

December 30, 2022

The Honorable Larry Hogan
Governor
State of Maryland
Annapolis, MD 21401-1991

The Honorable Bill Ferguson
President of the Senate
H-107 State House
Annapolis, MD 21401-1991

The Honorable Adrienne A. Jones
Speaker of the House
H-101 State House
Annapolis, MD 21401-1991

Dear Governor Hogan, President Ferguson, and Speaker Jones:

Pursuant to Insurance Article §15-1501, Annotated Code of Maryland, the Maryland Health Care Commission is pleased to submit the enclosed mandated health insurance services evaluation on cost sharing adjustments to physical therapy services, as proposed under **HB 974 – Health Insurance – Physical Therapy – Copayments, Coinsurance, and Deductibles**, a bill that was introduced but failed to pass during the 2022 legislative session.

The Commission contracted with BerryDunn an actuarial consulting firm, to conduct the fiscal, medical, and social impact of this proposed mandate. As part of the evaluation process, BerryDunn and Commission staff met with industry stakeholders from the Maryland Chapter of the American Physical Therapy Association (APTA). The APTA provided valuable insight and reference materials that BerryDunn utilized in their analysis. Materials provided by the APTA and a comment letter from APTA on BerryDunn's report are also enclosed with this letter.

Contingent upon approving the report for submission to the General Assembly, the Commission notes the following policy concerns with equating cost sharing for physical therapy services with primary care services:

1. If cost-sharing parity between physical therapy and primary care services were adopted, the effect on the current metal-level cost sharing (i.e., members are responsible for 40% of the cost-sharing for Bronze plans/30% for Silver plans in the individual and small group markets) could be impactful as members receiving care

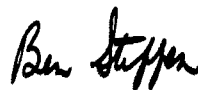
and paying for other covered services could end up paying more out-of-pocket for these services in order for the health plan to maintain those actuarial metal levels.

2. Raising cost sharing could result in “watering down” in actuarial value and could have negative consequences to primary care providers and to primary care coverage.
3. Equating cost-sharing between primary care and physical therapy services could spur further calls for parity with primary care. Other non-physician health care practitioners, such as occupational and speech therapists, could be expected to make similar appeals. Lower cost sharing for primary care is the foundation to the health insurance reforms in the ACA. Lower cost sharing for primary care services reflects the importance of primary care in promoting access and constraining health care costs. In a high functioning health care system, primary care providers are expected to provide patients with primary care-comprehensiveness, first contact access, coordination and continuity of care. Important as other services may be, they should not be given parity with primary care.

Finally, the Commission strongly urges the General Assembly to proceed with caution when considering the adoption of additional mandated health insurance services given their cumulative deleterious impact on affordability over time despite a minimal impact on premiums of any single mandate at the time of adoption.

Please do not hesitate to contact me at 410-764-3565, if you have any questions.

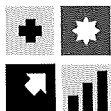
Sincerely,



Ben Steffen
Executive Director

cc: The Honorable Delores G. Kelley, Chair, Senate Finance Committee
The Honorable Joseline A. Pena-Melnyk, Chair, Health and Government Operations Committee
Senator Cory V. McCray, Senate Budget and Taxation Committee
Delegate Nicholas R. Kipke, House Health and Government Operations Committee Member of the General Assembly
Patrick Carlson, Committee Staff, Senate Finance Committee
Lisa Simpson, Committee Staff, Health and Government Operations Committee
Sarah Albert, Department of Legislative Services (5 copies)

Enclosures (3)





Maryland Health Care Commission

Health Insurance Cost Sharing – Physical Therapy Parity with Primary Care Services – House Bill 974 and Senate Bill 725

Submitted by:

BerryDunn
2211 Congress Street
Portland, ME 04102-1955
207.541.2200

Jennifer Elwood, Principal

jelwood@berrydunn.com

Tyler Brannen, Senior Health Economist

tyler.brannen@berrydunn.com

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1.0 Executive Summary

1.1 Background

Insurance Article §15–1501, Annotated Code of Maryland, requires the Maryland Health Care Commission (MHCC) to evaluate the medical, social, and financial impact of proposed mandated health insurance services that failed to pass during the preceding legislative session. This report evaluates these considerations in response to a potential insurance mandate prohibiting commercial health insurers from imposing cost sharing for physical therapy (PT) services that is greater than for primary care services. The legislation was introduced as House Bill 974 and companion bill Senate Bill 725 (HB 974/SB 725) during the 2022 session.

1.2 PT Coverage

PT is generally covered under health insurance benefits. Limiting PT cost sharing to the amounts associated with primary care services will reduce patient financial liabilities for PT services and increase the amount paid by the health insurance carrier. The legislation does not change requirements for the scope of services covered under the benefit design or impose restrictions on utilization management or other cost control policies.

1.3 Financial and Cost Evaluation

Using the 2019 as a base year, the BerryDunn modeling results indicate that the mandate will increase costs to health insurance carriers by \$0.15 to \$0.20 per member per month (PMPM) due to the lower member cost share. In addition, the resulting lower cost-sharing will increase the use of PT services, adding \$0.02 PMPM to the total cost of covering the insured population. If the proposed mandate becomes effective in 2024, the total added cost would be \$0.17 to \$0.28 PMPM inclusive of medical trends and employer benefit changes.

BerryDunn considered whether improved access to PT services would reduce spending for the insured population overall due to fewer examples of postponed or avoided medically necessary PT services. An analysis of Maryland data based on populations with various PT cost-sharing levels did not provide evidence of this outcome. Numerous studies have shown that PT can replace more expensive and complex treatment, and members with lower PT cost-sharing might experience a favorable mix of health care services without demonstrating lower costs at the overall insured population level.

1.4 Medical and Social Evaluation

Physical therapists provide medical care to individuals of all ages, and PT is recognized as effective and efficacious in treating medical conditions. PT is associated with a decreased risk of advanced imaging, additional physician visits, injections, and opioid medications. Some researchers have concluded that PT is a high-value treatment option for certain medical conditions but is partially underutilized due to the copays imposed per visit.

Patients are generally highly satisfied with care by physical therapists, and the large number of people with disabilities, age-related issues, cardiovascular and circulatory diseases, and post-

COVID-19 treatment needs is expected to continue driving demand for PT services. PT is available through telemedicine, providing additional access options for patients seeking treatment.

2.0 Introduction

2.1 Legislation

During the 2022 session, the Maryland legislature considered HB 974/SB 725 to prohibit insurers, nonprofit health service plans, and health maintenance organizations (HMOs) from imposing a copayment, coinsurance, or deductible for covered PT services that is greater than the copayment, coinsurance, or deductible imposed for a primary care visit under the same plan or contract. The legislation did not pass.

Insurance Article §15–1501, Annotated Code of Maryland, requires the MHCC to evaluate the medical, social, and financial impact of proposed mandated health insurance services that failed to pass during the preceding legislative session. The analysis requirement includes several components, regardless of whether the mandate requires new services to be covered or limits cost sharing. The MHCC retained BerryDunn to evaluate the proposed mandate's required financial, medical, and social aspects.

This study uses the Maryland Medical Care Data Base (MCDB), a resource with anonymous claims data that can be used to evaluate healthcare costs and utilization patterns when patients receive PT services and are subject to copayments, deductibles, and coinsurance payments. BerryDunn obtained additional information from the carriers about existing benefit designs and potential benefit, network, and utilization management changes that may take place if the legislation were to pass. In completing the analysis, BerryDunn also met with representatives of the PT provider community and performed a literature review.

2.2 PT Coverage

Commercial health insurance carriers in Maryland cover PT services but require members to pay for a portion of the treatment costs through copayments, coinsurance, and deductibles. Commercial carriers may employ various cost and utilization controls, such as prior authorization and select networks, and the proposed legislation does not include new limits on the administration of the benefit.

Limiting PT cost sharing to the amounts associated with primary care services will reduce patient financial liabilities for PT services. Unless other changes to coverage or benefits administration take place, health insurance carriers will pay a larger share of the total PT treatment costs. Members will access care more frequently and for longer periods than if the benefit design had higher cost sharing. Members receiving the additional PT treatment may experience a favorable reduction in the use of more expensive, complex, and high-risk treatment and offset some of the additional costs.

3.0 Financial and Cost Evaluation

HB 974/SB 725 proposed requiring cost-sharing limits when members receive PT services but would not change the scope of covered services. Cost sharing shifts a portion of the responsibility for covering provider costs to patients when services are received. When all other factors—such as the benefit design, population health status, and use of health care services—remain constant, lowering cost sharing will result in upward pressure on premiums, as the health insurance carrier is paying a larger share of the treatment costs, and patients typically receive more services.

Covered members may seek PT services that are cost-effective and improve their health overall, but relatively healthy populations will also receive services that would not have been obtained. The increased use of medical care services by healthier populations might offset the cost-effective use of services by populations with more complex healthcare needs, increasing the total cost of care for the insured population.

3.1 Impact of This Coverage on the Total Cost of Health Care and Insurance Premiums

3.1.1 Results

The mandate is estimated to increase costs to health insurance carriers by \$0.17 to \$0.22 PMPM due to the lower member cost sharing and increased utilization, using 2019 as a base year. If the proposed mandate becomes effective in 2024, the total added cost would be \$0.17 to \$0.28 PMPM inclusive of medical trends and employer benefit changes. Numerous studies have shown how PT can replace more expensive and complex treatment; however, performing a medical chart review and fully quantifying the impact of the shift of services is outside the scope of this analysis.

3.1.2 Methodology

All carriers indicated they currently provide coverage for PT. The marginal cost of the bill is due to eliminating differences in the level of member cost sharing between PT and primary care services. The majority of the marginal cost stems from decreases in the copay levels that increase the insurer liability, as well as a smaller marginal cost due to increased utilization of services.

The 2020 MCDB claims data for PT services were lower than in 2019, most likely due to the deferral or elimination of care during the COVID-19 public health emergency (PHE). BerryDunn used 2019 claims data, including from self-insured employers, to analyze member cost sharing, including deductibles, copays, and coinsurance. A review of the fully insured and self-insured benefit designs showed differences in the use of copays that will likely make the mandate less expensive for the fully insured population. BerryDunn used fully insured claims data to calculate the cost impact of the mandate.

The MCDB has a deductible field and a combined copay and coinsurance field. Given the combined field, there is no way to determine the value and level of copayments separately from coinsurance. BerryDunn attempted to estimate copay amounts using logic that identified the data value as a copay if the amount was in \$5 increments. If the value was a 5% increment of the allowed amount, but not a \$5 increment, it was identified as coinsurance. The remaining values were unknown and could be either copay or coinsurance amounts. Table 1 shows how the cost-sharing amounts were attributed. The “Cost Share Amount” represents the total amounts due from the member to the PT provider.

Table 1: Attributed Cost Sharing Type for Copay/Coinsurance Field

Type of Cost Share	Cost Share Amount
Copay	\$3,393,851
Coinsurance	\$391,489
Unknown	\$746,893
Total	\$4,532,233

Most carriers indicated that if PT is subject to deductible and coinsurance, then both PT and primary care would be subject to the same deductible and coinsurance amounts. Carriers indicated that most health benefit plans apply copays to PT services, and the PT copay is often twice the primary care provider copay amount. Given the challenges of determining the copay levels for primary care and PT services in the MCDB, BerryDunn assumed that in all cases, the PT copay would be twice the level of the primary care copay and, as such, calculated the incremental cost by reducing the PT copay amounts by 50%, yielding a cost share reduction or amount that would no longer be paid by the members to the PT providers, but rather by the insurer. The marginal PMPM rate reflects the additional cost paid by the insurer that could result in premium increases. Given the uncertainty surrounding the level of the copay amounts due to the combined copay/coinsurance field, BerryDunn calculated the lower-bound estimated marginal cost using solely the attributed copay amounts, but used the unknown and coinsurance amounts in calculating the mid- and upper-bound scenarios, as seen in Table 2.

Table 2: Estimated Cost Shares and Marginal Cost of the Mandate

	Cost Share	% Reduction	Reduction to Cost Share	Marginal PMPM	Cumulative Marginal PMPM	Scenario
Copay	\$3,393,851	50%	\$1,696,926	\$0.15	\$0.15	Low
Unknown	\$746,893	50%	\$373,447	\$0.03	\$0.18	Mid
Coinsurance	\$391,489	50%	\$195,745	\$0.02	\$0.20	High

Avoiding services because of cost sharing is common in high-deductible plans.¹ However, the level and frequency of copays will also impact the use of services. When all other things are equal, a higher copay will result in fewer services being used. To estimate the anticipated increase in utilization due to the lower copay levels, BerryDunn used a claims-pricing model to compare utilization rates under different cost-sharing scenarios. For the most common copay level, a 1.7% increase in demand for services was calculated as a result of lowering the PT cost-sharing to the primary care cost-sharing amount. BerryDunn then multiplied the estimated increased utilization factor by the allowed amounts from the MCDB for PT services subject to copays to determine the incremental allowed claims amount due to increased utilization. The marginal impact due to increased utilization is shown in Table 3.

Table 3: Estimated Increased Utilization

Total Allowed Claims for PT Services Subject to Co-Pay	Utilization Increase	Marginal Allowed Claims
\$14,338,715	1.7%	\$243,758

Using the reduced PT cost-share amount calculated previously, BerryDunn estimated an 85.6% allowed-to-paid ratio¹ for PT co-pay services. BerryDunn multiplied the additional allowed amount by the allowed-to-paid ratio and divided by the corresponding membership to calculate the marginal cost due to increased utilization. Results are shown in Table 4.

Table 4: Estimated Marginal PMPM Cost of Additional Utilization

Marginal Allowed Claims	Paid to Allowed Ratio	Marginal Paid Claims	Marginal Paid Claims PMPM
\$243,758	85.6%	\$208,562	\$0.02

It is uncertain how member cost-sharing will change over time. Copayments are fixed dollar amounts, and unless the carrier or employer makes changes, the cost-sharing dollar amounts for co-pays remain the same in the absence of utilization increases, meaning the paid claims cost trend will outpace the allowed claims cost trend as the member cost-share remains fixed. To address this issue, employers can (and do) increase copayment amounts in their offered benefits over time to keep pace with premium increases. BerryDunn modeled a few scenarios

¹ The ratio of insurer paid claims to the total allowable claims (insurer claims payment plus member cost share)

regarding employer behavior. For the increased cost share, in the high scenario, BerryDunn assumed that employers would increase copayments at the same pace that claims cost increases, but the mandate would restrict their ability to do so for PT services. Therefore, the long-term national average projection for cost increases for other professional services (5.7%) was used to project PMPM cost for co-pays.² In the low scenario, BerryDunn assumed that cost-sharing would not increase over time, and in the mid scenario, BerryDunn assumed that cost-sharing would increase by 2.9% per year on average. The long-term national average trend for other professional services was assumed for the marginal claim amounts due to increased utilization. This analysis assumes the mandate would be effective for policies issued and renewed on or after January 1, 2024. BerryDunn multiplied the 2019 PMPM amounts by the annual cost trends compounded over time to estimate the PMPM cost of copayment amounts and claims amounts due to increased utilization for the 2024 assumed effective date. Table 5 shows these results.

Table 5: Total Estimated Marginal PMPM Cost of Mandate

	2019	Cost Trend	Utilization Increase	2024
Low Scenario	\$0.15	0.0%	\$0.02	\$0.17
Mid Scenario	\$0.18	2.9%	\$0.02	\$0.23
High Scenario	\$0.20	5.7%	\$0.02	\$0.28

Carriers may attempt to offset the cost increase associated with the proposed mandate by lowering contractual payment rates to providers, reducing the number of covered services, increasing utilization review procedures, adjusting provider networks, or otherwise reducing the PT therapy benefit currently provided. These actions could mitigate premium increases. Responses to the carrier surveys ranged from a preference to not make any of these changes to consideration of all of them.

3.1.3 Data Sources

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

- Information from the MHCC about the intended effect of the proposed mandate for health insurers in the fully insured market
- Survey responses from commercial health insurance carriers in Maryland
- Claims data from the Maryland MCDB
- Published scholarly literature and reports, cited as appropriate

3.1.4 Limitations

BerryDunn used historical MCDB commercial insurance claims data to calculate cost estimates associated with the proposed mandate. Claims data reflect the payments made to PT providers

for covered services and can provide an insightful picture of payments made by health insurance carriers and patients to healthcare providers. However, they are subject to claims processing issues and data consolidation problems and are a retrospective view. BerryDunn tested the data to help ensure the integrity of the analysis, but limits that cannot always be identified will exist with any administrative data.

Member deductibles are tracked separately in the MCDB, but coinsurance and copayment amounts are combined in a single data field with no clear indicator of what was provided. As a result of this uncertainty, BerryDunn developed logic to identify the values as copay or coinsurance and estimated a range of overall cost results.

The PHE has had a significant impact on claims levels, reducing the amount of PT services seen in calendar year (CY) 2020. CY 2019 claims were used in the analysis to address the issue; however, it is unclear whether these services have fully rebounded to historic levels yet or will in CY 2024.

3.1.5 PT as a Substitute for a More Expensive Service

Various studies have shown PT to be a favorable, cost-effective treatment option.

In a 2014 study examining the association between preoperative PT and post-acute care utilization and cost in total joint replacement among 4,733 index hip- or knee-replacement cases, patients who had preoperative PT had a 29% decreased utilization in post-acute care services and an \$871 reduction of episode payment.³

A 2016 utilization analysis of 2012 office-based physical rehabilitation services among 1.8 million individuals in New York State with commercial insurance found that physical therapists provided the majority of services (54.5%), followed by chiropractors (27.5%) and physicians (18.0%).⁴ The study used claims data to determine that the average annual cost of physical rehabilitation was \$820, and the median cost was \$323 for the 6% of the study population that utilized physical rehabilitation services.⁵

The most frequently billed common procedural terminology® (CPT®) codes were:

- 97110 for therapeutic exercises
- 97140 for manual therapy
- 97112 for neuromuscular re-education
- 97014 for electrical stimulation under supervision
- 97035 for ultrasound therapy

The average payment for these services was \$43.57 for therapeutic exercises, \$32.98 for manual therapy, \$32.31 for neuromuscular re-education, \$19.47 for electrical stimulation, and \$17.86 for ultrasound therapy. For these top-five commonly used services, chiropractors had the highest payment rates, physical therapists had the lowest, and physicians were in between these two. CPT® code 97110 for therapeutic exercises comprised 41.0% of services physical therapists rendered and a smaller percentage for physicians (33.6%) and chiropractors (24.2%).⁶

A 2020 study found that direct access to PT is more cost-effective than physician referral access for treatment of musculoskeletal disorders in the United States.⁷ The study used a database search of studies conducted through 2019, ultimately analyzing five retrospective studies. The cost savings of direct access to PT in lieu of physician referral access averaged \$242.63 per patient, with the cost savings ranging from \$116.04 to \$369.22. The total healthcare cost was evaluated in two studies, and the direct-access cost savings were \$1,828.03 (range of \$673.48 – \$3,078.79) per patient. Direct access was also shown to reduce the number of PT visits by 1.01 across studies, equating to an estimated 13.2% reduction.⁸

A 2016 systematic review of 19 studies examined the cost-effectiveness of PT versus usual care, as well as the cost-effectiveness of PT in conjunction with usual care compared to solely usual care.⁹ The review found that while the cost-effectiveness of solely PT, or PT added to usual care, was cost-effective in half of the studies included, the definition of “cost-effectiveness” differed across studies—as the criteria for “high-cost” treatment lacked a clear threshold—and might have influenced the individual study’s conclusions on whether PT was deemed a cost-effective intervention.

3.1.6 Population Costs at Various PT Cost-Sharing Levels

BerryDunn identified and analyzed member costs depending on the level of PT copay amounts to provide insight into whether there were patterns associated with overall medical care costs. Overall medical costs are heavily influenced by the underlying health status of the insured population. BerryDunn performed this analysis to provide insight about whether members with lower PT cost-sharing amounts would be less likely to postpone receipt of PT services and therefore avoid poor health outcomes and higher medical care costs.

The 2019 data are considered more reliable for most components of the overall mandate review, but the 2019 and 2020 data show similar patterns when the PT copay and total cost of care are considered. The results are mixed for both years as copayment amounts increase. In 2019, the overall medical costs were highest among the population with the highest copayments, but this population also had the highest total spend for just PT services in both 2019 and 2020. In both years, the populations with the lowest PT copayments had higher PT spending but were also more expensive than the populations with copayments in the following two higher categories.

Table 6: Calendar Year 2019

PT Co-Pay Amount	Distribution	Average Total Cost of Care	Average Total PT Costs
\$0	53%	\$57,827	\$692
\$0.01 – \$5	3%	\$74,212	\$1,249
\$5.01 – \$10	5%	\$52,728	\$935
\$10.01 – \$30	29%	\$36,375	\$801
\$30.01 – \$50	6%	\$39,174	\$823
> \$50	4%	\$42,749	\$1,758
Total	100%		

Table 7: Calendar Year 2020

PT Co-Pay Amount	Distribution	Average Total Cost of Care	Average Total PT Costs
\$0	53%	\$72,899	\$736
\$0.01 – \$5	3%	\$103,915	\$1,376
\$5.01 – \$10	5%	\$56,744	\$939
\$10.01 – \$30	30%	\$36,189	\$868
\$30.01 – \$50	6%	\$42,247	\$818
> \$50	3%	\$53,857	\$2,003
Total	100%		

Many factors go into choices of benefit design and cost-sharing levels, and this analysis does not account for most of them. In many cases, members with substantial health care needs will choose health insurance benefit designs with lower cost-sharing because of the expected likelihood and frequency of necessary medical care treatment. A full review of the medical care provided or deferred among populations receiving PT services, as well as outcomes for an extended period, would provide substantially more insight into the likelihood of poor health outcomes associated with the postponement of PT healthcare services.

3.1.7 Coverage and Appropriate Use of the Covered Service

The mandate reduces the cost to the patient as a barrier to PT services, and BerryDunn expects the appropriate use of PT services will increase with lower cost-sharing. As further covered in the medical and social evaluation below, PT services can play a significant role in patient care and may serve as an effective alternative to opioids or treatment with more complex health care services.

3.1.8 Extent the Proposed Coverage Will Increase or Decrease Cost of the Service

Claims for most PT services are submitted to health insurance carriers using standardized CPT® codes that specifically describe the services. Health insurance carriers set allowed reimbursement rates that will be paid for the service, and the rates are specific to each code. In cases where CPT® codes are not used, carrier contracts determine total payment amounts according to the terms of the arrangement. Examples of other payment systems may include a discount from charges, case payments, or per diems. The total payments made to the health care provider according to the fee schedule do not change with the cost-sharing amount due from the patient to the health care provider. A legislative requirement that results in a reduction in patient liability will not directly change the cost of the service.

Health care provider professional fee schedules are not regulated, and carriers may choose to reduce or increase the fee schedule depending on an array of factors and market conditions. PT provider contracts with health insurance carriers allow the carrier to adjust rates periodically, and most PT providers cannot negotiate payment rates at their preferred levels. The legislation will not directly result in a change to the cost of the service, but a new legislative mandate may be considered when carriers update their professional fee schedules.

3.1.9 Extent the Mandate Will Change Administrative Expenses for the Carriers

PT is generally a covered service, and the mandate does not require changes to the scope of services under an insurance benefit design. Carriers have already developed PT provider networks and fee schedules and set up claims processing systems to pay for PT claims. The mandate would require cost-sharing to change in many cases, but cost-sharing is routinely adjusted as benefit designs evolve, and the administrative costs associated with implementing the mandate would be immaterial if the carriers are given adequate time before the mandate requirements go into effect. Carriers update benefit designs, form filings, and premium rates as plan years change. Administrative costs are kept to a minimum when modifications can be made without disrupting the normal benefit revision cycle.

3.1.10 Impact on Carrier Retention

Health insurance carriers include retention costs, in addition to claims costs, in their premium. Retention includes a carrier's administrative costs, broker commissions, taxes and assessments, and profit and risk charges. Administrative expenses and broker commissions are typically fixed PMPM amounts and would not change significantly with small benefit modifications. Taxes, profit, and risk charges are often percent-of-premium based, so the estimated marginal claims PMPM would be inflated by these percentages.

3.1.11 Impact on Employers' and Individuals' Ability to Purchase Health Insurance

Higher premiums will undermine an employer's or individual's ability to purchase health insurance, and this is a mandate that would otherwise put upward pressure on health insurance premiums if no other changes were made to the benefit design or plan administration.

The Affordable Care Act (ACA)-compliant plans in the small-group and individual markets consider cost-sharing using an actuarial value (AV) associated with the provision of the essential health benefits (EHBs). The AV is represented as metal levels from platinum to bronze and indicates the overall level of cost-sharing associated with the product. Bronze plans pay an average of 60% of the costs, and platinum plans 90%. Suppose a PT cost-sharing mandate requirement becomes a Maryland law. In that case, carriers might need to adjust other components of the benefit design in response to the lower PT levels to stay within the de minimus range of the AV, a plus or minus percentage around the AV associated with the metal level. These ranges allow some flexibility in the richness of the benefit design for products of the same metal level but might require benefit design offsets for the product to comply with State and federal laws.

Premiums and benefit structures are designed to provide a compromise between cost and value. Within regulatory standards, carriers will consider market conditions and competitive forces as they make changes in response to a new mandate. Regulatory standards can provide valuable member protections, and a mandate that potentially increases the cost of covering a population might result in other benefit design compromises to offset the cost of the mandate.

4.0 Medical and Social Evaluation

4.1 General

In the United States, the start of PT practice is commonly associated with the poliomyelitis epidemic, and its development and evolution are frequently associated with veterans returning from wars (World War I through the Korean War).¹⁰ Amendments to the Social Security Act (SSA) in 1967 included a definition of "outpatient PT services," and the expansion of PT usage ensued.¹¹ The passage of the Americans with Disabilities Act (1990) and an amendment to the Public Health Service Act (1990), which established the National Center for Medical Rehabilitation Research (NCMRR) within the National Institute of Child Health and Human Development (NICHD), supported PT as a key component of providing quality health care to individuals in the United States.¹²

Physical therapists provide medical care to individuals of all ages through diagnosis and treatment. Physical therapists address injuries, disabilities, and/or other health conditions that require treatment, as well as provide prevention treatment. Physical therapists can assist with mobility, pain reduction, function restoration, and disability prevention.¹³

In Maryland, physical therapists can evaluate and treat patients without the restrictions of a physician referral.¹⁴ Direct access to PT is the practice by which patients can directly obtain PT

services without a referral or a prescription from a physician or a physician's assistant.¹⁵ As of 2021, 50 states in the United States have a form of direct access, including Maryland; 6 states impose limited direct access; 26 states have direct access with stipulations; and 18 states allow patients unrestricted direct access.^{16,17} Maryland is one of 20 states that has unrestricted patient access, with no restrictions or limitations for treatment without a referral.¹⁸

4.1.1 Recognition by the Medical Community, Quality, and Safety

With some variation in referral levels based on provider specialty or insurance coverage, research has shown that PT is recognized as being effective and efficacious in the treatment of patients. One study found that patients with Medicaid or managed care plan coverage were less likely to be referred for PT after a primary care visit compared to patients with private or non-managed care plans.¹⁹ When controlling for the same visit characteristics, including patient plan coverage, orthopedic surgeon visits resulted in more PT referrals than primary care visits.²⁰ A 1984 survey of resident physician knowledge of PT found that the majority of respondents (98%) refer their patients to PT and feel “adequately informed” (54%) to make these referrals.²¹

A 2020 study comparing advanced practice PT to primary care focused on safety events and utilization rates in the Malcolm Grow Medical Center (Maryland) and found that the two have similar safety profiles. Patient safety reports are identified as near miss, actual events, sentinel events, and intentionally unsafe acts. Near misses are the least concerning potential unsafe events and do not reach the patient. Of the safety events reported in the PT clinic, 75% were classified as near misses compared to 50% within the primary care clinic, and safety events were more likely to reach patients in the primary care clinic compared to the PT clinic. Prescriptions, laboratory tests, and imaging referrals were all more likely to be ordered in the primary care clinic compared to the PT clinic.²² The diagnostic imaging study ratio discrepancy of 1:37 (one diagnostic imaging study for every 37 patients) for the PT clinic compared favorably to the 1:5 (one diagnostic imaging study for every 5 patients) for the primary care clinic.²³

A 2017 study examining PT referral rates and opioid prescription rates in patients with low back pain in the United States from 1997 – 2010 estimated that the PT rate was stable during this time frame, with 170 million visits to address low back pain resulting in 17.1 million PT referrals (10.1% referral rate).²⁴ Visits not associated with PT were more likely to be associated with an opioid prescription.²⁵ A study conducted in 2012 among patients presenting in primary care offices with low back pain found that PT utilization within 14 days of the primary care visit was associated with a decreased risk of advanced imaging, additional physician visits, injections, and opioid medications compared to delayed PT utilization.²⁶ Patients who received early PT treatment also had lower total medical costs for low back pain (by \$2,736.23) than patients who received delayed PT.²⁷

The implementation of a value-based insurance design for PT for the treatment of low back pain was evaluated in a 2017 study.²⁸ The researchers concluded that PT is a high-value treatment option for back pain but is underutilized in part due to co-pays imposed per visit. To confront this issue, Geisinger Health Plan (GHP) started offering a “PT bundle” of up to five PT visits for a singular one-time copay that could be renewed if needed. The study compared patients who were preauthorized for the PT bundle to those with a standard copay per visit and found those

in the PT bundle cohort had reductions in emergency department visits (29% – 35%) and reductions in primary care visits after six months.²⁹

PT could be considered an alternative to prescription pain medications when treating chronic pain.³⁰ A 2018 study estimated that 116 million Americans suffer from chronic pain, with healthcare expenditures of approximately \$2,000 per person per year (or over \$600 billion annually). A Gallup poll revealed that 78% of the 6,200 Americans surveyed would prefer drug-free pain management, and almost one-third viewed prescription opioids as either “not very safe” or “not safe at all.” As a means of decreasing the opioid epidemic and providing a safe and effective treatment modality, the Centers for Disease Control and Prevention is recommending nonpharmaceutical approaches, including PT, over opioid medications for the treatment of chronic pain.³¹

A 2021 literature review of studies evaluating PT interventions and opioid-use outcomes found benefits with PT. Multiple studies observed that early PT was associated with reduced opioid use.³² PT utilization was also associated with lower odds (0.2 – 0.8) of opioid medication used for people with low back pain and injured workers.³³

In support of access to PT services, Maryland Governor Larry Hogan issued an executive order during the COVID-19 PHE to expand telehealth access.³⁴ Telehealth for PT is covered by Medicaid in Maryland, and the Centers for Medicare & Medicaid Services (CMS) allows private practices, skilled nursing facilities (SNFs), hospitals, home health care agencies, and rehabilitation agencies to bill for telehealth. There are no telehealth-specific CPT® codes for PT, and payer-specific billing requirements may exist. The Maryland Board of Physical Therapy Examiners acknowledged its permission for telehealth usage in 2019.³⁵

4.1.2 Demand for PT and Workforce

The National Institutes of Health (NIH) invested \$847 million in rehabilitation research in 2020, a 65% increase in funding from fiscal year 2015 (\$514 million).³⁶ According to the NIH's 2021 Research Plan on Rehabilitation, approximately one in four adults (26%) have at least one disability, and 34 million Americans lack the skills necessary for independent living. New research will examine the potential for additional applications for PT, including whether PT coupled with transcutaneous electrical nerve stimulation could be effective at pain management and preclude opioid usage.³⁷

Due to the aging population of U.S. adults, increases in PT utilization and the need for PT services are expected.³⁸ Aging populations typically have a higher prevalence of conditions, including arthritis and stroke, that can benefit from PT interventions.³⁹

COVID-19 and the long-term adverse health outcomes are also contributing to an increased demand for PT.⁴⁰ Physical therapists work with COVID-19 patients who were intubated or immobilized for long periods of time, and with 6% of hospitalized COVID-19 patients admitted to intensive care units, the pandemic might result in many more patients utilizing PT services. The pandemic also created new opportunities and demand for PT through telemedicine. Some physical therapists are using telehealth with companies offering telehealth services exclusively,

and other physical therapists are offering telehealth services in conjunction with patients who require in-person care.⁴¹

A 2017 study examined trends in global rehabilitation needs using data on Years Lived With Disability (YLD) from the 2017 Global Burden of Disease Study (GBD) and found that the YLD rate per 100,000 people and the percentage of YLD that would expectantly benefit from PT grew significantly over time ($p < 0.05$).⁴² A similar study examined PT needs by condition and found that musculoskeletal and pain conditions comprised 52.6% of the total PT needs worldwide, with HIV-related complications comprising 5.7% of the needs in low-income countries.⁴³

Also driving demand for PT services is the high satisfaction rates of patients receiving care. A 2011 review of patient satisfaction with PT for musculoskeletal conditions found that across seven studies conducted in outpatient settings in the United States, Canada, Ireland, England, Scotland, Norway, and Sweden, patients were highly satisfied with the care they received.⁴⁴ The pooled estimate of patient satisfaction across the seven studies was 4.44 (95% confidence interval = 4.41 – 4.46) on a scale of 1 to 5, in which 5 reflects high satisfaction. Patients reported higher satisfaction with care following treatment provided by a physical therapist than with treatment provided by a general medical practitioner, particularly with an explanation about back pain. Eighty-nine percent were satisfied by a physical therapist's explanation, versus 42% for a general medical practitioner's explanation.⁴⁵

According to the Bureau of Labor Statistics data, as of 2019, 265,000 physical therapists were employed, with most employed by outpatient care centers (42.3%), followed by general medical and surgical hospitals and specialty hospitals (27.4%) (excluding psychiatric and substance use facilities).⁴⁶ Home health care services employed almost 10% (9.24%) of physical therapists in the United States, and nursing home facilities employed 5.3%. Columbia (West) and Ellicott City (Northwest), Maryland, employ the largest number of physical therapists.⁴⁷

Several studies have considered whether the PT labor force can meet the demands for services. A 2016 study evaluating how to determine the “right-size” PT workforce across countries, including the United States, found that the United States ranked above world averages in terms of need for PT services across several disease categories.⁴⁸ Cardiovascular and circulatory diseases as causes of disability were higher in the United States than in any other country in the study.⁴⁹ Studies conducted in 2016 and 2010 evaluating PT job supply and demand predicted shortages of physical therapists across the United States.^{50, 51}

A 2010 study found that shortages in PT services are expected to increase for all 50 states through 2030. This study noted that states in the Northeast were anticipated to experience the smallest shortages, while states in the South and West were anticipated to experience the largest shortages.⁵²

However, the American Council of Academic Physical Therapy (ACAPT) in 2021 noted that too much growth in PT graduates could outpace the Bureau of Labor Statistics projections on the profession's growth.⁵³ The American Physical Therapy Association (APTA) agrees with ACAPT, as the APTA found in its 2020 Physical Therapy Workforce Analysis, that there will be an estimated national surplus of physical therapists by 2030.⁵⁴ The APTA's model is based on the

workforce-to-population ratio, using the current ratio of full-time equivalent physical therapists to the U.S. population with health insurance (as reported by the U.S. Census), but the model did not account for the impact of COVID-19.⁵⁵

The 2020 data from the Federation of State Boards of Physical Therapy indicated that the United States has 312,716 licensed physical therapists and 127,750 PT assistants (PTAs), resulting in a rate of 95 physical therapists per 100,000 people and 39 PTAs per 100,000 people.⁵⁶ Maryland has 6,844 licensed physical therapists, accounting for 2.2% of physical therapists in the United States, and 2,303 PTAs. Maryland has a lower rate of physical therapists than the United States has on average, with 76 physical therapists per 100,000 people and 27 PTAs per 100,000 people.⁵⁷ According to the APTA's 2019 member database, Maryland has 1,551 physical therapist members and 193 PTAs.⁵⁸ Using the Bureau of Labor Statistics data, Maryland, as of 2019, had 4,540 employed physical therapists and 1,880 employed PTAs.⁵⁹

Maryland is the seventh most diverse state in the United States, with 48.5% of the population from ethnic and racial minority groups.⁶⁰ The PT workforce is less diverse but still has a significant portion of ethnic and minority representation (32.0%).⁶¹

4.1.3 Health Insurance Benefits

Carriers indicated that PT is covered among fully insured and self-funded employer groups, including self-funded groups with at least 500 employees. One carrier indicated that PT cost-sharing amounts are no greater than for primary care services within the carrier's self-funded populations. Because self-funded employers are not required to offer PT benefits, these findings support the evidence suggesting that the public demand for PT services and health insurance coverage for PT is strong.

Carriers responded to BerryDunn's survey with substantial variation in how benefits are administered. Some responses indicated largely unrestricted benefits for treatment of conditions and visits, and others had several restrictions on coverage, such as 30 visits per condition.

Detailed and specific policies for determining what is medically necessary for PT coverage were also provided. Examples of excluded coverage considered experimental include a gait analysis, electromagnetic therapy, or a kinesiology walking test.

Prior authorization requirements ranged from never applied to a requirement for coverage of all PT services.

Some carriers indicated coverage for habilitative PT treatment was provided, and others noted the coverage was excluded.

Commercial carriers may substitute benefits of similar value under the ACA requirements for Qualified Health Plans, but the EHB Benchmark Plan is often a common product design for comparison in the individual and small-group markets. Maryland's EHB plan is the Blue Choice HMO Health Savings Account (HSA) Open Access product.⁶² Outpatient rehabilitation services, which include PT, speech therapy, and occupational therapy, are covered with a limit of 30 visits per condition per contract year for each therapy type. This benefit is provided with no additional limitations or restrictions. Benefits for habilitative services are included in this plan for members aged 19 and above in parity with benefits for rehabilitative services.⁶³ Benefits for members from birth to age 19 for habilitative services reflect occupational therapy, PT, speech therapy, orthodontics, oral surgery, and otologic and audiological therapy for the treatment of those with congenital and genetic birth defects. As of 2019, Maryland was one of five states that considered acupuncture an EHB.⁶⁴

There was some indication that carriers would increase utilization controls—including prior authorization, the number of visits covered and reviewing the site of care for medical necessity—if the proposed mandate were to pass. In some markets, carrier policies have excluded PT coverage in a hospital setting when the service can be provided in a more cost-effective location.

The legislation only applies to commercial products; however, comparing benefit designs to Medicare can provide insight into broader expectations for coverage. Medicare Part B assists with the payment of medically necessary outpatient PT.⁶⁵ Once patients meet the Part B Deductible, which was \$233 for 2022, they are responsible for payment of 20% of the Medicare-approved amount (the amount that providers can be paid, which may be less than the provider

charges in operation). Medicare does not restrict the amount it pays for medically necessary outpatient PT services per calendar year.⁶⁶

Legislation limiting copayments has passed in eight states: Arkansas, Connecticut, Iowa, Kentucky, Missouri, New Hampshire (repealed), Pennsylvania, and South Dakota.⁶⁷ In some of these states, these limitations extend to other practitioners. For example, in Arkansas and Iowa, the legislation also applies to occupational therapists and speech-language pathologists. Connecticut has an explicit dollar limitation of \$30 per visit for in-network PT services.⁶⁸

4.1.4 Medical Debt and Financial Hardship

Medical debt is a substantial issue for many Americans, and a 2020 Kaiser survey found that 9% of the population that was insured for most of the year had medical debt, and more than half of households cannot afford the deductible in a typical employer-based health insurance product.⁶⁹ The National Health Interview Survey using data through 2020 showed that 9% of people avoided medical care due to the cost.⁷⁰ These findings may be particularly relevant for patients needing PT services due to the frequency of services provided and the more common benefit design that requires the member to pay separate copayments for each visit.

Health insurance product designs continue to increase cost sharing to mitigate premium increases. One of the unique considerations for administering PT benefits is that treatment protocols often call for frequent visits with lower-cost interventions, particularly compared to surgical treatment. Patients paying a separate copayment for each visit will contribute more to the total amount paid to the provider than most other medical care services and provider types. Although member liabilities are based on the lower negotiated fee schedule, not the higher provider charge, this dynamic may result in members assuming greater responsibility for payments to PT providers than other healthcare professionals. If cost-sharing amounts for PT services continue to grow, the frequency of visits that the patient pays the full allowed amount due to the provider will also increase.

A 2014 Kaiser Family Foundation study, in collaboration with ClearPoint Credit Counseling Services (a nonprofit consumer credit counseling agency), examined problems and causes of medical debt among people with health insurance.⁷¹ One individual's plan required very high cost-sharing for covered services, and their annual out-of-pocket (OOP) limit did not apply to outpatient copays. This individual had a \$40 copay for each PT visit, which they had three times per week for an extended period, resulting in an additional \$500 per month for medical bills, and close to \$6,000 for the year. This individual was at 550% of the federal poverty level (FPL) and received insurance from their large employer. Their bills from 2007 – 2010, including their PT cost sharing, reached \$30,000.⁷²

5.0 Blanket Insurance

The proposed mandate applies to blanket health insurance products. These are typically sold to schools, religious organizations, sports teams, and volunteer groups and typically vary in their benefit designs depending on the risk associated with coverage. The findings in this analysis can be applied to blanket health insurance to the extent that the product design mirrors

coverage in the major medical insurance market. The data available on blanket health insurance products are more limited. Because the product designs are typically much less robust than those subject to the minimum standards under the ACA, the associated costs would be lower.

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November 17, 2022

Ben Steffen, Executive Director
Maryland Health Care Commission
4160 Patterson Avenue
Baltimore, MD 21215
VIA Email: Ben.steffen@maryland.gov

RE: Comments regarding Berry Dunn Report: “Health Insurance Cost Sharing – Physical Therapy Parity with Primary Care Services – House Bill 974 and Senate Bill 725”

Dear Mr. Steffen and Commissioners,

Thank you for the opportunity to review the report prepared by Berry Dunn as requested by the House of Delegates and Senate of Maryland. We appreciated the opportunity to meet with your team and the Berry Dunn team to learn more about the aim of the report and to provide studies and resources for the Berry Dunn team to review and consider. Upon reading the report we offer the following comments and reactions for your consideration and response.

Addressing copay costs is an important policy consideration as the health care system in Maryland continues to emphasize treatment of chronic conditions and disease states in the community and outside the hospital setting. When copays paid by patients exceed and/or cover the carrier’s allowed amount, the patient is paying for this medical service essentially out of pocket. This creates an unfavorable balance for the patient and the PT provider.

Cost:

The report states that should legislation be enacted in 2024, it would result in an estimated cost increase of between “\$0.17 to \$0.28 PMPM inclusive of medical trends and employer benefit changes.” This increase to subscribers would result as the carriers work to shift those costs from patient copays to patient premiums. When considering the law would only apply to roughly 18% of the insured in Maryland, high-end projections approach a total increase of \$1.6 million/year. This amount is far below the higher cost projections noted by the carriers during testimony on the bill. In fact, it is lower than the revised fiscal note estimates provided by the Department of Legislative Services, which reduced projected costs from \$47 million to \$7million/year.

Patient Experience:

The Berry Dunn report touches on but did not go into enough detail or provide a description of the typical PT patient experience. This is an important element to the discussion at hand. PT patients may require multiple visits during an acute course of care, pre and post-surgical care, or long term management. Copays for PT visits add up in ways that other medical copay costs do not. A few case examples illustrating this would be helpful for the policy makers who read this report. For instance, a patient with a \$50 copay who sees a physical therapist twice a week for 8 weeks following a total knee surgery would end up paying \$800. Patients with low back pain who see a physical therapist 7 times, on average, would pay \$350 in total. This has been cited as a driver of opioid use as the one-time copay for medication is often \$10-20. High copayment costs for physical therapy services, while intended to discourage the irresponsible overutilization of health resources, in this case may have the unintended consequence of driving the use of opioids as has been discussed in published health services research. This is known to

have an outsized impact on less affluent patients and, as a result, significantly limits their access to care despite having insurance coverage.

Patient demand and satisfaction:

We are pleased to see that Berry Dunn did note throughout the report the high levels of efficacy, safety, and patient satisfaction with regard to PT providers and services. The report specifically emphasized the importance of PT services in treating Covid-19 patients in treating and managing their symptoms and conditions. As Maryland's population trends toward an older and senior population, the need for PT services is expected to increase. Copays and premiums aside, the demand will be there, and as a profession PTs have been growing in numbers across the country to meet this demand. As some in the population age into Medicare coverage, a significant number are likely to continue to rely on commercial insurance as primary or secondary coverage. Patient access to PT care will continue to grow in importance.

Experience in other states:

The report did not go as far as was anticipated with regard to experience in other states. APTA MD has been reaching out to our national affiliate and fellow state components for experience. We have not heard that premiums have increased or that insurance markets have become destabilized as a result of copay limitations. That is invaluable information that can help ease concerns and provide measurable impacts. It would be helpful for the Berry Dunn team to note any outreach regarding other state experiences outside of the APTA information noted in the end notes.

Carrier Input:

It would be helpful as well to see in an appendix the survey questions posed to the carriers, which carriers were approached, and if possible, from whom responses were received. The report notes feedback from carriers proposing a range of policy responses from doing nothing to raising premiums or restructuring benefits through visit limits and additional preauthorization requirements. When the goal of this legislation is to reduce/remove barriers, it is disheartening to see contemplation of new more challenging barriers being imposed. The report states how carriers have worked to keep premiums low in recent years through the use of deductibles and copays. While the lower premiums are attractive and beneficial on the front end, the types of care and services that fall under high deductibles and copays make medical care decision making one of affordability more than one based on medical need and benefit.

APTA MD appreciates Berry Dunn's investigation of this important issue and thanks the MHCC for this opportunity to provide written comments. We stand ready to provide additional information and respond to any questions from the Commission.

Respectfully submitted,



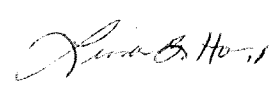
JD Sheppard II, PT, DPT
President
APTA Maryland
jdsheppardii@gmail.com



Roy Film, PT, MPT, DPT
Vice President
APTA Maryland
RFilm@som.umaryland.edu



Lauri Jacobson, MSW
Executive Director
APTA Maryland
aptamd@aptamd.org



Linda Horn, PT, DScPT, MHS
Chief Delegate
APTA Maryland
lhorn@som.umaryland.edu

CC. Barbara Brocato & Dan Shattuck APTA MD Lobbyists – barbara@bmbassoc.com

21 September 2022

Janet Ennis, Chief, Special Projects
Maryland Health Care Commission
janet.ennis@maryland.gov

Tyler Brannen, Project Manager
Berry Dunn
tyler.brannen@berrydunn.com;

VIA EMAIL

Dear Janet and Tyler,

Thanks to all of you at Berry Dunn and the Maryland Health Care Commission for taking the time during your study planning to take our concerns under consideration.

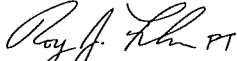
To facilitate your work, we've compiled a list of relevant studies that we feel help to explain how physical therapy provides cost savings in addition to its well-known clinical value. We've also included some information related to the risks related to preferentially subsidizing opioid pain management. We've included pertinent excerpts so you can decide which studies may be useful to you.

We appreciate the time and effort you're all putting into this important study. If you would like us to send citations of studies related to any additional topics, please feel free to contact us any time.

Sincerely,



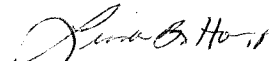
JD Sheppard II, PT, DPT
President
APTA Maryland
jdsheppardii@gmail.com



Roy Film, PT, MPT, DPT
Vice President
APTA Maryland
RFilm@som.umaryland.edu



Lauri Jacobson, MSW
Executive Director
APTA Maryland
aptamd@aptamd.org



Linda Horn, PT, DScPT, MHS
Chief Delegate
APTA Maryland
lhorn@som.umaryland.edu

CC. Barbara Brocato, APTA Maryland Lobbyist, barbara@bmbassoc.com
Dan Shattuck, APTA Maryland Lobbyist, c/o barbara@bmbassoc.com
Ben Steffen, Executive Director, MHCC, ben.steffen@maryland.gov

APTA Maryland

24218 Viento Leaf, San Antonio, TX 78260 / 800.306.5596 / aptamd@aptamd.org

Primary context - Clinical and cost benefits of physical therapy

According to the CDC, opioids are not first-line or routine therapy for chronic pain. Despite perceptions that opioids are less expensive than more time-intensive nonpharmacologic management approaches, many pain treatments, including physical therapy and cognitive behavioral therapy are associated with lower median annual costs compared with opioid therapy.

Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain—United States, 2016. MMWR Recomm Rep. 2016;65(1):1-49. doi:10.15585/mmwr.rr6501e1.

Between 1997 and 2010, the average proportion of PCP visits associated with PT referrals remained stable at about 10.1%, in sharp contrast to the increasing opioid prescription in the same population from 15% to 45%. Lower PT referral rates were observed among visits by patients who were insured by Medicaid (OR 0.48, 95% CI 0.33–0.69) and Medicare (OR 0.50, 95% CI 0.35–0.72). Patients who are not referred to PT are more likely to receive opioid prescriptions. (OR 1.69, 95% CI 1.22–2.35). Although therapies delivered by PTs are promoted as a first-line treatment for LBP, PT referral rates continue to be steadily low. There also exist disparately lower referral rates in populations with more restrictive health plans and simultaneous opioid prescription.

Zheng P, Kao MC, Karayannis NV, et al. Stagnant physical therapy referral rates alongside rising opioid prescription rates in patients with low back pain in the United States 1997-2010. Spine (Phila Pa 1976). 2017;42(9):670-674. doi:10.1097/BRS.0000000000001875.

Evidence-based guidelines for treatment of low back pain recommend early conservative therapy with referral to other providers for patients who do not improve within a few weeks. Yet many patients turn to other nonconservative, first-line treatments that may involve greater cost and/or advanced testing and medications such as opioids. Patients are moderately responsive to network restrictions and cost sharing suggesting that innovative modifications to insurance benefits offer an opportunity for greater value and increased alignment with clinical practice guidelines. To date, incentive-based insurance benefit design has been applied mainly to prescription drug pricing through mechanisms such as tiered formularies and requirement of zero cost sharing for preventive services covered by insurance sold on the exchanges. Moving forward, benefit managers and regulators should advance such principles more broadly by developing new designs and policies aimed at encouraging behaviors that will result in the largest long-term economic and social benefits.

Carey K, Ameli O, Garrity B, et al. Health insurance design and conservative therapy for low back pain. Am J Manag Care. 2019;25(6):e182-e187. Published 2019 Jun 1. PMID: 31211551

Data from UnitedHealthcare/Optum suggest that, when a patient initiates pain management care with a physical therapist, chiropractor, or acupuncturist, they are 75% to 90% less likely to ever receive an opioid prescription relative to seeing providers who have medication-prescribing privileges. United Healthcare has since initiated successful policies to waive the copayment for the first 3-6 PT visits in such cases in several states.

The National Academies of Sciences, Engineering, and Medicine. In: Bain L, Norris SMP, Stroud C, eds. The Role of Nonpharmacological Approaches to Pain Management: Proceedings of a Workshop. Washington, DC: The National Academies Press; 2019. doi:10.17226/25406.

Data from a retrospective cohort study of 216,504 patients with new-onset low back pain from a large, private insurer suggest that, when a patient's first point of contact for pain treatment is a physical therapist or chiropractor, the odds of early and long-term exposure to opiates are markedly reduced by 85% to 91% in the first

30 days and 73% to 78% reduced in the long term, relative to providers who have medication-prescribing privileges. Early care with a physical therapist or chiropractor is associated with substantially decreased early and long-term use of opioids. Incentivizing use of conservative therapists may be a strategy to reduce risks of early and long-term opioid use.

Kazis LE, Ameli O, Rothendler J, et al. Observational retrospective study of the association of initial healthcare provider for new-onset low back pain with early and long-term opioid use. *BMJ Open* 2019;9:e028633. doi: 10.1136/bmjopen-2018-028633

Early nonpharmacologic pain management has been found to be safe and cost-effective, while decreasing opioid exposure.

Fritz JM, Childs JD, Wainner RS, et al. Primary care referral of patients with low back pain to physical therapy. *Spine (Phila Pa 1976)*. 2012;37(25):2114-2121. doi:10.1097/BRS.0b013e31825d32f5.

For those patients requiring guidance with exercise, pain management should include guided physical rehabilitation early, if not first. When patients are managed using this strategy, it requires fewer opioids and high-cost services.

Frogner BK, Harwood K, Andrilla CHA, et al. Physical therapy as the first point of care to treat low back pain: an instrumental variables approach to estimate impact on opioid prescription, health care utilization, and costs. *Health Serv Res*. 2018;53(6):4629-4646. doi:10.1111/1475-6773.12984.

Although exercise is a well-supported intervention for the management of frailty, frail older adults are not getting the volume or intensity of rehabilitation treatment needed to maximally improve outcomes—in part due to limited payer coverage of rehabilitation services in the United States.

Falvey JR, Ye JZ, Parker EA, Beamer BA, Addison O. Rehabilitation Outcomes among Frail Older Adults in the United States. *International Journal of Environmental Research and Public Health*. 2022; 19(17):11021. <https://doi.org/10.3390/ijerph191711021>

Direct access to physical therapy is more cost-effective, resulting in fewer visits than physician-first access in the United States, with greater functional improvement. Direct access to physical therapy showed reduced physical therapy costs ($d = -0.23$; 95% CI = -0.35 to -0.11), total health care costs ($d = -0.19$; 95% CI = -0.32 to -0.07), and number of physical therapy visits ($d = -0.17$; 95% CI = -0.29 to -0.05) compared to physician-first systems. Disability decreased in both direct access ($d = -1.78$; 95% CI = -2.28 to -1.29) and physician-first ($d = -0.89$; 95% CI = -0.92 to -0.85) groups; functional outcome improved significantly more with direct access (z score = 0.89 ; 95% CI = 0.40 to 1.39).

Hon S, Ritter R, Allen DD. Cost-Effectiveness and Outcomes of Direct Access to Physical Therapy for Musculoskeletal Disorders Compared to Physician-First Access in the United States: Systematic Review and Meta-Analysis. *Phys Ther*. 2021;101(1):pzaa201. doi:10.1093/ptj/pzaa201

Physical therapy only or added to usual care implies improved health in almost all studies. The cost-effectiveness of such interventions was demonstrated in half of the studies. This result might have been influenced by the fact that different definitions of the notion of "cost-effectiveness" exist.

Bürge E, Monnin D, Berchtold A, Allet L. Cost-Effectiveness of Physical Therapy Only and of Usual Care for Various Health Conditions: Systematic Review. *Phys Ther*. 2016;96(6):774-786. doi:10.2522/ptj.20140333

A course of physical therapy was cost-effective compared with a course of glucocorticoid injections for patients with knee osteoarthritis. These results suggest that, although the initial cost of delivering physical therapy may be higher than an initial course of glucocorticoid injections, 1-year total knee-related costs are equivalent, and greater improvement in QALYs may justify the initial higher costs.

Rhon DI, Kim M, Asche CV, Allison SC, Allen CS, Deyle GD. Cost-effectiveness of Physical Therapy vs Intra-articular Glucocorticoid Injection for Knee Osteoarthritis: A Secondary Analysis From a Randomized Clinical Trial. JAMA Netw Open. 2022;5(1):e2142709. Published 2022 Jan 4. doi:10.1001/jamanetworkopen.2021.42709

Economic evaluation was conducted alongside a randomized clinical trial of patients with acute, nonspecific LBP consulting a primary care provider. Results support early physical therapy as cost-effective relative to usual primary care after 1 year for patients with acute, nonspecific LBP.

Fritz JM, Kim M, Magel JS, Asche CV. Cost-Effectiveness of Primary Care Management With or Without Early Physical Therapy for Acute Low Back Pain: Economic Evaluation of a Randomized Clinical Trial. Spine (Phila Pa 1976). 2017;42(5):285-290. doi:10.1097/BRS.0000000000001729

Inpatient rehabilitation services are usually covered by a combination of Medicare and Medicaid by patient diagnosis, while outpatient rehabilitation usually involves a co-pay for treatment and services rendered. These differences in payment mechanism and added costs may be contributing to the differences in use of rehabilitation by income level and for those with Medicare supplemental insurance.

Keeney T, Jette AM, Freedman VA, Cabral H. Racial Differences in Patterns of Use of Rehabilitation Services for Adults Aged 65 and Older. J Am Geriatr Soc. 2017;65(12):2707-2712. doi:10.1111/jgs.15136

Secondary context - Potential harms of opioid pain management

Over time, pharmaceutical opioids are known to progressively cause hyperalgesia, increasing the likelihood of dependence.

Chu L, Clark D, Angst M. Opioid tolerance and hyperalgesia in chronic pain patients after one month of oral morphine therapy: a preliminary prospective study. J Pain. 2006;7(1):43-48. doi:10.1016/j.jpain.2005.08.001.

Preoperative use of narcotics, whether illicit or prescribed are risk factors for the development of chronic post-surgical pain.

Horgas AL, Yoon SL, Grall M. Pain management. In: Evidence-Based Geriatric Nursing Protocols for Best Practice. 4th ed. New York, NY: Springer; 2012:246-267.

Pre-operative prescription opioid use increases the likelihood of chronic post-surgical pain with a relative risk twice that of not using opioids preoperatively (95% CI, 1.2-3.3).

Van Den Kerkhof EG, Hopman WM, Goldstein DH, et al. Impact of perioperative pain intensity, pain qualities, and opioid use on chronic pain after surgery. Reg Anesth Pain Med. 2012;37(1):19- 27. doi:10.1097/AAP.0b013e318237516e.

Chronic post-surgical pain usually begins as pain in the acute post-operative phase that responds poorly to analgesia. Shortly afterward, it transitions into a neuropathic pain condition that responds poorly to opioids.

Glare P, Aubrey KR, Myles PS. Transition from acute to chronic pain after surgery. Lancet. 2019;393(10180):1537-1546. doi:10.1016/S0140-6736(19)30352-6.

Medication-related risk factors for Opioid Use Disorder and overdose include long duration of opioid use and the use of extended-release opioid medication.

Webster LR. Risk factors for opioid-use disorder and overdose. Anesth Analg. 2017;125(5):1741-1748. doi:10.1213/ANE.0000000000002496.

In the US, prescribing of opioids for patients with chronic pain is associated with misuse in 1 in 4, heroin use in 1 in 20, and a high rate of polysubstance use, all of which increase the risk of opioid overdose death.

Geneen LJ, Moore RA, Clarke C, et al. Physical activity and exercise for chronic pain in adults: an overview of Cochrane reviews. Cochrane Database Syst Rev. 2017;4(4):CD01127. doi:10.1002/14651858.CD011279.pub3.