MANDATED BENEFIT REVIEW OF HOUSE BILL 1147 AND SENATE BILL 685 SUBMITTED TO THE 192ND GENERAL COURT:

AN ACT RELATIVE TO DUAL DIAGNOSIS TREATMENT COVERAGE

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Mandated Benefit Review of House Bill (H.B.) 1147 and Senate Bill (S.B.) 685 Submitted to the 192nd General Court

An Act Relative to Dual Diagnosis Treatment Coverage

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1.0 Benefit Mandate Overview: H.B. 1147 and S.B. 685; Both Entitled: An Act Relative to Dual Diagnosis Treatment Coverage

1.1 History of the Bill

The Massachusetts Legislature's Committee on Financial Services referred House Bill (H.B.) 1147 and Senate Bill (S.B.) 685, both entitled, "An Act Relative to Dual Diagnosis Treatment Coverage,"[1] to the Massachusetts Center for Health Information and Analysis (CHIA) for review. Massachusetts General Law (MGL) Chapter 3 §38C requires CHIA to review the medical efficacy of treatments or services included in each mandated benefit bill referred to the agency by a legislative committee, should it become law. CHIA must also estimate each bill's fiscal impact, including changes to premiums and administrative expenses.

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

1.2 What Does the Bill Propose?

As submitted to the 192nd General Court of the Commonwealth, H.B. 1147 and S.B. 685 are two bills that address coverage for treatment services provided to individuals who have a dual diagnosis of mental illness and substance use disorder (SUD). H.B.1147 expands the definition of acute treatment services for these individuals and requires coverage of medically necessary acute treatment services (ATS) for a total of 14 days without preauthorization. S.B. 685 includes the amendments provisioned in H.B. 1147 and also includes coverage of clinical stabilization services (CSS) and co-occurring treatment services for a total of 14 days without preauthorization.[i]

1.3 Medical Efficacy of the Bill

Dual diagnosis refers to the presence of two or more distinct mental health diagnoses (as defined in the Diagnostic and Statistical Manual of Mental Disorders [DSM-V]). Co-occurring disorders (CODs) is a similar diagnosis, but more typically refers to a co-occurring SUD with a mental health disorder.[2] Individuals with SUD are at a higher risk for developing one or more primary conditions/chronic illnesses, and individuals with mental illnesses are at a higher risk for developing SUD than those without a mental illness.[3] People with CODs can have a serious mental illness (SMI) combined with a severe SUD (i.e. schizophrenia combined with alcohol use disorder [AUD]), or they can have a severe addiction diagnosis combined with a mild to moderate severity mental health diagnosis (i.e. generalized anxiety disorder [GAD] and AUD).[4] Treatment for individuals with co-occurring mental health and SUD presents unique challenges. A significant portion of these individuals do not complete their prescribed treatment. Women are more likely than men to complete residential treatment.[5]

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[i] S.B. 685 amends M.G.L. c.32A §17N, c.118E §10H, c.175 §4GG, c.176A §8II, c.176B §4II, c.176G §4AA. M.G.L. c. 118E §10H is outside the scope of the referenced mandated benefit review.

1.4 Current Coverage

BerryDunn surveyed nine insurance carriers in the Commonwealth, and six responded. All of the carriers currently cover ATS and CSS services. Three carriers reported that they did not anticipate changes under the proposed bill. Two carriers noted that restricting prior authorization and utilization management of ATS and CSS services beyond Chapter 258[6] would result in increased length of stay and utilization, and accordingly, increase associated costs. One carrier noted that a 14-day period without medical necessity review would be a change, but not for ATS or CSS services. Another carrier anticipated that prohibiting prior authorization for 14 days would result in increases in length of stay and utilization, and associated costs and premiums would rise.

1.5 Cost of Implementing the Bill

The impact on premiums is driven by the provisions of S.B. 685 that, for individuals who have a dual diagnosis of mental illness and SUD, expands the definition of ATS and CSS to require a total of 14 days of treatment without preauthorization. Variation between scenarios is attributable to the uncertainty surrounding the increases in the average length of stay (ALOS), and the reduction in the readmission rates for ATS and CSS.

The low scenario impact on premiums is $1.3 million per year on average, based on an assumption that the ALOS would increase by 0.5 days for ATS and would increase by 1.0 day for CSS. The high scenario impact is $3.1 million per year on average, based on an assumption that the ALOS would increase by 1.0 day for ATS and by 3.0 days for CSS. The middle assumes that ALOS would increase by 0.75 days for ATS and 2.0 days for CSS, resulting in average annual costs of $2.2 million, or an average of 0.015% of premium. The per member per month (PMPM) weighted average range is estimated to be $0.06 – $0.13. H.B.1147 expands the definition of acute treatment services for individuals with a dual diagnosis of mental illness and SUD and requires coverage of medically necessary ATS for a total of 14 days without preauthorization. It does not expand the definition of CSS services.

If H.B.1147 were to pass, in the mid scenario, the estimated impact would be approximately 63% of the cost of S.B. 685. In the high scenario, it would be approximately 61% of the cost of S.B. 685, and in the low scenario, it would be approximately 70% of the cost of S.B. 685.

1.6 Plans Affected by the Proposed Benefit Mandate

The bill amends statutes that regulate healthcare carriers in the Commonwealth. It includes the following sections, each of which addresses statutes regarding a particular type of health insurance policy when issued or renewed in the Commonwealth:[7]

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, as written, amends Chapter 118E of the General Laws. However, estimating the bill's impact to MassHealth membership is outside the scope of this report.

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 Employees Health Benefit Plan, the benefits for which are determined by, or under the rules set by, the federal government.

Endnotes

[1] The 192nd General Court of the Commonwealth of Massachusetts, House Bill 1149 and Senate Bill 685, "An Act Relative to Dual Diagnosis Treatment Coverage." Accessed April 11, 2022: **https://malegislature.gov/Bills/192/H1147** and **https://malegislature.gov/Bills/192/S685**.

[2] Poston, Leann. Dual Diagnosis, Co-Occurring Disorders & Comorbidity. Ria Health. Accessed May 11, 2022. **https://riahealth.com/blog/dual-diagnosis-co-occurring-disorders-comorbidity-whats-the-difference/**.

[3] Co-Occurring Disorders and Other Health Conditions. SAMHSA. Accessed April 14, 2022. **https://www.samhsa.gov/medication-assisted-treatment/medications-counseling-related-conditions/co-occurring-disorders**.

[4] Substance Use Disorder Treatment for People With Co-Occurring Disorders. SAMHSA Treatment Improvement Protocol. Accessed April 21, 2022. **https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP20-02-01-004_Final_508.pdf**

[5] Sam Choi, Susie M. Adams, Siobhan A. Morse & Sam MacMaster (2015) Gender Differences in Treatment Retention Among Individuals with Co-Occurring Substance Abuse and Mental Health Disorders, Substance Use & Misuse, 50:5, 653-663. Accessed April 25, 2022. **https://pubmed.ncbi.nlm.nih.gov/25587672/#:~:text=Results%3A%20This%20study%20found%20that,treatment%20when%20compared%20to%20men**.

[6] Chapter 258 of the Acts of 215 (Chapter 258) requires carriers to provide coverage for medically necessary ATS and medically necessary CSS for at least 14 consecutive days, provided the facility notifies the carrier within 48 days of admission. Medical necessity is to be determined by the clinician in consultation with the patient. Accessed April 21, 2022: **https:malegislature.gov/Laws/GeneralLaws/PartIII/TitleIV/Chapter258**.

[7] Chapter 118E (MassHealth) is included in the bill but estimating the bill's impact for MassHealth is not within the scope of this report.

2.0 Medical Efficacy Assessment

As submitted to the 192nd General Court of the Commonwealth, H.B. 1147 amends current state law requiring coverage of acute treatment services to include any medically necessary services provided to individuals who have a dual diagnosis of mental illness and substance use disorder (SUD) and are receiving treatment in a facility licensed or certified by the department of mental health or the department of public health. The amended sections require coverage of medically necessary acute treatment services (ATS) for a total of 14 days and preclude the requirement of preauthorization prior to obtaining ATS, as long as the facility provides the carrier both notification of admission and the initial treatment plan within 48 hours of admission. The bill permits utilization review procedures to be initiated on day 7 of treatment. Furthermore, the bill requires coverage, without preauthorization, for substance use evaluations ordered pursuant to section 51½ of chapter 11.[1]

S.B. 685 amends current state law requiring coverage of ATS and clinical stabilization services (CSS)[ii] to include "co-occurring treatment services," defined by the bill as "inpatient medically-monitored detoxification treatment for adults or adolescents provided in an inpatient psychiatric facility or an inpatient psychiatric unit within a general hospital, licensed by the department of health". The bill requires coverage of ATS, CSS, and co-occurring treatment services for a total of 14 days and precludes the requirement to obtain preauthorization before obtaining services, as long as the facility provides the carrier with notification of admission and the initial treatment plan within 48 hours of admission. The bill permits utilization review procedures to be initiated on day 7 of treatment. Furthermore, the bill requires coverage for, without preauthorization, substance use evaluations ordered pursuant to section 51½ of chapter 11.[iii]

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

This report proceeds in the following sections:

2.0 Medical Efficacy Assessment

Section 2.1: Co-Occurring Disorders Overview and Definition

Section 2.2: Prevalence

Section 2.3: Current Treatment Gaps and Options

[ii] S.B. 685 amends M.G.L. c.32A §17N, c.118E §10H, c.175 §4GG, c.176A §8II, c.176B §4II, c.176G §4AA. M.G.L. c. 118E §10H is outside the scope of the referenced mandated benefit review.

[iii] "Substance use disorder evaluation", an evaluation ordered pursuant to subsection (b) that is conducted by a licensed mental health professional or through an emergency services program by a licensed mental health professional, which shall include, but not be limited to, the following information: (1) history of the patient's use of alcohol, tobacco and other drugs, including age of onset, duration, patterns and consequences of use; (2) the use of alcohol, tobacco and other drugs by family members; (3) types of and responses to previous treatment for substance use disorders or other psychological disorders; (4) an assessment of the patient's psychological status including co-occurring disorders, trauma history and history of compulsive behaviors; and (4) an assessment of the patient's human immunodeficiency virus, hepatitis C, and tuberculosis risk status.

Section 2.4 Efficacy of Treatment Options

3.0 Conclusion

2.1 Co-Occurring Disorders Overview and Definition

A dual diagnosis is any combination of two or more SUDs and mental disorders as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V). Co-occurring disorders (CODs) is a similar diagnosis but more typically refers to a co-occurring SUD with a mental health disorder.[1] Individuals with SUD are at a higher risk for developing one or more primary conditions/chronic illnesses, and individuals with mental illnesses are at a higher risk for developing SUD than those without a mental illness.[2] People with CODs can have a serious mental illness (SMI) combined with a severe SUD (i.e. schizophrenia combined with alcohol use disorder [AUD]), or they can also have a severe addiction diagnosis combined with a mild to moderate severity mental health diagnosis (i.e. generalized anxiety disorder [GAD] and AUD).[3]

2.2 Prevalence

Substance Abuse and Mental Health Services Administration (SAMHSA) has previously reported to Congress that "co-occurring disorders are an expectation, not an exception."[4] The prevalence of individuals with dual diagnoses of SMI and SUD increased by 40%—an increase of over 1 million people—between 2014 and 2019 in the United States; an increase that is 10 times the population increase.[5] Among these individuals, in 2019, only 12.7% of people were reported to have received treatment for both of their disorders.[6]

SAMHSA's 2020 National Survey of Drug Use and Health (NSDUH) reports the prevalence of SUDs among adolescents and adults:[7]

- 20.9% (5.1 million) of adolescents (12-17 years of age) reported having either an SUD or a major depressive episode (MDE) in the prior year, and 2.7% (644,000 people) had both an MDE and an SUD in the prior year.[8]
- 29.3% (73.8 million) of adults aged 18 or older had either any mental illness (AMI) or an SUD in the past year, and 6.7% (17.0 million people) had both AMI and a SUD. 18.4% (46.5 million) had either SMI or an SUD in the past year, and 2.2% (5.7 million people) had both SMI and an SUD in the past year. [9]

The 2020 NSDUH survey showed higher illicit substance use among people with mental health issues.

Adolescents aged 12 to 17 who had an MDE in the past year were over 2.5 times more likely to have used illicit drugs (28.6% versus 10.7%) and almost 3 times more likely to have used marijuana (22.0% versus 7.9%).

Adolescents who experienced an MDE in the prior year were almost 2 times more likely to be prior month binge alcohol users (6.2% versus 3.8%) than those who did not experience an MDE in the prior year, and adolescents with a prior year MDE were almost 3 times more likely to have used tobacco products or vaped nicotine in the prior month (12.9% versus 5.1%).

Adults aged 18 or older with SMI or AMI in the past year were more likely than adults with no mental illness to have used illicit drugs in the prior year (47.8% among adults SMI and 39.8% among adults with AMI versus 17.0% among adults with no mental illnesses).

Adults with SMI and AMI in the past year were also more likely than adults with no mental illness to have binged alcohol in the past month (30.9% among those with SMI and 28.5% among those with AMI versus 22.8% with no mental illness), and to have used tobacco products or vaped nicotine in the past month (37.4% among those with SMI and 30.9% among those with AMI versus 19.6% with no mental illness).[10]

Comorbid behavioral health conditions are prevalent in Massachusetts.

- 40% of patients admitted to a Massachusetts acute care hospital in 2013 and 2014 had at least one comorbid behavioral health condition, such as any evidence (e.g., provider documentation) of a mental health disorder diagnosis, SUD, or co-occurring diagnosis. [11]
  - Among these patients, 24% had both a mental health disorder and an SUD.[12] In Massachusetts in 2016, approximately 20% of adults reported having a mental illness in the past year, and approximately 10% of adults reported having an SUD in the past year.[13]
- An estimated 236,000 adults in Massachusetts were estimated to have CODs in 2016.[14]

The public health emergency (PHE) has exacerbated mental health challenges, increasing the need for services. During the pandemic, approximately 4 in 10 adults have reported experiencing symptoms of anxiety or depressive disorder, an increase from 1 in 10 adults who reported these symptoms in 2019.[15]

2.3 Current Treatment Gaps and Options

The existing literature suggests two primary barriers to treatment for individuals with co-occurring SUDs and mental health disorders: personal characteristics barriers and structural barriers.[16] Personal characteristics barriers include lack of knowledge and skills to gain treatment access, attitudinal, motivational, and beliefs that inhibit an individual from accessing needed care.[17] Structural barriers pertain to factors and practices based in social, political, legal, and service systems that restrict access to care. These include availability of services, how services are administered, service location, and the organizational structure of providers.[18] Many clinicians reported requiring additional training and staff to meet the needs of patients with dual diagnosis. Identification of those with CODs was another prominent barrier, particularly among adolescents. Prevalence of CODs is likely to be underestimated particularly among racial and ethnic minorities, and among those from low socioeconomic backgrounds. [19] The aforementioned barriers for treatment are further compounded by additional factors.

The discussion that follows reviews specific system challenges in delivering needed services to this population.

Bed Shortages and Emergency Department Boarding

The Children's Mental Health Campaign, in partnership with the Massachusetts Association for Mental Health, reports limited options for CSS unit beds or short-term services for children and adolescents who need 24-hour or longer inpatient hospital stays. [20] This shortage exists even while there may be ATS and CSS beds available for treating adults with SUDs that require urgent attention.[21]

These findings are consistent with a 2017 study examining emergency department (ED) length of stay for mental health patients at 10 unaffiliated Massachusetts EDs. This study reported that mental health patients have lengthy ED visits, particularly among those that require inpatient admissions. ED boarding occurs when patients must wait in EDs (or in the case of mental health patients, this can also be in medical-surgical units) until a psychiatric inpatient bed becomes available.[22] The boarding time accounted for most of the total ED length-of-stay time and varied by

patients' insurance. Transferred patients had the longest delays of 9.32 hours, while admitted patients had delay times of 5.63 hours, and discharged patients had delay times of 1.23 hours. Across all 10 EDs, Medicaid patients and uninsured patients were more than twice as likely to remain in the ED for 24 hours or longer, compared to privately insured patients.[23] The mean length of stay in the ED for mental health patients that eventuated in hospital admissions was approximately 4 times longer than the medical or surgical mean length of stay that eventuated in hospital admissions (16.5 hours versus 4.2 hours). A larger disparity was reflected in transfers, with mental health patients having a mean length of stay in the ED over 5 times longer than medical or surgical patients (21.5 hours versus 3.9 hours). [24]

Although ED boarding has been a persistent issue in Massachusetts, the PHE has exacerbated the bed shortage crisis, particularly for psychiatric patients. Patients' mental health acuity has increased during the PHE, increasing the risk of relying on hospital units and EDs—which are not equipped to provide appropriate treatment. [25] From January 2020 to September 2020, almost 270 psychiatric beds were lost in Massachusetts in some part due to the closures of Trinity Health's Providence Behavioral Health Hospital and Norwood Hospital (closed due to flooding), combined with eliminating beds to enable adequate social distancing and quarantine spaces.[26] The Massachusetts Legislature, in partnership with Governor Baker's administration, added 300 new inpatient psychiatric beds in 2021, with beds placed both in psychiatric units within acute care hospitals and in freestanding psychiatric facilities. [27] Additional beds are planned for 2022. However, staffing for the previously existing beds was insufficient, and challenges in staffing these new beds has created a barrier to opening and expanding services. [28]

To track the increases in ED boarding during the PHE, in October 2021 the Massachusetts Health & Hospital Association (MHA) began reporting weekly on behavioral health boarding metrics.[29] The June 13, 2022 report totals 688 behavioral health patients being boarded: 446 adult patients, 96 geriatric patients, and 146 pediatric patients across the 53 hospitals that provided their data. [30] Among the 688 patients, almost three-quarters were being boarded in the ED (511 patients or 74.3%), an additional 73 patients were awaiting psychiatric evaluation in the ED.[31] The 688 total patients boarded is an increase from the May 23, 2022, report when 636 patients were boarded.[32]

Workforce

Having a workforce of adequately trained clinicians who understand the presentation of SUD and mental health disorders is essential, as these two disorders can be confounding.[33] Yet providers report a lack of training to identify co-occurring mental health disorders and SUD.[34] Most psychiatric training programs do not provide adequate training in co-morbid disorders, and providers in primary care settings often do not feel equipped to prompt substance use discussions with their patients.[35,36] Providers may be unaware of appropriate referral sources and community resources. Varying licensure and certification requirements for treating SUD also dissuades providers from addressing patients with these disorders.[37]

In addition to inadequate training on CODs, behavioral health providers face significant administrative burden compared with physical health providers.[38] Additional systemic barriers include different credentialing processes for each insurance, and a lack of incentive for providers to train in evidence-based practices. This results in fewer behavioral health providers accepting insurance, or behavioral health providers eventually leaving the profession, which in turn creates disparities and insufficient access to a well-trained behavioral healthcare workforce.[39]

Treatment

Treating both co-occurring conditions simultaneously enables successful outcomes for individuals with dual diagnoses.[40] Several evidence-based models exist to address both conditions concurrently:

Integrated Dual Disorder Treatment (IDDT): an evidence-based model that treats individuals with dual diagnoses by addressing both diagnoses simultaneously; substance use treatment is combined with mental health treatment, and care is provided by the same team of providers. IDDT promotes the ideology that incremental changes that occur gradually over time can help individuals realize large changes such as sobriety, symptom management, and more independent living. Some of IDDT's key elements include: a multidisciplinary team, time-unlimited services, substance use counseling, group treatment, family psychoeducation, pharmacological treatment, and participation in self-help groups.[41] IDDT is currently the most widely accepted treatment strategy for individuals with CODs.[42,43] A 2018 study of 154 patients with dual diagnoses found that 12 months after IDDT was implemented by providers who had received a three-day IDDT training, patients had a reduced number of days using alcohol or drugs, but no improvements in psychopathology, functioning, or motivation to change.[44]

Dual Diagnoses Enhanced (DDE): these programs build on dual diagnosis capability (DDC) programs and provide primary substance use treatment to individuals who exhibit more symptoms and/or functional impairment due to their co-occurring mental disorder as compared to those who are in DDC programs and exhibit fewer symptoms and impairment.[45] A 2017 study of three DDE treatment programs found a 91% decrease in average intoxication per month during the year after discharge, with 65% reporting no intoxication during this period, 21% reporting weekly intoxication at some point during this period, and 15% reporting less-than-weekly intoxication with an average of two days per month.[46] During the year after discharge, there was a notable difference among inpatient hospitalization days due to alcohol- or drug-related issues compared to mental health issues (average days = 0.71, $p<0.001$ for drug/alcohol use, 0.58, $p=0.003$ for mental health issues).[47]

Modified Therapeutic Community (MTC): an approach developed in the mid-1990s with the main principles:

- To create a highly structured daily routine
- To promote personal responsibility and self-help when confronted with life challenges
- To have peer role models and guides through treatment ("community-as-method" strategy in which the community acts as both the context and the mechanism for change)
- Consider change to be a measured and progressive process
- To emphasize work and self-reliance through the development of job-related and life skills
- To foster prosocial ideals within a healthy social community to sustain and maintain recovery

These core principles are often tailored to address the individual's unique needs.[48] A review of four studies of MTC programs found that compared to the control group, the MTC group had significantly better outcomes in 23.1% (12 out of 52) of the primary outcome measures of substance use, mental health, crime, as well as HIV risk, employment and housing.[49]

Medication-Assisted Treatment (MAT): is often a vital component in treatment options, or as a standalone treatment option.[50] MAT combines the use of FDA-approved medications with counseling to provide a "whole-patient" approach.[51] Research has demonstrated that MAT is successful in improving patient survival, increasing treatment retention, decreasing illicit opioid use, increasing ability to gain and maintain employment, and improving birth outcomes in patients who have SUD and are pregnant.[52] A 2019 study of veterans with post-traumatic stress disorder (PTSD) and opioid use disorder found a non-significant decreased risk for death due to all-cause, external cause,

and overdose or suicide.[53] A 2018 study of MAT for adults with comorbid alcohol dependence and SMI found significant improvements in clinical outcomes in the year after MAT initiation compared to the non-MAT control group.[54] These improvements included higher reductions in mental health hospitalization and ED visits, as well as improvements in psychotropic medication adherence.[55]

Open Access Scheduling: is a scheduling method through which individuals can receive appointment bookings for the same day that they call their clinicians' offices. In lieu of creating each provider's schedule weeks or months in advance, this model keeps half of the day open and one-third of the other half booked with clinically necessary follow-up appointments or with bookings for individuals who opt not to schedule an appointment on the day they call the clinic (which tends to be less than 25% of patients).[56] Patients with CODs may benefit from receiving care via this approach, as it enables flexibility and increased accessibility.

Even with the presence of a variety of treatment options, mental health treatment facilities vary in whether they are adequately equipped to treat individuals with CODs. A 2020 study examined organizational capacity and readiness to treat patients with CODs in eight publicly-funded outpatient mental health clinics in Los Angeles County.[57] The study reported barriers to care that included fiscal, workforce, physical infrastructure, inter-organizational relationships, information technology, policies and procedures, and organizational culture and leadership.[58] Fiscal issues pertained to billing due to denial of reimbursement for care unless providers explicitly document how the patients' substance use impacts their mental health and how treatment of co-occurring AUD also improves the patients' mental health disorder.[59] With regard to workforce, staff reported a lack of knowledge and expertise of co-occurring AUD treatment and applicable pharmacotherapy, as well as clinics lacking access to addiction medicine expertise.[60] Inadequate staffing and time was also an area of concern due to already high caseloads and an inability to address all of the patient's treatment needs. Staff reported hesitancy to treat disorders that are not "primarily mental health" and a belief that primary care providers should provide the treatment.[61] Internal and external resource constraints were noted, such as a lack of inpatient beds for residential treatment and withdrawal management as well as difficulty obtaining urine drug screens. Technology was another barrier as providers stated they did not have a way to view results of AUD screenings, assessments, diagnoses, and prior treatment. Providers also found it difficult to record co-occurring AUD in electronic medical records (EMR), and to identify and track the patient population via EMR. Additionally, the staff reported lacking standard medication for AUD workflow protocol or treatment guidelines they could follow and did not know where to obtain this information. Overall, organizational culture and leadership lacked awareness of internal and external SUD and mental health disorder treatment availability and resources.[62]

Massachusetts has a demonstrated need for treatment capacity for individuals with CODs. The Massachusetts Health Policy Commission (HPC) reports that, in 2016, 13% of adult inpatient and 4% of adult emergency discharges from Massachusetts acute care hospitals had listed co-occurring mental health and SUD in their notes.[63] Alongside this need, fewer than half (38% or 169) of the Commonwealth's 447 licensed mental health clinics had licenses for mental health and SUD services, or were MAT centers that lacked mental health licensure.[64] For inpatient withdrawal management services, only 12% (8 out of 66) of psychiatric hospitals and acute hospital psychiatric units that are licensed by the DMH have concurrent licenses from the Bureau of Substance Abuse Services.[65]

The COVID-19 PHE has strained the availability and accessibility to treatment for those with CODs, along with reducing ED service capacity. Some Massachusetts hospital psychiatric beds have been eliminated to enable social distancing, or some psychiatric units have been repurposed as COVID-19 units. [66] To address these issues, avoid

lengthy ED stays, and help ensure behavioral health patients are receiving adequate and appropriate care, the Bridge of Central Massachusetts, Inc. (The Bridge) received nearly $1 million in SAMHSA funding from its 2021 Community Mental Health Center (CMHC) Grant Program. The Bridge created the Mobile Community Response Team (MCRT) to partner with local hospital EDs to address gaps in care for Worcester County adults and children who are experiencing serious emotional disturbance (SED), SMI, and CODs.[67] This program aims to service patients considered frequent ED utilizers, those who may be boarded in the ED, and those who have frequent psychiatric hospitalizations. The objectives are to establish the MCRT and connect patients with community-based supports. MCRT provides patients with additional supports including recovery coaching, housing assistance, and case management, coupled with telehealth visits when applicable. [68]

The Massachusetts Behavioral Health Partnership (MBHP) has created an Enhanced Acute Treatment Services (E-ATS) for Individuals with Co-Occurring Mental Health and SUDs Performance Specifications that delineates components of service, staffing requirements, process specifications, and service and community links.[69] E-ATS includes diversionary and/or step-down services for those with CODs who require acute, 24-hour SUD treatment coupled with psychiatric treatment and stabilization and who are members of MBHP (enrolled via MassHealth Primary Care Clinician [PCC] Plan, Community Care Cooperative [C3], Partners HealthCare Choice, Steward Health Choice, or the BeHealthy Partnership).[70, 71] These services are provided in a licensed, acute care or community-based setting with 24-hour physician and psychiatric consultation availability, and 24-hour nursing care observation. Staff are trained in SUD and mental health treatment, and E-ATS is provided for both adolescents and adults.[72] Detoxification treatment is also available via a 24-hour medically monitored program including evaluation and treatment and is specifically designed for those with co-occurring mental health and SUD diagnoses. [73]

The Treatment Advocacy Center, a non-profit organization headquartered in Arlington, Virginia, has delineated recommendations to address disparities in treatment for individuals with dual diagnoses. These recommendations include making adequate and appropriate treatment universally available, as well as the integration of mental health, substance use, and physical health delivery systems.[74] Additionally, the Center highlights a need to increase access to evidence-based treatments that are proven to improve outcomes.[75] Acknowledgement of vulnerable populations with co-occurring SMI and SUD is also vital, along with continued research focusing on treatment and targeted engagement strategies.[76]

Patients with CODs may finish SUD treatment prior to being stable from a mental health standpoint and require additional mental health services to achieve a safe discharge. They may need additional tools before being ready to transition to outpatient treatment. Likewise, a patient receiving mental health services for several days may become symptomatic from abrupt abstinence from substances. Much like an acute care hospital can care for patients with multi-system medical problems with different treatments (e.g., a broken arm and high blood pressure), those with COD also require different treatments that may require varying lengths of treatment.

2.4 Efficacy of Treatment Options

Treatment for individuals with co-occurring mental health and SUD presents unique challenges. Concurrent treatment for individuals with co-occurring mental illness and SUD plays an essential role in reducing consequences associated with non-treatment that include crime, victimization, homelessness, systemic dysfunction, and early death. A significant portion of these individuals do not complete their prescribed treatment. Women are more likely to complete residential treatment than men.[77] A recent study reports that the largest statistically significant gender gap in length of

residential treatment stay appeared after 30 days: approximately 30% of men remained in treatment post 30 days, while 40% of women remained in treatment.[78]

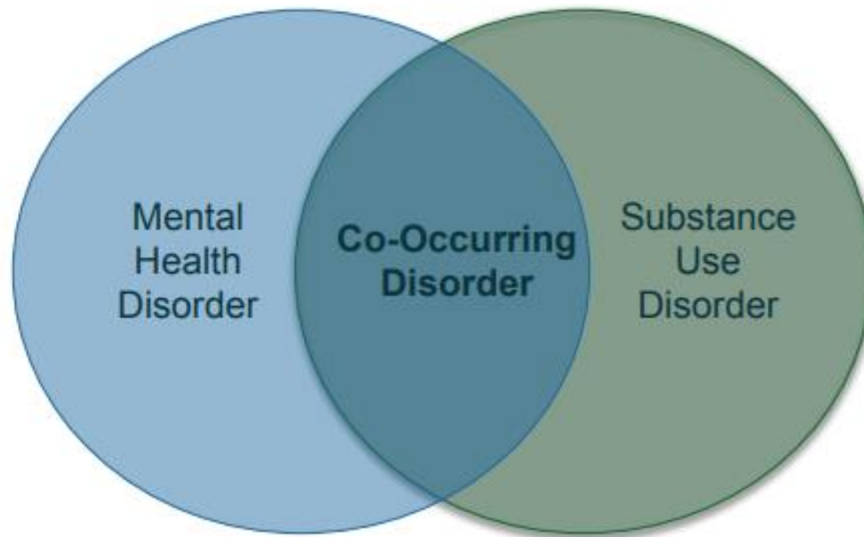
A 2015 study found that enrollment in chronic care management (CCM) for those with co-occurring SUD and major depressive disorder or PTSD did not significantly impact substance use, depression and anxiety metrics, substance use severity, or substance use problems compared to those enrolled in usual primary care.[79] A 2018 study reports some success for a brief psychoeducational group counselling session during detoxification treatment among individuals with AUD and major depression or AUD and PTSD could increase motivation and utilization for continuation of treatment.[80] Patients receiving this treatment were more likely to continue treatment, had lower risk of readmission, and more often experienced increases in their treatment motivation (as exhibited by a Readiness to Change score).[81]

A 2019 Cochrane Review evaluated the effectiveness of psychosocial interventions for individuals with dual diagnoses compared to standard care across 41 studies published up to October 2018.[82] The interventions included cognitive behavioral therapy, motivational interviewing, skills training, and integrated models of care.[83] The key findings of the review included: no notable difference regarding patients lost to treatment, no notable difference regarding death rates or alcohol or substance use, and no notable difference in global functioning.[84] The review authors note that across studies there were high numbers of individuals leaving the study prior to completion, discrepancies in the outcomes that were considered, and varying methods of delivering the psychosocial interventions which all contributed to the evidence being deemed “low-quality.”[85] It is also noted that additional large-scale and high-quality studies with improved reporting are necessary to address whether psychosocial interventions could be effective for people with dual diagnoses.[86]

3.0 Conclusion

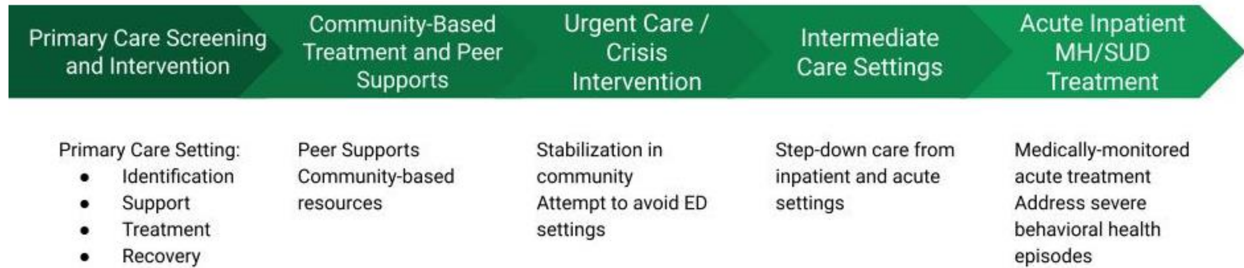
Individuals with co-occurring mental health disorders and SUD require treatment that addresses both disorders, with concurrent treatment yielding the most promise for positive outcomes.[87] A lack of beds for psychiatric patients results in an influx of ED boarding, which is costly and does not address patients’ needs. The Massachusetts Behavioral Health Partnership (MBHP) provides a forward path, delineating components of service, staffing requirements, process specifications, and service and community links for Enhanced Acute Treatment Services (E-ATS) for individuals with CODs.

Appendix A: Co-Occurring Disorder



Appendix B: Care Continuum

Figure 1 Care Continuum from Lower Acuity to Higher Acuity Condition Settings[88]



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AN ACT RELATIVE TO DUAL DIAGNOSIS TREATMENT COVERAGE

ACTUARIAL ASSESSMENT

1.0 Executive Summary

The Massachusetts Legislature's Committee on Financial Services referred House Bill (H.B.) 1147 and Senate Bill (S.B.) 685, both entitled, "An Act Relative to Dual Diagnosis Treatment Coverage,"[1] to the Massachusetts Center for Health Information and Analysis (CHIA) for review. As submitted to the 192nd General Court of the Commonwealth, H.B. 1147 and S.B. 685 are two bills that address coverage for treatment services provided to individuals who have a dual diagnosis of mental illness and substance use disorder (SUD). H.B.1147 expands the definition of acute treatment services (ATS) for these individuals and requires coverage of medically necessary ATS for a total of 14 days without preauthorization. S.B. 685 includes the amendments provisioned in H.B. 1147 and also includes coverage of clinical stabilization services (CSS) and co-occurring treatment services for a total of 14 days without preauthorization. Massachusetts General Law (MGL) Chapter 3 §38C requires CHIA to review the medical efficacy of treatments or services included in each mandated benefit bill referred to the agency by a legislative committee, should it become law. CHIA must also estimate each bill's fiscal impact, including changes to premiums and administrative expenses.

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

1.1 Current Insurance Coverage

Massachusetts state law requires nondiscriminatory coverage of certain "biologically-based"" mental health diagnoses.

Pursuant to the Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA), group health plans and health insurance issuers that offer insured mental health benefits or SUD benefits may not impose more stringent benefit limits on those benefits than on medical/surgical benefits. Mental health services are considered one of the ACA's 10 essential health benefits (EHBs), and as such, require nondiscriminatory coverage for individual and small group plans. Massachusetts defines benefits according to its benchmark health plan, the Blue Cross and Blue Shield of Massachusetts HMO Blue® plan, which does not provide specific language for dual diagnosis ATS or CSS coverage.[iv,2]

State law requires carriers to provide coverage for medically necessary acute treatment services and medically necessary clinical stabilization services for at least 14 consecutive days—with medical necessary determined by the treating clinician in consultation with the patient. Carriers are not permitted to require prior authorization for the 14-day period of medical necessary acute treatment and clinical stabilization while the member is receiving ATS or CSS, as long as the facility provides notification of admission within 48 hours.[3]

BerryDunn surveyed nine insurance carriers in the Commonwealth, and six responded. In addition, one behavioral health vendor that represents several carriers in Massachusetts also responded. All of the carriers currently cover

[iv] HMO Blue New England Schedule of Benefits states that when the "admission is for substance use treatment in a hospital or other covered health care facility that is certified or licensed by the Massachusetts Department of Public Health, prior approval from Blue Cross Blue Shield HMO Blue will not be required. For an admission in one of these health care facilities, coverage will be provided for medically necessary acute treatment services and clinical stabilization services for up to a total of 14 days without prior approval."

ATS and CSS services. Three carriers reported that they did not anticipate changes under the proposed bill. Two carriers noted that restricting prior authorization and utilization management of ATS and CSS services beyond Chapter 258 would be a change. One carrier noted that a 14-day period without medical necessity review would be a change, but not for ATS or CSS services, and another carrier anticipated that prohibiting prior authorization for 14 days would result in increases in length of stay and utilization, and associated costs and premiums would rise.

1.2 Analysis

H.B.1147 expands the definition of ATS for individuals with a dual diagnosis of mental illness and SUD and requires coverage of medically necessary ATS for a total of 14 days without preauthorization. It does not expand the definition of CSS services. If H.B.1147 were to pass and go into effect, the mid scenario cost impact would be approximately 63% of the cost of S.B. 685.

1.3 Summary Results

Table ES-1, on the following page, summarizes the estimated effect of S.B.685 on premiums for fully insured plans over five years. This analysis estimates that S.B. 685, if enacted as drafted for the General Court, would increase fully insured premiums by as much as 0.020% on average over the next five years; a more likely increase is around 0.015%, equivalent to an average annual expenditure of $2.2 million over the period 2023 – 2027.

The impact on premiums is driven by the requirements that expand the definition of ATS for individuals who have a dual diagnosis of mental illness and SUD and requires coverage of medically necessary ATS and CSS for a total of 14 days without preauthorization. The increase in the average length of stay (ALOS) drives the premium impact.

Table ES-1: Summary Results

	2023	2024	2025	2026	2027	WEIGHTED AVERAGE	FIVE-YEAR TOTAL
Members (000s)	2,014	2,010	2,007	2,003	2,000		
Medical Expense Low ($000s)	$709	$1,057	$1,137	$1,222	$1,314	$1,152	$5,439
Medical Expense Mid ($000s)	$1,171	$1,746	$1,877	$2,018	$2,170	$1,903	$8,982
Medical Expense High ($000s)	$1,633	$2,435	$2,618	$2,814	$3,026	$2,654	$12,526
Premium Low ($000s)	$822	$1,225	$1,317	$1,416	$1,523	$1,335	$6,302
Premium Mid ($000s)	$1,357	$2,023	$2,175	$2,339	$2,514	$2,205	$10,408
Premium High ($000s)	$1,892	$2,821	$3,033	$3,261	$3,506	$3,075	$14,514
PMPM Low	$0.05	$0.05	$0.05	$0.06	$0.06	$0.06	$0.06
PMPM Mid	$0.08	$0.08	$0.09	$0.10	$0.10	$0.09	$0.09
PMPM High	$0.11	$0.12	$0.13	$0.14	$0.15	$0.13	$0.13
Estimated Monthly Premium	$583	$603	$625	$646	$669	$625	$625
Premium % Rise Low	0.008%	0.008%	0.009%	0.009%	0.009%	0.009%	0.009%
Premium % Rise Mid	0.013%	0.014%	0.014%	0.015%	0.016%	0.015%	0.015%
Premium % Rise High	0.019%	0.019%	0.020%	0.021%	0.022%	0.020%	0.020%

Endnotes

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[1] The 192nd General Court of the Commonwealth of Massachusetts, House Bill 1149 and Senate Bill 685, "An Act Relative to Dual Diagnosis Treatment Coverage." Accessed April 11, 2022: **https://malegislature.gov/Bills/192/H1147** and **https://malegislature.gov/Bills/192/S685**.

[2] Schedule of Benefits HMO Blue New England. BCBS of Massachusetts HMO Blue, Inc. **https://www.bluecrossma.com/common/en_US/ContractAndRiderInformation/pdfs/hnehsa4500SoB-0122sng.pdf**.

[3] Bulletin 2015-05; Access to Services to Treat Substance Use Disorders; Issued July 31, 2015. **http://www.mass.gov/service-details/bulletin-2015-05-access-to-services-to-treat-substance-use-disorders-issued-july-31-2015**.

2.0 Introduction

As submitted to the 192nd General Court of the Commonwealth, H.B. 1147 and S.B. 685 are two bills that address coverage for treatment services provided to individuals who have a dual diagnosis of mental illness and substance use disorder (SUD). H.B.1147 expands the definition of acute treatment services (ATS) for these individuals and requires coverage of medically necessary ATS for a total of 14 days without preauthorization. S.B. 685 includes the amendments provisioned in H.B. 1147 and includes coverage of clinical stabilization services (CSS) and co-occurring treatment services for a total of 14 days without preauthorization. Massachusetts General Law (MGL) Chapter 3 §38C requires CHIA to review the medical efficacy of treatments or services included in each mandated benefit bill referred to the agency by a legislative committee, should it become law. CHIA must also estimate each bill's fiscal impact, including changes to premiums and administrative expenses.

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.

3.0 Interpretation of the Bill

3.1 Reimbursement for ATS

As submitted to the 192nd General Court of the Commonwealth, H.B. 1147 and S.B. 685 are two bills that address coverage for treatment services provided to individuals who have a dual diagnosis of mental illness and SUD. H.B.1147 expands the definition of ATS for these individuals and requires coverage of medically necessary ATS for a total of 14 days without preauthorization. S.B. 685 includes the amendments provisioned in H.B. 1147 and also includes coverage of CSS and co-occurring treatment services for a total of 14 days without preauthorization.

3.2 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:[1]

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)

Self-insured plans, except for those managed by the Group Insurance Commission (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 over 64 years of age who have fully insured commercial plans, and this analysis does not address any potential effect on Medicare supplement plans,

even to the extent they are regulated by state law. Although the bill includes Chapter 118, this analysis does not estimate the bill's impact to MassHealth.

3.3 Covered Services

BerryDunn surveyed nine insurance carriers in the Commonwealth, and six responded. In addition, one behavioral health vendor which represents several carriers in Massachusetts also responded. All of the carriers currently cover ATS and CSS services. Three carriers reported that they did not anticipate changes under the proposed bill. Two carriers noted that restricting prior authorization and utilization management of ATS and CSS services beyond Chapter 258[2] would be a change. One carrier noted that a 14-day period without medical necessity review would be a change, but not for ATS or CSS services. Another carrier anticipated that prohibiting prior authorization for 14 days would result in increases in length of stay and utilization, and associated costs and premiums would rise.

3.4 Existing Laws Affecting the Cost of the Bill

Massachusetts requires fully insured plans to provide behavioral health treatment coverage on a nondiscriminatory basis for certain mental health conditions. The law mandates that annual limits, lifetime limits, and quantitative treatment limits for the following conditions are equal to those for other medical conditions:

- Schizophrenia
- Schizoaffective disorder
- Major depressive disorder
- Bipolar disorder
- Paranoia and other psychotic disorders
- Obsessive-compulsive disorder
- Panic disorder
- Delirium and dementia
- Affective disorders
- Eating disorders
- PTSD
- SUD
- Autism

Coverage is also required for treatment for children under age 19 who do not have the above specific conditions listed above, but who cannot attend school due to their mental health diagnosis, are hospitalized due to their condition, or possess behavior that could endanger themselves or others. The law states that treatment can occur in the least-restrictive clinically appropriate setting ranging from inpatient to outpatient. Coverage for the treatment of autism is required to be covered under Massachusetts law.[3]

Pursuant to the Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA), group health plans and health insurance issuers that offer insured mental health benefits or SUD benefits may not impose more stringent benefit limits on those benefits than on medical/surgical benefits. Mental health services are considered one of the ACA's 10 essential health benefits (EHBs), and as such, require nondiscriminatory coverage for individual and small group plans. Massachusetts defines benefits according to its benchmark health plan, the Blue Cross and Blue Shield of Massachusetts HMO Blue® plan, which does not provide specific language for dual diagnosis ATS or CSS coverage.[5,4]

State law requires carriers to provide coverage for medically necessary acute treatment services and medically necessary clinical stabilization services for at least 14 consecutive days—with medical necessity determined by the treating clinician in consultation with the patient. Carriers are not permitted to require prior authorization for the 14-day period of medically necessary acute treatment and clinical stabilization while the member is receiving ATS or CSS, as long as the facility provides notification of admission within 48 hours.[5]

4.0 Methodology

4.1 Overview

As submitted to the 192nd General Court of the Commonwealth, H.B. 1147 and S.B. 685 are two bills that address coverage for treatment services provided to individuals who have a dual diagnosis of mental illness and SUD. H.B.1147 expands the definition of ATS for these individuals and requires coverage of medically necessary ATS for a total of 14 days without preauthorization. S.B. 685 includes the amendments provisioned in H.B. 1147 and also includes coverage of CSS and co-occurring treatment services for a total of 14 days without preauthorization.[6]

BerryDunn estimated the cost of S.B. 685 and separately assessed the ATS and CSS data and assumptions used in the estimate. The proposed legislation restricts a carrier's role in managing utilization of a set of services; the assessment of impact of this change requires estimating how much utilization will occur with this change, and in the absence of this change. Section 6 of this report discusses the cost impact should H.B. 1147 go into effect.

BerryDunn estimated the impact of S.B. 685 on insurance premiums by assessing the incremental increases in the number of bed days (average length of stay [ALOS]) and resulting carrier medical expenses – an increase related to transferring to the providers the ability to both define and determine the medical necessity for patient treatment. BerryDunn also reviewed the readmission rates and estimated the proposed bill's impact on readmissions. The incremental cost is estimated using claims data from the Massachusetts All-Payer Claims Database (APCD). Separately for ATS and CSS, BerryDunn used the APCD to measure the historical paid claims cost and calculated the ALOS and the average cost per day. The incremental cost of the mandate is based on new bed days stemming from longer lengths of stay. BerryDunn multiplied the total increase in days by the average cost per day to determine the incremental cost.

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[5] HMO Blue New England Schedule of Benefits states that when the "admission is for substance use treatment in a hospital or other covered health care facility that is certified or licensed by the Massachusetts Department of Public Health, prior approval from Blue Cross Blue Shield HMO Blue will not be required. For an admission in one of these health care facilities, coverage will be provided for medically necessary acute treatment services and clinical stabilization services for up to a total of 14 days without prior approval."

[6] S.B. 685 amends M.G.L. c.32A §17N, c.118E §10H, c.175 §4GG, c.176A §8II, c.176B §4II, c.176G §4AA. M.G.L. c. 118E §10H is outside the scope of the referenced mandated benefit review.

Combining the ATS and CSS components, and accounting for carrier retention, results in an estimate of S.B. 685's incremental effect on premiums, which is projected over the five years following the assumed January 1, 2023, implementation date of the proposed law.

4.2 Data Sources

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

- Interviews with legislative sponsors, providing information about the intended effect of the bill
- Survey of commercial carriers in the Commonwealth, gathering descriptions of current coverage
- Interviews with mental health and SUD providers
- Massachusetts APCD
- Published scholarly literature, reports, and population data, cited as appropriate

4.3 Steps in the Analysis

This section summarizes the analytic steps summarized in this section to estimate the impact of the bill on premiums.

1. **Estimate the increase in ALOS, as a marginal cost to carriers that results from moving the determination of medical necessity from the carriers to the providers.**

   In order to estimate the cost of providers determining medical necessity, BerryDunn:

   A. Used claims data from the APCD, separately for ATS and CSS, to measure the total paid claims cost, the number of days, and the number of admissions for commercially fully insured patients with co-occurring mental health and substance use conditions

   B. Divided the total paid claims cost by the total number of days and calculated the cost per day

   C. Calculated the cost per day over the projection period using projected increases in hospital costs

   D. Divided the total number of days by the total number of admissions and calculated the ALOS

   E. Estimated the percent increase in the ALOS and in the number of bed days based on publicly available literature, relevant experience from Chapter 258, input from carriers, input from providers, and the APCD

   F. Multiplied the estimated percent increase in bed days by the total number of days and calculated the additional number of days

   G. Multiplied the additional number of days by the cost per day to determine the incremental cost

   H. Divided the incremental cost from Step G by corresponding member months to calculate incremental per member per month (PMPM) cost

2. **Review the rate of readmissions, to determine the impact of moving the determination of medical necessity from the carriers to the providers.**

   In order to estimate the impact on readmissions, BerryDunn:

   A. Calculated readmission rates for members with a dual diagnosis and for members with only a SUD diagnosis after the implementation of Chapter 258, based on claims data from the APCD

B. Compared the change in readmission rates for the SUD-only diagnosis population, after the implementation of Chapter 258, to the readmission rate change for the dual diagnosis population

C. Concluded that the readmission rate for the dual diagnosis population would not change, and therefore will not impact this cost estimate.

3. **Calculate the impact of the projected claim costs on insurance premiums.**

A. Added the incremental costs from ATS and CSS calculated in Step 1

B. Estimated the fully insured Commonwealth population under age 65, projected for the next five years (2023 – 2027)

C. 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

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

The incremental cost of the bill stems from an increase in the ALOS. This cost was estimated using the impact of Chapter 258 taken from the APCD claims for individuals with a single SUD diagnosis. For single SUD diagnosis individuals, the medical necessity and LOS is determined by physicians. This population provides insight into how the ALOS may change for the dual diagnosis population with removal of insurance carrier restrictions on these decisions. However, the experience of the population of individuals with a dual diagnosis may differ and these differences will impact the marginal cost estimate, so the increase in the ALOS is uncertain. BerryDunn conservatively assumed a range of growth rates in calculating the marginal cost estimate.

COVID-19 has impacted the number of commercial fully insured members in 2020. Fully insured membership declined due to decreased enrollment in employer-sponsored insurance (ESI). The impact that COVID-19 and economic trends will have on employment, and therefore ESI, in the 2023 – 2027 projection period is uncertain.

Appendix A addresses these limitations further.

5.0 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.

Section 5.1 describes the steps used to calculate the PMPM expenses associated with an increase in the ALOS.

Section 5.2 describes a review of the impact on readmissions.

Section 5.3 aggregates the marginal PMPM costs.

Section 5.4 projects the fully insured population age 0 to 64 in the Commonwealth over the years 2023 to 2027 analysis period.

Section 5.5 calculates the total estimated marginal cost of S.B. 685.

Section 5.6 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 Average Length of Stay

The proposed legislation addresses coverage for treatment services provided to individuals who have a dual diagnosis of mental illness and SUD. The legislation expands the definition of ATS for these individuals and requires coverage of medically necessary ATS and CSS for a total of 14 days without preauthorization.

In this section, BerryDunn calculates the incremental cost component due to an increase in ALOS and estimates the cost of meeting the additional bed days generated. BerryDunn developed a historical service profile using the Massachusetts APCD and calculated paid claim amounts, the number of admissions, and the number of days for services (separately for ATS and CSS). BerryDunn then divided the paid claim cost by the number of days, and calculated the average cost per day, for commercially fully insured members. Results are displayed in Table 1.

Table 1: 2020 Cost per Day

	PAID CLAIM COST	NUMBER OF DAYS	COST PER DAY
ATS	$6,615,330	11,747	$563
CSS	$2,808,753	7,339	$381

Table 2 displays the projected costs per day, calculated by multiplying Table 1 cost per day by a projection factor. This analysis applies the long-term average national projection for cost increases to hospital care expenditures, reported at 7.7%[6] over the analysis period.

Table 2: Projected Cost per Day

	2020	2023	2024	2025	2026	2027
ATS	$563	$704	$758	$816	$879	$947
CSS	$381	$476	$512	$552	$594	$640

Next, BerryDunn used the APCD to measure the total number of days and the number of admissions for these services. Table 3 displays the total number of days divided by the number of admissions, resulting in the calculated ALOS.

Table 3: Average Length of Stay

CARRIERS	DAYS	ADMISSIONS	ALOS
ATS	11,747	1,729	6.8
CSS	7,379	556	13.3

As noted, the proposed legislation restricts a carrier's role in managing utilization for a set of services. The impact assessment requires estimating how much utilization will occur with this change, and in the absence of this change. The input from carriers suggests that the statutory change will increase utilization or increase the number of approved bed days.

In a previous review of Chapter 208,[7] BerryDunn studied the impact to the ALOS under Chapter 258, which made similar changes by partially transferring the determination of medical necessity from the carrier to the provider for SUD treatment. After Chapter 258 passed, new providers expanded bed capacity in the Commonwealth. Based on APCD data, these providers had both a higher cost per day and a higher ALOS. Since the impact of new provider entrants driving increased admissions is considered in Section 5.2, BerryDunn removed these providers from the data prior to calculating the ALOS. Excluding the new providers, the ALOS increased by approximately 0.8 days, or 15.4%. This increase was for ATS and CSS combined. This ALOS increase was about 7.5% for ATS and about 41% for CSS.

BerryDunn reviewed updated data in the APCD and compared the increase in LOS for individuals with dual diagnosis to those with only a SUD diagnosis. The updated data did not show a distinct difference for ATS between individuals with dual diagnosis and those with a stand-alone SUD diagnosis. This suggests that the transfer of the medical necessity determination to the provider had a less material effect on the ATS ALOS. For ATS, BerryDunn assumed a 1.0 day increase (14.7%) as the high scenario. The mid-range scenario assumes that the ALOS will increase 11.0%, or 0.75 days. The low scenario assumes that the ALOS will increase 7.4%, or 0.5 days.

Updated data for CSS shows that the ALOS increased by just over 20% for the SUD-only diagnosis population, indicating a more significant impact for CSS. BerryDunn assumed a 3-day increase in the ALOS in the high scenario, a 2.0 day increase for the mid scenario, and a 1.0 day increase for the low scenario. Tables 4 and 5 display the estimated increase in the ALOS.

Table 4: ATS Increase in the ALOS in Days

	CURRENT ALOS	% INCREASE	ADDITIONAL DAYS
Low Scenario	6.7	7.4%	0.5
Mid Scenario	6.7	11.0%	0.75
High Scenario	6.7	14.7%	1.0

Table 5: CSS Increase in the ALOS in Days

	CURRENT ALOS	% INCREASE	ADDITIONAL DAYS
Low Scenario	13.3	7.5%	1
Mid Scenario	13.3	15.1%	2
High Scenario	13.3	22.6%	3

The bed days attributable to the anticipated increase in the ALOS are a marginal increase attributable to S.B. 685. BerryDunn multiplied the estimated percentage increase in the number of bed days from Tables 4 and 5, by the total number of days in Table 3, and calculated the incremental number of bed days. Table 6 and Table 7 display the additional days.

Table 6: Estimated Additional ATS Days

	2023	2024	2025	2026	2027
Low Scenario	865	865	865	865	865
Mid Scenario	1,297	1,297	1,297	1,297	1,297
High Scenario	1,729	1,729	1,729	1,729	1,729

Table 7: Estimated Additional CSS Days

	2023	2024	2025	2026	2027
Low Scenario	556	556	556	556	556
Mid Scenario	1,112	1,112	1,112	1,112	1,112
High Scenario	1,668	1,668	1,668	1,668	1,668

The marginal cost of S.B. 685 is based on a projected cost per day and the additional days due to the longer ALOS. BerryDunn multiplied the additional number of bed days from Tables 6 and 7, by the cost per day amounts in Table 2, to determine the incremental claims cost over time. Results are displayed in Tables 8 and 9.

Table 8: Estimated Marginal Cost for ATS due to a longer ALOS

	2023	2024	2025	2026	2027
Low Scenario	$608,202	$655,034	$705,472	$759,793	$818,297
Mid Scenario	$912,304	$982,551	$1,058,207	$1,139,689	$1,227,445
High Scenario	$1,216,405	$1,310,068	$1,410,943	$1,519,586	$1,636,594

Table 9: Estimated Marginal Cost for CSS due to a longer ALOS

	2023	2024	2025	2026	2027
Low Scenario	$264,397	$284,756	$306,682	$330,297	$355,729
Mid Scenario	$528,794	$569,512	$613,364	$660,593	$711,459
High Scenario	$793,192	$854,267	$920,046	$990,890	$1,067,188

BerryDunn divided the incremental cost by corresponding member months to calculate incremental PMPM costs, shown in Table 10 for ATS and Table 11 for CSS.

Table 10: Estimated PMPM Marginal Cost for ATS

	2023	2024	2025	2026	2027
Low Scenario	$0.03	$0.03	$0.03	$0.04	$0.04
Mid Scenario	$0.04	$0.05	$0.05	$0.05	$0.06
High Scenario	$0.06	$0.06	$0.07	$0.07	$0.08

Table 11: Estimated PMPM Marginal Cost for CSS

	2023	2024	2025	2026	2027
Low Scenario	$0.01	$0.01	$0.01	$0.02	$0.02
Mid Scenario	$0.02	$0.03	$0.03	$0.03	$0.03
High Scenario	$0.04	$0.04	$0.04	$0.05	$0.05

5.2 Reduction in Readmissions

The proposed legislation mandates that carriers reimburse providers for mental health or substance disorder services. The legislation expands the definition of ATS for these individuals, and requires coverage of medically necessary ATS and CSS for a total of 14 days without preauthorization. In this section BerryDunn discusses the impact of these changes on the readmission rate.

BerryDunn calculated readmission rates for individuals with a dual diagnosis and for individuals with a SUD-only diagnosis. After Chapter 258 went into effect, the members with a SUD-only diagnosis did not have a managed care requirement imposed by the carriers, and the LOS are determined by physicians. The readmission rate for this population did not change after the implementation of Chapter 258 and has stayed stable after the mandate was enacted. For this analysis, BerryDunn assumed that the readmission rate for the dual diagnosis population would not change, and therefore will not impact this cost estimate.

5.3 Marginal Cost Per Member Per Month

Adding together the estimated PMPM costs associated with ATS and CSS (from Tables 10, and 11) yields the total PMPM marginal claims cost, shown in Table 12.

Table 12: Estimated Marginal PMPM Claims Cost of Mandate

	2023	2024	2025	2026	2027
Low Scenario	$0.04	$0.04	$0.05	$0.05	$0.05
Mid Scenario	$0.07	$0.07	$0.08	$0.08	$0.09
High Scenario	$0.09	$0.10	$0.11	$0.12	$0.13

5.4 Projected Fully Insured Population in the Commonwealth

Table 13 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 13: Projected Fully Insured Population in the Commonwealth, Ages 0 – 64

YEAR	TOTAL (0-64)
2023	2,014,007
2024	2,010,132
2025	2,006,510
2026	2,003,142
2026	1,999,776

5.5 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 14. This analysis assumes the bill, if enacted, would be effective January 1, 2023.[7]

Table 14: Estimated Marginal Claims Cost

	2023	2024	2025	2026	2027
Low Scenario	$709,133	$1,057,236	$1,136,592	$1,222,054	$1,313,941
Mid Scenario	$1,171,134	$1,746,025	$1,877,081	$2,018,223	$2,169,973
High Scenario	$1,633,134	$2,434,814	$2,617,570	$2,814,391	$3,026,005

5.6 Carrier Retention and Increase in Premium

Assuming an average retention rate of 13.7%—based on CHIA's analysis of administrative costs and profit in the Commonwealth[8]—the increase in medical expense was adjusted upward to approximate the total impact on premiums. Table 15 displays the result.

Table 15: Estimate of Increase in Carrier Premium Expense

	2023	2024	2025	2026	2027
Low Scenario	$821,703	$1,225,065	$1,317,017	$1,416,047	$1,522,520
Mid Scenario	$1,357,043	$2,023,194	$2,175,054	$2,338,601	$2,514,441
High Scenario	$1,892,382	$2,821,323	$3,033,091	$3,261,155	$3,506,362

[7] The analysis assumes the mandate would be effective for policies issued and renewed on or after January 1, 2023. 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 2023 will have the proposed mandate coverage in effect during calendar year 2023. The annual dollar impact of the mandate in 2023 was estimated using the estimated PMPM and applying it to 72.1% of the member months exposed.

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, and a high-level scenario using more conservative assumptions.

The impact on premiums is driven by the provisions of S.B. 685 that expands the definition of ATS and CSS to require a total of 14 days of treatment without preauthorization, for individuals who have a dual diagnosis of mental illness and SUD. Variation between scenarios is attributable to the uncertainty surrounding the increases in the ALOS.

6.1 Five Year Estimated Impact

For each year in the five-year analysis period, Table 16 (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. 685 are assumed effective January 1, 2023.[9]

The low scenario impact is $1.3 million per year on average, based on an assumption that the ALOS would increase by 0.5 days for ATS and 1.0 day for CSS. The high scenario impact is $3.1 million per year on average, based on an assumption that the ALOS would increase by 1.0 day for ATS and 3.0 days for CSS. The middle assumes that ALOS would increase by 0.75 days for ATS and 2.0 days for CSS, resulting in average annual costs of $2.2 million, or an average of 0.015% of premium.

H.B.1147 expands the definition of ATS for individuals with a dual diagnosis of mental illness and SUD and requires coverage of medically necessary ATS for a total of 14 days without preauthorization. It does not expand the definition of CSS services. If H.B.1147 were to pass and go into effect, in the mid scenario, the impact would be approximately 63% of the cost of S.B. 685. In the high scenario, it would be approximately 61% of the cost of S.B. 685, and in the low scenario, it would be approximately 70% of the cost of S.B. 685.

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 16: Summary Results

	2023	2024	2025	2026	2027	WEIGHTED AVERAGE	FIVE-YEAR TOTAL
Members (000s)	2,014	2,010	2,007	2,003	2,000		
Medical Expense Low ($000s)	$709	$1,057	$1,137	$1,222	$1,314	$1,152	$5,439
Medical Expense Mid ($000s)	$1,171	$1,746	$1,877	$2,018	$2,170	$1,903	$8,982
Medical Expense High ($000s)	$1,633	$2,435	$2,618	$2,814	$3,026	$2,654	$12,526
Premium Low ($000s)	$822	$1,225	$1,317	$1,416	$1,523	$1,335	$6,302
Premium Mid ($000s)	$1,357	$2,023	$2,175	$2,339	$2,514	$2,205	$10,408
Premium High ($000s)	$1,892	$2,821	$3,033	$3,261	$3,506	$3,075	$14,514
PMPM Low	$0.05	$0.05	$0.05	$0.06	$0.06	$0.06	$0.06
PMPM Mid	$0.08	$0.08	$0.09	$0.10	$0.10	$0.09	$0.09
PMPM High	$0.11	$0.12	$0.13	$0.14	$0.15	$0.13	$0.13
Estimated Monthly Premium	$583	$603	$625	$646	$669	$625	$625
Premium % Rise Low	0.008%	0.008%	0.009%	0.009%	0.009%	0.009%	0.009%
Premium % Rise Mid	0.013%	0.014%	0.014%	0.015%	0.016%	0.015%	0.015%
Premium % Rise High	0.019%	0.019%	0.020%	0.021%	0.022%	0.020%	0.020%

The proposed mandate would apply to self-insured plans operated for state and local employees by the Group Insurance Commission (GIC). The benefit offerings of GIC plans are similar to most other commercial plans in Massachusetts, and the next section describes the results for the GIC.

6.2 Impact on 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 S.B. 685 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, 2023. Because of the July effective date, the results in 2023 are approximately one-half of an annual value. Table 17 breaks out the GIC's self-insured membership, as well as the corresponding incremental medical expense.

Table 17: GIC Summary Results

	2023	2024	2025	2026	2027	WEIGHTED AVERAGE	FIVE-YEAR TOTAL
GIC Self-Insured							
Members (000s)	313	312	312	311	311		
Medical Expense Low ($000s)	$76	$164	$177	$190	$204	$180	$811
Medical Expense Mid ($000s)	$126	$271	$292	$314	$337	$298	$1,340
Medical Expense High ($000s)	$176	$378	$407	$437	$470	$415	$1,868

Endnotes

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

[2] Chapter 258 of the Acts of 215 (Chapter 258) requires carriers to provide coverage for medically necessary ATS and medically necessary CSS for at least 14 consecutive days, provided the facility notifies the carrier within 48 days of admission. Medical necessity is to be determined by the clinician in consultation with the patient. Accessed April 21, 2022: **https:malegislature.gov/Laws/GeneralLaws/PartIII/TitleIV/Chapter258**.

[3] Mass. General Laws c.175 § 47B Accessed February 2, 2022: **https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXXII/Chapter175/Section47B**.

[4] Schedule of Benefits HMO Blue New England. BCBS of Massachusetts HMO Blue, Inc. **https://www.bluecrossma.com/common/en_US/ContractAndRiderInformation/pdfs/hnehsa4500SoB-0122sng.pdf**.

[5] Bulletin 2015-05; Access to Services to Treat Substance Use Disorders; Issued July 31, 2015. **http://www.mass.gov/service-details/bulletin-2015-05-access-to-services-to-treat-substance-use-disorders-issued-july-31-2015**.

[6] U.S. Centers for Medicare & Medicaid Services (CMS), Office of the Actuary. National Health Expenditure Projections. Table 6, Hospital Care Expenditures; Aggregate and per Capita Amounts, Percent Distribution and Annual Percent Change by Source of Funds: Calendar Years 2018-2027; Private Insurance. Accessed May 23, 2022: **https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html**.

[7] Center for Health Information and Analysis. Mandated Health Benefit Proposal (MHBP) Review Session Law – Acts of 2018 Chapter 208 Section 105. Accessed June 6, 2022. **https://www.chiamass.gov/assets/docs/r/pubs/19/H4742-Appropriate-Care-and-Treatment-of-Addiction.pdf**.

[8] Massachusetts Center for Health Information and Analysis. Annual Report on the Massachusetts Health Care System, September 2017. Accessed December 27, 2017: **http://www.chiamass.gov/annual-report**.

[9] With an assumed start date of January 1, 2016, dollars were estimated at 70.7% 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 issued by a Commonwealth-licensed company (including through the GIC); nonresidents 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.

The unprecedented economic circumstances due to COVID-19 add particular challenges to 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 the 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.

The 2018 Massachusetts APCD formed the base for the projections. The Massachusetts APCD provided fully insured membership by insurance carrier. The Massachusetts APCD was also used to estimate the number of nonresidents covered by a Commonwealth policy. These are typically cases in which a nonresident works for a Commonwealth employer that offers employer-sponsored coverage. Adjustments were made to the data for membership not in the Massachusetts APCD, based on published membership reports available from CHIA and the Massachusetts Division of Insurance (DOI).

CHIA publishes monthly enrollment summaries in addition to its biannual enrollment trends report and supporting databook (enrollment-trends-March-2020-databook[1] and Monthly Enrollment Summary – August 2020[2]), which provide 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 Massachusetts APCD to develop its enrollment trends report. The supplemental data was used to adjust the resident totals from the Massachusetts APCD. In 2020, commercial, fully insured membership was 2.6% less than in 2019 with a shift to both uninsured and MassHealth coverage. The impact of COVID-19 on fully insured employers over the five-year projected period is uncertain. BerryDunn took a high-level conservative approach and assumed that membership would revert to 2019 levels by January 1, 2022.

The DOI published reports titled Quarterly Report of HMO Membership in Closed Network Health Plans as of December 31, 2018,[3] and Massachusetts Division of Insurance Annual Report Membership in Medical Insured Preferred Provider Plans by County as of December 31, 2018.[4] These reports provide fully insured covered members for licensed Commonwealth insurers where the member's primary residence is in the Commonwealth. The DOI reporting includes all insurance carriers and was used to supplement the Massachusetts APCD membership for small carriers not in the Massachusetts APCD.

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.[5] Membership was projected from 2019 – 2027 using Massachusetts Department of Transportation population growth rate estimates by age and gender.[6]

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 that were used for the Commonwealth population. Breakdowns of the GIC self-insured lives by gender and age were based on the 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 November 15, 2020: https://www.chiamass.gov/enrollment-in-health-insurance/.

[2] Center for Health Information and Analysis. Estimates of fully insured and self-insured membership by insurance carrier. Accessed November 15, 2020: https://www.chiamass.gov/enrollment-in-health-insurance/.

[3] Massachusetts Department of Insurance. HMO Group Membership and HMO Individual Membership Accessed November 12, 2020: https://www.mass.gov/doc/group-members/download; https://www.mass.gov/doc/individual-members/download.

[4] Massachusetts Department of Insurance. Membership 2018. Accessed November 12, 2020: https://www.mass.gov/doc/2018-ippp-medical-plans/download.

[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, 2018. Accessed November 12, 2020: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk.

[6] 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.