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MANDATED BENEFIT REVIEW OF S.B. 550: AN ACT TO PROVIDE FOR TOBACCO CESSATION BENEFITS

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Benefit Mandate Overview: S.B. 550: Tobacco Cessation

HISTORY OF THE BILL

The Joint Committee on Health Care Financing referred Senate Bill (S.B.) 550, "An Act to provide for tobacco cessation benefits," sponsored by Sen. Moore, to the Center for Health Information and Analysis (CHIA) for review. Massachusetts General Laws, 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.

WHAT DOES THE BILL PROPOSE?

S.B. 550 requires that health insurance plans defined in the bill provide "a smoking and tobacco use cessation treatment benefit" which "shall include nicotine replacement therapy, other evidence-based pharmacologic aids to quitting smoking, and accompanying counseling by a physician, certified tobacco use cessation counselor, or other qualified clinician."

MEDICAL EFFICACY OF TOBACCO CESSATION TREATMENT

The number one cause of preventable death and disease worldwide is cigarette smoking,[i] with approximately 9,000 adults over age 35 dying each year in Massachusetts as a result of tobacco use.[ii,iii] The proportion of the population in Massachusetts that uses tobacco products is slightly lower than the proportion in the nation overall, both in the adult and youth populations, with large proportions expressing their intention to quit in recent surveys. Much data exists to show that successfully quitting usually requires several attempts, and that the use of pharmacotherapy aids and/or counseling can significantly increase the quitting success rate for adults, especially when the two are used together.[iv] Tobacco cessation pharmacotherapies, however, are not currently approved for patients under 18.

CURRENT COVERAGE

The federal Affordable Care Act (ACA) requires all health insurance plans to cover tobacco cessation treatments, though it does not specifically define the types that must be covered. At this time, all health insurers in Massachusetts cover at least some treatments for tobacco cessation, and almost all are currently compliant with the proposed mandate covering payments for both counseling and pharmacotherapy treatments.

COST OF IMPLEMENTING THE BILL

Because levels of current coverage generally match the coverage mandated in the bill, requiring coverage for tobacco cessation treatment by fully-insured health plans would result in an estimated negligible impact to the typical member's monthly health insurance premiums.

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1 American Lung Association (ALA): Smoking. Accessed 11 February 2014: www.lung.org/stop-smoking-about-smoking/health-effects.

2 Campaign for Tobacco-Free Kids: The Toll of Tobacco in Massachusetts. Updated 20 June 2013; accessed 10 February 2014: https://www.tobaccofreekids.org/facts_issues/toll_us/massachusetts.

3 CDC: Smoking and Tobacco Use State Highlights, Massachusetts. Updated 6 March 2013; accessed 10 February 2014: http://www.cdc.gov/tobacco/data_statistics/state_data/state_highlights/2010/states/massachusetts/index.htm.

4 *Ibid.*

PLANS AFFECTED BY THE PROPOSED BENEFIT MANDATE

Individual and group accident and sickness insurance policies, corporate group insurance policies, and HMO policies issued pursuant to Massachusetts General Laws, as well as the Group Insurance Commission (GIC) covering public employees and their dependents, would be subject to this mandate. The proposed benefit mandate would apply to members covered under the relevant plans, regardless of whether they reside within the Commonwealth or merely have their principal place of employment in the Commonwealth.

PLANS NOT AFFECTED BY THE PROPOSED BENEFIT MANDATE

Self-insured plans (i.e., where the employer policyholder retains the risk for medical expenses and uses an insurer to provide administrative functions) are subject to federal law and not to state-level health insurance benefit mandates.

State health benefit mandates do not apply to Medicare and Medicare Advantage plans whose benefits are qualified by Medicare. Consequently this analysis excludes any members of commercial fully-insured plans over 64 years of age. These mandates also do not apply to federally-funded plans including TRICARE (covering military personnel and dependents), Veterans Administration, and the Federal Employee's Health Benefit Plan. Finally, this proposed mandate does not apply to Medicaid/MassHealth.

PRELIMINARY ESTIMATE OF POTENTIAL MASSACHUSETTS LIABILITY UNDER THE ACA

Analysis of the cost associated with proposed state benefit mandates is important in light of new requirements introduced by the Affordable Care Act (ACA). In accordance with the ACA, all states must set an Essential Health Benefits (EHB) benchmark that all qualified health plans (QHPs), and those plans sold in the individual and small-group markets, must cover, at a minimum. Section 1311(d)(3)(B) of the ACA, as codified in 45 C.F.R. § 155.170, explicitly permits a state to require QHPs to offer benefits in addition to EHB, provided that the state is liable to defray the cost of additional mandated benefits by making payments to or on behalf of individuals enrolled in QHPs. The state is not financially responsible for the costs of state-required benefits that are considered part of the EHB benchmark plan. State-required benefits enacted on or before December 31, 2011 (even if effective after that date) are not considered "in addition" to EHB and therefore will not be the financial obligation of the state. The policy regarding state-required benefits is effective as of January 1, 2014 and is intended to apply for at least plan years 2014 and 2015.

To provide additional information about the potential state liability under the ACA associated with mandating this benefit, CHIA generated a preliminary estimate of the incremental annual premium costs to QHPs associated with this benefit mandate; incremental premium costs exclude the cost of services already provided absent the mandate or already required by other federal or state laws. CHIA's review of the proposed health benefit mandate is not intended to determine whether or not this mandate is subject to state liability under the ACA. CHIA generated this estimate to provide neutral, reliable information to stakeholders who make decisions that impact health care access and costs in the Commonwealth.

CHIA estimates that state liability, if it applies to this proposed mandate, would be based on the proposed mandate's cost to an estimated 800,000 potential QHP members.[iv] However, because the actuarial analysis for this mandate review estimates that the incremental effect of the proposed mandate on premiums is negligible, this bill, if enacted, would have negligible cost to the state arising from these ACA provisions. A final determination of the Commonwealth's liability will require a detailed analysis by the appropriate state agencies.

5 Estimated QHP membership provided by the Massachusetts Division of Insurance.

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S.B. 550 Medical Efficacy Assessment: Tobacco Cessation

Massachusetts Senate Bill 550 requires health insurance plans to pay for smoking and tobacco use cessation treatment benefits, including nicotine replacement therapy, other evidence-based pharmacologic aids to quitting smoking, and accompanying counseling by a physician, certified tobacco use cessation counselor, or other qualified clinician.[1] Massachusetts General Laws (M.G.L.) c. 3 § 38C charges the Massachusetts Center for Health Information and Analysis (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 mandated treatment or service, often compared to alternative treatments, and describe the potential impact of a mandated benefit on the quality of patient care and the health status of the population.

HEALTH EFFECTS OF TOBACCO USE

The number one cause of preventable death and disease worldwide is cigarette smoking.[2] Tobacco use contributes to almost one in five deaths in the U.S. each year, or approximately 393,000 deaths, with another 50,000 deaths resulting from the impact of second-hand smoke.[3] In Massachusetts, approximately 9,000 adult s over age 35 die each year as a result of tobacco use.[4,5]

Tobacco is the most common chemical dependency in the United States, and the nicotine it contains is as addictive as heroin, alcohol, and cocaine.[6] Tobacco smoke contains over 7,000 chemicals, hundreds of which are toxic, and over 70 of which are carcinogenic.[7] Tobacco use negatively impacts almost every system and organ in the body.[8,9]

SMOKING PREVALENCE

When compared to all other states in terms of number of people who smoke, Massachusetts ranked 42nd for adults and 43rd for high school students in 2011.[10]

Current Cigarette Use (2011)[11]

	Massachusetts	U.S. (Median)
Adults	18.2%	21.2%
High School Students	14.0%	18.1%

TOBACCO CESSATION TREATMENT

Quitting the use of tobacco, specifically smoking, is difficult. It has been linked to weight gain and increased stress levels, as well as nicotine withdrawal symptoms that can include irritability, anxiety, difficulty concentrating, cigarette cravings, and increased appetite.[12] Given this, studies have shown that successfully quitting usually requires several attempts, and that the use of pharmacotherapy aids and/or counseling can significantly increase the quitting success rate.[13]

Most studies have focused on cessation treatments for adults. In fact, in one CDC guide entitled "Youth Tobacco Cessation: A Guide for Making Informed Decisions," the researchers state that insufficient research has been conducted on the effectiveness of youth-specific tobacco cessation interventions, and that "[p]harmacotherapy has not been tested extensively with younger populations, but the studies that have been conducted have not shown positive results."[14] Interventions for youth have focused primarily on prevention and limiting access to tobacco products.

Currently, the FDA has approved seven medications to aid adults in quitting, including over-the-counter nicotine patches, gum and lozenges, and prescription therapies including nicotine nasal spray, nicotine inhaler, Buproprion SR (brand name Zyban), and Varenicline (brand name Chantix). None of these treatments has been approved for use by those 18 and under.

In 2008, the U.S. Public Health Service (PHS) released its smoking cessation recommendations, outlining strategies to help individuals abstain from using tobacco products.[15] In these recommendations, PHS evaluated the effect of various methods on adult abstinence rates.

This study, as well as others, concluded that standalone medication or treatment therapies are effective and should be provided as options to adults who use tobacco, but highlighted that combination therapy (medication and counseling together) can significantly improve abstinence rates.[16] The authors did mention, however, that although medication and counseling together are more effective, the use of one should not be required to access the other, as either is measurably effective alone. More specifically, requirements that patients undergo counseling in order to access medication therapies may limit the use of effective treatments for certain smokers who are unwilling to participate in the behavioral component.[17]

One published study evaluated the relative value of various clinical preventive services recommended by the U.S. Preventive Services Task Force. Among those for average-risk adult patients, tobacco use screening and brief intervention, including brief counseling and pharmacotherapy, scored highest among the services reviewed for cost-effectiveness and clinically-preventable burden. [18,19,20] The only recommendation made by the USPSTF regarding tobacco and children is targeted at prevention, recommending that "primary care clinicians provide interventions, including education or brief counseling, to prevent initiation of tobacco use in school-aged children and adolescents."[21]

Tobacco cessation treatment programs have been administered in Medicaid for years. According to the American Lung Association, nationwide smoking prevalence is 60 percent higher in the Medicaid population than in the general population.[22] In Massachusetts in 2006, smoking prevalence for the MassHealth population was 38 percent, compared to 16 percent for the general population.[23] Comprehensive tobacco cessation benefits were offered to the entire MassHealth population that year. By 2008, smoking prevalence had fallen to 28 percent among MassHealth adults, equivalent to annual decreases of 10 percent each year between July 2006 and December 2008.[24] During that time, more than 33,000 MassHealth adult recipients had quit smoking, and successful attempts to quit increased from 6.6 percent to 18.9 percent.[25]

Furthermore, a four-year study of hospital admissions for Medicaid recipients who used the tobacco cessation benefit found significant reductions in cardiovascular admissions, including 32 percent for non-specific chest pain, 46 percent for acute myocardial infarction (AMI), and 49 percent for coronary atherosclerosis and other heart disease.[26] This translated to medical savings of $3.12 for every dollar spent on the program, or a net return-on-investment of 212 percent.[27]

Evidence has shown that reducing out-of-pocket costs for tobacco cessation treatments, including providing insurance coverage with minimal to no co-insurance requirements, increases the number of successful attempts to quit, as well as the use of effective treatments overall.[28] In line with such evidence, the PHS guidelines made recommendations to health care administrators, insurers, and purchasers to encourage treatment for tobacco dependence, including counseling and medication with minimal or no copayments.[29]

Endnotes

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17 *Ibid.*

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21 USPSTF: Primary Care Interventions to Prevent Tobacco Use in Children and Adolescents, Topic Page. Updated August 2013; accessed 14 March 2014: http://www.uspreventiveservicestaskforce.org/uspstf/uspstbac.htm.

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Acknowledgments

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APPENDIX

Actuarial Assessment of Senate Bill 550:
"An Act to provide for tobacco cessation benefits"

Prepared for
Commonwealth of Massachusetts
Center for Health Information and Analysis

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Prepared by
Compass Health Analytics, Inc.

Actuarial Assessment of Senate Bill 550:
"An Act to provide for tobacco cessation benefits"

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Actuarial Assessment of Senate Bill 550:
"An Act to provide for tobacco cessation benefits"

Executive Summary

Massachusetts Senate Bill 550 (S.B. 550) requires health insurance plans to provide "a smoking and tobacco use cessation treatment benefit" which "shall include nicotine replacement therapy, other evidence-based pharmacologic aids to quitting smoking, and accompanying counseling by a physician, certified tobacco use cessation counselor, or other qualified clinician."[1] Massachusetts General Laws (M.G.L.) c. 3 § 38C charges the Massachusetts Center for Health Information and Analysis (CHIA) with, among other duties, reviewing the potential impact of proposed mandated health care insurance benefits on the health insurance premiums paid by businesses and consumers. CHIA has engaged Compass Health Analytics, Inc. to provide an actuarial estimate of the effect enactment of the bill would have on the cost of health care insurance in Massachusetts.

Background

The number one cause of preventable death and disease worldwide is cigarette smoking,[2] with approximately 9,000 adults over age 35 dying each year in Massachusetts as a result of tobacco use.[3,4] The portion of the population in Massachusetts that uses tobacco products is slightly lower than the portion in the nation overall, both in the adult and youth populations, with large proportions expressing their intention to quit in recent surveys. Much data exists to show that successfully quitting usually requires several attempts, and that the use of pharmacotherapy aids and/or counseling can significantly increase the quitting success rate for adults, especially when the two are used together.[5] Tobacco cessation pharmacotherapies, however, are not currently approved for use in patients under 18.

Analysis

The federal Affordable Care Act (ACA) requires all health insurance plans to cover tobacco cessation treatments, though it does not specifically define the types that must be covered. At this time, all health insurers in Massachusetts cover at least some treatments for tobacco cessation, and almost all currently conform to the proposed mandate covering payments for both counseling and pharmacotherapy treatments.

Central to this analysis is understanding the extent to which the ACA already requires coverage for tobacco cessation treatment, and to which carriers already provide coverage even in the absence of a state mandate. Both of these factors significantly diminish the estimated effect of S.B. 550. To measure the use of tobacco cessation treatment and estimate the limited impact of the bill, Compass performed the following steps:

- Estimate the fully-insured Massachusetts population age 12-64, projected for the next five years and divided into age brackets (Adults=19-64, High School=15-18, Middle School=12-14)

- Estimate the number of people within each age bracket who use tobacco
- Estimate the number of tobacco users who seek reimbursement for tobacco cessation treatments
- Estimate the cost of treatment for tobacco cessation for each age group, separated by treatment types
- Estimate the portion of tobacco cessation treatment cost that Massachusetts carriers currently reimburse
- Calculate the proposed mandate's incremental effect on carrier medical expense
- Estimate the impact on premiums of insurers' retention (administrative costs and profit)

Factors affecting the analysis include:

- Claims related to tobacco cessation treatments may not fully capture all associated costs, as some plans may not cover over-the-counter treatments
- Recommended treatments vary significantly by age group (adult versus youth)
- Existing coverage for tobacco cessation treatments, relevant to estimating the net impact of the proposed mandate, varies by carrier

Summary of results

Because the ACA requires coverage for tobacco treatment, and because almost all Massachusetts plans already cover most treatments, the incremental effect on premiums of passing this bill will be minimal. For each year in the five-year analysis period, Table ES-1 displays the projected net impact of the proposed mandate on medical expense and premiums using a projection of Massachusetts fully-insured membership. Under all three scenarios of the analysis, the mandate, if passed, will not materially increase premiums in the five years of the projected timeframe. The annual average total increase to premiums will be around $83,000 in each of the five years; over half of this total will accumulate to one carrier whose plans will be impacted by this proposed mandate.

While there is some uncertainty about which treatments are required by existing federal mandates and current carrier coverage, none of the scenarios represent a material increase in overall premiums.

Finally, 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 the benefits will change under the proposed mandate. The estimated impact on spending and premium levels for three scenarios (low, medium, and high) is summarized in the table below.

Table ES-1
Estimated Incremental Impact of S.B. 550 on Premium Costs

	2015	2016	2017	2018	2019	Average	5 Yr Total
Members (000s)	2,144	2,121	2,096	2,071	2,045		
Medical Expense Low ($000s)	$ 22	$ 23	$ 23	$ 24	$ 25	$ 23	$ 117
Medical Expense Mid ($000s)	$ 46	$ 47	$ 49	$ 50	$ 52	$ 49	$ 244
Medical Expense High ($000s)	$ 69	$ 72	$ 74	$ 77	$ 79	$ 74	$ 371
Premium Low ($000s)	$ 25	$ 26	$ 27	$ 27	$ 28	$ 27	$ 133
Premium Mid ($000s)	$ 52	$ 53	$ 55	$ 57	$ 59	$ 55	$ 276
Premium High ($000s)	$ 78	$ 81	$ 84	$ 87	$ 90	$ 84	$ 419
PMPM Low	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PMPM Mid	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PMPM High	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Estimated Monthly Premium	$512	$537	$564	$592	$622	$566	$566
Premium % Rise Low	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Premium % Rise Mid	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Premium % Rise High	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Actuarial Assessment of Senate Bill 550:
"An Act to provide for tobacco cessation benefits"

1. Introduction

Massachusetts Senate Bill 550 (S.B. 550) requires health insurance plans to provide "a smoking and tobacco use cessation treatment benefit" which "shall include nicotine replacement therapy, other evidence-based pharmacologic aids to quitting smoking, and accompanying counseling by a physician, certified tobacco use cessation counselor, or other qualified clinician."[6] Massachusetts General Laws (M.G.L.) c. 3 § 38C charges the Massachusetts Center for Health Information and Analysis (CHIA) with, among other duties, reviewing the potential impact of proposed mandated health care insurance benefits on the premiums paid by business and consumers. CHIA has engaged Compass Health Analytics, Inc. to provide an actuarial estimate of the effect enactment of the bill would have on the cost of health insurance in Massachusetts.

Assessing the impact of this bill entails analyzing the incremental effect of the bill on spending by fully-insured plans. This in turn requires comparing spending under the provisions of the proposed law to spending under current statutes and current benefit plans, for the relevant services.

Section 2 of this analysis outlines the provisions of the bill. Section 3 summarizes the methodology used for the estimate. Section 4 discusses important considerations in translating the bill's language into estimates of its incremental impact on health care costs. Finally, Section 5 describes the calculation of the estimate.

2. Interpretation of S.B. 550

The following subsections describe the provisions of S.B. 550, as drafted for the 188th General Court.

2.1. Plans affected by the proposed mandate

The bill amends the statutes that regulate insurers providing health insurance in Massachusetts. The following five sections, each addressing statutes dealing with a particular type of health insurance policy, are relevant to this analysis:

- Section 1: Insurance for persons in service of the Commonwealth (creating M.G.L. c. 32A, § 23)
- Section 2: Accident and sickness insurance policies (creating M.G.L. c. 175, § 47AA)
- Section 3: Contracts with non-profit hospital service corporations (creating M.G.L. c. 176A, § 8EE)
- Section 4: Certificates under medical service agreements (creating M.G.L. c. 176B, § 4EE)

- Section 5: Health maintenance contracts (creating M.G.L. c. 176G, § 4W)

All sections mandate coverage for members covered under the relevant plans, regardless of whether they reside within the Commonwealth or merely have their principal place of employment in the Commonwealth.

Self-insured plans are subject to federal law and not to state-level health insurance benefit mandates. Nor do state mandates apply to Medicare, and this analysis assumes this proposed mandate does not affect Medicare extension/supplement plans even to the extent they are regulated by state law.

2.2. Tobacco cessation treatment

S.B. 550 requires that health insurance plans provide coverage for tobacco use cessation treatments, including counseling and pharmacological therapies.

The number one cause of preventable death and disease worldwide is cigarette smoking,[7] with approximately 9,000 adults over age 35 dying each year in Massachusetts as a result of tobacco use.[8,9] The portion of the population in Massachusetts that uses tobacco products is slightly lower than the portion in the nation overall, both in the adult and youth populations, with large proportions expressing their intention to quit in recent surveys. Recent surveys in Massachusetts show that 37.0% of adult smokers intend to quit.[10] In national behavioral health risk surveys of youth, 52.9% of high school students who use tobacco also indicated their intent to quit.[11] Much data exists to show that successfully quitting usually requires several attempts, and that the use of pharmacotherapy aids and/or counseling can significantly increase the quitting success rate for adults, especially when the two are used together.[12]

The proposed mandate specifies that "nicotine replacement therapy, other evidence-based pharmacologic aids to quitting smoking" must be covered. Currently, the FDA has approved seven medications for adults to aid in quitting smoking, including over-the-counter nicotine patches, gum and lozenges, and prescription therapies including nicotine nasal spray, nicotine inhaler, Buproprion SR (brand name Zyban), and Varenicline (brand name Chantix).[13] None of these products has specifically been approved for use in patients under 18.[14] The proposed mandate specifically provides that pharmacological therapies must be covered, but does not specify whether these should be treatments available over-the-counter, by prescription only or both.

The proposed mandate does not specify the type of counseling treatment that must be covered, and whether it should or may be in-person counseling, group therapy, or by telephone. It does, however, include certified tobacco use cessation counselors among the providers eligible for reimbursement. In Massachusetts, the University of Massachusetts Medical School has trained and certified Tobacco Treatment Specialists since 1999.[15] This program is now being nationally recognized and coordinated by the Association for Treatment of Tobacco Use and Dependence (ATTUD) Council for Tobacco Treatment Training Programs.[16] Certification by ATTUD is open to licensed healthcare professionals, including certified substance abuse counselors, clinical psychologists, licensed mental health counselors, licensed social workers, pharmacists, and

registered nurses/NP/PA, as well as "other healthcare professionals."[17] According to a survey of insurers in Massachusetts, none currently credential this provider type in their networks. However, if the proposed mandate is enacted and certified tobacco use cessation counselors are added to carrier networks, some utilization will presumably shift from providers currently reimbursed for tobacco cessation counseling to certified tobacco use cessation counselors.[18]

2.3. Existing laws affecting coverage for tobacco cessation treatment

At the federal level, the Affordable Care Act (ACA)[19] requires coverage of certain preventive health services with no cost-sharing by all health insurance plans,[20] including self-insured, individual, and small- and large-group plans.[21] Plans must cover, at a minimum, evidence-based preventive health services or items that have an "A" or "B" rating in the current recommendations of the United States Preventive Services Task Force (USPSTF) with no deductible, copayment, or coinsurance payments by the beneficiary.

In its most recent tobacco-related guidelines, the USPSTF recommended providing tobacco cessation interventions to adults who use tobacco products, as well as "augmented, pregnancy-tailored counseling for those who smoke" and are pregnant; both recommendations received an "A" rating.[22] No recommendations were made regarding tobacco cessation treatments for children and youth, although the agency gave a "B" rating to its guidance that "primary care clinicians provide interventions, including education or brief counseling, to prevent initiation of tobacco use in school-aged children and adolescents."[23]

Neither the USPSTF nor the ACA explicitly define specific tobacco cessation interventions that must be offered, but in its rationale and clinical considerations, the USPSTF does mention that the combination of counseling and pharmacotherapy interventions is more successful than either intervention alone.[24] However, specific coverage of counseling and/or pharmacotherapy treatments is not currently mandated per the ACA.

In response to this lack of specificity regarding the ACA's tobacco cessation coverage requirements, thirty medical and health advocacy organizations recommended clarifying coverage rules in a letter to U.S. Health and Human Services Secretary Kathleen Sebelius in February 2014.[25] This letter cites a recent report from the Surgeon General[26] as noting that, nationally, "the implementation of tobacco cessation treatment coverage mandated by the ACA varies significantly across private health insurance contracts." It further refers to a 2012 study by the Health Policy Institute at Georgetown University which found that "many health insurance plans are failing to provide the coverage mandated by the ACA for treatments to help smokers and other tobacco users quit."[27]

As previously noted, the USPSTF does not offer tobacco cessation treatment recommendations for the youth population, and no further requirements for tobacco cessation treatment for young people appear in the ACA. The proposed state mandate covers members of all ages, and may therefore marginally affect coverage of smoking cessation treatments for this population.

2.4. Current coverage

While the ACA mandates "tobacco cessation treatments," the proposed Massachusetts mandate is slightly more specific in outlining coverage for counseling and pharmacological treatments. However, the proposed mandate did not specify exactly the therapies to be covered beyond "counseling by a physician, certified tobacco use cessation counselor, or other qualified clinician" and "nicotine replacement therapy, [and] other evidence-based pharmacologic aids to quitting smoking." It does not specify the mode(s) of counseling that must be covered, nor whether pharmacological aids include prescription-based or over-the-counter treatments, or both.

In the survey of commercial health insurance carriers in Massachusetts, all but one indicated at least some level of coverage for both counseling and pharmacotherapy interventions for tobacco cessation. The details of coverage varied, especially regarding specific counseling delivery methods (individual, group, telephone, or web-based) and session limits, as well as to the types, limits, and costs of the pharmacotherapies covered, including whether or not over-the-counter medications are included.

Many of the surveyed plans indicated that, according to their interpretation of the proposed mandate, as well as the requirements of the ACA, they already do cover the required treatments, and in the absence of more specific directives, few would modify existing coverage in response to this state legislation.

One carrier did indicate that pharmacotherapy treatments for tobacco cessation are not included unless a prescription rider is added to the standard benefit plan; if S.B. 550 is enacted, this carrier would make these pharmacotherapies available through its standard benefit plans in Massachusetts. The benefit plan changes required by the mandate for this one carrier create an incremental cost impact for this legislation, albeit small.

Further, only one carrier does not currently comply with the ACA preventive service guidelines regarding tobacco cessation treatments. This carrier limited its coverage for tobacco cessation treatments to patients with select diagnoses (pregnancy, asthma, diabetes, high cholesterol, and coronary artery disease); presumably this limitation will be removed to comply with the ACA. The marginal cost of this change, however, is attributable to the ACA and would not be attributable to S.B. 550 if it passes.

It is noted that the previously cited letter to HHS Secretary Sebelius outlines more specific tobacco cessation treatments, including types of counseling modalities and both over-the-counter and prescription-based pharmacotherapies. If these recommendations are adopted for adults and explicitly mandated under the ACA, the federal mandate would become more stringent than S.B. 550, and would make the already-small marginal impact of the state mandate zero.

3. Methodology

3.1. Steps in the analysis

Central to this analysis is the extent to which the ACA already requires coverage for tobacco cessation treatment and to which carriers already provide coverage even in the absence of a state mandate, both discussed above. To estimate the use of tobacco cessation treatment and estimate the limited impact of the bill, Compass performed the following steps:

- Estimate the fully-insured Massachusetts population age 12-64, projected for the next five years and divided into age brackets (Adults=19-64, High School=15-18, Middle School=12-14)
- Estimate the number of people within each age bracket who use tobacco
- Estimate the number of tobacco users who seek reimbursement for tobacco cessation treatments
- Estimate the cost of treatment for tobacco cessation for each age group, separated by treatment types
- Estimate the portion of tobacco cessation treatment cost that Massachusetts carriers currently reimburse
- Calculate the proposed mandate's incremental effect on carrier medical expense
- Estimate the impact on premiums of insurers' retention (administrative costs and profit)

3.2. Data sources

The primary data sources used in the analysis were:

- Interviews with legislative staff regarding legislative intent
- Information from clinical and research experts
- Information from survey of largest private health insurance carriers in Massachusetts
- Academic literature, including population data
- Massachusetts insurer claim data from CHIA's Massachusetts All-Payer Claim Database (APCD) for calendar years 2010 to 2012, for plans covering the overwhelming majority of the under-65 fully insured population subject to the proposed mandate[28]

Below, the step-by-step description of the estimation process addresses limitations in some of these sources and the uncertainties they introduce into the cost estimate.

4. Factors Affecting the Cost Analysis

Several issues arise in translating the provisions of S.B. 550 into an analysis of the current cost of tobacco cessation treatment and the incremental effect of the bill cost.

4.1. Number of tobacco users

Estimating the use of tobacco relies on behavioral health survey data. For the adult population, the most recent available data is from a 2011 CDC survey from their Behavioral Risk Factor Surveillance System which summarized current use of cigarettes and smokeless tobacco. As no figure for the use of any tobacco product was provided in this report, and as the population of smokeless tobacco users in Massachusetts was estimated to be very small, the smoker and smokeless tobacco user rates were added for this analysis.

High school and middle school tobacco usage information came primarily from 2011 and 2012 youth risk behavior surveillance data. This survey provided cigarette and cigar usage rates for high school students in Massachusetts. This data was compared to national usage rates, from which were derived overall tobacco use rates for high school and middle school students in the state.

4.2. Number of users who intend to quit versus those seeking treatment

The number of tobacco users who indicate an intention to quit in behavioral risk surveys differs significantly from the number of people who have sought reimbursement for medication or counseling treatment in available claim data. However, the number of treatment users in the claim data used for this analysis has remained stable over a three-year period, suggesting that the use of medications and counseling for cessation as reflected in claim data is a reliable predictor of future use of these services.

Moreover, this factor already incorporates changes made to benefit plans in Massachusetts due to implementation of the preventive service requirements of the ACA as previously described. According to the survey of Massachusetts insurers, the most significant change to their tobacco cessation benefits was the elimination of cost-sharing requirements per the ACA; this change was implemented in 2010, and is therefore reflected in the claim data used for this analysis.

4.3. Per-patient cost of tobacco cessation treatment

A few issues arise when calculating the average per-patient cost of tobacco cessation treatment. First, not all insurance carriers in the state cover the cost of over-the-counter pharmacotherapy treatments, and this proposed mandate does not explicitly require them to do so. Therefore the total cost of medication treatments (including over-the-counter) might not be reflected in this analysis. However, the average cost of treatments currently covered by the carriers, most of which conform to the proposed mandate, are accurately reflected in the claim data.

Second, the average cost of treatment for tobacco cessation differs significantly between age groups primarily because of the types of treatments sought.

Table 1:
Percent of Tobacco Users Who Seek Reimbursed Treatments (2012 Baseline)

	% Users Seeking	Percent of users seeking treatment type:		
	Any Treatment	Medication Only	Counseling Only	Both Treatments
Adult	7.9%	40.3%	48.7%	11.0%
High School	1.2%	10.2%	86.7%	3.1%
Middle School	2.2%	5.1%	94.9%	-

For adults, the majority of those who seek treatment, as reflected in claim data, use counseling services only, followed closely by those who use medication only. For high school and middle school tobacco users whose treatment is reflected in claim data, the overwhelming majority seek counseling treatment only, presumably in part because tobacco cessation medications are not approved for use by those under 18, and because the overall tobacco use and addiction in that population is not as high as that in the adult population. Whether this mandate will change this treatment pattern for young people is unknown, but is predicted to be unlikely given current medical research and practice patterns.

4.4. Effect of the mandate on coverage for tobacco cessation treatment

As outlined in section 2.3, tobacco cessation treatments are mandated by the preventive services provisions in the ACA, although the specific types of treatments are not currently defined. This proposed state mandate, therefore, imposes more precise requirements on insurers by stipulating that coverage shall include both counseling and pharmacotherapy treatments.

At this time, for all carriers in the state who comply with the ACA, all but one also conforms to the provisions of this proposed mandate regarding medications and counseling coverage. The marginal cost to these carriers in the adult population is therefore estimated at zero.

While one remaining carrier does not provide for tobacco cessation pharmacotherapies as part of their standard benefit plans, it does offer this benefit as a rider to current coverage. This carrier covers a very small portion of the state's fully-insured population; of these plans, it is not known exactly what percent currently include the optional rider coverage for tobacco cessation pharmaceutical benefits.

Regarding tobacco cessation coverage for youth, the only guidance the USPSTF provides is for primary care providers to counsel young people against using tobacco products in the first place; no guidance is provided on tobacco cessation treatment in this population. Therefore, insurance carriers in the state are not required under the auspices of the ACA to cover tobacco cessation treatment for youth, and therefore the proposed state mandate will affect coverage for the under-19 population.

None of the carriers surveyed indicated an existing age limitation for the treatments which they currently cover, and so presumably are willing to pay for tobacco cessation treatment benefits at

the same level for adults and children, though prescription treatments are FDA approved only for adults. But the extent to which clinicians will treat youth or that youth will pursue treatment at the same level as do adults is unclear and contributes to the range of uncertainly in the final result of this analysis.

5. Cost Analysis

To estimate the overall impact of the proposed legislation, the following calculations were executed. The analysis includes development of a best estimate "mid-level" scenario, as well as a low-level scenario using assumptions that produced a lower estimated impact, and a high-level scenario using more conservative assumptions that produced a higher estimated impact.

5.1. Projected fully-insured population in Massachusetts, ages 12-64

Table 2 shows the fully-insured population in Massachusetts ages 12-64 projected for the next five years, divided into age brackets relevant to the proposed mandate. Appendix A describes the sources of these values.

Table 2:
Projected fully-insured population in Massachusetts, Ages 12-64

Year	Adults (19-64)	High School (15-18)	Middle School (12-14)
2015	1,621,124	118,627	87,798
2016	1,602,172	117,966	86,475
2017	1,582,008	117,511	85,830
2018	1,560,770	117,119	83,565
2019	1,538,831	116,481	82,303

The five-year projection required in this analysis uses estimates of utilization and cost in the following subsections. These are measured/estimated for the specified baseline period and are then adjusted appropriately when incorporated into the final forward-looking projections.

5.2. Number of tobacco users

Using data from behavioral health surveys both nationally and in the state of Massachusetts, the model estimates the percentage of people in each age bracket who use any type of tobacco product. Table 3 displays the values used in this analysis.

Table 3:
Percent of Massachusetts Population
Who Use Any Tobacco Product

Adults	19.9%
High School	19.8%
Middle School	5.7%

5.3. Number of tobacco users who seek reimbursed treatments

Claim data were used to calculate the number of people who sought tobacco cessation treatments in the fully insured population, using 2012 data as a baseline year. See Table 1 in Section 4.3 for the values used in this analysis, including the types of treatments sought within each age group.

5.4. Average cost per case of tobacco cessation treatments

Claim data suggest that the average cost of treatment for tobacco cessation varies widely between age groups, as presented in Table 4. This average is based upon the variability in the types and quantities of treatments sought within each age group, as outlined in Table 1.

Table 4:
Average Cost per Case of Tobacco Cessation
Treatment by Type (2012 Baseline)

	Any Treatment	Medication Only	Counseling Only	Both Treatments
Adult	$106	$196	$17	$166
High School	$28	$94	$18	$92
Middle School	$21	$67	$19	-

This analysis projects the costs of the mandate five years into the future, using 4.5% annual medical inflation, based upon historical figures provided by the U.S. Bureau of Labor Statistics.[29]

5.5. Effect of the mandate on reimbursement for tobacco cessation treatment

As outlined in Section 2.3, all insurers in Massachusetts are subject to the preventive health service requirements outlined in the ACA; based on their survey responses regarding this proposed mandate, all but one indicated compliance with the requirements for provision of tobacco cessation treatments outlined under this law. The proposed Massachusetts mandate provides more specific requirements for insurers, delineating requirements for both counseling and pharmacotherapy treatments. Again, all but one ACA-compliant insurer in the state already provide both forms of treatment, and the remaining insurer currently covers them on those policies which purchase an additional rider benefit.

Therefore, the incremental effect of S.B. 550 on overall premium levels lies in two small elements: first, the cost of bringing one carrier with a small share of the fully-insured market up to the standards of the proposed mandate and, second, the cost of increased utilization of smoking cessation services for youth. These numbers are both small and have an almost negligible impact on premiums, but are presented for completeness.

Bringing the remaining carrier into compliance would require the addition of pharmacotherapy treatments to its standard benefit package, replacing the optional riders that are currently offered to plan purchasers. To estimate the marginal impact of requiring this single carrier to meet the pharmacotherapy treatment requirements of the propose mandate, this analysis estimates the portion of the carrier's membership that will change and the marginal cost of benefits including both counseling and pharmacotherapy. The model assumed in the low scenario that 50% of this carrier's plans would need to add the pharmacotherapy coverage (meaning that currently 50% of plans did not have this rider); the high scenario assumed adding coverage to 75% of plans. The average of the two, 62.5%, was used for the middle scenario. To avoid double-counting potential changes to this carrier's coverage for the youth population, this portion of the analysis focused on the carrier's adult population (19-64) only.

Table 5a:
Percent of Carrier's Plans Impacted by Mandate

Low Scenario	50.0%
Mid Scenario	62.5%
High Scenario	75.0%

To estimate the marginal impact of a change in smoking cessation treatment utilization among youth (under 19, including both middle- and high-school students), this analysis estimates the marginal increase between the current average cost per case per treatment, which is primarily comprised of counseling services, and the average cost per case per treatment in the larger adult population which more frequently utilizes pharmacotherapy treatments in addition to counseling. However, current tobacco cessation treatment for young people focuses on counseling and rarely utilizes medications; therefore the low scenario assumed no change in average cost of treatment in response to this mandate, while the high scenario assumed that the average cost rose to the same level as that seen in the adult population. The middle scenario assumed the average between these two marginal costs.

Table 5b:
Marginal Increase to Average Cost of Treatment
for Youth (Under 19) in 2012 Baseline Year

Low Scenario	$ 0.00
Mid Scenario	$39.76
High Scenario	$79.52

5.6. Net increase in carrier medical expense

Table 6 reflects the net impact of the mandate on the total medical expense in the 2012 baseline year assuming the single carrier described above increases the number of its plans offering pharmacotherapy treatments, as well as a possible increase to the average cost of treatments for youth tobacco users under scenarios described in section 5.5. The percentage columns show how the total would be allocated between costs due to the change in the single carrier's standard benefits and costs due to the change to coverage under all plans for treating youth.

Table 6:
Total Marginal Increase to Medical Expenses
in 2012 Baseline Year

	Total Increase	Increase to Single Carrier	Increase for All Carriers for Youth
Low Scenario	$20,905	100%	0%
Mid Scenario	$43,318	60.3%	39.7%
High Scenario	$65,732	47.7%	52.3%

5.7. Net increase in premium

Assuming an average retention rate of 11.5 percent, based on CHIA's analysis of carrier administrative costs and profit in Massachusetts,[30] the increase in medical expense was adjusted upward to approximate the total impact on premiums. Table 7 shows the result. The expense required to implement credentialing and related administrative processes for a new class of providers is not fully captured by the application of the average administrative ratio in this calculation, given the negligible net increase in service expenses implied by S.B. 550's provisions. With no practical method available to estimate this additional administrative expense, and the immaterial impact of the proposed mandate on service costs, this analysis simply notes that these additional administrative costs would not produce a material change in premiums.

Table 7:
Total Marginal Increase to Medical Expenses
in 2012 Baseline Year

Low Scenario	$23,309
Mid Scenario	$48,300
High Scenario	$73,291

5.8. Five-year estimated impact

For each year in the five-year analysis period, Table 8 displays the projected net impact of the proposed mandate on medical expense and premiums using a projection of Massachusetts fully-insured membership. Even under the high end scenario of the analysis, the mandate, if passed, will not increase premiums by a measurable amount in the five years of the projected timeframe, and

the annual average total increase to premiums will be around $83,000 in each of the five years; over half of this total will accumulate to one carrier whose plans will be impacted by this proposed mandate.

The degree of precision achievable in this analysis is hampered by the issues outlined in section 4; however, even the high-level scenario represents a negligible increase in overall premiums.

Finally, 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 the benefits will change under the proposed mandate.

Table 8:
Summary Results

	2015	2016	2017	2018	2019	Average	5 Yr Total
Members (000s)	2,144	2,121	2,096	2,071	2,045		
Medical Expense Low ($000s)	$ 22	$ 23	$ 23	$ 24	$ 25	$ 23	$ 117
Medical Expense Mid ($000s)	$ 46	$ 47	$ 49	$ 50	$ 52	$ 49	$ 244
Medical Expense High ($000s)	$ 69	$ 72	$ 74	$ 77	$ 79	$ 74	$ 371
Premium Low ($000s)	$ 25	$ 26	$ 27	$ 27	$ 28	$ 27	$ 133
Premium Mid ($000s)	$ 52	$ 53	$ 55	$ 57	$ 59	$ 55	$ 276
Premium High ($000s)	$ 78	$ 81	$ 84	$ 87	$ 90	$ 84	$ 419
PMPM Low	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PMPM Mid	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PMPM High	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Estimated Monthly Premium	$512	$537	$564	$592	$622	$566	$566
Premium % Rise Low	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Premium % Rise Mid	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Premium % Rise High	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

5.9 Impact on the GIC

Because the benefit offerings of GIC plans are similar to those of most other commercial plans in Massachusetts (including in how they cover services for youth), because GIC plans already have to meet the preventative care requirements of the ACA, and because carrier survey responses indicated that GIC offerings provided coverage for counseling and prescription medication treatments for tobacco cessation, the estimated effect of the proposed mandate on GIC coverage is not expected to differ from that estimated for the other fully-insured plans in Massachusetts. Note that the total medical expense and premium numbers displayed in Table 8 include the GIC fully-insured membership. To calculate the medical expense separately for the self-insured portion of the GIC, the medical expense per member per month was applied to the GIC self-insured membership; the results are displayed in Table 9.

Table 9:
GIC Self-Insured Summary Results

	2015	2016	2017	2018	2019	Average	5 Yr Total
Members (000s)	259	259	259	258	258		
Medical Expense Low ($000s)	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 1
Medical Expense Mid ($000s)	$ 0	$ 0	$ 1	$ 1	$ 1	$ 1	$ 3
Medical Expense High ($000s)	$ 1	$ 1	$ 1	$ 1	$ 1	$ 1	$ 4

Appendix A: Membership Affected by the Proposed Mandate

Membership potentially affected by a proposed mandate may include Massachusetts residents with fully-insured employer-sponsored health insurance (including through the GIC), non-residents with fully-insured employer-sponsored insurance issued in Massachusetts, Massachusetts residents with individual (direct) health insurance coverage, and, in some cases, lives covered by GIC self-insured coverage. Membership projections for 2015 – 2019 are derived from the following sources.

Total Massachusetts population estimates for 2012 and 2013 from U. S. Census Bureau data[31] form the base for the projections. Distributions by gender and age, also from the Census Bureau,[32] were applied to these totals. Projected growth rates for each gender/age category were calculated from Census Bureau population projections to 2030.[33] The resulting growth rates were then applied to the base amounts to project the total Massachusetts population for 2015 - 2019.

The number of Massachusetts residents with employer-sponsored or individual health insurance coverage was estimated using Census Bureau data on health insurance coverage status and type of coverage[34] applied to the population projections.

To estimate the number of Massachusetts residents with fully-insured employer-sponsored coverage, projected estimates of the percentage of employer-based coverage that is fully-insured were developed using historical data from the Medical Expenditure Panel Survey Insurance Component Tables.[35]

To estimate the number of non-residents covered by a Massachusetts policy – typically cases in which a non-resident works for a Massachusetts employer offering employer-sponsored coverage – the number of lives with fully-insured employer-sponsored coverage was increased by the ratio of the total number of individual tax returns filed in Massachusetts by residents[36] and non-residents[37] to the total number of individual tax returns filed in Massachusetts by residents.

The number of residents with individual coverage was adjusted further to remove the estimated number of people currently covered by Commonwealth Care who will shift into MassHealth due to expanded Medicaid eligibility under the Affordable Care Act beginning in 2014.[38]

Projections for the GIC self-insured lives were developed using GIC base data for 2012[39] and 2013[40] and the same projected growth rates from the Census Bureau that were used for the Massachusetts population. Breakdowns of the GIC self-insured lives by gender and age were based on the Census Bureau distributions.

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