Massachusetts General Hospital
Founding Member, Mass General Brigham

Annual Report on Equity in Health Care Quality 2021

Massachusetts General Hospital Disparities Solutions Center

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Image taken prior to March 2020.

1 Executive Summary

In this twelfth edition of the Massachusetts General Hospital Annual Report on Equity in Health Care Quality (AREHQ) we continue to monitor quality of care by sociodemographic factors to identify and address disparities among people of color (POC), patients with limited English proficiency (LEP) and/or low-income patients.

As background these reports were developed in response to the Institute of Medicine (IOM)[i] report, *Crossing the Quality Chasm*, which identifies equity—the principle that quality of care should not vary by race, ethnicity, or gender—as one of six pillars of quality.[1] A subsequent report, entitled *Unequal Treatment*, showed that racial and ethnic minorities, even those with health insurance, often receive lower-quality care than their non-Hispanic White counterparts.[2] These two publications serve as the foundation for this annual exploration of disparities in the quality of care at Massachusetts General Hospital (Mass General).

Now in the second decade of this work, the AREHQ is part of our institutional quality, safety and equity programs and a key tool of our system-wide Mass General Brigham United Against Racism strategy. The findings represent a multidisciplinary and institution-wide approach to the identification and elimination of healthcare disparities that is interlocked with our system approach.

Newer national evidence and findings during the pandemic have added more depth to our report as we focus more on access to and experience with clinical care this year. The Agency for Healthcare Research and Quality's annual *National Healthcare Quality and Disparities Report* examines several priority areas, including person-centered care, patient safety, healthy living, effective treatment, care coordination, and care affordability.[3] The most recent report, published in 2021 and focusing on data through 2019, revealed continued disparities in many aspects of quality between 2000–2019 for Black, Asian, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, and Hispanic/Latinx populations compared to non-Hispanic Whites.

The COVID-19 pandemic brought these longstanding inequities to the forefront, as people of color, many of whom are essential workers, were disproportionately impacted by COVID-19. According to the Centers for Disease Control (CDC), Black people were 2.5 times more likely to be hospitalized with COVID-19 and 1.7 times more likely to die from the illness, compared to non-Hispanic Whites.[4,5] People identifying as Hispanic/Latinx were 2.4 times more likely to be hospitalized and 1.9 times more likely to die compared to non-Hispanic Whites.[4] These health inequities are by no means limited to COVID-19. Evidence suggests people of color experience disproportionate rates of illness and death across several conditions, such as cardiovascular disease, diabetes, and asthma.[6] These persistent disparities combined with the COVID-19 pandemic are raising awareness of structural racism's pervasiveness in our society, leading the CDC to declare racism a "serious threat to public health."[6]

This heightened public consciousness about structural racism, social justice, and health equity has prompted healthcare leaders (as well as leaders in other industries) to identify how their policies and procedures contribute to disparities and to lead the change effort to eliminate health inequities. As noted, Mass General Brigham announced the United Against Racism initiative in 2020. UAR is an enterprise-wide effort to eliminate structural racism within our system.[ii] This system-wide program brings unprecedented resources to the cause of improving equity for our patients and their families, our employees, and the broader community, and establishes the lines of accountability and timelines to ensure progress.

At Mass General, these United Against Racism resources are supporting an array of initiatives to improve health equity for our patients and employees. In 2021, we convened the Equity in Clinical Care Council, a governing body that provides strategic direction and ensures leadership accountability for our health disparities improvement work. The Council brings together leaders from across the care continuum to assure equity in access to and delivery of patient care—from the patient's doorstep to community-based health services in ambulatory settings, to the inpatient bedside, post-acute care, and back to the patient's home in the community. With support from Mass General Brigham United Against Racism, this Council is leading improvement work across several dimensions.

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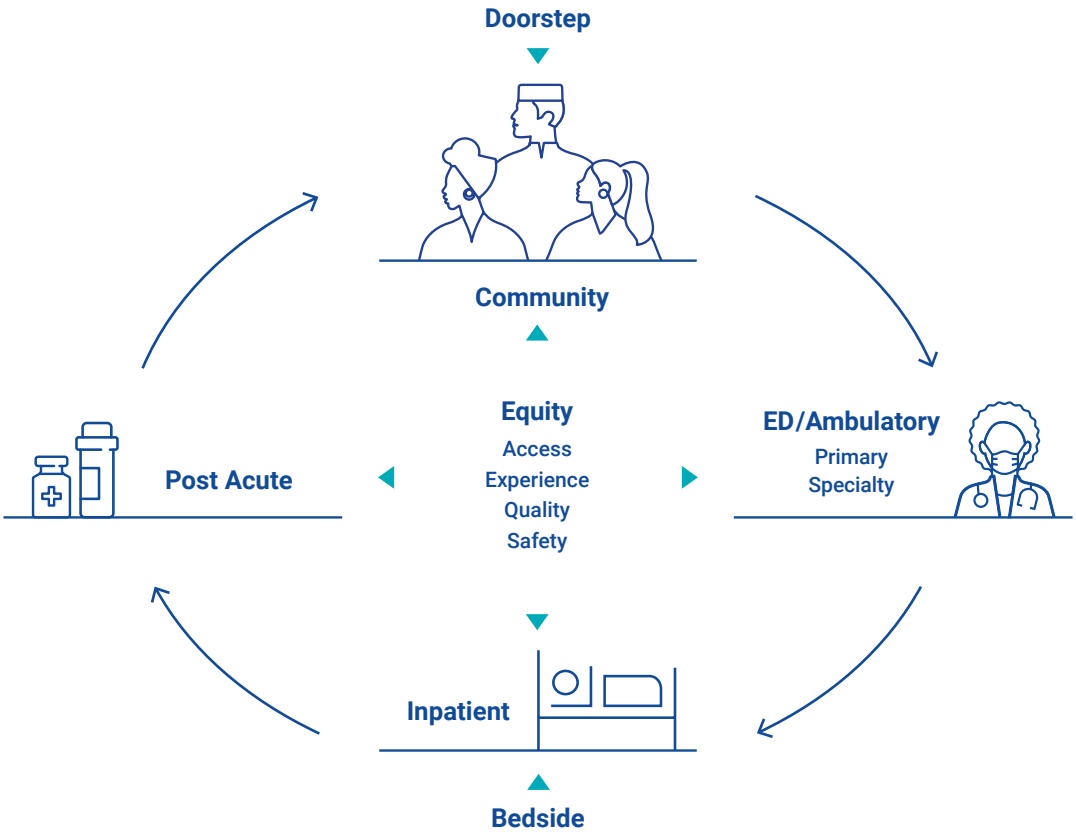
i Now the National Academy of Medicine.
ii United Against Racism | Mass General Brigham



Mass General Brigham United Against Racism

This edition of the AREHQ focuses on these improvement efforts, which build on long-standing efforts in clinical areas such as obstetrics and primary care, as well as new initiatives for patients with sickle-cell disease. In addition to these condition- and department-based projects, the Council is focusing on two cross-cutting goals: improving access to care for our diverse patients and improving patient experience among our diverse patients. Both have been focal points for past AREHQ reports and represent improvement opportunities for Mass General.

Consistent with past reports, non-Hispanic White and English-speaking populations are used as the comparison groups for statistical analyses.[iii] In some cases, it can be challenging to tease out the root causes of differences identified in the data, often requiring further analysis and qualitative approaches to understand the nuanced factors driving disparities. Our findings are used to start discussions about root causes and potential interventions, including variation in unmeasured differences in clinical characteristics and preferences, as well as structural inequities, lack of cultural competence, insufficient use of interpreter services, unconscious bias, and a host of other factors that we aim to surface and influence.

We are proud of this report, which was unique when we started it, and gratified that several hospitals around the country have followed Mass General's efforts in this arena and gained expertise through Mass General's Disparities Leadership Program to develop similar reports and improvement initiatives for their organizations. Our hope is that all health care organizations routinely develop ways to identify disparities and aggressively address gaps. We are humbled that even after many years, we have a long road ahead to achieve our goal.

Mass General is committed to sharing this important work and sharing data publicly. This report and other resources can be found on the Disparities Solutions Center and Mass General Quality and Safety websites:

- https://www.mghdisparitiessolutions.org/equity-in-health-care-quality
- https://www.massgeneral.org/quality-and-safety/about/care-equity

iii Significance testing is based on chi-square tests for discrete data and t-tests for continuous data, with a 95% confidence interval.

The Disparities Reporting Committee. FRONT: Aswita Tan-McGrory, MBA, MSPH; Joseph Betancourt, MD, MPH. MIDDLE: Elizabeth Mort, MD, MPH; Andrea Tull, PhD; Stephanie Oddleifson, MPH. BACK: John Patrick T. Co, MD, MPH; Mackenzie Clift, BA; Syrene Reilly, MBA.

What's New?

This year's report describes several new improvement initiatives launched under the auspices of United Against Racism, as well as local efforts to alleviate disparities in the access to and quality of care. These include new MGH signature initiatives for patients with Sickle Cell Disease and the Center for Immigrant Health. We also highlight the advancement of our efforts in primary care, building on past work using patient navigators and community health workers to address the social drivers of health and contribute to improved outcomes for patients with chronic disease.

The Demographic Profile section of the report contains new lenses exploring differences in access by age and disability identity, in addition to our previous lenses of race and ethnicity, language, and payer.

Over the past several years, we have explored our patient experience survey results, which have revealed several opportunities for improving the care experience among diverse patients. This year, the patient experience section reflects a new survey process that is much more robust and representative, with surveys offered in multiple languages. This approach is revealing new findings and trends compared to the previous approach, pointing to new areas of opportunity. We also describe a qualitative analysis of survey comments from Asian patients, building on past work that demonstrated lower patient experience scores among this population.

Image taken prior to March 2020.

Highlights of Findings

Highlights of improvement work in 2021

1. **We continue to find disparities in NTSV Cesarean Section rates between Black and White women.** We are conducting interviews with Black women who underwent a C-section to understand the contributing factors and root causes of this disparity. These interview findings will serve as an initial step toward developing interventions to lower the C-section rates among low-risk Black women.
2. **We continue to see disparities in adult preventive care and chronic disease management** within our primary care population at Mass General, including:
    - Significantly lower rates for breast, cervical and colorectal cancer screening for patients of color, and lower rates of breast and colorectal screening for LEP patients. We also see significantly lower rates across all cancer screenings among patients with Medicaid.
    - Significantly lower rates of depression screenings for patients of color and patients with LEP, compared to White, English-speaking patients, as well as Medicaid patients not managed by our ACO.
    - Lower rates of tobacco screening for patients of color and patients with Medicaid, compared to White patients and those with commercial insurance.
    - Among patients with diabetes, racial and language disparities were identified in all three outcome measures. These disparities were also present in the traditional Medicaid population.
    - Within the cohort of patients with hypertension, disparities are evident by race, language, and traditional Medicaid coverage.
    - In response, the Division of General Internal Medicine recently launched a multidisciplinary effort to advance equity in primary care with the following aims:
        - Increase awareness of health disparities by race, ethnicity, language, and payer.
        - Identify and narrow these gaps using Population Health Coordinators (PHCs) and Community Health Workers (CHWs) working with primary care teams.
        - Decrease Hypertension Blood Pressure Control disparities by race and language for primary care patients.
3. Sickle Cell Disease (SCD) is an inherited blood disorder affecting primarily Black and Hispanic/Latinx patients. Patients with SCD require comprehensive, multidisciplinary care for this chronic and debilitating condition. **In March 2021, Mass General launched the Comprehensive Sickle Cell Disease Treatment Center** to provide SCD patients and their families with a true medical home staffed by an interdisciplinary team of experts who deliver comprehensive care from childhood to adulthood. The program also offers a dedicated social worker and nurse navigator, infusion space for treatments, the latest medical advances, and access to community resources.
4. **Immigration status is increasingly recognized as a social driver of health.** Mass General launched the Center for Immigrant Health (CIH) in 2020 with the mission to foster excellence in clinical care, education, advocacy, and research aimed at improving the health and well-being of immigrants. The Center's programming focuses on both patients and Mass General staff, to ensure that all staff has the knowledge to effectively serve immigrant patients in culturally sensitive ways, and that patients have access to high quality and patient-centered care, regardless of immigration status.
5. **The Disparities Solutions Center recently launched the Collaboration Catalyst and Equity Innovation Grant programs to fund projects to eliminate disparities in clinical care.** The Collaboration Catalyst program funds larger projects involving multidisciplinary teams, and the Equity Innovation program provides micro-grants for smaller improvement projects. Several grants are underway, and results will be included in future versions of the AREHQ.

Disparities in patient experience

- In 2020, as part of an Mass General Brigham system-wide initiative, Mass General implemented a new patient experience survey process that enables feedback to be captured in real-time. The new approach offers many advantages over our previous methods, resulting in feedback from a larger and more diverse group of patients. The new system includes a universal opportunity to provide feedback, "real-time" patient outreach within 1–3 days of an encounter, shorter surveys that are easier to complete, and surveys offered in multiple languages (English, Spanish, Portuguese, Mandarin, Russian, Haitian-Creole, Khmer, and Arabic).
- In 2021, 8,387 patients provided feedback on their hospital stay via the inpatient survey; 20% were patients of color, and 8% answered the survey in a language other than English. There are disparities by race and ethnicity, and language for 12 of 13 inpatient survey questions, many with large gaps of 10 percentage points or more.
- In 2021, we received feedback from 182,922 patients regarding their in-person office visits; 19% were patients of color, and 6% answered the survey in a language other than English. These results show significantly lower scores across all race and ethnicity groups and patients speaking other languages on every measure. These are large gaps of at least 5 percentage points, and in many cases, 10 or more percentage points.
- In 2021, we received feedback from 64,196 patients regarding their virtual office visit; 15% were patients of color and 3% answered the survey in a language other than English. The telehealth survey includes several questions about the technical experience. Patients of color and LEP patients reported significantly lower scores on ease of connection with provider, ease of logging in, technical support, connection quality, and ease of scheduling. Patients of color and LEP patients also reported significantly lower scores across all measures of the virtual clinical experience, relative to White and English-speaking patients.
- We also conducted a qualitative analysis of over 3,000 comments from Asian patients to better understand the improvement opportunities within this growing population. Although Asian patients left many positive comments about their experience, they also described experiences of bias, cultural insensitivity, and feelings of invisibility. Patients also described experiences of high quality, culturally sensitive, and culturally appropriate care. Together, the feedback provides a roadmap for how to improve care for all patients of color by offering an environment that is welcoming and respectful, where diverse patients feel truly seen.

Demographic profile of MGH patients

- The population in eastern Massachusetts is rapidly diversifying. At Mass General, the proportion of inpatients identifying as people of color has gradually increased, although not to the same extent as the broader community. When compared to the demographic profiles of the city of Boston and surrounding communities, Mass General patients are more likely to be White and English-speaking.
- Consistent with past trends, people of color are more likely to be seen in the Emergency Department and health centers than admitted to the inpatient setting. Patients of color are underrepresented in outpatient on-campus/ satellite practices and specialty clinics.
- There is variation in the distribution among patients of color within inpatient (hospitalized) services. Pediatrics, Psychiatry, and OB/GYN see a more racially and ethnically diverse population than other inpatient services due to their larger Hispanic/Latinx and/or Black populations. Conversely, Urology, Orthopedics, and Neurosurgery see a larger proportion of White patients.
- Patients seen in the ambulatory setting are more likely to be White and English speaking than the broader community, except for our four integrated Health Centers (Charlestown, Chelsea, Everett, and Revere).
- Patients seen in the health centers are more likely to be people of color, have limited English proficiency, and have Medicaid as their primary payer. In 2021, 33% of health center patients identified as Hispanic/Latinx, compared to just 7% seeking care in ambulatory clinics at the main campus. One-quarter of the health center patients have a primary language other than English, with 19% reporting Spanish as their primary language—compared to the main campus (6%) and other locations (4%). Over one-quarter of health center patients require an interpreter, compared to 6% at the main campus. This pattern of diverse patients being seen primarily in the health centers exists for both specialty care and primary care appointments.
- The rapid expansion of virtual visits during the pandemic did not translate to improved diversity among the ambulatory patient population, likely reflecting social drivers of health such as broadband internet availability, access to technology and digital and health literacy, and other aspects of the digital divide.
- Access to virtual visits helped reduce wait times for new patients in primary and specialty care from 35 days in 2019 to 27 days in 2021. Access to ambulatory care continues to be challenging as Mass General providers are in high demand.
- Work is underway to understand why people of color are underrepresented in both ambulatory and inpatient specialty care and to develop service-specific improvement plans.

Serving patients with LEP

- Demand for interpreter services increased during the initial phases of the COVID-19 pandemic and remained at unprecedented levels throughout 2021. In Fiscal Year 2021, the team provided over 230,500 interpretations to 26,275 patients, a 24% increase over FY 2020.
- Spanish remains the top language for which inpatients require interpreter services, representing 58% of all interpretations provided in FY21, with Portuguese (9%), Haitian-Creole (5%), Arabic (4%), and Cantonese (4%) rounding out the top 5. The language distribution among LEP patients in the ambulatory setting is similar, with Spanish and Portuguese comprising almost three-quarters of the interpretations.
- The Medical Interpreter Services team provides additional services, including teaching and training staff on how to access interpreters and work with them in collaboration with the patient, overseeing the Spanish Care Language Group, which allows qualified bilingual providers to act as interpreters, providing translation services, and exploring methods for seamlessly integrating interpreters in virtual visits.

Image taken prior to March 2020.

2 Highlights of Improvement Work

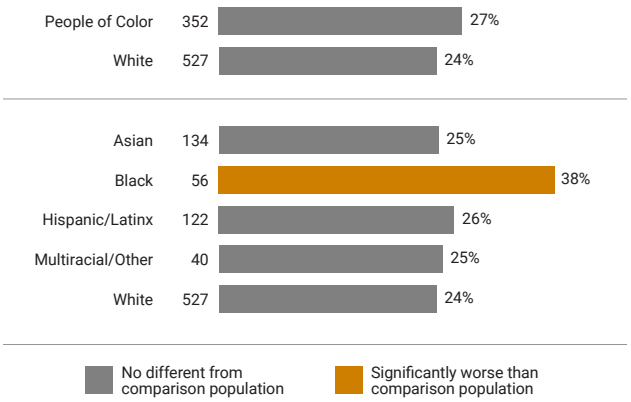
NTSV Cesarean-Section Rates

The Cesarean delivery rate in the U.S. steadily increased throughout the 1990s and early 2000s, reaching its highest rate of 32.9% in 2009.[7] These deliveries are associated with increased maternal morbidity, longer recovery periods, and future pregnancy complications.[8]

Approximately 60% of all Cesarean deliveries are first Cesarean deliveries. Nationally, fewer than one in ten women with a prior Cesarean delivery has a vaginal birth in a later pregnancy.[9] For this reason, efforts to reduce the Cesarean delivery rate have focused on women who are at "low risk" to require a first Cesarean delivery, defined as nulliparous (first-time mothers), term (greater or equal to 37 weeks), carrying a singleton, and vertex-presenting (head down) fetus, or NTSV. Since 2009, several national organizations have issued objectives to reduce Cesarean deliveries among women with NTSV pregnancies, including the U.S. Department of Health and Human Services, the Joint Commission, and the American College of Obstetricians and Gynecologists. Nationally, NTSV Cesarean delivery rates have improved (25.6% in 2019[iv]), although the consensus is that this rate remains higher than desired. The U.S. Department of Health and Human Services has set a goal to reduce the Cesarean rate among low-risk women to 23.6% by 2030. Research using national data, including work from Mass General faculty, demonstrates that in the U.S., Black women have consistently higher rates of primary cesarean deliveries, a finding not entirely explainable by differences in other measurable characteristics such as obesity, medical co-morbidities, obstetrical risk factors or labor-management practices.

Mass General has submitted data to the Joint Commission on NTSV Cesarean section rates since 2013 and has separately explored NTSV Cesarean delivery rates among White/POC and English-speaking/LEP patients for several years. Although we have not seen evidence of a disparity in either group at this level of aggregation, further stratification revealed significantly higher NTSV Cesarean rates among Black women, consistent with national trends and past exploration of the data at Mass General. Consistent with national literature, these disparities are not fully explained by differences in risk factors or comorbidities.

NTSV C-Sections by Race and Ethnicity, 2019–2021



The Obstetrics Department leadership, in collaboration with the Disparities Solutions Center, Center for Quality and Safety, and Mass General Equity and Inclusion, have embarked on a project to understand the contributing factors and root causes of this disparity by conducting qualitative interviews with women who recently had a first-time Cesarean section delivery. These interview findings will serve as an initial step toward developing interventions to lower the Cesarean rates among low-risk Black women at Mass General. This work was originally scheduled to begin in 2020 but was delayed by the onset of the COVID-19 pandemic. The project was launched in 2021, although subsequent COVID surges have limited our ability to conduct interviews on the planned timeline.

iv Reduce cesarean births among low-risk women with no prior births—MICH-06, Healthy People 2030 | health.gov

Our goal is to complete interviews with 25 low-risk, first-time Cesarean section patients to explore their childbirth experience and the care they received at Mass General. We have conducted 14 in-depth, semi-structured interviews to date and continue to recruit participants. Our objective is to explore the patient perspective of their birth experience, with emphasis in the following areas:

- Understanding patients' expectations for the birth and how they feel about having had a C-Section
- Understanding patients' perspectives on the reason(s) for having had a C-Section
- Comparing patients' understanding of why they had a C-Section with the reasons recorded in their chart
- Exploring patients' perceptions of the birth experience, how they were treated, and their satisfaction with the results of their care
- Understanding patients' experience of care provided by physicians, nurses, midwives, and other staff

The interview guide includes semi-structured, open-ended questions and demographic questions. Eligible participants include Black and non-Hispanic White patients with a primary (first-time) C-Section delivery. Our aim is for Black women to represent 50% of the participants recruited. Findings from these interviews will inform a broader improvement plan that will be described in future editions of this report.

Improving Disparities in Primary Care: Focus on Blood Pressure Control

Leveraging our electronic health record, Mass General Brigham Population Health measures ambulatory quality for adult and pediatric populations via e-Clinical Quality Measures (eCQMs) for all patients receiving primary care at Mass General Brigham, regardless of payer. These include several preventive health screenings and chronic disease care measures that are important markers of healthcare effectiveness and quality.

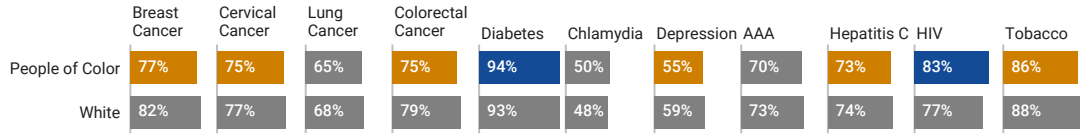
Nationally, we see many disparities by race, language, and payer across these preventive and chronic disease care measures. Although patients of color have experienced gains in accessing high-quality care, largely due to improved insurance access via healthcare reform, significant disparities exist across all demographic groups and all domains of healthcare quality.[10] Black patients are more likely to suffer from hypertension and all patients of color are less likely to have their blood pressure under control, compared to White patients.[10,11]

We see similar patterns of disparities in adult preventive care and chronic disease management within our primary care population at Mass General. Findings include:

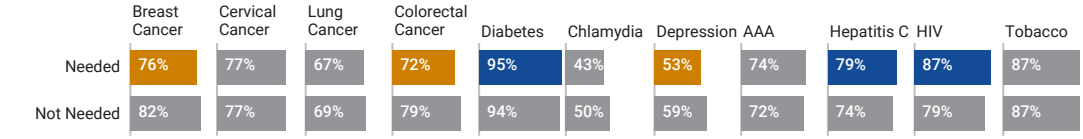
- Significantly lower rates for breast, cervical and colorectal cancer screening for patients of color, and lower rates of breast and colorectal screening for LEP patients. Significantly lower rates across all cancer screenings, except for lung cancer screening, among patients with Medicaid, regardless of their enrollment in the Medicaid ACO.
- Significantly lower rates of depression screenings for patients of color and patients with LEP, compared to White, English-speaking patients, as well as patients with Medicaid insurance not managed by our ACO.
- Lower rates of tobacco screening for patients of color and patients with Medicaid, compared to White patients and those with Commercial insurance.
- Within the cohort of patients with diabetes, racial and language disparities were identified in all three outcome measures. These disparities were also present in the traditional Medicaid population, although the Medicaid ACO population has significantly higher rates of blood pressure control and similar rates of lipid control.
- Within the cohort of patients with hypertension, disparities are evident by race, language, and traditional Medicaid coverage.

Adult Preventive Care Screenings, December 2021

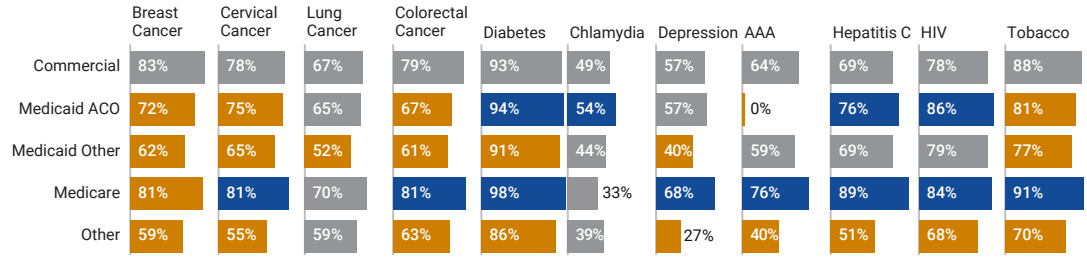
Race and Ethnicity



Interpreter Needed (LEP)

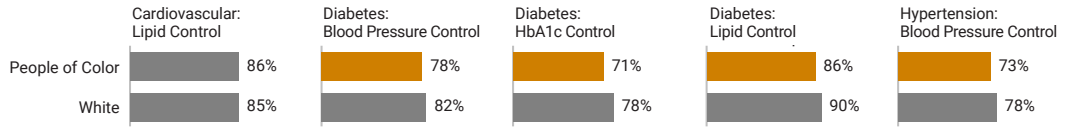


Payer

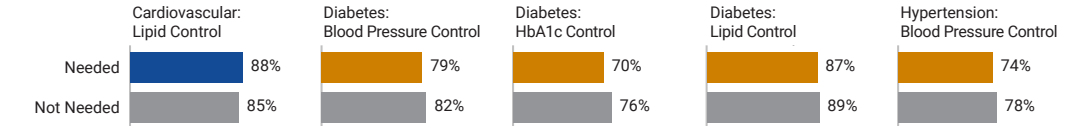


Adult Chronic Disease Management, December 2021

Race and Ethnicity



Interpreter Needed (LEP)



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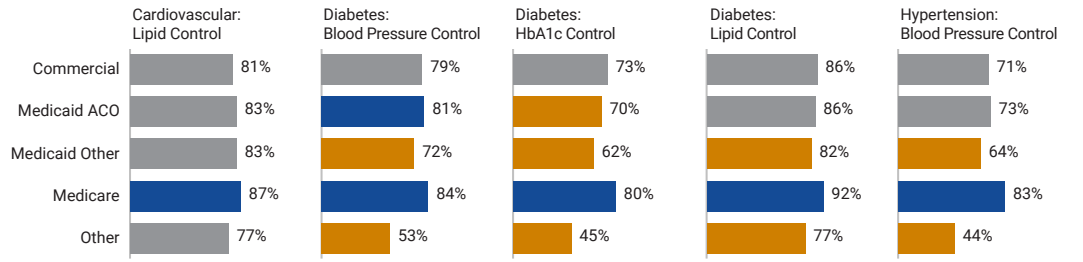


Significantly higher than comparison population

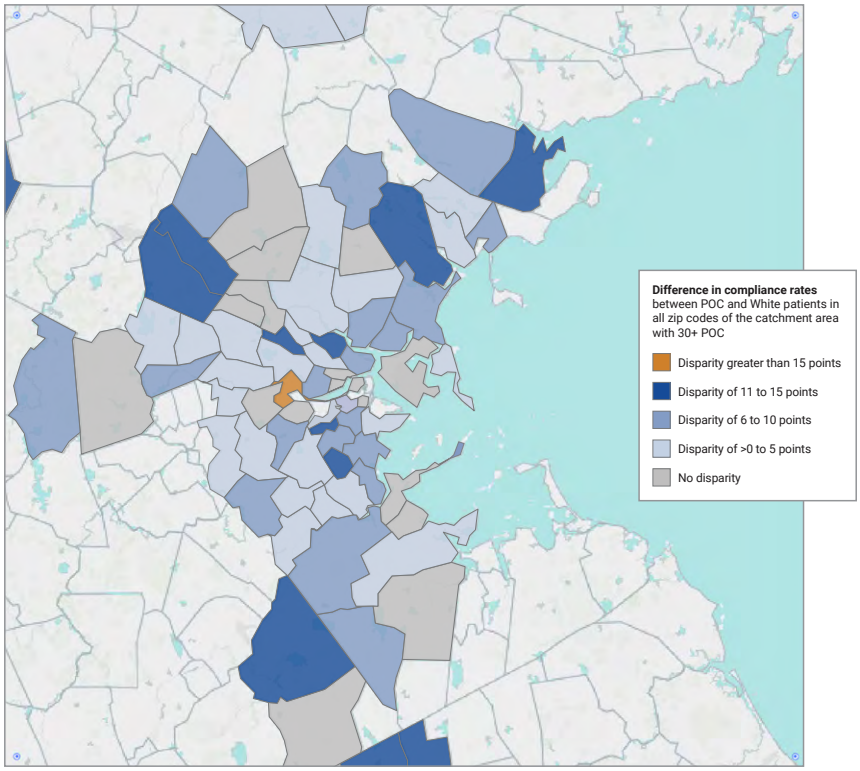
No different from comparison population

Significantly lower than comparison population

Primary Care Improvement Strategy

The Division of General Internal Medicine (DGIM) is focusing its improvement efforts on blood pressure control among patients with hypertension, a measure with persistent disparities among Mass General patients by race and language. The figure below displays blood pressure control rates by patient city/town, with evidence of lower rates in communities of color such as Chelsea, Allston, Dorchester, Jamaica Plain, etc. These patterns highlight the need for interventions that address both the clinical needs, as well as social and community supports.

Adult Hypertension: Blood Pressure Control, People of Color vs. White



In response, the Division of General Internal Medicine recently launched a multidisciplinary effort to advance equity in primary care with the following aims:

- Increase awareness of health disparities by race, ethnicity, language, and payer.
- Identify and narrow these gaps using Population Health Coordinators (PHCs) and Community Health Workers (CHWs) working with primary care teams.
- Decrease Hypertension Blood Pressure Control disparities by race and language for primary care patients

The intervention program, led by Mass General Primary Care Equity and United Against Racism, has four components:

- **Raising awareness of disparities through data visualization.** The MGH Equity in Primary Care Tableau tool is a new, interactive dashboard developed in collaboration with the Center for Quality & Safety, that provides practice-level performance data on primary care quality measures stratified by race, ethnicity, language, insurance type, sex, age, and disability identity. The data in the tool are intended to help practices identify inequities in care and opportunities for internal improvement.
- **Leadership and accountability structure.** The Primary Care Equity Steering Committee supports and advances the primary care equity program aims. Committee members include physicians, nurses, and practice administrators who have demonstrated a commitment to advancing equity in clinical practice. UAR and Population Health Coordinator program staff also serve on the committee. Committee members:
  - Review and provide feedback on equity initiatives from design through implementation
  - Regularly review Primary Care equity data and reporting tools
  - Partner with practice leadership to advance equity initiatives at the clinic level, and
  - Explore, define, and raise awareness about equity concerns from the ground up.
- **Focused interventions to improve blood pressure control.** Equity in Hypertension Care Clinical Support is a Population Health Coordinator-led effort that aims to decrease disparities in blood pressure control.
  - A PHC will identify primary care patients who:
    1. Have uncontrolled Hypertension and/or have not had their blood pressure checked in more than 6 months, and
    2. Who identify as Asian, Black, Hispanic/Latinx, Indigenous, multiracial and other race and ethnicity and/or patients with limited English proficiency.
  - After reviewing the patient chart, a PHC will directly reach out to patients who need to be reconnected to care or simply need a blood pressure check.

  For patients needing additional clinical attention, PHCs will schedule a time for an equity huddle with a PCP and a CHW representative to identify and implement an action plan for each patient from a menu of interventions, including the CHW Healthy Blood Pressure Program (below).
- **Community Health Worker intervention.** The CHW Healthy Blood Pressure Program provides Community Health Worker-led blood pressure education & management support. The key programmatic components include:
  - CHW outreach and engagement
  - Patient education regarding Hypertension diagnosis and management including coaching on lifestyle and medication adherence
  - Additional CHW support assessing and assisting patients with social needs, health system engagement, and navigation
  - Remote BP monitoring with BP cuff (provided)
  - Remote monitoring and medication changes supported by the Remote Cardiovascular Health team or in collaboration with the patient's PCP and Care Team

Initially, these interventions are being rolled out as part of a randomized control trial to measure their effectiveness. At monthly intervals, Primary Care Physicians in designated practices will be randomized into the intervention. Physicians selected for participation will receive monthly dashboard communications, periodic program updates, and outreach from the population health coordinators. At the completion of the study period, the dashboard will be made available to all PCPs and staff and the equity interventions will be expanded more broadly.

Comprehensive Sickle Cell Disease Treatment Center

Sickle cell disease (SCD) is an inherited red blood cell disorder causing the cells to flatten into a C-shape or 'sickle', where they become sticky and die early. This leads to a chronic shortage of red blood cells, which causes frequent infections (some that are life-threatening), pain and swelling in the hands and legs, fatigue, and delayed growth. Patients living with SCD also experience a greater risk of stroke, cardiac, lung, eye, and bone disease, as well as social isolation and mental distress. Most patients will experience irreversible organ injury, and life expectancy for people with SCD is only 45 years. Although SCD is considered rare, affecting about 100,000 Americans a year, it disproportionately affects people of African and Hispanic/Latinx descent. According to the CDC:[v]

- SCD occurs among about 1 out of every 365 Black or African-American births.
- SCD occurs among about 1 out of every 16,300 Hispanic-American births.
- About 1 in 13 Black or African-American babies is born with sickle cell trait (SCT).

Patients with SCD require complex, coordinated care. Yet, there are few comprehensive care centers or medical homes for patients with SCD, relative to other genetic disorders.[12] This lack of coordinated care leads to inequities in access to high-quality care, access to services addressing the social drivers of health among SCD patients, and disparities in long-term disease outcomes such as survival and complications.[13,14]

v Data & Statistics on Sickle Cell Disease | CDC

At Mass General, we saw more than 5,000 patients over the past three years with active SCD or Sickle Cell Trait; however, most of these patients were not receiving comprehensive, coordinated care to help them manage this serious chronic illness.

In March 2021, Mass General launched the Comprehensive Sickle Cell Disease Treatment Center to provide SCD patients and their families with a true medical home staffed by an interdisciplinary team of experts who deliver comprehensive care from childhood to adulthood. This multidisciplinary care team provides patients with the resources needed to live healthy lives. The Center brings together experts in hematology, primary care, palliative care, behavioral health, and nursing care. The program also offers a dedicated social worker, nurse navigator, infusion space for treatments, the latest medical advances, and access to community resources.

The Sickle Cell Disease Treatment Center cares for patients of all ages, an approach designed to save lives: as children age out of pediatric sickle cell disease care, they often disconnect from treatment, and mortality rates are highest at this stage. The Center works to ensure that there is no interruption in coordinated medical treatment as children graduate from pediatrics to adult care; patients continue to receive wraparound services tailored to their evolving needs.

Since its inception in March 2021, the program has grown to treat 120 adult patients and 80 pediatric patients. The Center is projected to serve over 200 adult patients and as many as 120 pediatric patients by the end of 2022.

In addition, it has already received national accreditation from the National Alliance of Sickle Cell Centers—only the second accredited center in New England.

The multidisciplinary model of the Center improves patients' lives by providing a host of supportive services to affect the mind and body. Managing pain is a critical part of helping people living with sickle cell disease. At the Center, patients can access acupuncture, massage therapy, yoga, and meditation as part of their treatment. They also have something not available to sickle cell disease patients almost anywhere else: a palliative care team with expertise in addressing severe pain, a hallmark of SCD.

The Comprehensive Sickle Cell Disease Treatment Center is meeting the needs of a patient population and a disease that has long been neglected, with few resources and opportunities for advancement and innovation in treatment and care. The Center is among Mass General's highest clinical priorities in our robust efforts to address health inequities in our city and across the Commonwealth. While our priority is our patients, we believe our learnings from the Center will be a model that can be shared more broadly at the national level. To fully implement this new model of care requires investments in program and staffing. Expanding the Center's staffing as we rapidly grow to serve more patients is part of Mass General's commitment to equity and inclusion.

Center for Immigrant Health

Immigration status is increasingly recognized as a social driver of health, as many immigrants face barriers to accessing medical care such as lack of insurance, the need for interpreter/translation services, difficulty in navigating the U.S. healthcare bureaucracy, and concerns about legal issues and immigration status.[15]

Mass General launched the Center for Immigrant Health (CIH) in 2020, with the mission to foster excellence in clinical care, education, advocacy, and research aimed at improving the health and well-being of immigrants. The CIH has three goals:

- Ensure MGH employees are equipped with the knowledge and resources to meet the needs of immigrant patients—regardless of legal status.
- Serve MGH and build partnerships in the community to inform the Center's work and facilitate patients' and employees' connection to services to address upstream social drivers of health.
- Engage in legislative advocacy at the state and federal levels in support of policies that promote immigrants' well-being.

The Center's programming focuses on both patients and Mass General staff, to ensure that all staff have the knowledge to effectively serve immigrant patients, and that patients have access to high quality and patient-centered care, regardless of immigration status. The CIH is comprised of 6 pillars: service coordination and navigation for immigrant patients, clinical programming, education, advocacy, quality improvement and research, and inclusivity.

- **Resource development and navigation.** The MGH CIH provides outreach and guidance to help immigrant patients, staff, and their families obtain access to hospital and community resources, including medical, dental, insurance, legal, educational, housing, nutrition, and interpretation services. All resources are vetted to ensure that patients can access them without undue fear of repercussions for their immigration status.
- **Clinical programming.** The MGH CIH clinical team includes expertise in internal medicine, pediatrics, and psychiatry. The Center is also developing specific programs to address the unique mental health needs of immigrants, such as resettlement and acculturation stressors, and trauma and isolation experienced by some members of the immigrant community. The Center is also developing culturally informed nutrition programming to address food insecurity and risk factors for obesity.
- **Education.** The MGH CIH collaborates with experts in immigrant and refugee health to develop and disseminate best practices in caring for immigrant patients through educational modules for staff and clinical electives for students and residents.
- **Advocacy.** The MGH CIH leverages its expertise in immigrant health to advocate for legislation and policies that promote the well-being of our immigrant patients and staff and their families.
- **Quality improvement and research.** The MGH CIH seeks to identify opportunities to improve the quality of clinical care for Limited English Proficiency (LEP) patients and to study factors that affect immigrant health outcomes.
- **Inclusivity.** The MGH CIH collaborates with the MGH Immigrant Health Coalition (IHC) and multiple institutional partners to promote a welcoming environment at MGH that celebrates our patients' and staff's diverse backgrounds and immigration histories.

The CIH also leads the Migration is Beautiful Campaign, an annual celebration of the richness and diversity that immigrants bring to our community. The monarch butterfly symbolizes migration, with its annual journey from Mexico to the US and Canada representing the natural occurrence of migration and centrality of migration to the human experience. Many Mass General employees wear monarch butterfly stickers on their ID badges to stand in solidarity with the immigrant community.


Migration
is Beautiful
MGHMigrationIsBeautiful

Collaboration Catalyst Grant Program

In 2021, the Disparities Solutions Center launched the MGH Collaboration Catalyst Grant Program, designed to foster partnership across departments, divisions, and service lines that are focused on some aspect of diversity, equity, and inclusion at MGH. This funding supports research or quality improvement projects that address healthcare disparities, diversity, equity, and inclusion; or focus on or actively recruit underserved, underrepresented populations. Applicants must show how the proposed project may foster partnership across MGH departments or disciplines to achieve a set of agreed-upon goals. Two grants have been awarded to date and both studies are in progress, with findings forthcoming.

- **The MGH CATCH Project: Improving Community Access to Colon Cancer Screening**, led by the Division of Gastroenterology, is focused on improving access to colonoscopy screenings at two community health centers. This study, which is currently in process, aims to develop a web-based/digital application platform to allow community health centers to schedule patients for a colonoscopy at MGH, and assess the feasibility and efficacy of the digital platform.[16] The Hispanic Acute Myocardial Infarction Discharge Intervention Study (HAMIDI Study), led by the Division of Cardiology, is focused on improving outcomes following acute myocardial infarction (AMI) among Hispanic/Latinx patients. Nationally, Hispanic/Latinx patients have higher rates of 30-day readmissions following AMI and are less likely to participate in cardiac rehabilitation programs. The Hispanic Acute Myocardial Infarction Discharge Intervention Study aims to optimize the hospital discharge and follow-up process for Hispanic patients admitted to Massachusetts General Hospital with AMI. Patients enrolled in this study will participate in a comprehensive post-discharge program, involving follow-up with a Spanish-speaking cardiologist within two weeks, cardiac rehabilitation, and a four-part educational group visit program. Through this intervention, the goals are to decrease 30-day readmissions, decrease 30-day and one-year mortality, improve cardiovascular metrics, and enhance patient comprehension of cardiovascular disease and lifestyle medicine.

Equity Innovation Grant Program

The MGH Equity Innovation Grant Program provides micro-grants up to $5,000 for interventions that address racial and ethnic disparities in health care. This program is designed to attract applicants from within MGH to develop, test, and implement innovative solutions to improve quality and address gaps in care for our diverse population. Funded projects are evaluated as small pilot tests of change to identify strategies that may be scaled throughout the organization. Four Equity Innovation Grants have been awarded to date, including the qualitative interview project to better understand the higher rates of NTSV Cesarean deliveries among Black women. Other projects include:

- **Making Basic Life Support (BLS) Basic**: The Make BLS Basic Team piloted a virtual CPR training platform for community members and students predominantly of color to examine whether this approach could build knowledge and confidence in delivering bystander CPR. In total, this team trained 150 families, and Portable Hands Only CPR training kits were sent to each family before the video sessions, which they kept in order to share the training with loved ones.[17]
- **Prospective GI Symptoms Assessment (ProGISA) during the COVID-19 Pandemic**: This study aimed to assess and track functional gastrointestinal disease (FGID) symptoms and psychological distress. The study staff conducted surveys with patients who visited an outpatient respiratory illness clinic and found a high burden of chronic GI symptoms associated with females and depression/anxiety. This study found an association between GI symptom severity and psychological distress. This finding is suggestive of FGID-development in communities heavily impacted by COVID-19.
- **Experience of Patients with Functional Dyspepsia in Medically Underserved Areas**: This study, which is currently in progress, aims to understand how functional dyspepsia impacts quality of life to identify barriers to care and how patients feel and think about their GI symptoms. To achieve this goal, study staff will conduct interviews in English and Spanish with patients in medically underserved areas (MUAs) who have functional dyspepsia and visit a gastroenterologist or primary care physician at a Mass General Brigham Healthcare facility.
- **Assessing the Impact of a Brief Educational Campaign on Providers' Knowledge, Attitudes and Practices Regarding Immigrant Health**: This project aims to equip providers with tools to provide high quality and equitable care to immigrant populations through an educational campaign that includes a week of virtual events and institution-wide distribution of informational badge backers. A Knowledge-Attitudes-Practices (KAP) survey will be distributed to assess providers' baseline understanding of immigrant health topics and to evaluate the effectiveness the educational campaign.
- **Improving Communication Barriers among Patients with Limited English Proficiency and Neurological Illness**: This qualitative research study aims to triangulate the perspectives of patients, clinicians, and medical interpreters to obtain insights about, and suggestions on how to improve communication with patients with Limited English Proficiency (LEP) and neurological illness. Study findings will inform best practice guidelines for communicating with this patient population, including best interpreter practices.

3 Improving Patient Experience

New Patient Experience Survey Approach

Mass General has been stratifying patient experience survey results by race, ethnicity, and language for more than a decade. Throughout this process, we have identified areas in need of improvement and embarked on initiatives to reach uniform high quality.

In 2020, as part of an Mass General Brigham system-wide initiative, Mass General implemented a new patient experience survey model that enables feedback to be captured within days after an encounter. The new approach to obtaining patient feedback offers many advantages over our previous methods, resulting in feedback from a larger and more diverse group of patients. The new system includes:

- Universal opportunity to provide feedback: Compared to previous survey methods that employed a stratified random sampling methodology to obtain feedback from a relatively small percentage of Mass General patients, we now employ a near-census approach to patient outreach that gives almost all patients the opportunity to provide feedback. There are some exceptions and carve-outs for patients who have multiple encounters within a short period of time to prevent "survey fatigue," patients who opt out of surveys, and for other unique situations. This process resulted in an eight-fold increase in the number of survey responses, and a much clearer picture of where we are meeting patients' expectations and where improvement is needed.
- "Real-time" patient outreach: When a patient has an encounter at Mass General, their information is sent to our survey vendor, National Research Corporation (NRC) within 1–3 days of the visit or inpatient discharge. NRC then sends a survey via email or automated voice call. The quick data transfer combined with rapid patient outreach allows patients to describe their experience while it is fresh in their minds, compared to legacy systems with much longer lag times for data transfer and patient outreach.
- Shorter surveys in user-friendly formats: The new surveys are shorter and more focused on the specific type of encounter (e.g. virtual vs. in-person visits). This approach maximizes response rates by reducing the level of effort to provide feedback. Surveys assess patients' perceptions of care and interactions with various members of their care team. The surveys evaluate communication, courtesy and respect, and timeliness, among other topics, and encourage patients to comment about their experience in their own words.
- Surveys offered in multiple languages: One of the most important benefits of this transition was the new ability to conduct surveys in multiple languages and have the comments translated. Previously, our patient experience surveys were offered in English and Spanish; we are now conducting patient outreach in the top eight languages among Mass General Brigham patients. These are: English, Spanish, Portuguese, Mandarin, Russian, Haitian-Creole, Khmer, and Arabic. Outreach is personalized based on the patient's information in our registration system, so patients will automatically receive the survey in their preferred language.

We are reporting results from calendar year 2021 as baseline performance for the new inpatient, ambulatory and virtual care surveys.

Inpatient Survey Results

The transition to a real-time survey process resulted in an increased volume of responses from a more representative group of Mass General patients. In 2021, 8,387 patients provided feedback on their hospital stay via the inpatient survey; 19% were patients of color, and 8% answered the survey in a language other than English. The figures below show the breakdown of "top box" or the most positive response option by race and language, which highlights several opportunities to improve the inpatient experience for diverse patients.

- There were disparities by race on 12 out of 13 questions. Although Hispanic/Latinx and Black patients reported slightly higher ratings on the "Quiet at Night" question, this is a very challenging issue for all patients with top-box scores averaging in the mid-40% range.
- Patients of color (Asian, Hispanic/Latinx, and Black) and patients speaking other languages reported significantly lower scores across the nursing communication domain: four questions relating to whether nurses listened, explained things well, were courteous and respectful, and whether the patient was comfortable interacting with the nurses, with Black patients reporting the lowest scores. Black, Hispanic/Latinx, and multiracial patients reported lower scores on staff responsiveness/getting help as soon as they needed it. Many of these gaps are quite large—10 percentage points or more—reflecting a pressing need for improvement.
- Black and Hispanic/Latinx patients, as well as LEP patients, reported significantly lower scores across the provider communication domain: three questions addressing whether providers listened, explained things in general and explained discharge instructions. Black, Hispanic/Latinx, and LEP patients also had significantly lower scores on understanding what each medication is used for. Again, gaps are large, some are 10 percentage points or more (particularly for LEP patients).
- Black and Hispanic/Latinx patients, as well as LEP patients, were less likely to report that they had enough input/say in their care. Black and LEP patients reported lower scores on a measure of communication with the entire care team.
- Black, Hispanic/Latinx, and LEP patients reported significantly lower scores on room cleanliness.

Patient Experience Rates, MGH Inpatient Survey by Race/Ethnicity and Language, 2021

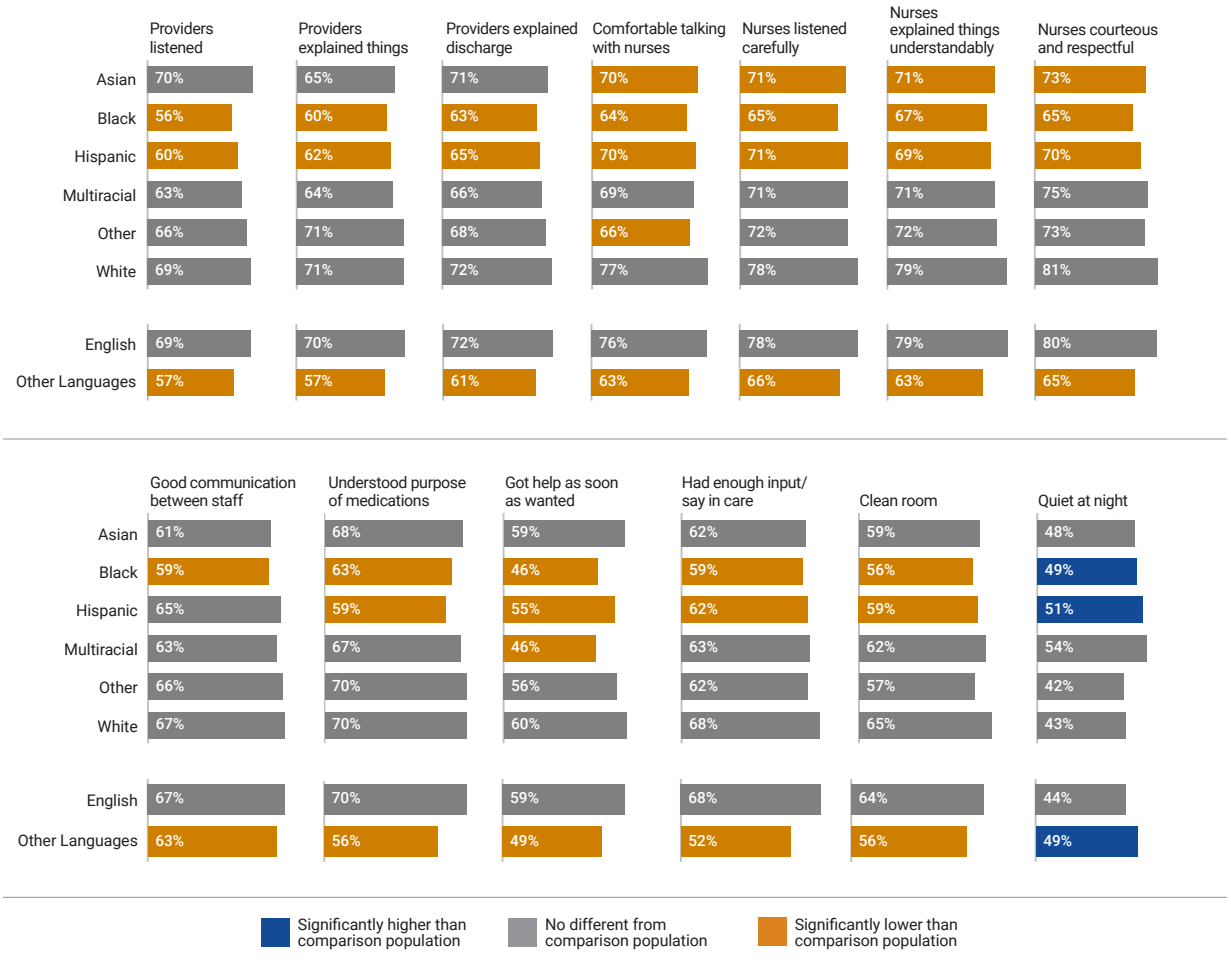


Image taken prior to March 2020.

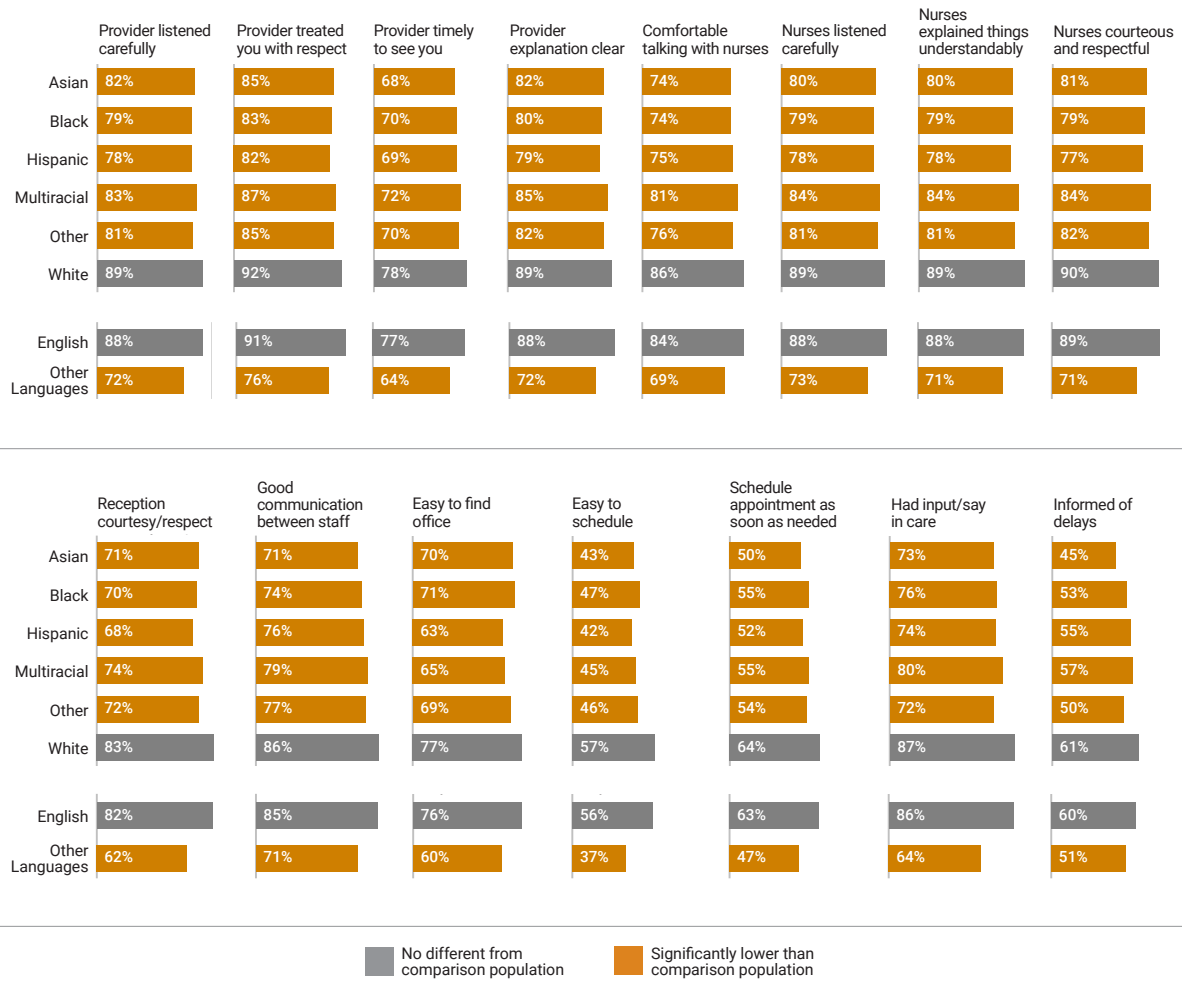
Ambulatory Survey Results: In-Person and Virtual Visits

We collected feedback from patients in ambulatory settings, with separate surveys for in-person and virtual visits. Results for both are presented below.

In 2021, we received feedback from 182,922 patients regarding their in-person office visits; 18% were patients of color and 6% answered the survey in a language other than English. The figures below show the breakdown of 'top box' or the most positive response option by race and language. Similar to the inpatient results, the ambulatory office visit feedback highlights several areas in need of improvement.

- These results show significantly lower scores across all race and ethnicity groups and patients speaking other languages on every measure. These are large gaps of at least 5 percentage points, and in many cases, 10 or more percentage points.
- Only 45% of Asian patients reported they were informed of delays, compared to 61% of White patients. Just 71% of Asian respondents said there was good communication during their visit, compared to 86% of White respondents.
- 68% of Hispanic/Latinx patients said they were treated with courtesy and respect by office staff, compared to 83% of White patients. Hispanic/Latinx patients also had the lowest scores on three of four nursing questions (nurses were courteous and respectful, nurses explained things, and nurses listened carefully).
- For the questions about the provider, Hispanic/Latinx patients gave the lowest scores for three of four questions (providers listened carefully, providers treated with respect, provider explanations were clear).
- Black patients consistently reported significantly lower scores across all survey questions, as did patients speaking other languages.

Patient Experience Rates, MGH Ambulatory Practice Survey by Race/Ethnicity and Language, 2021



Similar patterns exist in patient scores on the virtual visit experience. In 2021, we received feedback from 64,196 patients regarding their in-person office visits; 15% were patients of color and 3% answered the survey in a language other than English. The figures below show the breakdown of 'top box' or the most positive response option by race and language.

- The telehealth survey includes several questions about the technical experience. Patients of color and LEP patients reported significantly lower scores on ease of connection with provider, ease of logging in, technical support, connection quality, and ease of scheduling.
- Patients of color and LEP patients also reported significantly lower scores across all measures of the clinical experience, relative to White and English-speaking patients.

Patient Experience Rates, MGH Telehealth Survey by Race/Ethnicity and Language, 2021

Image taken prior to March 2020.

Focus on Asian Patient Experience

These findings from the first year of our new survey format, combined with our legacy patient experience data where we saw consistently lower scores among our Asian patients, prompted us to further explore the survey comments from Asian patients. This represents the first phase of a qualitative process to mine the survey comments of all patients of color and patients speaking other languages. This analysis helps us understand the factors contributing to the lower scores on the structured survey questions and potentially identify pathways for improvement.

We reviewed over 3,700 comments from Asian respondents of the inpatient, ambulatory and virtual care surveys, received from June 2020 to May 2021. Most patient comments were positive, recognizing providers for high-quality care, compassion, and caring. Yet, many patients told us how their care experience did not meet their expectations and what could have been improved. These comments largely fell into three major themes:

- Opportunities in communication, coordination, timeliness across all care settings
- Comments around cultural bias and "model minority" stereotype
- Patients wanting to be "seen and heard" and respected

It is important to recognize that these comments were collected during a time in our history when we were facing the multiple crises of a global pandemic, increased hospital capacity, health care worker burnout, and staffing shortages. Hate crimes against Asian Americans were also rampant during this time, both nationally and within the metro-Boston area. This context is critical to understanding the challenges and frame of mind of Asian patients and our healthcare providers during this time.

Patients reported many positive interactions with their providers, and the comments from Asian patients provided several concrete examples of high-quality, culturally appropriate care. Patients acknowledged the challenging times, yet reported feeling well cared for, listened to, and respected. Examples include:

- "This is my third visit with Dr. L. I have never had a physician who was more connected to what I was saying and feeling. She asks really good questions that let you know that she is connecting with you."
- "Dr. K. is one of the best doctors I have ever had. She is always interested in helping me and takes my issues seriously. I have had plenty of doctors in the past ignore my pain because I am a brown woman, so I truly appreciate Dr. K's inclusive attitude. It's contributed to my care and my overall well-being."
- "Excellent patient care from entire staff including nurses, technicians, doctors etc. Very satisfied and happy to get treatment at MGH. No more words for kindness of nurses and their understanding for international patient (different country, different people, different language) and understanding of family's feeling to the patient. Thank you MGH!"
- "Dr. L was excellent—she listened to my concerns, understood specific ethnic skin concerns/issues, and gave me extremely helpful advice. Collaboration between Dr. L and Dr. N was great—one of the most productive and helpful appointments I've had."
- "I haven't had K before, so I was a little nervous to be honest. Her friendly and reassuring nature, listening skills and effectiveness in the delivery of the shot helped put me at ease. She also wished me a happy birthday and was very attentive and professional throughout. Please tell her thank you for me—she listened and took the time to see me and hear me. I felt recognized as a human being that day besides just being another patient."
- "I appreciate that she is a woman of color as am I and that she is not afraid to connect on a personal level to make me feel like her care is sincere, deep, and that I am well taken care of. I trust that she is very knowledgeable from how she carries herself. She knows what she's doing and I trust her expertise. I'm very, very much…I would like to continue to be her patient long term."

On the other hand, some Asian patients reported feelings of invisibility, having interactions that lacked cultural sensitivity, and experiences of bias.

- "Dr. X and his residents provided excellent care. The nurse, however, was unable to comprehend cultural and religious considerations and removed my earrings against my wishes. I would have liked to have been informed of the need to remove earrings prior to my appointment as it was a painful and highly unpleasant experience in office."
- "As a visibly gay female of color, I had a mostly pleasant experience with all the staff I encountered during my time at MGH. There was one nurse though who was significantly off-putting in her demeanor and care towards me…. Despite this one nurse everything else about my stay was quite pleasant. Just be aware that racism is unfortunately rampant in healthcare and to heed questions and concerns of women of color when it comes to their health."

The Mass General Mission and Credo states that we aim to deliver the very best to all patients, and to improve the health and well-being of the diverse communities we serve.

Our Diversity and Inclusion statement describes how we will excel through diversity, respect through inclusion, and serve, heal, educate and innovate while focusing on equity. One key phrase is the need for all patients to feel "safe, respected, welcome, comfortable, supported and accepted within our walls." These comments from our Asian patients highlight examples where we did not meet this standard.

- "The nurse was disrespectful, did not give us the time to explain the situation, and the symptoms. She heard one key word and basically said, go to the emergency. And my response was, do you need to know what else my child is feeling, and she said no and I felt like I was totally dismissed."
- **"**Almost every visit, my provider brushes off the concerns that I bring to her. I would not want to be a patient of hers who has serious medical issues because of my concern for if she genuinely cares for my conditions….There was one instance when she was brushing off this mole that I saw on my leg. And I kept pushing for a visit with a dermatologist. I think it might have taken me several visits with her to convince her to refer me to one, and when I met with the dermatologist, the dermatologist confirmed that this should be removed. This brush-off attitude of my PCP is always a point of frustration for me each time I go see her."
- **"**Had to wait 30 minutes to accommodate the attending's schedule and did not appreciate. Follow-up call with the resident was frustrating and did not feel seen or heard."
- "Nurses don't pay much attention. Pretty disengaged, no post-procedure discussion or instructions at all. The whole experience really upset me."
- "The appointment was 30 minutes delayed and I was not informed of it. When I finally got into the room I felt rushed. The ultrasound was not explained very well. I did not feel comfortable asking questions."
- "Communication between the doctors and their staff—who play an extremely important role as well—is nonexistent. This kind of confusion about procedures not only affect patients' lives and well-being and a huge waste of time, it can put patients at risk."
- "I had a concern which I raised five times in the past visit and in this visit. It wasn't adequately addressed. Then when it came to fruition, the physician started making decisions without consulting me. I only heard his decisions about my care because I overheard him telling the nurses, as he was walking out of the room. If he had asked me, I could have told him exactly how to solve the concern together."

Yet, we did see examples where Asian patients reported they experienced compassionate, high-quality, and effective care, such as:

- "After the cortisone injection, I felt dizzy. The nurses took very good care of me. The kindness and attention they gave me made me feel important. Thank you MGH nurses."
- "The nurses are amazingly caring for his/her patients. The doctors treat the patients with his/her heart. It is crazy, how everything, everyone operates together to run everything. The world we are living in today is all about business and money, but yet I witnessed and experienced plenty of love and caring running above and beyond the scope of MGH practice."

These patient comments, combined with the feedback on the fixed-choice survey questions, show we have a long way to go to fulfill the values outlined in our Diversity and Inclusion statement. The Equity in Clinical Care Council is focusing on two key goals: the first is improving access to care for diverse patients, and the second is improving the patient experience among our diverse patients. We are taking the following steps to meet our patient experience goals:

- Developing real-time reporting tools to allow services to explore patient feedback by race, ethnicity, language, payer, disability, sexual orientation/gender identity and other socio-demographic characteristics.
- Engaging services in developing improvement plans with specific measures, goals, timelines, and accountability, and providing coaching/assistance to services as they embark on improvement efforts.
- Educating services about interpreting patient experience data and sharing the lessons learned from this first analysis of Asian patient experience comments, such as:
    - See the **person**, not the "patient" or their presenting problem
    - Ask questions and take time to listen to answers
    - Support providers with cultural sensitivity/anti-bias training
    - Use storytelling from qualitative data to strengthen awareness from quantitative analysis
    - Context matters and comments should be viewed from a broader cultural lens

Image taken prior to March 2020.

4 Demographic Profile of Mass General Patients

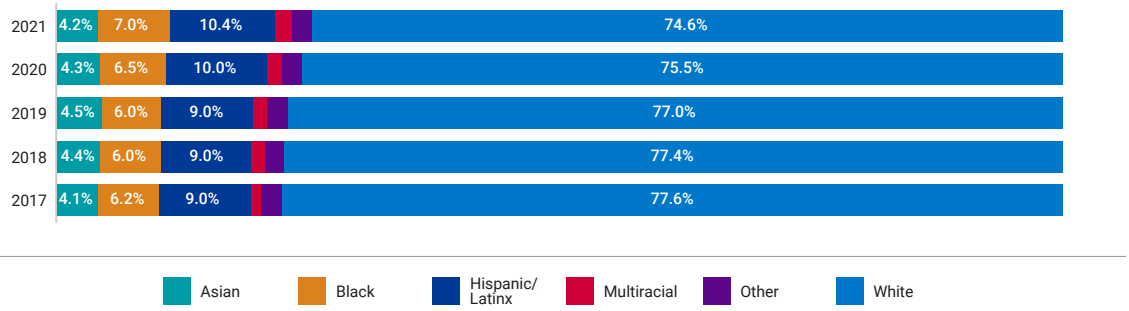
This section provides a graphical overview of the racial, ethnic, linguistic, and socioeconomic diversity of patients receiving care at Mass General during calendar year 2021, compared with the diversity of Mass General's catchment area (nine counties in Eastern Massachusetts).

Data from the 2020 US Census reflects a rapidly diversifying population in Eastern Massachusetts. The figure below displays a nearly 6-percentage point increase in the people of color between 2015 and 2020, with one-third of Eastern Massachusetts residents identifying as Black, Hispanic/Latinx, Asian, Multiracial, or Other in 2020. At Mass General, the proportion of inpatients identifying as people of color has gradually increased, although not to the same extent as the broader community. In 2021, about one-quarter of Mass General inpatients identified as people of color. The proportion of Asian inpatients held steady while the proportion of Black, Hispanic/Latinx, multiracial and other races increased, potentially reflecting the differential impact of COVID-19 on communities of color.

MGH Catchment Area by Race and Ethnicity, 2015–2020

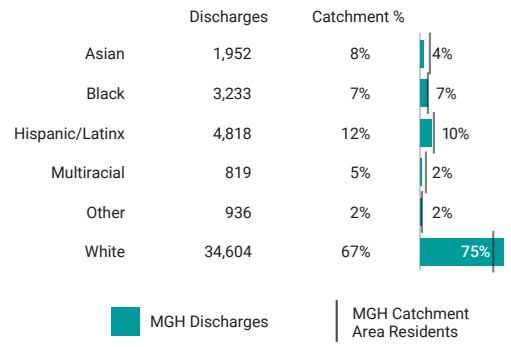
The MGH Catchment Area includes nine counties: Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, and Suffolk. MGH patients with unknown race and ethnicity have been removed.

MGH Inpatients by Race and Ethnicity, 2017–2021

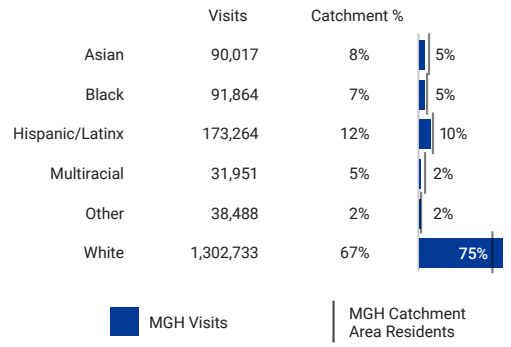


When compared to the demographic profiles of the surrounding communities, Mass General patients are more likely to be White. In 2021, Mass General served fewer patients of color than expected based on their representation in the Eastern Massachusetts community, with the largest gaps seen in the Asian population in both the inpatient and ambulatory settings. The pattern is more pronounced when comparing to the city of Boston. People of color comprise 55% of the Boston population; yet just 25% of MGH patients are people of color. Certainly, patients' preferences and decisions about where to receive care are influenced by many factors, especially in a city like Boston with a high saturation of healthcare providers. Moreover, MGH is a tertiary/quaternary referral center for specialty care so the patient population for all service lines may not reflect the surrounding community, However, we would hope to see more diversity, particularly in specialty care where Mass General brings such depth of expertise.

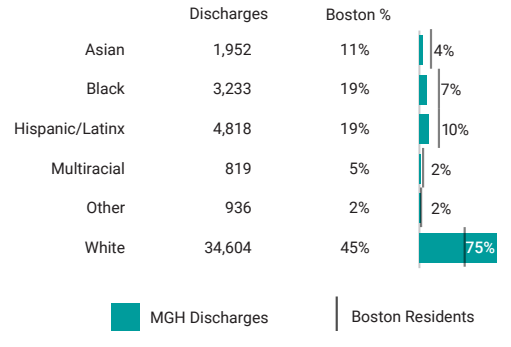
Inpatient Discharges vs. MGH Catchment Area, 2021



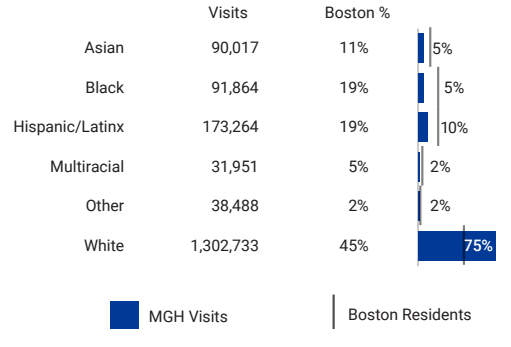
Ambulatory Visits vs. MGH Catchment Area, 2021



Inpatient Discharges vs. Boston Residents, 2021



Ambulatory Visits vs. Boston Residents, 2021



The MGH Catchment Area includes nine counties: Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, and Suffolk. Population data is from the 2020 US Census. MGH patients with unknown race and ethnicity have been removed.

As the following table shows, the racial and ethnic profile of Mass General patients varies by clinical setting. Consistent with past trends, people of color were more likely to be seen in the Emergency Department and health centers than admitted to the inpatient setting. Although the health centers serve substantially more patients identifying as Hispanic/Latinx, the percentage of Asian and Black patients seen in the health centers is very similar to the main campus and lower than expected based on representation of these groups in the metro-Boston area. Patients of color are underrepresented in outpatient on-campus/satellite practices and specialty clinics.

Patient Distribution by Setting, 2021

	Asian	Black	Hispanic/ Latinx	Multiracial	Other	White	Unknown
Inpatient Care	4.2%	6.6%	9.8%	1.5%	2.0%	72.1%	3.9%
Emergency Dept	4.2%	10.8%	16.2%	2.4%	3.2%	60.5%	2.6%
All Outpatient Care	5.0%	5.1%	9.7%	1.8%	2.2%	3.1%	73.0%
MGH Main Campus	5.1%	5.4%	7.0%	1.6%	1.9%	76.0%	2.9%
Hospital Health Centers	4.0%	5.8%	31.3%	2.6%	4.7%	47.3%	4.3%
Private Health Centers	4.2%	5.1%	12.2%	1.8%	2.0%	72.9%	1.9%
Other Practices	5.5%	3.7%	6.2%	2.0%	1.4%	78.0%	3.2%

Hospital Health Centers are located in Charlestown, Chelsea, Everett, and Revere. Private Health Centers are located in Charlestown and the North End.

Within the inpatient setting, there is considerable variation in the distribution of racially and ethnically diverse patients across service lines. Pediatrics, Psychiatry, and OB/GYN see a more racially and ethnically diverse population than other inpatient services due to their larger Hispanic/Latinx and/or Black populations. Conversely, Urology, Orthopedics, and Neurosurgery see a larger proportion of White patients.

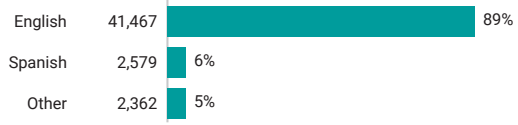
Patient Distribution Among Mass General Inpatient Services, 2021

	Asian	Black	Hispanic/ Latinx	Multiracial	Other	White	Unknown
All Specialties	4.2%	6.6%	9.8%	1.5%	2.0%	72.1%	3.9%
Medicine	3.6%	7.6%	9.1%	1.1%	2.0%	73.9%	2.8%
Neurology	4.8%	7.5%	8.9%	0.7%	2.0%	69.3%	6.7%
Neurosurgery	3.3%	4.0%	5.3%	1.0%	1.3%	80.9%	4.1%
OB/GYN	9.6%	7.4%	15.9%	2.2%	2.2%	60.6%	2.1%
Orthopedics	2.1%	3.7%	7.2%	1.3%	1.5%	81.7%	2.6%
Pediatrics	4.1%	7.2%	18.8%	4.9%	4.2%	46.8%	14.0%
Psychiatry	4.6%	14.0%	16.8%	4.2%	2.1%	54.6%	3.7%
Surgery	3.0%	5.0%	7.7%	1.2%	1.6%	77.5%	4.0%
Urology	2.7%	4.3%	5.8%	0.5%	1.0%	82.7%	2.9%
Other Services	3.7%	8.3%	12.2%	1.8%	3.1%	66.7%	4.1%

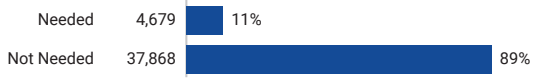
Surgery includes OMFS. Other Services include: Anesthesia and Critical Care, Dermatology, Emergency Medicine, Ophthalmology, Otolaryngology, Pathology, Physical Medicine & Rehab, Radiation Oncology, and Radiology.

Most (89%) inpatients seen at Mass General in 2021 were English-speaking, with 11% speaking other languages. Eleven percent of inpatients required a medical interpreter. This is higher than the pre-pandemic baseline of 9% of inpatients speaking other languages and is reflective of the soaring need for interpreters during the COVID-19 surge and beyond. The pandemic taught us about the importance of a flexible interpreter services infrastructure that can rapidly scale to meet surging demand.

Inpatient Discharges by Preferred Language, 2021



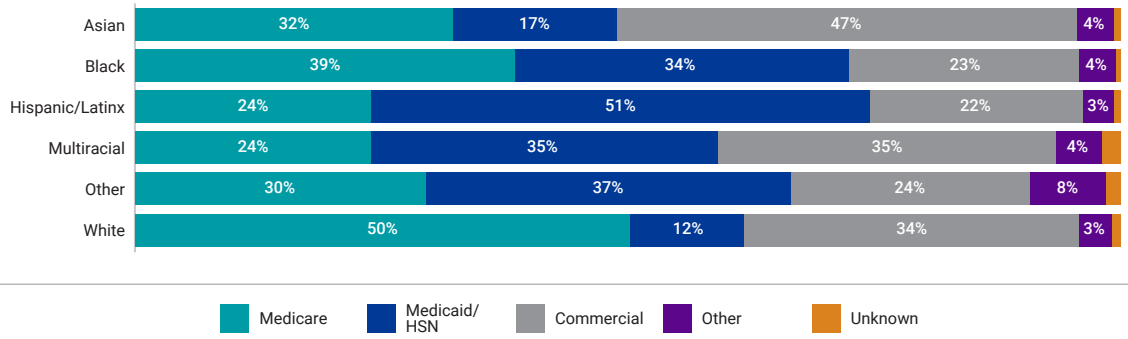
Inpatient Discharges by LEP, 2021



Insurance coverage is a driver of access to care, and insurance coverage among Mass General inpatients varies by race and ethnicity. Overall, Medicare represents the largest payer among Mass General inpatients (45%), followed by commercial insurance (33%) and Medicaid/Health Safety Net (19%). However, when we stratify by race and ethnicity, we find that Medicare is the predominant payer for White patients, followed by commercial insurance (White inpatients tend to be older than patients from other racial/ethnic groups and are therefore more likely to have Medicare as their primary payer). Compared to Whites, Black and Hispanic/Latinx inpatients are more likely to have Medicaid as their primary payer, and less likely to have commercial insurance. Medicaid/Health Safety Net is the primary payer for half (51%) of the Hispanic/Latinx inpatients and 34% of Black inpatients, compared to 12% of

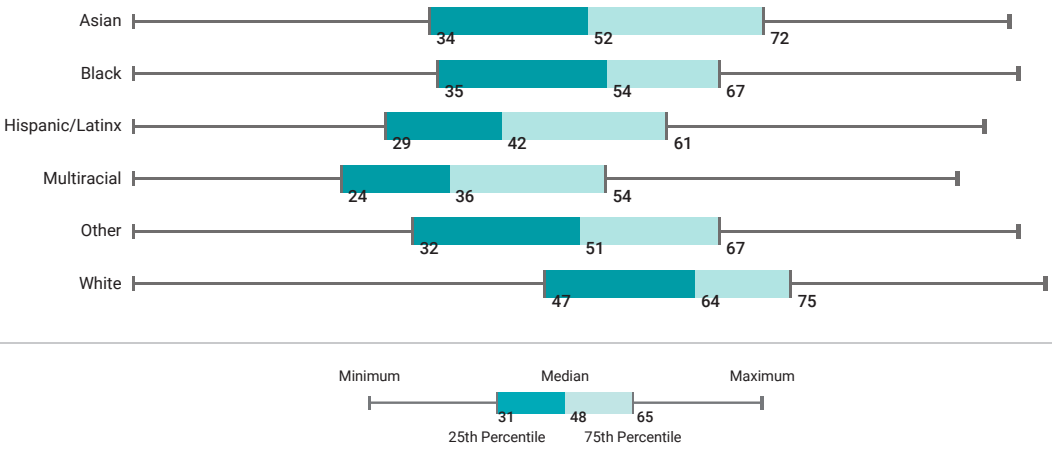
White inpatients. Commercial insurance is the main payer among Asian inpatients (47%). Some insurance plans are designed to deter patients from accessing care at higher cost academic medical centers unless those hospitals are in network. This may partially explain the variation in the racial/ethnic profile of patients seen at Mass General.

Inpatient Discharges by Race and Ethnicity, Payer, 2021



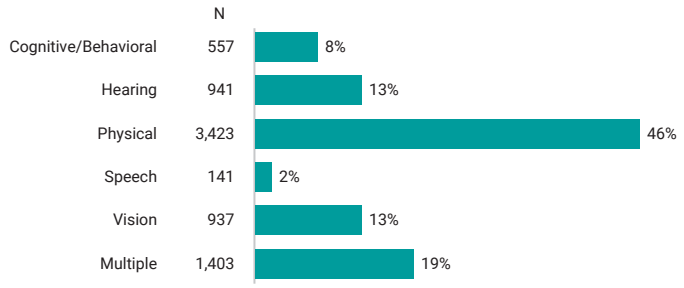
Patients of color are much younger than their White counterparts, which may explain some of the variation in the racial/ethnic composition of inpatients by service. The median age of White inpatients in 2021 was 64, compared to 54 for Blacks, 52 for Asians, and 42 for Hispanic/Latinx patients. Therefore, it is not surprising to see greater racial/ethnic diversity in services that serve a younger patient population, such as Obstetrics and Pediatrics.

Inpatient Discharges: Age by Race and Ethnicity, 2021

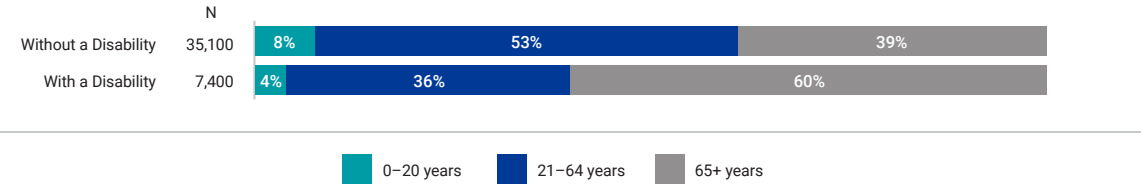


Efforts are underway to improve data collection across Mass General Brigham for other dimensions of diversity, including gender identity, sexual orientation, and disability identity. Of these three dimensions, disability identity is the most complete with 90% of inpatients answering these questions and 16% of inpatients reporting a disability. Data collection for disability identity continues to evolve in terms of the impairment categories, but the current disability profile shows physical disabilities as the most common, followed by multiple disabilities. Patients with disabilities tend to be older and are more likely to be white. Data on sexual orientation and gender identity are collected but have not reached completion rates robust enough for public reporting. Efforts are underway to train registration staff to ask these questions, and to provide information to patients on why these data are important and how they are used to improve patient care.

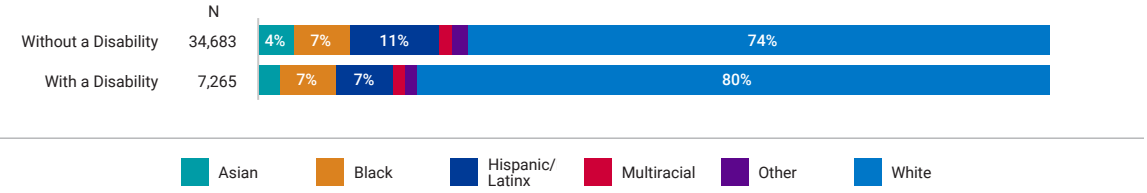
Inpatient Discharges by Disability Type, 2021



Inpatient Discharges: Disability Identity by Age Group, 2021



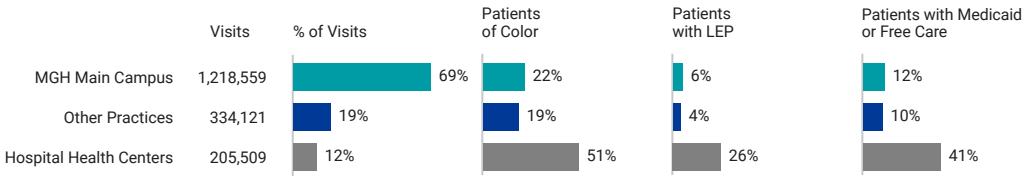
Inpatient Discharges: Disability Identity by Race and Ethnicity, 2021



Focus on Ambulatory Access

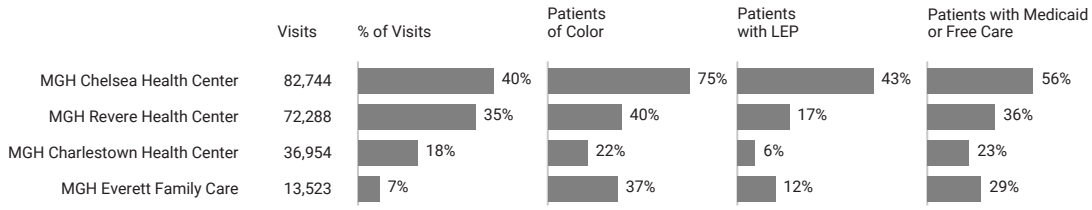
Similar demographic patterns exist in the ambulatory setting. Ambulatory practices at Mass General are located at the main campus, off-site practices, and at community health centers. Most visits (69%) occur at the main campus. Yet, while only 12% of the annual visit volume occurs in the health centers, these locations are serving the most diverse patient populations with regard to race and ethnicity, language, and Medicaid coverage.

Ambulatory Visits by Location, 2021



There are four primary health centers associated with Mass General Hospital, located in communities north of Boston. The Chelsea and Revere locations had the greatest number of visits in 2021. These communities have a large Hispanic/Latinx and Spanish-speaking population, which is reflected in the demographic profile of the health centers.

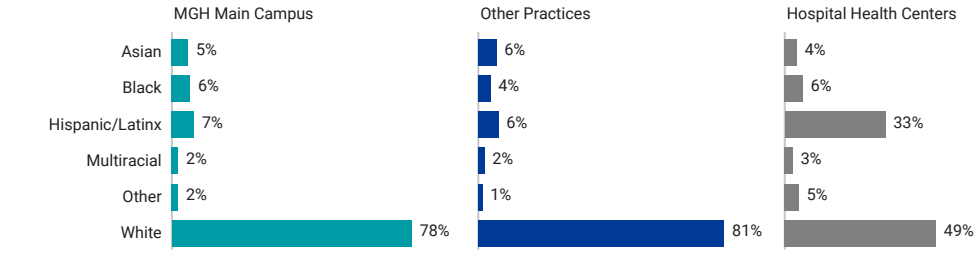
Ambulatory Visits by Health Center, 2021



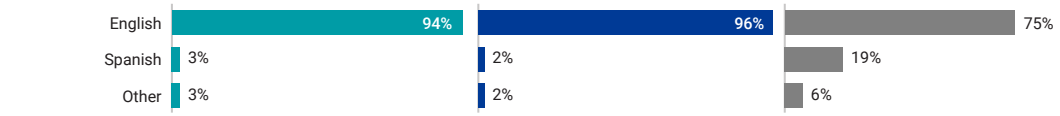
Patients seen in the health centers are more likely to be people of color, have limited English proficiency and require an interpreter, and have Medicaid as their primary payer. In 2021, 33% of health center patients identified as Hispanic/Latinx, compared to just 7% seeking care in ambulatory clinics at the main campus. One-quarter of the health center patients have a primary language other than English, with 19% reporting Spanish as their primary language—a striking difference from speakers of other languages at the main campus (6%) and other locations (4%). Over one-quarter of health center patients require an interpreter, compared to 6% at the main campus. Health center patients are a much younger population than those seeking ambulatory care at the main campus, with a median age of 39, compared to 54 for main campus patients.

Demographic Profile of all Primary Care and Specialty Care Visits, 2021

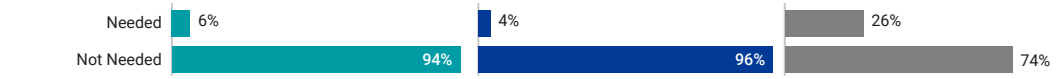
Race and Ethnicity



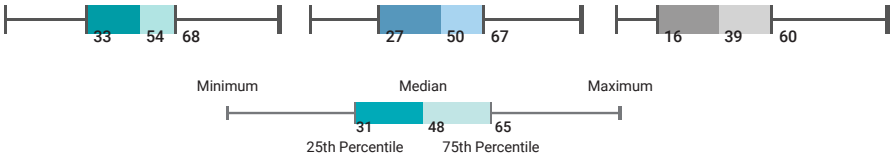
Preferred Language



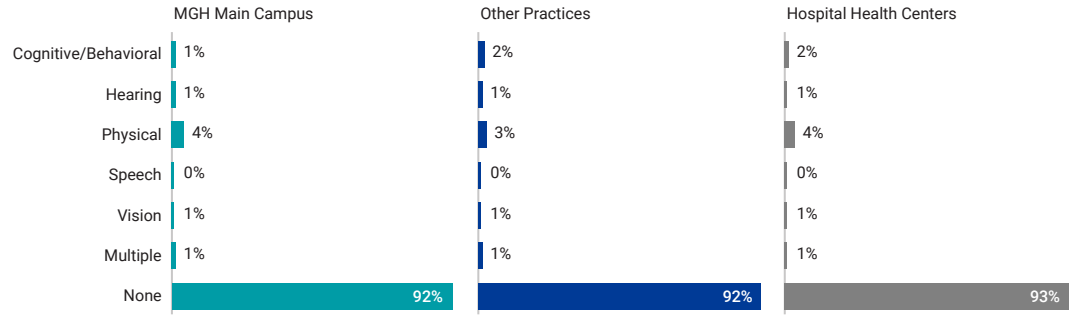
LEP (Interpreter Needed)



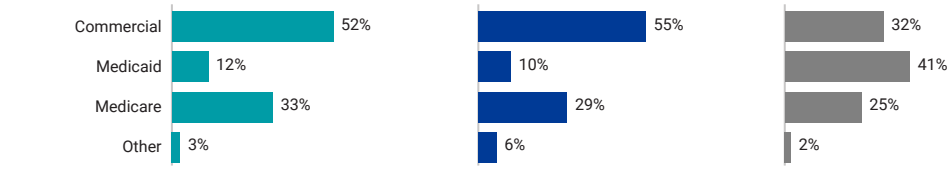
Age



Disability Identity

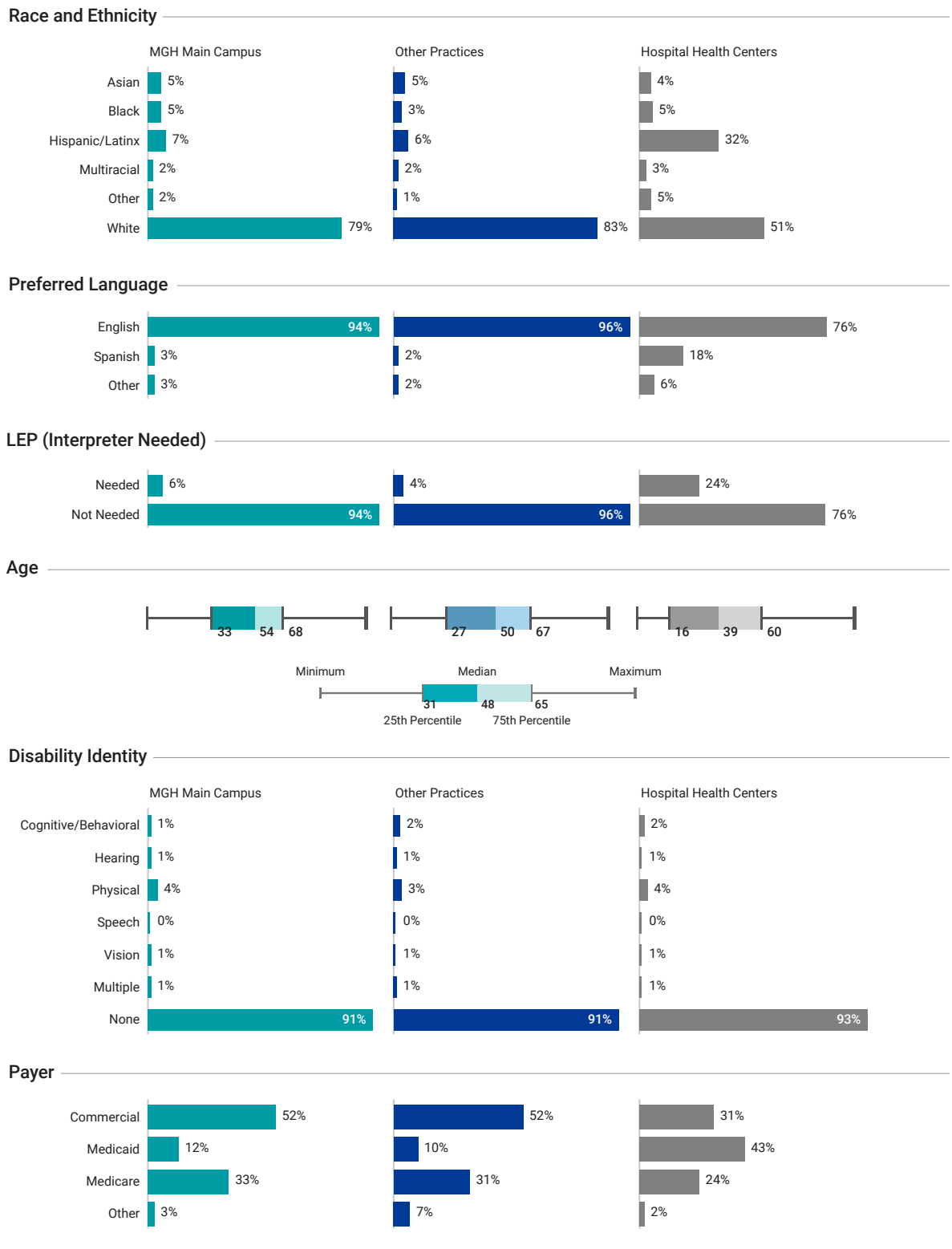


Payer



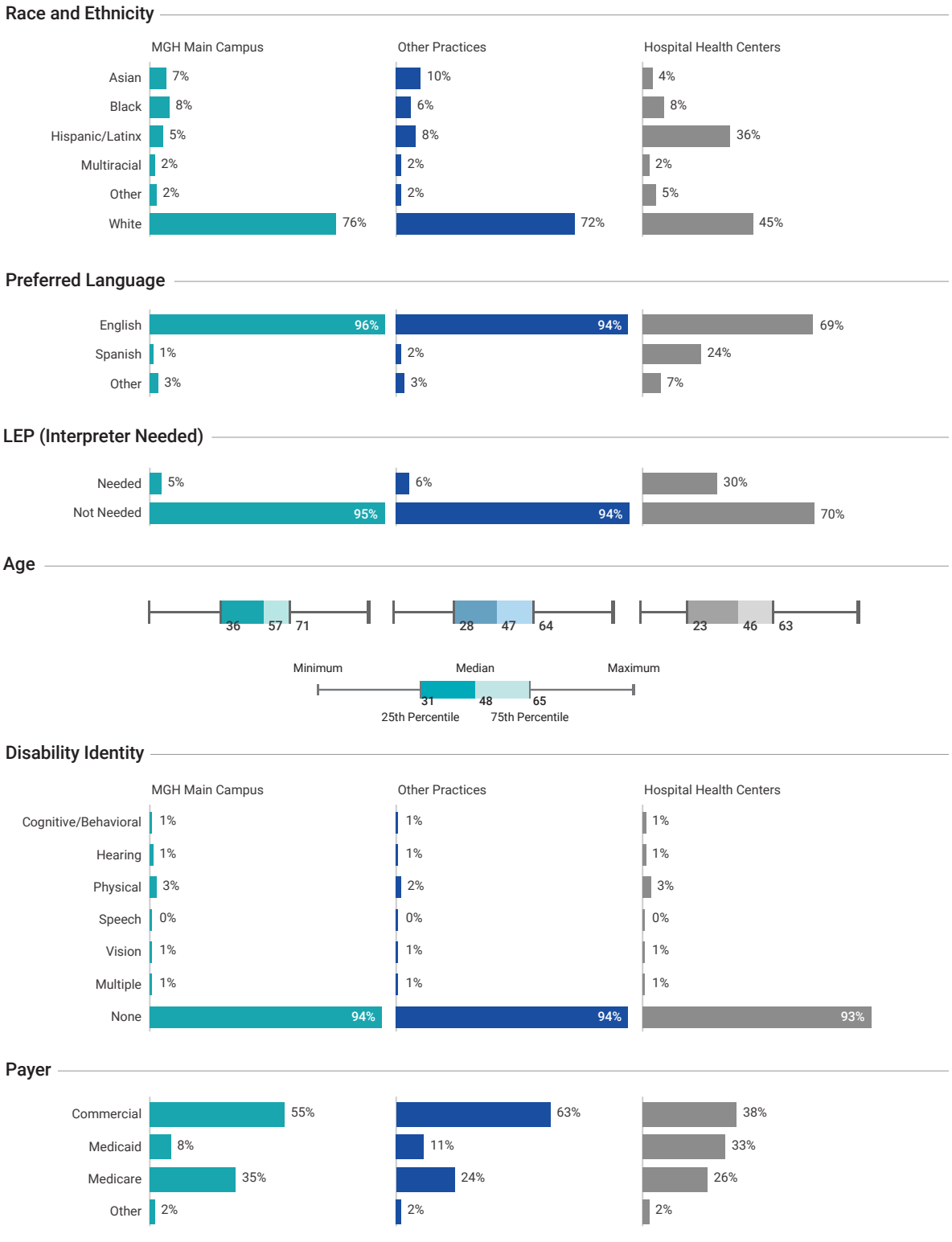
Diverse patients were less represented in specialty care in the ambulatory setting compared to all types of care, although the gap is smaller in the health centers. In the health centers, White patients represented 45% of primary care visits, while they represented over half (51%) of specialty visits. Black and Asian patients represented only 5% or lower of the total specialty care population across all care settings.

Demographic Profile of all Specialty Care Visits, 2021



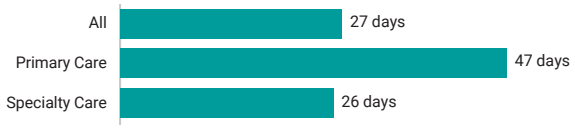
Similar patterns exist within Mass General primary care, with the health centers providing services to a more diverse population than the main campus or other primary care clinics. More than a third of primary care patients seen in the health centers identify as Hispanic/Latinx, with 30% requiring an interpreter. In contrast, only 5% of patients seen at the primary care practices at the main campus were Hispanic/Latinx, and just 5% needed an interpreter.

Demographic Profile of all Primary Care Visits, 2021

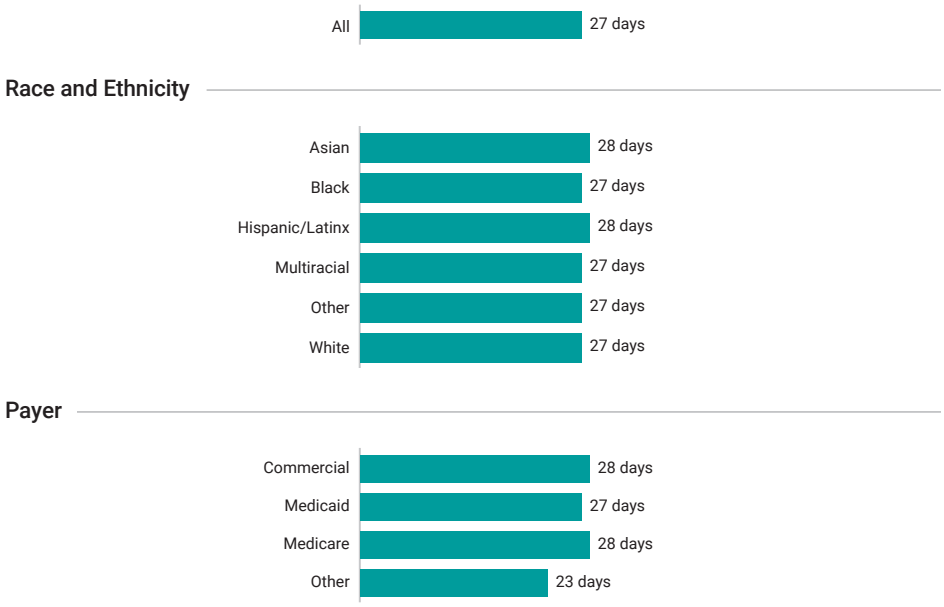


Mass General primary care physicians and specialists are in high demand, and in 2021 the average number of wait days for new patients in ambulatory settings exceeded the 14-day industry standard for all racial/ethnic and primary payer groups. On average, new patients waited 27 days to access a Mass General provider (47 days for primary care, 26 days for specialty care). This represents an improvement of 9 days from the pre-pandemic baseline for specialty care (35 days). However, the wait times for new primary care patients increased by an average of 7 days.

Average Wait Days for New Patients: In-Person and Virtual Visits, 2021

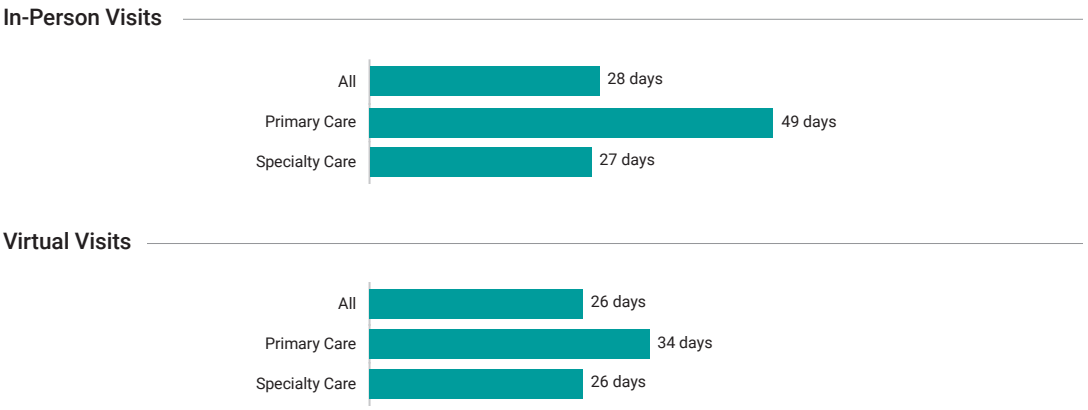


Race and Ethnicity and Medicaid coverage do not appear to be significant drivers of ambulatory access.



The rapid scaling up of virtual visits during the pandemic presented an opportunity to improve patient access, particularly for specialty care. New patients accessing virtual care were seen, on average, 2 days sooner than in-person care; however, the largest improvement in access to care is evident in primary care, where virtual visits reduced wait times by 15 days.

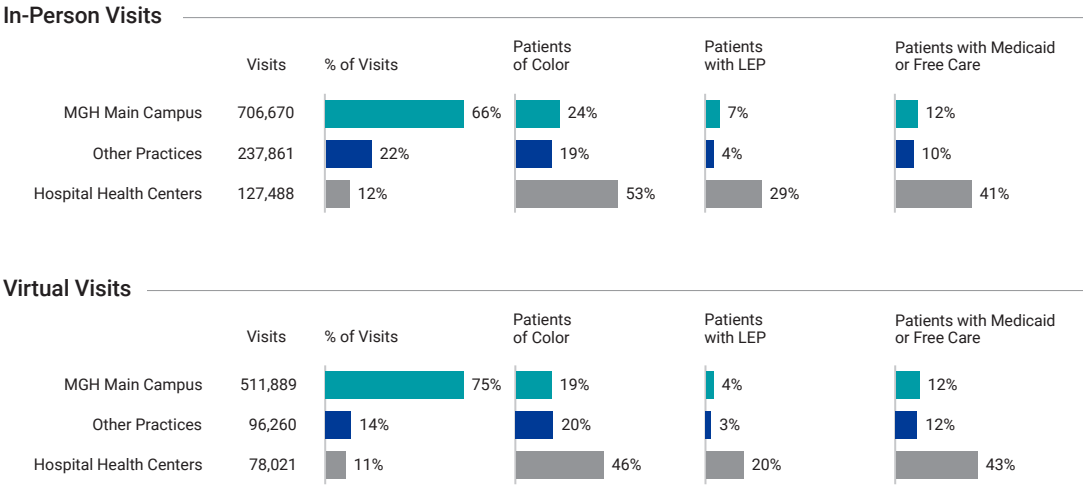
Average Wait Days for New Patients by Type of Visit, 2021



The advent of wide-scale use of virtual care presented an opportunity to improve access to care for diverse patients. On the one hand, many patients in diverse communities lack the flexibility to take time off from work for medical appointments, or struggle with transportation, childcare, or other logistical challenges. Virtual care can remove these barriers and improve access to high-quality care.[18] On the other hand, patients of color and those speaking other languages are more likely to live in communities without access to broadband internet and technology, and less likely to have the digital and health literacy skills to easily navigate virtual visits.[19]

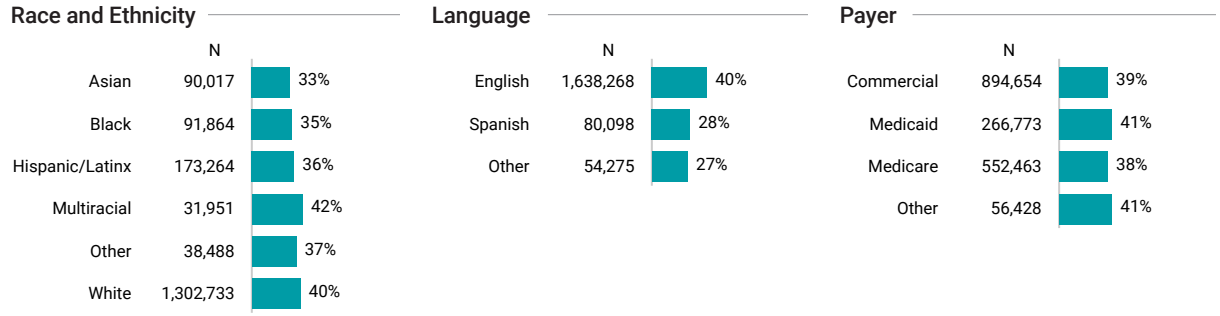
The figures below show the distribution of virtual visits by race, language, and Medicaid/Free Care versus in-person visits. Patients of color and those with LEP were more likely to be seen in-person than via virtual visits across all MGH locations.

Ambulatory Visits by Location, 2021



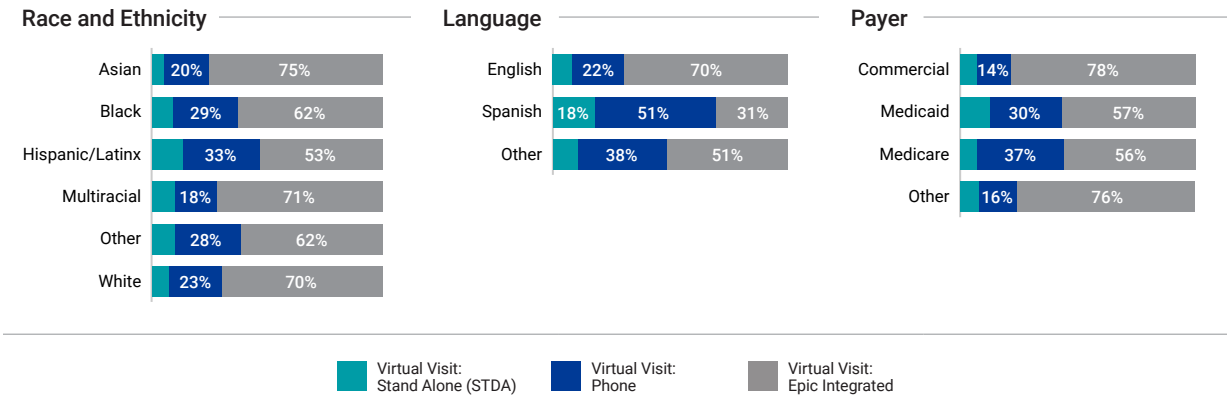
When we explore the utilization patterns within demographic groups, we also see that White, English-speaking patients have a greater percentage of their visits in the virtual space. Asian patients had the lowest share (33%) of their visits conducted virtually. Utilization of virtual vs. in-person visits by payer is more equitable.

Percent of Visits that are Virtual, 2021



Virtual visits may be conducted in different formats. Epic-integrated visits are conducted seamlessly within our electronic health record, which is the preferred method for virtual visits. Stand-alone platforms are other video conferencing programs that are not integrated within the health record. Lastly, some virtual visits are conducted via telephone when a video component is not a possibility, such as cases where the patient does not have access to the necessary technology. We see that Hispanic/Latinx patients and those speaking other languages are more likely to have their virtual visits via telephone. This finding is in alignment with research from the Mass General Brigham health system on the scaling up of virtual visits during the pandemic. A study by Zachrison et al analyzed over 6 million ambulatory visits among 1.24 million patients in the Mass General Brigham system and found that although the number of ambulatory visits among non-Hispanic Black and Hispanic patients increased during COVID because of access to virtual visits, this expansion of care relied on audio-only visits.[19] Providing greater access to fully integrated virtual visits for diverse patients—particularly those who require a medical interpreter—remains a challenge as we standardize virtual care.

Type of Virtual Visit, 2021



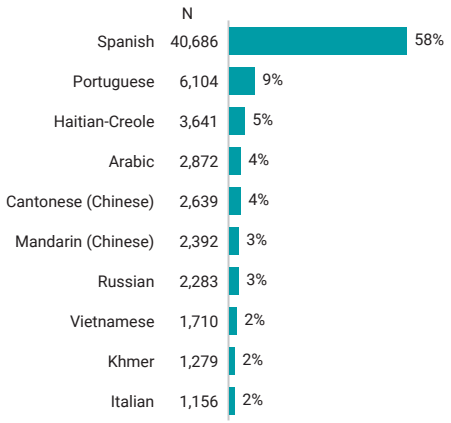
As we look to the future, we are focusing on improving access to clinical care for diverse patients. The MGH Equity in Clinical Care Council is currently laying the groundwork to educate service/department leaders about their specific opportunities and challenges in serving diverse patients, with the goal of each service implementing an improvement plan with measures, goals, timelines, and accountability. We are building interactive reporting tools to help leaders monitor access for diverse patients and are working with the Ambulatory Management team to better understand referral patterns and barriers to access. The widespread adoption of virtual care presents an opportunity to reach more patients, but there is much work ahead to make virtual care accessible for all. We must also do more to ensure that in-person care is convenient, accessible, and patient-centered.

5 Serving Patients with Limited English Proficiency

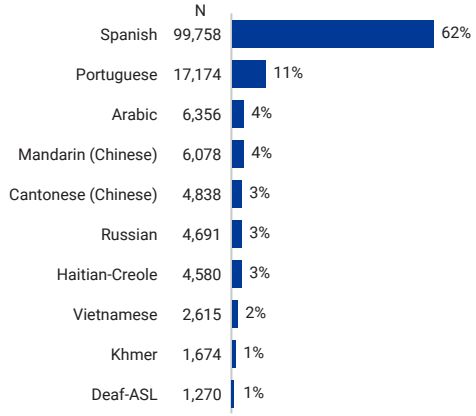
Hospitals and healthcare providers experienced intense demand for interpreter services over the past two years, as the COVID-19 pandemic disproportionately affected communities of color and immigrant communities, many of which have limited English proficiency.[20,21,22]

At Mass General, the need for interpreters increased rapidly during the initial COVID-19 surge in 2020 and has remained at unprecedented levels. In fiscal year 2020, the Mass General Interpreter Services Department provided nearly 186,600 interpretations to 23,260 patients. In fiscal year 2021, the team provided over 230,500 interpretations to 26,275 patients, a 24% increase. Spanish remains the top language for which inpatients require interpreter services, representing nearly 60% of interpretations provided in FY21, with Portuguese (9%), Haitian-Creole (5%), Arabic (4%), and Cantonese (4%), rounding out the top 5. The language distribution among patients with limited English proficiency (LEP) in the ambulatory setting is similar, with Spanish and Portuguese comprising almost three-quarters of the interpretations.

Top 10 Languages for Interpretation: Inpatients, FY2021

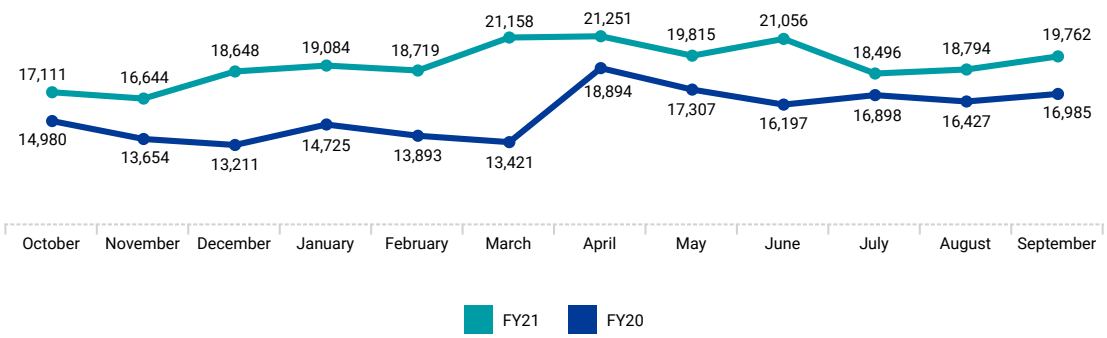


Top 10 Languages for Interpretation: Ambulatory Patients, FY2021



The increase in need for interpreters is even more striking when comparing year-over-year volumes. The graph below shows monthly interpretations (all care settings) in FY20 (blue) and FY21 (teal). The spike in demand during the initial COVID surge (April and May 2020) is clearly visible, but even more remarkable is the growth in demand throughout the remainder of 2020 and 2021, with the number of interpretations consistently higher in every month of FY21.

Interpretation Services Provided, by Fiscal Year



The Interpreter Services Department has continued to evolve, developing new approaches to meet the increasing demand for interpretation and translated written materials. Innovations included:

- **Teaching and training on Medical Interpreter Services.** Ongoing training is required to ensure that clinicians and administrative staff understand the guidelines for when to access Medical Interpreter Services and that they know the best practices for working effectively with the MIS team. The MIS Department provided 31 trainings throughout FY21 to clinicians, social workers, service coordinators, community health workers, and hospital leaders on an array of topics relevant to serving patients with LEP. Trainings covered foundational topics such as how to engage and work effectively with interpreter services, sharing best practices for remote interpreting and virtual visits, and best practices for translational services. Some trainings promoted the qualified bilingual staff program and contextual issues such as implicit bias in healthcare.
- **Meeting increasing high demand for written translation services.** Ensuring patients have access to written materials in their preferred language is a critical component of high-quality safe care, particularly regarding discharge instructions, medication instructions, and post-procedure care. Mass General's MIS team provided translated materials to patients in 33 languages in FY21. These materials included discharge instructions, patient education, patient rights, surveys, procedure results, and medication cards, among other items. In addition, MIS is involved in system-wide efforts to improve translation within the Mass General Brigham patient portal. To date, over 1,000 clinical surveys have been translated into the top six languages, and there is work underway to improve the communication of test results in other languages via the patient portal.
- **Leveraging new models for providing interpreter services.** The MIS team continues to support the Ernesto Gonzalez Spanish Language Care Group (EGSLCG) by facilitating Qualified Bilingual Staff assessments for providers. Once qualified, these providers can give care directly to patients in languages other than English, primarily Spanish. The Ernesto Gonzalez Spanish Language Care Group was initiated during the peak of the COVID-19 surge in April 2020, with qualified providers caring for Spanish-speaking patients on inpatient floors, in the ICUs, and in the Emergency Department. The ESSLCG consists of physicians (ranging from residents to faculty) who are native Spanish speakers and who bring clinical, linguistic, and cultural

competence to assist in the care of Spanish-speaking patients. ESSLCG physicians are available 24/7 to work directly with the clinical teams, completing time-consuming clinical tasks such as consents, patient education, discharge instructions, and family communication. The ESSLCG is a complementary resource to traditional interpreter services, and this innovation led to improved effectiveness and efficiency of the clinical care teams, as well as improved patient experience for Spanish-speaking patients. A case study outlining the ESSLCG was recently published that includes suggestions for other organizations considering launching a similar program.[23]

- **Supporting virtual visits.** Virtual visits represent an important avenue for patient access, and national data suggests gaps exist in the provision of virtual care for patients with LEP due to insurance type, lack of access to technology and broadband internet, low digital literacy, and challenges using patient portals, all of which contribute to a "digital divide." Patients with low digital literacy or poor access to technology are more likely to have telephonic virtual visits versus video. While telephonic assessment may be enough to address some health care needs, the lack of patient-provider video interaction may introduce further disparities. For example, providers and interpreters often rely on nonverbal cues, such as body language and facial expression, to assess patient comprehension of relevant information.[24]
    - In July 2020, we launched a pilot program in Chelsea Behavioral Health practices to increase access to video virtual visits. This program provided patients with donated Amazon Fire 7 Tablets with video platform technologies and assigned bilingual "tech navigators" to help patients with low digital literacy and/or patients with limited English proficiency. Navigators helped patients sign up for the patient portal and coached them on effectively accessing and participating in virtual visits. Although this technology and assistance was helpful for some patients in eliminating some of the barriers to accessing virtual visits, we found that many patients were unable to participate due to a lack of broadband internet in their residential area. This pilot suggests effective strategies to address the "digital divide" must include solutions to overcome all barriers. These patient populations may not only need access to devices but may also need training materials and resources tailored to their diverse educational needs. Furthermore, there is a need for better broadband connectivity infrastructure, and insurance reimbursement for video visits, to help patients better engage in their own care.

MGH Medical Interpreter Services continues to engage in studies to improve access to virtual visits for LEP patients. Recently, MIS was invited to participate in a CRICO grant to improve the accessibility of virtual care for patients with LEP.

Image taken prior to March 2020.

6 Moving Forward: 2022 Vision and Goals

As we forge ahead with this work, we remain optimistic about our efforts to improve equity in the access to and delivery of clinical care, and yet we are humbled by the magnitude of the challenge before us. Fortunately, today we have the benefit of widespread public awareness of structural racism and inequality, combined with new resources and financial investment to support our health equity work.

Organizations like Mass General and Mass General Brigham continue to examine our practices and acknowledge the structural racism that still exists in society and in our institutions. More importantly, we are implementing bold plans to make Mass General a more welcoming, inclusive, and equitable organization for our patients and workforce.

Partnering together, the Disparities Solutions Center and the Lawrence Center for Quality and Safety commit to continued exploration of our quality and safety metrics, seeking out disparities and convening teams to eliminate them. We are thrilled to have the engagement and commitment of our colleagues throughout Mass General. This commitment is evident in our 2022 Institutional Quality and Safety Goals, where we strive to **accelerate improvement in reducing disparities in clinical care and patient experience and assure equity in access to and delivery of clinical care.**

In the year ahead, the Equity in Clinical Care Council is building a strong foundation of awareness, education, and preparedness to improve access to clinical care and patient experience for diverse patients. The Council will collaborate with each clinical service to understand their opportunities to improve health equity, and will develop action plans with specific aims, measures, and goals. We can advance this work thanks to the unprecedented investments in health equity from Mass General Brigham and Mass General, which provide funding for staffing and programs to close these gaps and ensure we hold the gains. As we roll out interventions in the coming months, they will be closely monitored and evaluated for effectiveness and efficiency and adjusted as necessary.

Yet, we recognize these efforts must not end at the boundaries of Mass General. Eliminating disparities that are pervasive and deeply rooted in our society requires partnership with community organizations and advocacy for sound public policy at the local and national level. We look forward to continuing our existing community partnerships and building new ones to better serve our diverse patients. We pledge to continue our efforts to advocate for new quality incentives, payment models, and public reporting of quality measures stratified by race, ethnicity, language, and other factors. Similar public policies were foundational to advancing patient safety over the past decade and can do the same to advance health equity nationally in the years ahead.

Finally, we must hear the feedback from our patients, many of whom have struggled to access medical care throughout the pandemic and are facing exacerbations in illness as a result. For too long, healthcare delivery has centered on the provider, lacking the flexibility and ease that would help patients engage with their care team and receive the services and support to achieve better outcomes. The healthcare system must evolve to see the patient as a person—a human being with their own unique history, challenges, contributions, values, and goals. Recent trends toward virtual health represent the tip of the iceberg in this movement—there is so much more to do to improve patients' access to and experience of clinical care. Disparities will persist as long as we continue to expect patients to adapt to our structure, rather than evolving our structure to meet the needs of our patients.

As always, we are excited about the future and approach this work with humility and a deep commitment to improving healthcare equity for all.

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Appendix A: Methods and Data Collection

The data in this report are drawn from a wide variety of institutional sources (see Appendix B for a complete list of data sources). The time periods vary depending on the measure and availability of data being presented.

In several cases, racial groups needed to be combined into White and Other, and linguistic groups into English-speaking and Other, to meet minimum sample size requirements. We recognize the sensitivities and limitations inherent in combining multiple racial and linguistic groups in this manner and seek to limit this practice when sample sizes are sufficiently large for more nuanced analyses between groups. For some measures, multiple years of data have been combined to ensure that sample sizes are adequate to draw meaningful conclusions. White and English-speaking groups are used as the comparison group for statistical analyses throughout the report. These populations are used as comparison groups to succinctly quantify disparities between historically privileged White and English-speaking patients, and patients of color and speakers of other languages, so that efforts to reduce disparities can be implemented. Finally, the naming conventions for the data elements are based on the nomenclature of the data sources. This explains why in some cases "White" is used, while in other cases "Non-Hispanic White" is used.

Collection of data on race, ethnicity, and language at Mass General

In July 2014, Mass General transitioned from its existing registration and billing system to Epic as part of the Partners-wide eCare implementation. In doing so, Mass General changed its race and ethnicity data collection slightly. In the past, when patients presented for registration, registrars asked them to identify first their race and then their ethnicity using categories that were standard across the state; whether a patient identified as Hispanic/Latino was included in the question about race. During registration in Epic, registrars now ask patients to first identify their ethnicity, then race, and then answer the Office of Management and Budget (OMB) standard question "Hispanic/Latino: Yes/No."

With the transition to Epic, the category lists for both ethnicity and race remain largely the same, using pre-existing lists as a model. Training surrounding the collection of this data remains the same as well. When a patient asks why Mass General requests this data, registration staff are trained to explain that we collect this information to better serve our diverse patient population. Because self-identification is the gold standard for collecting data on race and ethnicity,[18] registrars are trained never to enter their perception of the patient's race or ethnicity. If a patient does not wish to provide this information, registrars select the value of "Declined." Patients rarely decline to answer these questions; only 3% declined to provide their race in calendar year 2021.[vi] If a patient's stated race or ethnicity is not an option available to registrars in the system, the patient is registered with a code of "Other," and additional information is entered in the free-text fields to communicate the person's self-reported race or ethnicity.

Registrars continue to collect data on patients' preferred languages with the question, "In what language do you prefer to discuss health-related concerns?" With the implementation of Epic, registrars now ask an additional question regarding language preferences: "In what language do you prefer to receive written materials?"

Patients are also asked if they need an interpreter to help them communicate with their providers and understand their care. This is also noted in their patient record within Epic.

Similarly, the data collection around patient disabilities slightly expanded with the implementation of Epic. In addition to pre-existing values (Blind/Visual Impairment, Cognitive, Deaf/Hard of Hearing, Physical/Congenital, Multiple, Declined, None, and Unavailable), Mass General registrars are now able to document Speech Impairments

vi Among pediatric/adult inpatients; newborns excluded.

and Special Requests. A free-text comment box accompanies the value entered. As the ambulatory scheduling system and patient placement system (IDX and AllScripts, respectively) moved to Epic as well, this data continues to remain integrated across the front-end to allow for proactive accommodations for inpatients, as well as outpatient practices. Work is underway to refine and improve the specificity of disability data, such as capturing disability identity separately from disability impairment, and including a category for behavioral/psychological disabilities.

Patient sexual orientation and gender identity (SOGI) are also collected during registration. SOGI data are important for providing gender-affirming care and for improving patient experience through using the patient's preferred pronouns and providing an environment where patients can bring their full selves to the healthcare encounter.

All data collected at the patient's initial Mass General registration, including data on race, ethnicity, language, interpreter needs, SOGI and disability, are confirmed during subsequent annual registration updates. The accuracy of these data has increased markedly in the last decade as a result of standardizing the methodology for objectively assessing race. We continue to monitor the completeness of data and strive to collect this demographic information on all of our patients.

Appendix B: Data Sources and Dates Presented

Data/Measures	Source of Data/Measures	Dates Presented
Catchment Area Demographics	American Community Survey Data 2015–2019 data: 2010 US Census estimates 2020 data: 2020 US Census	CY 2015–2020
Patient Population by Setting	EPIC, EPSI (Mass General Billing)	CY 2021
Patient Distribution among Inpatient and Ambulatory Services	EPIC, EPSI	CY 2021
Ambulatory Quality Measures	eCare, EDW Quality Insight database	3/2021–2/22
Patient Experience	NRC Health	CY 2021
Caring for Patients with Limited English Proficiency	MGH Medical Interpreter Services	FY 2020–2021
Obstetrics/Gynecology Measures	Chart Reviews, D4Q, Vizient	CY 2021

Mass General Diversity and Inclusion Statement

Because of diversity we will excel. We think broadly about diversity and everything that makes us unique. It is core to our mission. Our differences make Mass General a more interesting and distinctive environment in which to work and are an important means of providing the very best care to every one of our patients, regardless of race, ethnicity, gender, gender identity, religion, age, sexual orientation, disability, life experiences, geographic backgrounds, skills and talents among others. We will not excel without recognizing and appreciating everyone's perspectives.

Through inclusion we will respect. Together we work hard to make this hospital a diverse and inclusive place of healing. Encouraging a broad range of opinions, ideas and perspectives drives creativity, innovation and excellence. Our continued engagement in our nationally recognized initiatives and programs highlights our commitment to diversity and inclusion. But this ongoing work will not be complete until every employee, every patient, every family member, every visitor feels safe, respected, welcome, comfortable, supported and accepted within our walls.

Focused on equity we will serve, heal, educate and innovate. Our job is to improve health and save lives, regardless of what our patients or colleagues look like, where they come from, what they believe or who they love. Issues of equity and justice are not separate but rather intertwined with patient care, education, research and community health. Targeting inequality enhances the quality of care for all. We believe in treating our patients and each other with the dignity that every human being deserves.

Massachusetts General Hospital—strengthened by diversity, unified through inclusion, committed to equity.

Everyone is appreciated and valued here.

Massachusetts General Hospital
Founding Member, Mass General Brigham

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massgeneral.org/quality-and-safety/about/care-equity