
MANDATED BENEFIT REVIEW OF
SENATE BILL 507 AND HOUSE BILL 2207
SUBMITTED TO THE 191ST GENERAL COURT:

AN ACT RELATIVE TO WOMEN'S HEALTH

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Prepared for Massachusetts Center for Health information and Analysis
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Mandated Benefit Review of Senate Bill 507 and House Bill 2207 Submitted to the 190th General Court:

An Act Relative to Women’s Health

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1.0 Benefit Mandate Overview: Senate Bill (S.B.) 507 and House Bill (H.B.) 2207: An Act Relative to Women's Health

1.1 History of the Bills

The Joint Committee on Financial Services referred Senate Bill (S.B.) 507, "An Act relative to women's health," sponsored by Senator Sonia Chang-Diaz in the 190th General Court, to the Center for Health Information and Analysis (CHIA) for review. The bill is identical to House Bill (H.B.) 2207, sponsored by Representative Chynah Tyler. Therefore, the two bills will be referenced as one (S.B. 507). Massachusetts General Laws (MGL), chapter 3, section 38C, requires CHIA to review and evaluate the potential fiscal impact of each mandated benefit bill referred to the agency by a legislative committee.

This report is not intended to determine whether S.B. 507 would constitute a health insurance benefit mandate for purposes of state defrayal under the Affordable Care Act (ACA), nor is it intended to assist with state defrayal calculations if it is determined to be a health insurance benefit mandate requiring state defrayal.

1.2 What Does the Bill Propose?

Massachusetts S.B. 507, as submitted in the 190th General Court of the Commonwealth of Massachusetts (Commonwealth), requires carriers to provide coverage for long-acting reversible contraceptives (LARCs).

The bill requires:

- Carriers to reimburse providers for the insertion and removal of LARCs separately from other services, whether they are provided in an inpatient or outpatient setting
- Carriers to increase the maximum allowed reimbursement rate to providers for insertion or removal of LARCs by no less than \$299 dollarsⁱ
- The Commonwealth to implement a training program to expand the number of clinicians and practices equipped to provide these servicesⁱⁱ
- Beginning January 1, 2018 [*sic*], postpartum visits to be billed separately from prenatal care and childbirth for MassHealth patients

ⁱ Subsequent to referral of the bill to CHIA for review, CHIA and its consultants submitted an inquiry to sponsoring legislators and staff to clarify the bill's language pertaining to the reimbursement rate provided to providers. The sponsors clarified that the bill's intent is to require carriers to increase provider reimbursement by \$299 dollars for insertion and removal of a LARC regardless of each carrier's current provider reimbursement rate.

ⁱⁱ The training program must address best practices for patient counseling, implant placement, and removal, and address administrative barriers to the provision of LARCs, including the development of policies and procedures, procurement of devices, stocking devices, billing, and reimbursement.

1.3 Medical Efficacy of S.B. 507 and H.B. 2207

LARCs include intra-uterine devices (IUDs) and hormonal contraceptive implants (implants).¹ They provide effective, long-term prevention of pregnancy without relying on user adherence after one-time placement by a medical provider. Studies consistently show a less than 1% failure rate for these contraceptive methods, and LARCs are considered the most effective reversible methods of contraception.² IUDs are effective for 3 to 10 years, varying by type, while the implant is effective for 3 years.³ LARCs are considered safe contraceptive options for most women.⁴ The Centers for Disease Control and Prevention (CDC) offers evidence-based guidance for women who may have a contraindication.⁵

In addition to lower incidence of unintended pregnancy in those who use LARCs, studies show that in the long term, these methods are more cost-effective for patients and insurers than short-acting reversible contraceptives (SARCs),⁶ and have higher rates of patient satisfaction.

1.4 Current Coverage

BerryDunn surveyed 10 insurance carriers in the Commonwealth, and 7 carriers responded. Each of the responding carriers currently cover the insertion and removal of LARC devices. Depending upon the services rendered on the date of service, or on the type of provider payment,ⁱⁱⁱ four of the seven carriers currently bundle insertion of LARC devices with other services. However, the carriers indicated that the majority of services are reimbursed separately. Three of the carriers did not respond to the survey.

Under the federal ACA, LARCs are considered preventive health services, and are required for coverage without patient cost-sharing. In addition, in November 2017, the Commonwealth passed a law that overlaps significantly with the contraception requirements of the ACA and requires carriers to cover LARC and related services without member cost-sharing.⁷ As such, these benefits are included in the Commonwealth's benchmark health plan, and consumers are already receiving LARC services in Massachusetts without patient cost-sharing if they are covered under an insured health benefit plan.⁸

1.5 Cost of Implementing the Bill

The requirements placed on fully insured health plans would result in an average annual increase, over five years, to the typical member's monthly health insurance premium of between \$0.60 and \$0.69 per member per month (PMPM), or between 0.109% and 0.126% of premium. The impact on premiums is primarily driven by the required increase in provider reimbursement rates for insertion and removal of LARCs.

1.6 Plans Affected by the Proposed Benefit Mandate

The bill applies to commercial fully insured health insurance plans, hospital service corporations, medical service corporations, and HMOs, as well as to both fully and self-insured plans operated by the Group Insurance Commission (GIC) for the benefit of public employees. The proposed mandate as drafted affects Medicaid/MassHealth; however, CHIA's analysis does not estimate the potential effect of the mandate on Medicaid expenditures.

ⁱⁱⁱ Some carriers bundle if the provider payment is on a DRG or per diem payment.

1.7 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 and Medicare Advantage plans or other federally funded plans, including TRICARE (covering military personnel and dependents), the Veterans Administration, and the Federal Employee's Health Benefit Plan, the benefits for which are determined by or under rules set by the federal government.

2.0 Medical Efficacy Assessment

2.1 LARCs

LARCs include IUDs and implants. IUDs are T-shaped devices inserted into the uterus by a health care provider that prevent sperm from reaching the egg, from fertilizing the egg, or a fertilized egg from implanting in the uterus. Some IUDs include the hormone progestin, which may thicken cervical mucus, making it harder for sperm to reach the egg and also thin the lining of the uterus. A copper (non-hormonal) IUD can be used for up to 10 years, while IUDs with progestin can be used for 3 to 5 years. It is possible to get pregnant soon after an IUD is removed and, as with insertion of the device, removal must be done by a health care professional.⁹

Four types of IUDs are sold in the United States: Mirena (sold by Bayer), Skyla (Bayer), Liletta (Allergan), and ParaGard (Teva). Mirena, Skyla, and Liletta release the hormone levonorgestrel, while ParaGard is a non-hormonal copper IUD. ParaGard is effective for up to 10 years, Mirena and Kyleena for up to 5 years, and Skyla and Liletta for up to 3 years.¹⁰

Implants are inserted under the skin of the arm and release the hormone progestin into the arm. One brand of implant, Nexplanon, is sold in the United States, and is effective for three years. While OB/GYN providers are trained in insertion and removal of IUDs during residency, providers must attend a formal training session with the manufacturer (Merck) in order to provide Nexplanon to patients.¹¹ In order to purchase implants, practices must have at least one clinician trained in Nexplanon.

Side effects of both IUDs and implants include irregular bleeding, spotting between periods, and amenorrhea (no periods).¹² The primary risks to IUD users are spontaneous expulsion (occurring in 2%–10% of all IUD users)¹³ and uterine perforation (occurring in 0.4–1.6 per 1,000 insertions).¹⁴ Complications from use of implants are rare, but can include hematoma formation, unrecognized non-insertion, and deep insertion leading to removal difficulties.¹⁵

2.2 LARC Utilization

While LARC usage is less prevalent than the usage of other contraceptive methods, the prevalence of LARC use among women who use contraceptives increased from 2.4% in 2002 to 11.6% in 2012, according to studies comparing data from the CDC's National Survey of Family Growth, a nationally representative sample of 5,000–7,000 women.^{16,17} Of the 11.6% of respondents who were using a LARC method in the 2012 study, users were nine times more likely to have an IUD than an implant.¹⁸ Women with private insurance experienced one of the most significant upticks in LARC use between 2009 and 2012, from 7.1% to 11.1% of those using contraception.¹⁹

The Massachusetts Health Policy Commission released data in 2017 on the impact of the ACA on out-of-pocket spending for contraception services, which showed that the use of IUDs is on the rise in the Commonwealth, up 34% between 2011 and 2014.²⁰

Research also shows that the rates of continuation are higher for LARC methods than SARC methods. A 2015 study surveyed 4,700 participants every six months for three years about their contraceptive methods, and found that 67% of LARC users were still using the same method of contraception at the end of three years, compared to 31.0% of SARC users.²¹

Younger women, especially teenagers, are less likely to use SARCs consistently. According to the CDC, of teenagers using contraceptives, only 3% use an IUD or implant.²² However, a systematic review of 12 studies that included nearly 5,000 women under the age of 25 found a high rate of continuation among participants using IUDs (74%) and implants (84%).²³

2.3 Efficacy in Preventing Pregnancy

LARCs are not user-dependent and have very low failure rates. The CDC considers LARCs to be one of the most effective ways of preventing unintended pregnancy.²⁴ A study of over 7,000 women found LARCs to have a failure rate of less than 1%, comparable to female sterilization,²⁵ while the failure rates for pills, rings, condoms, and other SARCs are 6% to 18%.²⁶

LARC methods have been shown to save money for both patients and insurers. A 2015 analysis estimated the total short- and long-term costs of LARCs and SARCs over five years (including the costs of contraceptive acquisition and failure rates), and found that the two least expensive methods of contraception were the copper IUD (\$304 per woman per year) and the hormonal IUD (\$308 per woman per year), compared to up to \$730 per woman per year for the highest cost method, the contraceptive patch. The study also found that the cost-effectiveness of LARC methods surpassed SARC methods in fewer than 3 years, well short of the 10 years some IUDs can remain effective.²⁷

A study that examined the cost of unintended pregnancy for insurance carriers in 2013 estimated the annual medical costs of unintended pregnancy in the United States at \$4.6 billion and attributed 53% of unintended pregnancies to inconsistent use of contraceptives. Researchers concluded that if just 10% of women aged 20–29 switched from oral contraceptives to LARCs, the total cost of unintended pregnancy would be reduced by \$288 million a year.²⁸

Several state-level initiatives to increase use of LARCs have shown significant success in reducing unintended pregnancy. In Colorado, for example, a program targeting the 15- to 24-year-old age range raised LARC utilization from 5% in 2008 to 19% in 2011, during which time the birth rate for 15- to 19-year-olds dropped by 26%.²⁹ Between 2008 and 2014, Colorado birth and abortion rates among teenagers dropped by almost half.³⁰

2.4 Barriers to Access

While LARC methods are highly cost-effective over time, the high up-front cost to providers of keeping the devices on hand has posed a barrier to use.³¹ This is compounded by the relatively low utilization of these methods, which makes it challenging for providers to estimate demand and stock devices in advance to facilitate same-day insertion.³² Providers may lack awareness about the safety of LARCs for certain populations, such as teenagers, and may lack training on insertion and removal.³³

Training programs are offered at many residency programs and clinics throughout the United States, some of which have been supported by grant funds from organizations such as getLARC.³⁴

Under the ACA, insurers must cover the clinical, counseling and education, follow-up, and device-removal services related to LARC methods without cost-sharing for the patient.³⁵ LARC methods may be covered by either a medical plan or a pharmacy plan. When the method is covered as a medical benefit, the provider buys the LARC device from the manufacturer or pharmacy up front, and then bills the patient's insurance for the device and insertion. When the method is covered under a pharmacy benefit, the patient fills a prescription for the device, the pharmacy bills the patient's insurance, and the provider bills separately for the related procedures when they are provided.³⁶

A 2018 qualitative study of 57 clinical and support staff at Commonwealth community health centers found a variety of LARC protocols and practices in place at different facilities, describing patients' access to be "idiosyncratic and clinician-dependent." Participants in the study's focus groups described difficulty with insurance verification practices and challenges with stocking devices as major barriers to providing same-day insertion of LARCs.³⁷

2.5 Conclusion

LARC methods are shown to have little risk to patients and low failure rates in research studies. Analyses of both Medicaid and private insurance claims have found that when compared to SARCs, LARCs are more cost-effective for both the patient and the insurer. LARC utilization has been rising since the early 2000s, and is credited by some researchers for part of the decrease in unintended pregnancy in recent years in the United States.

Barriers to access remain in the form of lack of provider awareness and training, lack of patient awareness, and high upfront costs to providers to stock LARC devices. The bill mandates a benefit that is already covered by Massachusetts health insurance carriers, but it additionally mandates an increase in reimbursement to providers and unbundling of insertion and removal of LARC devices from other services with the intent of increasing access to a method of birth control that is widely supported by medical literature.

Endnotes

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AN ACT RELATIVE TO WOMEN'S HEALTH

COST REPORT

This report was prepared by Larry Hart; Valerie Hamilton, RN, MHA, JD; Andrea Clark, MS; and Jennifer Elwood, FSA, MAAA.

1.0 Executive Summary

The Joint Committee on Financial Services referred Senate Bill (S.B.) 507, “An Act relative to women’s health,” sponsored by Senator Sonia Chang-Diaz in the 190th General Court, to the Center for Health Information and Analysis (CHIA) for review. The bill is identical to House Bill (H.B.) 2207, sponsored by Representative Chynah Tyler. Therefore, the two bills will be referenced as one (S.B. 507). S.B. 507 requires fully insured plans to provide coverage of long-acting reversible contraceptives (LARCs). The bill requires carriers to reimburse providers for the insertion and removal of LARCs separately from other services, whether they are provided in an inpatient or outpatient setting.

Subsequent to referral of the bill to CHIA for review, CHIA and its consultants submitted an inquiry to sponsoring legislators and staff to clarify the bill’s language pertaining to the reimbursement rate provided to providers. The sponsors clarified that the bill’s intent is to require carriers to increase provider reimbursement by a minimum of \$299 for LARC insertion and removal of a LARC and bill each separately from other services.

Massachusetts General Laws (MGL) chapter 3, section 38C, charges the Massachusetts CHIA with, among other duties, reviewing the potential impact of proposed mandated health care insurance benefits on the premiums paid by businesses and consumers. CHIA has engaged BerryDunn^{iv} to provide an actuarial estimate of the effect enactment of the bill would have on the cost of health insurance in the Commonwealth of Massachusetts (Commonwealth). The report is required to include the effects of the proposed mandate on the cost of healthcare, including the premium and administrative expenses.

This report is not intended to determine whether S.B. 507 would constitute a health insurance benefit mandate for purposes of state defrayal under the Affordable Care Act (ACA), nor is it intended to assist with state defrayal calculations if it is determined to be a health insurance benefit mandate requiring state defrayal.

1.1 Current Insurance Coverage

BerryDunn surveyed 10 insurance carriers in the Commonwealth and seven carriers responded. All of the responding carriers currently cover the insertion and removal of LARC devices. Depending upon the date of service, four of the seven carriers currently bundle insertion of LARC devices with other services. However, the carriers indicated that the majority of services are reimbursed separately. Three of the carriers did not respond to the survey.

Under the federal ACA, LARCs are considered preventive health services, and are required for coverage without patient cost-sharing. In addition, in November 2017, the Commonwealth passed a law that overlaps significantly with the contraception requirements of the ACA and requires carriers to cover LARC and related services without member cost-sharing.¹ As such, these benefits are included in the Commonwealth’s benchmark health plan and consumers are already receiving LARC services in Massachusetts without patient cost-sharing if they are covered under an insured health benefit plan.²

^{iv} Formerly Compass Health Analytics, Inc.

1.2 Analysis

BerryDunn estimated the impact of S.B. 507 by assessing the incremental impacts of three components:

- Incremental cost due to increasing provider reimbursement by a minimum of \$299 for insertion of a LARC
- Incremental cost due to increasing provider reimbursement by a minimum of \$299 for removal of a LARC
- Incremental cost due to the requirement that insurers pay for these services separately from other services

The incremental cost of the increased reimbursement rate for insertion and removal of a LARC is estimated using claims data from the Massachusetts All Payer Claims Database (APCD). The incremental cost of unbundling the insertion of LARC services is estimated using data provided by the carriers in the Commonwealth.

BerryDunn aggregated these components and projected them forward over the next five years (2020–2024) for the fully insured Commonwealth population, using the bill's effective date of January 1, 2020. BerryDunn added insurer retention (i.e., administrative cost and profit) to arrive at an estimate of the bill's effect on premiums. Note the estimates assume carriers would fully comply with the provisions of the bill if it becomes law.

1.3 Summary Results

Table ES-1, on the following page, summarizes the estimated effect of S.B. 507 on premiums for fully insured plans over five years. This analysis estimates that the bill, if enacted as drafted for the General Court, would increase fully insured premiums by as much as 0.126% on average over the next five years; a more likely increase is in the range of 0.112%, equivalent to an average annual expenditure of \$15.6 million over the period 2020–2024.

The impact on premiums is driven primarily by the provisions of S.B. 507 that require carriers to increase provider reimbursement by a minimum of \$299 for insertion and removal of a LARC, and for unbundling LARC insertion services. The impact of the bill 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 those benefits would change under the proposed language of the bill.

Table ES-1: Summary Results

	2020	2021	2022	2023	2024	WEIGHTED AVERAGE	FIVE-YEAR TOTAL
Members (000s)	2,144	2,137	2,130	2,123	2,115		
Medical Expense Low (\$000s)	\$9,481	\$13,259	\$13,214	\$13,169	\$13,121	\$13,212	\$62,245
Medical Expense Mid (\$000s)	\$9,707	\$13,574	\$13,529	\$13,483	\$13,433	\$13,527	\$63,727
Medical Expense High (\$000s)	\$10,117	\$14,696	\$15,214	\$15,750	\$16,300	\$15,300	\$72,078
Premium Low (\$000s)	\$10,957	\$15,322	\$15,271	\$15,219	\$15,163	\$15,269	\$71,933
Premium Mid (\$000s)	\$11,218	\$15,687	\$15,635	\$15,581	\$15,524	\$15,632	\$73,645
Premium High (\$000s)	\$11,692	\$16,983	\$17,582	\$18,202	\$18,837	\$17,681	\$83,296
PMPM Low	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60
PMPM Mid	\$0.61	\$0.61	\$0.61	\$0.61	\$0.61	\$0.61	\$0.61
PMPM High	\$0.64	\$0.66	\$0.69	\$0.71	\$0.74	\$0.69	\$0.69
Estimated Monthly Premium	\$516	\$531	\$547	\$563	\$580	\$548	\$548
Premium % Rise Low	0.116%	0.112%	0.109%	0.106%	0.103%	0.109%	0.109%
Premium % Rise Mid	0.119%	0.115%	0.112%	0.109%	0.105%	0.112%	0.112%
Premium % Rise High	0.124%	0.125%	0.126%	0.127%	0.128%	0.126%	0.126%

Executive Summary Endnotes

¹ An Act Relative to Advancing Contraceptive Coverage and Economic Security in Our State, 2017 Mass. Acts Chapter 120. Accessed 15 January 2019: <https://malegislature.gov/Laws/SessionLaws/Acts/2017/Chapter120>.

² CMS. Massachusetts State Required Benefits. Accessed 11 July 2018: https://downloads.cms.gov/ccii/State%20Required%20Benefits_MA.PDF.

2.0 Introduction

The Joint Committee on Financial Services referred S.B. 507, “An Act relative to women’s health,” sponsored by Senator Sonia Chang-Diaz in the 190th General Court, to the CHIA for review. The bill is identical to H.B. 2207, sponsored by Representative Chynah Tyler. Therefore, the two bills will be referenced as one (S.B. 507). MGL, chapter 3, section 38C, requires CHIA to review and evaluate the potential fiscal impact of each mandated benefit bill referred to the agency by a legislative committee. The report is required to include the effects on the cost of health care, including the premium and administrative expenses, of the proposed mandate.

Assessing the impact of the proposed mandate on premiums entails analyzing its incremental effect on spending by insurance plans. This, in turn, requires comparing spending under the provisions of the bill to spending under current statutes and current benefit plans for the relevant services.

This report is not intended to determine whether S.B. 507 would constitute a health insurance benefit mandate for purposes of state defrayal under the ACA, nor is it intended to assist with state defrayal calculations if it is determined to be a health insurance benefit mandate requiring state defrayal.

Section 3.0 of this analysis outlines the provisions and interpretations of the bill. Section 4.0 summarizes the methodology used for the estimate. Section 5.0 discusses important considerations in translating the bill’s language into estimates of its incremental impact on healthcare costs and steps through the calculations. Section 6.0 discusses results.

2.1 Background

Massachusetts S.B. 507, as submitted in the 190th General Court of the Commonwealth, requires carriers to provide coverage of LARCs. The bill requires carriers to reimburse providers for the insertion and removal of LARCs separately from other services, whether they are provided in an inpatient or outpatient setting.

Subsequent to referral of the bill to CHIA for review, CHIA and its consultants submitted an inquiry to sponsoring legislators and staff to clarify the bill’s language pertaining to the reimbursement rate provided to providers. The sponsors clarified that the bill’s intent is to require carriers to increase provider reimbursement by a minimum of \$299 for insertion and removal of a LARC and bill each separately from other services.

The bill also requires the Commonwealth to implement a training program to expand the number of clinicians and practices equipped to provide these services. The training program must address best practices for patient counseling, implant placement and implant removal, and address administrative barriers to the provision of LARCs, including the development of policies and procedures, procurement of devices, stocking devices, billing, and reimbursement.

In addition, the bill requires that beginning January 1, 2018 [sic], postpartum visits are to be billed separately from prenatal care and childbirth for MassHealth patients. This analysis assumes an effective date of January 1, 2020.

3.0 Interpretation of S.B. 507

Under the federal ACA, LARCs are considered preventive health services, and are required for coverage without patient cost-sharing. In addition, in November 2017, the Commonwealth passed a law that overlaps significantly with the contraception requirements of the ACA and requires carriers to cover LARC and related services without member cost-sharing.¹ As such, these benefits are included in the Commonwealth's benchmark health plan.²

The incremental cost estimates developed in this report include the cost of increasing provider reimbursement by a minimum of \$299 for insertion and removal of a LARC, and reimbursing each service separately from other services.

3.1 Plans Affected by the Proposed Mandate

The bill as drafted amends statutes that regulate health care carriers in the Commonwealth. The bill includes the following sections, each of which addresses statutes dealing with a particular type of health insurance policy:

- **Section 1: Chapter 32A** – Plans Operated by the Group Insurance Commission (GIC) for the Benefit of Public Employees
- **Section 2: Chapter 175** – Commercial Health Insurance Company Plans
- **Section 3: Chapter 176A** – Hospital Service Corporation Plans
- **Section 4: Chapter 176B** – Medical Service Corporation Plans
- **Section 5: Chapter 176G** – Health Maintenance Organization (HMO) Plans

Self-insured plans, except for those managed by the GIC, are not subject to state-level health insurance benefit mandates. State mandates do not apply to Medicare or Medicare Advantage plans, the benefits of which are qualified by Medicare; this analysis excludes members of fully insured commercial plans over 64 years of age and does not address any potential effect on Medicare supplement plans, even to the extent they are regulated by state law. This analysis does not apply to MassHealth.

3.2 Covered Services

BerryDunn surveyed 10 insurance carriers in the Commonwealth, and 7 insurers responded. All of the responding carriers currently cover the insertion and removal of LARC devices. Depending upon the services rendered on the date of service, or on the type of provider payment,^v four of the seven carriers currently bundle insertion of LARC devices with other services. However, the carriers indicated that the majority of services are reimbursed separately. Three of the carriers did not respond to the survey.

3.3 Existing Laws Affecting the Cost of S.B. 507

The proposed mandate is not redundant to, or in conflict with, any existing state or federal mandates.

^v Some carriers bundle if the provider payment is on a DRG or per diem payment.

4.0 Methodology

4.1 Overview

Estimating the impact of S.B. 507 on premiums requires assessing the incremental impacts of three components:

- Incremental cost due to increasing provider reimbursement by a minimum of \$299 for insertion of a LARC
- Incremental cost due to increasing provider reimbursement by a minimum of \$299 for removal of a LARC
- Incremental cost due to the requirement that insurers pay for these services separately from other services

The incremental cost of increasing provider reimbursement by a minimum of \$299 for insertion and removal of a LARC is estimated using claims data from the Massachusetts APCD. The APCD is used to determine the number of these services, which, when multiplied by the additional \$299 in reimbursement, results in an estimated claims cost. The incremental cost of unbundling these services is estimated using the APCD and carrier survey data to determine the number of these services that are bundled, and the impact on the cost of these services if billed for separately. Combining the components, and accounting for carrier retention, results in a baseline estimate of the proposed mandate's incremental effect on premiums, which is projected over the five years following the assumed January 1, 2020, implementation date of the proposed law.

4.2 Data Sources

The primary data sources used in the analysis are:

- Information about the intended effect of the bill, gathered from sponsors
- Information, including descriptions of current coverage and number of bundled services, from responses to a survey of commercial health insurance carriers in the Commonwealth
- The Massachusetts APCD
- Academic literature, published reports, and population data, cited as appropriate

4.3 Steps in the Analysis

To implement the analysis, BerryDunn performed the steps summarized in this section.

1. Estimated marginal costs to insurers for LARC insertion at the new reimbursement rate, where the service is billed as a stand-alone service

In order to estimate the impact of the cost of LARC insertion, BerryDunn:

- A. Used claims data from the APCD for standalone LARC services, and for services at delivery and in follow-up visits for carriers that do not bundle LARC services
- B. Calculated the total number of claims

- C. Multiplied the number of claims by the incremental cost of \$299 per claim to calculate incremental claims cost
- D. Projected the baseline cost forward over the five-year analysis period using an estimated increase in professional service costs over the period

2. Estimated marginal costs to insurers for LARC removal at the new reimbursement rate

In order to estimate the cost impact of unbundling LARC removal, BerryDunn:

- A. Used data from the APCD for removal of LARC services
- B. Calculated the total number of claims
- C. Multiplied the number of claims by the incremental cost of \$299 per claim to calculate incremental claims cost
- D. Projected the baseline cost forward over the five-year analysis period using an estimated increase in professional service costs over the period

3. Estimated marginal costs to insurers for LARC insertion at the new reimbursement rate and billed as a stand-alone service, where the service is currently part of a bundled reimbursement rate

In order to estimate the cost impact of unbundling LARC insertion, BerryDunn:

- A. Used carrier survey responses for the carriers that bundle LARC services to determine the total number of LARC insertions that are bundled with other claims
- B. Estimated the number of bundled LARC services for those carriers that did not respond to the survey based on the proportion bundled by the carriers responding to the survey
- C. Estimated the incremental cost per claim for the services that will be unbundled, factoring in the \$299 per claim increase in unit cost
- D. Multiplied the number of claims by the incremental cost per claim to calculate the incremental cost PMPM
- E. Projected the baseline cost forward over the five-year analysis period using an estimated increase in physician service costs over the period

4. Calculated the impact of the combined projected claim costs on insurance premiums

To add the other components of health insurance premiums to the estimated claims costs, BerryDunn:

- A. Summed the estimated incremental paid PMPM costs for insertion, removal, and unbundling of LARC services
- B. Estimated the fully insured Commonwealth population under age 65, projected for the next five years (2020–2024)

- C. Multiplied the estimated aggregate incremental paid PMPM cost of the mandate by the projected population estimate to calculate the total estimated marginal claims cost of S.B. 507
- D. Estimated insurer retention (administrative costs, taxes, and profit) and applied the estimate to the final incremental claims cost calculated in Step C

4.4 Limitations

Carriers currently cover insertion and removal of LARC devices. However, as a result of the current reimbursement rate and the significant expense of the devices, some providers do not keep LARC devices on hand. Given that this proposed mandate significantly increases the reimbursement rate for insertion and removal of LARCs, it is unclear whether carriers would provide any additional unit cost increases for these services over the study period. In addition, improved provider education and the ability for providers to keep more devices on hand will potentially increase the utilization of LARCs during the study period. It is unclear to what level utilization may increase and to what degree any increase in utilization displaces other forms of contraceptive use. BerryDunn was unable to find any research on the impact of changes in LARC reimbursement and provider education on the commercially insured population.

The more detailed step-by-step description of the estimation process outlined in the next sections addresses these uncertainties further.

5.0 Analysis

This section describes the calculations outlined in the previous section in more detail. The analysis includes development of a best-estimate, middle-cost scenario, as well as a low-cost scenario using assumptions that produced a lower estimate and a high-cost scenario using more conservative assumptions that produced a higher-estimated cost impact.

Section 5.1 describes the steps used to calculate the impact of raising the reimbursement rate for the insertion of a LARC by a minimum of \$299 per service. Section 5.2 describes the steps used to calculate the impact of raising the reimbursement rate for the removal of a LARC by a minimum of \$299 per service. Section 5.3 describes the impact of unbundling LARC services and raising the reimbursement rate for these services by a minimum of \$299 per service. Section 5.4 aggregates the marginal PMPM costs. Section 5.5 projects the fully insured population ages 0–64 in the Commonwealth over the 202–2024 analysis period. Section 5.6 calculates the total estimated marginal cost of S.B. 507, and Section 5.7 adjusts these projections for carrier retention to arrive at an estimate of the bill's effect on premiums for fully insured plans.

5.1 Increased Reimbursement Rate for Insertion of a LARC

Estimated the impact of raising the reimbursement rate of insertion of a LARC for standalone services by a minimum of \$299 per service

S.B. 507 requires insurers to increase the reimbursement rate for insertion of a LARC by a minimum of \$299 per service. BerryDunn used the APCD to determine the number of standalone LARC insertion services. The number of services (claims) for carriers that do not bundle LARC services includes insertions performed at delivery, insertions provided at follow-up visits, and all other standalone LARC insertion claims. BerryDunn determined the total number of standalone LARC insertion services, and multiplied the number of standalone LARC insertion services by \$299 to calculate the incremental claims cost. Results are displayed in Table 1.

Table 1: Estimated Incremental Claims Cost for LARC Insertion

NUMBER OF CLAIMS	UNIT COST PER CLAIM	INCREMENTAL CLAIMS COST
21,897	\$299	\$6,547,203

Predicting increased utilization of LARCs if the bill is enacted is challenging. Due to the increased reimbursement rate and the provider training required under the proposed mandate, BerryDunn anticipates some increase in LARC utilization rates over the study period. The ACA prohibited cost-sharing for LARC coverage starting in 2013. An increase in utilization during this time period can be seen in the historical APCD data. However, LARC utilization rates are still relatively low when compared to other contraceptive options. If enacted, the proposed mandate will likely further increase LARC utilization. However, any incremental cost increase due to increased LARC utilization will be offset by a corresponding reduction in other forms of contraceptives. Oral contraceptives represent the majority of birth control utilization in the Commonwealth fully insured market. LARC methods have been shown to save money for both patients and insurers. A 2015 analysis estimated the total short- and long-term costs of LARCs and short-acting reversible contraceptives (SARCs) over 5 years (including the costs of contraceptive acquisition and failure rates) and found that the two least expensive methods of contraception were the copper intrauterine device (IUD) (\$304 per woman per year) and the hormonal IUD (\$308 per woman per year), compared to up to \$730 per woman per year for the highest-cost method, the contraceptive patch. The study also found that the cost-effectiveness of LARC methods surpassed SARC methods in fewer than 3 years, well short of the 10 years some IUDs can remain effective.³ Because the anticipated costs of LARCs are lower than SARCs, BerryDunn conservatively assumed no incremental cost impact for any increased utilization of LARC.

Given the significant increase in reimbursement for LARC insertion services (the average cost per service in 2016 was \$133 in the APCD), it is possible that carriers will hold the unit cost flat for the considerable future. For the low and mid scenarios, BerryDunn assumed that after a \$299 increase in cost per service in 2020, carriers will hold the unit cost flat over the rest of the study period. The high scenario assumes cost based on the long-term average national projection for cost increases to physical and clinical services over the study period.⁴

BerryDunn divided the annual incremental cost by the corresponding membership to estimate the incremental PMPM amount. BerryDunn multiplied the incremental PMPM amounts by the expected increase in cost to project the PMPM impact of requiring a \$299 increase to the LARC insertion reimbursement rate. Table 2 displays the incremental claims costs, and Table 3 displays incremental PMPM amounts.

Table 2: Estimated Marginal Annual Cost of LARC Insertion

	2016	2020	2021	2022	2023	2024
Low Scenario	\$6,547,203	\$6,547,203	\$6,547,203	\$6,547,203	\$6,547,203	\$6,547,203
Mid Scenario	\$6,547,203	\$6,547,203	\$6,547,203	\$6,547,203	\$6,547,203	\$6,547,203
High Scenario	\$6,547,203	\$6,547,203	\$6,800,907	\$7,064,442	\$7,338,189	\$7,622,544

Table 3: Estimated Marginal PMPM Cost of LARC Insertion

	2016	2020	2021	2022	2023	2024
Low Scenario	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29
Mid Scenario	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29
High Scenario	\$0.29	\$0.29	\$0.30	\$0.32	\$0.33	\$0.34

5.2 Increased Reimbursement Rate for Removal of a LARC

Estimated the impact of raising the reimbursement rate of removal of a LARC by a minimum of \$299 per service

The second component of S.B. 507 requires insurers increase the reimbursement rate for removal of a LARC by a minimum of \$299 per service. BerryDunn used the APCD to determine the number of standalone LARC removal services and then multiplied the number of standalone LARC removal services by \$299 to calculate the incremental claims cost. Results are displayed on the following page in Table 4.

Table 4: Estimated Incremental Claims Cost for LARC Removal

NUMBER OF CLAIMS	UNIT COST PER CLAIM	INCREMENTAL CLAIMS COST
12,270	\$299	\$3,668,730

BerryDunn divided the annual incremental cost by the corresponding membership to estimate the incremental PMPM amount. For the low and mid scenarios, BerryDunn assumed that after a \$299 increase in cost per service in 2020, carriers will hold the unit cost flat over the rest of the study period. The high scenario assumes costs based on the long-term average national projection for cost increases to physical and clinical services over the study period.⁵ BerryDunn multiplied the incremental PMPM amounts by the expected increase in cost to project the PMPM impact of requiring a \$299 increase to the LARC removal reimbursement rate. Table 5 displays the incremental claims costs, and Table 6 displays incremental PMPM amounts.

Table 5: Estimated Marginal Annual Cost of LARC Removal

	2016	2020	2021	2022	2023	2024
Low Scenario	\$3,668,730	\$3,668,730	\$3,668,730	\$3,668,730	\$3,668,730	\$3,668,730
Mid Scenario	\$3,668,730	\$3,668,730	\$3,668,730	\$3,668,730	\$3,668,730	\$3,668,730
High Scenario	\$3,668,730	\$3,668,730	\$3,810,893	\$3,958,565	\$4,111,960	\$4,271,298

Table 6: Estimated Marginal PMPM Cost of LARC Removal

	2016	2020	2021	2022	2023	2024
Low Scenario	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16
Mid Scenario	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16
High Scenario	\$0.16	\$0.16	\$0.17	\$0.18	\$0.18	\$0.19

5.3 Impact of Unbundling LARC Insertion Services

Estimated marginal costs to insurers of unbundling LARC insertion

The third component contributing to S.B. 507's effect on premiums is the requirement that insurers pay for LARC services separately from other services and increase the reimbursement rate by a minimum of \$299. Currently, not all carriers in the Commonwealth bundle the reimbursement of LARC insertion with other services. Of the seven carriers responding to the carrier survey, four reported that in some situations they bundle LARC insertion with other services. All four carriers indicated that they reimburse the majority of LARC services separately. These carriers provided a claim count for the number of bundled services they reimbursed in 2016. BerryDunn estimated the number of bundled services for those carriers that did not respond to the survey using the ratio of bundled services for carriers that responded to the survey. The number of bundled claims for the carriers that provided claim counts were between 2% and 22% of total LARC insertion claims. In the mostly likely scenario, BerryDunn assumed that bundled claims were 10% of total claim counts. BerryDunn assumed 5% in the low scenario and 20% in the high scenario. Adding the claim counts together, BerryDunn estimated the total number of bundled services for all carriers, which are included in Table 7 below. The cost of unbundling LARC insertion services will include both the \$299 increase in reimbursement and some portion of the current standalone reimbursement rate for LARC insertion, depending on how the unbundling affects the cost of the bundled services excluding LARC. When carrier information on unit cost for LARCs in their bundled rates was available, the provided incremental unit cost was used in all three scenarios. Informed by carrier responses, the mid scenario assumes that the incremental cost is 50% of the average LARC insertion cost per claim plus \$299, or \$365.50. In the low scenario, BerryDunn assumed that the remaining carriers would lower the cost of their bundles by the entire cost of standalone reimbursement, and the incremental cost is \$299. The high scenario assumes the remaining carriers will not adjust the cost of their bundles, and the incremental cost is the average reimbursement plus \$299 or \$432. BerryDunn calculated a weighted average unit cost for all of the carriers, and multiplied the number of bundled LARC services by the incremental cost per service to estimate the claims cost for unbundling LARC services. Table 7 displays the results.

Table 7: Estimated Incremental Claims Cost for Unbundling LARC

	NUMBER OF CLAIMS	UNIT COST PER CLAIM	INCREMENTAL CLAIM COST
Low Scenario	4,103	\$330.61	\$1,356,493
Mid Scenario	4,465	\$365.50	\$1,631,958
High Scenario	5,326	\$400.39	\$2,132,477

BerryDunn divided the annual incremental cost by the corresponding membership to estimate the incremental PMPM amount. For the low and mid scenarios, given the substantial increase in the cost per service required by this mandate (an average of 225%), BerryDunn assumed that after a \$299 increase in cost per service in 2020, carriers would hold the unit cost flat over the rest of the study period. The high scenario assumes costs will increase by the long-term average national projection for cost increases to physical and clinical services over the study period.⁶ BerryDunn multiplied the incremental PMPM amounts by the expected increase in cost to project the PMPM impact of requiring the unbundling of LARC services and a \$299 increase to the LARC insertion reimbursement rate. Table 8 displays the incremental claims costs, and Table 9 displays incremental PMPM amounts.

Table 8: Estimated Marginal Annual Cost of Unbundling LARC Services

	2016	2020	2021	2022	2023	2024
Low Scenario	\$1,356,493	\$1,356,493	\$1,356,493	\$1,356,493	\$1,356,493	\$1,356,493
Mid Scenario	\$1,631,958	\$1,631,958	\$1,631,958	\$1,631,958	\$1,631,958	\$1,631,958
High Scenario	\$2,132,477	\$2,132,477	\$2,215,111	\$2,300,946	\$2,390,108	\$2,482,725

Table 9: Estimated Marginal PMPM Cost of Unbundling LARC Services

	2016	2020	2021	2022	2023	2024
Low Scenario	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06
Mid Scenario	\$0.07	\$0.07	\$0.07	\$0.07	\$0.07	\$0.07
High Scenario	\$0.10	\$0.10	\$0.10	\$0.10	\$0.11	\$0.11

5.4 Marginal Cost Per Member Per Month

Adding together the estimated PMPM costs associated with the three relevant provisions (from Tables 3, 6, and 9) yields the total PMPM marginal cost, shown in Table 10.

Table 10: Estimated Marginal PMPM Cost of S.B. 507

	2020	2021	2022	2023	2024
Low Scenario	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52
Mid Scenario	\$0.53	\$0.53	\$0.53	\$0.53	\$0.53
High Scenario	\$0.55	\$0.57	\$0.60	\$0.62	\$0.64

5.5 Projected Fully Insured Population in the Commonwealth

Table 11 shows the fully insured population in the Commonwealth ages 0 to 64 projected for the next five years. Appendix A describes the sources of these values.

Table 11: Projected Fully Insured Population in the Commonwealth, Ages 0 – 64

YEAR	TOTAL (0 – 64)
2020	2,143,554
2021	2,137,204
2022	2,130,078
2023	2,122,832
2024	2,115,005

5.6 Total Marginal Medical Expense

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 on in Table 12. This analysis assumes the bill, if enacted, would be effective January 1, 2020.^{vi}

^{vi} The analysis assumes the mandate would be effective for policies issued and renewed on or after January 1, 2020. Based on an assumed renewal distribution by month, by market segment, and by the Commonwealth market segment composition, 71.3% of the member months exposed in 2020 will have the proposed mandate coverage in effect during calendar year 2020. The annual dollar impact of the mandate in 2020 was estimated using the estimated PMPM and applying it to 71.3% of the member months exposed.

Table 12: Estimated Marginal Cost of S.B. 507

	2020	2021	2022	2023	2024
Low Scenario	\$9,481,492	\$13,258,636	\$13,214,428	\$13,169,478	\$13,120,919
Mid Scenario	\$9,707,185	\$13,574,238	\$13,528,978	\$13,482,958	\$13,433,243
High Scenario	\$10,117,270	\$14,695,911	\$15,214,479	\$15,750,281	\$16,300,279

5.7 Carrier Retention and Increase in Premium

Carriers include their retention expense in fully insured premiums. Retention expense includes general administration, commissions, taxes, fees, and contribution to surplus or profit. Assuming an average retention rate of 13.5% based on CHIA's analysis of fully insured premium retention in the Commonwealth,⁷ the increase in medical expense was adjusted upward to approximate the total impact on premiums. Table 13, on the following page, shows the result.

Table 13: Estimate of Increase in Carrier Premium Expense

	2020	2021	2022	2023	2024
Low Scenario	\$10,957,174	\$15,322,186	\$15,271,097	\$15,219,151	\$15,163,035
Mid Scenario	\$11,217,994	\$15,686,908	\$15,634,604	\$15,581,421	\$15,523,969
High Scenario	\$11,691,903	\$16,983,156	\$17,582,433	\$18,201,625	\$18,837,225

6.0 Results

The estimated impact of the proposed requirement on medical expense and premiums appears below. The analysis includes development of a best estimate “mid-level” scenario, as well as a low-level scenario using assumptions that produced a lower estimate and a high-level scenario using more conservative assumptions that produced a higher-estimated impact.

The impact on premiums is driven by the provisions of S.B. 507 that require that carriers to increase provider reimbursement by a minimum of \$299 for insertion and removal of a LARC, and for unbundling LARC insertion services. Variation between scenarios is attributable to the uncertainty surrounding the increased cost per service over the projection period and the number of bundled services.

Starting in 2021, the federal ACA will impose an excise tax, commonly known as the “Cadillac Tax,” on expenditures on health insurance premiums and other relevant items (e.g., health savings account contributions) that exceed specified thresholds. To the extent that relevant expenditures exceed those thresholds (in 2021), S.B. 507, by increasing premiums, has the potential of creating liability for additional amounts under the tax. Estimating the amount of potential tax liability requires information on the extent to which premiums, notwithstanding the effect of S.B. 507, will exceed or approach the thresholds, and is beyond the scope of this analysis.

6.1 Five-Year Estimated Impact

For each year in the five-year analysis period, Table 14 (on the following page) displays the projected net impact of the proposed language on medical expense and premiums using a projection of Commonwealth fully insured membership. Note that the relevant provisions of S.B. 507 are assumed effective January 1, 2020.⁸

The low-scenario impact is \$15.3 million per year on average. This scenario assumes carriers will hold the unit cost of insertion and removal of a LARC flat over the projection period. The low scenario also assumes when unbundling LARC services carriers would lower the cost of the bundle by the entire cost of standalone LARC insertion reimbursement. The high-scenario impact is \$17.7 million and is based on an assumption carriers would increase the unit cost of insertion and removal of a LARC each year by 3.9% over the projection period, and carriers would not adjust the cost of the bundle when they unbundle LARC services. The middle scenario assumes carriers would hold the unit cost of insertion and removal of a LARC flat over the projection period and would lower the cost of the bundle by 50% of the average LARC insertion unit cost when unbundling. The middle scenario has average annual costs of \$15.6 million, or an average of 0.112% of premium.

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 14: Summary Results

	2020	2021	2022	2023	2024	WEIGHTED AVERAGE	FIVE-YEAR TOTAL
Members (000s)	2,144	2,137	2,130	2,123	2,115		
Medical Expense Low (\$000s)	\$9,481	\$13,259	\$13,214	\$13,169	\$13,121	\$13,212	\$62,245
Medical Expense Mid (\$000s)	\$9,707	\$13,574	\$13,529	\$13,483	\$13,433	\$13,527	\$63,727
Medical Expense High (\$000s)	\$10,117	\$14,696	\$15,214	\$15,750	\$16,300	\$15,300	\$72,078
Premium Low (\$000s)	\$10,957	\$15,322	\$15,271	\$15,219	\$15,163	\$15,269	\$71,933
Premium Mid (\$000s)	\$11,218	\$15,687	\$15,635	\$15,581	\$15,524	\$15,632	\$73,645
Premium High (\$000s)	\$11,692	\$16,983	\$17,582	\$18,202	\$18,837	\$17,681	\$83,296
PMPM Low	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60
PMPM Mid	\$0.61	\$0.61	\$0.61	\$0.61	\$0.61	\$0.61	\$0.61
PMPM High	\$0.64	\$0.66	\$0.69	\$0.71	\$0.74	\$0.69	\$0.69
Estimated Monthly Premium	\$516	\$531	\$547	\$563	\$580	\$548	\$548
Premium % Rise Low	0.116%	0.112%	0.109%	0.106%	0.103%	0.109%	0.109%
Premium % Rise Mid	0.119%	0.115%	0.112%	0.109%	0.105%	0.112%	0.112%
Premium % Rise High	0.124%	0.125%	0.126%	0.127%	0.128%	0.126%	0.126%

6.2 Impact on the GIC

The proposed legislative change is assumed to apply to both fully insured and self-insured plans operated for state and local employees by the GIC, with an effective date for all GIC policies on July 1, 2020.

Because the benefit offerings of GIC plans are similar to those of most other commercial plans in the Commonwealth, and based on our carrier surveys that did not indicate GIC had different coverage, the estimated incremental PMPM of the proposed legislative language on GIC medical expense is assumed not to differ from that calculated for the other fully insured plans in the Commonwealth.

This is consistent with carrier survey responses that, in general, did not indicate differences in coverage for the GIC.

To estimate the medical expense separately for the GIC, the PMPM medical expense for the general fully insured population was applied to the GIC membership starting in July of 2020.

Table 15 breaks out the GIC-only fully insured membership and the GIC self-insured membership, as well as the corresponding incremental medical expense and premium. Note that the total medical expense and premium values for the general fully insured membership displayed in Table 14 also include the GIC fully insured membership. Finally, the proposed legislative requirement is assumed to require the GIC to implement the provisions on July 1, 2020; therefore, the results in 2020 are approximately one-half of an annual value.

Table 15: GIC Summary Results

	2020	2021	2022	2023	2024	WEIGHTED AVERAGE	FIVE-YEAR TOTAL
GIC Fully Insured							
Members (000s)	72	72	72	72	71		
Medical Expense Low (\$000s)	\$223	\$446	\$445	\$444	\$442	\$445	\$2,000
Medical Expense Mid (\$000s)	\$229	\$457	\$455	\$454	\$453	\$455	\$2,048
Medical Expense High (\$000s)	\$238	\$494	\$512	\$531	\$549	\$517	\$2,325
Premium Low (\$000s)	\$258	\$515	\$514	\$513	\$511	\$514	\$2,311
Premium Mid (\$000s)	\$264	\$528	\$526	\$525	\$523	\$526	\$2,366
Premium High (\$000s)	\$276	\$571	\$592	\$613	\$635	\$597	\$2,687
GIC Self-Insured							
Members (000s)	270	270	269	269	268		
Medical Expense Low (\$000s)	\$837	\$1,672	\$1,670	\$1,666	\$1,662	\$1,669	\$7,507
Medical Expense Mid (\$000s)	\$857	\$1,712	\$1,709	\$1,705	\$1,702	\$1,709	\$7,686
Medical Expense High (\$000s)	\$893	\$1,854	\$1,922	\$1,992	\$2,065	\$1,940	\$8,726

Endnotes

¹ An Act Relative to Advancing Contraceptive Coverage and Economic Security in Our State, 2017 Mass. Acts Chapter 120. Accessed 15 January 2019: <https://malegislature.gov/Laws/SessionLaws/Acts/2017/Chapter120>.

² CMS. Massachusetts State Required Benefits. Accessed 11 July 2018: https://downloads.cms.gov/cciio/State%20Required%20Benefits_MA.PDF. Emergency Services: M.G.L.c.175§47U(e); M.G.c.176A§8U(e); M.G.L.c.176B§4U(e); M.G.L.c.176G§5(e). Mental health care: M.G.L.c.175§47B(g); M.G.L.c.176A§8A(g); M.G.L.c.176B§4A(g); M.G.L.c.176G§4M(g).

³ Op. cit. Trussell 2015.

⁴ U.S. Centers for Medicare and Medicaid Services (CMS), 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 2010-2026; Private Insurance. Accessed 4 December 2018:

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>.

⁵ U.S. Centers for Medicare and Medicaid Services (CMS), 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 2010-2026; Private Insurance. Accessed 4 December 2018:

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>.

⁶ U.S. Centers for Medicare and Medicaid Services (CMS), 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 2010-2026; Private Insurance. Accessed 4 December 2018:

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>.

⁷ Massachusetts Center for Health Information and Analysis. Annual Report on the Massachusetts Health Care System, September 2018. Accessed 05 December 2018: <http://www.chiamass.gov/annual-report>.

⁸ With an assumed start date of January 1, 2020, dollars were estimated at 71.3% 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 a proposed mandated change to the use of medical necessity criteria may include Commonwealth residents with fully insured employer-sponsored health insurance issued by a Commonwealth-licensed company (including through the GIC); non-residents with fully insured employer-sponsored insurance issued in the Commonwealth; Commonwealth residents with individual (direct) health insurance coverage; and lives covered by GIC self-insured coverage. BerryDunn's 2020–2024 membership projections for these populations are derived from the following sources.

The 2016 MA APCD formed the base for the projections. The MA APCD provided fully insured and self-insured membership by insurance carrier. The MA APCD was also used to estimate the number of non-residents covered by a Commonwealth policy. These are typically cases in which a non-resident works for a Commonwealth employer that offers employer-sponsored coverage. Adjustments were made to the data for membership not in the MA APCD, based on published membership reports available from CHIA and the Massachusetts Department of Insurance (DOI).

CHIA publishes a quarterly enrollment trends report and supporting databook (July 2016 Enrollment Trends¹), which provides enrollment data for Commonwealth residents by insurance carrier for most carriers (some small carriers are excluded). CHIA uses supplemental information beyond the data in the MA APCD to develop its enrollment trends report and provided BerryDunn with details regarding the use of supplemental carrier information for its December 2016 reported enrollment. The supplemental data was used to adjust the resident totals from the MA APCD.

The DOI published reports titled Quarterly Report of HMO Membership in Closed Network Health Plans as of September 30, 2016,² and Massachusetts Division of Insurance Annual Report Membership in MEDICAL Insured Preferred Provider Plans by County as of September 30, 2016.³ These reports provide fully insured covered members for licensed Commonwealth insurers where the member's primary residence is in Commonwealth. The DOI reporting includes all insurance carriers and was used to supplement the MA APCD membership for small carriers not in the MA APCD.

The distribution of members by age and gender was estimated using MA APCD population distribution ratios and was checked for reasonableness and validated against U.S. Census Bureau data.⁴ Membership was projected from 2016 through 2024 using U.S. Census Bureau population growth rate estimates by age and gender.⁵

Projections for the GIC self-insured lives were developed using the GIC base data for 2014⁶ and 2015,⁷ as well as the same projected growth rates from the U.S. Census Bureau that were used for the Commonwealth population. Breakdowns of the GIC self-insured lives by gender and age were based on the U.S. Census Bureau distributions.

Appendix A Endnotes

- ¹ Center for Health Information and Analysis. Estimates of fully insured and self-insured membership by insurance carrier. Accessed 22 September 2016. www.chiamass.gov/enrollment-in-health-insurance/.
- ² Massachusetts Department of Insurance. HMO Group Membership and HMO Individual Membership <http://www.mass.gov/ocabr/docs/doi/managed-care/hmo/4q14dist-group.pdf>, <http://www.mass.gov/ocabr/docs/doi/managed-care/hmo/4q14dist-individual.pdf>.
- ³ Massachusetts Department of Insurance. Membership 2014. Accessed 22 September 2016 <http://www.mass.gov/ocabr/docs/doi/managed-care/prefprov/2014-prefprov2.pdf>.
- ⁴ U.S. Census Bureau. Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2017. Accessed 6 December 2017: <http://www.census.gov/popest/data/state/totals/2017/index.html>.
- ⁵ U.S. Census Bureau. Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2015. Accessed 28 April 2016: <http://www.census.gov/popest/data/state/totals/2015/index.html>.
- ⁶ Group Insurance Commission. GIC Health Plan Membership by Insured Status FY2016. Accessed 6 December 2018: <http://www.mass.gov/anf/docs/gic/annual-report/fy2016annual-report.pdf>.
- ⁷ Group Insurance Commission, Group Insurance Commission Fiscal Year 2016 Annual Report. Accessed 6 December 2018: <http://www.mass.gov/anf/docs/gic/annual-report/gic-annual-reportfy16.pdf>.