness to perform campus-wide vaccinations. With the potential for a COVID-19 vaccine in FY2021, MIT Medical stands ready to execute a safe and efficient mass immunization effort.

Month-to-Month Breakdown of MIT Medical's Operations and Response to the COVID-19 Pandemic (January–June 2020)

January

Timeline

- 1/21: MIT Medical begins monitoring COVID-19
- 1/24: Message sent to entire MIT community about virus
- 1/27: MIT Medical and Office of Emergency Management begin holding daily meetings
- 1/31: Travel restrictions from mainland China are instituted

Details

MIT began monitoring the disease early, as we had done for Ebola in 2014, Middle East respiratory syndrome coronavirus in 2013, and severe acute respiratory syndrome in 2003. Clinical staff began screening patients to understand their recent travel history and potential for exposure to COVID-19. MIT Medical also worked closely with the Cambridge Department of Public Health. Within days, we informed the entire MIT community about the risks associated with the novel coronavirus and began daily meetings to prepare for potential threats to members of the MIT community.

February

Timeline

- 2/2: Travel-reporting form introduced; self-quarantine imposed for community members returning from China
- 2/8: First MIT community member under investigation for COVID-19
- 2/27: Travel-reporting form and self-quarantine rules expanded to encompass all travelers

Details

February was dominated by preparations and precautions. After the Independent Activities Period, February 3 marked the start of classes. MIT Medical closely monitored the population as students returned to campus from areas already affected by COVID-19. We also worked closely with Emergency Management and the International Coordinating Committee to modify policies so that they accurately reflected real-time risk factors. Students and staff from affected regions were asked to self-quarantine for 14 days, and all quarantining students were given support from the CARE Team as well as MIT Medical.

March

Timeline

- 3/5: Institute limits travel, events, and visitors
- 3/10: Decision made to move undergraduates out of housing and cancel classes for one week
- 3/10: MIT Medical telehealth project initiated
- 3/12: Employees transition to remote work; undergraduate move-out is accelerated
- 3/14: Institute decides to ramp down research
- 3/17: MIT Medical launches on-site COVID-19 testing
- 3/20: Graduate students encouraged to move out of Institute housing
- 3/24: First positive COVID-19 case in MIT community; MIT delivers first load of personal protective equipment to local hospitals as shortages emerge
- 3/29: MIT Medical telehealth goes live

Details

- COVID-19 tests performed in March: 91
- Telehealth visits conducted at MIT Medical in March: 35

As COVID-19 spread globally during March, MIT Medical worked closely with other departments to monitor, and then mobilize. During daily morning huddles, MIT

Medical worked with leaders from across the Institute to plan for COVID-19 spread in the MIT community while closely monitoring the situation at nearby schools and across the region. Though MIT would not see its first COVID-19 case until March 24, Student Health advised dorms and academic departments, and went on to staff the Burton-Conner student isolation facility. At the same time, clinical staff conducted contact tracing and early testing. By mid-month, a dedicated testing tent was in place, and our swab team was testing community members.

On March 16, MIT Medical formally converted the E23 facility into a clinic focusing on essential services, prioritizing access to specific services, including pediatric immunizations, ongoing allergy shots, behavioral health medication management, and prenatal exams. The clinic also increased the availability of same-day visits, particularly to support evaluation of potential COVID-19 cases. Many members of MIT Medical staff were redeployed to support those operational changes and the new COVID-19 testing facility. For staff members working remotely, the Project Management Office (PMO) worked to operationalize clinic phone and fax services and create and document remote workflows and policies. Information Systems and Medical Informatics initiated a project to test and train 20 clinicians to conduct video visits with Cerner telehealth technology.

As the Institute made plans to close campus and students began to leave, MIT Health Plans moved quickly to ensure that Student Extended Insurance Plan/Affiliate Plan members would have ready access to services when they returned home. The department worked closely with Blue Cross Blue Shield of Massachusetts to temporarily lift the requirement that members get routine care at MIT Medical, removed the visit limit on outside providers, and moved to refund students who did not need Extended Plan coverage at home.

Concurrent with the rise of COVID-19 was a proliferation of conflicting and inaccurate public health information. To provide the MIT community with clear and science-backed guidance, MIT Medical Marketing and Communications created the COVID-19 Q&A series, answering community questions about the virus. The department also worked closely with Facilities, the MIT News Office, and other departments across MIT to develop signage, graphics, FAQs, a new website, and email communications about COVID-19 and its impact on the community. After campus closed, the communications team created a weekly patient newsletter that contained the latest updates about service changes as well as public health information.

April

Timeline

- 4/2: Committee on the Use of Humans as Experimental Subjects (COUHES) study approved; testing tent opens; large-scale testing begins
- 4/4: Student success program launches
- 4/15: Sean Collier Care Center opens
- 4/24: Announcement that on-campus summer programs will be remote
- 4/29: MIT extends limited operations until May 18

Details

- COVID-19 tests performed in April: 1,886
- Telehealth visits conducted at MIT Medical in April: 1,138

At the beginning of April, the Institute began testing community members on campus, including students and support staff. Those individuals were asked to participate in a COUHES-approved study conducted by MIT Medical and the MIT Institute for Medical Engineering and Science's Clinical Research Center seeking to understand the prevalence of COVID-19 infection on campus.

After a successful pilot program in March, telehealth at MIT Medical ramped up in earnest during April, with Urgent Care, Primary Care, and Dermatology conducting appointments through the Cerner platform or over the phone. Student Mental Health & Counseling also quickly transitioned to a fully remote service model using a secure telehealth platform for video visits and virtual "walk-in" services. In addition to telehealth visits, Urgent Care, Primary Care, and Pediatrics continued to see patients in person as needed, including testing symptomatic patients for COVID-19.

As classes resumed remotely, Community Wellness at MIT Medical helped to train more than 400 volunteers from across the MIT community to act as student success coaches, providing individual outreach and guidance. The department also began offering live and on-demand virtual classes centered around self-care and coping strategies, including weekly wellness classes focused on the mind-body connection. New parent classes and the Spouses and Partners Connect Program went online, and the organizers of Getfit developed an online step challenge, encouraging remote workers to stay active.

With the MIT Medical workforce largely off-site, the PMO worked with the Office of Institutional Research to conduct a work-from-home survey to assess our populations' unique needs and challenges. The majority of survey respondents rated their experience as "okay" or better. The staff cited challenges including technology, internet connectivity, and caregiving responsibilities. Workers also expressed a desire for increased communication. A work-from-home survey workgroup formed to identify next steps and communicate the results. Actions included purchasing new technology, improving individual employee setups, and establishing a regular town-hall meeting to share news and answer questions.

On April 15, MIT opened the Sean Collier Care Center, a fully licensed 75-bed facility funded by MIT and staffed by MIT Medical. The center was designed to provide COVID-19 care for members of the MIT community and individuals from the broader Cambridge community and to alleviate hospital bed shortages in the Commonwealth. Fortunately, hospitalization demands within the Commonwealth never reached the predicted critical levels and, on April 27, the center was decommissioned without admitting a single patient. However, we would be able to redeploy the care facility on limited notice if needed.

May

Timeline

- 5/11: Leading and Managing MIT Medical's Future program paused
- 5/15: Building access pilot for research ramp-up
- 5/18: Massachusetts enters phase I of reopening
- 5/22: Telehealth Visit workflow published
- 5/29: MIT graduation

Details

- COVID-19 tests performed in May: 3,145
- Telehealth visits conducted at MIT Medical in May: 1,564

To offer relief to students graduating into a pandemic, the Institute offered spring 2020 graduates and their families the option to extend coverage in the MIT Student Extended Insurance Plan until the end of 2020. MIT Health Plans worked closely with Blue Cross Blue Shield of Massachusetts and Gallagher Student Health to extend eligibility and operationalize sign-up and billing.

On May 22, Information Systems and Medical Informatics published final versions of workflows and policies for telehealth visits across all departments.

June

Timeline

- 6/1: First testing trailer opens
- 6/2: MIT community vigil
- 6/15: Research ramp-up begins; launch of Covid Access System and Covid Pass; MIT Medical holds first of two community dialogues on race
- 6/20: Dental retrofit begins
- 6/22: Massachusetts enters Phase II of reopening
- 6/29: Communication sent to MIT Medical patients about the return of in-person appointments
- 6/29: Second testing trailer opens

Details

- COVID-19 tests performed in June: 9,236
- Telehealth visits conducted at MIT Medical in June: 1,967

MIT Medical played a pivotal role in phase one of the research ramp-up. The Institute asked individuals who could not conduct research outside a laboratory setting to return to campus, and MIT Medical made sure to test each of these returning researchers over the first week of June. Staff from all MIT Medical departments came together to ensure that testing went smoothly—managing lines and ensuring social distance, checking in test subjects, and sanitizing stations between tests. More than 3,000 people were tested during this phase, which served as a template for fall’s return to campus.

As part of the overall MIT community’s response to the extrajudicial killing of George Floyd, Director of Diversity, Equity, and Inclusion Kwadwo Poku facilitated two community dialogues on race, articulating a path toward making MIT Medical an anti-racist workplace and health-care organization. These conversations resulted in the formation of affinity groups for MIT Medical staff, creating safe spaces to build community and share interests.

To help students process these unsettling events as well as the continuing pandemic, SMH&C created programming, including a workshop on coping with pandemic-related stress, a toolkit on coping with microaggressions, and a podcast episode on race-based stress. The department improved access to mental health services for students living abroad by partnering with MIT’s program manager for international safety and security to secure a vendor.

Though MIT Dental closed in March, clinicians continued to take appointments through teledentistry as the pandemic progressed. On June 16, the dental clinic began an extensive retrofit to reduce the risk of COVID-19 spread. The clinic also acquired and installed a Hydrim GR automated instrument cleaner to allow for reduced physical handling of contaminated instruments.

On June 29, MIT Medical sent a communication to patients announcing the return of in-person visits for Primary Care, Pediatrics, and most specialties. Many operational changes to in-person visits related to the pandemic will remain indefinitely. Patients receive COVID-19 screenings at check-in. Use of waiting rooms has been limited, and masks are required. Most notably, medical appointments are now often hybridized, with the first part of the visit conducted over video or telephone, followed by a briefer in-person exam and necessary lab work.

FY2020 Financials, Utilization, and Human Resources Information

In FY2020 we had 38 departures, 18% of which were retirements. We made 34 hires, including three physicians, four family nurse practitioners, four registered nurses, and six medical assistants.

MIT Medical New Hires

Name	Job title	Date of hire
Haneen Abdel-Razeq	Patient Services Representative	7/15/2019
Viktoriia Palesheva	Program Assistant	8/05/2019
Sandra Cabral	Patient Services Representative	9/03/2019
Zara Doyle	Medical Assistant	9/03/2019
Lauren Couture	Family Nurse Practitioner	9/16/2019
Belinda Sobosik	Dental Hygienist	9/30/2019
Sylvia Musoke	Registered Nurse	10/15/2019
Zekia Ali	Medical Assistant	10/15/2019
Vini Anand	Family Nurse Practitioner	10/15/2019
Melissa Mackel	Family Medicine Physician	10/15/2019
Allison Sherwood Zolenski	Family Nurse Practitioner	10/15/2019
Edward Waller	Family Nurse Practitioner	10/15/2019
Alide Vastey	Medical Assistant	11/04/2019
Nadia Damani-Khoja	Outreach, Education & Prevention Coordinator	11/12/2019
Elaine Rancatore	Physician	11/12/2019
Byron Williams	Patient Services Representative	12/02/2019
Sam Polo	Document Imaging Representative	12/09/2019
Paula Ferguson	Medical Assistant	12/11/2019
Loubna Benkarim	Mammography Technologist	12/16/2019
Sagga Ramsey-Valcimond	LIP Credentialing and HP Enrollment Specialist	1/06/2020
Martine Serres	Medical Assistant	1/06/2020
Joaqueline Tolbert	Registered Nurse	1/06/2020
Winda Ede	SMH&C Patient Services Representative	1/13/2020
Judy Jun	Patient Services Representative	1/13/2020
Kelsey Benson	Optometric Technician	2/03/2020
Linda Chavez	Licensed Practical Nurse	2/03/2020
Julia Gervais	Patient Services Representative	2/10/2020
Colleen Hulme	Registered Nurse	2/24/2020
Rosemarie Gordon	Pediatrician	3/02/2020
Emily Wade	Communications Specialist	3/09/2020
Gillian Jordan	Receptionist	3/16/2020
Erin Forte	Senior Administrative Assistant	4/06/2020
Mariyam Gadatia	Registered Nurse	6/29/2020
Ciraworn Schrimpf	Medical Assistant	6/29/2020

MIT Medical Staff Departures

- Solmaz Amirnazmi, Medical Doctor, Internist
- Melissa Bourassa, Medical Assistant, Lexington Primary Care
- Marie Caggiano, Medical Doctor, Internist
- Aimee Chevalier, Nurse Practice Manager

- Amy Chilton, Registered Nurse
- Carol Clark, HR Coordinator
- Colleen Collins, Chief, Urgent Care
- Nadia Contreras, Medical Records Assistant
- Yvette Coward-Scott, Medical Assistant
- Margarita Cruz, Patient Service Representative
- Maureen Dobrowsky, Family Nurse Practitioner
- Sandy Figueiredo, Medical Assistant
- Leigh Finn, Medical Doctor, Internist
- Joan Forgione, Patient Service Representative
- Katherine Gregoire, Financial Systems Coordinator
- Susan Guir, Medical Assistant
- Elizabeth Haftel, Pharmacist
- Joseph Hammond, LIP Credentialing and HP Enrollment Associate
- Jocelyn Joseph, Chief, Pediatrics
- Pooja Khatri, Medical Assistant
- Patricia Korpusik, Licensed Practical Nurse
- Monica Mbabali, Supervisor, Health Plans
- Arnetta McIntyre, Patient Service Representative
- Tanya Miranda, Medical Assistant
- Kerry Molloy, Patient Service Representative
- Ali Muftu, Prosthodontist
- Rosemary Mungal, Financial Assistant II
- Jennifer Nohrden, Medical Doctor, Family Medicine
- Kathy O'Brien, Nurse Practice Supervisor
- Linda Pasciuto, Registered Nurse
- Juan Ramirez, Medical Doctor, Internist
- Cynthia Sershen, Nurse Practitioner, Dermatology
- Krystle Sousa, Lead Patient Service Representative
- Paulette Wood, Administrative Assistant
- Roger Wood, Medical Assistant
- David Young, Director, Pharmacy
- Jing Zhu-Chiang, Document Imaging Representative
- Amy Zisa, Medical Doctor, Pediatrician

MIT Medical Utilization

Not including flu shots, MIT Medical saw a total of 82,690 visits. This was an expected drop from FY2019's 110,332 patient visits due to the clinic's reduced operations toward the end of FY2020.

Visits to MIT Medical by Major Service Area, Fiscal Year 2020

Major service area	Number of visits
Primary Care (including Lexington)	18,635
Student Mental Health and Counseling Services	17,695
Urgent Care	13,531
Specialty and Ancillary Services (Laboratory, Radiology, and others)	11,990
Dental	7,703
Eye	5,029
Obstetrics/Gynecology	4,719
Pediatrics	3,388
Total	82,690

Patient Population

Due to the pandemic, FY2020 saw a 7% drop in our overall patient population.

Patient Population of MIT Medical by Group, Fiscal Year 2019 versus Fiscal Year 2020

Patient group	FY2019	FY2020
Students/affiliates/family members	9,877	8,885
Faculty/staff/family members	9,550	8,936
Retirees	1,514	1,392
Other	527	678
Total	21,468	19,891

Health Plan Enrollment

Enrollment in the Affiliate plan saw a minor increase. Enrollment in the Student Extended Insurance Plan and Student Medical Plan decreased by 9% and 16% respectively, presumably due to the pandemic shifting students to remote studies.

Student Health Plan Enrollment in Fiscal Year 2019 versus Fiscal Year 2020

Health plan type	FY2019	FY2020
Student Medical Plan	2,281	1,918
Student Extended Insurance Plan	7,081	6,446
Affiliate Plan	515	521

MIT Medical Financial Stewardship

FY2020 finished \$702,000 ahead in our clinical services budget, due in large part to the campus closing due to COVID-19. Expenses were \$3.5 million less than expected due to lower spending on pharmaceuticals (\$1.8 million) and contracted clinical specialists (\$400,000) because of lower campus density. We also spent \$1.1 million less on salaries and benefits due to a 10% staff vacancy rate. This variance was offset by a \$2.8 million drop in revenue due to lower volumes of patient visits.

The MIT Student Extended Insurance Plan finished \$5 million ahead of budget, resulting in \$7.6 million being transferred to the MIT Student Extended Insurance Plan emergency reserves. This was due to favorable premium revenue of \$2.4 million coupled with a \$2 million decrease in claims expense, of which \$1 million occurred in Q4, most likely due to COVID-19.

Concluding Thoughts and Core Values

In 2020, COVID-19 precipitated the transformation of health care across the world, and MIT Medical was no exception. Yet through six months of internal and external collaborations and unrelenting hard work, MIT Medical carved a path through a pandemic and a very difficult year.

We usually begin our annual report to the president by sharing our core values. These values, which were developed through employee collaboration, articulate how our staff and clinicians view their work and responsibilities to the MIT community and each other. In this landmark year in MIT and MIT Medical's history, we came to rely on these pillars to guide our work. Now more than ever, we take great pride in building a healthier MIT, so MIT can build a better world.

Core Values

- **Patients first:** *Our patients are at the center of everything we do.* Every job at MIT Medical contributes to providing accessible, high-quality care. We take the time to listen and respond compassionately to the needs of our patients at every point in their MIT Medical experience.
- **Working together:** *We are all caregivers.* Each of us plays an important role within the patient-care team. We value each person's contribution, and we treat each other with fairness, kindness, and respect.
- **Striving to be our best:** *Excellence is our goal.* We embrace MIT's cultural values of continuous learning, innovating, and problem solving as we work to improve the services we provide. We are flexible and nimble in responding to changing needs of the community we serve.
- **Empowering employees:** *Staff who feel supported will reach their highest potential.* Through our commitment to the personal growth, professional development, and overall wellbeing of our staff, we promote a culture that values its employees, embraces their ideas, fosters positive relationships, and ensures that every employee knows they are essential to the success of MIT Medical.

- **Embracing individuality:** *Unique perspectives nurture learning and growth.* By actively seeking out diverse points of view and empowering every voice, MIT Medical fosters an environment where opportunities for creativity and collaboration thrive. We provide an open and welcoming atmosphere for all.

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Medical Director

Brian Schuetz
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