MANDATED BENEFIT REVIEW OF HOUSE BILL 967 AND SENATE BILL 600

SUBMITTED TO THE 193rd GENERAL COURT:

AN ACT IMPROVING ACCESS TO BREAST PUMPS

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CHIA

Mandated Benefit Review of House Bill (H.B.) 967 and Senate Bill (S.B.) 600 Submitted to the 193rd General Court

An Act Improving Access to Breast Pumps

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1.0 Executive Summary: H.B. 967 and S.B. 600; "An Act improving access to breast pumps"

The Massachusetts Legislature's Committee on Financial Services referred House Bill (H.B.) 967 and Senate Bill (S.B.) 600, both titled, "An Act improving access to breast pumps," to the Massachusetts Center for Health Information and Analysis (CHIA) for review. This report references H.B. 967 and S.B. 600 together and hereafter as "the bill."

As submitted to the 193rd General Court, the bill requires health insurers to provide coverage for the cost of rental and usage of multi-user breast pumps for newborns receiving intensive care or having specific medical conditions[i] until discharge or until the mother is no longer pumping breast milk. Required coverage includes an initial assessment, instruction, and fitting by an International Board-Certified Lactation Consultant® (IBCLC®), as well as ongoing assessment, support, and refitting by an IBCLC® as needed.[1,2]

The language in this report strives to be respectful of individual identity. The term "mother" is used in the bill language and in relevant research. Thus, to maintain alignment with the bill language and relevant research, this paper uses the term "mother" to refer to a breastfeeding parent.

1.1 What are Breast Pumps?

Breast pumps, regulated by the U.S. Food and Drug Administration, are medical devices used to maintain or increase milk supply, relieve engorgement and plugged milk ducts, and assist in breastfeeding by drawing out flat or inverted nipples.[3] They are categorized into manual, powered (battery-powered and electric), and hospital-grade/multi-user[ii,4] electric pumps. Manual pumps are designed for occasional use and rely on hand power to create suction. Powered pumps are suitable for more frequent use and can be battery operated or electric, often featuring adjustable suction levels and single or double pumping capabilities. Hospital-grade pumps are recommended for mothers with premature or ill babies and those with specific medical needs, as they are highly effective, can be sanitized, and are approved for use by multiple users.[5,6] Many mothers find it practical or necessary to use a breast pump to express and store milk when returning to work, traveling, or being apart from their baby.[7] According to the 2022 Formula and Breastfeeding Trends Survey, 73% of mothers have used a breast pump, with many obtaining them through insurance.[8]

[i] Conditions include infants who are receiving care at an intensive care unit or special care nursery, or infants who have cardiac, neurological, or oral anomalies that prevent direct feeding at the breast.
[ii] "Multi-user" pumps can also be referred to as hospital-grade pumps and are most typically used in hospital settings for mothers whose babies are in neonatal intensive care units (NICUs).

1.2 Current Coverage

Under the Affordable Care Act (ACA), most health insurance plans are required to cover the cost of a breast pump, either as a rental or a new unit. Plans may impose prior authorization and set guidelines regarding the type of pump (manual or electric), the timing of provision (before birth or after birth), and the length of rental. Additionally, the ACA mandates coverage for comprehensive pregnancy care, including breastfeeding counseling, and requires many employers to provide break time and a private, non-bathroom space for nursing or pumping.[9,10,11]

Massachusetts 554105 Code of Massachusetts Regulations (CMR) 130.000 requires that nurseries have electric breast pumps and collection kits readily available. Special care nurseries must have ample supply of hospital-grade breast pumps and collection kits, along with a designated refrigerator/freezer for storing expressed breast milk. Neonatal intensive care units (NICUs) must have electric breast pumps and collection kits available for use.[12] These types of breast pumps are the types required by the bill.

1.3 Analysis Overview

The legislative sponsors indicated that the intent of the bill is to standardize insurance coverage, so that all insurers cover the rental costs of advanced multi-user breast pumps for mothers of high-risk newborns. The bill specifically intends for coverage of the costs associated with renting these pumps for mothers of infants in the NICU or special care nurseries. The bill uses the term "newborn" to refer to an infant recently born and admitted to the NICU or special care nursery. However, the legislation specifies that coverage will continue beyond the newborn period until the mother no longer requires a breast pump.[13]

1.4 Estimated Cost of Enactment

Requiring coverage for this benefit by fully insured health plans would result in an average annual increase to the typical member's health insurance premium of between $0.04 and $0.08 per member per month (PMPM) or between 0.006% and 0.013% of premium, over a projection period of five years.

1.5 Efficacy and Equity Impact

Hospital-grade/multi-user breast pumps are most effective in efficiently extracting breast milk, with higher suction rates and capacity for extended pumping sessions. Efficiency, measured by milk volume extracted per session, is crucial for mothers, particularly those with time constraints or infants in the NICU.[14] The Women's Preventive Services Initiative (WPSI) 2023 Guidelines recommend comprehensive lactation support, including access to double electric pumps, to optimize breastfeeding initiation and maintenance.[15,16] By requiring coverage of multi-user breast pumps, the bill, if enacted, would be expected to improve access to more efficient breast pumps and increase the likelihood of breastfeeding success for members the legislation is intended to reach.

Endnotes

[1] H.B. 967. An Act improving access to breast pumps. **https://malegislature.gov/Bills/193/H967.**

[2] S.B. 600. An Act improving access to breast pumps. **https://malegislature.gov/Bills/193/S600.**

[3] U.S. Food & Drug Administration. What to Know When Buying or Using a Breast Pump. Last updated 7/20/2023. Accessed May 22, 2024. **https://www.fda.gov/consumers/consumer-updates/what-know-when-buying-or-using-breast-pump.**

[4] Morgan, J. UT Southwestern Medical Center. 5 things to know about buying and using breast pumps. November 15, 2016. Accessed June 5, 2024. **https://utswmed.org/medblog/breast-pumps/.**

[5] Massachusetts Breastfeeding Coalition. About Breast Pumps. May 31, 2019. Accessed May 22, 2024. **https://massbreastfeeding.org/about-breast-pumps/.**

[6] *Op. cit. U.S. Food & Drug Administration. What to Know When Buying or Using a Breast Pump.*

[7] U.S. Food & Drug Administration. Breast Pumps. Last updated 3/26/2018. Accessed May 28, 2024. **https://www.fda.gov/medical-devices/consumer-products/breast-pumps.**

[8] Shortsleeve, C. Breastfeeding Is Much Harder Than Most Moms Expect: Survey. What to Expect. August 24, 2022. Accessed May 29, 2024. **https://www.whattoexpect.com/news/first-year/survey-formula-use-rising-breastfeeding-moms-need-support.**

[9] Health Insurance Marketplace®. Health benefits & coverage. Breastfeeding benefits. Accessed May 24, 2024. **https://www.healthcare.gov/coverage/breast-feeding-benefits/.**

[10] U.S. Department of Health and Human Services. Are breast pumps covered by the Affordable Care Act? Last reviewed April 20, 2023. Accessed May 24, 2024. **https://www.hhs.gov/answers/health-insurance-reform/are-breast-pumps-covered-by-the-affordable-care-act/index.html.**

[11] American College of Obstetricians and Gynecologists. Understanding Health Care Coverage for Breastfeeding. Accessed May 24, 2024. **https://www.acog.org/programs/breastfeeding/understanding-health-care-coverage-for-breastfeeding.**

[12] 554105 CMR 130. Accessed May 31, 2024. **https://www.mass.gov/doc/06-6-461-attachment/download#:~:text=Level%20IIB%20Service%20shall%20mean,gestation%20and%20that%20meets%20the.**

[13] Senator Cynthia Stone Creem. Sponsor Questions Responses. May 30, 2024.

[14] Meier, P. P., Patel, A. L., Hoban, R., & Engstrom, J. L. (2016). Which breast pump for which mother: an evidence-based approach to individualizing breast pump technology. Journal of perinatology : official journal of the California Perinatal Association, 36(7), 493–499. Accessed June 5, 2024. **https://doi.org/10.1038/jp.2016.14.**

[15] Health Resources & Services Administration. Women's Preventive Services Guidelines. Last Reviewed: March 2024. Accessed May 24, 2024. **https://www.hrsa.gov/womens-guidelines.**

[16] Centers for Disease Control and Prevention. Breastfeeding Report Card United States, 2022. Accessed May 28, 2024. **https://www.cdc.gov/breastfeeding/data/reportcard.htm.**

AN ACT IMPROVING ACCESS TO BREAST PUMPS

MEDICAL EFFICACY ASSESSMENT

2.0 Medical Efficacy Assessment

The bill requires health insurers to provide coverage for the cost of rental and usage of multi-user breast pumps for newborns receiving intensive care or having specific medical conditions[iii] until discharge or until the mother is no longer pumping breast milk. Required coverage includes an initial assessment, instruction, and fitting by an IBCLC®, as well as ongoing assessment, support, and refitting by an IBCLC® as needed.[1,2]

The bill provides the following requirements for covered multi-user breast pumps:

> "(i) capable of initiating and supporting milk supply;
> (ii) able to be used by multiple users safely and hygienically;
> (iii) durable enough to be used by a mother who is expressing 8 times per day or more;
> (iv) is made for heavy usage with a long motor life;
> (v) operating using a closed system;
> (vi) is capable of suction power from 0 to 300 mmHg;
> (vii) has a multiphase system or the ability to customize vacuum and cycling for each user; and
> (viii) is run on electricity, not batteries alone."

Coverage requirements extend to periodic replacement parts for the pumps, including, but not limited to, connectors, valves, tubing, backflow protectors, and flanges, as well as breast milk storage bags and microwave sterilizing bags.

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

- Standardize insurance coverage, so that all insurers cover the rental costs of advanced multi-user[iv,3] breast pumps for mothers of high-risk newborns.
- Cover the costs associated with renting these pumps for mothers of infants in the NICU or special care nurseries.

The bill uses the term "newborn" to refer to an infant recently born and admitted to the NICU or special care nursery. However, the legislation specifies that coverage will continue beyond the newborn period until the mother no longer requires a breast pump.[4]

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:

[iii] Conditions include infants who are receiving care at an intensive care unit or special care nursery, or infants who have cardiac, neurological, or oral anomalies that prevent direct feeding at the breast.

[iv] "Multi-user" pumps can also be referred to as hospital-grade pumps and are most typically used in hospital settings for mothers whose babies are in the NICU.

2.0 Medical Efficacy Assessment

- 2.1 Breast Milk, Pump Types, and Applications
- 2.2 Efficacy of Breast Pumps
- 2.3 Levels of Infant Care
- 2.4 Population, Access, and Health Equity

3.0 Conclusion

2.1 Breast Milk, Pump Types, and Applications

Human breast milk is regarded as the ideal nourishment for newborns because it provides complete nutrition and is associated with numerous health benefits. Breast milk is easily digestible for newborns and contains abundant vitamins, minerals, and nutrients vital to newborn growth. Breastfeeding is linked to better newborn health, enhanced immune system development, fewer gastrointestinal issues, and lower mortality rates compared to formula feeding. Additionally, breast milk supplies beneficial bacteria that help prevent infections and support a healthy gut microbiome. Breastfeeding protects against conditions such as asthma, obesity, type 1 diabetes, sudden infant death syndrome (SIDS), ear infections, and stomach viruses, due to the antibodies passed from mother to child. Skin-to-skin contact during breastfeeding boosts oxytocin levels, aiding milk flow and promoting calmness. Breastfeeding also benefits mothers by reducing the risk of breast and ovarian cancer, type 2 diabetes, and hypertension. Exclusive breastfeeding for the infant's first six months of life is recommended, with continued breastfeeding alongside appropriate complementary foods until at least 12 months, or up to two years or longer depending on the mother and child, as advised by the American Academy of Pediatrics and the World Health Organization (WHO).[5,6,7,8] Breast milk provided by the infant's biological mother offers greater health benefits compared to donor human milk, such as reducing the risk of sepsis, bronchopulmonary dysplasia (BPD)[v,9], and neurodevelopmental problems.[10]

Milk removal by breastfeeding, known as milk transfer or intake, or milk removal by a breast pump, termed pumped milk volume, is an essential process involving the release of important hormones such as oxytocin,[vi,11] suckling-induced prolactin[vii,12] secretion, and autocrine/paracrine regulation[viii,13] in the breast. Milk removal occurs through a combination of milk ejection (positive pressure) and infant or pump suction (negative pressure). Optimizing for milk removal involves a consideration of effectiveness, efficiency, and comfort:

- Effectiveness – extracts as much milk as possible
- Efficiency – occurs within a reasonable time frame and improves as lactation is established
- Comfort – does not cause breast or nipple pain.[14]

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[v] BPD is the outcome of underdeveloped lungs during fetal growth or incomplete development in premature newborns.
[vi] Oxytocin is a hormone released during breastfeeding that induces milk flow and produces a calming effect.
[vii] Prolactin is a hormone responsible for lactation, development of certain breast tissue, milk production, and many other processes.
[viii] Autocrine and paracrine refer to types of cell signaling methods in which cells communicate with each other through the release of chemical signals. Autocrine signaling involves a cell producing a signal to which it responds, while paracrine signaling involves a cell releasing signals that impact nearby cells in its environment.

Breast pumps, regulated by the U.S. Food and Drug Administration, are medical devices used to maintain or increase milk supply, relieve engorgement and plugged milk ducts, and draw out flat or inverted nipples to help a baby latch on more easily.[15] Breast pumps are commonly categorized into the below types:

- **Manual pumps** are designed for occasional use, typically once or twice a week, and come with a 30-to-90-day warranty. These pumps rely on hand power to operate a lever that creates suction to express breast milk, which is collected in an attached container.
- **Powered pumps (battery powered and electric)** are suited for more frequent use than once or twice a week but are not ideal for daily use. Electric pumps, which plug into a power outlet, are recommended for mothers who need to be separated from their babies. These pumps often come with warranties of up to three years and offer single or double pumping capabilities. Powered pumps utilize a small motor to create suction and extract milk from the breasts, often connected to the breast shield via long tubes. The pump includes a control panel with a dial or switch to adjust the suction level. These pumps can be held in place by hand or secured with a nursing bra or band.
- **Hospital-grade/multi-user electric double pumps** are recommended for mothers with babies who are premature or who are ill, those with physical anomalies affecting breastfeeding, mothers exclusively pumping, those who have had breast reduction surgery, or those with medical conditions like untreated low thyroid levels that affect milk production. They are also useful for mothers re-lactating or inducing lactation for an adopted baby. Designed to establish and maintain a mother's milk supply, hospital-grade pumps can be sanitized and shared among multiple users. These types of pumps are the only type approved for use by multiple users. Using a previously owned pump not approved for multiple users is not advised. Even with new tubes and personal milk collection parts, milk can get into the open system motor.[16,17] Hospital-grade pumps can also be referred to as "multiuser" or "multi-user" pumps and are most typically used in hospital settings for mothers whose babies are in the NICU.[18] The term "hospital-grade" pump is not regulated or recognized by the Food and Drug Administration.[19,20]

Table 1. Breast Pump Types[21]

PROPERTY	MANUAL, BATTERY OPERATED, OR MINI-ELECTRIC	POWERED DOUBLE ELECTRIC	HOSPITAL-GRADE ELECTRIC
Usage	Single-User	Single-User	Multi-User
Availability	Purchase	Purchase	Rental (also available for purchase)
Collection Kit	Single (sequential milk removal)	Double (some models are sequential)	Double (simultaneous milk removal)
Breast Shield Sizes	Limited or none	Limited sizes available	Various sizes available
Suction Pattern Options	Limited or none	Adjustable suction pressures; some have adjustable rate and rhythm	Adjustable rate, rhythm, and suction strength
Primary Advantage	Convenience	More effective, efficient, and comfortable than manual or mini-electric models	Maximum effectiveness, efficiency, and comfort
Intended Use	Brief separations from a healthy infant	Full-time work outside home; brief travel separations during established lactation	Mothers who are pump-dependent; those prioritizing effectiveness over portability
Not Intended For	Mothers who are pump-dependent	Mothers who are pump-dependent	Suitable for all mothers at any stage of lactation

Many mothers find it practical or even necessary to use a breast pump to express and store milk when they return to work, travel, or are otherwise apart from their baby. Breast pumps can complement breastfeeding, with some designed to replicate the natural sucking action of a nursing baby.[22] Breast milk can be kept at room temperature (up to 77°F) for up to four hours, refrigerated for up to four days, or frozen immediately if not intended to be used within four days. It can also be stored in a cooler with ice packs for up to 24 hours before needing refrigeration or freezing. Breast milk storage bags or clean glass/hard BPA-free plastic bottles with tight-fitting lids should be used to store the milk.[23]

The 2022 Formula and Breastfeeding Trends Survey found that the majority of mothers[ix] (73%) surveyed were using a breast pump at the time they completed the survey (May – June 2022) or had previously used a breast pump. Three out of four mothers chose to use a traditional electric pump. Slightly over one half (55%) of mothers obtained their pump through their insurance, and slightly over one third (34%) paid for their pump out-of-pocket. Approximately one in five (21%) mothers reported pumping daily, while slightly over one in ten (11%) reported exclusively pumping.[24]

[ix] The study was conducted from May 26 to June 6, 2022, and surveyed 1,363 U.S. women aged 18+ who were pregnant or had a baby 0 – 2 years old.

The first week postpartum is vital for optimizing pumping behaviors.[25] For infants, particularly those in the NICU, breast pumps are crucial for regulating lactation until the infant can efficiently nurse. Research indicates this transition typically occurs two to four weeks after the infant's expected due date. Simply pumping enough milk does not necessarily ensure sufficient intake for the infant, as their immature sucking mode persists even after reuniting with their mother upon discharge from the NICU, only maturing at or after term. Therefore, determining whether it is appropriate to continue pump use post discharge from the NICU should be based on the infant's individual developmental progress.[26]

Pumping Support

The International Board of Lactation Consultant Examiners® (IBLCE®) is a global organization that certifies professionals in lactation consultation. Since creating the IBCLC® certification in 1985, IBLCE® has certified more than 37,000 IBCLCs® in 134 countries as of 2024. IBCLCs® provide breastfeeding and lactation support in diverse settings. They work closely with families, healthcare professionals, and policymakers to promote breastfeeding, offer appropriate referrals, and advocate for practices that support breastfeeding, helping to reduce the risks associated with not breastfeeding.[27] As of January 2, 2024, there are 19,930 IBCLCs® in the United States.[28] The IBCLE® offers a practice[29] examination that is optional for IBCLCs® and is not required in order to apply for or obtain certification. While breastfeeding demands significant effort from mothers, successful breastfeeding often requires additional support. Nearly all breastfeeding mothers (97%) seek assistance, which can include professional resources like lactation consultants, family help, and products like breast pumps. Many mothers (67%) use the internet for information, 65% use pumps to boost milk production, 60% consult healthcare providers, and 58% engage lactation consultants.[30]

2.2 Efficacy of Breast Pumps

Hospital-grade or multi-user breast pumps are typically considered to be more effective than other breast pumps due to their powerful motor that renders them more efficient for pumping breast milk for extended time periods. These pumps also have a higher rate of suction and are more effective for milk collection.[31] Breast pump efficiency is measured by the amount of breast milk removed per pumping session, with studies showing varying results. A healthy baby typically extracts about 80% of breast milk in five minutes, while an efficient breast pump can remove around 85% in fifteen minutes. This efficiency is critical for mothers, especially those who need to pump during short work breaks or for mothers of NICU babies who need to pump multiple times daily. Factors affecting efficiency include the type of breast pump used, whether pumping is done simultaneously or sequentially, and the use of breast pump systems that mimic a baby's feeding pattern. Warm breast shields have also been shown to improve milk removal efficiency during pumping.[32]

The most common problems experienced by pumping mothers include poorly fitting flanges (funnels) and incorrectly using breast pumps. Providers typically recommend renting a hospital-grade pump during the initial phase of establishing milk supply.[33] A 2016 Cochrane review of 41 breast milk expression randomized and quasi-randomized trials comparing methods of milk expression after birth for mothers of infants in neonatal units and healthy infants at home. The review found no significant differences in maternal satisfaction, milk contamination, or pain levels between the different expression methods. Certain interventions like relaxation, massage, and frequency of pumping increased milk quantity, but no pump type consistently yielded higher milk volumes. Nutrient content varied by

method, with hand expression and large electric pumps sometimes yielding higher protein. Among the 30 studies that evaluated pumps or products, over half (16) had support from manufacturers. The authors of the review concluded that the most suitable breast milk expression method depends on individual circumstances and highlighted the need for more independent research on non-commercial techniques.[34]

Research emphasizes that choosing a breast pump should be based on the mother's dependency on the pump rather than the infant's level of care, as even mothers of larger preterm infants who cannot feed effectively from the breast require a multi-user pump that best simulates a human infant. The more reliant a mother is on the pump for milk removal and lactation regulation, the more she needs a pump that mimics the function of a nursing infant. This is especially crucial during the first month of lactation.[35]

The WPSI 2023 Guidelines recommend comprehensive lactation support services, including consultation, counseling, education by clinicians, peer support services, and breastfeeding equipment and supplies, during the antenatal, perinatal, and postpartum periods to optimize successful breastfeeding initiation and maintenance. Breastfeeding equipment and supplies encompass double electric breast pumps (including pump parts and maintenance) and breast milk storage supplies. The WPSI Guidelines consider prioritizing access to double electric pumps crucial for optimizing breastfeeding. Additionally, the guidelines note that breastfeeding equipment should be provided as clinically indicated to support mothers and infants experiencing breastfeeding difficulties or requiring extra services.[36] Lactation consultants report that hospital-grade pumps are more powerful and effective than other pump types and are ideal for establishing milk supply, especially for mothers with premature babies, twins, or lactation issues.[37]

2.3 Levels of Infant Care

Neonatal care is categorized into four main levels based on the complexity of care provided and the needs of newborns, with Level I providing the lowest level of care and Level IV providing the highest level of care.[38] The bill specifically requires coverage for Levels II through IV.

Level I: Well-Baby Nursery or Couplet Care
This level is not considered to be a NICU and provides care for healthy babies born at 35 weeks gestation or greater.

- Babies receive routine care and monitoring, often in their mother's room.
- Minor health issues such as low blood sugars or jaundice can be addressed.
- Medical care team: Pediatricians, family physicians, and advanced practice pediatric providers.

Level II: Special Care Nursery
This level offers all the care of a Level I nursery with additional services.

- Suitable for babies needing short-term breathing support, assistance with feeding, or medical issues expected to resolve within days or weeks.
- Appropriate for babies born at 32 weeks gestation or greater and weighing at least 1,500 grams.
- Medical care team: Neonatologists, neonatal hospitalists, and advanced practice neonatal providers.

Level III: NICU
This level provides intensive care for premature babies and those with critical illnesses.

- Offers comprehensive care for low birth weight or premature infants.
- Services include ventilator support, advanced imaging, and minor surgeries.
- Medical care team: Neonatologists, pediatric hospitalists, neonatal specialists, and pediatric medical or surgical subspecialists.

Level IV: NICU

This level can also be referred to as a tertiary care NICU and offers intensive care for premature infants and babies with complex medical issues.

- Provides specialized equipment and around-the-clock availability of pediatric specialists.
- Offers surgical interventions for complex conditions such as heart defects.
- Medical care team: Neonatologists, pediatric hospitalists, advanced practice neonatal providers, and pediatric medical or surgical subspecialists.[39,40]

2.4 Population, Access, and Health Equity

Population

The WHO defines a newborn as an infant in the first 28 days of life, also known as the neonatal period.[41] In 2021, Massachusetts recorded 69,127 births, a 4.0% increase from 66,442 births in 2020 but a 25.2% decrease since 1990. Births among individuals aged 30 and older rose by 6.4%, from 43,865 in 2020 to 46,683 in 2021. In contrast, births among individuals under 30 remained relatively stable, with 22,444 in 2021 compared to 22,577 in 2020. Since 2008, births among those under 30 have significantly declined by 37.9%, from 36,117 in 2008 to 22,444 in 2021.The number of births to individuals with private insurance[x] comprised most total births (62.3%) at 42,104 births.[42]

Access

In Massachusetts, regulation 554105 CMR 130.000 mandates that nurseries have electric breast pumps and collection kits readily available. Special care nurseries must maintain an ample supply of hospital-grade breast pumps and collection kits, as well as a designated refrigerator/freezer for storing expressed breast milk. NICUs are required to have electric breast pumps and collection kits available for use.[43] Outside of a hospital setting, the primary factor in deciding whether to rent or buy a hospital-grade breast pump is often the cost. Hospital-grade pumps typically range in price from $500 – $2,000, and the monthly rental fee is generally between $75 and $110. When considering whether to rent or buy a hospital-grade pump, individuals often consider the duration of pumping needs, their plans for future children, and the possibility of obtaining a second-hand multi-user pump or reselling the pump after use.[44] Nationally, most health insurance plans cover the cost of a basic double electric breast pump. However, individuals might need to pay the additional cost if they choose to upgrade to a hospital-grade or multi-user pump.[45]

[x] 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.

Insights From Experts

Experts indicated that coverage for hospital-grade/multi-user pumps varies depending on the individual's insurance, with some requiring a rental fee that might be cost-prohibitive. A small subset of hospitals may have these pump types available for use free-of-charge while babies are hospitalized. On average, mothers use multi-user/hospital-grade breast pumps the most while their babies are in the NICU, which can last weeks to months. Post discharge, the duration of use depends on individual circumstances. Experts emphasized that access to these pump types should be available for at least 12 months post NICU discharge to align with the American Academy of Pediatrics' recommendations for ongoing milk production. Many mothers would likely use a multi-user/hospital-grade breast pump if it were readily available instead of an alternative pump type, as they are more effective, and mothers are specifically educated on their benefits by their providers. Additionally, these are the types of pumps that are used in hospitals, so mothers are already familiar with them.

Health Equity

In the United States, rising morbidity and mortality rates among pregnant individuals and infants underscore the importance of breastfeeding as a cost-effective intervention linked to reduced risks of health issues like cardiometabolic diseases and SIDS. However, disparities exist, with non-Hispanic Black and Native American women often facing the highest health risks and often having the lowest breastfeeding rates. Barriers to breastfeeding, such as limited access to professional lactation support and subsidized breast milk alternatives, particularly affect marginalized communities.[46] Black infants with very low birth weight (VLBW; <1500 g) and very preterm (VP; <32 weeks gestation) are significantly less likely than their counterparts to receive their mother's milk until NICU discharge. The financial burden of maintaining breast milk pumping, which typically falls on mothers, contributes to this disparity.[47]

The prevalence of breastfeeding varies by race and ethnicity. The overall breastfeeding rate in 2019 for the United States was 84.1%, and the rate in Massachusetts was higher at 88.4% (see Table 2).[48] Breastfeeding rates also vary depending on the age of the infant (see Table 3), potentially indicating disparities in breastfeeding practices and access to lactation support services.[49]

Table 2. Number of Infants (Percent Initiating Breastfeeding), U.S. and Massachusetts (MA), National Vital Statistics System, 2019[50]*

AREA	OVERALL	HISPANIC	WHITE	BLACK	ASIAN	AI/AN	NH/OPI	MULTIRACIAL
U.S.	3,129,646 (84.1)	665,584 (87.4)	1,686,505 (85.5)	492,852 (73.6)	164,602 (90.3)	25,807 (76.6)	7,843 (80.2)	69,626 (83.1)
MA	68,897 (88.4)	14,027 (86.9)	39,346 (88.3)	6,776 (90.5)	6,197 (91.4)	78 (84.6)	—	1,491 (85.5)

*Abbreviations key: AI/AN = American Indian/Alaska Native; NH/OPI = Native Hawaiian/Other Pacific Islander

Table 3. Breastfeeding Rates Among Infants Born in 2019, U.S. and MA[51]

AREA	EVER	6 MONTHS	12 MONTHS	EXCLUSIVE THROUGH 3 MONTHS	EXCLUSIVE THROUGH 6 MONTHS	RECEIVING FORMULA* BEFORE 2 DAYS OF AGE
U.S.	83.2	55.8	35.9	45.3	24.9	19.2
MA	80	62.9	44.2	52.8	29.2	15.2

*Among infants who are breastfed.

3.0 Conclusion

Breast pumps are FDA-regulated medical devices used to maintain or increase milk supply, relieve engorgement and plugged milk ducts, and assist with latch-on issues for babies.[52] They are categorized into manual, powered, and hospital-grade/multi-user pumps, each serving different needs based on the frequency and circumstances of use. Manual pumps are designed for occasional use and operate through hand power, while powered pumps, including battery-operated and electric models, are suitable for more frequent use but are not ideal for daily needs. Hospital-grade electric pumps are the most effective and are recommended for mothers with premature or ill babies, as well as those facing significant breastfeeding challenges. These pumps can be sanitized and shared among multiple users and are essential for establishing and maintaining milk supply.[53,54]

Breast pumps play a significant role in supporting breastfeeding, especially for mothers returning to work or needing to express milk during separations from their babies.[55] The 2022 Formula and Breastfeeding Trends Survey found that a majority of mothers (73%) have used a breast pump, with 21% pumping daily and 11% exclusively pumping. Most mothers obtained their pumps through insurance.[56] Hospital-grade pumps are particularly effective, removing a higher percentage of milk in less time compared to other pumps.[57] Breastfeeding, supported by effective pumping and lactation consultation, contributes positively to infant health and development.[58, 59] Despite the benefits of breast pumps and breastfeeding, disparities in breastfeeding rates and access to lactation support persist, especially among marginalized communities.[60] By requiring coverage of multi-user breast pumps, the bill is expected to improve access to breast pumps and increase the likelihood of breastfeeding success for members the legislation is intended to reach.

Endnotes

[1] H.B. 967. An Act improving access to breast pumps. https://malegislature.gov/Bills/193/H967.

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AN ACT IMPROVING ACCESS TO BREAST PUMPS

ACTUARIAL ASSESSMENT

4.0 Actuarial Assessment

4.1 Background

H.B. 967 and S.B. 600 ("the bill") mandate health insurers to cover the rental and use of multi-user breast pumps for newborns in intensive care or with specific medical conditions until discharge or until the mother ceases pumping breast milk. Coverage includes initial and ongoing assessments, instructions, and fittings by an IBCLC®. The bill specifies requirements for covered breast pumps, including durability, hygiene, and customizable features. Additionally, insurers must cover replacement parts and breast milk storage bags.[1,2] The sponsors clarified that the bill aims to standardize insurance coverage, ensuring all insurers cover the rental costs of advanced multi-user breast pumps for mothers of high-risk newborns. It also covers rental costs for mothers of infants in NICUs or special care nurseries. While the term "newborn" refers to infants recently admitted to these units, coverage extends until the mother no longer needs the breast pump.[3]

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:[4]

- 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 MassHealth, although an analysis of the impact on its members 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. Although the bill includes Chapter 118, this analysis does not estimate the bill's impact to MassHealth, nor does it 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

Under the ACA, most health insurance plans are required to cover the cost of a breast pump for new mothers under preventive services. This coverage can include either a rental unit or a new unit, depending on the specific plan. However, plans may impose certain conditions such as prior authorization. Carriers may also set guidelines regarding the type of pump covered, whether it is manual or electric, as well as stipulations about when the pump can be provided, either before or after birth, and the length of the rental period. Additionally, the ACA mandates that comprehensive pregnancy care must be covered, which includes breastfeeding counseling services. Moreover, the ACA requires many employers to provide break time for nursing or pumping and to ensure that a private, non-bathroom space is available for this purpose.[5,6,7] One breast pump per birth, either rented or purchased, is covered as durable medical equipment under the Commonwealth's Essential Health Benefit (EHB) benchmark plan.[xi,8]

In Massachusetts, 554105 CMR 130.000 stipulates that special care nurseries must have electric breast pumps and collection kits readily available for mothers. Special care nurseries are required to have an ample supply of hospital-grade breast pumps and collection kits, as well as designated refrigerator/freezer space for the proper storage of expressed breast milk. Similarly, NICUs must also have electric breast pumps and collection kits available for use by mothers with infants in their care.[9]

4.4 Current Coverage

BerryDunn surveyed 10 insurance carriers in the Commonwealth, and 6 responded.[xii] Carrier responses indicate they all are already providing coverage for manual breast pumps, electric breast pumps, and, in certain instances, hospital-grade breast pumps depending on the mother and infant's conditions and setting, as well as if medical necessity criteria are met.[xiii] One carrier notes it covers breast pumps, except for hospital-grade pumps that are either rented or purchased. Another carrier states it covers hospital-grade breast pumps for up to three months, with additional coverage available subject to clinical review and potential prior authorization. Some carriers impose limits on replacement parts, such as the number of breast milk storage bags per month, and the allocated amount varies depending on specific plan/product combinations. Carriers note that they cover lactation counseling services, with some imposing limits on the frequency of services and total amount of services covered and others covering these services for the complete length of time the mother is breastfeeding. Although some carriers use the same durable medical equipment vendor and cover the same breast pump parts, in some cases, they categorized breastfeeding consultation and support services under different current procedural terminology (CPT®) and healthcare common procedure coding system (HCPCS) codes.

[xi] Blue Cross Blue Shield of MA-HMO Blue 2025-2027.
[xii] 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.
[xiii] Medical necessity criteria for hospital-grade/multi-user breast pumps can include certain infant diagnoses and/or mother diagnoses, as well as hospitalizations that result in separation.

5.0 Methodology

5.1 Overview

The cost of coverage under the mandate is estimated by determining the number of newborns receiving intensive care, the percentage of breastfeeding mothers who will utilize multi-user breast pumps, the length of time the multi-user breast pumps are used, and the multi-user breast pumps unit cost. Claims data from the All-Payer Claims Database (APCD), together with information from literature research and expert interviews, is used to derive these measures. The incremental cost of coverage is calculated as the portion of expected coverage cost that the bill requires to be covered over the current expenditure level.

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
- Input from medical experts
- Massachusetts APCD data
- 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 expand multi-user breast pumps coverage.**
   - **A.** Used APCD data to determine user counts of mothers with newborns receiving intensive care (NICU levels II-IV) and users of multi-user breast pumps.
   - **B.** Estimated the ratio of multi-user breast pump users to mothers with newborns receiving intensive care under the mandate by analyzing the same ratios by carrier with 2019 – 2022 APCD data.
   - **C.** Multiplied the user count of mothers with newborns receiving intensive care from Step 1A by the ratio of multi-user breast pump users under the mandate from Step 1B to derive the estimated multi-user breast pump users under the mandate.
   - **D.** Estimated the monthly cost of multi-user breast pumps from APCD data and literature. The highest value was used rather than the mid-point to account for additional costs such as replacement parts, storage/sterilizing bags, etc.
   - **E.** Estimated the average length of multi-user breast pump usage from APCD data, an expert interview, and literature research. Low-, mid-, and high-cost scenarios were produced to inform a range of total cost impact in Step 1F.
   - **F.** Multiplied user count from Step 1C by monthly cost from Step 1D and length of usage from Step 1E to calculate the total coverage cost for each of the low-, mid-, and high-cost scenarios.

G. Used APCD data to determine the current cost of multi-user breast pumps and subtracted it from scenarios in Step 1F to calculate incremental cost of mandate.
H. Calculated the marginal cost PMPMs by dividing the incremental cost from Step 1G by the 2022 member months.

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 2B.

5.4 Assumptions and Limitations

Given the complexities of matching mothers with infants using APCD data, BerryDunn instead looked at overall ratios of multi-user breast pump users and newborns receiving intensive care in NICU levels II-IV.

Date of birth data is not available in the APCD (age is expressed in one-year increments), and distilling age to a level of granularity beyond zero and one is not feasible. Thus, BerryDunn used age zero to define newborns.

The cost of periodic replacement parts for the pumps, breast milk storage bags, and microwave sterilizing bags for parts is likely to be a small fraction of multi-user breast pump monthly cost when considered over the full period of breastfeeding. In addition, these supplies are already covered for the other currently covered breast pump types mothers are using post NICU-discharge. Accordingly, BerryDunn adopted a simplified approach by using the high end of the monthly cost to incorporate any marginal costs into the final cost impact.

The cost of the increased time the multi-user breast pump would be used by the breastfeeding mother may be partially offset by a reduction of use of other types of covered breast pumps. Given the low number of multi-user breast pump users, the offset was conservatively assumed to be zero.

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 aged 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 Expanded Coverage

To estimate the impact of increased coverage of multi-user breast pumps. BerryDunn used APCD data from 2019 – 2022 to determine the number of newborns receiving intensive care (NICU newborns) and number of multi-user breast pump users. BerryDunn analyzed ratios of multi-user breast pump users to NICU newborns by carrier and selected 70% based on the high end of observed ratios. BerryDunn then calculated the expected multi-user breast pump users under the mandate by multiplying this ratio by the annual average number of NICU newborns.

Next, BerryDunn used APCD data to determine the cost per month. To estimate the average length of use, BerryDunn used APCD data with information from literature research and expert interviews to produce low-, mid-, and high-cost scenarios. From APCD data, the observed average length of use ranges from one to six months among carriers, with an average of four months for all carriers. Under the mandate, these numbers are likely to increase, as most mothers will continue to use multi-user breast pumps post-NICU discharge instead of switching to other currently covered breast pumps. Table 4 shows the expected multi-user breast pump users, average monthly cost, and average length of use in months. BerryDunn calculated the 2022 PMPM cost as $0.003 from APCD data. The incremental PMPM cost, which is calculated as the portion of estimated multi-user breast pump PMPM cost under the mandate that is over the current PMPM cost, is also shown in Table 4.

Table 4. Marginal Costs for Insurers to Expand Coverage of Multi-User Breast Pump

	MULTI-USER BREAST PUMP USERS	AVERAGE COST PER MONTH	AVERAGE LENGTH OF USE (IN MONTHS)	INCREMENTAL PMPM COST AS OF 2022
Low Scenario	769	$120	6	$0.02
Mid Scenario	769	$120	9	$0.04
High Scenario	769	$120	12	$0.05

BerryDunn trended the PMPM impact from Table 4 from calendar year 2022 to calendar year 2024 and forward using the long-term average national projection for cost increases to durable medical equipment expenditures (calculated at 6.2%[10]).

Table 5. Projected PMPM

	2024	2025	2026	2027	2028	2029
Low Scenario	$0.03	$0.03	$0.03	$0.03	$0.04	$0.04
Mid Scenario	$0.04	$0.05	$0.05	$0.05	$0.06	$0.06
High Scenario	$0.06	$0.06	$0.07	$0.07	$0.08	$0.08

6.2 Projected Fully Insured Population in the Commonwealth

Table 6 shows the Commonwealth's fully insured population (ages 0 – 64) projected for the next five years. Appendix A describes the sources of these values.

Table 6. 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 by 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 7.

Table 7. Estimated Marginal Claims Cost

	2025	2026	2027	2028	2029
Low Scenario	$556,236	$848,998	$915,720	$971,936	$1,031,709
Mid Scenario	$864,010	$1,318,762	$1,422,403	$1,509,724	$1,602,570
High Scenario	$1,171,784	$1,788,527	$1,929,086	$2,047,512	$2,173,432

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 Commonwealth[11]—the increase in medical expense was adjusted upward to approximate the total impact on premiums. Table 8 displays the result.

Table 8. Estimate of Increase in Carrier Premiums

	2025	2026	2027	2028	2029
Low Scenario	$639,820	$976,576	$1,053,324	$1,117,988	$1,186,743
Mid Scenario	$993,844	$1,516,931	$1,636,146	$1,736,588	$1,843,387
High Scenario	$1,347,867	$2,057,287	$2,218,968	$2,355,189	$2,500,031

7.0 Results

7.1 Five-Year Estimated Impact

For each year in the five-year analysis period, Table 9 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.[12]

Table 9 displays projected membership based on a population projection. A 72.1% adjustment factor to the first year (2025) implementation is also applied to account for ramp up in implementation.

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.

Table 9. 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)	$556	$849	$916	$972	$1,032	$914	$4,325
Medical Expense Mid ($000s)	$864	$1,319	$1,422	$1,510	$1,603	$1,420	$6,717
Medical Expense High ($000s)	$1,172	$1,789	$1,929	$2,048	$2,173	$1,926	$9,110
Premium Low ($000s)	$640	$977	$1,053	$1,118	$1,187	$1,051	$4,974
Premium Mid ($000s)	$994	$1,517	$1,636	$1,737	$1,843	$1,633	$7,727
Premium High ($000s)	$1,348	$2,057	$2,219	$2,355	$2,500	$2,215	$10,479
PMPM Low	$0.03	$0.04	$0.04	$0.04	$0.04	$0.04	$0.04
PMPM Mid	$0.05	$0.06	$0.06	$0.06	$0.07	$0.06	$0.06
PMPM High	$0.07	$0.08	$0.08	$0.09	$0.09	$0.08	$0.08
Estimated Monthly Premium	$593	$609	$625	$642	$660	$626	$626
Premium % Rise Low	0.006%	0.006%	0.006%	0.006%	0.007%	0.006%	0.006%
Premium % Rise Mid	0.009%	0.009%	0.010%	0.010%	0.010%	0.010%	0.010%
Premium % Rise High	0.012%	0.013%	0.013%	0.013%	0.014%	0.013%	0.013%

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 like 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 10 breaks out the GIC's self-insured membership, as well as the corresponding incremental medical expense.

Table 10. 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)	$56	$118	$125	$133	$141	$127	$572
Medical Expense Mid ($000s)	$86	$183	$194	$206	$219	$198	$889
Medical Expense High ($000s)	$117	$249	$264	$280	$297	$268	$1,206

Endnotes

[1] H.B. 967. An Act improving access to breast pumps. https://malegislature.gov/Bills/193/H967.

[2] S.B. 600. An Act improving access to breast pumps. https://malegislature.gov/Bills/193/S600.

[3] Senator Cynthia Stone Creem. Sponsor Questions Responses. May 30, 2024.

[4] The bill, as currently written, does not include Chapter 176A. However, the Sponsors confirmed that the bill's intent is to include Chapter 176A.

[5] Health Insurance Marketplace.® Health benefits & coverage. Breastfeeding benefits. Accessed May 24, 2024. https://www.healthcare.gov/coverage/breast-feeding-benefits/.

[6] U.S. Department of Health and Human Services. Are breast pumps covered by the Affordable Care Act? Last reviewed April 20, 2023. Accessed May 24, 2024. https://www.hhs.gov/answers/health-insurance-reform/are-breast-pumps-covered-by-the-affordable-care-act/index.html.

[7] American College of Obstetricians and Gynecologists. Understanding Health Care Coverage for Breastfeeding. Accessed May 24, 2024. https://www.acog.org/programs/breastfeeding/understanding-health-care-coverage-for-breastfeeding.

[8] Centers for Medicare and Medicaid Services. MASSACHUSETTS EHB BENCHMARK PLAN (2025-2027). Accessed June 17, 2024. https://www.cms.gov/files/document/ma-bmp-summary-py2025-2027.pdf.

[9] 554105 CMR 130. Accessed May 31, 2024. https://www.mass.gov/doc/06-6-461-attachment/download#:~:text=Level%20IIB%20Service%20shall%20mean,gestation%20and%20that%20meets%20the.

[10] U.S. Centers for Medicare & Medicaid Services, Office of the Actuary. National Health Expenditure Projections. "Table 15, Durable Medical Equipment Expenditures; Aggregate and per Capita Amounts, Percent Distribution and Annual Percent Change by Source of Funds: Calendar Years 2016-2032; Private Insurance." Accessed June 24, 2024. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html.

[11] 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.

[12] 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.

Appendix A: 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 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 databook[1] and Monthly Enrollment Summary – June 2021[2]), 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 basis 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) [3,4] 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.[5] 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.[6] Membership was projected from 2025 – 2029 using Massachusetts Department of Transportation population growth rate estimates by age and gender.[7]

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

[1] 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/.**

[2] *Ibid.*

[3] 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-.**

[4] Massachusetts Department of Insurance. Membership in Insured Preferred Provider Plans. Accessed March 21, 2023. **https://www.mass.gov/doc/2019-ippp-medical-plans/download.**

[5] 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.**

[6] 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.**

[7] 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.**