



Meeting of the Maternal Health Access and Birthing Patient Safety Task Force

October 8, 2025



MASSACHUSETTS
HEALTH POLICY COMMISSION



Call to Order



UP NEXT: Approval of Minutes: June 24, 2025 (VOTE)

Maternal Health Task Force: Report Update

- HPC Staff Presentation: Preliminary Research Findings from Task Force Report (Chapters 1-3)

Open Discussion

Next Steps and Adjourn

VOTE

Approval of Minutes from the June 24, 2025, Maternal Health Access and Birthing Patient Safety Task Force Meeting

MOTION

That the Maternal Health Access and Birthing Patient Safety Task Force hereby approves the minutes of the meeting held on June 24, 2025, as presented.

Task Force Members



Task Force Co-Chair David Seltz, Executive Director, Massachusetts Health Policy Commission

Task Force Co-Chair Cristina Alonso, DrPH, Director of Pregnancy, Infancy and Early Childhood, Bureau of Family Health and Nutrition, Massachusetts Department of Public Health

Nashira Baril, MPH, Executive Director and Founder, Neighborhood Birth Center

Amy Gagnon, RN, Massachusetts Nurses Association

Godwin Osei-Poku, MD, DrPH, Associate Research Director, Betsy Lehman Center for Patient Safety

Christin Price, MD, Administrative Director, Perinatal Neonatal Quality Improvement Network of Massachusetts

Sara Shields, MD, Chair, Worcester Committee on Maternal and Perinatal Welfare, Massachusetts Medical Society

Leigh Simons, MPH, Senior Director, Healthcare Policy, Massachusetts Health and Hospital Association

Huong Trieu, PhD, Senior Director of Research, Center for Health Information and Analysis

Task Force Legislative Mandate

Pursuant to **Chapter 186 of the Acts of 2024**, the Maternal Health Access and Birthing Patient Safety Task Force shall study:

- Past **essential services closures** for inpatient maternity units and acute-level birthing centers and closures of community-based, office-based, and preventative maternal health care;
- Patient **quality and safety** considerations of essential service closures of maternal care units; and
- **Demographic information** on patient populations whose access has been most affected by past closures of or current limitations on the availability of maternal care services.

The Task Force is charged with:

- Studying the **current availability of and access to maternal health services** and maternal health care across regions and patient populations, including the essential service closure process and adequacy of the maternal health care workforce;
- Identifying methods to increase the financial investment in and patient access to **maternal health care across Massachusetts** and ensuring equitable access for the most vulnerable birthing patient populations; and
- Issuing a report on the Task Force's **findings and policy recommendations.**

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HPC Office of Health Resource Planning



- Chapter 343 of the Acts of 2024 establishes a new **Office of Health Resource Planning (OHRP)** within the HPC.
- OHRP's key responsibilities and authorities include:
 - Developing a **State Health Resource Plan**.
 - Conducting **focused assessments of supply, distribution, and capacity** in relation to projected need of a specific health care service and making recommendations to address the drivers of disparities and misalignment of need.
 - Conducting at least 1 **annual public hearing** seeking input on the development of the plan and any focused assessment under development.
- OHRP will also manage the **Massachusetts Registration of Provider Organizations (MA-RPO) Program**, a data collection and transparency effort that collects data on the largest provider organizations in the Commonwealth.

0 Introduction

1 Overview of Massachusetts Births and Birthing People

2 Massachusetts Maternity Care Supply and Capacity

3 Hospital Maternity Unit Closures: 2013-2024

4 Birth Center and Office-Based Care Closures

5 Policy Recommendations

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Qualitative Approach



- **Semi-structured interviews** with subject matter experts and key stakeholders. Questions probe on:
 - **Opportunities and challenges** of providing maternity care in hospital and birth centers;
 - **Impacts** of closures on hospitals, other providers, and patients; and
 - Policy recommendations and strategies to **mitigate negative impacts** of closures and **strengthen the maternity care system**.

- **Interviewees:**
 - Subject matter experts (~4)
 - Hospital leaders, e.g., CMO, COO, CFO (10-12)
 - Hospital frontline staff, e.g., OBs, midwives, nurses (10-12)
 - Birth center administrative leaders and staff (8-10)
 - Community-based providers, e.g., CHCs, PCPs, EMS (6-8)
 - Social service organizations, e.g., WIC, MA Home Visiting Initiative program sites (6-8)

- Aggregate and synthesize data to identify **key themes and findings** to complement quantitative research

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▪ **UP NEXT: HPC Staff Presentation: Preliminary Findings from Task Force Report (Chapters 1-3)**

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- Chapter 2: Massachusetts Maternity Care Supply and Capacity
- Chapter 3: Hospital Maternity Unit Closures: 2013-2024

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– **UP NEXT: Chapter 1: Overview of Massachusetts Births and Birthing People**

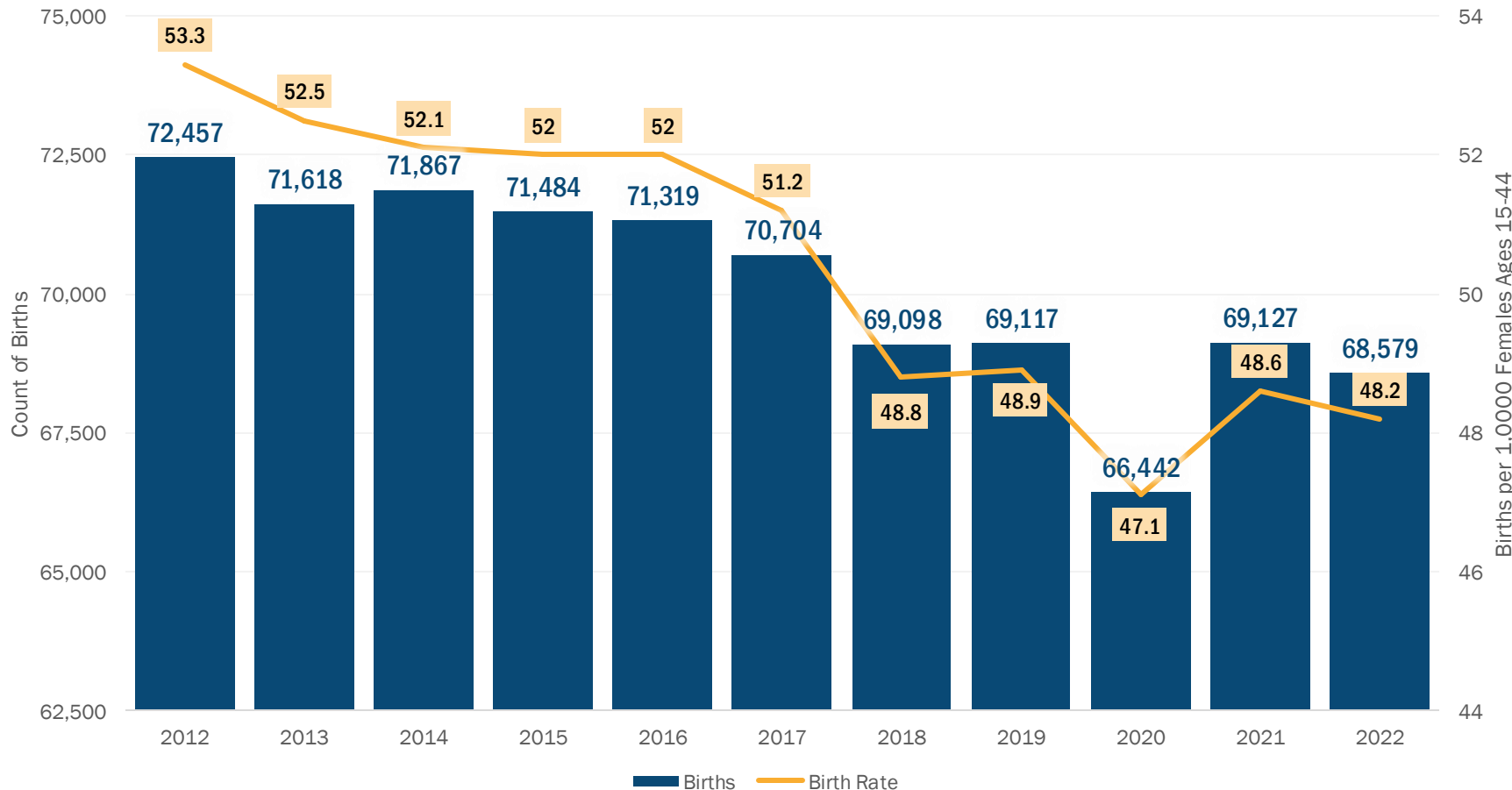
- Chapter 2: Massachusetts Maternity Care Supply and Capacity
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Open Discussion

Next Steps and Adjourn

Births in Massachusetts

Count of births to MA residents and rate of births to MA residents per 1,000 females ages 15-44, 2012-2022



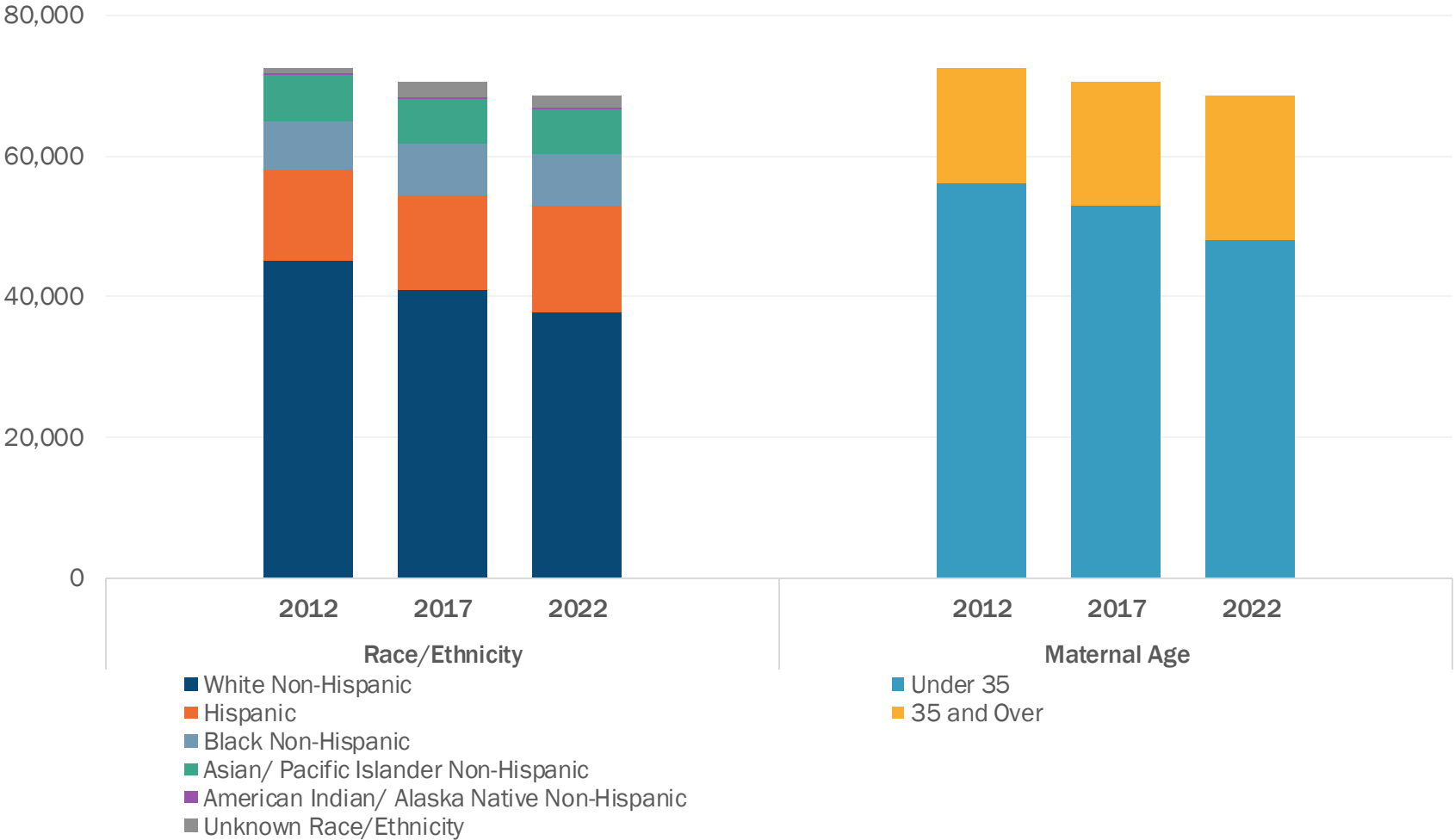
Notes: Rate of births per 1,000 females ages 15-44 is also known as the General Fertility Rate. See [1].
 Exhibit Sources: Mass. Department of Public Health. Massachusetts Births 2022. Nov. 2024. Available at: <https://www.mass.gov/lists/annual-massachusetts-birth-reports>; Mass. Department of Public Health Birth Certificate Data, 2013-2023.
 Text Sources: 1. Driscoll, A. K., & Hamilton, B. E. Effects of Age-Specific Fertility Trends on Overall Fertility Trends: United States, 1990–2023. National Vital Statistics System. 2025. Available at: <https://stacks.cdc.gov/view/cdc/174576>; 2. Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database. Data are from the Natality Records 2007-2023. Available at: <http://wonder.cdc.gov/>.

- Birth rates have been **declining across the U.S. for decades**, from 70.9 births per 1,000 females ages 15-44 in 1990 to 56.0 in 2022.¹
- Massachusetts’ births and birth rate have also been declining. The state birth rate was 48.2 in 2022, **below the national average**.
- In 2022, ~99% of births to Massachusetts residents **occurred in a hospital**.²

Birthing Person Demographics



Count of births to Massachusetts residents by race/ethnicity and maternal age, 2012-2022



- The share of births to **birthing people of color** and **birthing people over age 35** increased from 2012 to 2022.
- Statewide maternity care **payer mix remained steady** between 2013 and 2023, with about 60% of birthing patients enrolled in commercial insurance and about 35% of birthing patients enrolled in Medicaid.¹

Exhibit Sources: Mass. Department of Public Health. Massachusetts Births 2022. Nov. 2024. Available at: <https://www.mass.gov/lists/annual-massachusetts-birth-reports>.
 Text Sources: 1. HPC analysis of Mass. Department of Public Health Birth Certificate Data, 2013-2023.

Disparities in Massachusetts Maternal Health Outcomes



Performance on select maternal health outcomes measures, US and Massachusetts, by demographic group

Red highlight indicates worse comparative performance; green highlighting indicates better comparative performance. MA performance is compared to US. Black non-Hispanic and Hispanic performance is compared to White non-Hispanic performance. Publicly insured performance is compared to privately insured.

Maternal and Child Health Measure	US Rate	MA Rate	Massachusetts Data by Race and Ethnicity			Massachusetts Data by Insurance Type	
			White non-Hispanic	Black non-Hispanic	Hispanic	Privately Insured	Publicly Insured
Prenatal Care Adequacy, 2022	74.9% ¹	78.8% ¹	82.0% ²	66.6% ²	69.2% ²	82.6% ²	69.0% ²
C-sections, 2024	32.4% ³	34.0% ³	32.9% ⁴	39.1% ⁴	34.6% ⁴	33.5% ⁴	35.2% ⁴
Low Birthweight Births, 2022	8.6% ¹	7.8% ¹	6.7% ²	11.9% ²	8.2% ²	6.9% ²	8.8% ²
Preterm Births, 2023	10.4% ¹	9.1% ¹	8.0% ⁴	11.5% ⁴	10.2% ⁴	8.3% ⁴	9.9% ⁴
Severe Maternal Morbidity per 10K Deliveries, 2022	93.1 ⁵	108.3 ⁵	83.9 ⁴	180.1 ⁴	126.4 ⁴	95.5 ⁴	121.6 ⁴

Notes: Data presented for latest years available. For Prenatal Care Adequacy and Low Birthweight Births, Publicly Insured includes Medicaid and other government payers. For C-sections, Preterm Births, and SMM, Publicly Insured includes Medicaid, Medicare, other government payers, and Self Pay (~0.5% of all discharges). Data within panels (MA vs. US; MA data by race and ethnicity; MA data by insurance type) are from the same source, but data sources vary across panels. The HPC recommends within panel comparisons for this reason.

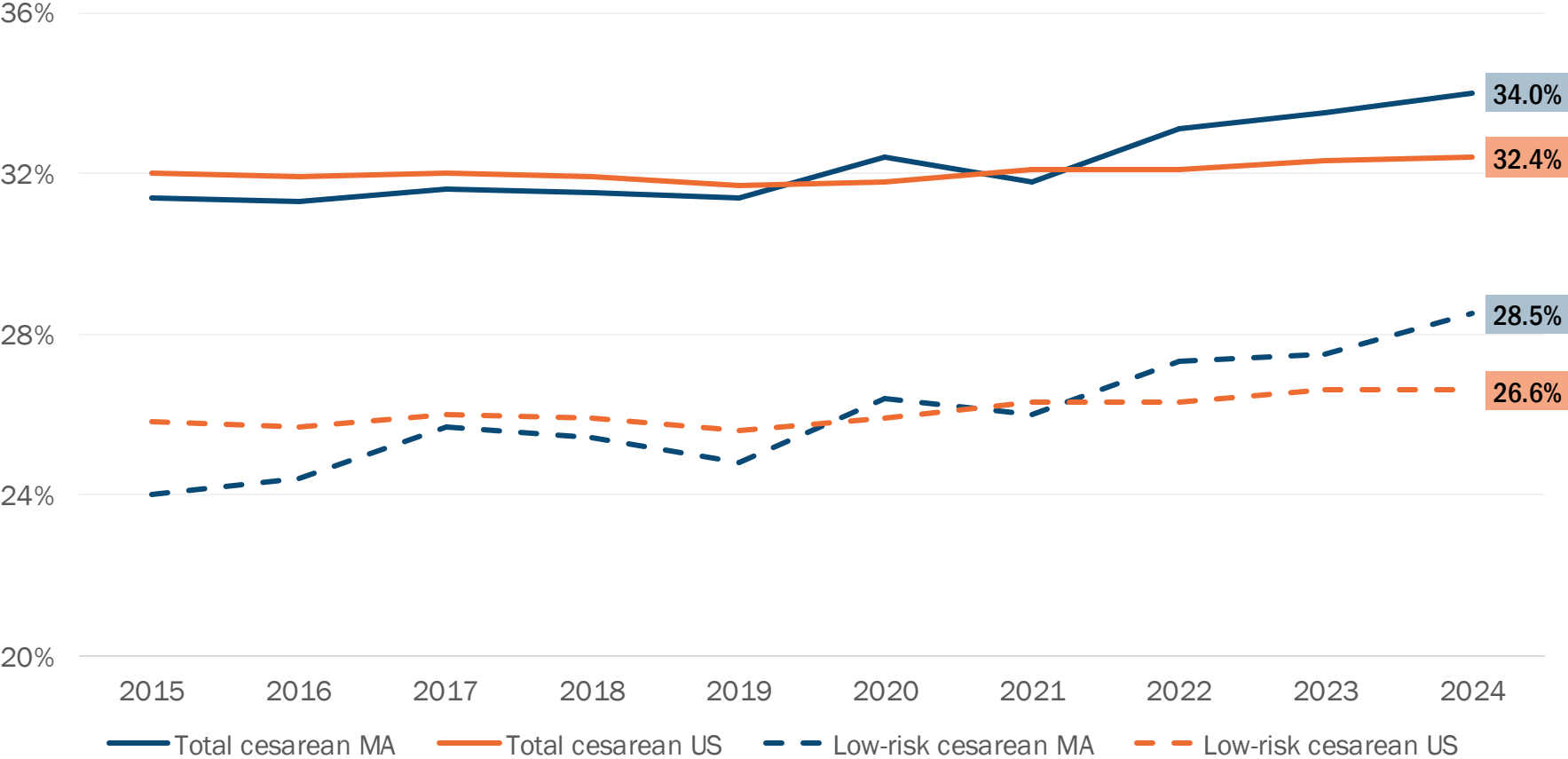
Exhibit Sources: 1. March of Dimes. National Center for Health Statistics, final natality data. Retrieved October 1, 2025. Available at: www.marchofdimes.org/peristats; 2. Mass. Department of Public Health. Birth Outcomes Data of Massachusetts Residents. Published April 2024. Available at: <https://www.mass.gov/info-details/birth-outcomes-data-of-massachusetts-residents>; 3. US Department of Health and Human Services, National Vital Statistics System Rapid Release Tables, 2017-2025; 4. HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2024; 5. Healthcare Cost and Utilization Project. Agency for Healthcare Research and Quality. HCUP Fast Stats, Severe Maternal Morbidity Among In-Hospital Deliveries. Updated July 2025. Available at: <http://datatools.ahrq.gov/hcup-fast-stats>; 6. March of Dimes. National Center for Health Statistics, period linked birth/infant death data. Retrieved September 4, 2025. Available at: www.marchofdimes.org/peristats; 7. Mass. Department of Public Health. 2020-2021 Report on Maternal Mortality in Massachusetts. Retrieved September 4, 2025. Available at: <https://www.mass.gov/doc/mmmrc-legislative-report-2020-2021-pdf/download>.

- Black non-Hispanic, Hispanic, and publicly insured individuals in Massachusetts experience **worse outcomes** on all five maternal and child health outcomes measures we reviewed.
- Black non-Hispanic individuals also experience higher **infant and maternal mortality rates**.^{6,7}
- In many cases, these **disparities appear to be worsening**.

In Massachusetts and nationwide, C-section rates are higher than recommended targets and rising.



Percent of C-section births, total and low-risk, MA vs US, 2015-2024



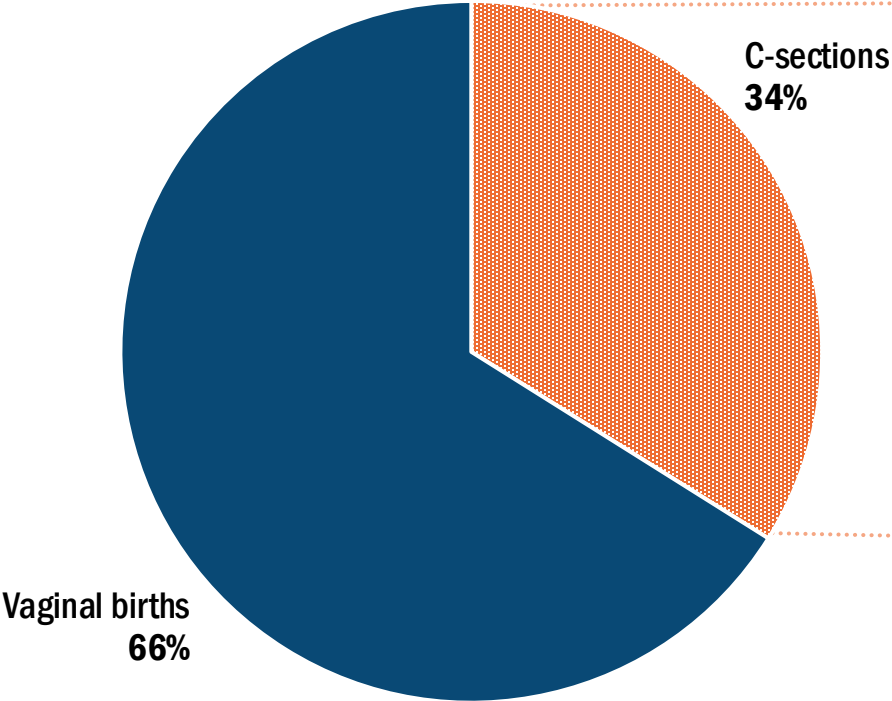
- Researchers have estimated that the population **C-section rate should be between 15% and 19% of all births** to optimize the health of both the birthing person and the newborn.¹
- **Many factors during pregnancy might indicate the need for a C-section, some of which have strong clinical consensus** (such as a breech-position baby) **and others that exist in a grey area** (such as an abnormal fetal heart rate).²

Notes: Low-risk cesarean is defined as singleton, term (37 or more weeks of gestation based on obstetric estimate), vertex (not breech) cesarean deliveries to women having a first birth per 100 women delivering singleton, term, vertex first births. Also referred to as nulliparous, term, singleton, vertex (NTSV) births.
 Sources: US Department of Health and Human Services, National Vital Statistics System Rapid Release Tables, 2017-2025
 1. Montoya-Williams D, et al. "What are optimal cesarean section rates in the US and how do we get there? A review of evidence-based recommendations and interventions." Journal of Women's Health 26.12 (2017): 1285-1291; 2. The American College of Obstetricians and Gynecologists. Cesarean Birth Frequently Asked Questions. 2022.

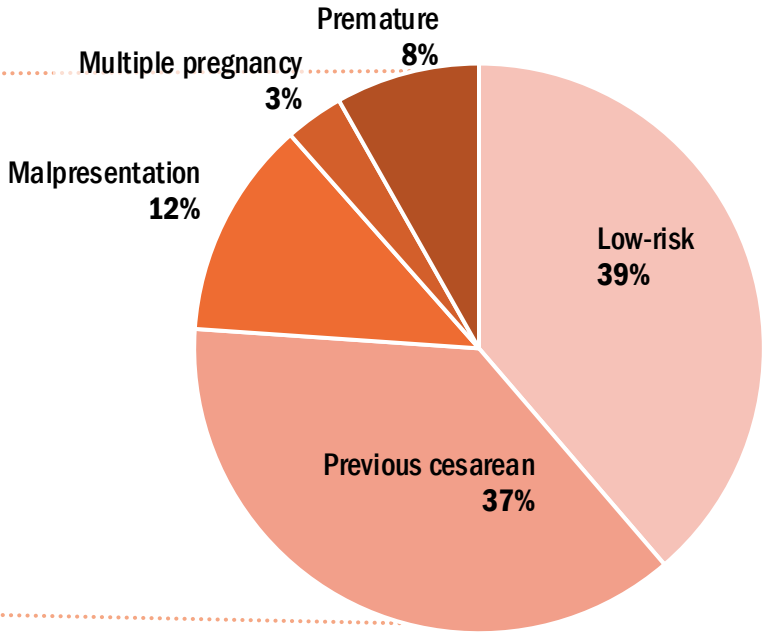
Many people who have C-sections in Massachusetts do not experience risk factors that have a strong clinical consensus for delivery via C-section: In 2024 about 40 percent of C-sections were low-risk pregnancies.



Total deliveries in Massachusetts, 2024



C-sections in Massachusetts by obstetric category, 2024



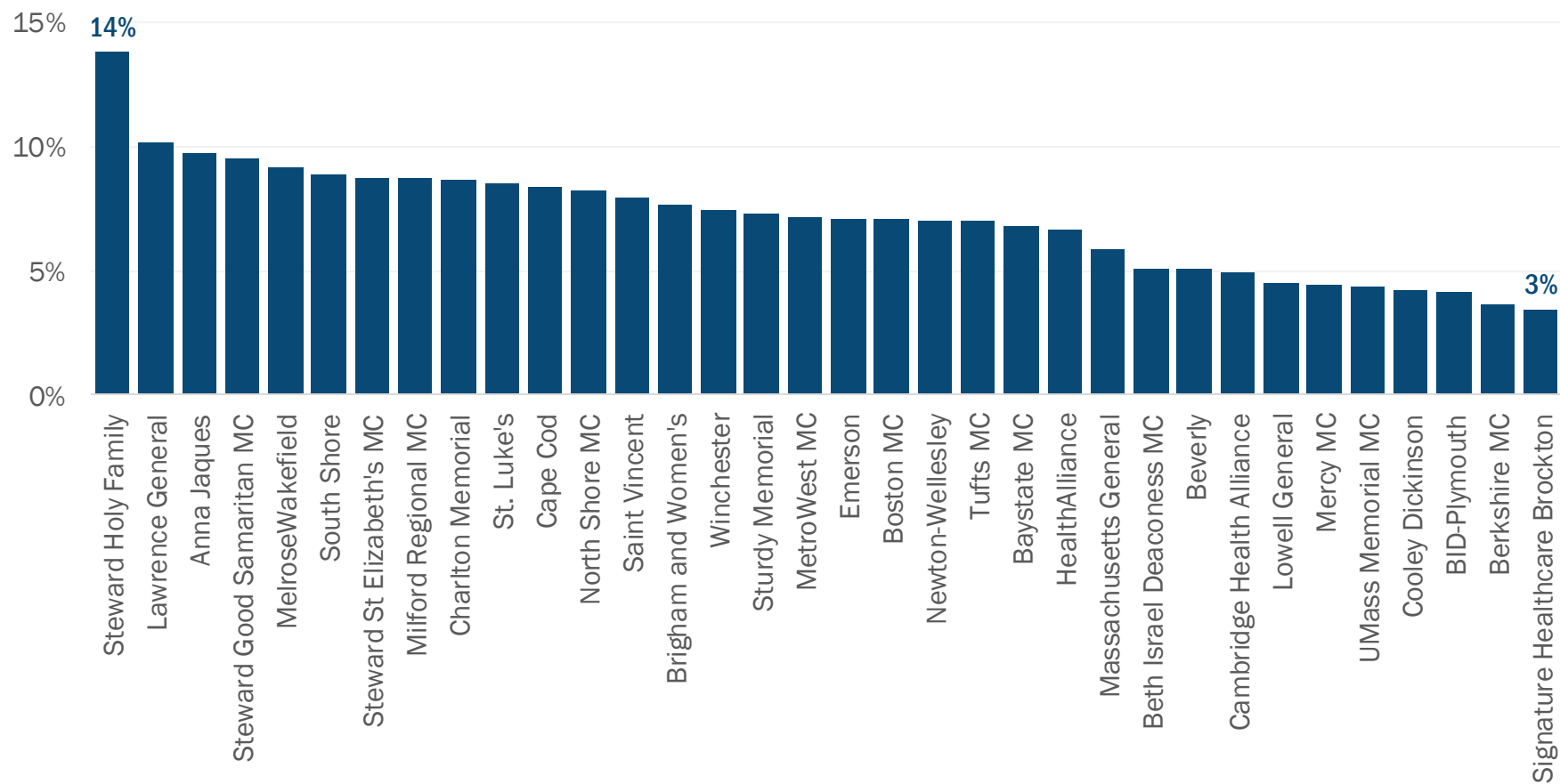
Notes: In 2021, about 86% of those who had a previous cesarean delivery had a repeat C-section for a subsequent birth. Obstetric categories are based on the Robson classification, a 10-group classification system created by the WHO and used to identify well-defined, clinically relevant groups of people admitted for delivery. Low-risk pregnancies are defined here as a single baby, at full-term, in the head down position, where the birthing person does not have a previous cesarean scar. Malpresentation includes transverse or oblique lie or a breech pregnancy. Premature is a gestational age of <37 weeks. The C-section rate within classifications of pregnancies grouped by certain characteristics has not changed much over time. Because there is an increased risk of complications after giving birth via C-section, it is common for subsequent births to be delivered by C-section as well.

Exhibit Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2016-2024

There is great variation in the likelihood of having a C-section by hospital, even after controlling for patient characteristics.



Excess probability of having a C-section by hospital, relative to probability at Mount Auburn (lowest), 2016-2024



Some hospitals with high C-section rates had lower probabilities for C-section deliveries after controlling for hospital and patient characteristics, suggesting that their higher C-section rate was in part explained by their patient population.

Notes: Regression controls for calendar year, median community income, payer type, race, age, and some indicators for C-section (malpresentation, multiple gestation, eclampsia/pre-eclampsia, previous scar, large baby, and other obstetric factors such as placenta previa and umbilical cord issues). Hospitals with more than 500 annual deliveries on average during 2016-2024 were included. In 2023, 23.8% of Mount Auburn deliveries were via C-section.

Exhibit Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2016-2024.

Why is the C-section rate increasing? Hypotheses explored:

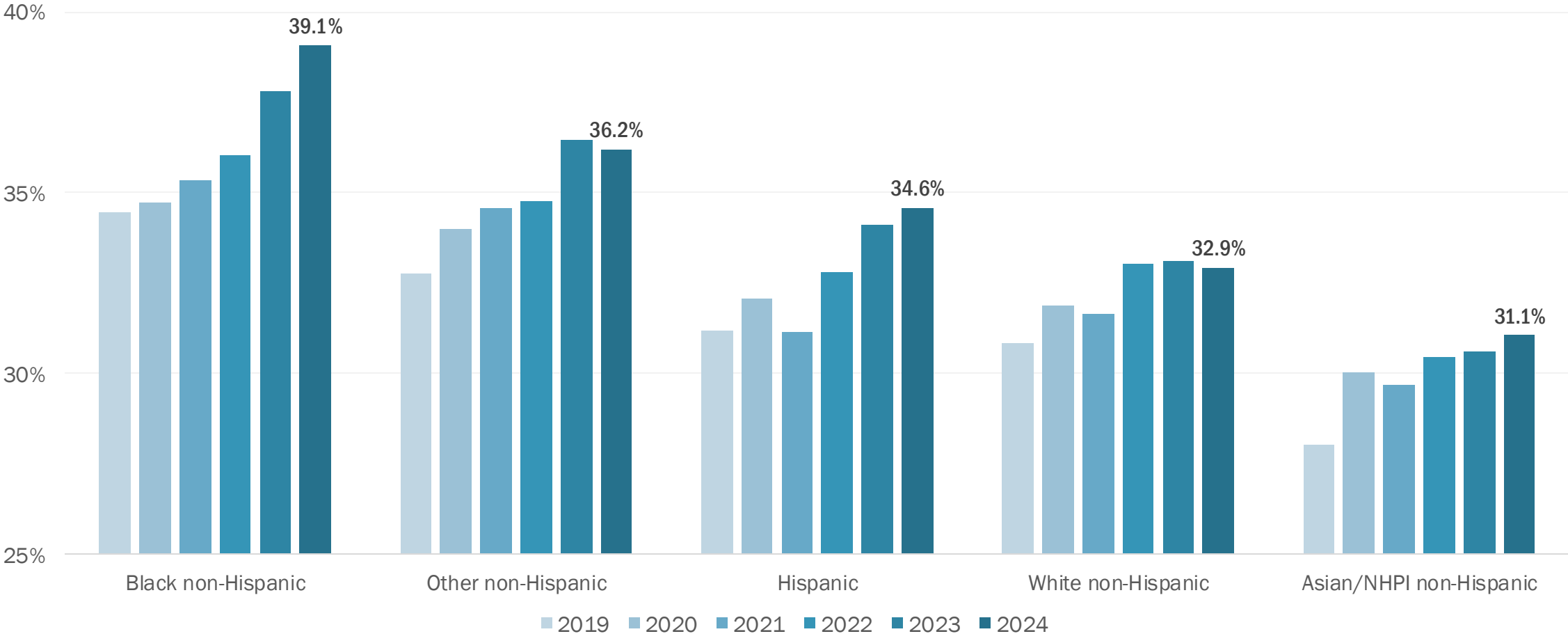
- **Patient Characteristics:** Rates within obstetric characteristic groups have remained stable over time, as has the distribution of birthing people among those groups, indicating that the people having C-sections are not vastly different clinically than they used to be. **Patients do not seem to be different in a way that would explain the sharp increase in the Massachusetts C-section rate alone.**
- **The “Snowball” Effect:** Because there is an increased risk of complications after giving birth via C-section, it is common for subsequent births to be delivered by C-section as well. **First-time and subsequent C-sections are both rising at similar rates in Massachusetts, indicating the growth in the overall C-section rate can not be attributed solely to repeat C-sections.**
- **Hospital Variation:** Hospital-level variation in C-section rates is likely due to different hospital cultures or practices, rather than different types of patients.¹ Even after adjusting for patient-level factors, the probability of a cesarean delivery varies by hospital, suggesting that **hospital practices are important in determining a hospital’s C-section rate.** Individual provider c-section rates may also be influenced by their delivery volume.²
- **Patient Demand:** Some patients may request to have a C-section when there is no clinical indication for necessity, though it is recommended for the provider to discuss the risks and benefits of such a procedure. cultures may differ around. **This represents a small share of cesarean deliveries in the U.S., estimated at about 2.5%.³**
- **Policy and Practice:** Hospital policy and practice cultures may differ around indicators where there is more provider discretion, such as with fetal heart rate monitoring and whether labor is progressing appropriately.^{4,5} **Resource constraints within a hospital may also influence the tolerance for risk.⁶** Hospital use of certified nurse midwives may also play a role in how labor and delivery care is provided.⁷

The rising C-section rate seems to be attributed primarily to differences in hospital culture and practices surrounding low-risk births, with some influence from changing patient characteristics, including Massachusetts birthing people becoming slightly older or higher risk.

Black non-Hispanic patients have had a C-section rate that is consistently higher than those of other races or ethnicities.



C-section rates by race/ethnicity, 2019-2024



Notes: NHPI = Native Hawaiian or Pacific Islander. Other non-Hispanic includes American Indian and Alaskan Natives, those with multiple races, and those who did not report race or whose race could not be identified.

Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2019-2024.

Disparities in C-section rates by race and ethnicity is not a hospital story nor a patient characteristic story.



- Even **after controlling for hospital and patient-level factors, Black birthing people still have higher C-section rates** than their White counterparts.
 - Black birthing people also had higher actual C-section rates than those predicted based on patient characteristics compared to other races/ethnicities.
 - Indicators for C-section were more influential on the probability of having a C-section for White birthing people than for Black birthing people when controlling for the same characteristics.
- Black patients are not concentrated in high C-section rate hospitals, nor do they have disparate access to certified nurse midwives, suggesting that **it is not characteristics of hospitals that are driving the disparity.**
- **Disparities may be driven by lack of racially concordant care** due to provider demographics in Massachusetts **or provider bias**, which have been shown to have adverse birth outcomes.^{1,2} **Provider discretion is an important determinant of whether a patient has a C-section.**³

Birthing Preferences: Assessment of National Literature

- Understanding **birthing people's preferences** surrounding their maternity care is key to better aligning supply with need.
- MA-specific data are limited; national and other U.S.-based studies may provide insights.

Site of Care

- Individuals frequently cite a **hospital's overall reputation and quality** as a key consideration in selecting that hospital.¹
- The Covid-19 pandemic led to **increased interest in community-based birth**.³ However, insurance or financial limitations may affect access.⁴

Choice of Provider

- In selecting a clinician, individuals' decisions are influenced by their **friends or family**, their **insurance network**, or **another health care provider or practice**.⁵
- In the Listening to Mothers in California study, 54% of respondents expressed **interest in future midwife-attended births**, which is six times as many respondents as those who had midwife-attended births.²
- Patient populations impacted by health inequities may express specific preferences for **racial, gender, or language concordance** with their provider and emphasize the importance of reliability and feeling respected by their provider.⁵⁻¹⁰

Text Sources: 1. Hebert LE, Freedman L, Stulberg DB. Choosing a hospital for obstetric, gynecologic, or reproductive healthcare: what matters most to patients?: American Journal of Obstetrics & Gynecology MFM. 2020; 2(1); 2. Listening to Mothers in California. 2018.; 3. Gildner TE, Thayer ZM. Maternity care preferences for future pregnancies among United States childbearers: the impacts of COVID-19. Frontiers in Sociology. 2021;6.; 4. George EK et. al. Factors influencing birth setting decision making in the United States: an integrative review. Birth. 2022; 49.; 5. Kennedy AB, et. al. Understanding the values, qualities, and preferences of patients in their relationships with obstetrics and gynecology providers: cross-sectional survey with a mixed methods approach. Journal of Participatory Medicine. 2024; 16. 6. Manning A. Black Women's and Birth Workers' Experiences of Disrespect and Abuse in Maternity Care: Findings From a Qualitative Exploratory Research Study in Atlanta, Georgia. Black Mamas Matter Alliance. 2022.; 7. Mehta PK, Saia K, Mody D, Crosby SS, Raj A, Maru S, Piwowarczyk L. Learning from UJAMBO: Perspectives on gynecologic care in African immigrant and refugee women in Boston, Massachusetts. Journal of immigrant and minority health. 2018; 20.; 8. Jezzoni LI, Wint AJ, Smeltzer SC, Ecker JL. Recommendations about pregnancy from women with mobility disability to their peers. Women's Health Issues. 2017; 27(1); 9. Panko TL, Cuculick J, Albert S, Smith LD, Cooley MM, Herschel M, Mitra M, McKee M. Experiences of pregnancy and perinatal healthcare access of women who are deaf: a qualitative study. BJOG: An International Journal of Obstetrics & Gynaecology. 2023; 130(5); 10. Butler et al. Prenatal Care Clinician Preferences Among Patients With Spanish-Preferred Language. Obstet Gynecol. 2024 Oct 1;144(4):517-525.

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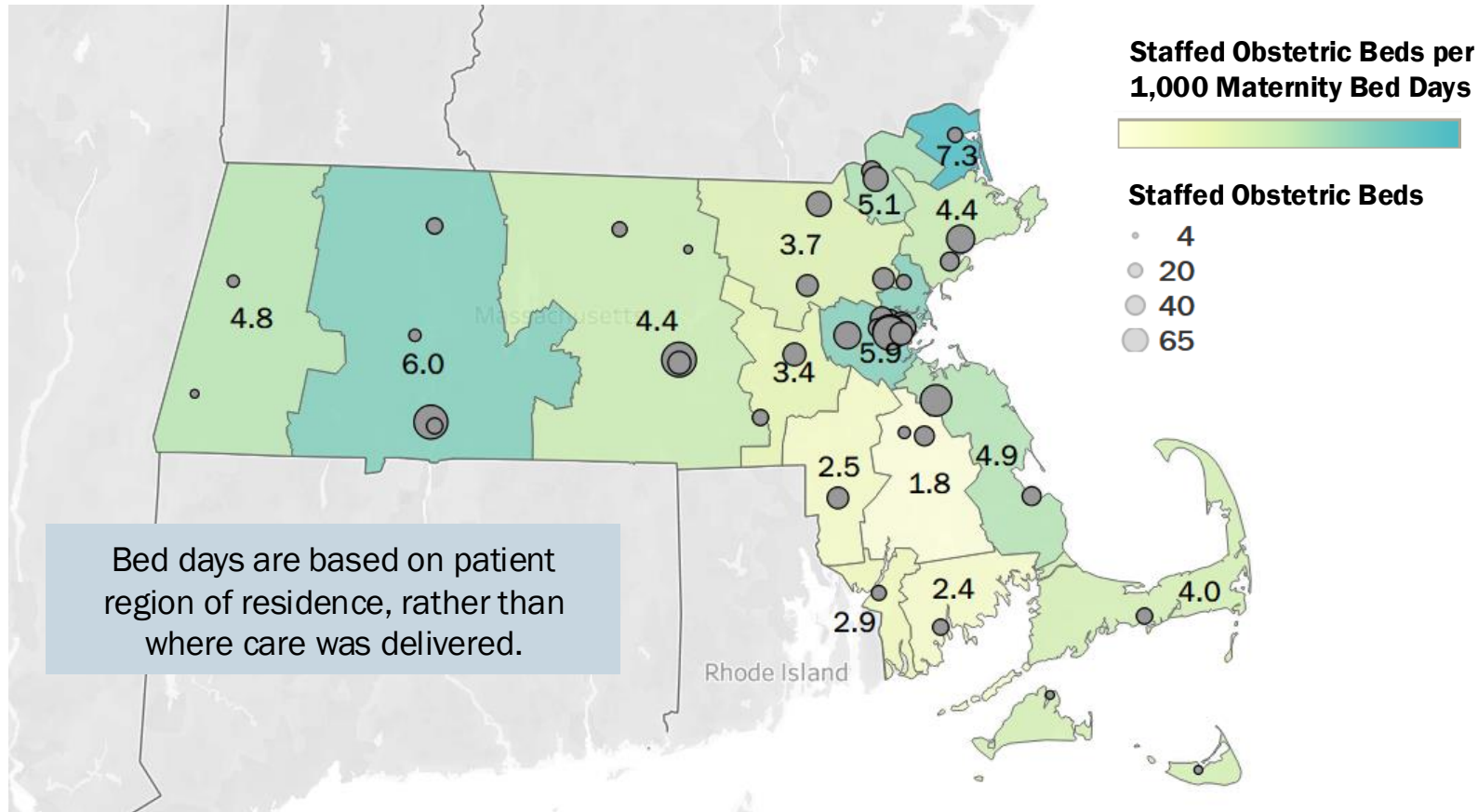
Next Steps and Adjourn



Maternity Hospitals

Maternity Hospitals and Staffed Obstetric Beds

Maternity hospitals and staffed obstetric beds per 1,000 bed days by HPC region, 2023

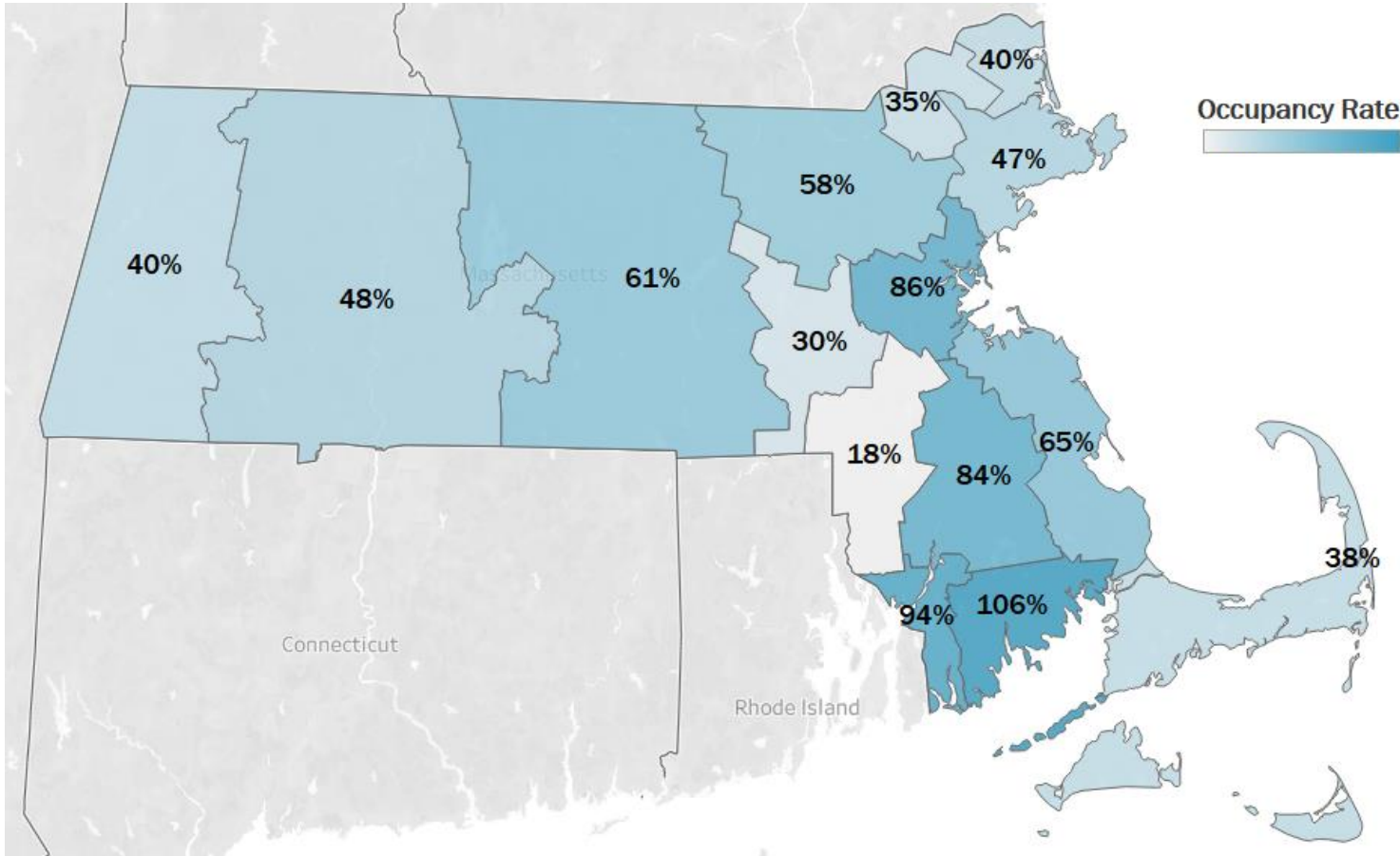


- In 2023, Massachusetts had 40 maternity hospitals and 971 staffed obstetric beds. Approximately one third of all beds (323) were in Metro Boston.
- Staffed obstetric beds decreased slightly in 2024 due to the closure of HealthAlliance-Clinton – Leominster (4 staffed beds) and the temporary closure of Signature Healthcare Brockton (20 staffed beds).
- Staffed obstetric beds fell by 6.0% from 2013 to 2023, tracking a 6.2% decline in deliveries and a 7.3% decline in maternity bed days during that time.
 - As a result, the number of staffed obstetric beds per 1,000 maternity bed days grew slightly from 4.4 in 2013 to 4.5 in 2023.
 - If birth rates flatten in the future, as projected nationally by the Congressional Budget Office, a continued loss of obstetric beds would result in a decrease in this ratio.¹
- Regions in Southeastern Massachusetts generally have fewer beds per 1,000 maternity bed days than the rest of the state.

Notes: The HPC imputed missing bed counts for Holy Family Hospital and St. Elizabeth's Medical Center based on earlier years of reported data. The HPC also imputed bed counts for the individual Southcoast Hospitals Group campuses, based on the proportion of Southcoast's maternity discharges occurring at each campus, including discharges to out-of-state patients. The HPC adjusted staffed bed counts for Anna Jacques based on conversation with hospital representatives. Maternity discharges are defined as discharges with MS-DRGs in MDC grouping 14. This definition of maternity unit discharge is used throughout, unless otherwise indicated. Maternity bed days are included in the region of discharge patient's home zip code and exclude discharges to out-of-state patients. Exhibit Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2023 and Center for Health Information and Analysis Hospital Cost Reports, 2011-2023. Text Sources: 1. Congressional Budget Office. Demographic Outlook: 2025 to 2055. January 2025. Available at: <https://www.cbo.gov/publication/61164>.

Maternity Unit Occupancy Rates

Maternity Unit Occupancy Rate by HPC Region, 2023



- In 2023, across all hospitals, Massachusetts had a 64% maternity occupancy rate, higher than the rate reported by Illinois (45%).¹
- Regional occupancy rates vary from the teens in the Norwood/Attleboro region (18%) to over 100% in the New Bedford region.
 - High regional occupancy rates may reflect capacity constraints in staffing or beds.
- Several contiguous regions in Southeastern Massachusetts have high occupancy rates, likely exacerbating capacity pressures on hospitals in those regions.
- Within regions, occupancy rates were mostly flat from 2015 to 2023, apart from the Berkshires, which saw a 37-ppt decrease in its occupancy rate, and Metro South, which saw a 36-ppt increase.

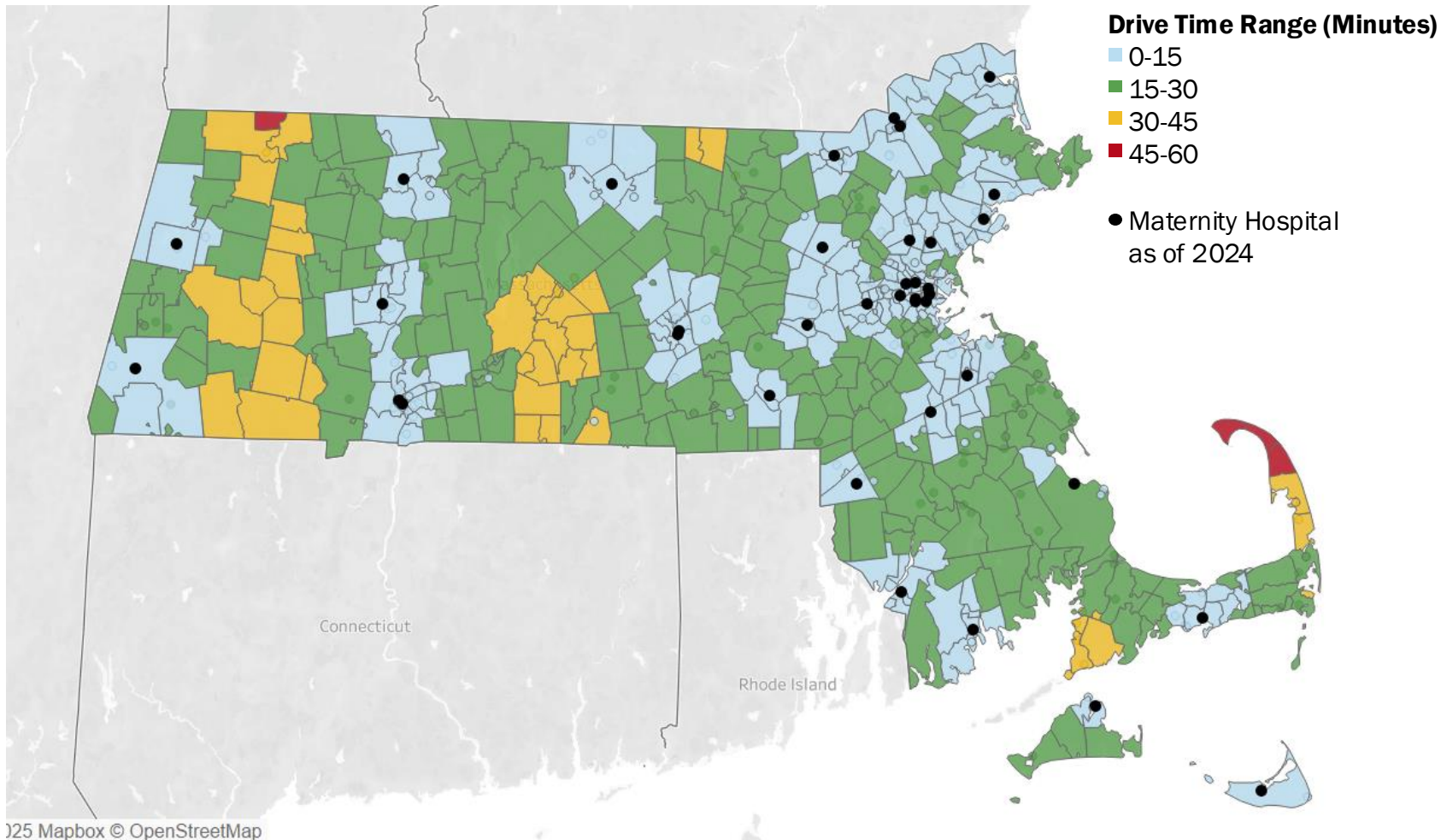
Notes: Occupancy rates include out-of-state patients who are treated at a Mass. hospital. Bed capacity data for Signature Healthcare Brockton and HealthAlliance-Clinton - Leominster are adjusted to account for their closures in 2023. The HPC imputed missing bed counts for Steward Holy Family and Steward St. Elizabeth's MC based on earlier years of reported data. The HPC also imputed bed counts for the individual Southcoast Hospitals Group campuses, based on the proportion of Southcoast's discharges occurring at each campus, including discharges to out-of-state patients. The HPC adjusted staffed bed counts for Anna Jacques based on conversation with hospital representatives. For purposes of calculating maternity unit occupancy rates, maternity unit discharges in this exhibit are defined as discharges with an obstetric room and board revenue code (0112,0122,0132,0142,0152). For hospitals that do not use these revenue codes, the HPC identified certain maternity unit discharges as MDC 14 DRGs that are high or very high likelihood to have been maternity unit discharges.

Exhibit Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2023; Center for Health Information and Analysis Hospital Cost Reports, 2011-2023.

Text Sources: 1. Illinois Health Facilities and Services Review Board. Illinois Hospitals Data Summary. Calendar Year 2022. Available at: <https://hfsrb.illinois.gov/inventories-data.html>.

2024 Drive Times to Maternity Hospitals

Drive Time to the Nearest Maternity Hospital by Zip Code, 2024



©2025 Mapbox © OpenStreetMap

Notes: Drive times are calculated between each zip code centroid and the address of the nearest maternity hospital. Drive times are obtained from the Google Maps API for a Friday in March 2023 at 12pm. This drive time methodology is used throughout unless otherwise indicated.

Exhibit Sources: Google Maps JavaScript API, 2023.

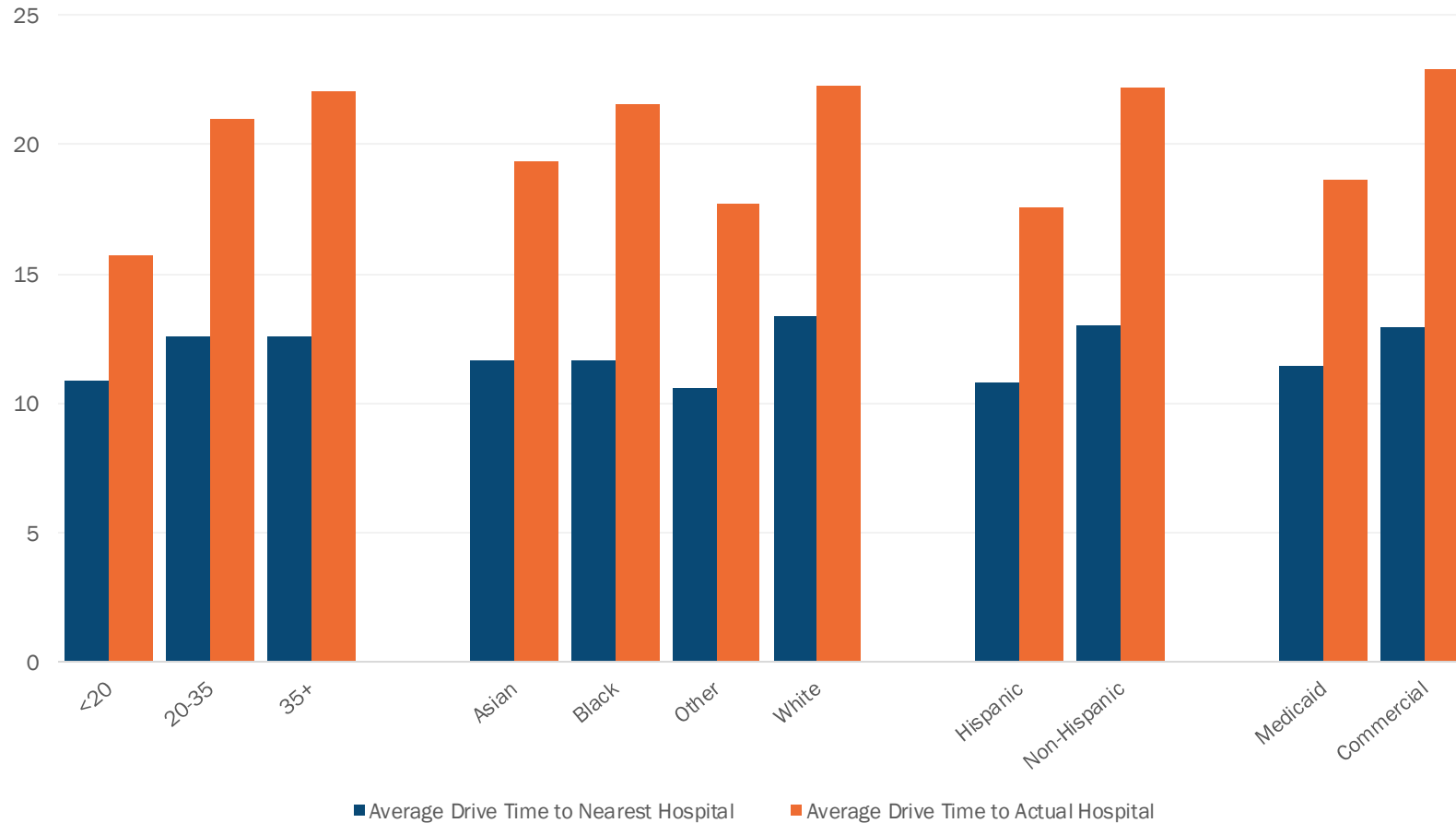
Text Sources: 1. HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2024; Google Maps JavaScript API, 2023.

- In 2024, **91% of all Massachusetts zip codes were within a 30-minute drive time** of a maternity hospital, and 78% of maternity patients went to a hospital within a 30-minute drive time.
- The Berkshires, Pioneer Valley/Franklin and Cape and Islands regions had the highest percentage of zip codes that were more than 30 minutes from the nearest maternity hospital.
- Patients in the Norwood/Attleboro, Upper North Shore, South Shore, and Metro South regions were the most likely to travel more than 30 minutes for care.¹

2023 Drive Times to Maternity Hospitals by Patient Demographic Characteristics



Average Drive Time to Nearest and Actual Maternity Hospital, by Demographic Group, 2023



- Average drive times to both the nearest and actual maternity hospital were **less than 25 minutes** for all groups examined.
- Older patients, White patients, non-Hispanic patients, and commercially-insured patients tended to have longer average drive times.
- Additionally, older patients, commercially insured patients, and non-Hispanic patients had a larger gap in minutes between their closest available hospital and their actual hospital than comparator groups.
- This pattern suggests that average **drive times may reflect patient preferences and ability to travel** in addition to patient distance to a maternity hospital.

Notes: Analysis limited to Mass. residents.

Exhibit Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2023; Google Maps JavaScript API, 2023.

Additional Supply-Side Considerations



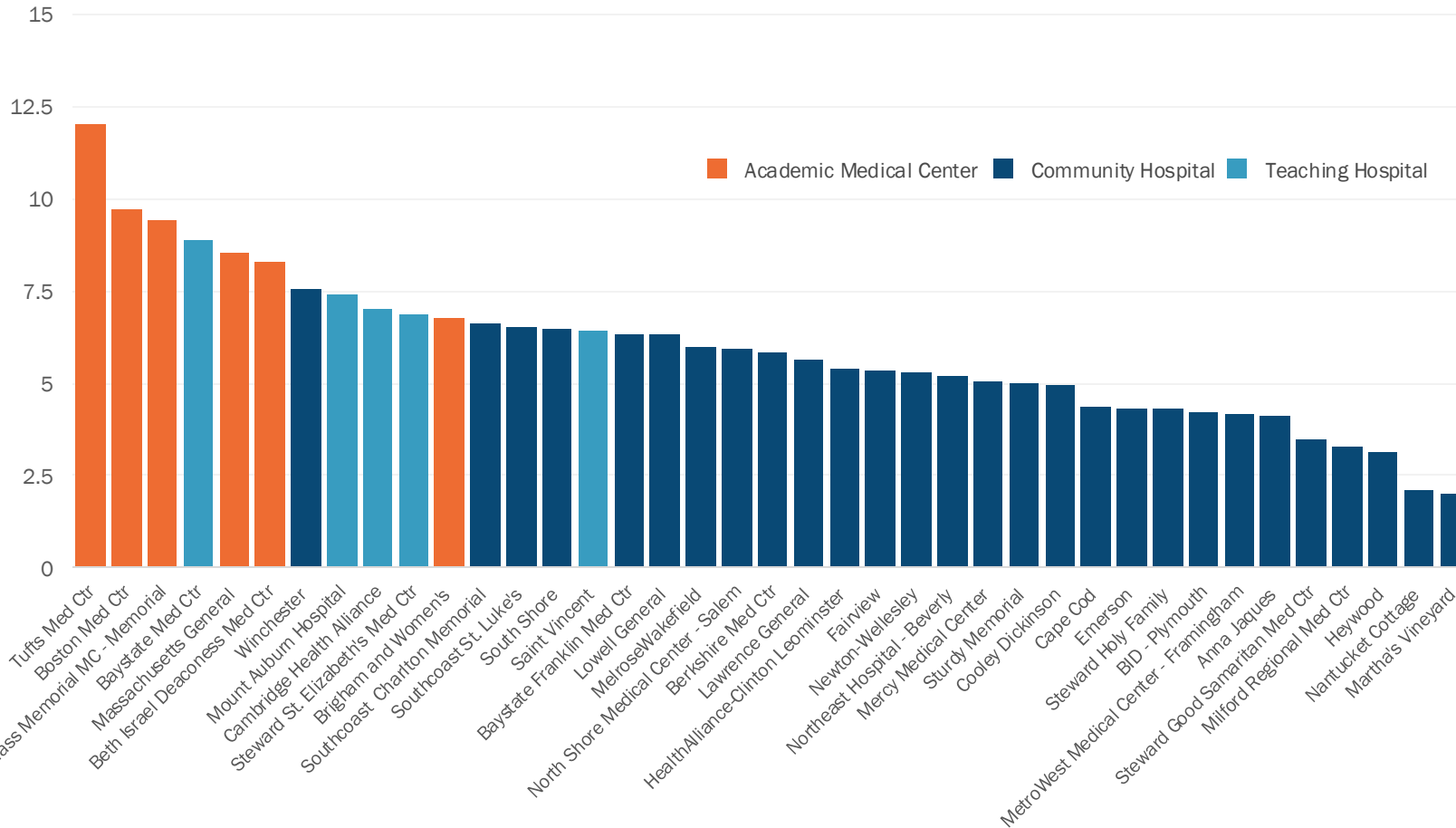
- Patient proximity to facilities and facility capacity are critical measures of supply. However, patient care-seeking patterns may be influenced by other factors, such as:
 - **Levels of Maternal Care:** What clinical conditions is the hospital equipped to serve?
 - **Quality Performance:** How does the hospital perform on accepted measures of maternal quality?
 - **Communities Served:** How does a hospital's maternity patients compare to overall maternity patients in its service area in terms of race, ethnicity, and insurance type?
 - **Affordability:** Does commercial price variation make some hospitals more or less affordable to patients seeking care?

- These factors are not exhaustive, and patients may prioritize other factors in selecting a hospital, such as the hospital's overall reputation, insurance network participation, care models and workforce types available, baby-safe or baby-friendly designations, perceptions of racial, ethnic, linguistic, or cultural concordance, and more.

Average Obstetric Risk Score for Hospital Patients



Average Obstetric Risk Score for Hospital Patients, 2023



- DPH is implementing a **levels of maternal care (LoMC)** framework through which it will assess the level of maternity care that a hospital is equipped to provide.
- The LoMC framework can **improve quality and safety** by increasing the likelihood that patients are treated at a facility appropriate for their risk level.¹
- Using an accepted scoring system that measures patient risk of severe maternal morbidity, the HPC found **wide variation in the average patient obstetric risk score** at maternity hospitals.
 - AMCs and teaching hospitals treat higher risk patients.
- Researchers, policymakers, and health planners should incorporate analyses of **risk-appropriate maternity care** into future work.

Notes: Risk score calculated using California Maternal Quality Care Collaborative Obstetric Comorbidity Scoring System. Scores presented are for non-transfusion SMM. See <https://www.cmqcc.org/education-research/severe-maternal-morbidity/obstetric-comorbidity-scoring-system>. Analysis limited to Mass. residents. Individual hospital risk indices may be different if out-of-state patients were included.

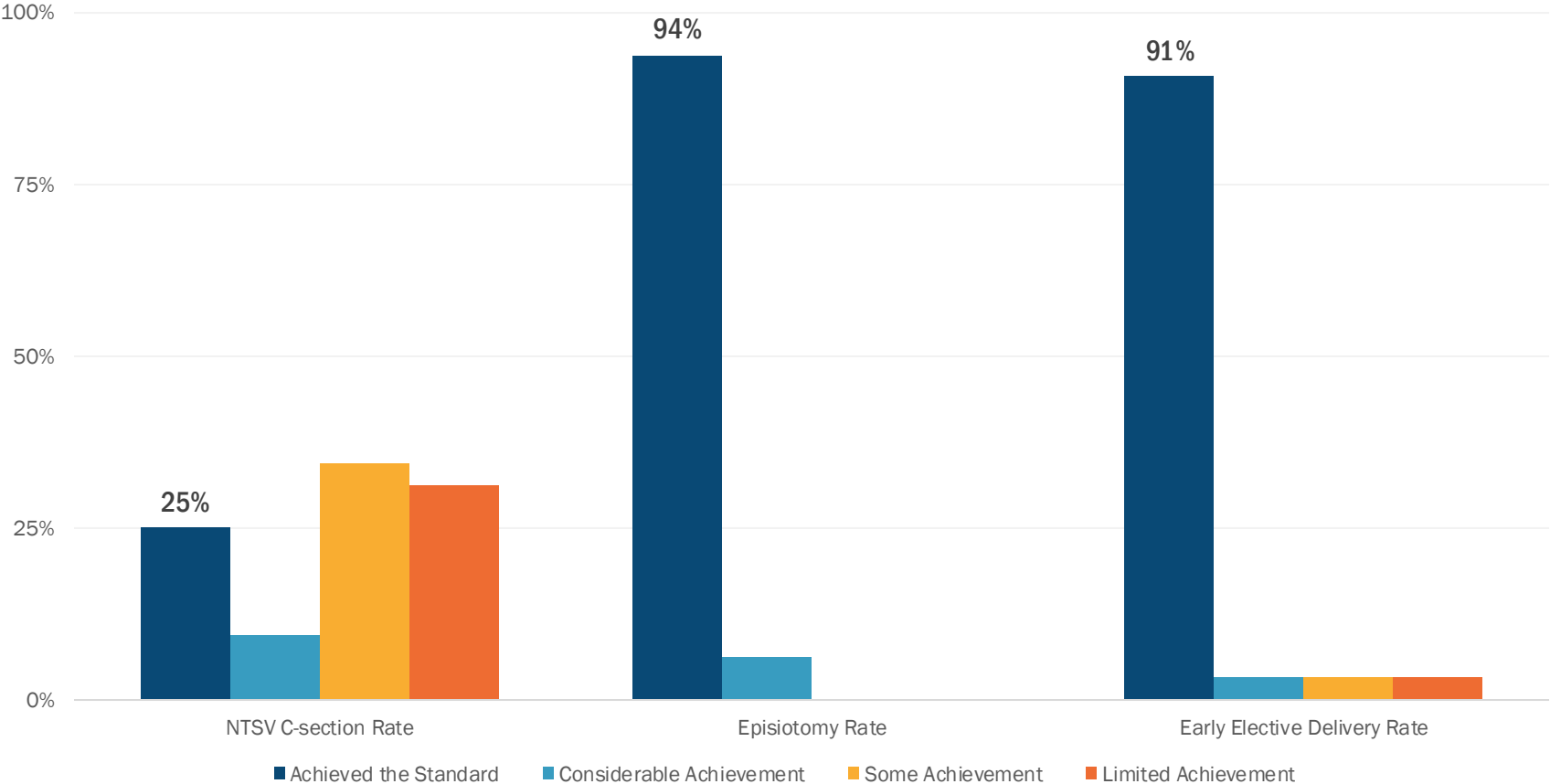
Exhibit Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2023.

Text Sources: 1. American College of Obstetricians and Gynecologists. Levels of maternal care: Obstetric care consensus No. 9. *American Journal of Obstetrics and Gynecology*. 2019;134(2). Available at: [https://www.ajog.org/article/S0002-9378\(19\)30753-7/fulltext](https://www.ajog.org/article/S0002-9378(19)30753-7/fulltext)

Hospital Performance on The Leapfrog Group’s Maternity Quality Measures



Percent of MA Maternity Hospitals Meeting Leapfrog Group Quality Standards, 2023



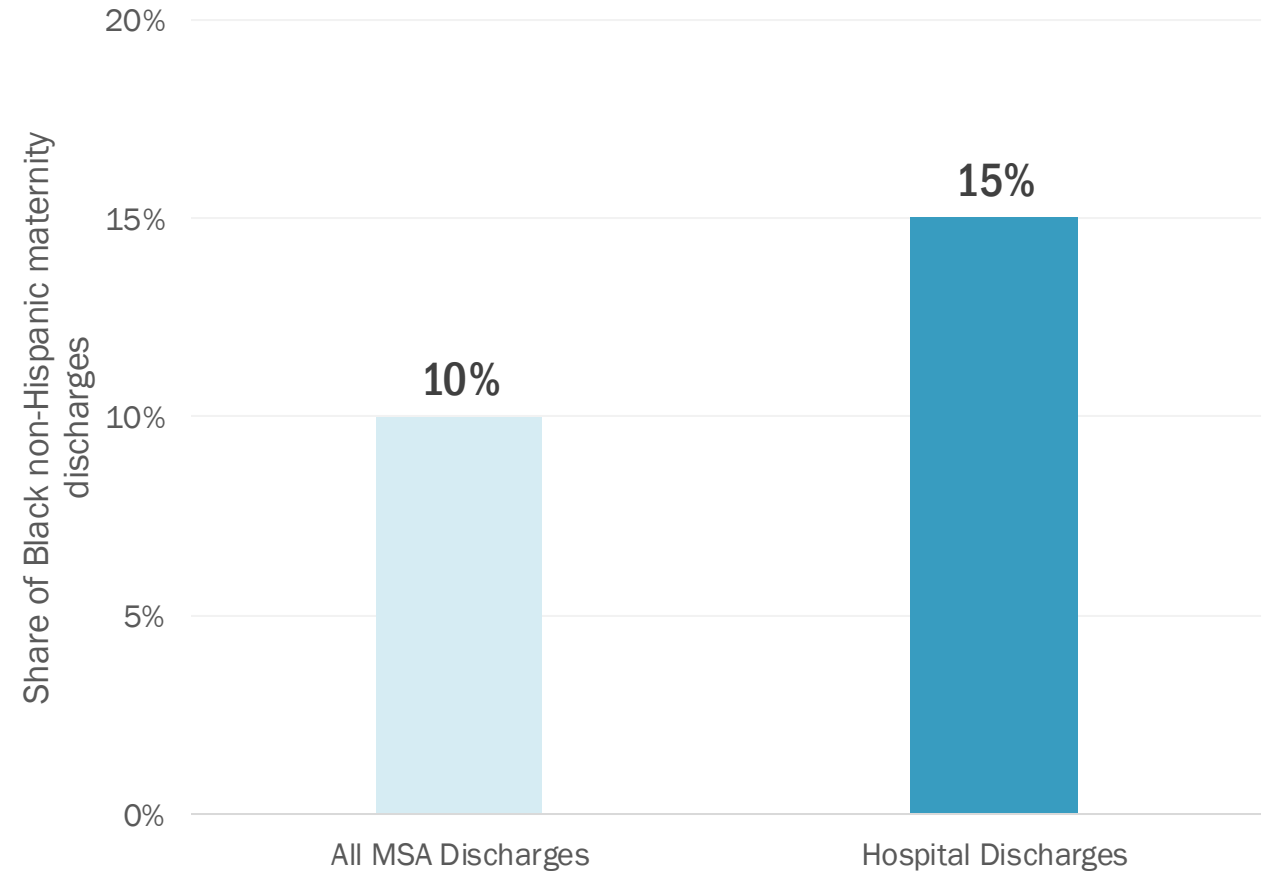
- In 2023, MA maternity hospitals for which data were available performed well against The Leapfrog Group’s targets for episiotomy rates (<5%) and early elective delivery rates (<5%).
- NTSV C-section rate performance was more mixed. Only 25% of hospitals achieved the standard rate (23.6% or less).

Notes: Based on voluntary hospital reporting; does not include data from all Massachusetts maternity hospitals. NTSV refers to nulliparous, term, singleton, vertex pregnancies, which is a group that is less likely to need surgical delivery. NTSV C-section rate is a nationally endorsed quality measure. See: The Leapfrog Group. State of Maternity Care in U.S. Hospitals. 2025. Available at: https://www.leapfroggroup.org/sites/default/files/Files/MaternityCare-report-2025-FINAL_0.pdf
 Exhibit Sources: Leapfrog Group Hospital Survey 2024. Available at: https://www.leapfroggroup.org/sites/default/files/Files/2023%20Maternity%20Report_Final.pdf.

Representativeness Indices



- The HPC compared the race, ethnicity, and insurance status of a hospital's maternity patients to that of all maternity patients in the hospital's service area. This ratio is expressed as a Representativeness Index.
- The index is calculated by dividing the value of a given metric for a hospital's maternity discharges (e.g., share of Black, non-Hispanic maternity discharges at the hospital) by the community share for that metric using the hospital's 2013 maternity service area (MSA) (e.g., Black, non-Hispanic maternity discharges in the hospital's MSA).
- In the example on the left, the hospital has a Black non-Hispanic Representativeness Index of 1.5, indicating that the hospital serves a 50% higher share of Black non-Hispanic patients compared to its MSA.
- We identified hospitals for whom Black, Hispanic, and public payer patients made up a higher share of the hospital's overall maternity patients than of the service area's patients.

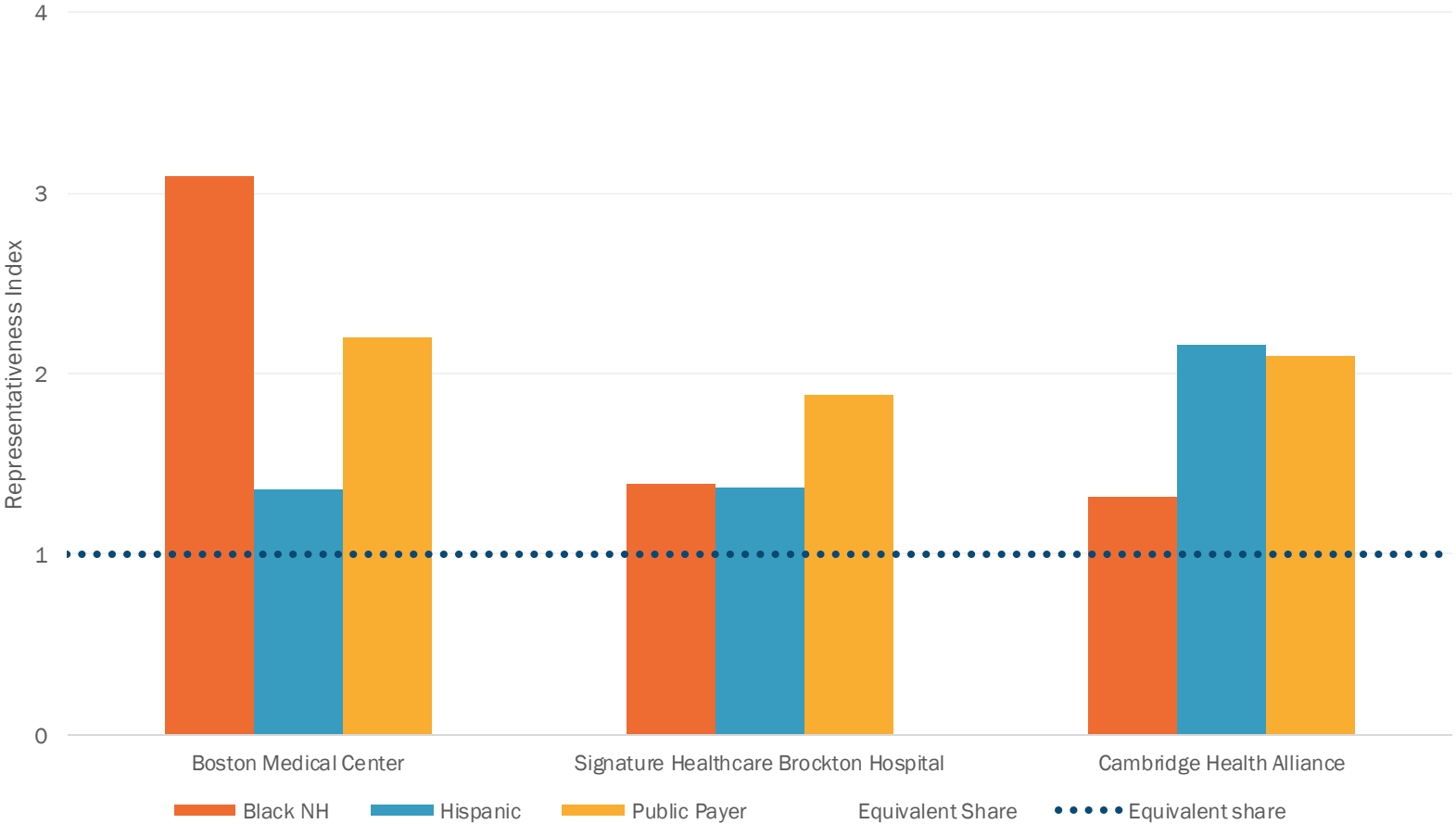


$$\frac{\text{Hospital share of Black non-Hispanic maternity discharges}}{\text{MSA share of Black non-Hispanic maternity discharges}} = \frac{15\%}{10\%} = 1.5$$

Certain hospitals serve as important access points for groups that experience maternal health disparities.



Example hospitals with high representativeness indices for Black non-Hispanic, Hispanic, and public payer patients



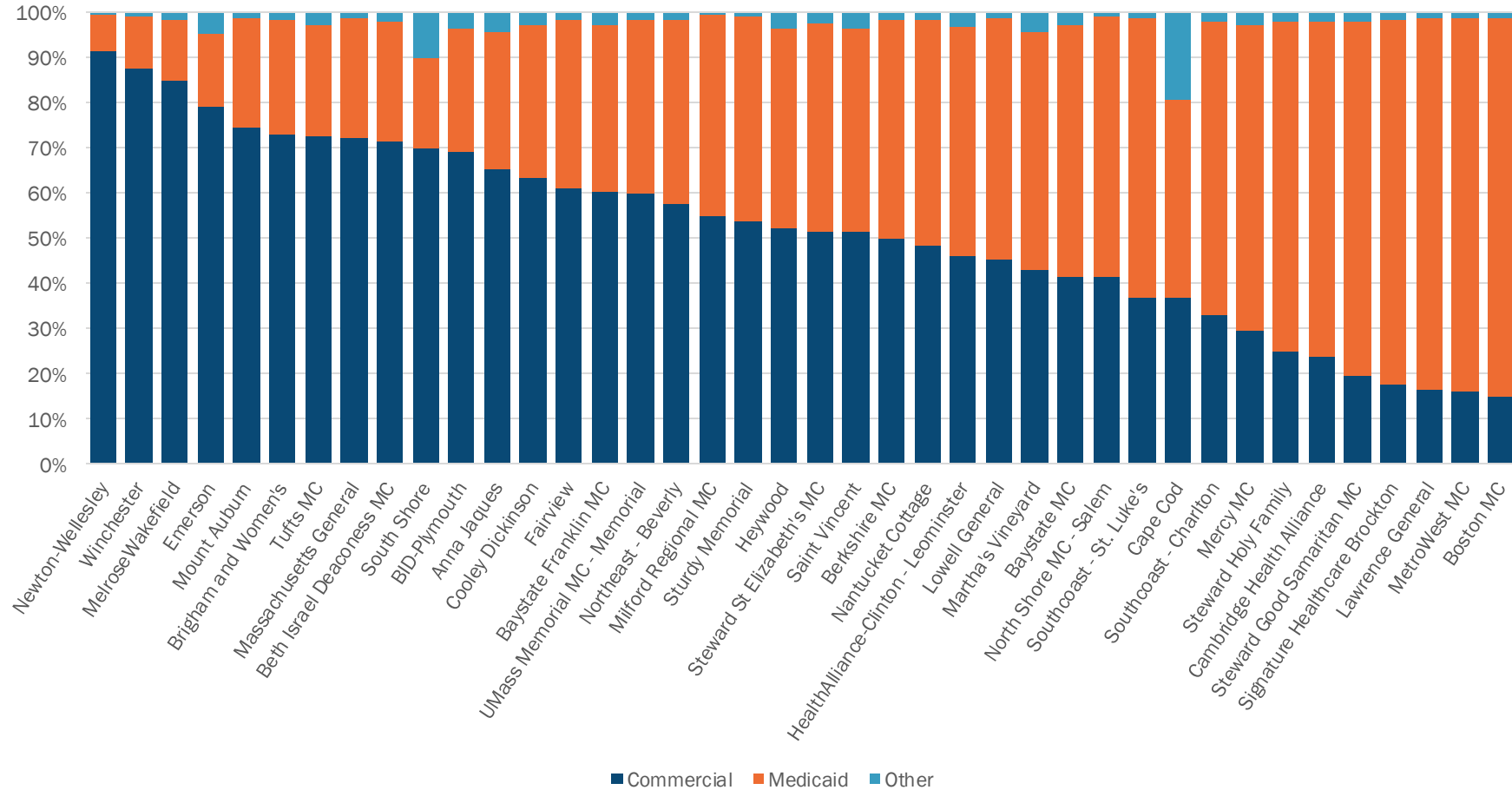
Notes: For each maternity hospital, we calculated “representativeness indices” for Black Non-Hispanic, Hispanic, and public payer patients. Indices were calculated by dividing the percentage of a hospital’s maternity patients that were, for example, Black non-Hispanic by the percentage of all maternity patients in the hospital’s maternity service area that were Black non-Hispanic. Those serving a disproportionately high share of each patient group were defined as those with an index of 1.15 or greater. Analysis limited to Mass. residents. Public payer maternity discharges were defined as MDC 14 discharges with Medicaid, Medicare, or another government insurance type. Exhibit Sources: HPC analysis of the Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2023.

- Black, Hispanic, and publicly insured patients in MA experience disparities on a variety of maternal health outcomes measures.
- Hospitals with a high representativeness index serve as important access points for these populations.
- Assessments of supply, access, and the potential impacts of closing a maternity unit should assess the degree to which a hospital functions as an important access point for vulnerable patients.

Maternity Care Payer Mix



Payer Mix for Maternity Discharges by Maternity Hospital, 2023



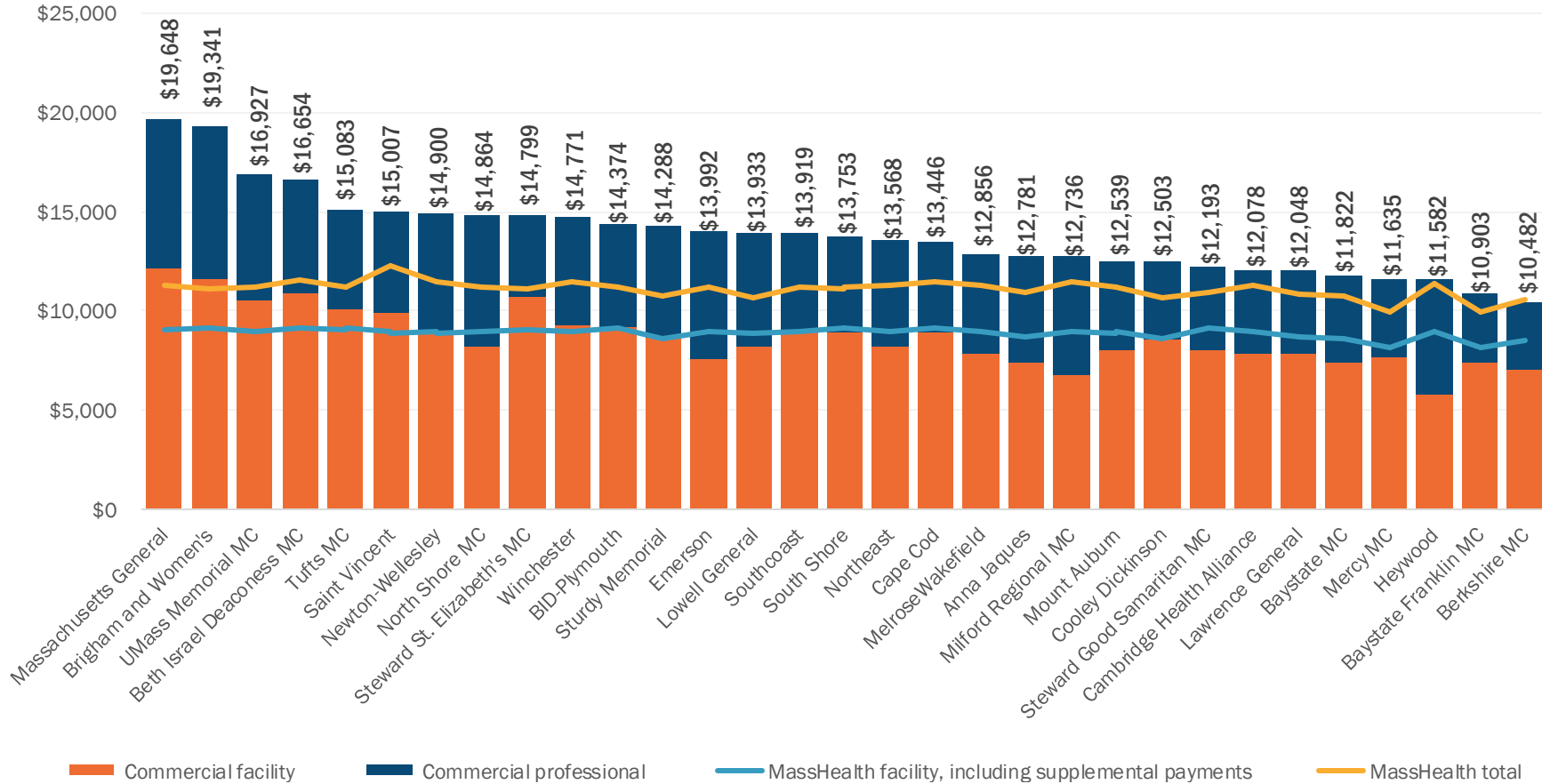
- Statewide, about 60% of births are covered by commercial insurance, and 35% are covered by MassHealth.¹
- Maternity payer mix varies widely across hospitals.
 - Newton-Wellesley Hospital has a 90% commercial maternity mix.
 - Boston Medical Center, has a 15% commercial maternity mix.
- Hospitals typically have a higher commercial payer mix for their maternity discharges than for all discharges because few maternity patients are covered by Medicare.

Notes: The "Other" payer category includes Medicare, government payers besides Medicaid and other low-margin payers, and self-pay discharges. The large proportion of "Other" discharges for South Shore Hospital and Cape Cod Hospital is the result of a high number of self-pay discharges in 2023. These discharges may be misclassified in the discharge data. Analysis limited to Mass. residents.
 Exhibit Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2023.
 Text Sources: 1. HPC analysis of Mass. Department of Public Health Birth Certificate Data, 2013-2023.

Inpatient Maternity Prices



Commercial and MassHealth Inpatient Prices for Low-Complexity Vaginal Delivery by Hospital, 2023



- The average commercial price (including facility and professional components) for low-complexity vaginal delivery ranged from \$10,482 to \$19,648 across hospitals.
- **MassHealth’s facility price for low-complexity vaginal delivery is higher than the commercial facility price for 20 of 31 hospitals**, though MassHealth’s professional payment is lower than commercial rates for all hospitals.
- MassHealth's facility price incorporates supplemental payments made on a per-discharge basis.

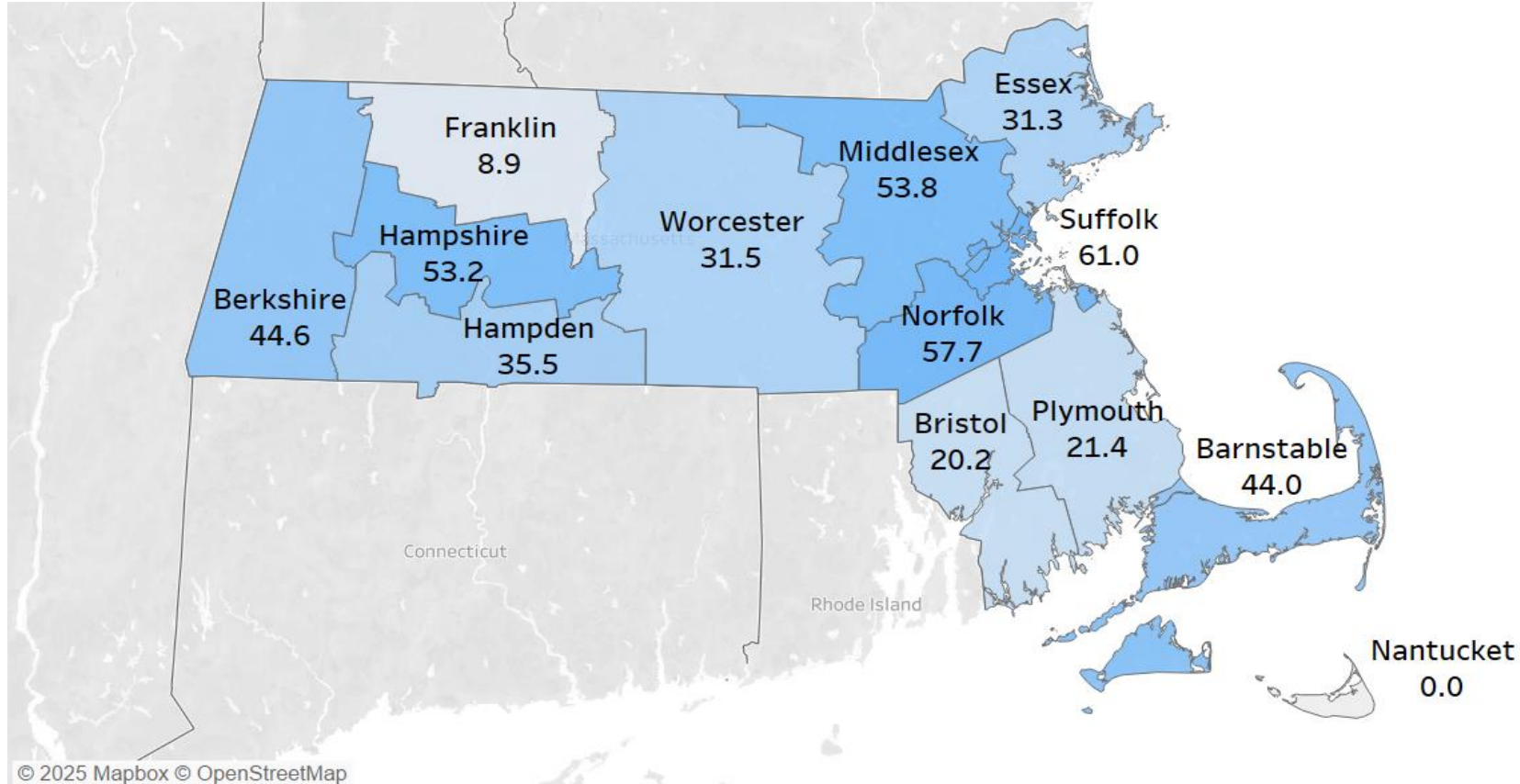
Notes: Analysis included commercial stays with APR-DRG 560, weighted average of prices for severity levels 1 and 2, in hospitals with at least 30 observations in the CHIA All-Payer Claims Database. Stays that are outliers in payment or length of stay, as well as transfers, are excluded from the estimation of comparable prices. The MassHealth facility rate is estimated using MassHealth payment rules for fiscal year 2023 and 2024, depending on the date of service, while MassHealth professional payments is estimated using actual professional payments to MassHealth patients based on APCD data. MassHealth supplemental payments only include rate add-on payments per discharge and do not include other types of supplemental payments. The research findings included within this report were produced using the Solventum™ (previously 3M) APR DRG Software. Sources: HPC analysis of Center for Health Information and Analysis (CHIA) All-Payer Claims Database V2023, 2023

- In July 2025, **Congress passed H.R. 1**, which includes significant changes to federal Medicaid law.
 - By December 31, 2026, states must **redetermine eligibility** for certain Medicaid members every 6 months, instead of annually.
 - By January 1, 2027, certain adults must work or participate in **qualifying activities** (e.g., work program, community service, part-time education) at least 80 hours per month to be eligible for Medicaid.
- The BCBS of MA Foundation estimates that these provisions will result in **141,000 to 203,000 MassHealth members losing coverage** and that most of these people would be uninsured over the year following implementation.
 - While the provisions of H.R. 1 are not expected to affect coverage for pregnant people, there would likely be a financial impact to hospitals and health centers that care for large shares of low-income or uninsured patients.
- On September 22, 2025, Governor Healey signed *An Act making appropriations for fiscal year 2025 to provide for supplementing certain existing appropriations and for certain other activities and projects* to provide **additional funding** to acute care hospitals and community health centers, in part to address federal spending cuts.

Maternal Health Workforce

Massachusetts has a fairly stable OB/GYN workforce, but the distribution of OB/GYNs per capita varies substantially by county.

Patient care OB/GYNs per 100,000 women ages 15-64 by MA county, 2021



- The Commonwealth's OB/GYN workforce has been **relatively stable over time**, with 1,071 OB/GYNs in 2012 and 1,084 in 2023.¹
- Residency slots for OB/GYNs in Massachusetts have grown slightly, from 39 positions in 2019 to 41 positions in 2025. **All MA OB/GYN residencies have been filled from 2019-2025.**²
- Massachusetts has a **greater number of OB/GYNs in patient care per capita** than the U.S. overall: 42.7 vs 37.6 per 100k women ages 15-64, respectively.³
- The **age distribution** of Massachusetts OB/GYNs is similar to that of OB/GYNs nationwide.¹

Notes: OB/GYN counts include both general and subspecialty OB/GYNs (MD and DO) engaged in direct patient care, excluding MD hospital residents. The 2023 Registry of Provider Organizations reported 4 OB/GYNs in Nantucket, which would equate to 85.5 OB/GYNs per 100,000 women ages 15-64.

Exhibit Sources: HPC analysis of Area Health Resource Files, 2023

Text Sources: 1. HPC analysis of AAMC state physician profiles U.S. Physician Workforce Data Dashboard. <https://www.aamc.org/data-reports/report/us-physician-workforce-data-1dashboard>; 2. NRMP Residency Match Results and Data Books, 2019 – 2025; 3. HPC analysis of Area Health Resource Files, 2023.

Midwifery care is associated with improved patient outcomes and lower spending, and the number of Certified Nurse Midwives in the Commonwealth has grown.



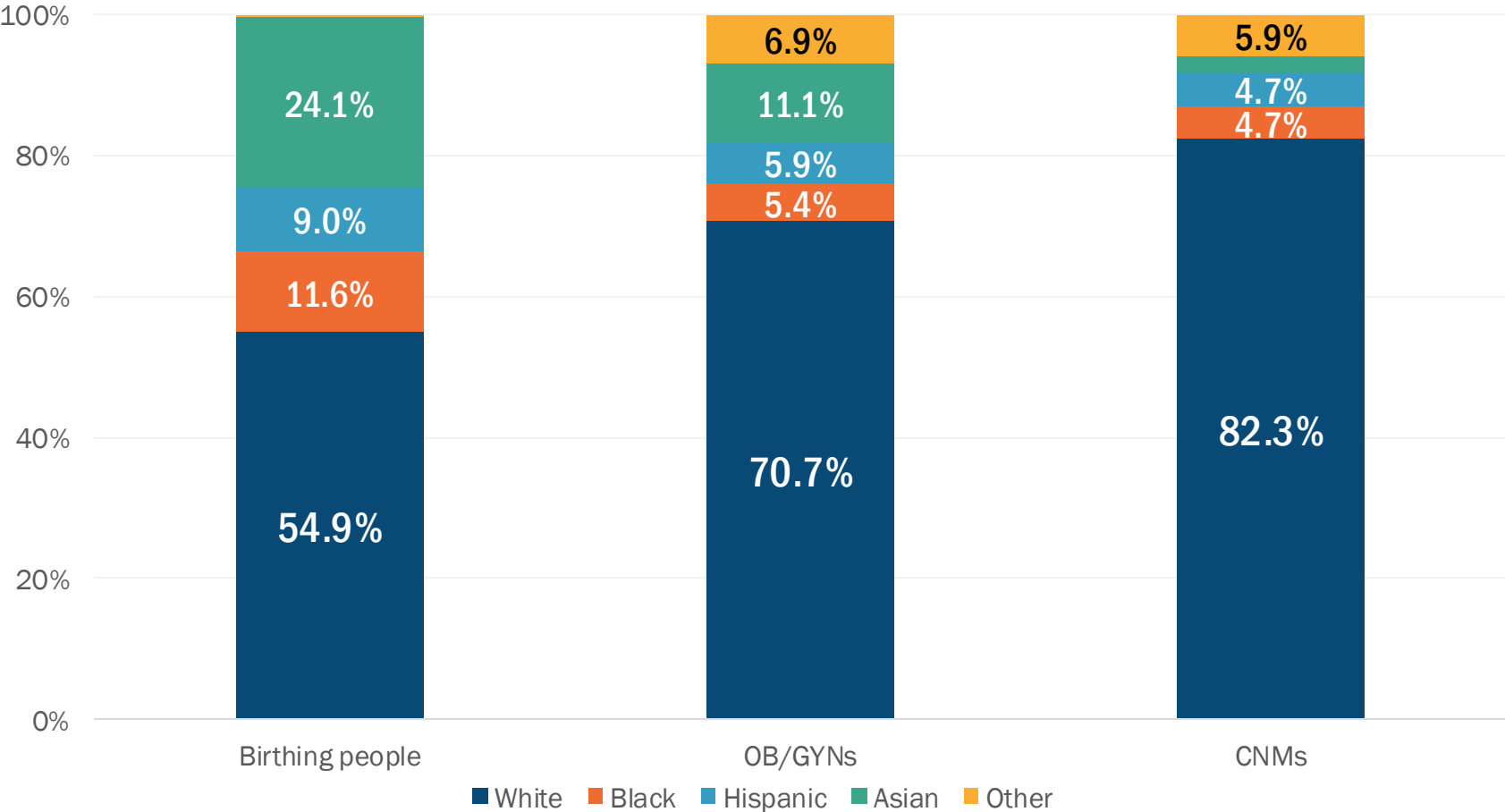
- Research finds that increased use of midwifery care is associated with improved patient and newborn outcomes and lower spending.¹⁻⁸ Past HPC research has found that **higher rates of hospital midwifery care are associated with lower cesarean and episiotomy rates and lower costs in the Commonwealth.**⁹
- **More CNMs are providing care in Massachusetts over time**, both on a total and per-capita basis:
 - The number of certified nurse midwives (CNMs) in Massachusetts rose by 19% from 2018 to 2022, from 267 to 318.
 - The number of CNMs per 100,000 Massachusetts residents increased from 3.9 in 2018 to 4.5 in 2022.¹
- Although CNMs have had full scope of practice in the Commonwealth since 2012, expanded scope of practice does not necessarily translate to hospital and payer policies or cultural and practice changes that permit autonomous practice for CNMs.

Text Sources: 1. Altman MR, Murphy SM, Fitzgerald CE, Andersen HF, Daratha KB. The Cost of Nurse-Midwifery Care: Use of Interventions, Resources, and Associated Costs in the Hospital Setting. *Women's Health Issues*. 2017; 27(4):434-440. <https://doi.org/10.1016/j.whi.2017.01.002>; 2. Attanasio LB, Alarid-Escudero F, Kozhimannil KB. Midwife-led care and obstetrician-led care for low-risk pregnancies: A cost comparison. *Birth*. 2019; 47(1):57-66. <https://doi.org/10.1111/birt.12464>; 3. Carlson NS, Corwin EJ, Lowe NK. Labor Intervention and Outcomes in Women Who Are Nulliparous and Obese: Comparison of Nurse-Midwife to Obstetrician Intrapartum Care. *Journal of Midwifery & Women's Health*. 2017; 62(1):29-39. <https://doi.org/10.1111/jmwh.12579>; 4. Hamlin L, Grunwald L, Sturdivant RX, Koehlmoos TP. Comparison of Nurse-Midwife and Physician Birth Outcomes in the Military Health System. *Policy, Politics, & Nursing Practice*. 2021; 22(2): 105-113. <https://doi.org/10.1177/1527154421994071>; 5. Johantgen M, Fountain L, Zangaro G, Newhouse R, Stanik-Hutt J, White K. Comparison of Labor and Delivery Care Provided by Certified Nurse-Midwives and Physicians: A Systematic Review, 1990 to 2008. *Women's Health Issues*. 2012; 22(1): e73-e81. <https://doi.org/10.1016/j.whi.2011.06.005>; 6. Repke JT. Comment on McLachlan HL, Forster DA, Davey MA, Farrell T, Gold L, Biro MA, Albers L, Flood M, Oats J, Waldenstrom U. Effects of Continuity of Care by a Primary Midwife (Caseload Midwifery) on Cesarean Section Rates in Women of Low Obstetric Risk: The COSMOS Randomized Controlled Trial. *Obstetric Anesthesia Digest*. 2014; 34(1):39-40.; 7. Newhouse RP, Stanik-Hutt J, White KM, Johantgen M, Bass EB, Zangaro G, Wilson RF, Fountain L, Steinwachs DM, Heindel L, Weiner JP. Advanced practice nurse outcomes 1990-2008: a systematic review. *Nursing Economics*. 2011; 29(5):230-250. <https://pubmed.ncbi.nlm.nih.gov/22372080/>; 8. Vedam S, Stoll K, MacDorman M, Declercq E, Cramer R, Cheyney M, Fisher T, Butt E, Yang YT, Kennedy HP. Mapping integration of midwives across the United States: Impact on access, equity, and outcomes. *PLoS ONE*. 2018;13(2): e0192523. <https://doi.org/10.1371/journal.pone.0192523>; 9. Health Policy Commission. Certified Nurse Midwives and Maternity Care in Massachusetts. January 2022. <https://masshpc.gov/publications/policyresearch-brief/certified-nurse-midwives-and-maternity-care-massachusetts>

By race and ethnicity, both the OB/GYN and CNM workforces in Massachusetts are less diverse than the Commonwealth's birthing patients.



Race and ethnicity distribution for Massachusetts birthing people and maternal health provider type



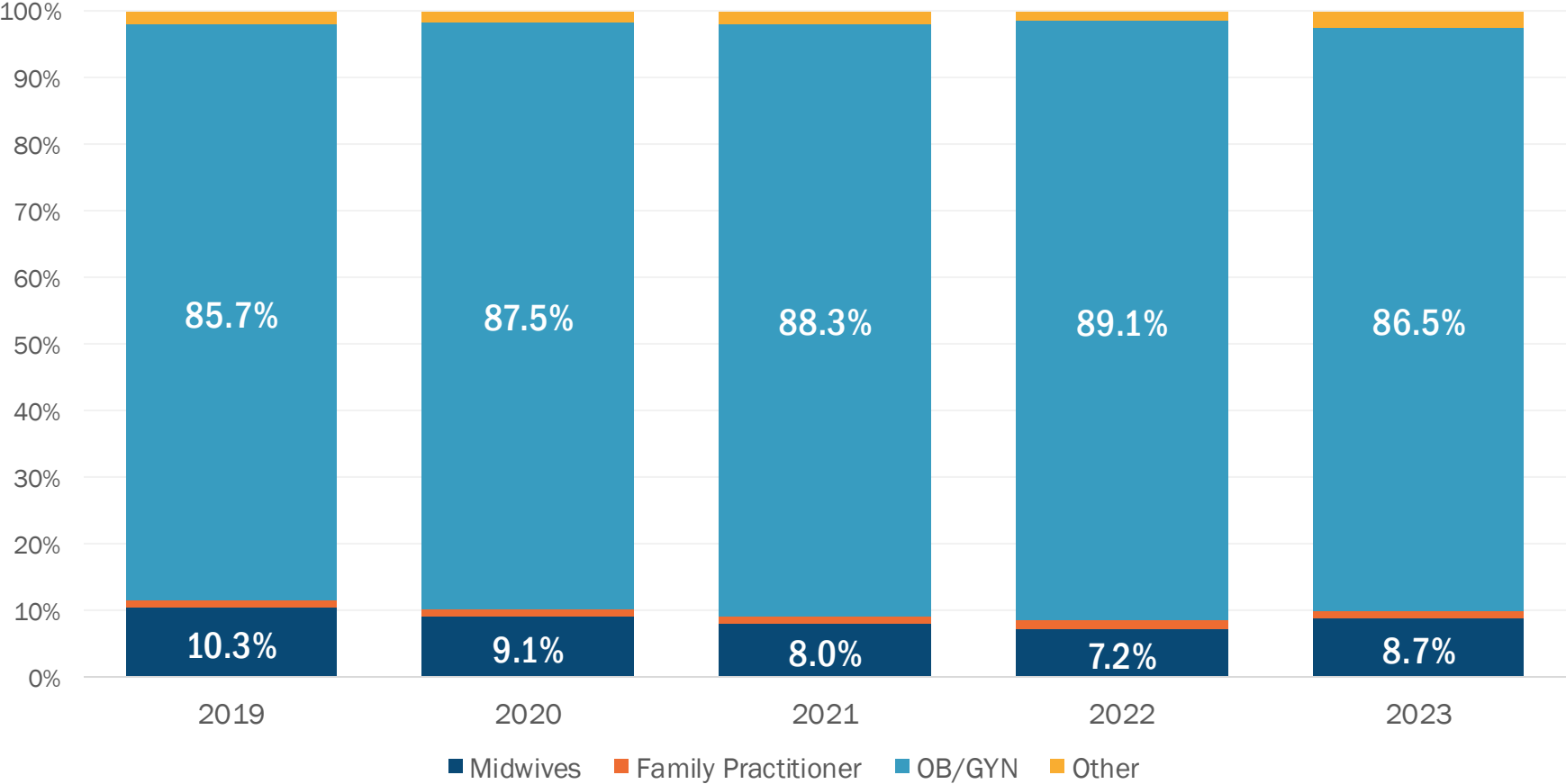
➤ **Representation in care can benefit Black patients:** Research has found a significant decrease in infant mortality among Black newborns when cared for by Black physicians compared to White physicians.¹

Notes: Race/ethnicity groups are mutually exclusive (other racial groups are non-Hispanic). Shares for birthing people and OB/GYNs use 2023 data, while CNMs use 2022 data. The race/ethnicity distribution of CNMs may double count individuals due to non-mutually exclusive response categories.
 Exhibit Sources: HPC analysis of Mass. DPH Vital Statistics, AAMC, U.S. Physician Workforce Data Dashboard, and Massachusetts DPH Nursing Dashboard
 Text Sources: 1. Greenwood BN, Hardeman RR, Huang L, Sojourner A. Physician-patient racial concordance and disparities in birthing mortality for newborns. PNAS. 2020. 117(35) <https://www.pnas.org/doi/epdf/10.1073/pnas.1913405117>

From 2019 to 2023, nearly 90 percent of births in Massachusetts had an OB/GYN as the prenatal provider.



Share of births by prenatal provider type, 2019-2023



➤ Family physicians as prenatal providers represent less than 1.5% of births from 2019-2023.

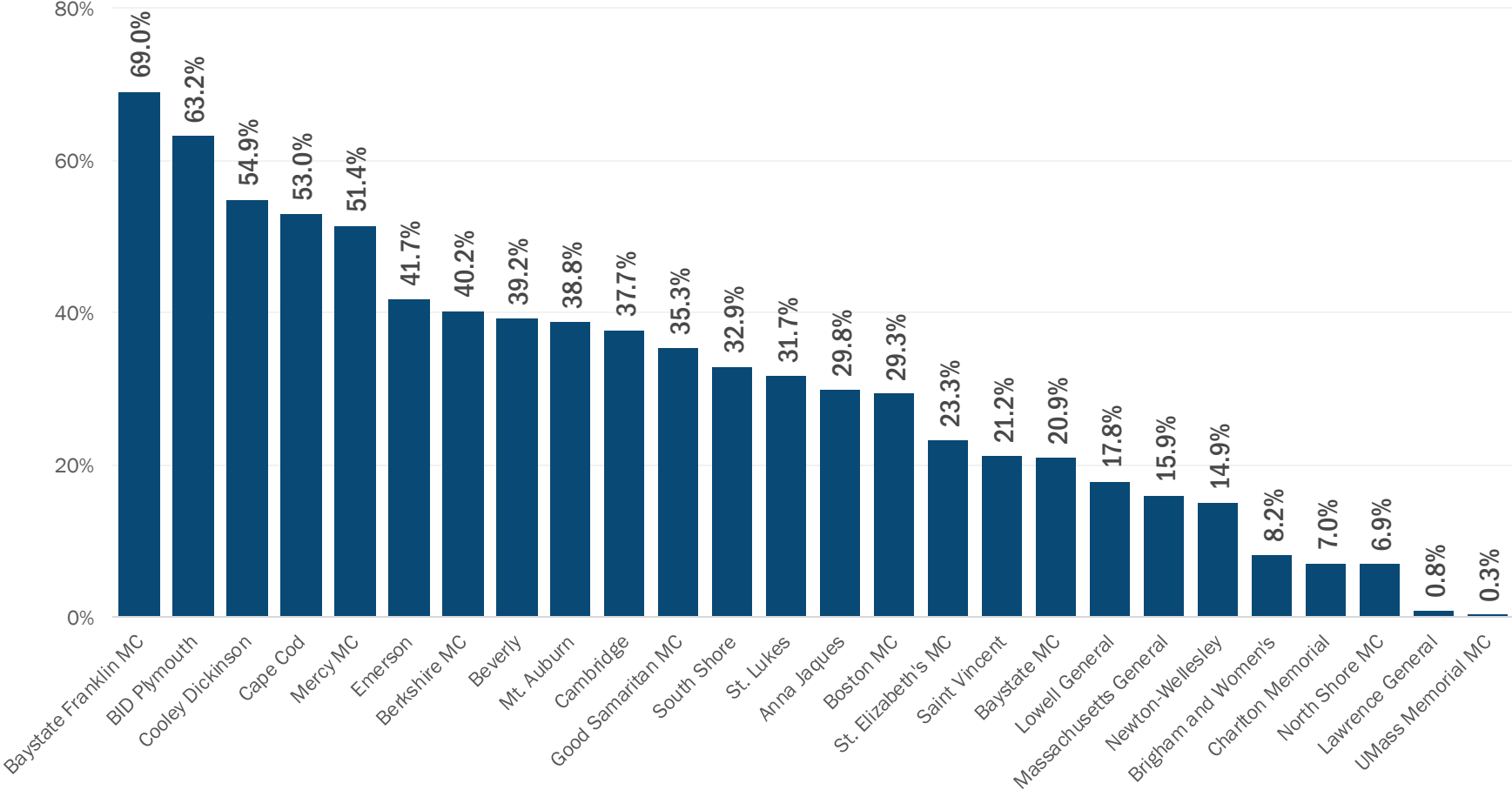
Notes: Other includes nurse practitioners, physician assistants, and registered nurses. Midwives other than certified nurse midwives (CNMs) accounted for 6% of births attended by midwives in 2023. One percent or less of births in each year had no prenatal provider. Other providers include nurse practitioners, physician assistants, registered nurses, other MDs, and DOs.

Sources: HPC analysis of Mass. DPH Vital Statistics

Midwifery involvement in birth care also varies considerably by Massachusetts hospital.



Share of births attended by CNMs at Massachusetts hospitals, 2023



- In 2023, Massachusetts had a larger share of births attended by midwives compared to the US: about 19% and 13%, respectively.¹
- Eight hospitals had no midwife-attended births.

Notes: Exhibit is restricted to hospitals with 400 or more births in 2023 and had at least one birth attended by a midwife.
 Exhibit Sources: HPC analysis of Mass DPH Vital Statistics.
 1 Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Provisional Natality on CDC WONDER Online Database. Data are from the Natality Records 2023 through Last Month. <http://wonder.cdc.gov/>

Recent Policy Changes Affecting the Maternal Health Care Workforce in the Commonwealth



- MassHealth offered **coverage of doula services** starting in Spring 2024.¹
- In August 2024, the Commonwealth enacted **Chapter 186 of the Acts of 2024**, *An Act promoting access to midwifery care and out-of-hospital birth options*, which includes:^{2,3}
 - MassHealth **reimbursement for CNMs at parity with OB/GYN** reimbursement for the same care;
 - Creation of the Board of Registration in Midwifery and a **licensure pathway for certified professional midwives** (CPMs);
 - MassHealth **coverage for CPM care**
 - **Updated DPH regulation of freestanding birth centers**, aiming to facilitate their establishment and sustainability;
 - Creation of a **licensure pathway for lactation consultants**; and
 - Expanded **screening for perinatal mental health conditions**.

Text Sources: 1. Mass. Executive Office of Health and Human Services. MassHealth Announces Coverage of Doula Services. December 8, 2023. <https://www.mass.gov/news/masshealth-announces-coverage-of-doula-services>; 2 Massachusetts General Law, Chapter 186 of the Acts of 2024. <https://malegislature.gov/Bills/193/H4785>; 3. Governor Maura Healey and Lt. Governor Kim Driscoll, Massachusetts Executive Office of Health and Human Services. Governor Healey Signs Maternal Health Bill, Expanding Access to Midwifery, Birth Centers and Doulas in Massachusetts. August 23, 2024. <https://www.mass.gov/news/governor-healey-signs-maternal-health-bill-expanding-access-to-midwifery-birth-centers-and-doulas-in-massachusetts>

Call to Order

Approval of Minutes: June 24, 2025 (VOTE)

Maternal Health Task Force: Report Update

- HPC Staff Presentation: Preliminary Findings from Task Force Report (Chapters 1-3)
 - Chapter 1: Overview of Massachusetts Births and Birthing People
 - Chapter 2: Massachusetts Maternity Care Supply and Capacity
 - **UP NEXT: Chapter 3: Hospital Maternity Unit Closures: 2013-2024**

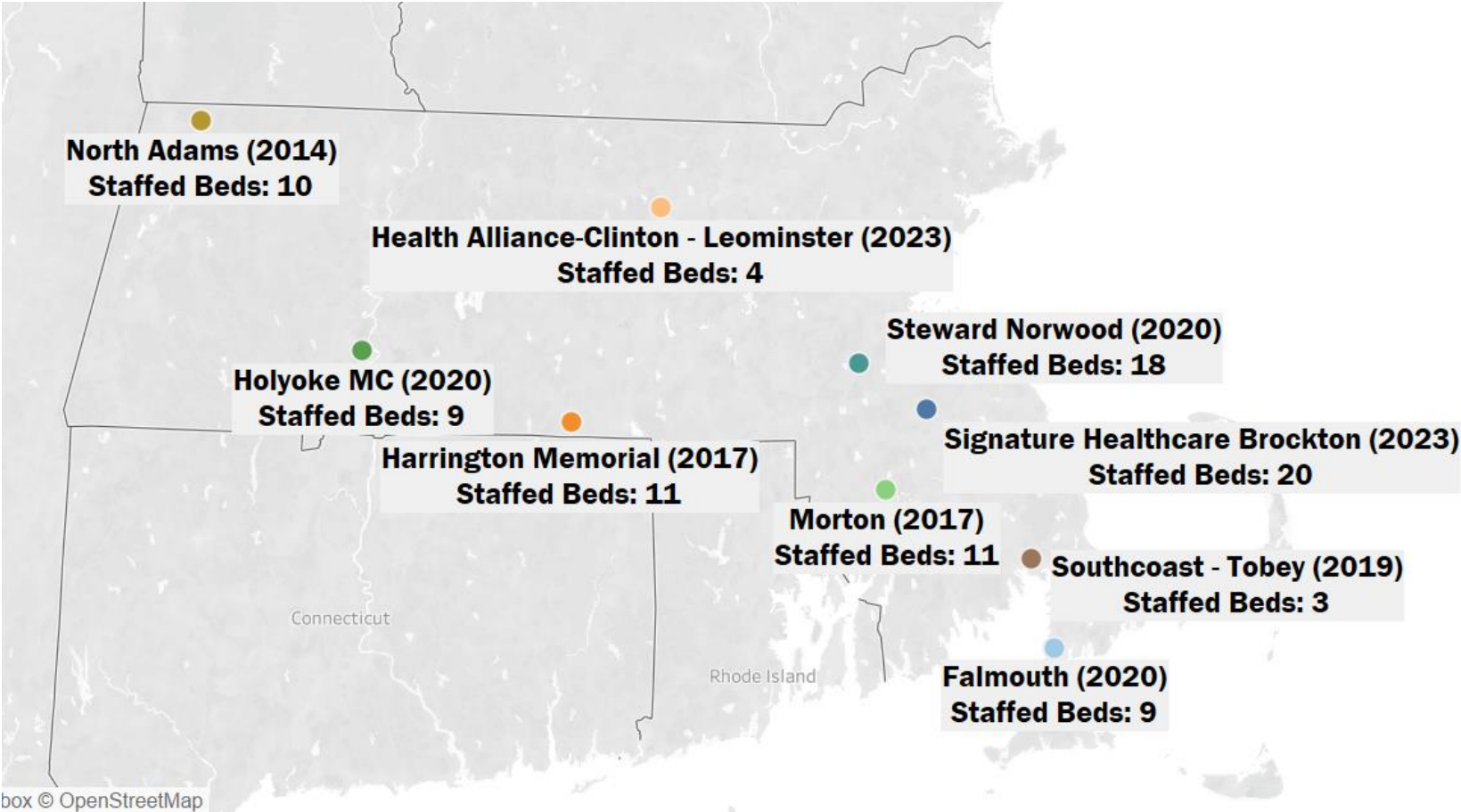
Open Discussion

Next Steps and Adjourn

Massachusetts' Hospital Maternity Unit Closures, 2014-2023



Hospital Maternity Unit Closures From 2014-2023



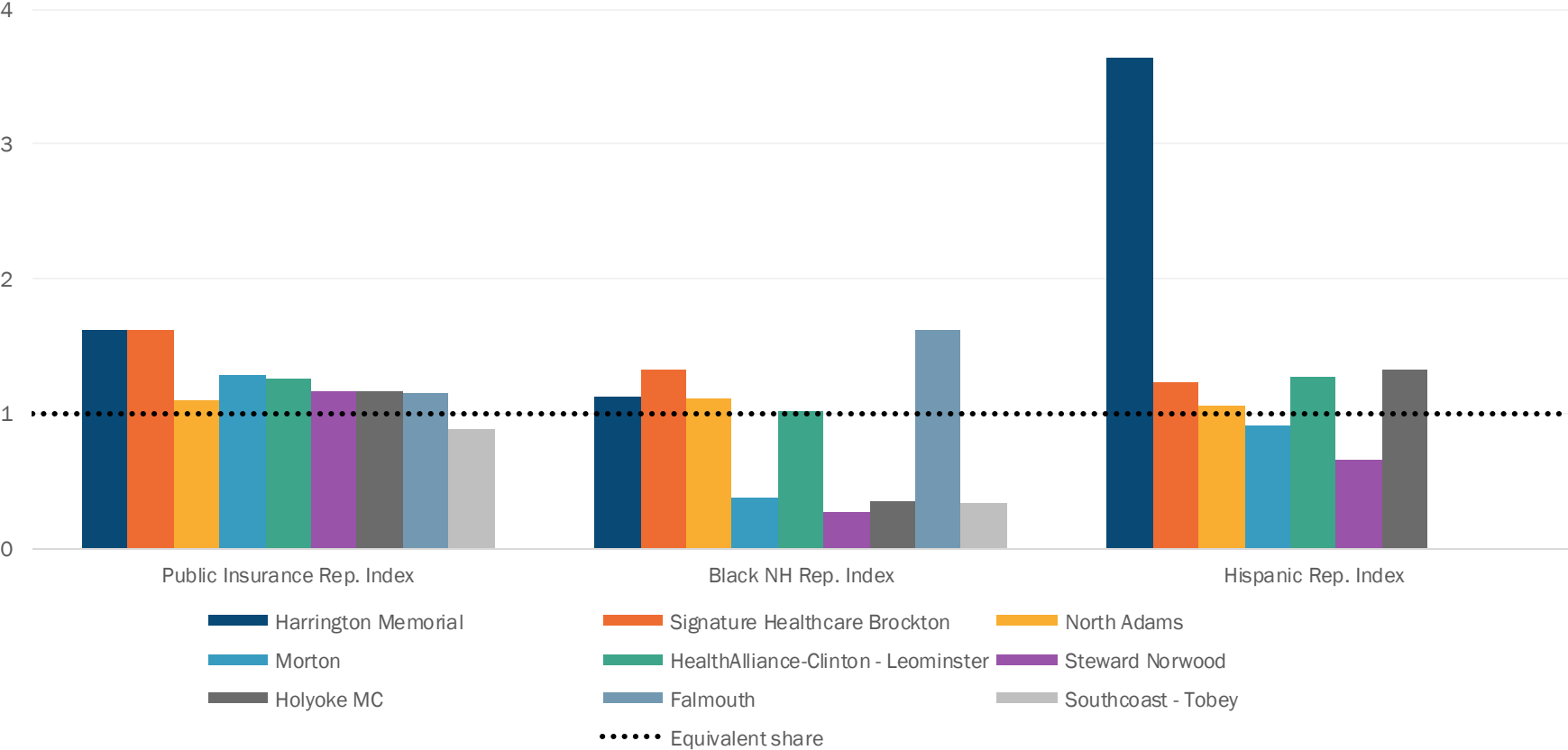
- > From 2014-2023, there were **nine hospital maternity unit closures**, all of which occurred in **community high public payer hospitals**.
- > The nine closures resulted in a reduction of approximately **95 staffed obstetric beds**.
- > In this section, we examined:
 1. **Factors** associated with hospital maternity unit closures;
 2. **Impacts** of hospital maternity unit closures; and
 3. Patient **Displacement** following a hospital maternity unit closure.

Notes: Staffed beds are averaged across the three years prior to closure. The HPC imputed bed counts for the individual Southcoast Hospitals Group campuses, based on the proportion of Southcoast's discharges occurring at each campus, including discharges to out-of-state patients. Exhibit Sources: HPC analysis of Center for Health Information and Analysis Hospital Cost Reports, 2011-2023.

Closure Hospitals' Share of Black Non-Hispanic, Hispanic, and Publicly Insured Maternity Patients Compared to Their Maternity Service Areas



Average Black Non-Hispanic, Hispanic, and Publicly Insured Representativeness Index Values Across the 3 Years Prior to Closure



- Index values greater than 1.0 indicate that Black Non-Hispanic, Hispanic, and/or publicly insured patients made up a larger share of the hospital’s maternity patients than of the MSA’s overall patients.
- **Eight closure hospitals served a high percentage of publicly insured maternity patients** relative to their MSAs.
- Closure hospitals serving a greater share of Black Non-Hispanic patients tended to also serve a greater share of Hispanic patients.

Notes: Both Southcoast - Tobey and Falmouth had a nominal share of Hispanic maternity patients in their MSAs. As such, the HPC was unable to calculate Hispanic Representativeness Index values for these hospitals. Public payer maternity discharges were defined as MDC 14 discharges with Medicaid, Medicare, or another government insurance type. Analysis limited to Mass. residents.
 Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2023.

Factors

- The HPC compared the performance of hospitals that closed their maternity unit to that of hospitals that did not close services (i.e., non-closure hospitals).
 - Metrics of interest related to **volume, occupancy, financial, and payer mix**.
 - Performance was averaged for the **three years** prior to closure.
- To better align with the closure cohort, the non-closure cohort was limited to **community and community high-public payer hospitals**.
- **Steward Norwood and Signature Healthcare Brockton** were excluded, as these hospitals experienced unplanned closures resulting from a flood and fire, respectively.
- **Data for North Adams are presented as available**, however, the closure at North Adams stands apart from other maternity unit closures given that it was a whole-hospital closure. As such, this maternity unit may not have closed for the same reason as other planned closures.
- This is not a causal analysis. The factors assessed by the HPC cannot be said to be driving or causing closures.

Non-Closure Hospital Cohort

- | | |
|------------------------|-----------------------------|
| ▪ Anna Jacques | ▪ Nantucket Cottage |
| ▪ Baystate Franklin MC | ▪ Newton-Wellesley Hospital |
| ▪ Fairview | ▪ South Shore |
| ▪ Cape Cod | ▪ Sturdy Memorial |
| ▪ Cooley Dickinson | ▪ Winchester |
| ▪ Emerson | ▪ North Shore MC - Salem |
| ▪ Heywood | ▪ MetroWest MC |
| ▪ Steward Holy Family | ▪ MelroseWakefield |
| ▪ BID-Plymouth | ▪ Northeast Hospital |
| ▪ Lawrence General | ▪ Berkshire MC |
| ▪ Lowell General | ▪ Mercy MC |
| ▪ Martha's Vineyard | ▪ Steward Good Samaritan MC |
| ▪ Milford Regional MC | |

Closure Hospitals vs. Non-Closure Cohort Results



Factors

Compared to the non-closure hospital cohort:

Volume / Occupancy	Total Discharges*	6/7 closure hospitals had fewer overall discharges
	Maternity Discharges	7/7 closure hospitals had fewer maternity discharges
	Maternity Unit Occupancy**	4/6 closure hospitals had lower maternity unit occupancy rates
Financial	Total Margin*	4/7 closure hospitals had higher total margins
	Operating Margin*	7/7 closure hospitals had higher operating margins
	Inpatient RPP**	4/6 closure hospitals were lower priced (i.e., had lower inpatient relative price percentiles (RPP))
	NPSR per CMAD*	6/7 closure hospitals received less net patient service revenue (NPSR) per case mix adjusted discharge (CMAD)
Payer Mix	Maternity Public Payer Mix	6/7 closure hospitals had a higher share of publicly insured maternity discharges

Notes: * Data are pooled across hospital campuses for Southcoast - Tobey and HealthAlliance-Clinton – Leominster; ** Analysis excludes North Adams due to lack of data availability. Occupancy rates are defined as total maternity unit discharge bed-days (specifically, discharges with an obstetric room and board revenue code, i.e., 0112, 0122, 0132, 0142, 0152) divided by total staffed beds divided by 365. For hospitals that do not use these revenue codes, the HPC identified certain maternity unit discharges are MDC 14 DRGs that have high or very high likelihoods to have been maternity unit discharges. Staffed beds data come from CHIA Hospital Cost Report data and are processed as described earlier. Public payer maternity discharges were defined as MDC 14 discharges with Medicaid, Medicare, or another government insurance type. RPP is calculated as the average percentile rank of the commercial IP RP value for each hospital across all payers, weighted by total IP payments. The RPP was calculated using CHIA Relative Price data. NPSR per CMAD was taken from CHIA Hospital Profile data. Maternity public payer mix limited to Mass. residents.

Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2023; CHIA Relative Price, 2014-2022; CHIA Hospital Profiles, 2013-2023; and CHIA Acute Hospital Cost Reports, FY13-23.

Summary of Factors Associated with Maternity Unit Closures

Factors



Volume/Occupancy Factors:

- Massachusetts hospitals cited **low volume and declining birth rates** as a driver of closures in their Essential Service Closure (ESC) filings.
- The HPC found that most hospitals that closed maternity services had **fewer total discharges**, and all had **fewer maternity discharges** than community hospitals that did not close maternity services.
- Additionally, most closure hospitals had **lower maternity unit occupancy rates** than their non-closure counterparts.



Financial Factors:

- In their ESC filings, Massachusetts hospitals cited **numerous financial drivers** of closure, including unprofitability of and insufficient reimbursement for maternity services, need for capital investment, and broader financial challenges.
- The HPC's analysis found that hospitals that closed maternity services were generally **lower priced** and received **less revenue per case mix adjusted inpatient discharge** than non-closure hospitals.
- However, closure hospitals generally had **higher margins**.



Payer Mix:

- All nine maternity unit closures occurred in community high public payer hospitals.
- The HPC found that, for the most part, hospitals that closed their maternity service had a **greater share of publicly insured maternity discharges** than other community hospitals.

Hospitals by Annual Volume Category and Closure Status



Factors

Hospitals by Annual Volume of Maternity Discharges, 2013 and 2023

Hospital Annual Volume	2013 Hospitals	2023 Hospitals
Very Low Volume (<250)	Fairview Martha's Vineyard Nantucket Cottage North Adams	Fairview Martha's Vineyard Nantucket Cottage
Low Volume (250-499)	Baystate Franklin MC Falmouth Harrington Memorial Heywood Holyoke MC Morton Southcoast - Tobey Steward Norwood (closed due to flood)	Baystate Franklin MC Heywood

Hospitals in red closed either their maternity unit or the entire hospital during the study period.

Notes: Hospitals that do not operate a licensed maternity unit were excluded. Includes maternity discharges for which patient was not a MA resident. Signature Healthcare Brockton and HealthAlliance-Clinton – Leominster were excluded from the 2023 column because both closed mid-year and did not have a full year of 2023 data on which to classify them into a volume category.

Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2023.

- All four of MA's very low volume hospitals in 2013 served isolated communities.
- Though low volume is associated with maternity unit closure, three of the four very low volume hospitals were still in operation as of 2023.
 - Both Fairview and Martha's Vineyard are designated **critical access hospitals**, which confers more favorable reimbursement policies.
 - Martha's Vineyard and Nantucket Cottage are also both part of the **well-resourced MGB health system**.
 - These factors may help explain how these hospitals have been able to continue operating their maternity service lines.
- Maternity unit closure was more common in the low volume category. Six of the eight hospitals in this category in 2013 have subsequently closed.

National Impacts of Maternity Unit Closures



Impacts

➤ Travel Time and Distance

- Closures led **more patients to deliver outside their county**, particularly rural patients.^{1,2}
- Closures **increased travel time and distance to delivery hospitals**, particularly for rural patients.^{3,4}

➤ Process Measures

- Closures in a birthing patient's county of residence led to **reduced prenatal care visits**^{1,2,4,6} and **increased likelihood of induction**.^{1,4}
- Closures often led to **reduced probability of C-section**, particularly among birthing patients who were most likely to be diverted to hospitals with lower C-section rates.^{1,4,5}

➤ Health Outcomes

- Some studies found **greater incidence of low birthweight births, neonatal and perinatal mortality, and severe maternal morbidity** in areas that experienced closures. Some effects were transitory.^{2,7,8,9}
- Other studies found **no overall impact on maternal or infant health outcomes**^{1,5,10}, and some reported **improvements in certain outcome measures and geographies**^{1,2,5}
- Negative effects on health outcomes were **more pronounced for birthing patients of color**.^{8,10}

➤ Qualitative Literature

- Patients in a mid-sized city with no maternity unit experienced increased drive times, reduced choice and access to prenatal care, barriers to emotional support during delivery, and high rates of complications.¹¹

Text Sources: 1. Fischer, S. J., Royer, H., White, C. D. Health care centralization: the health impacts of obstetric unit closures in the US (No. w30141). National Bureau of Economic Research. 2022; 2. Durrance, C., Guldi, M., Schulkind, L. The effect of rural hospital closures on maternal and infant health. Health services research. 2024; 59(2): e14248.; 3. Carrel, M., et. al. Labor & delivery unit closures most impact travel times to birth locations for micropolitan residents in Iowa. The Journal of Rural Health. 2023; 39(1): 113-120.; 4. Sullivan, M. H., et. al. Exploration of the effects of rural obstetric unit closures on birth outcomes in North Carolina. The Journal of Rural Health. 2021; 37(2): 373-384.; 5. Battaglia, E. The effect of hospital maternity ward closures on maternal and infant health. American Journal of Health Economics. 2025; 11(2): 201-246.; 6. Radke, S. M., et. al. Closure of Labor & Delivery units in rural counties is associated with reduced adequacy of prenatal care, even when prenatal care remains available. The Journal of Rural Health. 2023; 39(4): 746-755.; 7. Lorch, S. A., et. al. The impact of obstetric unit closures on maternal and infant pregnancy outcomes. Health Services Research. 2013; 48(2pt1): 455-475.; 8. McGregor, A. J., et. al. Obstetrical unit closures and racial and ethnic differences in severe maternal morbidity in the state of New Jersey. American Journal of Obstetrics & Gynecology MFM. 2021; 3(6): 100480.; 9. Sontheimer, D., et. al. Impact of discontinued obstetrical services in rural Missouri: 1990-2002. The Journal of Rural Health. 2008; 24(1): 96-98.; 10. Chatterji, P., Ho, C. Y., & Wu, X. Obstetric unit closures and racial/ethnic disparity in health (No. w30986). National Bureau of Economic Research. 2023.; 11. McGregor, A. J., et. al. "I Feel Like That Was the Only Option I Had:" A Qualitative Study of Structural Inequities in Obstetric Hospital Choice in Trenton, New Jersey. Journal of Health Care for the Poor and Underserved. 2022; 33(4): 1772-1792.

Community-identified Impacts



Impacts

- **Massachusetts community members have described the impacts of maternity unit closures**, such as increased barriers to accessing care, an increase in patients delivering a baby outside of a hospital, and staffing challenges at recipient hospitals.
 - Following the closure at HealthAlliance-Clinton - Leominster, firefighter EMTs and paramedics have reported **delivering an increasing number of babies in ambulances**. Additionally, **women have given birth in the emergency department** in Leominster because they were unable to travel a greater distance to a hospital with a maternity unit.³
 - Nursing staff at Cape Cod’s maternity unit reported being **“understaffed and overwhelmed”** following the closure of the Falmouth maternity unit.⁴
 - Additionally, after the Falmouth closure, elected officials and community leaders expressed concerns about **increased drive time to a maternity hospital**, particularly during the peak tourist season on the Cape.⁵
 - A patient who gave birth at Holyoke MC prior to closure noted that increased travel time following the closure could be **especially burdensome for individuals without access to transportation, paid time off, or childcare**.^{1,2}

➤ The Maternal Health Task Force will further examine the impact of closures on community members through **semi-structured interviews**.

Text Sources. 1. Melendez, L. NBC10 Boston. Impact felt after closing of Leominster birthing center. September 26, 2023. Available at: <https://www.nbc10.com/news/local/impact-felt-after-closing-of-leominster-birthing-center/3145802/>; 2. Ingraham, R. Public Testimony at Holyoke Medical Center's Proposed Closure of its Maternal and Newborn Services. July 28, 2020.; 3. Clafin, H. Two years after the closure of Leominster's maternity unit, a region is struggling. Commonwealth Beacon. September 23, 2025. Available at: <https://commonwealthbeacon.org/health-care/two-years-after-the-closure-of-leominsters-maternity-unit-a-region-is-struggling/>; 4. Legere, C. Cape Cod Times. Cape Cod Healthcare to cut back on midwife services. October 28, 2020. Available at: <https://www.capecodtimes.com/story/news/2020/10/28/cape-cod-healthcare-cut-back-midwife-services/6059882002/>; 5. Massachusetts Nurses Association. Congress on Nursing Practice Massachusetts Nurses Association White Paper. Massachusetts: Maternal Services Are Central to Racial and Social Justice. Available at [Maternal Services White Paper.pdf](#)

Methodology and Summary of Findings: Impact of Maternity Unit Closures



Impacts

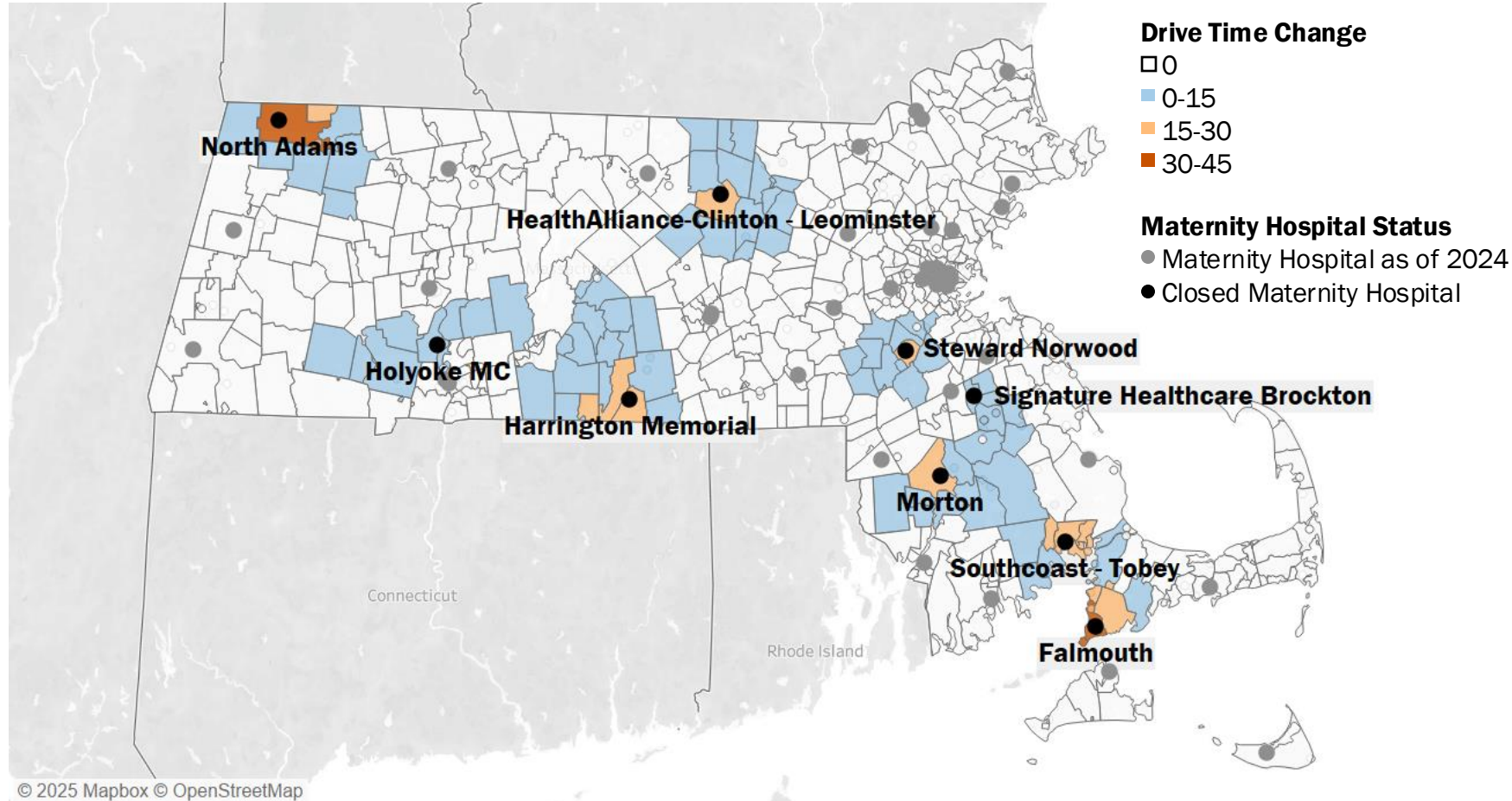
- To evaluate the impact of hospital maternity unit closures, the HPC assessed the change in certain access and quality measures (shown on the right) from the three years prior to closure to the three years following a closure in each closure hospital’s maternity service area.
- For the Holyoke MC and Falmouth closures, the HPC is supplementing its quantitative impact assessment with qualitative interviews regarding the effects of closure.
- Overall, MA residents faced **increased drive times** to their nearest and to their actual maternity hospital following a closure, reducing access to services.
- The HPC **did not find quantitative evidence** that closures had a **systematic effect** on 39-week induction rates, low-risk C-section rates, or SMM rates.
 - This may have been due, at least in part, to study limitations. For example, the closures in our data affected relatively few maternity patients, so the average changes in maternity service areas is expected to be small.

Measure	Impact
Access: Avg. Drive Time to the Nearest Maternity Hospital	Increased drive time post-closure
Access: Avg. Drive Time to Patients' Actual Maternity Hospital	Increased drive time post-closure
Quality and Care Delivery: 39-Week Induction Rate	<i>No systematic impact</i>
Quality and Care Delivery: Low-Risk C-Section Rate	<i>No systematic impact</i>
Quality and Care Delivery: SMM Rate	<i>No systematic impact</i>

Access Impacts: Change in Drive Times to Closest Maternity Hospital

Impacts

Change in Drive Time to Closest Maternity Hospital, 2013-2024



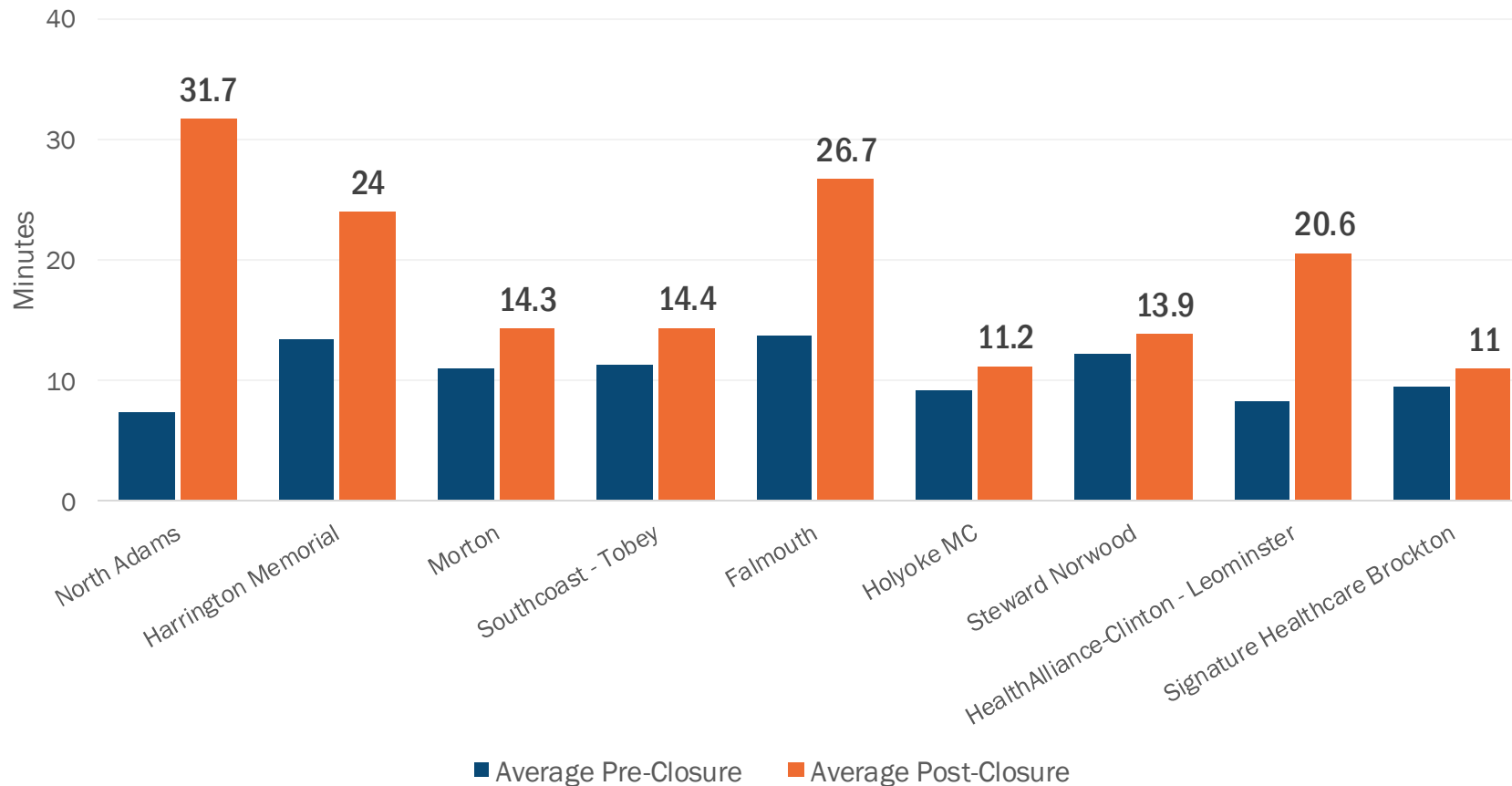
- In 2013, 95% of MA zip codes were within 30 minutes of the closest maternity hospital. By 2024, 91% of MA zip codes were within 30 minutes of the closest maternity hospital.
- **19% of MA zip codes experienced an increase in drive time** to the closest maternity hospital between 2013 and 2024.
- Three zip codes, one near North Adams Regional Hospital and two near Falmouth Hospital, experienced an increase in drive time greater than 30 minutes.

Access Impacts: Drive Time to Nearest Maternity Hospital



Impacts

Average Drive Time (min.) to the Nearest Maternity Hospital in the Closure Hospital's Maternity Service Area for Maternity Services Across the 3 Years Pre- and Post-Closure



Notes: Analysis limited to Mass. residents.

Exhibit Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2024; Google Maps JavaScript API.

- Following the closures, MA residents faced increased drive times to their nearest maternity hospital and to the actual maternity hospital where patients accessed care.
- **Individuals in North Adams' MSA were particularly impacted by the closure.** They had the shortest average drive time to the nearest maternity hospital prior to the closure (7.4 minutes), but the greatest average increase due to the closure (+24 minutes).
- However, due to their proximity to other maternity hospitals, some closures had little impact on average drive times in their service area.

Displacement

- When a hospital closes its maternity unit, patients who may have otherwise gone to the closure hospital are forced to seek care elsewhere.
- The HPC assessed how each hospital's share of maternity discharges in a closure hospital's MSA changed after the closure. Hospitals gaining a relatively large share of discharges post-closure were deemed "recipient hospitals."
- The HPC then assessed the characteristics of recipient hospitals as compared to closure hospitals pre-closure, including their maternity volume and occupancy rate, low-risk C-section rate, and performance on the HPC's various Representativeness Indices.

REPRESENTATIVENESS INDICES

- **Black Non-Hispanic Representativeness Index:** Hospital's share of Black Non-Hispanic maternity discharges divided by the share of Black Non-Hispanic maternity discharges in the hospital's 2013 MSA for maternity services
- **Hispanic Representativeness Index:** Hospital's share of Hispanic maternity discharges divided by the share of Hispanic maternity discharges in the hospital's 2013 MSA for maternity services
- **Public Insurance Representativeness Index:** Hospital's share of maternity discharges that were MassHealth-insured divided by the share of individuals in the hospital's 2013 MSA for maternity services that were MassHealth-insured
- **Obstetric Risk Index:** Hospital's average SMM risk score divided by the average SMM risk score for maternity discharges in the hospital's 2013 MSA for maternity services

Recipient Hospitals by Closure



Displacement

Closure Hospital	Top Recipient Hospital
North Adams	Berkshire Medical Center
Harrington Memorial	UMass Memorial
Morton	Steward Good Samaritan
Southcoast – Tobey	Southcoast – St. Lukes
Falmouth	Cape Cod
Holyoke MC	Baystate MC
Steward Norwood	Brigham and Women’s
HealthAlliance – Clinton – Leominster	UMass Memorial
Signature Healthcare Brockton ¹	South Shore Steward Good Samaritan

Notes: 1: Signature Healthcare Brockton had two top recipients with an almost equal market share change after the closure; as such both hospitals were included as top recipients in this analysis

Exhibit Sources: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2009-2024.

Volume, Care Delivery, and Access Findings

Volume	Maternity Unit Volume	<ul style="list-style-type: none"> Recipient hospitals almost always had a greater number of deliveries than the closure hospital; most had over 1,000 deliveries per year.
	Maternity Unit Occupancy Rate	<ul style="list-style-type: none"> Recipient hospitals almost always had higher occupancy rates, though they were generally below 70%, suggesting they had the capacity to absorb closure hospital patients.
Care Delivery	Obstetric Risk Index	<ul style="list-style-type: none"> Most recipient hospitals had a higher obstetric risk index, and some recipient hospitals were AMCs or teaching hospitals, whereas all closure hospitals were community hospitals. Impacts on use of risk-appropriate care should be assessed after the LoMC framework has been fully implemented.
	Low-Risk C-Section Rate	<ul style="list-style-type: none"> Recipient hospitals tended to have similar or lower rates of low-risk C-section.
Access	Black Non-Hispanic Rep. Index	<ul style="list-style-type: none"> Most recipient hospitals had a similar or higher Black Non-Hispanic Rep. Index than the closure hospital.
	Hispanic Rep. Index	<ul style="list-style-type: none"> Most recipient hospitals had a lower Hispanic Rep. Index.
	Publicly Insured Rep. Index	<ul style="list-style-type: none"> Most recipient hospitals a lower Public Insurance Rep. Index.

Displacement Analysis: Market Share Changes in Holyoke MC's Maternity Service Area



Displacement

Average Market Share in Holyoke MC's Maternity Service Area for the 3 Years Pre- and Post-Closure

Hospital	Average Market Share 3 Years Pre-Closure	Average Market Share 3 Years Post-Closure	Market Share Loss/Gain
Baystate MC	64.8%	74.7%	9.9%
Mercy MC	20.3%	16.3%	-4.0%
Holyoke MC	8.0%	0.2%	-7.8%
Cooley Dickinson	5.4%	6.8%	1.4%
Baystate Franklin MC	0.4%	0.8%	0.4%

- Both before and after closure, Baystate MC held the largest share in Holyoke MC's MSA.
- After the closure at Holyoke MC, Baystate gained approximately 10 percentage points in Holyoke's MSA, subsuming Holyoke's pre-closure share of 8%. This likely indicates that, following the closure, patients who might have otherwise received care at Holyoke were displaced to Baystate.

HOLYOKE MC

Volume / Occupancy

- Number of Deliveries per Year: 383
- Maternity Unit Occupancy Rate: 34.5%

Quality / Care Delivery

- Obstetric Risk Index: 0.66
- Low-Risk C-Section Rate: 18.3%

Patients / Communities Served

- Black Non-Hispanic Representativeness Index: 0.35
- Hispanic Representativeness Index: 1.32
- Public Insurance Representativeness Index: 1.17



BAYSTATE MC

Compared to Holyoke MC, Baystate MC had:

Volume / Occupancy

- Higher volume
- A higher maternity unit occupancy rate

Quality / Care Delivery

- A higher Obstetric Risk Index
- A lower rate of low-risk C-sections

Patients / Communities Served

- A higher Black Non-Hispanic Representativeness Index
- A lower Hispanic Representativeness Index
- A lower Public Insurance Representativeness Index

Displacement Analysis: Market Share Changes in Falmouth's Maternity Service Area



Displacement

Average Market Share in Falmouth's Maternity Service Area for the 3 Years Pre- and Post-Closure

Hospital	Average Market Share 3 Years Pre-Closure	Average Market Share 3 Years Post-Closure	Market Share Loss/Gain
Falmouth	31.5%	0.4%	-31.1%
BID – Plymouth	21.4%	30.7%	9.3%
Cape Cod	16.2%	38.9%	22.7%
South Shore	4.1%	6.2%	2.1%
Southcoast – St. Luke's	1.7%	10.7%	9.0%
Southcoast – Tobey	15.0%	0.3%	-14.7%

- Prior to its maternity unit closure in 2020, Falmouth served the greatest share of maternity discharges in its MSA.
- After closure, Cape Cod's share increased by about 23 points, indicating that most of the patients who would have otherwise gone to Falmouth instead received maternity care at Cape Cod.
- BID – Plymouth and Southcoast – St. Luke's also gained a significant share in the years after Falmouth's closure. This was likely due to the 2019 closure of Southcoast – Tobey, for which BID – Plymouth and Southcoast – St. Luke's were recipient hospitals.

FALMOUTH

Volume / Occupancy

- Number of Deliveries per Year: 334
- Maternity Unit Occupancy Rate: 32.6%

Quality / Care Delivery

- Obstetric Risk Index: 0.70
- Low-Risk C-Section Rate: 20.4%

Patients / Communities Served

- Black Non-Hispanic Representativeness Index: 1.62
- Public Insurance Representativeness Index: 1.15

CAPE COD

Compared to Falmouth, Cape Cod had:

Volume / Occupancy

- Higher volume
- A higher maternity unit occupancy rate

Quality / Care Delivery

- A higher Obstetric Risk Index
- A lower rate of low-risk C-sections

Patients / Communities Served

- A lower Black Non-Hispanic Representativeness Index
- A similar Public Insurance Representativeness Index

Agenda



Call to Order

Approval of Minutes: June 24, 2025 (VOTE)

Maternal Health Task Force: Report Update

- HPC Staff Presentation: Preliminary Research Findings from Task Force Report (Chapters 1-3)



UP NEXT: Open Discussion

Next Steps and Adjourn

Open Discussion



- Do these results **align with your understanding** of Massachusetts' maternity health care system?
- Are any results **surprising**, and what might explain them?
- Beyond the qualitative work we're undertaking, are **additional conversations with experts** needed to contextualize findings?
- Are **additional analyses** necessary to interpret our results?

Agenda



Call to Order

Approval of Minutes: June 24, 2025 (VOTE)

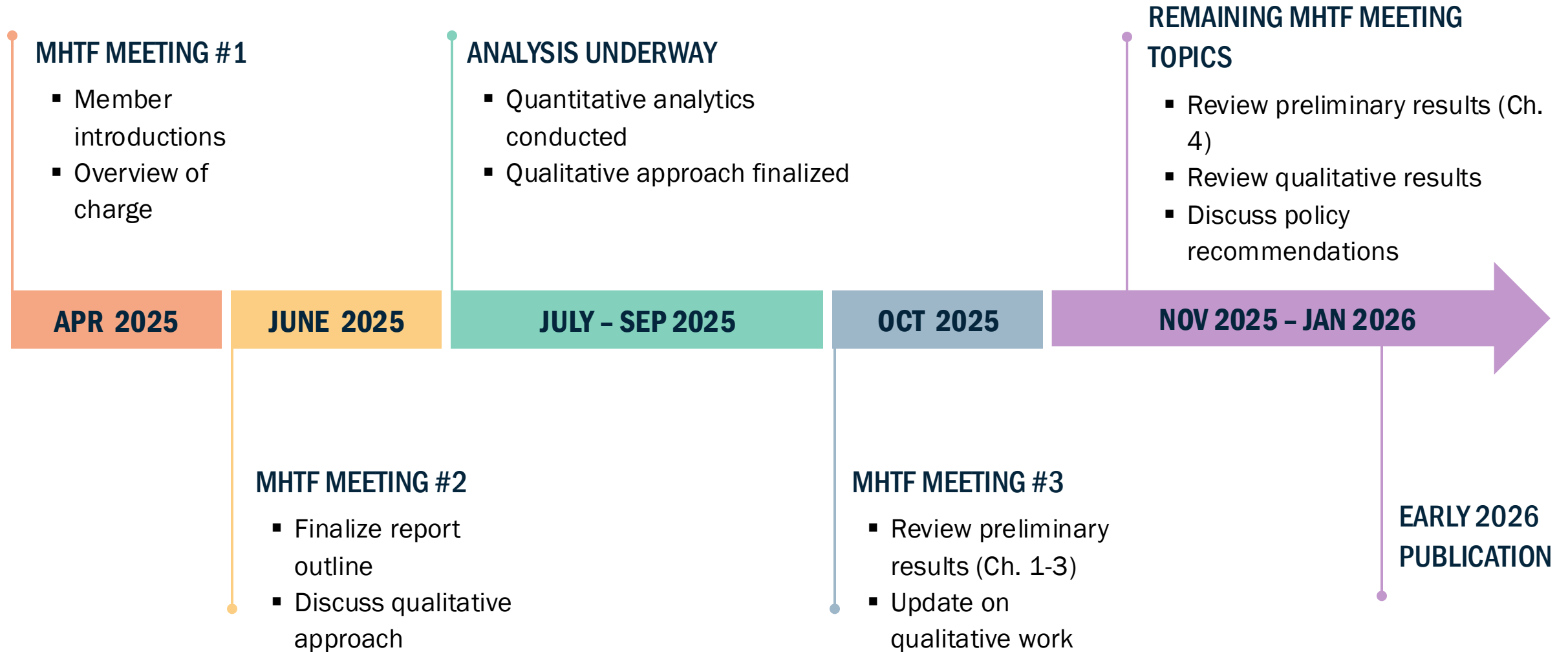
Maternal Health Task Force: Report Update

- HPC Staff Presentation: Preliminary Research Findings from Task Force Report (Chapters 1-3)

Open Discussion



UP NEXT: Next Steps and Adjourn



Contact Us



Please direct follow-up questions to:



MA-MHTF@mass.gov



MassHPC.gov/offices-and-task-forces/mhtf

Appendix

Displacement Analysis: Market Share Changes in HealthAlliance-Clinton – Leominster’s Maternity Service Area for Maternity Services



Displacement

Average Market Share in HealthAlliance-Clinton – Leominster’s Maternity Service Area for the 3 Years Pre- and Post-Closure

Hospital	Average Market Share 3 Years Pre-Closure	Average Market Share 3 Years Post-Closure	Market Share Loss/Gain
HealthAlliance-Clinton – Leominster	35.0%	0.8%	-34.2%
UMass Memorial MC – Memorial	21.0%	42.7%	21.8%
Saint Vincent	15.8%	16.4%	0.7%
Emerson	15.3%	21.0%	5.7%
Heywood	3.3%	5.3%	2.0%

- Prior to its closure, HealthAlliance-Clinton – Leominster served the greatest share of maternity discharges in its service area.
- UMass Memorial MC – Memorial’s share increased by approximately 22 points following the closure, likely indicating that it received the majority of patients that would have formerly gone to Leominster.

Displacement Analysis: Characteristics of HealthAlliance-Clinton Hospital – Leominster Campus and Recipient Hospitals

Displacement

HEALTHALLIANCE-CLINTON – LEOMINSTER

Volume / Occupancy

- Number of Deliveries per Year: 529
- Maternity Unit Occupancy Rate: 93.2%

Quality / Care Delivery

- Obstetric Risk Index: 0.78
- Low-Risk C-Section Rate: 15.8%

Patients / Communities Served

- Black Non-Hispanic Representativeness Index: 1.02
- Hispanic Representativeness Index: 1.27
- Public Insurance Representativeness Index: 1.26

UMASS MEMORIAL MC – MEMORIAL

Compared to HealthAlliance-Clinton– Leominster, UMass Memorial MC – Memorial had:

Volume / Occupancy

- Higher volume
- A lower maternity unit occupancy rate

Quality / Care Delivery

- A higher Obstetric Risk Index
- A similar rate of low-risk C-sections

Patients / Communities Served

- A similar Black Non-Hispanic Representativeness Index
- A lower Hispanic Representativeness Index
- A lower Public Insurance Representativeness Index