COMMERCE DEPARTMENT

Evaluation of HF 4886: Coverage Required for Self-Measured Blood Pressure Monitoring Devices and Reimbursement Required for Recipients and Providers

Report to the Minnesota Legislature Pursuant to Minn. Stat. § 62J.26

JANUARY 2023

This report was prepared by the American Institutes for Research (AIR), with actuarial analysis by Actuarial Research Corporation (ARC), at the request of the Minnesota Department of Commerce. AIR and ARC created this document for internal use by the Minnesota Department of Commerce pursuant to Contract No. 216732. The document assumes reader familiarity with the proposed mandated health benefits currently under consideration by the Minnesota State Legislature. The document was prepared solely to assist the Minnesota Department of Commerce. No other use of this document or the information or conclusions contained herein is authorized.

Defrayal analysis completed by the Minnesota Department of Commerce is independent of AIR's evaluation.

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The report is printed on recycled paper. A 508 compliant version of this report is forthcoming.

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Executive Summary

This proposed mandate would require health plans to cover self-measured blood pressure monitoring devices and related services for enrollees with uncontrolled hypertension. Coverage would be limited to one blood pressure monitoring device every 3 years and would reimburse providers for the cost of training patients, transmitting blood pressure data, interpreting readings, and delivering cointerventions.

Frequent measurement of blood pressure outside of an office setting, also known as ambulatory blood pressure monitoring (ABPM) or self-measured blood pressure monitoring, is an evidenced-based strategy to help health care providers more accurately diagnosis hypertension and guide treatment decisions to control blood pressure. The use of, and reimbursement for, ABPM was the focus of a 2008 Call to Action released by the American Heart Association, American Society for Hypertension, and Preventive Cardiology Nurses Association.

Research has shown that for some patients with hypertension, the cost of the equipment was the primary reason for not using ABPM. Other research has found that eliminating cost-sharing for preventive services, such as blood pressure checks, improved the use of these services. However, eliminating cost-sharing for patients may not increase ABPM use if providers are not fully reimbursed for the time needed to provide ABPM training to patients and transmit the data.

Actuarial analysis concluded that the average additional monthly cost-sharing for plan enrollees would be $2.93 per member in Year 1 and increase to $5.42 per member in the 10th year of implementation. The average increase in monthly premiums would start at $2.15 in Year 1 and increase to $3.98 in the 10th year of implementation.

The potential fiscal impact of this mandate is as follows:

- The State Employee Group Insurance Program estimates the cost of this legislation for the state plan to be $748,000 for Fiscal Year 2024 (FY 2024).
- The state has determined that this proposed mandate would likely require partial defrayal under the Affordable Care Act, with an estimated cost of up to $4,450,000 in the first year.
- Minnesota Medicaid and MinnesotaCare already offer coverage of blood pressure monitoring equipment; therefore, there is no additional cost for public programs.

Pursuant to Minn. Stat. § 62J.26, subd. 3, the Minnesota Department of Commerce (Commerce) is required to perform an evaluation of the first engrossment of House File 4886 coverage required for self-measured blood pressure monitoring devices and reimbursement required for recipient and provider from the 92nd Legislature (2021–2022). The purpose of the evaluation is to provide the legislature with a detailed analysis of the potential impacts of any mandated health benefit proposal.

House File 4886 meets the definition of a mandated health benefit proposal under Minn. Stat. § 62J.26, which indicates the following criteria:

A “mandated health benefit proposal" or "proposal" means a proposal that would statutorily require a health plan company to do the following:

(i) provide coverage or increase the amount of coverage for the treatment of a particular disease, condition, or other health care need;

(ii) provide coverage or increase the amount of coverage of a particular type of health care treatment or service or of equipment, supplies, or drugs used in connection with a health care treatment or service;

(iii) provide coverage for care delivered by a specific type of provider;

(iv) require a particular benefit design or impose conditions on cost-sharing for:

(A) the treatment of a particular disease, condition, or other health care need;

(B) a particular type of health care treatment or service; or

(C) the provision of medical equipment, supplies, or a prescription drug used in connection with treating a particular disease, condition, or other health care need; or

(v) impose limits or conditions on a contract between a health plan company and a health care provider.

"Mandated health benefit proposal" does not include health benefit proposals amending the scope of practice of a licensed health care professional.

Introduction

A detailed evaluation must be performed by Commerce in consultation with the Minnesota Department of Health (MDH) and Minnesota Management and Budget (MMB).

a. Evaluations must focus on the following areas:

   i. Scientific and medical information regarding the proposal, including the potential for benefit and harm

   ii. Overall public health and economic impact

   iii. Background on the extent to which services/items in the proposal are utilized by the population

   iv. Information on the extent to which services/items in the proposal are already covered by health plans and which health plans the proposal would impact

   v. Cost considerations regarding the potential of the proposal to increase cost of care as well as its potential to increase enrollee premiums in impacted health plans

   vi. The cost to the state if the proposal is determined to be a mandated benefit under the Affordable Care Act (ACA)

b. As part of these evaluations, Commerce also seeks public feedback on the proposed benefit mandates. This public feedback is summarized and incorporated into the analysis.

c. The following analysis describes the proposed benefit mandate's impact on the health care industry and the population health of Minnesotans.

Evaluation Components

For the purposes of this evaluation, we used the following terms to describe the impact of the proposed mandate:

Public health. The science and practice of protecting and improving the health and well-being of people and their communities. The field of public health includes many disciplines, such as medicine, public policy, biology, sociology, psychology and behavioral sciences, and economics and business.

Economic impact. The general financial impact of a drug, service, or item on the population prescribing or utilizing the drug, service, or item for a particular health condition.

Fiscal impact. The quantifiable cost to the state associated with implementation of the mandated health benefit proposal. The areas of potential fiscal impact that Commerce reviews for are the cost of defrayal of benefit mandates under the ACA, the cost to the State Employee Group Insurance Program (SEGIP), and the cost to other state public programs.

Bill Requirements

HF 4886 is sponsored by Representative Huot and was introduced in the 92nd Legislature (2021–2022) on May 17, 2022.

If enacted, this bill would require coverage for self-measured blood pressure monitoring devices and related services for enrollees diagnosed with uncontrolled hypertension. Uncontrolled hypertension is defined as systolic blood pressure ≥140 mmHg or an average diastolic blood pressure ≥90 mmHg for those with hypertension that is inadequately treated. It is also commonly defined as hypertension that is resistant to treatment.

Coverage required under this bill is limited to the provision of one blood pressure monitoring device every 3 years. Health plan coverage must include provider reimbursement for costs associated with training patients, transmitting blood pressure data, interpreting readings, and delivering cointerventions.

Related Health Conditions

Between 2014 and 2015, hypertension accounted for over $55.9 billion in nationwide annual medical costs, including procedures for treatment, hospitalizations, rehabilitation, and productivity losses. In 2017, approximately 24% of Minnesota adults reported having high blood pressure. While it was the lowest rate among all states, hypertensive diseases were listed as the underlying or a contributing cause of death for 9,296 Minnesotans, representing almost 21% of all deaths. After adjusting for differences in age, 30% of Black Minnesotans reported high blood pressure in 2017, compared to 24% of Whites. Individuals with no formal education beyond a high school diploma report much higher rates of high blood pressure than those with at least a college degree (31% vs. 24%).

Related State and Federal Laws

This section provides an overview of state and federal laws related to the proposed mandate and any external factors that provide context for understanding current policy trends related to this topic. The review of current state and federal laws considers how implementation of the proposed mandate may be affected by federal and Minnesota state health care laws.

Federal Laws Relevant to the Proposed Mandate

Under section 2713 of the ACA, health insurance issuers must provide coverage for preventive care services.[1] Recommendations for preventive care services by the U.S. Preventive Service Task Force

[1] Patient Protected and Affordable Care Act S 2713, 42 U.S.C. S 18001 (2010). https://www.govinfo.gov/content/pkg/BILLS-111hr3590enr/pdf/BILLS-111hr3590enr.pdf

include "[blood pressure] measurement outside of the clinical setting."[2] Since 2019, Medicare has covered home blood pressure monitors. While state Medicaid program coverage varies, a recent report indicates that at least 12 states include some form of coverage for hypertension in their state plans.[3,4]

Minnesota State Laws Relevant to the Proposed Mandate

As of 2020, Minnesota did not require coverage for home blood pressure monitors for non-public plans. Minnesota Medicaid provides coverage for automatic blood pressure monitors.

State Comparison

No comparable policies from other states were found in the review.

Public Comments Summary

To assess the public health, economic, and fiscal impact of HF 4886, Commerce solicited stakeholder engagement on the potential health benefit mandate. The public submitted comments in response to Minnesota's RFI process, which enabled the state to collect information from consumers, health plans, advocacy organizations, and other stakeholders. This process helped Commerce gather opinions, identify special considerations, and secure additional resources to support the evaluation. This section includes a summary of the key themes collected from stakeholders that submitted comments.

Any studies, laws, and other resources identified by stakeholders through public comment were evaluated based on criteria used for the literature scan. Please refer to the Methodology section for analysis of the reviewed literature. Responses to the RFI may not be fully representative of all stakeholders or of the opinions of those impacted by the proposed mandate.

Stakeholder Engagement Analysis

For this proposed mandate, Commerce received four stakeholder comments. None of the responses explicitly stated support for or opposition to the bill. The types of stakeholder groups that submitted responses included state agencies, health care providers, and state and commercial health insurance plans.

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[2] George Washington University Milken Institute School of Public Health. (2020). *National analysis of self-measured blood pressure monitoring coverage and reimbursement.* Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. https://chronicdisease.org/resource/resmgr/website-2020/consultants/cvh/smbp/synthesis_of_smbp_coverage_f.pdf

[3] Centers for Medicare & Medicaid Services. (2019). Ambulatory blood pressure monitoring (ABPM) (Medicare Coverage Database [CAG-00067R2]). https://www.cms.gov/medicare-coverage-database/view/ncacal-decision-memo.aspx?proposed=N&NCAId=294

[4] Centers for Disease Control and Prevention. (2013). *Self-measured blood pressure monitoring: Action steps for public health practitioners.* https://millionhearts.hhs.gov/files/MH_SMBP.pdf

Currently, self-measured blood pressure monitoring devices are covered by Medicare and Medicaid but not by commercial health plans. Stakeholders expressed concerns with the language in the bill because it does not clearly define uncontrolled hypertension or how many elevated readings would cause an individual to qualify for this category. Stakeholders also noted that the bill's language goes beyond specific benefits for self-measured blood pressure monitoring devices and does not clarify how patients would be trained on how blood pressure data would be transmitted and interpreted.

Stakeholders anticipate that increased access to self-measured blood pressure monitoring could lead to greater compliance with prescribed medications, encourage members to have more awareness of their health and advocate for their care needs, and could limit the occurrence of other medical conditions or illnesses related to hypertension (such as heart disease and stroke). Stakeholders also mentioned that coverage of self-measured blood pressure monitoring could lead to over-use or misuse of devices as well as increased provider visits, which could lead to increased costs for patients.

One stakeholder commented that because the proposed health benefit mandates only apply to fully insured plans, they may have the potential to drive more employer groups to switch to self-insured coverage to avoid potential costs associated with benefit mandates. This stakeholder referenced a source that shows enrollment changes in self-insured and fully insured plans since 2011. This source indicates that, while enrollment has increased for self-insured private health care plans and decreased in fully insured private health care plans, enrollment in public health care plans has also increased simultaneously. The source does not provide data indicating whether a causal relationship exists between the state insurance mandates and employer selection of self-insured plans given other variables that may account for changes in enrollment.[5,6]

Stakeholder and MMB feedback noted the following cost estimates related to coverage of self-measured blood pressure devices and related services:

- MMB provided Commerce with the estimated fiscal impact of the proposed mandate as calculated by SEGIP. The program's health plan administrators estimate that the per-member-per-month (PMPM) average cost associated with the proposed mandate is $0.97.
- According to one health insurance company's estimate, approximately 30% of adults in the given commercial health group have high blood pressure, and about half of those adults would utilize benefits proposed in the mandate. Additionally, 100% coverage of self-measured blood pressure monitoring devices and setup services would result in an estimated cost as high as $1.85 PMPM.

[5] Minnesota Department of Health. (2022, July). *Trends and variation in health insurance coverage* (Chartbook Section 2). https://www.health.state.mn.us/data/economics/chartbook/docs/section2.pdf

[6] The federal Employee Retirement Income Security Act of 1974 (ERISA) preempts state laws that "relate to" a covered employee benefit plan. Under ERISA, a state cannot deem a self-funded employee benefit plan as insurance for the purpose of imposing state regulation. Therefore, self-funded (or self-insured) plans may be exempt from abiding by a state-imposed health benefit mandate.

- Another health insurance company estimated the 3-year cost of this bill to be between $0.25 and $2.51 PMPM.

Cost estimates shared in RFI responses may reflect different methodologies, data sources, and assumptions than those used in the actuarial analysis for this evaluation. Therefore, stakeholders' results may or may not reflect generalizable estimates for the mandate.

Evaluation of Mandated Health Benefit Proposal

The methodology for relevant sections of these evaluations is described in the corresponding evaluation below and consisted of a three-pronged approach:

- Medical/scientific review
- Actuarial analysis to assess economic impact
- Defrayal analysis to assess fiscal impact

Methodology

This evaluation used critical review of research databases to identify scientific, medical, and regulatory sources relevant to the mandate. The literature scan utilized

I. key scientific, medical, and regulatory terms that emerged from the initial review of the proposed mandate;
II. additional key terms that were identified and reviewed by AIR's technical and subject matter experts, Commerce, and MDH; and
III. additional terms and research questions following public comment and stakeholder engagement interviews.

The key terms guided the search for relevant literature in PubMed and the National Bureau of Economic Research (NBER). PubMed was used to identify relevant biomedical literature and NBER to identify relevant literature that might address the potential public health, economic, and fiscal impacts of the mandate. The inclusion factors prioritized peer-reviewed literature and independently conducted research on any articles or databases identified through public comment. In addition, criteria included publication within the last 10 years, relevance to the proposed health benefit mandate, generalizability of the findings, and quality of the research, as guided by the Joanna Briggs Institute Clinical Appraisal Tools. The analysis included identified key themes and shared patterns related to the medical, economic, or legal impact of the proposed health benefit mandate.

Public Health Impact

Diagnosis, treatment, and management of hypertension are critical for reducing the risk of cardiovascular disease.[7,8] Hypertension is considered the most modifiable risk factor for cardiovascular disease and its associated mortality.[9] Social determinants of health, such as living in neighborhoods with high poverty or racial segregation, are associated with relatively poor hypertension management.[7] Older adults and non-Hispanic Black adults are more likely than other age groups and non-Hispanic Whites to have uncontrolled hypertension.[10] However, insurance coverage has been shown to equalize hypertension management across different demographics.[9]

Reliance on in-office blood pressure readings may not be appropriate for hypertension management, given the high variability of blood pressure at and between office visits.[11] The practice of frequently measuring blood pressure outside of an office setting, also known as ambulatory blood pressure monitoring (ABPM) or self-measured blood pressure monitoring, is an evidenced-based monitoring strategy. ABPM can provide data to health care providers for more accurate diagnosis and allow for better insight to guide treatment decisions to reduce blood pressure and improve hypertension control.[8] ABPM is recommended across clinical practice guidelines for diagnosis and treatment considerations, but its frequency of use may be low despite the high prevalence of the disease.[9] The use and reimbursement of ABPM was the focus of a Call to Action released by the American Heart Association, American Society for Hypertension, and Preventive Cardiology Nurses Association in 2008.[12] However, one study found that for 14% of patients not currently utilizing ABPM the cost of the equipment was cited as the primary reason for non-use.[8]

Accurate diagnosis is a primary reason for the prescription and use of ABPM.[8] However, prior diagnosis is often a criterion for reimbursement, which presents a challenge for patients and providers who are using ABPM for diagnostic purposes. Furthermore, reimbursement may be associated with specialist referral versus non-specialist health care provider referral (such as by a primary care provider), which may not reflect the setting in which hypertension, controlled or uncontrolled, is first detected.[11]

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[7] Angier, H., Green, B. B., Frankhauser, K., Marino, M., Huguet, N., Larson, A., & DeVoe, J. E. (2020, November). Role of health insurance and neighborhood-level social deprivation on hypertension control following the Affordable Care Act health insurance opportunities. *Social Science & Medicine, 265,* 113439. https://doi.org/10.1016/j.socscimed.2020.113439

[8] Jackson, S. L., Ayala, C., Tong, X., & Wall, H. K. (2019). Clinical implementation of self-measured blood pressure monitoring: 2015–2016. *American Journal of Preventive Medicine*, *56*(1), e13–e21. https://doi.org/10.1016/j.amepre.2018.06.017

[9] Oso, A. A., Adefurin, A., Benneman, M. M., Oso, O. O., Taiwo, M. A., Adebiyi, O. O., & Oluwole, O. (2019). Health insurance status affects hypertension control in a hospital based internal medicine clinic. *International Journal of Cardiology Hypertension*, *1*, 100003. https://doi.org/10.1016/j.ijchy.2019.100003

[10] Muntner, P., Hardy, S. T., Fine, L. J., Jaeger, B. C., Wozniak, G., Levitan, E. B., & Colantonio, L. D. (2020). Trends in blood pressure control among US adults with hypertension: 1999-2000 to 2017-2018. *JAMA*, *324*(12), 1190. https://doi.org/10.1001/jama.2020.14545

[11] Dietrich, E., Desai, R., Garg, M., Park, H., & Smith, S. M. (2019). Reimbursement of ambulatory blood pressure monitoring in the US commercial insurance marketplace. *Journal of Clinical Hypertension*, *22*(1), 6–15. https://doi.org/10.1111/jch.13772

[12] Shimbo, D., Artinian, N. T., Basile, J. N., Krakoff, L. R., Margolis, K. L., Rakotz, M. K., & Wozniak, G.; on behalf of the American Heart Association and American Medical Association. (2020, June 22). Self-measured blood pressure monitoring at home: A joint policy statement from the American Heart Association and American Medical Association. *Circulation*, *142*(4), e42–e63. https://doi.org/10.1161/cir.0000000000000803

Economic Impact

Research has shown that eliminating cost-sharing for preventive services, such as blood pressure checks, results in improved utilization of these services.[13] With high prevalence of hypertension in the United States and comparatively low ABPM utilization rates,[13] reduced or eliminated cost-sharing may improve utilization of this disease management tool. Literature evaluating the diagnostic value of ABPM found that savings may be actualized through the reduction in false positive diagnoses, which would avoid costs for plans and patients due to unnecessary provision of treatment. One study estimated that, at a population level, the use of ABPM was associated with 1,063 fewer nonfatal (cardiovascular disease) events per 100,000 individuals, which has public health implications and financial implications for payers and patients.[14]

Low reimbursement and inconsistencies in reimbursement for ABPM may be associated with low levels of prescription by providers and low utilization by patients.[15] Reimbursement may cover equipment, but there are inconsistencies, for example, in the provider time needed to train patients in its use and in the monitoring of ABPM output, with the result that ABPM may not be covered or may receive low reimbursement.[16] It is unknown whether shifts in cost-sharing will improve utilization of ABPM if reimbursements to providers remain below the cost of a procedure.

Limitations

Much of the current data regarding ABPM relies on claims data, which may not accurately reflect current ABPM utilization or need given the variety of mechanisms through which individuals may be procuring ABPM equipment outside of a health care setting.[16] Most studies evaluating utilization and clinical outcomes do not reflect ABPM utilization but rather focus on blood pressure monitoring through office visits.

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[13] Han, X., Yabroff, K. R., Guy, G. P., Zheng, Z., & Jemal, A. (2015). Has recommended preventive service use increased after elimination of cost-sharing as part of the Affordable Care Act in the United States? *Preventive Medicine*, *78*, 85–91. https://doi.org/10.1016/j.ypmed.2015.07.012

[14] Arrieta, A., Woods, J., Wozniak, G., Tsipas, S., Rakotz, M., & Jay, S. (2021). Return on investment of self-measured blood pressure is associated with its use in preventing false diagnoses, not monitoring hypertension. *PLOS ONE*, *16*(6), e0252701. https://doi.org/10.1371/journal.pone.0252701

[15] Kent, S. T., Shimbo, D., Huang, L., Diaz, K. M., Viera, A. J., Kilgore, M., Oparil, S., & Muntner, P. (2014). Rates, amounts, and determinants of ambulatory blood pressure monitoring claim reimbursements among Medicare beneficiaries. *Journal of the American Society of Hypertension*, *8*(12), 898–908. https://doi.org/10.1016/j.jash.2014.09.020

[16] Shimbo, D., Artinian, N. T., Basile, J. N., Krakoff, L. R., Margolis, K. L., Rakotz, M. K., & Wozniak, G.; on behalf of the American Heart Association and American Medical Association. (2020, June 22). Self-measured blood pressure monitoring at home: A joint policy statement from the American Heart Association and American Medical Association. *Circulation*, *142,* e42–e63. https://doi.org/10.1161/cir.0000000000000803

Actuarial Analysis[17]

The proposed mandate requires coverage of one blood pressure monitoring device per beneficiary once every 3-year period as well as reimbursement for providers for costs associated with training patients, transmitting blood pressure data, interpreting readings, and delivering cointerventions. The following actuarial analysis includes an analysis of the current prevalence of the qualifying diagnosis, the current levels of coverage, and cost and beneficiary cost-sharing and also a projection of potential costs of expanding coverage. There is additional discussion of potential long-term medical savings associated with expanded coverage.

Assumptions and Approach

MDH provided Actuarial Research Corporation with tabulations of the Minnesota All-Payer Claims Database for all relevant diagnoses and blood pressure monitor codes of the National Drug Code (NDC) Directory for 2017–2019 as a snapshot of current hypertension prevalence and blood pressure monitoring expenditures for commercial health plan beneficiaries.

The following criteria were used in this analysis to identify beneficiaries with hypertension and claims for blood pressure monitors:

- Beneficiaries were identified as having a hypertension diagnosis if they had any Adjusted Clinical Group (ACG) hypertension flag based on the Johns Hopkins ACG System, which uses both medications (pharmacy criteria) and diagnosis codes (treatment criteria) to assign condition markers for chronic conditions.
- Please see Appendix C for NDC blood pressure monitor codes specified by Commerce and NDC codes that were identified in the data by MDH and included in the analysis.

The 2017–2019 unit costs for covered devices, as tabulated by MDH, both plan paid and beneficiary cost-sharing, were projected to 2024 using projection factors derived from the personal health care private health insurance trends from the National Health Expenditure (NHE) data. Additional associated costs were estimated based on Medicare reimbursement levels. Medicare began offering coverage for implementing self-measured blood pressure on January 1, 2020, reimbursing $11.19 one time for self-measured blood pressure training and $15.16 per beneficiary per month for data collection and patient communication. It was assumed that the plan expenditure would be equal to the 2020 Medicare reimbursement amounts projected forward using projection factors derived from the physician and clinical private health insurance trends from the NHE data and that the beneficiary cost-sharing would be proportionally the same as the cost-sharing on the devices. To account for potential

[17] Michael Sandler and Anthony Simms are actuaries for Actuarial Research Corporation (ARC). They are members of the American Academy of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

front-loading of this benefit due to a backlog of unmet need, projected utilization was phased in with an assumption that 70% of eligible beneficiaries would take up the benefit in the first year, 20% in the second year, and 10% in the third year, followed by 50% in the fourth year, 30% in the fifth year, 20% in the sixth year, and ultimately 33% beginning in Year 7 and in each subsequent year thereafter.

The 2017–2019 hypertension diagnosis prevalence, as tabulated by MDH, was 15.5% for the full commercial population included in the Minnesota All-Payer Claims Database (which, per MDH, includes approximately 40% of the total commercial market in Minnesota). The analysis assumed that 80% of those diagnosed with hypertension would be classified as having "uncontrolled hypertension" based on the figures cited in the text of the proposed mandate and on additional confirming data points found during the literature review. The overall Minnesota population projections for 2024 (the base year) through 2033 are based on the figures published by the Minnesota State Demographic Center. Given the historical levels of non-public health insurance coverage from Minnesota Public Health Data Access, the analysis assumed that 65% of the total state population would be included in the non-public insured population.

Results

Table 1 shows the results of the total projected prevalence, unit cost (both plan paid and beneficiary cost-sharing), total expenditures, cost-sharing PMPM per uncontrolled hypertension beneficiary, and total non-public insured PMPM net effect related to expanded coverage of self-measuring blood pressure devices.

Average calculated PMPM cost-sharing for beneficiaries taking advantage of this expanded coverage for blood pressure monitoring devices starts at $2.93 in Year 1 and increases to $5.42 in the 10th and final year of the projection. The average increase in total non-public insured population PMPM expenditures, which the analysis assumes would be passed through to all beneficiaries by means of increased premiums, starts at $2.15 in Year 1 and increases to $3.98 in the 10th and final year of the projection.

While a comprehensive actuarial analysis and modeling of projected downstream medical savings resulting from increased coverage and compliance with blood pressure monitoring in beneficiaries with uncontrolled hypertension was beyond the scope of this project, a literature review was conducted to identify potential areas and levels of savings and possible avenues of additional analysis.

In a joint statement from the American Heart Association and American Medical Association, health carriers' net annual medical savings were estimated to be $33.75 per member for those 20–44 years of

age and $32.65 per member for those 45–64 years of age.[18,19] Estimates included members of private employee plans (ages 20–44 and 45–64) and Medicare Advantage plans (ages 65+).

[18] Shimbo, D., Artinian, N. T., Basile, J. N., Krakoff, L. R., Margolis, K. L., Rakotz, M. K., & Wozniak, G.; on behalf of the American Heart Association and American Medical Association. (2020, June 22). Self-measured blood pressure monitoring at home: A joint policy statement from the American Heart Association and American Medical Association. *Circulation, 142,* e42–e63. https://doi.org/10.1161/cir.0000000000000803

[19] Net savings considered costs associated with reimbursement of devices and educational outreach regarding reimbursement availability for SMBP

Table 1. Total Projected Expenditures Related to Expanded Coverage of Self-Measuring Blood Pressure Devices[20]

	Population			Unit cost for device		Associated costs		Total expenditures			
	Total MN pop	Non-public insured pop	Uncontrolled hypertension beneficiaries	Plan paid	Cost-sharing	Plan paid	Cost-sharing	Plan paid	Cost-sharing	Cost-sharing PMPM for hypertension beneficiaries	Total non-public insured pop PMPM delta
2024	5,834,936	3,792,708	470,274	$44.14	$7.45	$ 83,418,111.98	$14,077,794.60	$ 97,948,814.73	$16,530,022.82	$ 2.93	$2.15
2025	5,870,258	3,815,668	473,121	$46.51	$7.85	$108,409,234.40	$18,295,342.56	$112,810,182.97	$19,038,054.77	$ 3.35	$2.46
2026	5,904,930	3,838,205	475,915	$48.79	$8.23	$126,052,051.06	$21,272,776.87	$128,374,126.66	$21,664,654.64	$ 3.79	$2.79
2027	5,938,797	3,860,218	478,645	$50.98	$8.60	$135,707,339.35	$22,902,221.15	$147,908,584.32	$24,961,325.78	$ 4.35	$3.19
2028	5,971,790	3,881,664	481,304	$53.35	$9.00	$140,719,740.80	$23,748,123.28	$148,422,456.82	$25,048,047.85	$ 4.34	$3.19
2029	6,003,838	3,902,495	483,887	$55.86	$9.43	$146,833,955.78	$24,779,969.49	$152,239,822.32	$25,692,273.51	$ 4.42	$3.25
2030	6,034,892	3,922,680	486,390	$58.44	$9.86	$155,129,873.57	$26,180,003.89	$164,605,363.64	$27,779,105.09	$ 4.76	$3.50
2031	6,064,909	3,942,191	488,809	$61.15	$10.32	$162,761,140.26	$27,467,870.55	$172,724,447.93	$29,149,296.74	$ 4.97	$3.65
2032	6,093,866	3,961,013	491,143	$63.98	$10.80	$170,733,928.61	$28,813,373.03	$181,208,089.17	$30,581,011.70	$ 5.19	$3.81
2033	6,121,752	3,979,139	493,390	$66.94	$11.30	$179,061,889.90	$30,218,815.15	$190,070,921.86	$32,076,719.71	$ 5.42	$3.98

[20] The state health benefit mandates only apply to non-public, fully insured large, small, and individual plans and SEGIP, except where explicitly indicated. However, the actuarial analysis is based on gross expenditures for all non-public insurance in Minnesota. Although the analysis was not limited to data only for fully insured plans and SEGIP, this does not affect the accuracy of the PMPM estimates. Using all non-public claims improves the robustness and accuracy of the PMPM estimates because the analyses rely on a larger, more representative set of data.

Data Sources

- Minnesota state population projections are from the *Long*-Term Population Projections for Minnesota published by the Minnesota State Demographic Center.[21]
- Minnesota non-public health insurance coverage levels are from Minnesota Public Health Data Access.[22]
- Trends and projection factors are derived from the National Health Expenditure data compiled by CMS.[23]
- MDH tabulations of the Minnesota All-Payer Claims Database from 2017 to 2019 were used for the estimation of diagnosis prevalence and historical cost (plan paid and beneficiary cost-sharing) of covered blood pressure monitors.

Fiscal Impact

The potential fiscal impact of this legislation for the state includes the estimated cost to SEGIP as assessed by SEGIP in consultation with health plan administrators, the cost of defrayal of benefit mandates as understood under the ACA, and estimated cost to public programs.

- SEGIP estimates the cost of this legislation for the state plan to be $748,000 for partial Fiscal Year 2024 (FY 2024) and $1,571,220 for FY 25.
- The defrayal cost assessed by Commerce under the ACA is estimated to be up to $4,450,000 in the first year.
- There is no estimated fiscal impact for public programs.

Fiscal Impact Estimate for SEGIP

MMB provided Commerce with SEGIP's fiscal impact analysis, which contained SEGIP health plan administrator estimates of the proportion of the population with hypertension, the proportion of the hypertensive population that will seek blood pressure monitoring DME, the services included in diagnosing and monitoring hypertension, and the cost of those services over time. Given that the SEGIP health plan administrators arrived at an estimate of $0.97 PMPM, and assuming an effective date of January 1, 2024, the partial fiscal year impact of legislation on SEGIP is estimated to be $748,200 for FY 24 ($0.97 average associated cost PMPM × 129,000 members × 12 months × .5 year [6 months] = $748,200). SEGIP estimates the fiscal impact will equal $1,571,220 in FY 25 and will increase to $1,732,270 in FY 26, adjusted for 5% inflation.

[21] https://mn.gov/admin/assets/Long-Term-Population-Projections-for-Minnesota-DATA-feb2021_tcm36-469204.xlsx
[22] https://data.web.health.state.mn.us/insurance_basic
[23] https://www.cms.gov/files/zip/nhe-historical-and-projections-data.zip

ACA Mandate Impact and Analysis

The ACA defined 10 essential health benefits (EHBs) that must be included in non-grandfathered plans in the individual and small-group markets. Pursuant to section 1311(d)(3)(b) of the ACA, states may require qualified health plan issuers to cover benefits in addition to the 10 EHBs but must defray the costs of requiring issuers to cover such benefits by making payments either to individual enrollees or directly to qualified health plan issuers on behalf of the enrollees.

Any state-required benefits enacted after December 31, 2011, other than for purposes of compliance with federal requirements, would be considered in addition to the EHBs even if embedded in the state's selected benchmark plan.[24] States must identify the state-required benefits that are in addition to EHBs, and qualified health plan issuers must quantify the cost attributable to each additional required benefit based on an analysis performed in accordance with generally accepted actuarial principles and methodologies conducted by a member of the American Academy of Actuaries and must report this to the state.[25]

Commerce has determined that HF 4886 would likely constitute a benefit mandate as defined under the ACA, as blood pressure monitors are not currently covered broadly under the state's benchmark plan.

Nearly half of adult Americans have hypertension (47%),[26] and 87.6% of the MNSure enrollees are adults. As of October 2022, MNSure/QHP enrollment was 106,005. Commerce utilized the most recent QHP enrollment and the national prevalence of hypertension to estimate the number of enrollees that would obtain a blood pressure monitor. For this analysis, Commerce assumed that every enrollee with hypertension would obtain a blood pressure monitor in the first year.

RFI responses and APCD data support a price range of approximately $100–$150 per blood pressure monitor. Commerce utilized higher than average figures in order to determine an upper threshold for the potential defrayal amount. Commerce also applied the average actuarial value of QHP plans through MNSure (approximately 68%) to reflect the insurers' share and the amount the state would need to defray in associated costs. Utilizing the assumptions above, Commerce estimated that the state would need to defray between $2,966,000 and $4,450,000 in the first year following enactment of HF 4886.

Commerce notes that HF 4886 does include a quantity limitation on blood pressure monitors that restricts each enrollee to one monitor per 3-year period.

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[24] See 45 CFR §155.170(a)(2).
[25] See 45 CFR §155.170(a)(3) and §155.170(c).
[26] https://www.cdc.gov/bloodpressure/facts.htm#:~:text=Nearly%20half%20of%20adults%20in,are%20taking%20medication%20for%20hypertension

Fiscal Impact for Public Programs

The proposed mandate indicates that the Minnesota Department of Human Services will amend the Minnesota state Medicaid plan to specify requirements related to the coverage of uncontrolled hypertension. As coverage already exists in Minnesota's Medicaid program for blood pressure monitoring equipment,[27, 28] there is no estimated cost for public programs.

[27] Minnesota Department of Human Services. (n.d.). *Medical supply coverage guide.* https://mn.gov/dhs/assets/medical-supply-coverage-guide_tcm1053-293319.pdf

[28] Minnesota Department of Human Services. (n.d.). *How to order an automatic blood pressure monitor for Minnesota Medicaid or MinnesotaCare members.* https://mn.gov/dhs/assets/blood-pressure-cuff-ordering_tcm1053-525760.pdf

Appendix A: Bill Text

A bill for an act relating to state government; requiring coverage for self-measured blood pressure monitoring devices; requiring related reimbursement for recipients and providers; requiring commissioner of human services to create medical assistance data practices and clinical oversight policy; amending Minn. Stat. 2021 Supplement § 256B.0625, subdivision 31; proposing coding for new law in Minn. Stat. chapter 62Q.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1.

[62Q.671] COVERAGE FOR SELF-MEASURED BLOOD PRESSURE MONITORING DEVICES.

A health plan must cover self-measured blood pressure monitoring devices and related services for enrollees diagnosed with uncontrolled hypertension. Coverage required under this section is limited to one blood pressure monitoring device every three years. Health plan coverage must include reimbursement for providers for costs associated with training patients, transmitting blood pressure data, interpretation of readings, and costs of delivering co-interventions. Sec. 2.

Minn. Stat. 2021 Supplement § 256B.0625, subdivision 31, is amended to read: Subd. 31.

Medical supplies and equipment.

(a) Medical assistance covers medical supplies and equipment. Separate payment outside of the facility's payment rate shall be made for wheelchairs and wheelchair accessories for recipients who are residents of intermediate care facilities for the developmentally disabled. Reimbursement for wheelchairs and wheelchair accessories for ICF/DD recipients shall be subject to the same conditions and limitations as coverage for recipients who do not reside in institutions. A wheelchair purchased outside of the facility's payment rate is the property of the recipient.

(b) Vendors of durable medical equipment, prosthetics, orthotics, or medical supplies must enroll as a Medicare provider.

(c) When necessary to ensure access to durable medical equipment, prosthetics, orthotics, or medical supplies, the commissioner may exempt a vendor from the Medicare enrollment requirement if:

(1) the vendor supplies only one type of durable medical equipment, prosthetic, orthotic, or medical supply;

(2) the vendor serves ten or fewer medical assistance recipients per year;

(3) the commissioner finds that other vendors are not available to provide same or similar durable medical equipment, prosthetics, orthotics, or medical supplies; and

(4) the vendor complies with all screening requirements in this chapter and Code of Federal Regulations, title 42, part 455. The commissioner may also exempt a vendor from the Medicare enrollment requirement if the vendor is accredited by a Centers for Medicare and Medicaid Services approved national accreditation organization as complying with the Medicare program's supplier and quality standards and the vendor serves primarily pediatric patients.

(d) Durable medical equipment means a device or equipment that:

(1) can withstand repeated use;

(2) is generally not useful in the absence of an illness, injury, or disability; and

(3) is provided to correct or accommodate a physiological disorder or physical condition or is generally used primarily for a medical purpose.

(e) Electronic tablets may be considered durable medical equipment if the electronic tablet will be used as an augmentative and alternative communication system as defined under subdivision 31a, paragraph (a). To be covered by medical assistance, the device must be locked in order to prevent use not related to communication.

(f) Notwithstanding the requirement in paragraph (e) that an electronic tablet must be locked to prevent use not as an augmentative communication device, a recipient of waiver services may use an electronic tablet for a use not related to communication when the recipient has been authorized under the waiver to receive one or more additional applications that can be loaded onto the electronic tablet, such that allowing the additional use prevents the purchase of a separate electronic tablet with waiver funds.

(g) An order or prescription for medical supplies, equipment, or appliances must meet the requirements in Code of Federal Regulations, title 42, part 440.70.

(h) Allergen-reducing products provided according to subdivision 67, paragraph (c) or (d), shall be considered durable medical equipment.

(i) Medical assistance must cover self-measured blood pressure monitoring devices and related services for enrollees diagnosed with uncontrolled hypertension. The commissioner shall create a policy to enable data integration, storage, and transfer and enable clinical oversight and compliance with this paragraph. The Department of Human Services shall amend the Medicaid state plan to include specific home blood pressure requirements for:

(1) coverage determination for uncontrolled hypertension;

(2) inclusion of a self-measured blood pressure device;

(3) replacement frequency of self-measured blood pressure devices;

(4) reimbursement for providers for costs associated with training patients, transmitting blood pressure data, interpretation of readings, and costs of delivering co-interventions; and

(5) reimbursement for self-measured blood pressure devices and related services.

Appendix B: Key Search Terms for Literature Scan

Blood pressure data transmission

Blood pressure monitoring devices

Blood pressure monitoring services

Blood pressure treatment

Caregiver training

Diastolic blood pressure

Hypertension

High blood pressure

Patient education

Patient training

Systolic blood pressure

Appendix C: Associated Codes

NDC blood pressure monitor codes specified by the MN Dept of Commerce	
Name	**NDC Code(s)**
CVS Series 100 Blood Pressure	50428053560
Health Sense Upper Arm Blood Pressure Monitor	91237000106
Fora Test N Go Bp Blood Pressure Meter System	16042001160, 11917014487
B/P MONIT 10 SERIES	73796027854
RA Blood Pressure Cuff Monitor	11822514090
Blood Pressure Monitor 7	73796027604
HM Blood Pressure Monitor	42632002424, 42632002323, 42632002525, 42632002222
5 Series BP Monitor	73796027424, 42632041009
Other Blood Pressure Monitors	11917008196, 11917011208, 73796007124, 82891038801

NDC codes provided by MDH	
Name	**Code(s)**
Blood Pressure Monitor/Arm	11917014484, 11917014485
CVS Blood Pressure Monitor	50428032914
7 Series BP Monitor/Wrist	73796026652
Omron 7 Series BP Monitor	73796026761
10 Series BP Monitor/Upper Arm	73796026785
Blood Pressure Monitor 3	73796027104
10 Series+ BP Monitor/Upper Arm	7376079192
Blood Pressure Monitor/S cuff	93764060056
Blood Pressure Monitor	93764060158

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