MANDATED BENEFIT REVIEW OF HOUSE BILL 1230 AND SENATE BILL 690
SUBMITTED TO THE 194th GENERAL COURT:

AN ACT RELATIVE TO CANCER SCREENINGS FOR FIREFIGHTERS

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Mandated Benefit Review of House Bill (H.B.) 1230 and Senate Bill (S.B.) 690 Submitted to the 194th General Court

An Act Relative to Cancer Screenings for Firefighters

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1.0 Executive Summary H.B. 1230 and S.B. 690: "An Act mandating access to cancer screenings for firefighters through health benefits plans or programs provided by the public employer"

The Massachusetts Legislature's Committee on Financial Services referred House Bill (H.B.) 1230 and Senate Bill (S.B.) 690, both titled, "An Act mandating access to cancer screenings for firefighters through health care benefits plans or programs provided by the public employer"[1,2] to the Massachusetts Center for Health Information and Analysis (CHIA) for review. This report references H.B. 1230 and S.B. 690 together and hereafter as "the bill."[i]

As submitted to the 194th General Court of the Commonwealth of Massachusetts, the bill would require that full-time, paid firefighters employed for at least three years by the state, city, town, fire, water district, Massachusetts military reservation fire department, 104th fighter wing fire department, or Devens fire department be provided cancer screening examinations by a physician every three years during their employment. The cancer screening examination must include "at a minimum and when applicable, the following cancers: Colon; Lung; Bladder; Oral; Thyroid; Skin; Blood; Breast; Cervical; Testicular; and Prostate." The bill further requires that all costs associated with these screenings be covered by the firefighter's health care benefits plan or program provided by the public employer. No copayments, deductibles, coinsurance, or other out-of-pocket expenses may be imposed for such examinations.[3,4]

1.1 What is Cancer Screening?

Cancer screening refers to routine testing performed in asymptomatic individuals to identify malignancy (cancer) at an early stage before clinical signs or symptoms are present. When a screening test identifies a possible abnormality, additional diagnostic testing is typically required to confirm or rule out cancer. Diagnostic testing, by contrast, is used to evaluate individuals who present with symptoms or to further investigate abnormal screening findings. Screening and diagnostic tests may use similar modalities, but they serve distinct clinical purposes and are evaluated differently for medical efficacy.

[i] H.B. 1230 and S.B. 690 are identical except S.B. 690 includes the provision "This act shall take effect immediately upon passage."

1.2 Current Coverage

The Affordable Care Act (ACA) requires non-legacy plans to cover services recommended by the United States Preventive Services Task Force (USPSTF) without cost-sharing.[ii,5] The USPSTF recommends:

- Breast cancer screening (mammography): Recommended for women ages 40 – 74, to be conducted every two years.[6]
- Cervical cancer screening: Recommended for women ages 21 – 65, every three years using cervical cytology (Pap smear).[7]
- Cervical cancer screening options for women ages 30 – 65: Pap smear every three years, high-risk human papillomavirus (hrHPV) testing every five years, or Pap smear and hrHPV co-testing every five years.[8]
- Colorectal cancer screening: Recommended for adults ages 45 – 75, with screening intervals ranging from 1 – 10 years depending on the modality.[9]
- Lung cancer screening: Annual low-dose computed tomography (LDCT) for adults ages 50 – 80 with a 20-pack-year smoking history who currently smoke or have quit within the past 15 years.[10]

Massachusetts currently requires insurers to cover a baseline mammogram for women between ages 35 – 40 and annual mammograms for women after age 40. Insurers are also required to cover an annual Pap smear for cervical cancer for women ages 18 years and older.[11] Additionally, prostate-specific antigen (PSA) blood tests, used to screen for prostate cancer, are covered annually for individuals with prostates over age 40 as essential health benefits (EHBs) in the Massachusetts benchmark plan.[12,13]

1.3 Analysis Overview

The legislative sponsors indicated that the intent of the bill is to standardize insurance coverage for cancer screening services for firefighters in recognition of well-established occupational cancer risks. The bill seeks to ensure consistent access to a defined set of preventive and diagnostic cancer screenings, across insurers, that may not be uniformly covered under current benefit designs. The analysis focuses on full-time, paid firefighters employed by municipal fire departments, including those covered under the Group Insurance Commission (GIC) and those covered under non-GIC municipal employee health plans.

1.4 Estimated Cost of Enactment

Requiring coverage of firefighter cancer screening services under this mandate is expected to result in a modest increase in health insurance premiums. For GIC self-insured plans, BerryDunn estimates incremental medical expenses ranging from approximately $1.1 million to $2.2 million over a projection period of five years. The mid-range scenario results in an estimated five-year marginal medical expense of approximately $1.7 million. When expressed on a per-member-per-month (PMPM) basis and spread across the full GIC membership, the resulting premium impact is small, reflecting the relatively limited size of the firefighter population compared to total enrollment. Because municipal employee health plans outside of GIC are predominantly self-insured and cover relatively few

[ii] The ACA requires coverage for USPSTF recommendations that receive an “A” or “B” which indicate that the service has enough evidence to suggest high or moderate net benefit for individuals among the general population.

firefighters under fully insured arrangements, the impact on fully insured commercial premiums statewide is expected to be minimal.

1.5 Efficacy Impact

Firefighters experience elevated cancer incidence and mortality compared to the general population, with strong evidence that occupational exposure causes mesothelioma and bladder cancer, and moderate evidence that links other cancers to firefighting, including prostate, colon, and melanoma.[14,15,16] Evidence-based cancer screenings have demonstrated mortality reductions in the general population (e.g., mammography, cervical, and colorectal screening).[17,18,19]

Structured access to recommended screenings, combined with risk-informed screening strategies, could improve early cancer detection and treatment, potentially lowering morbidity and mortality in this population. Emerging technologies, such as multi-cancer early detection (MCED) tests, may further support early cancer identification, though evidence for mortality benefit is currently limited.[20,21,22]

This report reviews organ-specific screening guidelines as available by leading professional bodies. Currently, occupational specific screening guidelines, including firefighters, are unavailable, despite unique risks and considerations for this population.[23,24]

Endnotes

[1] H.B. 1230. An Act mandating access to cancer screenings for firefighters through health care benefits plans or programs provided by the public employer. Accessed December 24, 2025. **https://malegislature.gov/Bills/194/H1230.**

[2] S.B. 690. An Act mandating access to cancer screenings for firefighters through health care benefits plans or programs provided by the public employer. Accessed December 24, 2025. **https://malegislature.gov/Bills/194/S690.**

[3] *Op. cit.* H.B. 1230. An Act mandating access to cancer screenings for firefighters through health care benefits plans or programs provided by the public employer.

[4] *Op. cit.* S.B. 690. An Act mandating access to cancer screenings for firefighters through health care benefits plans or programs provided by the public employer.

[5] 42 U.S.C. § 300gg-13.

[6] United States Preventive Services Task Force. Final Recommendation Statement, Breast Cancer: Screening. Published April 30, 2024. Accessed December 4, 2024. **https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/breast-cancer-screening.**

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M.G.L c. 176B §4L **https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXXII/Chapter176B/Section4I.**

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AN ACT RELATIVE TO CANCER SCREENINGS FOR FIREFIGHTERS

MEDICAL EFFICACY ASSESSMENT

2.0 Medical Efficacy Assessment

The Massachusetts Legislature's Committee on Financial Services referred House Bill (H.B.) 1230 and Senate Bill (S.B.) 690, both titled, "An Act mandating access to cancer screenings for firefighters through health care benefits plans or programs provided by the public employer"[1,2] to the Massachusetts Center for Health Information and Analysis (CHIA) for review. This report references H.B. 1230 and S.B. 690 together and hereafter as "the bill."[iii]

The bill requires that full-time, paid firefighters employed by municipal fire departments, as well as members of specified fire departments and districts (including the Massachusetts military reservation, the 104th Fighter Wing, and the Devens fire department), be provided cancer screening examinations by a physician beginning no later than three years after the start of employment and at least every three years thereafter. The screenings must include, at a minimum and when applicable, testing for colon, lung, bladder, oral, thyroid, skin, blood, breast, cervical, testicular, and prostate cancers.

The bill further requires that all costs associated with these screenings be covered by the firefighter's health care benefits plan or program provided by the public employer. No copayments, deductibles, coinsurance, or other out-of-pocket expenses may be imposed for such examinations.[3,4]

The bill sponsors indicated the bill's intent is to:

- Address the elevated cancer risk among firefighters by ensuring access to early detection and preventive cancer screenings specific to occupational exposures.
- Remove financial barriers to screening by requiring health insurers to cover firefighter cancer screenings that are currently often paid for out-of-pocket.
- Improve firefighter health outcomes and reduce long-term healthcare costs through early cancer diagnosis and treatment.
- Build on and strengthen the existing cancer screening grant program administered by the Department of Fire Services (DFS) to provide consistent statewide access.
- Align Massachusetts with other states that have established employer-paid or state-funded firefighter cancer screening programs.
- Expand screening coverage to include additional evidence-based and emerging detection technologies appropriate for firefighter risk profiles.
- Implement the bill's requirements immediately, should the bill pass, to respond to the urgent health and safety risks facing firefighters.

M.G.L. Chapter 3 §38C charges CHIA with reviewing the medical efficacy of proposed mandated health insurance benefits.[5] 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.

[iii] H.B. 1230 and S.B. 690 are identical except S.B. 690 includes the provision "This act shall take effect immediately upon passage."

This report proceeds in the following sections:

2.0 Medical Efficacy Assessment

- 2.1 Background of Cancer Risk for Firefighter Population
- 2.2 Applications and Efficacy of Cancer Screenings
- 2.3 Screening Program Landscape

2.1 Background of Cancer Risk for Firefighter Population

Globally and nationally, firefighting has been found to increase the risk of and/or cause certain cancers.[6] Compared to the general United States population, firefighters have a 9% increase in cancer incidence, and a 14% higher cancer mortality.[7,8] Firefighters are exposed to known, unknown, and suspected carcinogens primarily as a result of burning materials (e.g., cars, buildings), and firefighting equipment (e.g., firefighting foams, fire suppression gear, diesel exhaust).[9,10,11,12] Research shows an elevated cancer risk due to per- and polyfluoroalkyl substances (PFAS),[iv] which are often used for firefighting gear and firefighting foams, and are also in the air/dust at an active fire and/or the fire station.[13,14] Firefighters are often exposed to carcinogens including diesel exhaust, soot,[15] benzene, formaldehyde, halogenated compounds,[16] asbestos, and radon.[v,17,18,19]

At the time of writing this report, research is underway to better understand what may cause or increase the risk of cancer in firefighters, including types of exposures, exposure amounts, latency periods,[vi] risk variation depending on firefighter group (e.g., volunteer, career, structural, wildland), race, age, gender, and the effect of years of service.[20] The latency period for cancer can vary considerably, ranging from less than one year to several decades.[21,22] Cancers such as leukemias, lymphomas, and thyroid cancer can have minimum latency periods ranging from a few months to nearly three years, while solid cancers (e.g. bladder, prostate, lung) and mesothelioma have minimum latency periods of 4 and 11 years, respectively.[23,24,25] Determining the exact cause of cancer can be difficult as firefighters likely experience frequent exposure to toxins throughout their service, and the latency period for each cancer type varies.[26]

Research shows a causal link between firefighting and mesothelioma (58% higher risk compared to the general population) and bladder cancer (16% higher risk compared to the general population).[27] Other cancers, including colon, prostate, testicular, melanoma, and non-Hodgkin lymphoma, are strongly associated with firefighting, but the causal linkage has yet to be determined definitively.[28] A 2023 meta-analysis reports a 14% increased risk of melanoma and a 9% increased incidence of prostate cancer for firefighters.[29] The study reports statistically significant increases in cancer incidence were observed for firefighters for colon cancer (12%), kidney cancer (17%), large intestinal cancer (21%), mesothelioma (67%), prostate cancer (21%), and melanoma (61%).[30] A 2020 review of cause of death among a cohort of firefighters in San Francisco, Chicago, and Philadelphia showed increased mortality rates for all cancer types compared to the general population.[31] Researchers estimate that firefighters across the United States are 14% more likely to die from cancer overall compared to the general population.[32]

[iv] PFAS are most strongly associated with kidney, testicular, colon, and prostate cancers.
[v] Radon is a common gas found in homes and other buildings and is the second leading cause of lung cancer.
[vi] The latency period for cancer is defined as the interval of time from exposure to the cause of the cancer to the development of symptoms.

Cancers associated with the greatest increases in mortality risk, relative to the general population, include oral cancer (115 to 300% higher risk), pharyngeal cancer (126% higher risk), colon cancer (27% higher risk), esophageal cancer (31% higher risk), large intestine cancer (31% higher risk), lung cancer (8% higher risk), non-Hodgkin's lymphoma (21% higher risk), pancreatic cancer (45% higher risk), mesothelioma (86% higher risk), rectal cancer (32% higher risk), and soft tissue sarcoma affecting connective tissues (approximately 150% higher risk).[33]

All 50 states have presumptive cancer disability laws for firefighters that assume a cancer that a firefighter develops is due to their occupational exposure. These laws offer workers' compensation, disability benefits, or death benefits for at least one type of cancer.[34] In Massachusetts, M.G.L. c.32 §94B establishes a presumption that firefighters who served the Commonwealth for at least five years and develop cancers affecting the skin, breast, central nervous, lymphatic, digestive, hematological, urinary, skeletal, oral, reproductive, or prostate systems, or the lungs or respiratory tract, developed these conditions as a result of occupational exposure to carcinogens.[35] To be eligible for benefits, firefighters must undergo a physical examination prior to starting their service that documents they have no baseline cancer diagnoses. Additionally, to receive benefits, firefighters must not have experienced unrelated cancer risks (e.g., smoking cigarettes).[36]

Firefighters consistently identify cancer risk as a primary occupational health concern due to repeated exposure to carcinogens encountered during an emergency response, within fire stations, and through contaminated protective equipment.[37] Firefighters express heightened concern about long-term health outcomes and the adequacy of access to preventive cancer screening services.[38]

2.2 Applications and Efficacy of Cancer Screenings

Cancer screening recommendations vary by cancer type, modality used, and individual risk factors, including the age to initiate screening and the recommended frequency.[39] Approximately 70% of cancers are diagnosed after symptoms develop, and more than half of cancer-related deaths in the United States are associated with cancers for which no evidence-based screening exists.[40,41] Evidence-based screening, as recommended by the United States Preventive Services Task Force (USPSTF), has been shown to reduce cancer mortality.[42,43] For example, mammography is estimated to reduce breast cancer mortality by 25 – 40%,[44,45] prostate cancer screening has been associated with reductions in prostate cancer mortality, and routine cervical cancer screening has prevented the majority of cervical cancer deaths in the United States.[46]

National cancer screening guidelines are developed for average risk, asymptomatic individuals, using rigorous evidence review processes that weigh potential benefits against harms such as false-positives (the test shows cancer when someone does not have cancer),[47] false-negatives (the test does not show cancer when someone has cancer),[48] overdiagnosis,[vii,49] and complications from follow-up testing or treatment.[50] These recommendations are periodically updated as new evidence emerges.[51,52] At present, there are no federally mandated occupational cancer screening guidelines, including for firefighters, and evidence specific to cancer screening among populations with elevated occupational exposures remains limited.[53,54]

[vii] Overdiagnosis is when there is no benefit to diagnosing a condition that would not have caused harm if left undetected, but the diagnosis itself could cause physical, psychological, or financial harms.

The sections below summarize cancer-specific screening approaches, relevant screening modalities, and guideline recommendations from the USPSTF, the American Cancer Society (ACS), and the National Fire Protection Association (NFPA), with a focus on assessing medical efficacy and alignment with the bill's proposed three-year cancer screening cadence. Screening modalities referenced within each cancer category may also be used to screen for other cancer types.

Organ-Specific Screening Guidelines and Modalities

Colorectal Cancer

Colorectal cancer screening includes stool-based tests[55] and visual examinations of the colon.[56] Stool-based tests detect blood or DNA changes in stool and are noninvasive but require repeated testing and follow-up colonoscopy if results are positive.[57] Visual examinations include colonoscopy, sigmoidoscopy, and computed tomography (CT) colonography.[58,59] Colonoscopy allows full visualization of the colon and removal of precancerous polyps but is invasive and carries risks related to anesthesia, bleeding, and bowel perforation.[60]

The USPSTF recommends colorectal cancer screening for average risk individuals ages 45 – 75, with screening intervals ranging from 1 – 10 years depending on modality.[61] The ACS provides similar recommendations and advises earlier or more frequent screening for individuals with increased risk.[62] The NFPA recommends discussion of stool-based testing starting at age 40 and screening between ages 45 – 75, with frequency based on the modality used.[63]

Lung Cancer

Low-dose CT scan (LDCT) is the only screening modality shown to reduce lung cancer mortality in high-risk populations, particularly among individuals with smoking histories. LDCT uses lower radiation doses than standard CT scans, but has relatively high false-positive rates, which can lead to additional imaging or invasive follow-up procedures.[64] Chest x-rays and sputum cytology have not been shown to reduce lung cancer mortality.[65]

The USPSTF and ACS recommend annual LDCT screening for adults ages 50 – 80 with a 20-pack-year smoking history who currently smoke or have quit within the past 15 years.[66,67] There are no occupational specific federal guidelines for lung cancer screening.[68] The NFPA recommends lung cancer screening consistent with USPSTF guidance and baseline chest x-rays as clinically indicated.[69,70]

Bladder Cancer

There is currently no recommended routine screening for bladder cancer.[71] Urine-based tests and bladder ultrasound have been used in practice but lack sufficient evidence to demonstrate net benefit for screening asymptomatic individuals.[72,73]

The USPSTF has concluded that evidence is insufficient to assess the benefits and harms of bladder cancer screening in the general population and did not evaluate occupationally exposed groups.[74,75] The NFPA recommends annual urine evaluation and periodic blood testing as part of firefighter medical evaluations.[76] Ultrasound screening is included in some firefighter specific screening programs, although it is not supported by national screening recommendations.[77]

Oral Cancer

Oral cancer screening typically involves visual examination of the mouth, lips, tongue, and throat by a dentist or medical provider, as well as self-examination.[78,79,80] While oral cancers can progress rapidly,[81] there is insufficient evidence that routine screening reduces mortality.[82]

The USPSTF has found insufficient evidence to assess the net benefit of oral cancer screening by primary care providers in asymptomatic adults.[83] The NFPA recommends annual oral examinations as part of firefighter physicals.[84]

Thyroid Cancer

There are no recommended routine screening tests for thyroid cancer in asymptomatic individuals.[85] Physical neck examination and ultrasound have been used in practice, but screening has been associated with overdiagnosis without demonstrated mortality benefit.[86]

The USPSTF recommends against thyroid cancer screening using neck exams or ultrasound.[87] The NFPA recommends evaluation for palpable nodules during annual physical examinations, with diagnostic ultrasound or biopsy used as clinically indicated. [88] The International Association of Firefighters (IAFF) notes that ultrasounds or biopsies should be offered as necessary for any suspicious lumps felt by the firefighter's provider.[89] Physicians associated with a firefighter occupational testing provider recommend thyroid stimulating hormone (TSH) test along with a physical examination by a provider.[90]

Skin Cancer

Skin cancer screening involves visual examination by a medical provider and self-examination to identify changes in skin lesions.[91] While firefighters have higher incidence[92] and mortality rates[93,94] for skin cancer, evidence is insufficient to show that routine screening reduces skin cancer mortality in the general population.[95]

The USPSTF and ACS do not currently recommend routine skin cancer screening for the general population. [96,97] The NFPA recommends annual provider-performed skin exams and regular self-examinations for firefighters.[98]

Blood Cancers

There are no recommended screening tests for blood cancers.[99,100] Detection typically occurs through evaluation of symptoms and abnormal laboratory findings, such as complete blood counts (CBC) and peripheral blood smears.[101]

The NFPA recommends periodic blood testing as part of firefighter medical evaluations, though these tests are not considered cancer screening tools.[102]

Breast Cancer

Mammography is the only recommended screening modality for breast cancer and has been shown to reduce mortality.[103] Mammograms use low-dose radiation and are associated with false-positive and false-negative results, as well as potential overdiagnosis.[104]

The USPSTF recommends biennial mammography for women ages 40 – 74.[105] The ACS provides age- and risk-stratified recommendations starting at age 40, allowing for earlier initiation and more frequent screening.[106] The USPSTF found insufficient evidence to recommend supplemental screening with ultrasound or MRI for women with dense breasts.[107] The NFPA recommends biennial mammography beginning at age 40, with annual screening after age 50.[108]

Cervical Cancer

Cervical cancer screening includes human papillomavirus (HPV) testing, Pap smears, and HPV/Pap smear co-testing.[109] These tests are highly effective at preventing cervical cancer by identifying precancerous changes.[110] Starting in 2027, new cervical cancer screening guidelines from the Health Resources & Services Administration (HRSA) will go into effect for non-legacy health plans, recommending providers prioritize offering individuals hrHPV testing, and insurers provide coverage for patient-collected samples. Insurers will also be required to cover additional follow-up diagnostic testing as necessary.[111]

The USPSTF recommends Pap smears every three years for individuals ages 21 – 29 and several screening options for individuals ages 30 – 65.[112] The ACS recommends primary HPV testing starting at age 25.[113] The NFPA recommends Pap testing every three years or HPV/Pap co-testing every five years for eligible firefighters.[114]

Testicular Cancer

There are no recommended routine screening tests for testicular cancer. Most cases are identified through self-examination or incidental clinical evaluation.[115]

The USPSTF recommends against routine screening due to low incidence and high survival rates even with later-stage diagnosis.[116] The NFPA recommends baseline clinical examination,[117] and the IAFF supports routine self-examination. [118]

Prostate Cancer

Prostate cancer screening primarily involves prostate-specific antigen (PSA) blood testing, with digital rectal examination used selectively.[119] PSA testing is associated with overdiagnosis and potential treatment-related harms.[120]

The USPSTF recommends shared decision-making regarding PSA screening for individuals ages 55 – 69.[121] The ACS recommends risk-stratified discussions beginning at earlier ages for higher risk individuals. [122] The NFPA recommends annual PSA discussion beginning at age 50 or age 40 for firefighters at increased risk.[123]

Table 1 below summarizes common cancer screening modalities, relevant national clinical guidelines, and screening practices recommended for firefighters. It also highlights potential risks and harms associated with each screening approach to support informed consideration of benefits and tradeoffs.

Table 1. Structured Evidence Table – Cancer Screenings

SCREENING TYPE	MODALITY	RELEVANT GUIDELINES (USPSTF/ACS)	RECOMMENDATIONS FOR FIREFIGHTERS[viii]	POTENTIAL RISKS/HARMS
Colon Cancer	Colonoscopy, sigmoidoscopy, or stool-based tests	USPSTF/ACS: Every 1 – 10 years for individuals ages 45 – 75	Every 1 – 10 years for individuals ages 45 – 75	Potential harms associated with colonoscopy (risks with sedation, biopsy)
Lung Cancer	LDCT	USPSTF/ACS: LDCT for adults ages 50 – 80 with a qualifying smoking history	LDCT for adults ages 50 – 80 with a qualifying smoking history	Radiation exposure and potential follow-up biopsies
Bladder Cancer	Urinalysis/ ultrasound	N/A	Annual urine evaluation. Blood test every three years for individuals under 40, annual blood tests after age 40. Lower abdominal ultrasounds for firefighters over age 40 every five years	Lack of available research
Oral Cancer	Oral exam	N/A	Annual physician exam	Lack of available research
Thyroid Cancer	Neck ultrasound/ exam/TSH test	N/A	Annual physician exam, TSH test	Overdiagnosis, overtreatment
Skin Cancer	Full-body skin exam	USPSTF: N/A ACS: Self-exam	Self-exam, annual physician exam	Overdiagnosis, overtreatment, psychological harms
Blood Cancer	CBC/lab tests	N/A	Blood test every three years for individuals under 40, annual blood tests after age 40	Lack of available research
Breast Cancer	Mammography	USPSTF: Biannual mammograms for women ages 40 – 74 ACS: Annual mammogram ages 45 – 54, annual or biannual mammogram women after age 55	Biannual mammograms for women starting at age 40, annual mammograms after age 50	Radiation exposures, false-negatives, false-positives

[viii] The Recommendations for Firefighters are comprised of recommendations from the NFPA and IAFF.

SCREENING TYPE	MODALITY	RELEVANT GUIDELINES (USPSTF/ACS)	RECOMMENDATIONS FOR FIREFIGHTERS[viii]	POTENTIAL RISKS/HARMS
Cervical Cancer	Pap smear/HPV testing	USPSTF: Women ages 21 – 29 Pap smear every three years. Women ages 30 – 65 either a Pap smear every three years, a hrHPV test every five years, or a Pap smear and hrHPV co-test every five years	Women ages 21 – 65 Pap smear every three years, a hrHPV test every five years, or a Pap smear and hrHPV co-test every five years	Overdiagnosis, over treatment, pain, infection, vaginal bleeding, false-positive/false-negative results
Testicular Cancer	Physical exam/ ultrasound	USPSTF: Recommends against screening ACS: N/A	Baseline physician-conducted exam. Annual physician or self-exam	False-positive results, anxiety, harms from diagnostic tools
Prostate Cancer	PSA testing	USPSTF: Men ages 55 – 69 discuss harms and benefits of PSA tests ACS: Men discuss harms and benefits of PSA tests starting between ages 40 – 50 depending on risk(s)	Annual discussion for PSA testing for firefighters starting between ages 40 – 50 depending on risk(s)	False-positive results, overdiagnosis, overtreatment

Multi-Cancer Early Detection (MCED) Tests

MCED tests represent an emerging screening approach that uses a single, minimally invasive blood-based test to identify potential cancer signals across multiple organ systems. These tests can detect multiple cancer types simultaneously even in asymptomatic individuals, and in some cases, suggest a tissue of origin.[124]

At present, no MCED tests are approved by the U.S. Food and Drug Administration (FDA), although they may be offered by providers.[125] MCED tests are not intended to replace established, organ-specific screening guidelines but may be used alongside evidence-based screening modalities or to identify cancers for which no standard screening tests currently exist.[126,127,128] However, available efficacy evidence is limited. Early studies indicate relatively high false-positive rates, and it remains unknown whether MCED testing leads to reductions in cancer mortality.[129,130,131]

Out-of-pocket costs for MCED tests typically range from approximately $199 to $949, depending on the test.[ix] While interest in MCED testing is increasing, major guideline-setting organizations do not currently recommend their use for routine cancer screening outside of clinical trials, including for higher risk populations such as firefighters, due to insufficient evidence on clinical benefit, downstream impacts, and overall effectiveness.[132]

2.3 Screening Program Landscape

Several states have enacted legislation or implemented programmatic changes to expand access to cancer screening for firefighters, reflecting growing recognition of occupational cancer risk in this population. In 2024,

[ix] BerryDunn excluded the highest cost, Aristotle, from this range due to company restructuring at the time of the writing of this report.

Louisiana enacted legislation requiring coverage of cancer screenings[x] without cost-sharing for full-time paid firefighters and fire service employees with at least three years of service. Screenings are offered every three – five years depending on age, and coverage extends to retired firefighters and those who have acquired a service-related disability.[133]

New Jersey implemented similar requirements effective January 2023, mandating cancer screening coverage for full-time firefighters, including those who opted out of the state health insurance plan.[134, 135] Effective January 2026, Maryland has adopted a broader approach, requiring counties to provide annual cancer screenings for firefighters based on IAFF recommendations or through innovative screening technologies such as MCED tests, without cost-sharing. Maryland also requires counties to collect and report utilization and cost data related to these screenings.[136]

Additional state approaches vary in structure and scope. Beginning in 2029, Utah will require biennial cancer screening coverage for firefighters with at least eight years of service, covering a broad range of cancer types.[137] Connecticut implemented an administrative change in 2025 to its state employee health plan to provide full-body cancer screenings for full-time firefighters every two years, covering multiple organ systems.[138,139] Oklahoma will offer a $250 tax credit beginning in 2026 to reimburse firefighters for cancer screening expenses.[140]

Collectively, these state models demonstrate a range of policy approaches, including mandated coverage, elimination of cost-sharing, expansion to retired or disabled firefighters, inclusion of emerging screening technologies, and alternative financing mechanisms such as tax credits. These variations highlight key considerations for program design related to eligibility, screening frequency, scope of covered cancers, administration, and data reporting, shown below in Table 2.

Table 2: State Comparisons

STATE	KEY SIMILARITIES	KEY DIFFERENCES
Connecticut[141,142]	▪ Certain cancer screenings covered	▪ Not as many organs covered by cancer screenings compared to Massachusetts ▪ Screenings offered every two years
Louisiana[143]	▪ Requires coverage for full-time paid employees ▪ Requires coverage for screening of the same types of cancer every three – five years ▪ Prevents cost-sharing	▪ Coverage extends beyond firefighters to fire service employees ▪ Varying cancer screening eligibility depending on age ▪ Extends coverage to retired firefighters and fire service employees
Maryland[144]	▪ Prevents cost-sharing	▪ Requires annual coverage for preventive cancer screenings as recommended by the IAFF or through innovative technology ▪ Reporting requirements ▪ Requires coverage through the county

[x] Cancer screenings must include colon, lung, bladder, oral, thyroid, skin, blood, breast, cervical, testicular, and prostate cancers, as applicable.

STATE	KEY SIMILARITIES	KEY DIFFERENCES
New Jersey[145,146]	▪ Requires coverage for full-time paid employees ▪ Requires coverage for screening of the same types of cancer every three years ▪ Prevents cost-sharing	▪ Coverage extends beyond firefighters to fire service employees and retired firefighters and fire service employees
Oklahoma[147]	▪ N/A	▪ Tax credit to reimburse firefighters for cancer screenings
Utah[148]	▪ Requires coverage for full-time paid employees ▪ Requires coverage for screening of the same cancers	▪ Includes cancer screenings for more organ/cancer types ▪ Cancer screening every two years ▪ Firefighters must serve at least eight years before being eligible

3.0 Conclusion

Firefighters experience elevated cancer incidence and mortality due to repeated occupational exposure to carcinogens.[149] Evidence demonstrates strong causal links for mesothelioma and bladder cancer, with increased risks also observed for colon, prostate, melanoma, and lymphomas.[150,151,152]

Cancer screening can support earlier detection and treatment, which is associated with improved health outcomes.[153] Evidence-based modalities, such as mammography, colorectal screening, and cervical cancer screening, have demonstrated reductions in cancer mortality.[154,155,156] For cancers without established screening recommendations, emerging approaches, including MCED tests, may provide additional opportunities for early identification, although current evidence on their effectiveness in reducing mortality is limited and false-positive rates remain high.[157,158,159]

Programmatic approaches that provide access to recommended screenings, minimize financial barriers, and promote adherence to screening have the potential to increase uptake among firefighters and promote a positive impact.[160,161] Screening frequency, modality choice, and risk-specific tailoring are key determinants of efficacy.[162] The bill would establish a structured screening framework for full-time, paid firefighters by requiring a physician-administered cancer screening examination at least once every three years during employment, with coverage of all associated costs and no cost-sharing. By specifying a recurring screening interval and a minimum set of cancers to be evaluated when clinically applicable, the bill seeks to standardize access to preventive cancer screening for a high-risk occupational group.[163,164] If implemented in alignment with the firefighter specific risk profiles discussed above, this approach could support earlier detection, facilitate timely intervention, and reduce cancer-related morbidity and mortality among firefighters.

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AN ACT RELATIVE TO CANCER SCREENINGS FOR FIREFIGHTERS

ACTUARIAL ASSESSMENT

4.0 Actuarial Assessment

4.1 Background

The Massachusetts Legislature's Committee on Financial Services referred H.B. 1230 and Senate Bill S.B. 690, both titled, "An Act mandating access to cancer screenings for firefighters through health care benefits plans or programs provided by the public employer"[1,2] to the Massachusetts CHIA for review. This report references H.B. 1230 and S.B. 690 together and hereafter as "the bill."[xi]

The bill would require full-time, paid firefighters employed for at least three years by the state, city, town, fire, water district, Massachusetts military reservation fire department, 104th fighter wing fire department, or Devens fire department be provided cancer screening examinations by a physician every three years during their employment. The cancer screening examination must include, as appropriate, screenings for colon, lung, bladder, oral, thyroid, skin, blood, breast, cervical, testicular, and prostate cancer. The bill further requires that all costs associated with these screenings be covered by the firefighter's health care benefits plan or program provided by the public employer. No copayments, deductibles, coinsurance, or other out-of-pocket expenses may be imposed for such examinations.[3,4]

4.2 Plans Affected by the Proposed Mandate

Per the bill, the proposed mandate applies to benefits offered through the Massachusetts Group Insurance Commission (GIC). Most municipal fire departments provide health coverage through self-insured plans. While these plans are not legally required to comply with state benefit mandates, this analysis assumes that affected municipalities would extend coverage for the proposed screenings for firefighters.

The bill would require coverage for a benefit that may be beyond what is within the Division of Insurance (DOI)-designated Essential Health Benefits (EHBs), but further analysis is required. Any state benefit mandate that exceeds the state's definition of EHBs could require the defrayal of the additional cost incurred by enrollees in qualified health plans (QHPs) under federal law.

4.3 Existing Laws Affecting the Cost of the Mandate

The ACA requires non-legacy health plans to cover preventive services recommended by the USPSTF without cost-sharing.[xii,5] The current USPSTF recommendations include:

- Breast cancer screening (mammography): Recommended for women ages 40 – 74, to be conducted every two years.[6]
- Cervical cancer screening: Recommended for women ages 21 – 65, every three years using cervical cytology (Pap smear).[7]
- Cervical cancer screening options for women ages 30 – 65: Pap smear every three years, high-risk human papillomavirus (hrHPV) testing every five years, or Pap smear and hrHPV co-testing every five years.[8]

[xi] H.B. 1230 and S.B. 690 are identical except S.B. 690 includes the provision "This act shall take effect immediately upon passage."

[xii] The ACA requires coverage for USPSTF recommendations that receive an "A" or "B" which indicate that the service has enough evidence to suggest high or moderate net benefit for individuals among the general population.

- Colorectal cancer screening: Recommended for adults ages 45 – 75, with screening intervals ranging from 1 – 10 years depending on the modality.[9]
- Lung cancer screening: Annual LDCT for adults ages 50 – 80 with a 20-pack-year smoking history who currently smoke or have quit within the past 15 years.[10]

Massachusetts requires insurers to provide coverage that exceeds federal minimums in certain areas, including baseline mammography for women ages 35 – 40 and annual mammograms for women over 40, annual cervical cytology for women ages 18 and older, [11] and annual PSA testing for individuals with prostates over age 40. These services are designated as essential health benefits (EHBs) under the Massachusetts benchmark plan. [12,13]

4.4 Current Coverage

BerryDunn surveyed 10 insurance carriers in the Commonwealth regarding coverage of cancer screening services for firefighters, and four carriers responded.[xiii] Carrier responses indicate that coverage for cancer screening services is generally available through existing preventive services benefits, though coverage scope, cost-sharing, and applicable controls vary by carrier and plan design. None of the responding carriers reported having firefighter specific cancer screening policies; coverage is typically administered under standard commercial or GIC preventive care policies. Carriers reported covering screenings for a broad range of cancers, including colon, lung, bladder, oral, thyroid, skin, blood, breast, cervical, testicular, and prostate cancers, when services meet applicable preventive care guidelines or medical necessity criteria. ACA-required preventive screenings are generally covered without cost-sharing, while other screening services may be subject to deductibles, copayments, or coinsurance. Some services, such as genetic or biomarker-based screenings, (i.e., MCEDs) may be subject to additional medical policy review. Carrier expectations regarding utilization impacts were mixed. Some carriers do not anticipate significant changes due to existing coverage, while others expect utilization to increase if the proposed legislation expands covered screening types, requires no cost-sharing beyond current preventive standards, or is interpreted to mandate comprehensive cancer screening examinations that include multiple cancer types or advanced screening modalities.

5.0 Methodology

5.1 Overview

Estimating the impact of this mandate on premiums requires evaluating the cost and utilization of the mandated services relative to current coverage levels. This impact was then projected over a five-year period beginning July 1, 2027, the anticipated implementation date for GIC, should the bill become law.

5.2 Data Sources

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

- Input from legislative sponsors regarding the intended effect of the bill
- Survey of commercial carriers in the Commonwealth regarding descriptions of current coverage

[xiii] BerryDunn surveyed 10 insurance carriers in the Commonwealth (although Tufts Health Plan and Harvard Pilgrim Health Care form Point32Health; they are accounted for separately); responses represent five carriers and 81.8% coverage of members.

- Interviews with subject-matter experts from DFS, Professional Fire Fighters of Massachusetts (PFFM), and medical experts
- Massachusetts All Payers Claims Database (APCD) data
- Published scholarly literature, reports, and population data, cited as appropriate

5.3 Steps in the Analysis

1. **Estimated marginal costs to insurers for firefighters' cancer screening services.**
   - **A.** Estimated the employed firefighter population by age, gender, and insurance coverage (GIC versus non-GIC) based on expert interviews and a review of the relevant literature.
   - **B.** Estimated the 2025 unit cost of a comprehensive cancer screening for firefighters using general population APCD data and findings from the literature.
   - **C.** Developed low, medium, and high uptake scenarios based on literature review and utilization data for cancer screenings and cancer awareness training from the DFS.
   - **D.** Conservatively assumed that firefighters aged 35 – 64 are eligible for cancer screening, based on guidelines from the USPSTF, the IAFF, and the NFPA, and the average age at which individuals would reach a 10-year tenure.[xiv,14] Calculated the number of target firefighters using the population estimates from step 1A.
   - **E.** Estimated the total dollar impact by calculating the product of the target population from step 1D, the unit cost of comprehensive cancer screenings from step 1B, the uptake rates from step 1C, and a one-third frequency factor (assuming screenings are covered once every three years under the mandate), separately for GIC and non-GIC firefighters.
   - **F.** Estimated the 2025 per-member-per-month (PMPM) impact by dividing the total dollar impact from step 1E by total GIC membership. For non-GIC firefighters, calculated an overall PMPM by dividing the total dollar impact by total membership in municipalities not participating in the GIC.

2. **Projected claim costs for the five-year mandate period (effective years 2027–2031)**
   - **A.** Estimated the GIC and non-GIC municipalities population under age 65 for the next five years (2027 – 2031).
   - **B.** Projected the incremental PMPM costs for 2027 – 2031 by applying an average annual medical inflation factor to the PMPM estimates developed in step 1F.
   - **C.** Multiplied the projected PMPM incremental net cost of the mandate from step 2B by the projected population estimate from step 2A to calculate the total estimated marginal claims cost of the bill.

5.4 Assumptions and Limitations

This analysis is subject to several important assumptions and limitations related to data availability, population identification, clinical guidance, and expected utilization patterns. The APCD does not include a reliable indicator for occupation, which prevents direct identification of firefighters. As a result, utilization of cancer screening services

[xiv] The DFS cancer screening program requires firefighters to be at least 40 years old, or to have been a firefighter in Massachusetts for at least 10 years, to be eligible for certain screenings.

among firefighters cannot be measured directly and must be approximated. These estimates may include claims for individuals who are not firefighters and may exclude firefighters whose utilization cannot be distinguished within claims data, which may lead to overstatement or understatement of true utilization and cost impacts. APCD data captures only adjudicated medical claims and does not reflect services paid for out-of-pocket, provided through grant funded programs, or delivered outside of the health insurance system. Existing firefighter cancer screening initiatives administered by the DFS or other entities may therefore not be fully represented.

National cancer screening recommendations are primarily developed for average risk populations and do not account for occupational exposures specific to firefighters. At present, there are no federally endorsed, evidence-based cancer screening guidelines tailored to firefighters. While some professional organizations have issued recommendations for firefighter screening, these are not equivalent to USPSTF or ACS guidelines. As a result, the medical efficacy of certain screenings included in the proposed mandate, particularly for cancers without established population level screening recommendations, remains uncertain.

BerryDunn assumed that, under the mandate, comprehensive cancer screening covering multiple cancer types would be provided to firefighters without cost-sharing. In addition, preventive care coverage currently available to the general population would remain available to firefighters. As a result, BerryDunn took a conservative approach by assuming there would be no cost offsets from preventive care benefits.

MCED testing represents an emerging screening approach but is not currently approved by the FDA or recommended for routine screening by major guideline-setting organizations. Evidence regarding clinical effectiveness, false-positive rates, downstream diagnostic burden, and impact on cancer mortality is limited. This analysis assumes conservative utilization of these tests, but significant uncertainty remains regarding payer coverage decisions, provider adoption, and long-term outcomes. There is also uncertainty regarding the cost of these tests if they are included in the GIC plan. BerryDunn used a simplified approach to estimate costs based on list prices and various published resources.

Coverage of cancer screening services depends not only on benefit design but also on medical necessity determinations, prior authorization requirements, and provider ordering practices. Even if coverage is mandated, utilization may be constrained by insurer policies, provider awareness, and clinical judgment. The analysis assumes covered services would be available without cost-sharing but cannot fully account for variation in implementation across payers or municipalities.

Actual uptake of cancer screening services among firefighters is uncertain and may be lower than assumed. Utilization is influenced by awareness of benefits, education regarding cancer risk, access to screening providers, scheduling constraints, and individual willingness to undergo screening. Barriers such as limited availability of specialized screening services, geographic variation in provider access, and time off requirements may further affect uptake. Accordingly, projected utilization and cost estimates should be interpreted as illustrative rather than predictive.

6.0 Analysis and Results

This section describes the calculations outlined in the previous section in more detail. The analysis includes a best estimate middle-cost scenario, a low-cost scenario, and a high-cost scenario using more conservative assumptions. The analysis section proceeds as follows: Section 6.1 describes the steps used to calculate the incremental cost of the bill. Section 6.2 projects the fully insured population ages 0 – 64 in GIC over the years 2027 – 2031 and calculates the total marginal medical expense. Section 6.3 discusses the total marginal medical expense for municipalities not on GIC. Section 6.4 describes the impact of MCED testing.

6.1 Incremental Cost of Coverage

First, BerryDunn estimated the 2025 population of employed firefighters covered under this mandate by age, gender, and GIC coverage. The total number of employed firefighters in 2025 was estimated at 12,853, based on information provided by the PFFM.

The age distribution was based on a study by the NFPA[15] and labor force statistics from the U.S. Bureau of Labor Statistics (BLS).[16] Ten-year age bands were interpolated into five-year age bands under the assumption of a uniform distribution within each 10-year interval.

To estimate insurance coverage type (GIC versus non-GIC municipal employee health plans), BerryDunn obtained a list of municipalities participating in the GIC,[17] along with Massachusetts population data by municipality.[18] A simplified assumption was applied whereby the number of employed firefighters per 1,000 population was assumed to be constant across municipalities. This ratio was applied to each municipality's population to estimate the number of firefighters per municipality. Firefighters were then aggregated by whether their municipality participates in the GIC status to estimate total counts of firefighters covered by GIC and non-GIC plans. Table 3 presents the estimated 2025 firefighter population by age group and GIC status.

Table 3. Estimated 2025 Firefighter Population by Age Group and GIC Status

Age Group	GIC	Non-GIC	Total
Under 35	1,077	3,614	4,691
35 – 64	1,824	6,122	7,946
65 and over	50	166	216
Total	2,951	9,902	12,853

Next, BerryDunn estimated the average cost of a comprehensive cancer screening. Using APCD data, the allowed cost per user per year for cancer screening claims in the general GIC population was approximately $840 for both GIC and fully insured commercial members. Because firefighters face a higher risk for several types of cancer, and, in some cases, more frequent screenings compared to the general population, the expected cost of comprehensive cancer screening for this group is anticipated to exceed the general population average. BerryDunn therefore examined screening costs for individual cancer types using APCD data and estimated a comprehensive cancer screening cost of $1,200, which is consistent with estimates from other states with similar mandates.[19,20,21]

A recent study found that only 30% of employer sponsored health insurance enrollees received at least one of 10 recommended preventive services without cost-sharing between 2018 and 2022.[22] Utilization data for free occupational cancer screenings offered through the DFS indicate that, despite an increase in utilization in 2025, overall participation remains low, as evidenced by the absence of a waitlist for these services, confirmed by PFFM.[23] BerryDunn developed a conservative range of uptake rates from low 30%, mid 45%, and high 60% for the cancer screening service.

Based on guidelines from the USPSTF for the general population[24,25,26] and from the NFPA[27] for firefighters, recommended cancer screening typically begins at age 40, with the exception of cervical cancer for which screening is recommended to begin at age 21.[28] BerryDunn estimates that firefighters typically begin their careers in their mid- to late-20s, as Massachusetts has a minimum age requirement of 19 years old.[29] In addition, BerryDunn assumes that cancer screening services would be utilized following approximately 10 years of employment, consistent with one of the eligibility requirements under the DFS cancer screening program.[30] Based on these assumptions, BerryDunn conservatively estimates that the target firefighter population would begin utilizing cancer screening services starting at approximately age 35.

The total dollar impact of the mandate was estimated by calculating the product of the magnitude of the target population, by the assumed uptake rate, the estimated cost of a comprehensive cancer screening test and the frequency factor of one-third, reflecting the assumption that screening occurs once every three years on average. The PMPM impact is then calculated by dividing the total dollar impact by total membership. Table 4 below presents the estimated dollar and PMPM impacts for GIC.

Table 4. Estimated GIC Incremental Dollar and PMPM Cost of the Mandate for 2025

Impact Level	GIC Target Population (ages 35 – 64)	Uptake Rate	Dollar Impact	PMPM
Low Scenario	1,824	30%	$ 218,907	$ 0.06
Mid Scenario	1,824	45%	$ 328,360	$ 0.09
High Scenario	1,824	60%	$ 437,814	$ 0.12

6.2 Project Impact on GIC

As firefighters are employed by municipalities, the bill would apply to GIC when municipalities participate in GIC.[xv] Table 5 shows the GIC (ages 0 – 64) membership projected for the next five years. Appendix A describes the sources of these values.

Table 5. Projected GIC Population, Ages 0 – 64

YEAR	2027	2028	2029	2030	2031
Total (0 – 64)	307,785	306,165	304,604	303,099	302,490

[xv] Effective 7/1/26, 12 municipalities are anticipated to be joining the GIC.

BerryDunn assumed the proposed legislative change will apply to self-insured plans the GIC operates for state and local employees, with an effective date of July 1, 2027. Because of the July effective date, the results in 2027 are approximately half of an annual value.

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. **Error! Reference source not found.** breaks out the GIC's self-insured membership, as well as the corresponding incremental medical expense.

Table 1. GIC Summary Results

	2027	2028	2029	2030	2031	WEIGHTED AVERAGE	FIVE-YEAR TOTAL
Members (000s)	308	306	305	303	302	N/A	N/A
Medical Expense Low ($000s)	$116	$238	$244	$251	$258	$246	$1,108
Medical Expense Mid ($000s)	$174	$357	$367	$376	$388	$370	$1,662
Medical Expense High ($000s)	$232	$476	$489	$502	$517	$493	$2,216
Medical Expense PMPM Low	$0.06	$0.06	$0.07	$0.07	$0.07	$0.07	$0.07
Medical Expense PMPM Mid	$0.09	$0.10	$0.10	$0.10	$0.11	$0.10	$0.10
Medical Expense PMPM High	$0.13	$0.13	$0.13	$0.14	$0.14	$0.13	$0.13

6.3 Impact on Municipalities not in GIC

Based on BerryDunn's research on the insurance status of municipality-sponsored employee health plans that do not participate in GIC, these plans are predominantly self-insured. Although not legally required, BerryDunn expects these municipalities to offer cancer screening benefits similar to those GIC would provide under the mandate.

The impact of this mandate on a specific municipality depends on the number of employed firefighters and the total enrollment of the municipality's employee health plan. On average, BerryDunn estimated an impact of $820,000 – $1,640,000 annually from 2027 to 2031 and $0.20 – $0.41 PMPM.

The impact on fully insured plans is expected to be minimal, given the predominantly self-insured status of municipal plans, the relatively small number of firefighters covered under fully insured plans, and the large overall enrollment of fully insured plans in the general population.

6.4 Impact of MCED Testing

Currently MCED tests are not approved by the FDA, and early studies suggest relatively high false-positive rates.[31] As a result, utilization of MCED testing is expected to depend heavily on provider recommendations, which may vary substantially. Patient awareness and trust may also influence utilization. As a result, determining an appropriate utilization rate is challenging.

For illustrative purposes, BerryDunn estimated the potential impact, assuming 100% uptake among the target population, with MCED testing performed once every three years and an assumed average price of $800 per test. Under these assumptions, the estimated annual impact would be approximately $540,000 for the GIC and $1,800,000 for municipalities not participating in the GIC.

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Appendix A: Membership Affected by the Proposed Language

Membership potentially affected by the proposed mandated change includes Commonwealth residents with fully insured, employer sponsored health insurance (ESI) issued by a Commonwealth-licensed company (including through the GIC); nonresidents with fully insured, ESI issued in the Commonwealth; Commonwealth residents with individual (direct) health insurance coverage; and lives covered by GIC self-insured coverage. Other populations within the self-insured commercial sector are excluded from the state coverage mandate due to federal Employee Retirement Income Security Act (ERISA) protections of self-insured plans. The 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. To assess how recent volatility in commercial enrollment levels might affect these cost estimates, please note the PMPM and percentage of premium estimates are unaffected because they are per-person estimates, and the total dollar estimates will vary by the same percentage as any percentage change in enrollment levels.

CHIA-reported enrollment data formed the basis for membership projections. CHIA publishes a biannual enrollment trends report and supporting databook (enrollment-trends-Data Through March 2025 databook),[1] which provide enrollment data for Commonwealth residents by insurance carrier for most carriers, excluding some small carriers. CHIA uses supplemental information beyond the data in the APCD to develop its enrollment trends report and adjust the resident totals from the APCD. For the base year 2020 in the membership projection, the 2020 APCD and published 2020 membership reports available from the Massachusetts Division of Insurance (DOI) [2,3] were used to develop a factor to adjust the CHIA enrollment data for the few small carriers not present in the enrollment report. The adjustment was trended forward to 2025 and applied to CHIA enrollment data.

In 2021, commercial, fully insured membership was 5.6% less than in 2019, with a shift to both uninsured and MassHealth coverage. As part of the public health emergency (PHE), members were not disenrolled from MassHealth coverage even when they no longer passed eligibility criteria. Shortly before the PHE ended, redetermination efforts began in April 2023 and were anticipated to occur over a 12-month period. Many of the individuals subject to redetermination will no longer be eligible for MassHealth coverage. It is anticipated that a portion of individuals losing coverage will be eligible for coverage in individual ACA plans and ESI. MassHealth's monthly caseload reports[4] indicated coverage redeterminations were largely completed by June 2024. The Massachusetts Health Connector's monthly reports[5] showed membership growth stabilized through December 2024, likely due to disenrolled MassHealth members enrolling in individual plans. CHIA's quarterly enrollment trends report[6] showed stable total membership in private commercial group insurance, with a shift from fully insured to self-insured plans. Based on this information, BerryDunn estimated the final 2024 membership impacted by the proposed mandate.

The distribution of members by age and gender was estimated using APCD population distribution ratios, checked for reasonableness and validated against U.S. Census Bureau data.[7] Membership was projected from 2025 to 2050, with growth rate estimates by age and gender derived from a Massachusetts population projection from UMass Donahue Institute.[8]

Projections for the GIC self-insured lives were developed using the GIC base data for 2018, 2019, and 2025, which

BerryDunn received directly from the GIC, as well as the same projected growth rates from the Census Bureau used for the Commonwealth population. BerryDunn accounted for municipalities that are expected to join GIC effective July 2026. This information was incorporated into the GIC membership projection. Breakdowns of the GIC self-insured lives by gender and age were based on U.S. Census Bureau distributions.

Endnotes

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