CENTER FOR HEALTH INFORMATION AND ANALYSIS

Equity in Quality of Care

Select Clinical Quality and Patient Experience Measures Stratified by Race and Ethnicity, 2023

September 2025

CHIA

Contents

Overview

Overview

To monitor the impact of health system processes and policies on patient outcomes, CHIA examines clinical quality and patient experience measures across several care domains in primary care settings. In previous reports, CHIA presented statewide results for the performance of Massachusetts primary care providers and acute care hospitals on select metrics related to quality and safety.

For the first time, CHIA is reporting on these measures through a health equity lens to identify disparities, recognize areas for improvement, and help achieve a more equitable health care system in Massachusetts.

This report includes select metrics from the National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®)—a widely utilized tool to evaluate clinical quality of care—and the Massachusetts Health Quality Partners (MHQP) Patient Experience Survey (PES), both of which relate to care received in the primary care setting, stratified by patient race and ethnicity. This report also includes hospital performance on the Leapfrog Group's health equity measure, which evaluates hospitals' collection and use of patient demographic information to identify disparities and prioritize disparity reduction. ■

Key Findings

Select Clinical Quality Metrics by Race and Ethnicity

In 2023, clinical quality measure scores varied significantly when stratified by race and ethnicity. One of the measures with the most variability was Colorectal Cancer Screening; the score for Black patients who received screening was 6.2 percentage points lower than for White patients, and 5.7 percentage points lower for Hispanic patients than for non-Hispanic patients.

Commercial Patient Experience Survey Results by Race and Ethnicity

In surveys following a primary care visit, Asian patients rated their experiences with providers in 2023 lower than White patients did in all 9 survey domains, with the largest differences in access to timely appointments and responsiveness (6.9 points lower), behavioral health screening (6.3 points lower), and support managing health goals (7.6 points lower).

Hospital Adherence to Leapfrog Health Equity Standard

All 48 hospitals that submitted a Leapfrog Hospital Survey reported that in 2023, they collected patients' self-reported race, ethnicity, and spoken language information, and all but 1 indicated that they used this data to stratify at least 1 quality measure to identify health care disparities.

Introduction

Health care quality measurement serves an important role in ensuring that patients receive high-quality care, identifying areas for improvement, and facilitating system accountability. Monitoring quality metrics is essential for delivering high-value health care and evaluating the impact of system changes on patient outcomes in Massachusetts. CHIA regularly monitors and reports statewide data on select clinical quality performance measures drawn from the Healthcare Effectiveness Data and Information Set (HEDIS) and the Patient Experience Survey (PES) results to examine health care quality outcomes and patient-reported experiences with primary care among private commercial members in the Commonwealth.[1]

However, the results included in this report indicate that for several metrics, overall statewide performance may mask disparities that emerge when performance is stratified by race and ethnicity, including worse care or experiences for some racial and ethnic groups. All charts in this report include the overall statewide rate as a dashed gray line to highlight those instances where the overall performance rate is inconsistent with performance for each included racial and ethnic population.

Disparities in health outcomes, such as decreased life expectancy and increased chronic disease prevalence, place an undue burden on racial and ethnic minority communities, and recent research reveals that there is a meaningful financial cost associated with these disparities, as well.[2-4] A 2023 report published by the Blue Cross Blue Shield of Massachusetts Foundation estimated that the economic burden due to health inequities experienced by Black, Hispanic, and Asian populations in Massachusetts totals $5.9 billion each year.[5]

The Commonwealth of Massachusetts has consistently been a national leader in health system performance; however, disparities in health outcomes and quality of care persist.[6] To achieve a more equitable health care system in which all residents have the opportunity to reach their full health potential and no one is disadvantaged from achieving this potential due to socioeconomic status or socially defined circumstances (e.g., geography, race, gender, ethnicity, religion, sexual orientation, or disability status),[7,8] it is critical to prioritize the collection and analysis of reliable health care quality information on subpopulations to inform policymakers, providers, payers, and other stakeholders.

While the quality measures highlighted in this report do not represent the full scope needed to evaluate all inequities in care and achieve the goals stated above, they are important tools to identify opportunities for targeted improvement efforts. Additionally, while there are many races and ethnicities represented in Massachusetts, this report presents stratified results for three racial groups (White, Black, and Asian) and two ethnic groups (Hispanic and non-Hispanic) to ensure sufficient sample sizes for all analyses. When comparing performance by race and ethnicity in this report, the reference groups for the results are the White population for race comparisons and non-Hispanic population for ethnicity comparisons because they represent the racial and ethnic majorities in Massachusetts. Differences between each reported group and the associated reference group were evaluated for statistical significance at a P-value of 0.05 or within a confidence level of 95 percent. This report focuses on highlighting statistically significant findings because non-significant differences could be due to chance. Unless otherwise noted, all data presented is from calendar year (CY) 2023. Detailed lists of race and ethnicity classifications and descriptions of each measure are available in the technical appendix. ■

SECTION 1:

Select Clinical Quality Metrics by Race and Ethnicity

HEDIS clinical quality measures stratified by race and ethnicity are a useful resource to support identification of strengths and persistent disparities in primary care delivery across Massachusetts, especially in the areas of preventive screenings and pediatric care. HEDIS is a tool developed by NCQA and is widely used by payers and providers to assess quality and drive improvement, including measures related to significant public health issues and prevalent conditions such as cancer, heart disease, behavioral health diagnoses, and diabetes.

While HEDIS measures provide valuable data points to highlight standards of care where the Commonwealth excels as well as where it has opportunities to improve, note that the rates reflected here are specific to care attributed to a primary care provider (PCP). For some measures, such as measures of treatment for an acute ailment or behavioral health diagnosis, it is not uncommon for patients to seek care at urgent care centers or from specialists, not from their PCP. Therefore, some scores may be low because care was appropriately sought elsewhere; rather than being reflective of poor care, they may instead indicate that care occurred in an alternative setting.

Monitoring provider performance can help policymakers, quality advocates, and other stakeholders identify and address care gaps where disparities exist. However, NCQA's requirement to submit results stratified by race and ethnicity is a recent addition, first implemented with a small subset of measures for CY 2022 results, and requirements are still evolving.

The HEDIS measures in this report were selected because of their inclusion in the 2023 Massachusetts Aligned Measure Set[9] and are categorized under 5 domains: Preventive Screening Care, Maternity Care, Pediatric and Adolescent Care, Chronic Condition Care, and Behavioral Health Care. HEDIS scores are expressed in percentages reflecting the share of the eligible patient population who received the care being measured. Scores reflect members enrolled in commercial health maintenance organization (HMO) and point of service (POS) products in participating health plans (see the technical appendix). ■

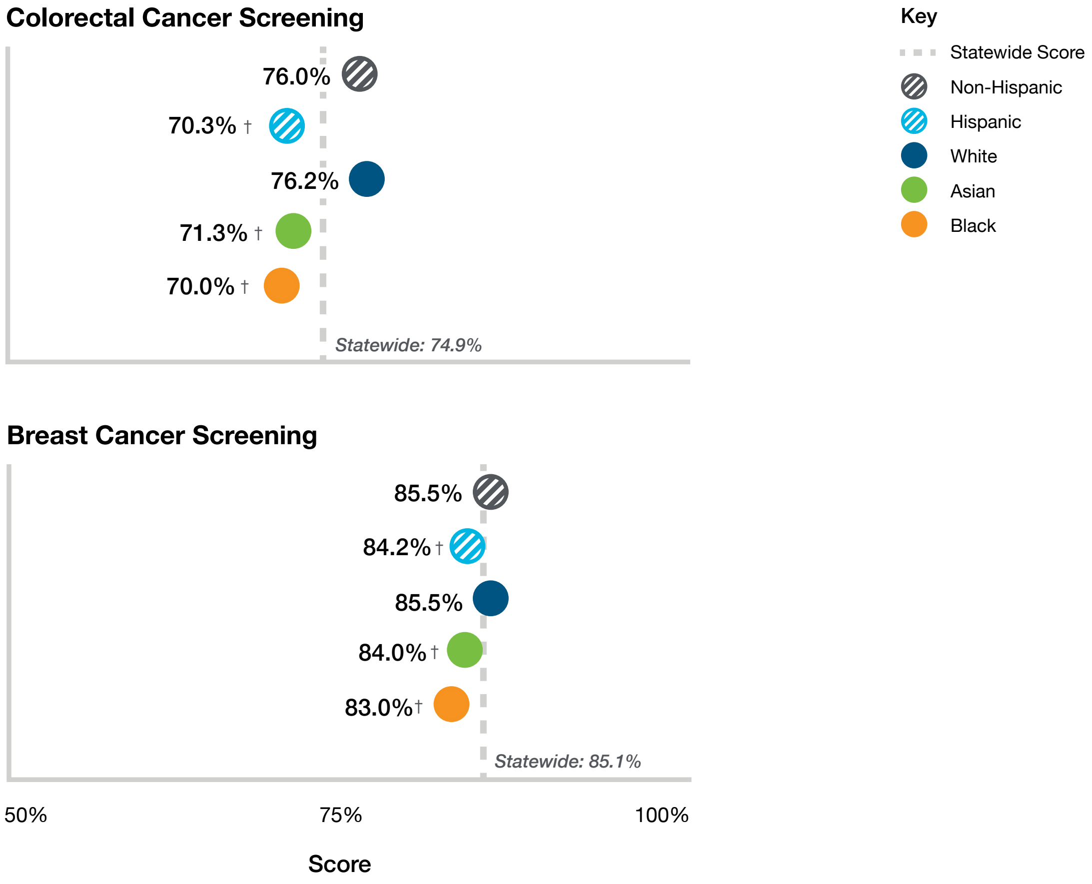
Select Clinical Quality Metrics by Race and Ethnicity

Preventive Screening Care Measures, 2023

Screenings and wellness checks have an important role in health management because patients diagnosed with cancers and illnesses often have better outcomes if these conditions are caught early.

Studies show that colorectal cancer incidence and mortality rates vary among racial and ethnic populations and disproportionately affect Black Americans, underscoring the importance of early detection and preventive care, which could mitigate these differences.[10] When stratified by race, colorectal cancer screening rates were significantly lower for both Black and Asian patients compared with White patients (70.0%, 71.3%, and 76.2%, respectively). When stratified by ethnicity, scores for measures that assess the percentage of patients who received recommended colorectal cancer screening were significantly lower for Hispanic patients than for non-Hispanic patients. Colorectal cancer screening rates had the largest disparity with a 5.7 percentage point difference (70.3% for Hispanic patients and 76.0% for non-Hispanic patients).

The breast cancer screening measure scores among Hispanic, Black, and Asian patients were lower than among non-Hispanic and White patients. Though the range is small (all groups scored between 83.0% and 85.5%), the differences were statistically significant for all groups. Breast cancer is the second-leading cause of cancer-related deaths in women, and early detection through screening can significantly reduce morbidity and mortality.[11] Even small percentage differences affect many lives, and the results indicate room for improvement to achieve equity.



† Indicates statistically significant difference from the reference group (e.g., White or Non-Hispanic).

Notes: Higher score is better for all measures on this page.

Source: Scores calculated by Massachusetts Health Quality Partners (MHQP). Measures drawn from the Healthcare Effectiveness Data and Information Set (HEDIS®) developed by the National Committee for Quality Assurance (NCQA).[12]

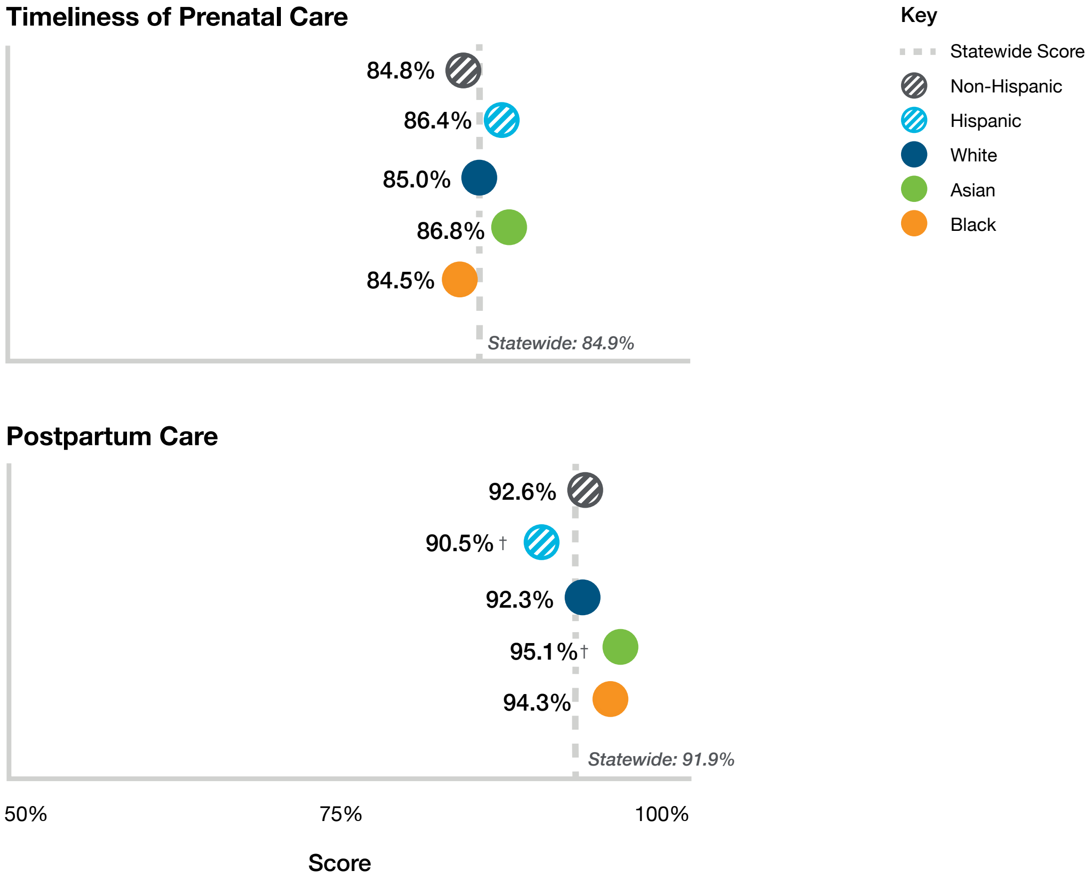
Select Clinical Quality Metrics by Race and Ethnicity

Maternity Care Measures, 2023

Access to prenatal and postpartum care is critical for both short-term and long-term health outcomes for the birthing person and newborn, but according to the American College of Obstetricians and Gynecologists, at least 40% of people who give birth do not attend a postpartum care visit.[13]

The Timeliness of Prenatal Care measure assesses the percentage of people that received a prenatal care visit in the first trimester of pregnancy. Meeting with a provider early on is important to identify potential medical concerns and inform pregnant people about steps they can take to support a healthy pregnancy and reduce the risk for complications and negative outcomes.[14] This measure did not show significant differences by race and ethnicity among commercially insured members.

The Postpartum Care measure, which captures the percentage of people who had a postpartum care visit on or between 7 and 84 days after delivery, is one of few measures in this report for which the score for Asian patients (95.1%) was significantly higher than the score for White patients (92.3%). By ethnicity, the score for Hispanic patients was significantly lower than the score for non-Hispanic patients.



† Indicates statistically significant difference from the reference group (e.g., White or Non-Hispanic).

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Source: Scores calculated by Massachusetts Health Quality Partners (MHQP). Measures drawn from the Healthcare Effectiveness Data and Information Set (HEDIS®) developed by the National Committee for Quality Assurance (NCQA).[12]

Select Clinical Quality Metrics by Race and Ethnicity

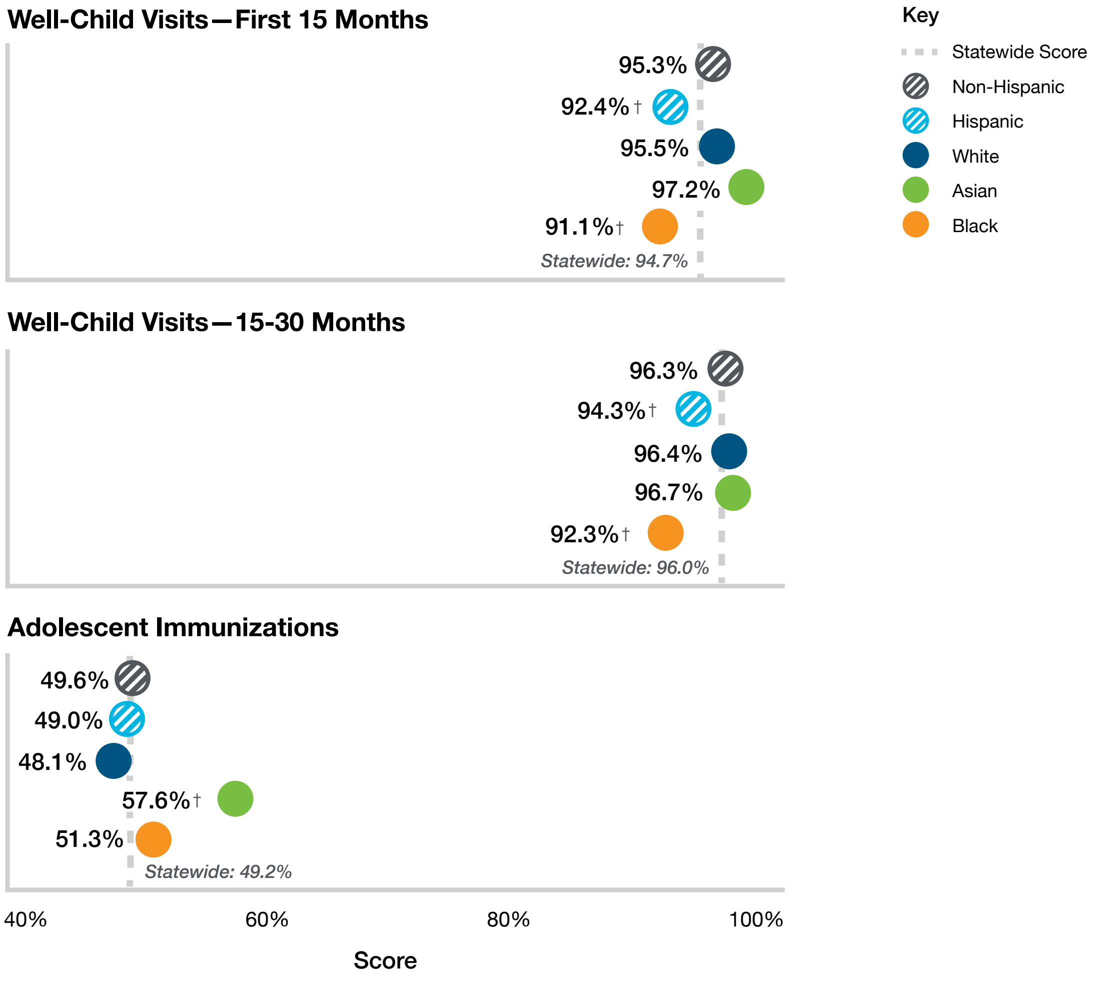
Pediatric and Adolescent Care Measures, 2023

Well-child visits in the first 30 months of life are critical as an infant undergoes substantial changes in physical growth and development as well as social and emotional growth to become a toddler. Visits during this period are foundational to preventive health care (such as recommended screenings and immunizations) because they promote better social, developmental, and health outcomes.[15] The well-child visit metrics included here reflect the percentage of pediatric patients receiving the recommended number of visits during 0-15 months of age and 15-30 months of age.

For both age ranges, the score for Hispanic patients is significantly lower than for non-Hispanic patients, and the score for Black patients is significantly lower than for White patients.

In addition to childhood immunizations associated with well-care visits, clinical guidelines also recommend completing a series of immunizations for adolescents by age 13 (including meningococcal, Tdap, and HPV vaccines; see the technical appendix for details). Receiving recommended vaccinations is the best defense against vaccine-preventable diseases that can otherwise cause serious negative health outcomes or death.[16]

While the overall statewide rate for the adolescent immunizations combined measure is below 50%, Asian patients had significantly higher immunization rates than White patients with a difference of 9.5 percentage points. Data is not available for each of the vaccines included in the combination, but immunization rates tend to be much lower for HPV vaccines than for the other vaccines in the measure, which may drive down overall scores.[17-19]



† Indicates statistically significant difference from the reference group (e.g., White or Non-Hispanic).

Notes: Higher score is better for all measures on this page.

Source: Scores calculated by Massachusetts Health Quality Partners (MHQP). Measures drawn from the Healthcare Effectiveness Data and Information Set (HEDIS®) developed by the National Committee for Quality Assurance (NCQA).[12]

Select Clinical Quality Metrics by Race and Ethnicity

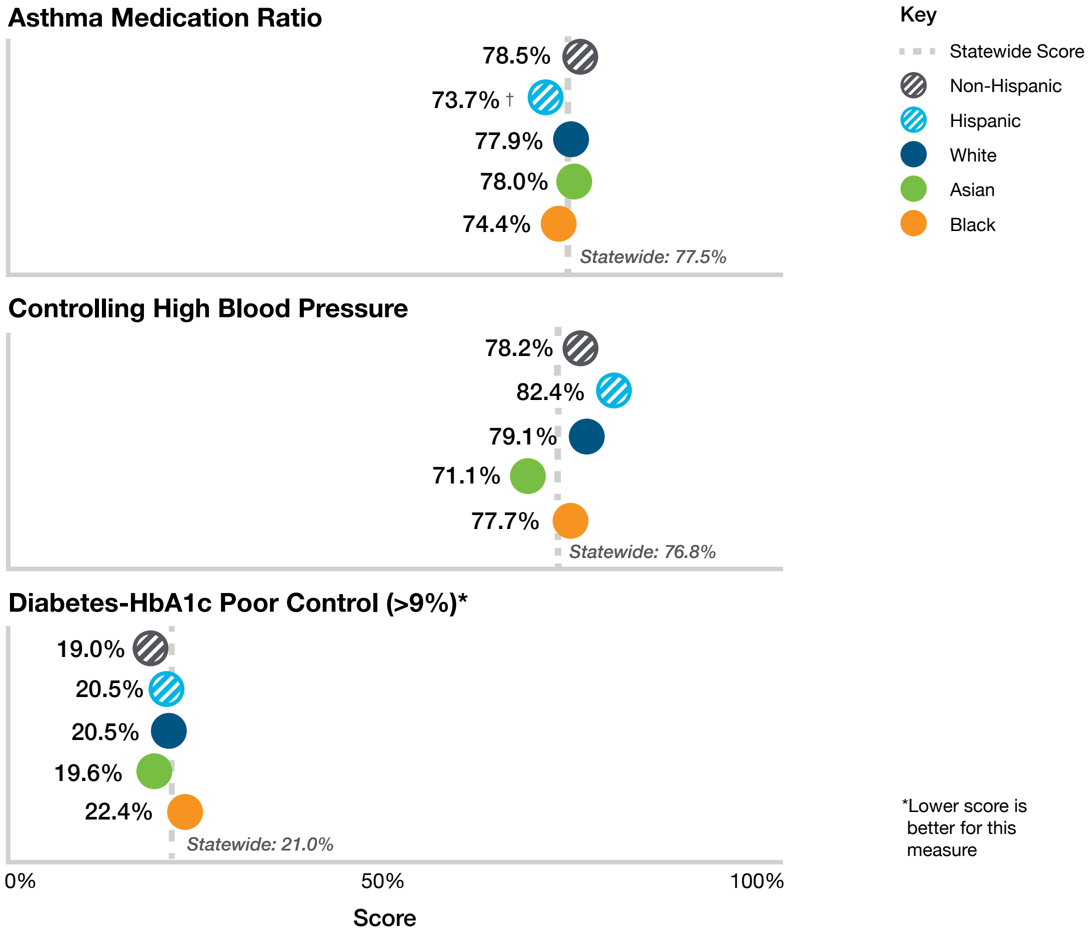
Chronic Condition Care Measures, 2023

More than half of American adults have at least one chronic condition, which include some of the leading causes of death and disability in the United States (e.g., heart disease, diabetes, and cancer).[20] In addition, care for chronic conditions is a leading driver of health care costs, particularly due to vastly higher rates of health care utilization.[21] As the prevalence of chronic conditions continues to increase, so does the emphasis on primary care strategies to enhance monitoring, patient engagement, and management of conditions, which may prevent negative outcomes.[22]

The Asthma Medication Ratio is a process measure to encourage the use of preventive medication over rescue medication to control asthma (higher scores are better, indicating more usage of preventive medication).[23] Notably, the Asthma Medication Ratio score for Hispanic patients was significantly lower than the score for non-Hispanic patients (73.7% vs. 78.5%, respectively).

Controlling High Blood Pressure is an outcome measure that assesses the percentage of patients diagnosed with hypertension whose blood pressure ***was*** adequately controlled. Diabetes-Hemoglobin A1c (HbA1c) Poor Control is also an outcome measure, but it assesses the percentage of patients diagnosed with diabetes whose HbA1c[24] ***was not*** adequately controlled (meaning a lower score is better for this measure). While appropriate HbA1c levels can depend on the individual, high levels can lead to complications over time, such as heart and blood vessel damage, nerve damage, kidney damage, and more, underscoring the importance of early intervention.[25]

Neither Controlling High Blood Pressure nor Diabetes-HbA1c Poor Control showed statistically significant differences by race or ethnicity.



*Lower score is better for this measure

† Indicates statistically significant difference from the reference group (e.g., White or Non-Hispanic).

Notes: Higher score is better for Asthma Medication Ratio and Controlling High Blood Pressure while lower score is better for Diabetes-HbA1c Poor Control (>9%). "Poor control" is defined as HbA1c greater than 9% at most recent test during measurement year.

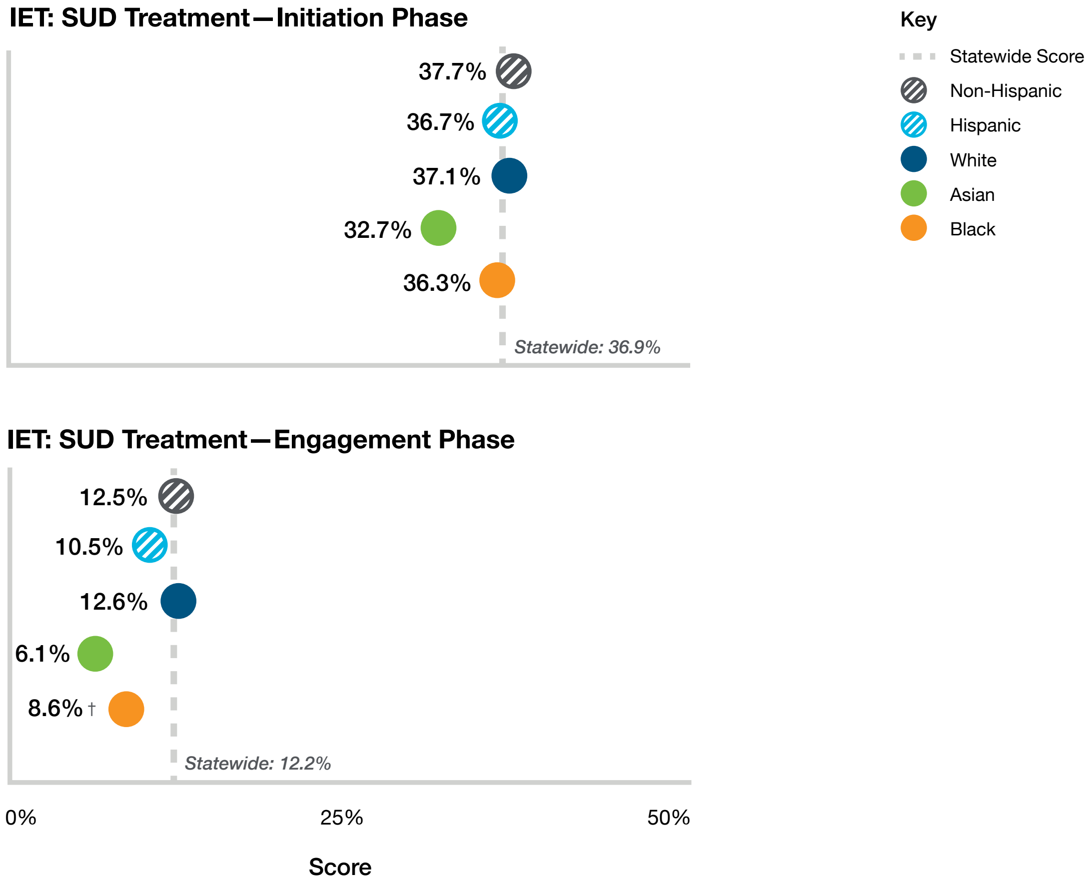
Source: Scores calculated by Massachusetts Health Quality Partners (MHQP). Measures drawn from the Healthcare Effectiveness Data and Information Set (HEDIS®) developed by the National Committee for Quality Assurance (NCQA).[12]

Select Clinical Quality Metrics by Race and Ethnicity

Behavioral Health Care Measures, 2023

Policymakers have identified integration of behavioral health into primary care as a crucial strategy for improving behavioral health care access and outcomes.[26] The Initiation and Engagement of Substance Use Disorder Treatment (IET) measure assesses support in the primary care setting in two phases: 1) initiation of substance use disorder (SUD) treatment, which is the percentage of new SUD episodes that result in an inpatient admission, outpatient visit, intensive outpatient encounter, partial hospitalization, telehealth visit, or medication treatment within 14 days of the diagnosis; and 2) engagement of SUD treatment, which is the percentage of new SUD episodes that have evidence of treatment (i.e., SUD visits or medication treatment events) within 34 days of initiation.[27]

The statewide score for engagement of SUD treatment (12.2%) is notably lower than the initiation phase (36.9%), consistent with national trends. Individuals who engage in early SUD treatment show decreased odds of negative outcomes, including mortality.[28,29] The difference between initiation and engagement may reflect access or coverage challenges that compound difficulties with continuing patient engagement in SUD treatment, but the measure may not capture instances where ongoing care was sought in specialized settings but the PCP was not informed. While these challenges with engagement exist overall, performance on this measure is significantly lower for Black patients compared with White patients (8.6% and 12.6%, respectively).



† Indicates statistically significant difference from the reference group (e.g., White or Non-Hispanic).

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Source: Scores calculated by Massachusetts Health Quality Partners (MHQP). Measures drawn from the Healthcare Effectiveness Data and Information Set (HEDIS®) developed by the National Committee for Quality Assurance (NCQA).[12]

SECTION 2:

Commercial Patient Experience Survey Results by Race and Ethnicity

Patient experience is a key indicator of care quality because understanding individuals' self-reported experiences of their care illuminates potential opportunities to improve care quality.[30] Substantial evidence supports the relationship between positive patient experience and improved health processes and outcomes, including lower utilization of unnecessary health care services, better patient adherence to medical advice, and improved performance on clinical quality process measures.[31,32] MHQP's survey provides insights into whether care is patient-centered and patients feel heard, respected, and supported in managing their health, including sufficient access to their primary care provider and whether the provider was aware of and discussed specialty care, medications, or recent tests.

Research indicates that racial and ethnic minorities in the United States often report worse patient experiences compared with White non-Hispanic residents, which is directly related to poorer health outcomes.[33] Racial and ethnic minority patients are more likely to report being treated with disrespect or being looked down upon in relationships with their providers, which may influence health care utilization and contribute to existing health disparities.[34,35] Therefore, collecting patient experience data is critical to understanding patient perspectives of their experiences with primary care providers in the Commonwealth to identify disparities and target quality improvement efforts.

Results from the Patient Experience Survey (PES) reflect a sample of members enrolled in a private commercial HMO, POS, or preferred provider organization (PPO) health plan product and are expressed as scores out of 100, with higher values indicating better performance. The composites represent the self-reported experiences of the adult or the parent/caregiver of a child who received care and who are commercially insured members. Scores are stratified by race and by ethnicity as part of MHQP's Measured Equity program, which seeks to capture a range of demographic and social determinants of health data from payers and providers.

Race and ethnicity were self-reported by survey respondents, and only race categories with sufficient sample size are included in this report (Asian, Black, and White). However, in the survey, participants were able to select additional race categories, as well as multiple options and non-response options; see the technical appendix for complete information about how respondents were asked about their race and ethnicity.

Descriptions of each of the PES composites in this report, survey questions, and information about how responses are converted to numeric scores can be found in the technical appendix. ■

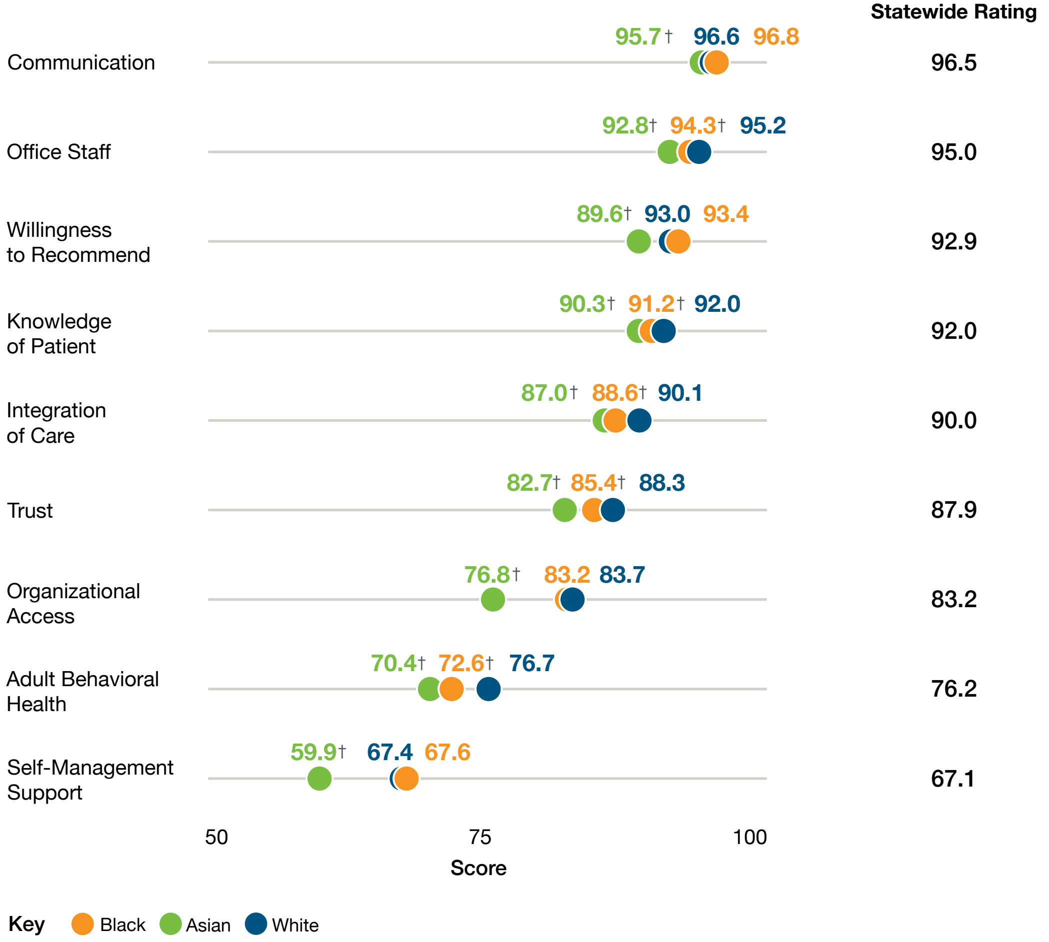
Commercial Patient Experience Survey Results by Race and Ethnicity

Adult Primary Care Patient Experience Survey Results by Race, 2023

While adult survey respondents of the 3 races included in this analysis (White, Asian, and Black) reported high satisfaction with their primary care providers in some key care domains such as communication and interactions with office staff, patient-reported experiences nevertheless varied by race in 2023. Even in high-scoring domains, scores for Asian patients were significantly lower than for White patients in all 9 survey domains, as were scores for Black patients in 5 of the 9 domains.

The greatest overall disparity captured in the adult survey was for the Self-Management Support composite, with a significant difference of 7.6 points between White and Asian patients. This composite evaluates whether the provider discussed specific health goals and challenges in managing their health. Patients with chronic illnesses such as asthma, cardiovascular disease, and diabetes must actively manage their health, and research indicates that patient perception of physical and mental exhaustion due to self-management is negatively associated with patient well-being and adherence.[36,37] Effective support could play a valuable role in helping patients manage their health outside the primary care provider's office.

For nearly all composites, the statewide rating is most closely aligned with the reference group rating (White patients), highlighting the importance of evaluating stratified results to identify populations whose experiences are not accurately reflected in the statewide score.



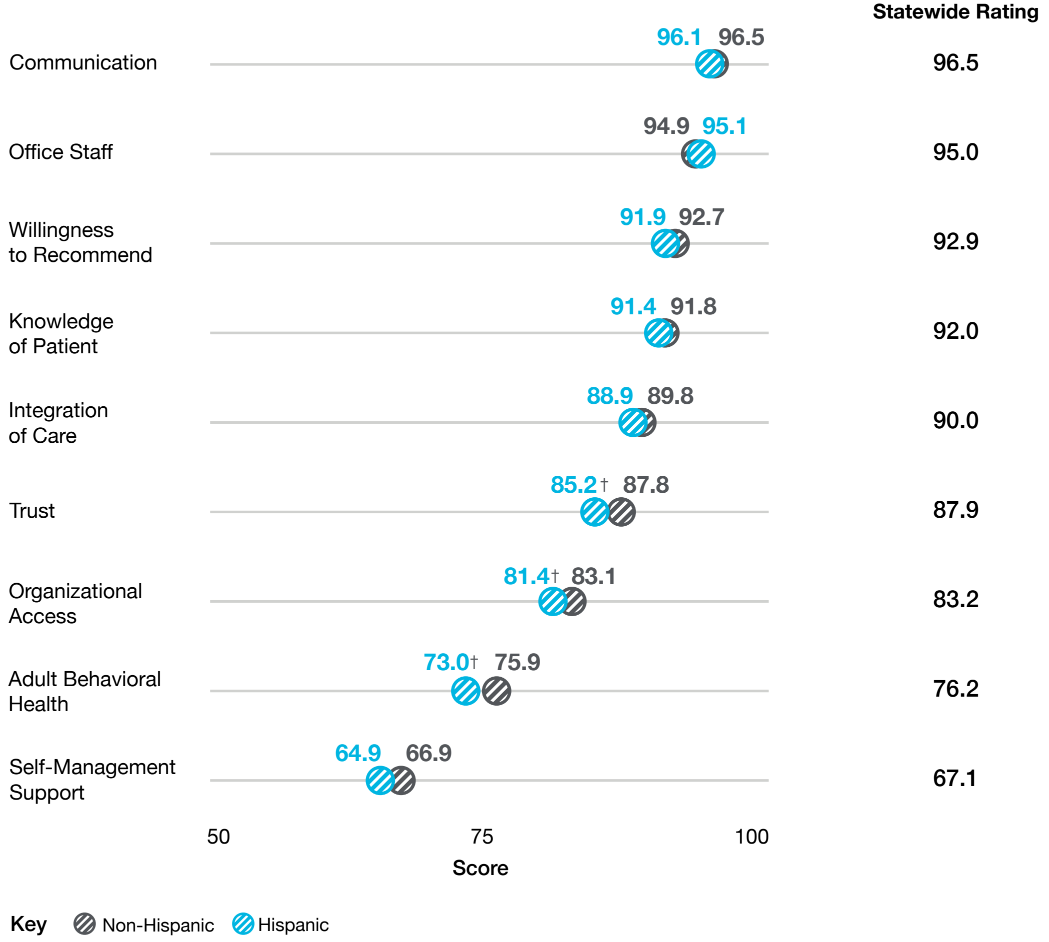
† Indicates statistically significant difference from the reference group (e.g., White or Non-Hispanic).

Notes: Data includes adult patients age 18 years and up. Survey conducted on sample of commercial health plan members.

Source: MHQP Patient Experience Survey (PES).

Adult Primary Care Patient Experience Survey Results by Ethnicity, 2023

Self-reported experiences were significantly lower for Hispanic patients than for non-Hispanic patients for 3 of the 9 composites: Trust, Organizational Access, and Adult Behavioral Health. These disparities were also observed in race-stratified results and may represent areas of care to prioritize improvement efforts.



† Indicates statistically significant difference from the reference group (e.g., White or Non-Hispanic).

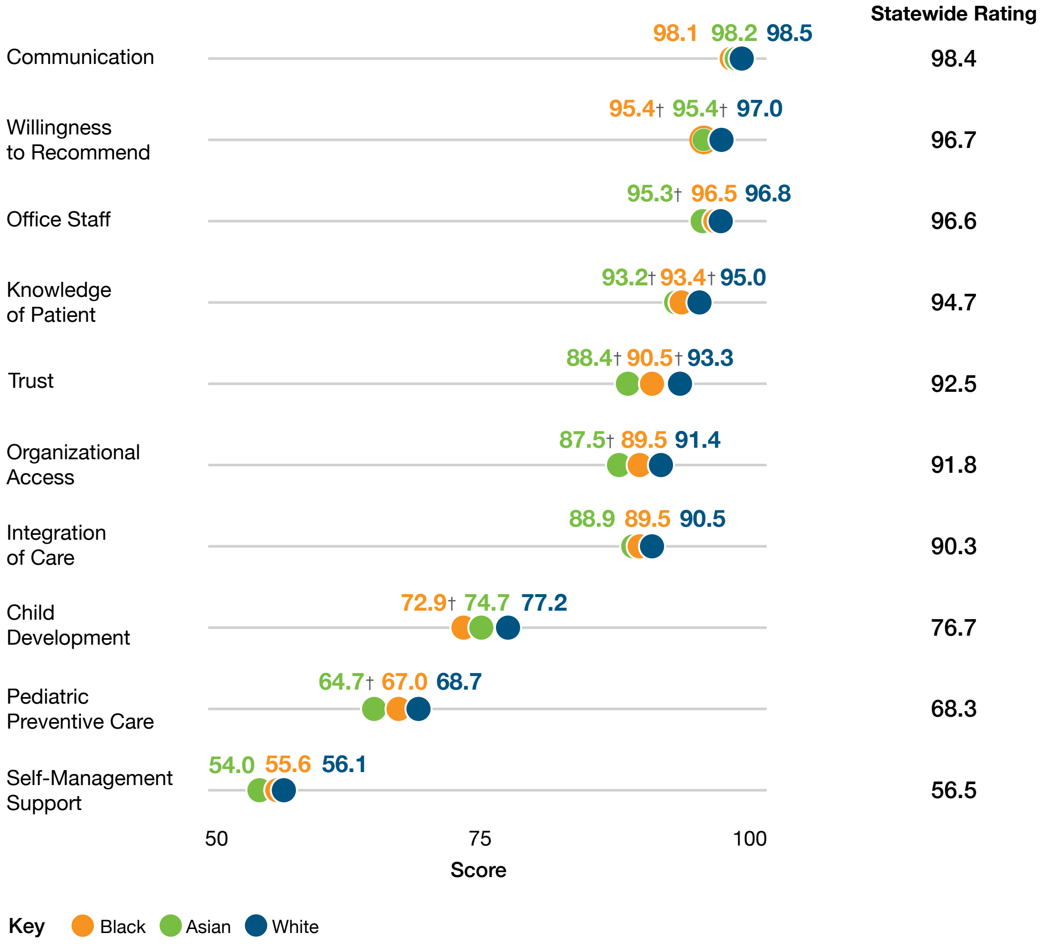
Notes: Data includes adult patients age 18 years and up. Survey conducted on sample of commercial health plan members.

Source: MHQP Patient Experience Survey (PES).

Pediatric Primary Care Patient Experience Survey Results by Race, 2023

The pediatric patient experience survey is generally similar to the adult survey and is completed by caregivers who took a child to see a primary care provider. It includes 2 pediatric-specific composites: 1) whether the provider talked to the caregiver about the child's development, including age-appropriate learning, behaviors, and body growth (Child Development); and 2) whether the provider gave advice about safe and healthy preventive care, including factors such as screen time, nutrition, exercise, and social development (Pediatric Preventive Care).

While less variable than adult results, pediatric scores still showed racial disparities. Asian patients rated pediatric primary care experiences significantly lower than White patients for 6 of the 10 survey composites, including a 4.9-point difference for Trust. Black patients rated their experiences significantly lower than White patients for 4 of the 6 survey composites, including a 4.3-point difference for Child Development.



† Indicates statistically significant difference from the reference group (e.g., White or Non-Hispanic).

Notes: Data includes pediatric patients ages 0-17 years; parent or caregiver was surveyed on patient's behalf. Survey conducted on sample of commercial health plan members.

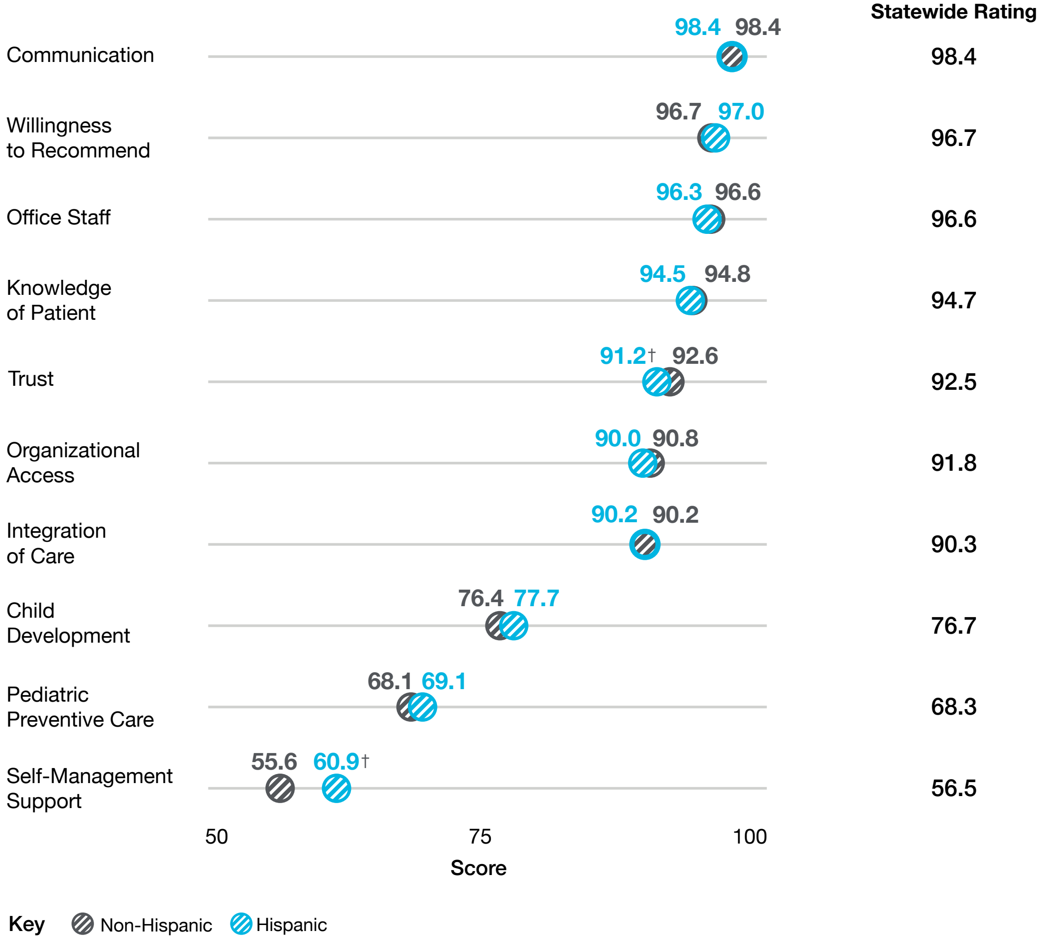
Source: MHQP Patient Experience Survey (PES).

Commercial Patient Experience Survey Results by Race and Ethnicity

Pediatric Primary Care Patient Experience Survey Results by Ethnicity, 2023

Pediatric patient experience scores were significantly different when stratified by ethnicity for 2 of the survey composites: Trust, which had significant differences across all stratifications included in this report, and Self-Management Support, which relates to whether providers talked with respondents and their family about goals for good health and ways to meet those goals.

The Self-Management Support composite is one of the few instances where Hispanic patients reported better experiences than non-Hispanic patients, in this case by a difference of 5.3 points (60.9 and 55.6, respectively).



† Indicates statistically significant difference from the reference group (e.g., White or Non-Hispanic).

Notes: Data includes pediatric patients ages 0-17 years; parent or caregiver was surveyed on patient's behalf. Survey conducted on sample of commercial health plan members.

Source: MHQP Patient Experience Survey (PES).

SECTION 3:

Hospital Adherence to Leapfrog Health Equity Standard

The Leapfrog Group is a national nonprofit watchdog organization that sets standards and collects voluntary data from hospitals. Each year, it fields the Leapfrog Hospital Survey to measure safety, quality, and efficiency based on national performance measures.

New to the 2024 survey, which reflects hospital performance during CY 2023, the Leapfrog Group included a Health Care Equity Standard and collected information from hospitals about patient demographic data collection and quality measure stratification practices. Recognizing that data collection is a foundational step to understanding and ultimately addressing a problem, the new standard aims to encourage hospitals to prioritize collection, reporting, and analysis of demographic data to monitor, and ultimately improve, disparities.[38]

Collecting patient-reported demographic information in a sensitive and respectful way is an important step providers can take to identify and address disparities in the populations they serve. With this information, providers can implement targeted approaches to reduce gaps in patient health outcomes and negative experiences with providers, but achieving this goal requires significant investment in appropriate demographic data collection and evaluation.

Hospitals met the 2024 Leapfrog Group standard for health equity by taking the following steps:

1. Collect patient demographic data
2. Train staff to collect demographic data directly from patients
3. Stratify quality measure(s) by demographic data;
4. Create an action plan to address any disparities found (see the databook for results);
5. Share and report on efforts to identify and reduce health care disparities (see the databook for results).

For detailed information on the Leapfrog Group's survey questions, methodology, and descriptions of each health equity step, see the technical appendix. ■

Hospital Adherence to Leapfrog Health Equity Standard

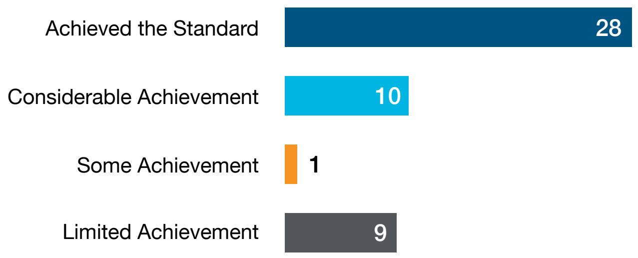
Leapfrog Hospital Survey Health Care Equity Standard, 2023

In 2023, 28 of the 48 reporting hospitals fully achieved the Leapfrog standard for health equity. “Considerable Achievement,” Some Achievement,” and “Limited Achievement” refer to incomplete implementation of the Leapfrog Group recommendations, with Considerable Achievement indicating implementation of the majority and Limited Achievement indicating greater deviation.

All reporting hospitals indicated that they collect patients’ self-reported race, ethnicity, and spoken language data, and 45 of the hospitals indicated that they collect patients’ preferred written language. A majority of the hospitals (40) indicated that they provide staff training to collect patient demographic information during on-boarding and annually thereafter. All but one hospital indicated that they stratify at least one quality measure to identify health care disparities. Among the 48 hospitals that reported collection of demographic data, 42 of them found health care disparities after stratifying at least one quality measure by demographic elements. By collecting data and identifying disparities, hospitals can begin addressing gaps in care with action plans that target the populations and care domains to effectively reduce inequities.

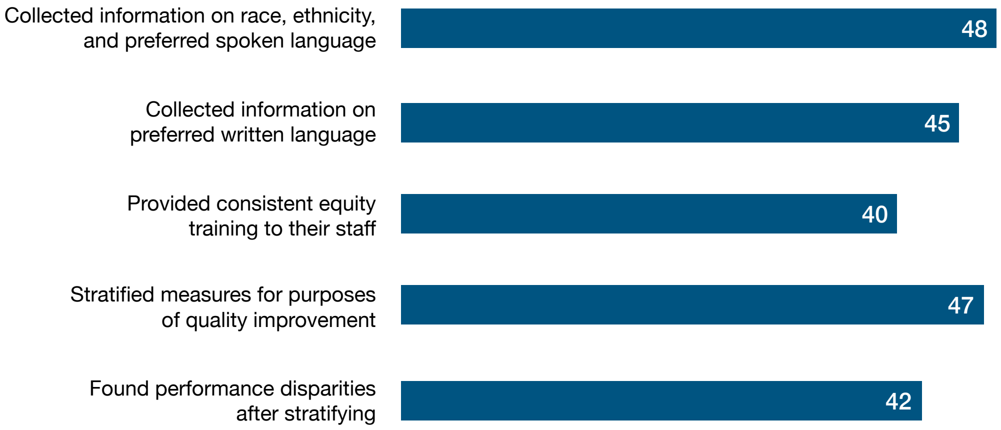
Overall Health Equity Score

Out of 48 Reporting Hospitals



Components of Hospitals’ Health Equity Score

Out of 48 Reporting Hospitals



Notes: Data includes voluntary self-reported survey responses from Massachusetts acute hospitals. See the databook for participating hospital-specific results.

Source: Leapfrog Hospital Survey. Based on voluntary hospital reporting; does not include data from all Massachusetts hospitals.

Notes

1. According to CHIA's Enrollment Trends reporting, private commercial insurance (excluding members in subsidized and unsubsidized Connector plans) accounted for 54.0% of Massachusetts residents in December 2023. See the technical appendix for details about participating payers and health plan products.
2. NCQA, Health Equity and Social Determinants of Health in HEDIS: Data for Measurement (Washington, DC, June 2021), https://wpcdn.ncqa.org/www-prod/wp-content/uploads/2021/06/20210622_NCQA_Health_Equity_Social_Determinants_of_Health_in_HEDIS.pdf.
3. Hilary Daniel, Sue S. Bornstein, and Gregory C. Kane, "Addressing Social Determinants to Improve Patient Care and Promote Health Equity: An American College of Physicians Position Paper," *Annals of Internal Medicine* 168, no. 8 (2018), https://doi.org/10.7326/M17-2441.
4. Ibid.
5. Blue Cross Blue Shield of Massachusetts Foundation, *The Time is Now: The $5.9 Billion Case for Massachusetts Health Equity Reform* (Boston, June 2023), https://www.bluecrossmafoundation.org/publication/time-now-59-billion-case-massachusetts-health-equity-reform.
6. The Commonwealth Fund, "2025 Scorecard on State Health System Performance," accessed August 20, 2025, https://www.commonwealthfund.org/publications/scorecard/2025/jun/2025-scorecard-state-health-system-performance.
7. Massachusetts Attorney General, *Building Toward Racial Justice and Equity in Health: A Call to Action* (Boston, November 2020), https://www.mass.gov/info-details/building-toward-racial-justice-and-equity-in-health-a-call-to-action.
8. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on Community-Based Solutions to Promote Health Equity in the United States; Baciu A, Negussie Y, Geller A, et al., editors. Communities in Action: Pathways to Health Equity. Washington (DC): National Academies Press (US); 2017 Jan 11. 1, The Need to Promote Health Equity. Available from: https://www.ncbi.nlm.nih.gov/books/NBK425853/.
9. The Aligned Measure Set is a set of quality measures for voluntary adoption by private and public payers and providers, specifically for use in global budget-based risk contracts, which aims to reduce administrative burden and focus quality improvement efforts on meaningful and high-priority measures. The measure set was developed and is updated annually by the Quality Measure Alignment Taskforce.
10. John M. Carethers, "Racial and Ethnic Disparities in Colorectal Cancer Incidence and Mortality," *Advances in Cancer Research* 151 (2021), 197–229, https://pmc.ncbi.nlm.nih.gov/articles/PMC9069392/.
11. Sandra E. Tomlinson-Hansen, Deepa P. Budh, and Amit Sapra, "Breast Cancer Screening in the Average-Risk Patient," *StatPearls Publishing* (2024), https://www.ncbi.nlm.nih.gov/books/NBK556050/.
12. Population sampled from commercially insured enrollees in HMO and POS products (excluding plans sold on Massachusetts Health Connector) in participating health plans (Mass General Brigham Health Plan [MGBHP], Blue Cross Blue Shield of Massachusetts [BCBSMA], Point32Health [Harvard Pilgrim Health Care (HPHC) and Tufts Health Plan (THP)], and Health New England [HNE]). HEDIS is a registered trademark of NCQA.

Notes (continued)

13. The American College of Obstetricians and Gynecologists, “Optimizing Postpartum Care,” May 2018, https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care.

14. What is prenatal care and why is it important? | NICHD - Eunice Kennedy Shriver National Institute of Child Health and Human Development, https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care.

15. Hagan, J.F., J.S. Shaw, and P.M. Duncan, *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents* (American Academy of Pediatrics, 2017).

16. NCQA, “Immunizations for Adolescents (IMA),” accessed August 20, 2025, https://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality-report/immunizations-for-adolescents-ima/.

17. Optimizing timing of adolescent vaccines: Impact of initiating HPV vaccination before Tdap or meningococcal vaccination on timely completion of the HPV vaccine series - PMC, https://pmc.ncbi.nlm.nih.gov/articles/PMC10026864/.

18. U.S. Centers for Disease Control and Prevention, “MMWR: Vaccination Coverage Among Adolescents Aged 13-17 Years —National Immunization Survey-Teen, United States, 2022”, accessed August 20, 2025, https://www.cdc.gov/mmwr/volumes/72/wr/mm7234a3.htm.

19. Vaccine-preventable diseases | Mass.gov, https://www.mass.gov/info-details/vaccine-preventable-diseases.

20. U.S. Centers for Disease Control and Prevention, “About Chronic Diseases,” accessed August 20, 2025, https://www.cdc.gov/chronic-disease/about/index.html.

21. Grant Martsolf, Do Kyung Kim, Lynette Fair, Jianfang Liu, Haomiao Jia, Kenrick Cato, and Lusine Poghosyan, “Racial Disparities in Chronic Conditions Outcomes in Primary Care Settings: Between- Versus Within-Practice Differences,” *Inquiry* (2024): https://pmc.ncbi.nlm.nih.gov/articles/PMC11456209/.

22. Cynthia D. Griffin, “A Primary Care Nursing Perspective on Chronic Disease Prevention and Management,” *Delaware Journal of Public Health* (2017): https://pmc.ncbi.nlm.nih.gov/articles/PMC8352460/.

23. Johns Hopkins Health Plans, “AMR-Asthma Medication Ratio,” accessed August 20, 2025, https://www.hopkinsmedicine.org/johns-hopkins-health-plans/providers-physicians/health-care-performance-measures/hedis/asthma-medication-ratio.

24. The Hemoglobin A1c (HbA1c) metric is the average blood sugar levels over a 90-day period, expressed as a percentage.

25. American Heart Association, “Diabetes Complications and Risks,” accessed August 20, 2025, https://www.heart.org/en/health-topics/diabetes/diabetes-complications-and-risks.

26. Commonwealth Fund, “Integrating Primary Care and Behavioral Health to Address the Behavioral Health Crisis,” accessed August 20, 2025, https://www.commonwealthfund.org/publications/explainer/2022/sep/integrating-primary-care-behavioral-health-address-crisis.

27. NCQA, “HEDIS Measures and Technical Resources: Measurement Year 2023,” accessed August 20, 2025, https://www.ncqa.org/hedis/measures/.

28. Susan M Paddock, Kimberly A Hepner, Teresa Hudson, Songthip Ounpraseuth, Amy M Schrader, Greer Sullivan, and Katherine E Watkins, “Association Between Process-Based Quality Indicators and Mortality for Patients With Substance Use Disorders,” *Journal of Studies on Alcohol and Drugs* 78 no. 4 (2017): 588-596, https://pubmed.ncbi.nlm.nih.gov/28728641/.

29. Katherine E Watkins, Susan M Paddock, Teresa J Hudson, Songthip Ounpraseuth, Amy M Schrader, Kimberly A Hepner, and Greer Sullivan, “Association Between Quality Measures and Mortality in Individuals With Co-Occurring Mental Health and Substance Use Disorders,” *Journal of Substance Abuse Treatment* 69 (2016): 1-8, https://pubmed.ncbi.nlm.nih.gov/27568504/.

30. Carla M Bastemeijer, Hileen Boosman, Hans van Ewijk, Lisanne M Verweij, Lennard Voogt, and Jan A Hazelzet, “Patient Experiences: A Systematic Review of Quality Improvement Interventions in a Hospital Setting,” *Patient Related Outcome Measures* 10 (2019): 157-169, https://pmc.ncbi.nlm.nih.gov/articles/PMC6535098/.

31. Agency for Healthcare Research and Quality, “What is Patient Experience?” accessed August 20, 2025, https://www.ahrq.gov/cahps/about-cahps/patient-experience/index.html.

Notes (continued)

32. Rebecca Anhang Price, Marc N Elliott, Alan M Zaslavsky, Ron D Hays, William G Lehrman, Lise Rybowski, Susan Edgman-Levitan, and Paul D Cleary, "Examining the Role of Patient Experience Surveys in Measuring Health Care Quality," *Medical Care Research and Review* 71, no. 5 (2014): 511-554, https://pmc.ncbi.nlm.nih.gov/articles/PMC4349195/.

33. Yulin Hswen, Jared B Hawkins, Kara Sewalk, Gaurav Tuli, David R Williams, K Viswanath, S V Subramanian, and John S Brownstein, "Racial and Ethnic Disparities in Patient Experiences in the United States: 4-Year Content Analysis of Twitter," *Journal of Medical Internet Research* 22, no. 9 (2020): https://pmc.ncbi.nlm.nih.gov/articles/PMC7474415/.

34. Leapfrog Group, 2025 *Health Care Equity Fact Sheet* (Washington, DC, April 2025), https://ratings.leapfroggroup.org/sites/default/files/2025-04/2025%20Health%20Care%20Equity%20Fact%20Sheet.pdf.

35. Janice Blanchard and Nicole Lurie, "R-E-S-P-E-C-T: Patient Reports of Disrespect in the Health Care Setting and Its Impact on Care," *Journal of Family Practice* 53 No. 9 (2004): 721-730, https://www.mdedge.com/familymedicine/article/65550/r-e-s-p-e-c-t-patient-reports-disrespect-health-care-setting-and-its-impact.

36. Agency for Healthcare Research and Quality, Final Contract Report: *Patient Self-Management Support Programs: An Evaluation* (Rockville, November 2007), https://www.ahrq.gov/sites/default/files/publications/files/ptmgmt.pdf.

37. Elizabeth A Rogers, Kathleen J Yost, Jordan K Rosedahl, Mark Linzer, Deborah H Boehm, Azra Thakur, Sara Poplau, Roger T Anderson, and David T Eton, "Validating the Patient Experience with Treatment and Self-Management (PETS), a Patient-Reported Measure of Treatment Burden, in People with Diabetes," *Patient Related Outcome Measures* 8 (2017): 143-156, https://www.dovepress.com/article/download/35543.

38. Leapfrog Group, 2025 *Health Care Equity Fact Sheet* (Washington, DC, April 2025), https://ratings.leapfroggroup.org/sites/default/files/2025-04/2025%20Health%20Care%20Equity%20Fact%20Sheet.pdf.

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