

MANDATED BENEFIT REVIEW OF HOUSE BILL 1069 AND SENATE BILL 607

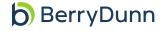
SUBMITTED TO THE 193rd GENERAL COURT:

AN ACT TO INCREASE ACCESS TO NURSE-MIDWIFERY SERVICES

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Mandated Benefit Review of House Bill (H.B.) 1069 and Senate Bill (S.B.) 607 Submitted to the 193rd General Court

An Act to Increase Access to Nurse-Midwifery Services

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1.0 Executive Summary: H.B. 1069 and S.B. 607; "An Act to increase access to nurse-midwifery services"

The Massachusetts Legislature's Committee on Health Care Financing referred House Bill (H.B.) 1069 and Senate Bill (S.B.) 607, both titled, "An Act relative to increase access to nurse-midwifery services," 1,2 to the Massachusetts Center for Health Information and Analysis (CHIA) for review. This report references H.B. 1069 and S.B. 607 together and hereafter as "the bill."

As submitted to the 193rd General Court of the Commonwealth of Massachusetts (the Commonwealth), the bill requires carriers to provide the same reimbursement for certified nurse midwives (CNMs) as licensed physicians when performing the same service. The bill further stipulates that insurers may not reduce reimbursement paid to a licensed physician to achieve compliance. This report uses the term "CNM" to be consistent with the bill, although there are a few different midwifery titles used globally and in different states.^{1,3} CNM, for purposes of this report, refers to a nurse who practice nurse-midwifery.

1.1 What Is Nurse-Midwifery?

CNMs provide prenatal, delivery, and postpartum care similar to obstetrician/gynecologists (OB/GYNs), However, CNM education and approach differ. CNM training typically includes a nursing degree with additional training and experience, and CNMs are taught to support childbirth as a normal physiological process. OB/GYNs are physicians who complete a residency specializing in obstetrics and gynecology after medical school and are also trained to manage mid- to high-risk pregnancies,⁴ and tend to approach childbirth in a more clinical fashion and use labor interventions (e.g., cesarean sections).

As defined by the American College of Nurse-Midwives (ACNM), CNMs provide care related to:

- Pregnancy
- Childbirth
- Postpartum period
- Sexual and reproductive health
- Gynecologic health
- Family planning services, including preconception care

Within their scope of practice, CNMs can also provide a full range of primary care services, including general health checkups, screening, and vaccinations, from the teenage years through menopause, as well as care for a healthy newborn during the first 28 days of life.^{5,6}

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¹ Titles for midwives include: CNMs, Certified midwives (CMs), Certified professional midwives (CPMs), and Unlicensed or lay midwives. The CNM credential is the only licensure recognized in Massachusetts.



1.2 Current Coverage

The Affordable Care Act (ACA) requires health insurance coverage in the individual and small group markets to cover 10 benefit categories (essential health benefits or EHBs). "Maternity and newborn care" is collectively included as one of the EHBs. Furthermore, the ACA requires coverage of certain preventive services that all fully insured plans must cover without cost-sharing, including services that CNMs provide (e.g., routine prenatal care and breastfeeding assistance and training). The Commonwealth benchmark plan, Blue Cross Blue Shield of MA-HMO Blue, includes coverage for CNM services.⁷

The ACA requires Medicare to reimburse CNMs at 100% of the physician fee schedule.⁸ Massachusetts carriers report reimbursing CNMs at 85% of physician rates for fully insured commercial plans, mirroring MassHealth CNM reimbursement.^{ii,9}

1.3 Analysis Overview

The bill's language stipulates that CNMs' services shall be reimbursed in the same amount as the reimbursement paid under the policy to a licensed physician performing the service in the area served; additionally, an insurer may not reduce the reimbursement to a licensed physician to achieve compliance with this requirement.

The estimated marginal cost was based on the impact of increasing CNMs' reimbursement by approximately 18% and assuming a modest increase in nurse-midwifery utilization. Research supports that midwifery care leads to similar clinical outcomes with potentially lower costs through reduced labor interventions (e.g., cesarean sections), although measuring this offset is beyond the scope of this report.

1.4 Estimated Cost of Enactment

Increasing reimbursement for CNMs to the physician level of payment by fully insured health plans would result in an average annual increase to the typical member's health insurance premium of between \$0.09 and \$0.11 per member per month (PMPM) or between 0.015% and 0.018% of premium, over five years.

1.5 Efficacy and Equity Impact

In 2021, 12% of all births in the United States were attended by a midwife, v compared to 17.9% in Massachusetts. Nurse-midwifery services are currently considered a covered benefit, and the CNM scope of practice would not be amended by the bill. Research indicates that services provided by CNMs compare favorably to those provided by physicians; women cared for by CNMs of the same risk status as those cared for by physicians had lower rates of cesarean birth v,11 and labor induction, vi,12 lower use of regional anesthesia, significant reduction in the incidence of



BerryDunn surveyed 10 insurance carriers in the Commonwealth (although Tufts Health Plan and Harvard Pilgrim Health Care recently merged, they are accounted for separately); responses represent six carriers and 89.6% coverage of members.

iii Carrier responses included the provision of payment policies, which indicated that CNMs are paid 85% of the physician reimbursement rate.

iv Midwife-attended births include births by CNMs, certified professional midwives, noncertified midwives, and advanced practice registered nurses.

^v Cesarean birth is the delivery of a baby through incisions (surgical cuts) made in the belly and uterus.

vi Labor induction is the use of medications or other methods to bring on (induce) labor.



third- and fourth-degree perineal tears, vii,13, and higher rates of breastfeeding. 14 When compared to physician-led care, research regarding CNMs care finds:

- Simlar or improved mortality and morbidity outcomes for mother and baby
- Lower utilization of interventions (e.g., C-sections for low-risk deliveries, epidurals, and instrument assisted births).
- Higher reported patient satisfaction and lower risk of postpartum depression.

Equitable reimbursment for CNMs has been endorsed by The American College of Obstetricians and Gynecologists (ACOG) in a joint statement with ACNM as one of the criteria necessary to establish and sustain viable practices that are able to provide broad healthcare services. ¹⁶ Following the passage of payment parity in Washington and Oregon, midwife-attended deliveries increased. ¹⁷ Increased reimbursment for CNMs has led to expanded access to midwifery services in other states. ¹⁸ To the extent that the bill, if enacted, would increase access to maternity, family planning, and gynecological care services for women in Massachusetts, the bill would be expected to improve the health of the population the bill is intended to reach.

In addition to improving access to OB/GYN services, CNMs' holistic, person-centered approach promotes culturally competent care for diverse populations. CNMs often work in community settings, including in women's homes—settings conducive for building trust and understanding of individual needs. Furthermore, CNMs' education emphasizes prevention, patient advocacy, and health education—all of which help identify and address healthcare gaps and assist patients with receiving needed services. 19,20,21

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vii Perineal tears involve the skin between the vaginal opening and the rectum, including the tissue under the skin. Third- and fourth-degree tears are the most severe and require repair. The chance of complications (e.g., infection, leaking of urine) increases as the tears become more severe.



Endnotes

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- ²¹ See Appendix C. American College of Nurse Midwives Code of Ethics. https://www.midwife.org/acnm/files/ACNMLibraryData/UPLOADFILENAME/00000000048/Code-of-Ethics.pdf.





AN ACT TO INCREASE ACCESS TO NURSE-MIDWIFERY SERVICES

MEDICAL EFFICACY ASSESSMENT





2.0 Medical Efficacy Assessment

H.B. 1069 and S.B. 607 (collectively, "the bill"), as submitted to the 193rd General Court would require health insurers to provide coverage for "...services rendered by a certified nurse midwife designated to engage in the practice of nurse-midwifery by the board of registration in nursing pursuant to section 80C of chapter 112; provided, however, that the following conditions are met:

- (1) the service rendered is within the scope of the certified nurse midwife's authorization to practice by the board of registration in nursing;
- (2) the policy or contract currently provides benefits for identical services rendered by a health care provider licensed by the commonwealth; and
- (3) the reimbursement for the services provided shall be in the same amount as the reimbursement paid under the policy to a licensed physician performing the service in the area served. An insurer may not reduce the reimbursement to a licensed physician to achieve compliance with this section."1.2

In response to a request for clarification, the bill sponsor indicated the bill's intent is to:

- Remove financial barriers for independent CNM practices
- Encourage hospitals to include CNM practitioners and CNM services
- Promote full scope of practice for CNMs—allowing them to function at the top of their license

M.G.L. Chapter 3 §38C charges CHIA with reviewing the medical efficacy of proposed mandated health insurance benefits. Medical efficacy reviews summarize current literature on the effectiveness and use of the treatment or service and describe the potential impact of a mandated benefit on the quality of patient care and health status of the population.

This report proceeds in the following sections:

- 2.0 Medical Efficacy Assessment
 - 2.1 Nurse-Midwifery Education, Licensing, and Scope of Practice
 - 2.2 Efficacy of Nurse-midwifery Services
 - 2.3 CNM Utilization
 - 2.4 Access and Health Equity
- 3.0 Conclusion

2.1 Nurse-Midwifery Education, Licensing, and Scope of Practice

In the United States, there are three types of professional midwifery credentials: CNMs, certified midwives (CMs), and certified professional midwives (CPMs). The CNM credential is the only licensure recognized in Massachusetts.³ CNMs have education in both nursing and midwifery. CNM midwifery programs include graduate education, often requiring one to two years of clinical experience before admission.⁴ Most CNM programs require a bachelor's degree



in nursing (BSN), but some programs will accept registered nurses (RNs) without a bachelor's degree and provide a bridge program to a BSN. ^{5,6} Some programs will accept individuals with a bachelor's degree who do not have an RN license—these programs provide accelerated nursing education prior to entering the clinical midwifery experience portion of the program. ^{7,8} Nationally, there are approximately 38 midwifery programs accredited by the Accreditation Commission for Midwifery Education (ACME) in the United States. Massachusetts has one midwifery education program. ^{9,10}

CNMs are one of five clinical categories of advanced practice registered nurses (APRNs) regulated by the Board.¹¹ APRNs are RNs who are authorized by the Board to engage in advanced practice nursing activities.^{12,13,14} Massachusetts CNMs have full independent practice authority and do not legally require physician supervision to practice, prescribe, or bill.¹⁵ Pursuant to M.G.L. Chapter 112 section 80G, CNMs are required to have clinical relationships with an OB/GYN^{viii,16} who is available for consultation, collaborative management, and/or referral, as needed. CNM care is required to be consistent with the standards established by the ACNM.¹⁷ CNMs may only practice in the clinical category(s) for which the CNM has attained and maintained certification. CNM scope of practice includes the provision of primary healthcare services in diverse settings to individuals throughout the lifespan, including the following:

- Gynecologic care
- Abortion for pregnancy less than 24 weeks
- Family planning services
- Preconception care
- Prenatal and postpartum care
- Childbirth
- Care of newborn
- Treatment of the partner in the case of sexually transmitted diseases
- Transgender care
- Sexual and reproductive health¹⁸

CNMs provide a broad range of services, related to pregnancy, childbirth, and newborn care, as well as routine reproductive care and ongoing comprehensive diagnosis and treatment.¹⁹ Midwifery is primarily focused on health promotion, disease prevention, risk assessment and management, and individualized wellness education and counseling²⁰ and can be provided in a variety of settings including, but not limited to, private offices, ambulatory care clinics, telehealth, and hospitals.²¹ When CNMs play a central role in the provision of maternal care, patients consistently report higher satisfaction.²²

2.2 Efficacy of Nurse-Midwifery Services

Nurse-midwifery has been an integral piece of care related to pregnancy and childbirth for thousands of years.²³ In the United States, the first midwifery education program began in 1932, although nurses who had been trained in the





viii An OB/GYN is a physician specialty with expertise in female reproductive health, pregnancy, and childbirth.



United Kingdom provided midwifery services in the Appalachian Mountains prior to that time.²⁴ Presently, nurse-midwifery programs are part of colleges and universities located across the United States, giving rise to modern-day CNMs.²⁵

Midwifery is evolving and developing rapidly, reflecting the changing landscape of healthcare and preferences of expectant individuals. ²⁶ Modern-day CNMs provide a holistic, patient-centered approach to the natural birthing process, while assisting individuals throughout prenatal, birth, and postpartum periods. ²⁷ The midwife-led continuity of care (MLCC) model^{ix} is evidence based and has been shown to positively influence the health and well-being of women and their families. ²⁸ As midwives, CNMs provide a full range of healthcare services for women from adolescence to menopause and practice in multiple settings including hospitals, birth centers, clinics, and patients' homes. ²⁹

The following outcomes are used when studying the efficacy of CNM versus OB/GYN physician care:

- Spontaneous vaginal birth versus cesarean section
- Regional anesthesia (spinal or epidural block to numb the lower part of the body)
- Intact perineum (the area between the anus and the vulva)
- Fetal loss after 24 weeks gestation
- Preterm birth
- Neonatal death³⁰

High-quality, well-designed random control trials (RCTs) comparing the efficacy of CNM-provided care to physician-provided care are not available, as RCTs are not considered appropriate research designs for this topic. Therefore, observational studies are used to examine the efficacy of CNM-provided care. Because of the high prevalence of the CNM model of care around the world, many observational studies include several countries.

In a 2024 review of 17 studies, including 18,533 women in five countries,^x the authors concluded that women who received midwife models of care experienced the following outcomes:

- They were less likely to experience a cesarean section or instrumental vaginal delivery.
- There was likely little to no difference in maintaining an intact perineum.xi,31
- They were more likely to experience a spontaneous vaginal birth.

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^{ix} MLCC is a model in which the midwife is the lead provider in planning, organizing, and providing care to a woman from beginning of pregnancy to the postnatal period in a multi-disciplinary network of consultation and referral with other care providers

x This review included Australia, Canada, China, Ireland, and the United Kingdom.

^{xi} An episiotomy is cut made in the tissue between the vaginal opening and the anus during childbirth, once thought to prevent larger vaginal tears.



The authors found little or no impact on the likelihood of having an intact perineum or likelihood of preterm death. Preterm birth is the primary cause of newborn mortality. Preterm newborns might suffer from a disability (or disabilities).³²

In contrast, in a study of 83 systematic reviews specifically investigating interventions to decrease preterm birth, the authors concluded there was a clear benefit for midwife continuity models of care versus other models of care to prevent preterm birth or perinatal death. Midwifery care in low-risk pregnancies is associated with fewer preterm births and labor interventions. 33,34,xii

In a systematic review and meta-analysis examining the effects of midwife care on cesarean birth, including currently published studies through May 2020, the authors observed a significantly lower likelihood of cesarean birth in midwife-led care, midwife-attended births, among those who received pre-birth midwife education, and within institutions with a midwifery presence.³⁵ Similarly, a 2014 review of healthcare data in New York found that women who gave birth at hospitals with more midwife-attended births had lower odds of giving birth by cesarean, as well as lower odds of episiotomy. ³⁶

2.3 CNM Utilization

In the United States, the degree to which midwifery services are integrated into maternity care varies greatly by state. The Midwifery Integration Scoring System (MISS) provides information on midwife integration into the health system and its impact on maternal-newborn outcomes.^{xiii,37} As reflected in Figure 1, Massachusetts is in the second quartile compared to its neighboring states of New Hampshire, Vermont, Rhode Island, and Maine in higher quartiles, indicating more integration of the CNM model of care in these states.

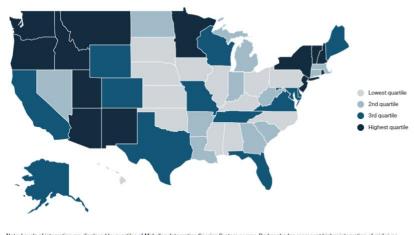


Figure 1. Midwifery Integration Across the United States³⁸

xii Labor interventions include electronic fetal monitoring and methods to bring about labor with the goal of a vaginal birth.
xiii The MISS was developed based on a nationwide survey of state regulatory experts to assess and compare the midwifery practice environment at a state level using factors such as scope of practice laws, autonomy, governance, and prescriptive authority; as well as restrictions that can affect patient safety, quality, and access to maternity providers across birth settings.



Note: Levels of integration are displayed by quartiles of Midwitery Integration Scoring System scores. Darker shades represent higher integration of midwives and lighter shades represent lower integration.



In Massachusetts, 17.9% of births were attended by CNMs in 2021, compared to its neighboring states—29.7% in Vermont, 21.2% in Maine, 26.4% in New Hampshire, and 19.5% in Rhode Island.³⁹ MISS found that states with the highest levels of integration reported the best outcomes for mothers and infants.⁴⁰

Although CNMs have had independent practice authority in Massachusetts since 2012, hospital bylaws prevent CNMs from practicing their profession at the full scope allowed by their license. ⁴¹ Further, based on legislative sponsor and clinical expert^{xiv} input, physicians provide services that could otherwise be provided by CNMs because of more favorable reimbursement rates, such as routine gynecologic or family practice clinic visits. As a result, there are longer wait times for these types of services that could be addressed through CNM provision.

2.4 Access and Health Equity

Relative to the number of births in the United States, there is an overall shortage of maternity care providers, both OB/GYNs and CNMs.⁴² In most other high-income countries, CNMs greatly outnumber OB/GYNs; although the ACA requires Medicaid midwifery care coverage, many beneficiaries are unable to access services based on the supply of providers.⁴³ In Massachusetts, there are 1,066 active OB/GYNs⁴⁴and 463 CNMs.^{xv,45} Of CNMs, 95% are practicing in hospitals and attending to 16% of births.⁴⁶ CNMs practice in 30 locations in the Commonwealth, including, but not limited to, hospitals, birth centers, and federally qualified health centers, providing a full range of services.⁴⁷ In 2021, Massachusetts recorded a total of 69,127 births; the number of births to individuals with private insurance^{xvi} comprised most births (62.3%) at 42,104 births.⁴⁸

Maternal mortality in the United States varies greatly by race and ethnicity, with the number of deaths per 100,000 births for Black non-Hispanic women (37.1) being more than two times higher than for white women (14.7) in 2018, while Hispanic women had the lowest rate (11.8).⁴⁹ Furthermore, "Black birthing people**vii,50* in the U.S. disproportionately endure inequitable experiences and outcomes during pregnancy and childbirth via structural, interpersonal, and obstetric racism." When compared to white birthing people, Black birthing people are two to three times more likely to experience complications and death related to pregnancy and childbirth. From 2011 – 2022, severe maternal morbidity**viii,53* (SMM) nearly doubled in Massachusetts, with Black non-Hispanic birthing people having the highest rates of labor and delivery complications among all races and ethnicities; over time, the data has shown that the rate of SMM for Black birthing people has doubled as compared to their white counterparts.

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xiv BerryDunn interviewed a physician specializing in obstetrics and gynecology on June 10, 2024, and a certified nurse midwife on June 14, 2024.

xv The most recent data for OB/GYNs and CNMs is from 2021 and 2024, respectively.

^{xvi} This includes commercial indemnity plans or commercial managed care organizations such as Health Maintenance Organizations (HMOs), Preferred Provider Organizations (PPOs), Independent Practice Plans (IPPs), or Independent Practice Associations (IPAs). It does not include self-paid or other payment types.

xvii A birthing person(s)/people are person(s)/people who birth, to recognize that not all childbearing people capable of pregnancy identify as women. This is used in key phrases to replace the term "maternal", so as to include all pregnant and birthing people. xviii SMM involves unexpected complications of labor and delivery that result in significant consequences to the birthing person's health. Such complications include life-threatening conditions (such as heart attacks, acute kidney failure, eclampsia, and sepsis), as well as situations that require the need for life-saving procedures (such as removal of the uterus) to manage serious conditions.



CNM reimbursement parity for Medicaid has been found to improve access to perinatal care.⁵⁶ Medicare already reimburses CNMs at the same rate as physicians, but commercial carriers pay at a reduced rate.⁵⁷ Massachusetts is the only New England state that reimburses CNMs at less than 100% of the physician rate for Medicaid,⁵⁸ although the Healey-Driscoll administration has recommended that MassHealth explore opportunities to reimburse CNMs in parity with physicians.⁵⁹

3.0 Conclusion

CNMs and OB/GYN physicians provide complementary services. Research supports the ability of CNMs to provide patient-centered, low-intervention care for low-risk pregnancies, while OB/GYNs are critically important for managing high-risk pregnancies and performing surgical procedures (e.g., cesarean births). For low-risk pregnancies, CNM care has been found to result in fewer labor interventions and a reduced risk of cesarean birth.⁶⁰

Each year in the United States, hundreds of individuals die from complications related to pregnancy and childbirth, and racial and ethnic disparities in maternal death and severe maternal morbidity persist.⁶¹ The undersupply of maternity providers, especially CNMs, as well as lack of access to comprehensive postpartum supports, have been identified as possible contributing factors. Many U.S. counties do not have practicing OB/GYN providers, with more than half lacking a single midwife.⁶² In rural areas, many hospitals have stopped providing obstetric services.⁶³ In Massachusetts, four hospitals have closed their maternity services and two birth centers have closed since 2018.⁶⁴ Research supports payment parity as a method to increase the number of CNMs and improve access. Recognizing the importance of parity for enhancing access, several states have increased Medicaid reimbursement for CNMs^{65,66,67} To the extent that the bill, if enacted, would increase access to OB/GYN services, it would be expected to improve the health of the population it is intended to reach.



Endnotes

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AN ACT TO INCREASE ACCESS TO NURSE-MIDWIFERY SERVICES

ACTUARIAL ASSESSMENT



4.0 Actuarial Assessment

4.1 Background

H.B. 1069 and S.B. 607 ("the bill") mandates health insurers to provide coverage for CNM services in the same amount as reimbursement paid for a licensed physician.^{1,2}

4.2 Plans Affected by the Proposed Mandate

The bill amends statutes that regulate commercial healthcare carriers in the Commonwealth. It includes the following sections, each of which addresses statutes dealing with a particular type of health insurance policy when issued or renewed in the Commonwealth:

- Chapter 32A Plans Operated by the Group Insurance Commission (GIC) for the Benefit of Public Employees
- Chapter 175 Commercial Health Insurance Companies
- Chapter 176A Hospital Service Corporations
- Chapter 176B Medical Service Corporations
- Chapter 176G Health Maintenance Organizations (HMOs)

The bill includes Chapter 118E, which pertains to Medicaid (MassHealth). Measuring the bill's impact to MassHealth population is outside the scope of this review. This analysis includes members under 65 years of age who have fully insured commercial plans.

Plans Not Affected by the Proposed Benefit Mandate

Self-insured plans (i.e., where the employer or policyholder retains the risk for medical expenses and uses a third-party administrator or insurer to provide only administrative functions), except for those provided by the GIC, are not subject to state-level health insurance mandates. State mandates do not apply to Medicare, Medicare Advantage plans, or other federally funded plans, including TRICARE (covering military personnel and dependents), the Veterans Administration, and the Federal Employees Health Benefit Plan, the benefits for which are determined by, or under the rules set by, the federal government. This review does address any potential effect on Medicare supplement plans—even to the extent they are regulated by state law.

This report is not intended to determine whether the bill would constitute a health insurance benefit mandate for purposes of Commonwealth defrayal under the ACA, nor is it intended to assist with Commonwealth defrayal calculations if it is determined to be a health insurance mandate requiring Commonwealth defrayal.

4.3 Existing Laws Affecting the Cost of the Bill

The ACA requires nonexempted health insurance coverage in the individual and small group markets to cover 10 benefit categories (essential health benefits or EHBs). Maternity and newborn care are included as one of the EHBs. Furthermore, the ACA requires coverage of certain preventive services that all fully insured plans in the individual, small group, and large group markets must cover without cost-sharing.³ CNMs provide several of these services, including prenatal care and breastfeeding assistance and training.





The Commonwealth benchmark plan, Blue Cross Blue Shield of MA-HMO Blue, includes coverage for nurse midwife services.

4.4 Current Coverage

BerryDunn surveyed 10 insurance carriers in the Commonwealth, and 6 responded.xix Carriers consistently report coverage of CNMs at the same reimbursement rate as other advanced practice nurses—85% of the physician rate.

5.0 Methodology

5.1 Overview

To estimate the impact of this mandate, BerryDunn first estimated the CNM service cost using the All-Payer Claims Database (APCD) data from 2019 to 2022, adjusted to reflect a 2022 cost basis. BerryDunn used this method to account for variances in utilization patterns across years. As Massachusetts carriers consistently reported covering CNM services at 85% of the physician rate, the cost under the mandate was then calculated as the current CNM service cost multiplied by 100 and divided by 85. The incremental cost of coverage is calculated as the portion of CNM services cost that is in excess of the current CNM cost.

Estimation of incremental cost, and accounting for carrier retention, results in an estimate of the bill's incremental effect on premiums, which is projected over five years beginning with January 1, 2025, as the implementation date should the bill become law.

5.2 Data Sources

The primary data sources used in the analysis are as follows:

- Input from legislative sponsors regarding the intended effect of the bill
- Survey of commercial carriers in the Commonwealth regarding descriptions of current coverage
- Interviews with medical experts
- Massachusetts APCD
- Published scholarly literature, reports, and population data, cited as appropriate

5.3 Steps in the Analysis

This section summarizes the analytic steps used to estimate the bill's impact on premiums.

- 1. Estimated the marginal costs for insurers to increase CNM reimbursement.
 - A. Used APCD data to calculate CNM PMPM cost for females under childbearing age (15 49) for 2019 2022.
 - **B.** Trended each of the 2019 2021 results from Step 1A forward to 2022 using national physician and clinical services expenditure trends.

xix BerryDunn surveyed 10 insurance carriers in the Commonwealth (although Tufts Health Plan and Harvard Pilgrim Health Care recently merged, they are accounted for separately); responses represent six carriers and 89.6% coverage of members.





- **C.** Created a range of 2022 CNM PMPM costs for females under childbearing age. The low-, mid-, and high-cost scenarios are calculated as the minimum, average, and maximum of the four data points from Steps 1A and 1B, respectively.
- D. Calculated the CNM PMPM cost under the mandate by applying a 100/85 factor to the current CNM PMPM cost from Step 1C.
- **E.** Calculated the marginal cost PMPMs by taking the difference between CNM PMPM costs under the mandate from 1D and the CNM PMPM costs from 1C.

2. Calculated the impact of the projected claim costs on insurance premiums.

- **A.** Estimated the fully insured Commonwealth population under age 65 for the next five years (2025 2029).
- **B.** Multiplied the PMPM incremental net cost of the mandate by the projected population estimate to calculate the total estimated marginal claims cost of the bill.
- **C.** Estimated insurer retention (administrative costs, taxes, and profit) and applied the estimate to the final incremental claims cost calculated in Step 2E.

5.4 Assumptions and Limitations

Research for this study indicated that CNMs often do not practice their full scope of practice within health systems or hospitals due to current lower reimbursement rates. It is unknown how hospitals and clinics would change their current operational structure and increase demand for CNMs if the bill were enacted. As previously noted, research for this report indicated physicians perform services that could be performed by CNMs--presumably physicians perform these services because of more favorable reimbursement. If CNMs were reimbursed in parity with physicians, hospitals and clinics could be incentivized to hire CNMs, allowing physicians to focus on more acute services outside CNMs' scope of practice. BerryDunn assumed its high scenario would capture the potential net increase in total cost for CNMs to provide additional services under the mandate. Research indicates that midwife-attended births have fewer labor interventions and cesarean births. However, BerryDunn did not include these potential offsets in the total medical cost in the analysis.

BerryDunn investigated the reimbursement differences between CNMs and physicians in APCD data. Due to the lack of provider-to-hospital relationship linkage in the APCD data, BerryDunn restricted its analysis to comparing CNMs with physicians listed on one large hospital's website.

While there is evidence that CNMs are reimbursed at lower rates for the same services, the ratios of CNM rates to physician rates vary among procedure code, procedure code modifier, insurance product, and carrier combinations. Factors such as different contracting for medical groups, providers practicing at different facilities, mid-year rate changes, and different coding practices are all likely contributing to the observed variance. The employment time frames of these providers might not align perfectly with the claim data by national provider identifiers (NPIs). Additionally, these providers could be practicing independently or affiliated with another hospital during the analysis time frame. Hence, there was no straightforward way to isolate only claims incurred at a particular hospital, even for this limited set of providers. As BerryDunn received confirmation from multiple carriers that CNMs are reimbursed at 85% of the physician rates, BerryDunn assumed that under the mandate, CNM reimbursement level will be uniformly increased to 100% from the current 85%.



The analysis encompasses claims data from 2019 to 2022. COVID-19 is likely to have had some impact on CNM utilization (there was evidence that utilization was lower in 2020 and subsequently higher in 2021). Given the volatility of the utilization across years, BerryDunn used four years of data, using the national physician and clinical services expenditures⁴ trend to trend the cost to a 2022 basis.

6.0 Analysis

This section describes the calculations outlined in the previous section in more detail. The analysis includes a best estimate middle-cost scenario, a low-cost scenario, and a high-cost scenario using more conservative assumptions. The analysis section proceeds as follows: Section 6.1 describes the steps used to calculate the incremental cost of the bill. Section 6.2 projects the fully insured population age 0 - 64 in the Commonwealth over the years 2025 - 2029. Section 6.3 calculates the total marginal medical expense. Section 6.4 adjusts these projections for carrier retention to arrive at an estimate of the bill's effect on premiums for fully insured plans.

6.1 Incremental Cost of Increased CNMs Reimbursement

To estimate the impact of increased CNM reimbursement, BerryDunn used APCD data from 2019 - 2022 to determine the CNM services PMPM cost for females under childbearing age (15 - 49). To bring data from all years to the same cost basis, BerryDunn applied the reported national physician and clinical services expenditures trend⁴ to results from each year to a 2022 basis. The average of the four datapoints is used as the mid scenario of CNM PMPM cost as of 2022. At the same time, a high scenario is calculated from the maximum, and a low scenario is calculated from the minimum of these data points.

Next, BerryDunn converted the PMPMs for females under childbearing age to PMPMs for the full population by applying a ratio of the childbearing-age female membership to the total fully insured membership. Assuming the current CNM PMPM cost represents 85% of the full cost under physician rates, BerryDunn calculated the CNM PMPM cost under the mandate by applying a 100/85 factor to the current CNM PMPM cost. The incremental PMPM cost is then calculated as the difference between CNM PMPM cost under the mandate and the current CNM PMPM cost. Table 1 shows the CNM PMPM cost for females under childbearing age, CNM PMPM cost for the fully insured population, and the incremental PMPM cost for the mandate for each scenario.

Table 1. Marginal Costs for Insurers for Increasing CNM Reimbursement to Physician Rates

	CNM PMPM COST: CHILDBEARING- AGE FEMALES	CNM PMPM COST: FULL POPULATION	CNM PMPM COST UNDER MANDATE: FULL POPULATION	INCREMENTAL CNM PMPM COST UNDER MANDATE
Low Scenario	\$0.958	\$0.353	\$0.415	\$0.062
Mid Scenario	\$1.065	\$0.393	\$0.462	\$0.069
High Scenario	`\$1.139	\$0.420	\$0.494	\$0.074



BerryDunn trended the PMPM impact from Table 1 from calendar year 2022 to calendar year 2024 and forward using the long-term average national projection for cost increases to physician and clinical services (calculated at 5.1%⁴).

Table 2. Projected PMPM

	2024	2025	2026	2027	2028	2029
Low Scenario	\$0.069	\$0.072	\$0.076	\$0.080	\$0.084	\$0.088
Mid Scenario	\$0.076	\$0.080	\$0.084	\$0.089	\$0.093	\$0.098
High Scenario	\$0.082	\$0.086	\$0.090	\$0.095	\$0.100	\$0.105

6.2 Projected Fully Insured Population in the Commonwealth

Table 3 shows the Commonwealth's fully insured population (ages 0 - 64) projected for the next five years. Appendix D describes the sources of these values.

Table 3. Projected Fully Insured Population in the Commonwealth, Ages 0 – 64

YEAR	2025	2026	2027	2028	2029
Total (0 – 64)	2,163,026	2,240,830	2,275,249	2,273,358	2,271,701

6.3 Total Marginal Medical Expense

The analysis assumes the mandate would be effective for policies issued and renewed on or after January 1, 2025. Based on an assumed renewal distribution by month, by market segment, and by the Commonwealth market segment composition, 72.1% of the member months exposed in 2025 will have the proposed mandate coverage in effect during calendar year 2025. The annual dollar impact of the mandate in 2025 was estimated using the estimated PMPM and applying it to 72.1% of the member months exposed.

Multiplying the total estimated PMPM cost by the projected fully insured membership over the analysis period results in the total cost (medical expense) associated with the proposed requirement, shown in Table 4.

Table 4. Estimated Marginal Claims Cost

	2025	2026	2027	2028	2029
Low Scenario	\$1,351,972	\$2,040,822	\$2,176,962	\$2,285,153	\$2,398,967
Mid Scenario	\$1,503,040	\$2,268,862	\$2,420,215	\$2,540,494	\$2,667,026
High Scenario	\$1,607,034	\$2,425,841	\$2,587,666	\$2,716,267	\$2,851,554

6.4 Carrier Retention and Increase in Premium

Assuming an average retention rate of 13.1%—based on CHIA's analysis of administrative costs and profit in the Commonwealth⁵—the increase in medical expense was adjusted upward to approximate the total impact on premiums. Table 5 displays the result.



Table 5. Estimate of Increase in Carrier Premium Expense

	2025	2026	2027	2028	2029
Low Scenario	\$1,555,131	\$2,347,494	\$2,504,092	\$2,628,540	\$2,759,457
Mid Scenario	\$1,728,901	\$2,609,801	\$2,783,897	\$2,922,251	\$3,067,797
High Scenario	\$1,848,521	\$2,790,370	\$2,976,511	\$3,124,438	\$3,280,053

7.0 Results

7.1 Five-Year Estimated Impact

For each year in the five-year analysis period, Table 6 displays the projected net impact of the proposed language on medical expenses and premiums using a projection of the Commonwealth's fully insured membership. Note that the relevant provisions are assumed effective January 1, 2025.**

Table 6 displays projected membership based on a population projection.

Finally, the impact of the proposed law on any one individual, employer group, or carrier may vary from the overall results, depending on the current level of benefits each receives or provides and on how the benefits will change under the proposed language.

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with an assumed start date of January 1, 2025, dollars were estimated at 72.1% of the annual cost, based upon an assumed renewal distribution by month (Jan through Dec) by market segment and the Massachusetts market segment composition.



Table 6. Summary Results

	2025	2026	2027	2028	2029	WEIGHTED AVERAGE	FIVE-YEAR TOTAL
Average Members (000s)	2,163	2,241	2,275	2,273	2,272		
Medical Expense Low (\$000s)	\$1,352	\$2,041	\$2,177	\$2,285	\$2,399	\$2,167	\$10,254
Medical Expense Mid (\$000s)	\$1,503	\$2,269	\$2,420	\$2,540	\$2,667	\$2,409	\$11,400
Medical Expense High (\$000s)	\$1,607	\$2,426	\$2,588	\$2,716	\$2,852	\$2,576	\$12,188
Premium Low (\$000s)	\$1,555	\$2,347	\$2,504	\$2,629	\$2,759	\$2,493	\$11,795
Premium Mid (\$000s)	\$1,729	\$2,610	\$2,784	\$2,922	\$3,068	\$2,772	\$13,113
Premium High (\$000s)	\$1,849	\$2,790	\$2,977	\$3,124	\$3,280	\$2,963	\$14,020
PMPM Low	\$0.083	\$0.087	\$0.092	\$0.096	\$0.101	\$0.093	\$0.093
PMPM Mid	\$0.092	\$0.097	\$0.102	\$0.107	\$0.113	\$0.103	\$0.103
PMPM High	\$0.099	\$0.104	\$0.109	\$0.115	\$0.120	\$0.110	\$0.110
Estimated Monthly Premium	\$593	\$609	\$625	\$642	\$660	\$626	\$626
Premium % Rise Low	0.014%	0.014%	0.015%	0.015%	0.015%	0.015%	0.015%
Premium % Rise Mid	0.016%	0.016%	0.016%	0.017%	0.017%	0.016%	0.016%
Premium % Rise High	0.017%	0.017%	0.017%	0.018%	0.018%	0.018%	0.018%

7.2 Impact on GIC

The proposed mandate would apply to self-insured plans operating for state and local employees by the GIC. The benefit offerings of GIC plans are similar to most other commercial plans in Massachusetts. This section describes the results for the GIC.

Findings from BerryDunn's carrier survey indicate that benefit offerings for GIC and other commercial plans in the Commonwealth are similar. For this reason, the cost of the bill for GIC will likely be similar to the cost for other fully insured plans in the Commonwealth.

BerryDunn assumed the proposed legislative change will apply to self-insured plans that the GIC operates for state and local employees, with an effective date of July 1, 2025. Because of the July effective date, the results in 2025 are approximately one half of an annual value. Table 7 breaks out the GIC's self-insured membership, as well as the corresponding incremental medical expense.



Table 7. GIC Summary Results

	2025	2026	2027	2028	2029	WEIGHTED AVERAGE	FIVE-YEAR TOTAL
GIC Self-Insured							
Members (000s)	312	312	311	310	310		
Medical Expense Low (\$000s)	\$135	\$284	\$298	\$312	\$327	\$301	\$1,356
Medical Expense Mid (\$000s)	\$150	\$315	\$331	\$347	\$364	\$335	\$1,507
Medical Expense High (\$000s)	\$161	\$337	\$354	\$371	\$389	\$358	\$1,612



Endnotes

¹ H.B. 1069. An Act to increase access to nurse-midwifery services. Accessed May 28, 2024. https://malegislature.gov/Bills/193/H1069.

² S.B. 607. An Act to increase access to nurse-midwifery services. Accessed May 28, 2024. https://malegislature.gov/Bills/193/S607.

³ Health coverage if you're pregnant, plan to get pregnant, or recently gave birth. HealthCare.gov. Accessed July 3, 2024. https://www.healthcare.gov/what-if-im-pregnant-or-plan-to-get-pregnant/.

⁴ U.S. Centers for Medicare & Medicaid Services, Office of the Actuary. National Health Expenditure Projections. "Table 7, Physician and Clinical Services Expenditures; Aggregate and per Capita Amounts, Percent Distribution and Annual Percent Change by Source of Funds: Calendar Years 2016-2032; Private Insurance." Accessed June 28, 2024. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html

⁵ Massachusetts Center for Health Information and Analysis. Annual Report on the Massachusetts Health Care System, March 2024. Accessed March 25, 2024. https://www.chiamass.gov/assets/2024-annual-report/2024-Annual-Report.pdf.



Appendix A: American College of Nurse-Midwives Philosophy of Midwifery



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American College of Nurse-Midwives Philosophy of Midwifery

We, the American College of Nurse-Midwives, affirm the power and strength of all people seeking midwifery care and the importance of health in the wellbeing of families, communities, and nations. We believe in the basic human rights of all persons and recognize that some incur disproportionate risk when these rights are violated. Human dignity and bodily autonomy are basic human rights that should be protected and respected in all areas of care, including in reproductive and sexual health.

We believe every person has a right to:

- Equitable, ethical, accessible, quality health care that promotes healing and health.
- Health care providers that demonstrate respect for human dignity, individuality, and diversity among groups; act without bias or discrimination; and actively seek to disrupt systems of power and privilege that cause harm.
- · Complete, accurate, and accessible information to make informed healthcare decisions.
- Self-determination and active participation in health care decisions, as the final decision maker of the health care team.
- Involvement of people the individual considers important to them, to the extent desired, in all health care
 experiences.

We believe the best model of health care:

- Includes the full scope of health across the lifespan.
- Involves a continuous and compassionate partnership between persons seeking care and their health care providers.
- Recognizes the importance of interdisciplinary, collaborative care.
- · Respects the individual's absolute right to bodily autonomy.
- Honors a person's expertise, life experiences, community, and historical knowledge.
- Includes methods of care and healing guided by research and best available evidence, centered on the individual's decisions, values, and preferences.
- Balances watchful waiting and support of physiologic processes with the appropriate use of interventions and technology.
- · Involves therapeutic use of human presence and skillful communication.

These beliefs and values, centered in cultural humility and delineated in ACNM's <u>Vision, Mission, and Core Values</u> provide the foundation for commitment to individual and collective leadership at the community, state, national, and international levels to improve health. We affirm that midwifery care incorporates these qualities and that healthcare needs are well-served through midwifery care.

Source: ACNM Board of Directors Approved 1989, revised 2004 2023 Revision: ACNM Philosophy Task Force. Approved by ACNM Board of Directors August 2023





Appendix B: American College of Nurse-Midwives Vision, Mission, and Core Values²



ACNM Vision, Mission, and Core Values

A. Vision

Midwifery for every community.

B. Mission

To support midwives, advance the practice of midwifery, and achieve optimal, equitable health outcomes for the people and communities midwives serve through inclusion, advocacy, education, leadership development and research.

C. ACNM Core Values

Our values inform our strategic direction. The following values state what is important to our members and guide the collective perspective of our organization.

Excellence: The American College of Nurse-Midwives (ACNM) values excellence in clinical practice midwifery education and research. We are committed to upholding the highest clinical and ethical standards, professional responsibility, accountability, and integrity.

Evidence-Based Care: ACNM evaluates, publishes, and highlights evidence to improve professional practice. We are committed to upholding the evidence-based clinical practice standards of the midwifery profession and applying this knowledge and clinical expertise to help people make the best healthcare decisions. We strongly support the use of quality measurement tools to improve care.

Formal Education: ACNM promotes the certification of midwives based on the completion of nationally recognized and accredited midwifery education programs in accordance with the International Confederation of Midwives' global standards for education. We support the interprofessional education of midwives with other health professionals to improve healthcare services.

Inclusiveness: ACNM shall carry forward its objectives through a lens that promotes a culture of inclusion in which those of diverse identities are respected, sought after, and embraced. These identities include, but are not limited to, race, ethnicity, culture, class, gender and gender identity, gender expression, sexual orientation, religion, physical and intellectual ability, learning style, nationality, citizenship, age, mental health, professional background, midwifery certification, and degree.



Person-Centered Care and Respect for Physiologic Processes: ACNM and its members respect the rights all people, including women and gender-diverse individuals, to autonomy over their own health, body, and care. Within a relationship of respect, compassion, informed consent, and shared decision-making, ACNM supports evidence demonstrating that physiologic processes are best supported by person-centered care and midwifery expertise.

Primary Health Care: Midwives value whole-person care through the provision of primary, sexual, and reproductive care to all. We believe this care should be provided with a community health care approach that addresses broader determinants of health and focuses on the interrelated aspects of physical, mental, and social health and well-being throughout the life span.

Partnership: Our members build partnerships with individuals, their chosen families, and communities by providing guidance and counseling in a person-centered decision-making process. We partner with other advocates through collaboration and referral to provide optimal care to further integrate midwifery care into the health care system.

Advocacy: ACNM advocates on behalf of the people we serve, our members, and the midwifery profession to eliminate health disparities and increase access to evidence-based, quality care. We strive to promote standards for practice, eliminate professional barriers, increase funding for education, and enhance the visibility and recognition of the value of midwifery care.

Global Outreach: ACNM promotes the profession of midwifery at a global level. We foster quality and innovation in midwifery education and support the strengthening of the profession worldwide through education and association building as keys to improving maternal, newborn, and community health. (Note: Maternal language is included for alignment with the global health community.)

Equity: ACNM promotes a process by which resources are distributed according to need. Inequities have significant social and economic costs to both individuals and society. ACNM is dedicated to advocating for the removal of obstacles to health, such as poverty, systems of oppression, and discrimination, as well as the consequences of these factors.

Antiracism: ACNM is committed to becoming an antiracist organization by recognizing and addressing historical and current racism in midwifery education, clinical practice, and institutions, including our organization. ACNM opposes racism and promotes racial justice.

Professionalism: Midwives practice in accordance with ACNM's Standards for the Practice of Midwifery and Code of Ethics, including adherence to the organization's core values presented here. ACNM promotes civility, mutual respect, integrity, collaboration, and effective communication.

Approved by ACNM Board of Directors December 2021

Prepared by



Appendix C: American College of Nurse-Midwives Code of Ethics³



Code of Ethics

Certified nurse-midwives (CNMs) and certified midwives (CMs) have three ethical mandates in achieving the mission of midwifery to promote the health and well-being of women and newborns within their families and communities. The first mandate is directed toward the individual women and their families for whom the midwives provide care, the second mandate is to a broader audience for the "public good" for the benefit of all women and their families, and the third mandate is to the profession of midwifery to assure its integrity and in turn its ability to fulfill the mission of midwifery.

Midwives in all aspects of professional relationships will:

- 1. Respect basic human rights and the dignity of all persons.
- 2. Respect their own self worth, dignity and professional integrity.

Midwives in all aspects of their professional practice will:

- 3. Develop a partnership with the woman, in which each shares relevant information that leads to informed decision-making, consent to an evolving plan of care, and acceptance of responsibility for the outcome of their choices.
- 4. Act without discrimination based on factors such as age, gender, race, ethnicity, religion, lifestyle, sexual orientation, socioeconomic status, disability, or nature of the health problem.
- 5. Provide an environment where privacy is protected and in which all pertinent information is shared without bias, coercion, or deception.
- 6. Maintain confidentiality except where disclosure is mandated by law.
- 7. Maintain the necessary knowledge, skills and behaviors needed for competence.
- 8. Protect women, their families, and colleagues from harmful, unethical, and incompetent practices by taking appropriate action that may include reporting as mandated by law.

Midwives as members of a profession will:

- 9. Promote, advocate for, and strive to protect the rights, health, and well-being of women, families and communities.
- 10. Promote just distribution of resources and equity in access to quality health services.
- 11. Promote and support the education of midwifery students and peers, standards of practice, research and policies that enhance the health of women, families and communities.

Source: Ad Hoc Committee on Code of Ethics Approved by Board of Directors June 2005 Reviewed and Endorsed by the ACNM Ethics Committee, October 2008; December 2013





Appendix D: Membership Affected by the Proposed Language

Membership potentially affected by proposed mandated change criteria includes Commonwealth residents with fully insured, employer-sponsored health insurance (ESI) issued by a Commonwealth-licensed company (including through the GIC); nonresidents with fully insured ESI issued in the Commonwealth; Commonwealth residents with individual (direct) health insurance coverage; and lives covered by GIC self-insured coverage. Other populations within the self-insured commercial sector are excluded from the state coverage mandate due to federal Employee Retirement Income Security Act (ERISA) protections of self-insured plans.

The unprecedented economic circumstances due to COVID-19 add particular challenges to the estimation of health plan membership. The membership projections are used to determine the total dollar impact of the proposed mandate in question; however, variations in the membership forecast will not affect the general magnitude of the dollar estimates. Given the uncertainty, BerryDunn took a simplified approach to membership projections. These membership projections are not intended for any purpose other than producing the total dollar range in this study. Further, to assess how recent volatility in commercial enrollment levels might affect these cost estimates, please note that the PMPM and percentage of premium estimates are unaffected because they are per-person estimates, and the total dollar estimates will vary by the same percentage as any percentage change in enrollment levels.

CHIA publishes monthly enrollment summaries in addition to its biannual enrollment trends report and supporting databook (enrollment-trends-Data Through September 2023 databook⁴ and Monthly Enrollment Summary – June 2021),⁵ which provide enrollment data for Commonwealth residents by insurance carrier for most carriers, excluding some small carriers. CHIA uses supplemental information beyond the data in the Massachusetts APCD to develop its enrollment trends report and adjust the resident totals from the Massachusetts APCD. CHIA-reported enrollment data formed the base for membership projections. For the base year 2019 in the membership projection, the 2019 Massachusetts APCD and published 2019 membership reports available from the Massachusetts Division of Insurance (DOI) ^{6,7} were used to develop a factor to adjust the CHIA enrollment data for the few small carriers not present in the enrollment report. The adjustment was trended forward to 2022 and applied to CHIA enrollment data.

In 2021, commercial, fully insured membership was 5.6% less than in 2019, with a shift to both uninsured and MassHealth coverage. As part of the public health emergency (PHE), members were not disenrolled from MassHealth coverage even when they no longer passed eligibility criteria. Shortly before the PHE ended, redetermination efforts began in April 2023 and were anticipated to occur over a 12-month period. Many of the individuals subject to redetermination will no longer be eligible for MassHealth coverage. It is anticipated that a portion of individuals losing coverage will be eligible for coverage in individual ACA plans and ESI. The impact of COVID-19 on the fully insured market over the five-year projected period (2025 – 2029) is uncertain. It is not anticipated that enrollment levels in commercial insurance will immediately return to 2019 levels.

The number of MassHealth members moving to commercially insured plans after the unwinding of the PHE was estimated by a study performed by the National Opinion Research Center (NORC) at the University of Chicago.⁸ BerryDunn used these results and assumed MassHealth disenrollment occurred uniformly from April 2023 to March 2024. BerryDunn further assumed that the commercial market will return to pre-pandemic enrollment levels by the end of the projection period in December 2027.



The distribution of members by age and gender was estimated using Massachusetts APCD population distribution ratios and was checked for reasonableness and validated against U.S. Census Bureau data. Membership was projected from 2025 to 2029 using Massachusetts Department of Transportation population growth rate estimates by age and gender. Department of Transportation population growth rate estimates by age and gender.

Projections for the GIC self-insured lives were developed using the GIC base data for 2018 and 2019, which BerryDunn received directly from the GIC, as well as the same projected growth rates from the Census Bureau used for the Commonwealth population. Breakdowns of the GIC self-insured lives by gender and age were based on Census Bureau distributions.



Endnotes for Appendices

- ⁶ Massachusetts Department of Insurance. HMO Group Membership and HMO Individual Membership Accessed March 21, 2023. https://www.mass.gov/info-details/hmo-membership-reports#2019-hmo-membership-reports-.
- ⁷ Massachusetts Department of Insurance. Membership in Insured Preferred Provider Plans. Accessed March 21, 2023. https://www.mass.gov/doc/2019-ippp-medical-plans/download.
- ⁸ NORC at the University of Chicago, Medicaid Redetermination Coverage Transitions, Accessed June 12, 2023. https://ahiporg-production.s3.amazonaws.com/documents/Medicaid-Redetermination-Coverage-Transitions-Methodology.pdf.
- ⁹ U.S. Census Bureau. Annual Estimates of the Resident Population by Single Year of Age and Sex: April 1, 2010, to July 1, 2019. Accessed March 17, 2023. https://www2.census.gov/programs-surveys/popest/tables/2010-2019/state/asrh/sc-est2019-syasex-25.xlsx.
- ¹⁰ Massachusetts Department of Transportation. Socio-Economic Projections for 2020 Regional Transportation Plans. Accessed November 12, 2020. https://www.mass.gov/lists/socio-economic-projections-for-2020-regional-transportation-plans.

¹ American College of Nurse Midwives Philosophy of Care. Accessed July 3, 2024. https://www.midwife.org/Our-Philosophy-of-Care.

² American College of Nurse Midwives Vision, Mission, and Core Values. Accessed July 3, 2024. https://www.midwife.org/acnm/files/cclibraryfiles/filename/00000008977/ACNM%20Vision%20and%20Mission%20Statement%202024.pdf.

³ American College of Nurse Midwives Code of Ethics. Accessed July 3, 2024. https://www.midwife.org/acnm/files/ACNMLibraryData/UPLOADFILENAME/00000000048/Code-of-Ethics.pdf.

⁴ Center for Health Information and Analysis. Estimates of fully insured and self-insured membership by insurance carrier. Accessed March 19, 2024. https://www.chiamass.gov/enrollment-in-health-insurance/.

⁵ Ibid.