APTA
American Physical Therapy Association

State of Direct Access to Physical Therapist Services

A Report From the American Physical Therapy Association

July 2025

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Introduction

Acknowledgments

William Boissonnault, PT, DPT, DHSc, FAPTA, Fellow of the American Academy of Orthopaedic Manual Physical Therapists

Karen Lovely, PT, DPT, Board-Certified Orthopaedic Clinical Specialist

The History of Direct Access: From Inception to Reality

Direct access to physical therapist services has been a public policy and professional priority for nearly 50 years.

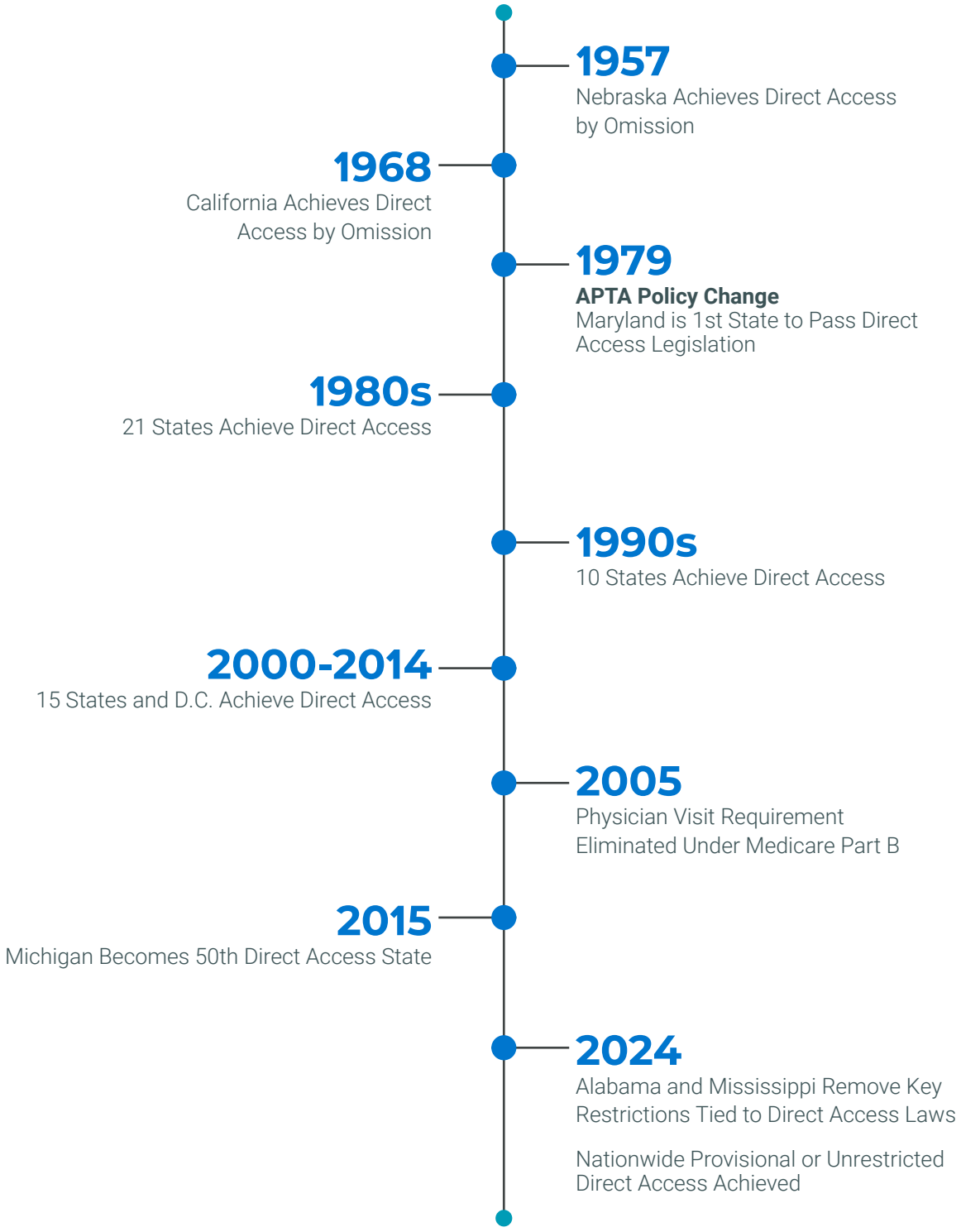
In 1979, APTA removed referral requirements and patient access restrictions from its official policies and core documents. This action sparked decades of extensive advocacy. This same year, Maryland became the first state to formally pass direct access legislation, removing the referral requirement from the state's practice act. The 1980s were focused on eliminating referral requirements from state practice acts governing physical therapist licensure and scope of practice.

Interestingly enough, Nebraska, which achieved licensure in 1957, and California, which achieved licensure in 1968, were found to have no referral requirements written into their initial licensure statutes. As a result, they achieved direct access by omission prior to 1979, according to APTA's definition – even though no legislation was formally passed at that time. Although California's state practice act did not include a referral requirement, direct patient access was restricted due to a state attorney general's opinion stating that a diagnosis from a physician was required for treatment of ailments, which limited direct access to evaluation and treatment of patients who had a current or relevant diagnosis. This restriction was addressed through legislative changes in 2013 and 2018, and California is now considered to have provisional direct access to physical therapist services.

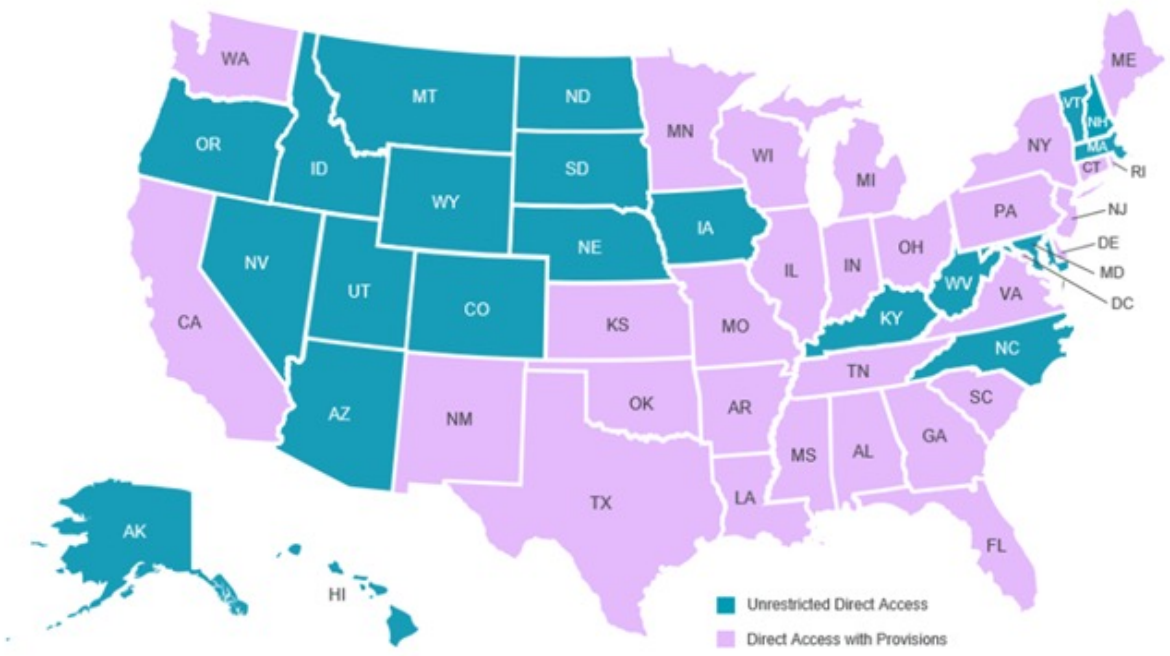
As of July 1, 2025, patients in all 50 states, the District of Columbia, and the U.S. Virgin Islands have either provisional or unrestricted direct access to physical therapist services. Twenty-nine states, the District of Columbia, and the U.S. Virgin Islands allow for provisional direct access to PT services, meaning there are restrictions in terms of time or visit limits, or there is a referral requirement for specific procedures such as needle electromyography. The 21 remaining states allow for unrestricted direct access.

In addition to state licensure laws, direct access to physical therapist services has been recognized by the United States Armed Services since 1972 when the U.S. Army issued regulations to allow physical therapists to serve as nonphysician providers for neuromusculoskeletal conditions. While the original policy required physician supervision instead of a referral, it has since evolved to allow full direct access to physical therapists within the military health system. In January 2024, the U.S. Department of Defense announced physical therapists were positioned to serve as primary neuromusculoskeletal providers across all DOD settings. The move built on the department's existing direct access program and reflected a strategic initiative to expand physical therapy as a primary care pathway systemwide, as cited in a 2024 report.

Timeline of Direct Access in the United States



Levels of Patient Access to Physical Therapist Services in the U.S.



Explore additional details about states' direct access laws.

Definitions of Direct Access

Provisional Direct Access to Physical Therapist Services
Physical therapist evaluation and treatment is allowed with some provisions such as a time or visit limit, or with a referral for a specific test or treatment intervention (i.e., needle electromyography or spinal manipulation).

Unrestricted Direct Access to Physical Therapist Services
Physical therapist evaluation and treatment allowed without restrictions or limitations.

The Emerging Relevance of Direct Access

Even though every U.S. jurisdiction allows patients to go directly to a physical therapist without a referral, restrictions and limitations on that access persist in many states — despite evidence that unrestricted direct access benefits patients, providers, payers, and the U.S. health care system.

If you are one of the many clinicians or administrators who have had to address opposition to patient direct access and wished you had more resources at the ready, this report can assist you.

APTA's report comes at a time when the value of direct access is being realized in new and innovative models such as:

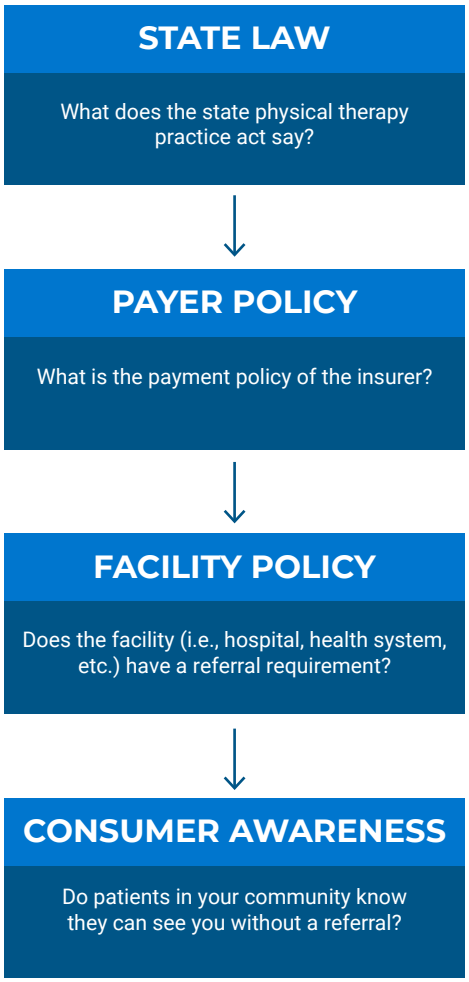
- Technology-driven approaches to health care delivery
- Direct-to-employer contracting and care models
- The growing role of PTs in emergency departments, urgent care centers, and primary care settings
- Emerging and direct-to-customer payment models

In the past, some provider organizations have publicly opposed our profession's direct access legislative efforts, citing unfounded concerns over patient safety. Given how long direct access models have been in effect, if major flaws had emerged, it stands to reason that states would have revised their practice acts over time to reinstate restrictions or referral requirements. No state has done this, nor has the military changed its system. In fact, practice act revisions over the years have instead eased or removed restrictions or expanded the scope of physical therapist practice.

Even with all states having either provisional or unrestricted direct access, internal policies within some health systems and clinics still require physician referrals for physical therapist services. Entities such as hospital systems also have played a role. For example, Wisconsin first adopted direct access in 1987, but implementation in hospital settings often required approval of the hospital medical board — and over 90% of Wisconsin hospital systems have taken such action since then.

Factors for Implementing Direct Access

Several factors can influence direct access to physical therapist services, including state laws, payer policies, facility policies, and consumer awareness. The questions below can serve as a checklist to assess whether these factors affect your ability to treat patients and receive payment for physical therapist services without a referral.



What About Payment?

Since 2005, Medicare Part B beneficiaries have been allowed to see a physical therapist for outpatient therapy services without needing a physician referral or visit. This change came through revisions to the Medicare Benefit Policy Manual (CMS Manual System, Publication 100-02), which eliminated the physician visit requirement. However, Medicare patients still must be "under the care of a physician," which is demonstrated either by the physician certifying the PT's plan of care for patients seen via direct access, or by the physical therapist submitting the plan to the physician for referred patients. Importantly, physical therapists must first and foremost comply with their state licensure laws. This means that in the 21 states that have provisional direct access, eliminating these provisions is essential to expanding direct access to PT services under Medicare.

For commercial payers, many plans do not explicitly require a referral in their payment policy. However, providers should review their contracts with each payer to ensure that payment for services provided via direct access is allowed. In addition, some state workers' compensation programs allow for treatment absent a referral.

After years of advocacy and implementation efforts, direct access is well established as being safe and effective, while reducing costs and improving outcomes.

APTA calls on payers, regulators, and policymakers to continue to remove unnecessary barriers that impede access to physical therapist services.

The Evolution of Physical Therapist Education and Training

Many of the concerns expressed about patients seeing a physical therapist without referral come down to questioning whether PTs have adequate education and training to provide safe and effective services. These concerns are unfounded given the educational path required to be a physical therapist. The minimum education requirement is a clinical doctorate, the doctor of physical therapy degree. The PT's educational and clinical experience in an accredited DPT program includes an average of 3,000 hours of instruction, covering anatomy, histology, physiology, biomechanics, kinesiology, neuroscience, pharmacology, pathology, clinical sciences, clinical interventions, clinical applications, research, ethics, imaging, screening, practice patterns, and professional practice as applied to physical therapy. Of the average 3,000 contact hours of required education, more than 1,200 hours on average — 41% — are spent in directed clinical education.

The DPT has not always been the terminal degree for a physical therapist. Physical therapist education and training has evolved, advancing from a post-baccalaureate certificate in the profession's earliest years, to bachelor's and master's degree programs, and finally to the DPT, which has been the minimum educational requirement for PT academic programs since January 2016. Because of this, older studies on physical therapist readiness to see patients without a referral sometimes referred to "advanced practice" PTs or extra training that prepared PTs for direct access services. Since publication of those articles, such needed preparation is now included in the professional DPT curriculum.

Regardless of educational level, all providers must pass or have passed a rigorous licensure exam before they can be licensed to practice as physical therapists.

'The Economic Value of Physical Therapy in the United States'

A September 2023 report from APTA outlines the cost-effectiveness and economic value of physical therapist services for a broad range of common conditions. "The Economic Value of Physical Therapy in the United States" reinforces the importance of physical therapists and physical therapist assistants in improving patient outcomes and decreasing downstream costs. It should be used in conjunction with this report to inform legislative and regulatory efforts for health care delivery and payment under Medicare, Medicaid, and commercial payers. Review the findings at ValueofPT.com.

How to Use This Report

This report is your tool to drive change. Use it to open doors, challenge outdated policies, and ensure more people can access the care they need, when they need it.

In addition to the brief history and the current status of direct access to physical therapist services in the United States, you will find scientific evidence that supports direct access to PT services. This evidence is arranged by topics that respond to common concerns raised in advocacy and implementation negotiations for direct access, including:

- Patient Safety
- Patient Well-Being
- Resource Utilization
- Appropriate Provision of PT Services
- Functional Outcomes
- Physician Approval
- Patient Satisfaction
- Physical Therapist Job Satisfaction
- Logistical Challenges
- Diagnostic Imaging
- Impact of Early Access to Physical Therapy

The evidence presented in this report supports direct access to physical therapist services. Use it to strengthen your efforts in advocacy, payer engagement, and consumer awareness.

- **Advance State-Level Advocacy**
  Use data points tied to patient safety, outcomes, and cost-effectiveness to support APTA state chapter legislative efforts that eliminate provisions tied to treatment without a referral. Reference the categorized evidence in meetings, testimony, and communications with policymakers.
- **Influence Payer Policies**
  Share findings on improved outcomes, timely access to care, and resource utilization to make the case for removing referral requirements for reimbursement.
- **Payment Contract Negotiations**
  Use the information in this report along with the findings from "The Economic Value of Physical Therapy in the United States" to assist in pushing for increased payment when negotiating insurance contracts.
- **Direct-to-Employer Contracting**
  Leverage this report to demonstrate the value of direct access care to employers and support efforts to secure contracts for providing PT services directly to their workforce.
- **Changing Facility Policies**
  Advocate to eliminate any policies that your hospital or facility has requiring a referral for physical therapy using the resources in this report.
- **Increase Consumer Awareness**
  Translate key points into patient-friendly messaging. Educate your community and empower staff to promote direct access as a safe, effective option — no referral needed.

You can find more from the American Physical Therapy Association about direct access adoption, implementation, and advocacy at APTA's Direct Access in Practice webpage.

Patient Safety

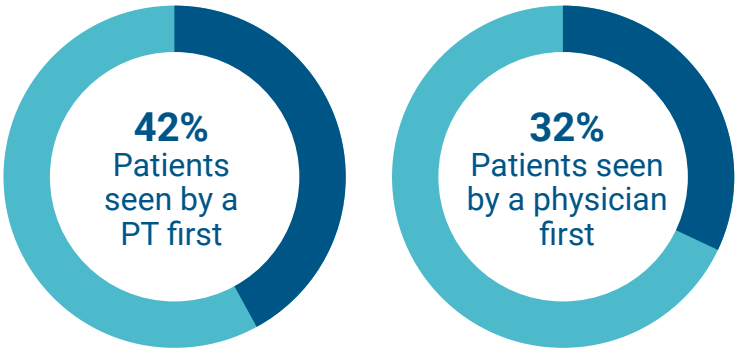
Is there risk of harm to patients when they see a physical therapist without first getting a referral from a physician? The evidence says no.

"Physical Therapy Care for Low Back Pain: Monitored Program of First-Contact Nonphysician Care"

Physical Therapy, 1988
Overman SS, Larson JW, Dickstein DA, Rockey PH

- In this first study highlighting direct access in a nonmilitary setting, the researchers, including two who were physicians, concluded that physical therapists provide safe, effective, and efficient first-contact care for patients experiencing low back pain.
- Outcomes were compared between those who saw either a PT first or an internist first.
- Patients with severe dysfunction who saw a PT first had far greater functional improvement than those who saw a physician.
- PTs made fewer recommendations for medications or bed rest.
- PT-first patients had higher satisfaction with several aspects of their care.

Report of Very Satisfied



> "The outcomes of LBP care provided by physical therapists working in an organized, hospital-based outpatient department were equal to or better than those of LBP care provided by primary care internists working in a similar setting."

"Risk Determination for Patients With Direct Access to Physical Therapy in Military Health Care Facilities"

Journal of Orthopaedic and Sports Physical Therapy, 2005
Moore JH, McMillian DJ, Rosenthal MD, Weishaar MD

- Researchers concluded that PTs can make good clinical judgments regarding the diagnosis and management of patients with musculoskeletal injuries without physician referral.
- No adverse events were documented among 50,000 direct access patients seen at 25 military clinics over 40 months.
- No PTs had their credentials or license status modified or revoked, and no legal cases were filed against them.

0 **Reports of Adverse Events**

"Direct access without physician referral enables beneficiaries the option to be managed earlier, effectively, and safely after a musculoskeletal injury or onset of pain."

"Expanded Role for the Physical Therapist: Screening Musculoskeletal Disorders"

Physical Therapy, 1975
James JJ, Stuart RB

- Researchers concluded that PTs provide quality medical care when screening patients with low back pain.
- Orthopedic surgeons who evaluated the screenings — all conducted at two large Army hospitals — reported no significant errors were made by any of the PTs.
- Patients screened by PTs had significantly shorter wait times and treatment times than those who were screened by physicians.
- Patients reported satisfaction with the care they received from PTs, and participating PTs reported increased job satisfaction.

No Errors

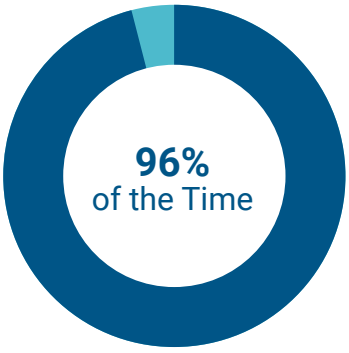
All orthopedic surgeons in the study reported no errors by PTs when screening patients with low back pain

> "The orthopedists were asked if they had found any significant errors of omission or commission by physical therapists on those patients referred to the orthopedic clinic. They claimed to have found none. In addition, none of the orthopedists had received any significant complaints from any of the back patients referred to them from the physical therapy clinic."

"Validation of an advanced practice physiotherapy model of care in an orthopaedic outpatient clinic"

BMC Musculoskeletal Disorders, 2013
Desmeules F, Toliopoulos P, Roy J-S, et al.

- Authors, including physicians, concluded that advanced practice physical therapists in Canadian outpatient orthopedic clinics can accurately diagnose and make treatment recommendations.
- An advanced practice provider and one of three orthopedic surgeons independently assessed 120 patients for hip or knee complaints at an outpatient clinic in Montreal.
- The PT, who had 30 years of experience, received 11 months of additional training from the orthopedic surgeons on orthopedic diagnoses and indications for imaging.
- There were no significant differences between when surgeons and PTs ordered imaging, but PTs prescribed nonsteroidal anti-inflammatories and joint infiltrations more often.



Agreement between PTs and orthopedic surgeons about conservative treatment approaches

> "Overall, these findings support the [advanced practice physical therapist] model of care for patients seen in orthopaedic outpatient clinics."

"Direct Access Compared With Referred Physical Therapy Episodes of Care: A Systematic Review"

Physical Therapy, 2014
Ojha HA, Snyder RS, Davenport TE

- In a systematic review of the literature discussing patient safety, the authors found no reports of adverse events, no instances where licenses were modified or revoked, and no cases where lawsuits were filed against PTs who provided direct access services.
- The authors concluded that PTs practicing in a direct access setting can "decrease costs and improve outcomes in patients with musculoskeletal complaints without prescribing medications or ordering adjunctive testing that could introduce harm to the patient."
- The review found no evidence of increased patient harm when patients self-refer directly to physical therapy.

0%

Zero increased risk of harm was found when patients saw a PT first rather than via a physician referral

"A common argument made by proponents of physician referral against more widespread direct access to physical therapist services has been potential adverse effects on patient safety. However, no scientific literature is currently available to support this claim."

"Direct Access To Physical Therapy Services Is Safe in a University Student Health Center Setting"

Journal of Allied Health, 2015
Mintken PE, Pascoe SC, Barsch AK, Cleland JA

- Authors concluded that patients can access PT services via direct access "without apparent risk of adverse events."
- The retrospective descriptive study analyzed data from more than 24,000 patient visits to the student health center at the University of Colorado Boulder.
- Over the 10-year study period, 54% of patients were managed through direct access.
- Of the 12,000+ patient visits that took place without a physician's referral, there were no reported adverse events, no PTs were disciplined for providing negligent care, and there was no litigation related to patient management.

12,976

Patient visits managed without a physician referral, with no reported adverse events

"Patients managed through direct access are at minimal to no risk for negligent care when evaluated and treated by PTs in a university student health center setting."

"The Influence of Patient Choice of First Provider on Costs and Outcomes: Analysis From a Physical Therapy Patient Registry"

Journal of Orthopaedic & Sports Physical Therapy, 2017
Denninger TR, Cook CE, Chapman CG, et al.

- Authors concluded that physical therapy for back and neck pain via direct access "is safe and provides similar outcomes" at less cost, compared with care provided following a medical referral.
- The retrospective, non-randomized, comparative analysis included nearly 500 patients who saw a PT for neck or back pain either via direct access or through traditional medical referral.
- Patients seen via direct access had significantly fewer physical therapist treatment sessions, lower total costs, and similar functional outcomes.
- No adverse events were noted for any of the patient visits, suggesting that PTs "can adequately determine appropriateness of physical therapist intervention."

477

Patients seen via direct access experienced no adverse events

"When patients chose to see a physical therapist first, there were no identified incidents of missed diagnosis or delays in care as a result of physical therapists' clinical decision making."

Patient Well-Being

Are there enhanced public health benefits when patients see physical therapists via direct access? The evidence says yes.

"Timing of physical therapy for individuals with patellofemoral pain and the influence on healthcare use, costs and recurrence rates: an observational study"

BMC Health Services Research, 2021
Young JL, Snodgrass SJ, Cleland JA, Rhon DI

- The authors concluded that the odds of needing opioid, muscle relaxants, and NSAIDs were lower for patients with patellofemoral pain who had physical therapy as their first contact or within 30 days of diagnosis.
- Receiving physical therapy first lowered the odds of needing knee radiographs, advanced imaging, other analgesic prescriptions, and corticosteroid injections.
- The odds of experiencing an additional recurrence of knee pain were also lowest for those who received physical therapy first, as were the mean number of knee-related health care visits and total costs of knee-related health care over the following two years.
- The observational cohort study used data from 74,408 individuals in the Military Health System receiving care for patellofemoral pain. Of these patients, 58,579 received no physical therapy.
- Patients who received physical therapy first had an average 5.16 physical therapy visits compared with 6.36 visits for those receiving early physical therapy (within 30 days of diagnosis) and 6.67 visits for those receiving delayed care (between 31 and 90 days of diagnosis).

Physical Therapy First	Physical Therapy After 30 Days
5.16 average patient visits	6.67 average patient visits

"Healthcare use and costs and the odds of having a recurrence of knee pain were lower for patients who had physical therapy first or early compared to having delayed physical therapy."

"Observational retrospective study of the association of initial health care provider for new-onset low back pain with early and long-term opioid use"

British Medical Journal Open, 2019
Kazi LE, Ameli O, Rothendler J, Garrity B, et al.

- Authors concluded that initial visits to PTs for new-onset low back pain is associated with "substantially decreased" early and long-term use of opioids.
- The retrospective cohort study of 216,504 patients with new-onset LBP evaluated claims for inpatient and outpatient care.
- More than half of the patients initially saw a primary care physician for treatment, while the remaining patients initially saw a chiropractor, PT, or acupuncturist.
- Patients who initially received treatment from a PT had significantly decreased odds of opioid use compared with those who received treatment from a PCP.

85%

Decrease in odds of short-term opioid use when a PT was the initial provider compared to a primary care physician

"Physical Therapy Care for Low Back Pain: Monitored Program of First-Contact Nonphysician Care"

Physical Therapy, 1988
Overman SS, Larson JW, Dickstein DA, Rockey PH

- In this first study highlighting direct access in a nonmilitary setting, the researchers, including two who were physicians, concluded that PTs in a direct access setting can provide effective and efficient care for patients experiencing low back pain.
- Outcomes were compared between those who saw either a PT first or an internist first.
- Patients with severe dysfunction who saw a PT first had far greater functional improvement than those who saw a physician.
- PTs made fewer recommendations for medications or bed rest.
- PT-first patients had higher satisfaction with several aspects of their care.

Managed by PT
24% recurrence of low back pain

Managed by Physician
44% recurrence of low back pain

"Our study demonstrates that physical therapists can provide safe, effective, and efficient first-contact care in an organized outpatient setting."

Resource Utilization: Cost of Care, Pharmacology, Imaging, Medical Visits

Does direct access to physical therapy reduce utilization of other health care resources? The evidence says yes.

"A Comparison of Health Care Use for Physician-Referred and Self-Referred Episodes of Outpatient Physical Therapy"

Health Services Research, 2011
Pendergast J, Kliethermes SA, Freburger JK, Duffy PA

- Authors found that self-referred patients had significantly fewer physical therapy visits and lower costs than patients who were referred by physicians.
- The retrospective analysis of health care use was conducted using private insurance claims data from physician-referred (45,210) and self-referred (17,497) ambulatory physical therapy episodes of care over five years. The two groups were similar in regard to diagnosis and case mix.
- Patients who self-referred had 86% as many visits per episode as patients who were physician-referred. Cost per episode for self-referred patients was $73 less than it was for physician-referred patients.

14%

Decrease in visits per episode for patients who self-referred for physical therapy compared with physician-referred patients

> "The pattern of less utilization during the PT episode in the self-referred group was maintained across gender, age, and diagnostic group."

"A Comparison of Resource Use and Cost in Direct Access Versus Physician Referral Episodes of Physical Therapy"

Physical Therapy, 1997
Mitchell JM, de Lissovoy G

- Authors concluded that direct access episodes were "shorter, encompassed fewer numbers of services, and were less costly than those classified as physician referral episodes."
- The retrospective analysis considered paid claims data over a period of four years for episodes of physical therapy for acute musculoskeletal disorders.
- Direct access claims were characterized by fewer PT visits versus physician referral claims (7.6 versus 12.2 office visits) and significantly lower costs of care ($1,004 versus $2,236 per episode) when controlling for drugs, hospitalizations, and imaging procedures.

Physician-Referred
$2,236 total paid claims per episode of care

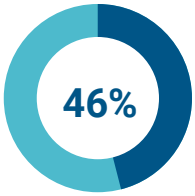
PT-Referred
$1,004 total paid claims per episode of care

> "Concern that direct access will result in overutilization of services or will increase costs appears to be unwarranted."

"Physical Therapists as Primary Practitioners in the Emergency Department: Six-Month Prospective Practice Analysis"

Physical Therapy, 2015
De Gruchy A, Granger C, Gorelik A

- Authors describe how PTs can be a "valuable asset" to an emergency department, "managing a great deal of their caseload independently, safely, and time efficiently."
- The study provides data demonstrating that patients treated by PTs via direct access in the ED have shorter treatment times and are more likely to be discharged home compared with patients with similar characteristics who are assessed and treated by physicians.
- The six-month prospective observational study was conducted in a single emergency department in Melbourne, Australia.
- PTs managed 1,017 patients, 97% of whom presented with musculoskeletal pathologies, including fractures and dislocations.
- Patients treated by advanced practice PTs experienced 74% shorter treatment times and were more likely to be discharged compared with patients presenting with musculoskeletal conditions who were first seen by a physician.



Patients seen by PTs in the emergency department who were managed without any support from other medical professionals

"When we further look at the APPs' consultation with ED physicians, there is potential to increase the number of independently managed patients."

"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"

Physical Therapy, 2021
Hon S, Ritter R, Allen DD

- Authors concluded that direct access to physical therapist services reduces physical therapy costs, total health care costs, and total number of physical therapy visits compared with when patients see a physician first.
- They also found that functional outcome improvements were significantly better when patients were seen via direct access.
- The systematic review and meta-analysis encompassed five retrospective studies of patients who received physical therapy for spine-related musculoskeletal disorders (MSDs).

$1,828

Average savings for patients who chose direct access to physical therapy instead of going through physician-first access.

"Such research strengthens the argument for direct access to physical therapy as a more cost-effective and expedient approach for patients with spine-related MSDs. Furthermore, the findings may facilitate greater institutional and patient understanding of how direct access may improve care while reducing impact on the US economy."

"The impact of direct access physiotherapy compared to primary care physician led usual care for patients with musculoskeletal disorders: a systematic review of the literature"

Disability and Rehabilitation, 2019
Demont A, Bourmaud A, Kechichian A, Desmeules F

- The authors concluded that direct access to physical therapist services reduces patient wait times, improves treatment compliance, decreases medication use, reduces the frequency of advanced medical imaging, and decreases total health costs (with superior outcomes and no documented adverse events) when compared with standard physician-led care for patients with musculoskeletal disorders.
- The systematic review included 18 studies related to direct access physical therapy for patients with musculoskeletal disorders.
- Of six studies assessing the number of PT visits per episode of care, four found fewer visits when patients were seen via direct access, and two found no difference compared with physician-led care.
- Patients treated via direct access were significantly less likely to have X-ray imaging, be referred to a specialist, or receive a prescription for NSAIDs, analgesics, or muscle relaxants.
- Four studies found significant average cost savings per patient per episode of care for those who used direct access compared with those seen via the physician referral model.

7.3%

MSK patients who received prescriptions for X-ray imaging when seen via direct access versus 13.6% for those who receive standard physician-led care

"Direct access physiotherapy may lead to increased access to care and a more efficient use of health care resources."

"Physical Therapy Care for Low Back Pain: Monitored Program of First-Contact Nonphysician Care"

Physical Therapy, 1988
Overman SS, Larson JW, Dickstein DA, Rockey PH

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- Patients with severe dysfunction who saw a PT first had far greater functional improvement than those who saw a physician.
- PTs made fewer recommendations for medications or bed rest.
- Physician-managed patients required more time and returned for care more often than patients managed by PTs.

PT-Managed Patients
67 total minutes
spent in physical therapy

Physician-Managed Patients
228 total minutes
spent in physical therapy

> Programs like ours may improve the coordination between professional groups within the orthodox medical care system and encourage more appropriate and timely referrals between physicians and therapists.

"First Provider Seen for an Acute Episode of Low Back Pain Influences Subsequent Health Care Utilization"

Physical Therapy, 2023
Bise CG, Schneider M, Freburger J, et al.

- Researchers found that the use of PTs as an entry point into the health care system was related to decreased immediate and long-term use of health resources.
- The retrospective analysis of 29,806 patients seeking care for acute low back pain identified the first provider chosen and medical care utilized over the subsequent 12 months.
- Medical care utilization for patients seen initially by physical therapists (and chiropractors) was compared with that for patients first seen by primary care physicians, emergency department physicians, and other physician specialists.
- Care utilization among those patients who saw a physical therapist first was marked by shorter episodes of care, lower total cost of care, lower rates of referral diagnostic imaging, fewer opioid prescriptions and injections, and fewer surgical interventions.

When a PT is the First Provider Seen Compared to a Physician

40% fewer imaging orders
44% fewer opioid prescriptions
40% fewer injections

> "As health care resources continue to dwindle, we need to consider more efficient and cost-effective strategies to manage patients with LBP. Implementation strategies should be multi-faceted, aimed at behavior change, and involve increased use of nonsurgical and non-opioid interventions."

"Implementation of Direct Access Physical Therapy Within the Military Medical System"

Military Medicine, 2022
Syzmaneck E, Jones M, Schutt-Hoblet C, Halle R

- Authors found that implementation of the direct access model saved more than $3 million in health care utilization costs over the program's initial 18 months.
- The retrospective analysis of care delivered to 3,653 patients seen via direct access was carried out along with a subanalysis comparing referral-based care with direct access care for 86 patients with ankle injuries.
- The researchers estimated that overall, direct access saved $1,543 per episode of care.
- The subanalysis of patients post-ankle injury revealed quicker access to services, shorter episodes of care, fewer physical therapy visits, fewer referrals for diagnostic imaging, fewer physician specialty referrals, and reduced long-term functional limitations.

$3.6 million

Etimated military health care cost-savings as a result of direct access to PT over an 18-month study period

"In the military healthcare system, where our primary care team resources are limited, it is important to consider the PT as part of the acute MSK injury management team."

"Timing of physical therapy for individuals with patellofemoral pain and the influence on healthcare use, costs and recurrence rates: an observational study"

BMC Health Services Research, 2021
Young JL, Snodgrass SJ, Cleland JA, Rhon DI

- Authors concluded that the odds of needing opioid, muscle relaxants, and NSAIDs were lower for patients with patellofemoral pain who had physical therapy as their first contact or within 30 days of diagnosis.
- Additionally, receiving physical therapy first lowered the odds of needing knee radiographs, advanced imaging, other analgesic prescriptions, and corticosteroid injections.
- The odds of experiencing an additional recurrence of knee pain were also lowest for individuals who received physical therapy first, as were the mean number of knee-related health care visits and total costs of knee-related health care over the following two years.
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> "Healthcare use, costs and odds of recurrence were lower for patients who had physical therapy as their first contact."

"Physical Therapy Direct Patient Access Versus Physician Patient-Referred Episodes of Care: Comparisons of Cost, Resource Utilization & Outcomes"

Physical Therapy Journal of Policy, Administration and Leadership, 2014
Badke MB, Sherry J, Sherry M, Jindrich S, et al.

- Authors concluded that direct access episodes of care are less costly, require fewer physician services, and are characterized by less advanced imaging procedures than physician referral episodes of care while achieving the same functional outcomes for patients with spinal dysfunction.
- The retrospective analysis considered billing and electronic medical records data from hospital outpatient care episodes for patients with spinal impairments and sports injuries.
- Episodes were categorized as direct access or physician referred, and analysis was adjusted for age, gender, chronicity, and health care utilization during the previous six months.
- Physician-referral episodes required 78% more physician services and 193% more advanced imaging procedures.

Care Episodes: Direct Access vs. Physician Referral

	Direct Access	Physician Referral
Total # PT Visits	3.9	5.4
Mean Treatment Duration	8.4 weeks	10.2 weeks
Cost of Care	$2,424	$3,879

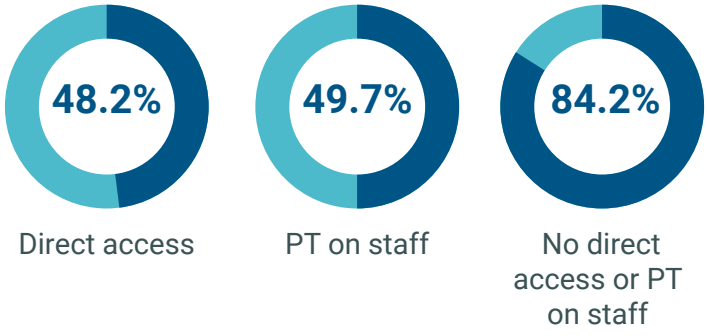
> "Direct access episodes utilized fewer physical therapy and physician services, fewer imaging procedures, and were shorter than [physician referral] episodes. Total visits for [direct access] episodes were, on average, 72.2% of total visits for [physician referral] episodes."

"Management of joint and soft tissue injuries in three general practices: value of on-site physiotherapy"

British Journal of General Practice, 1993
Hackett GI, Bundred P, Hutton JL, et al.

- The authors found that physical therapist services accessed through direct access result in lower prescription rates, less imaging, and lower costs compared with services accessed via physician referral.
- The study considered patients with joint and soft-tissue injuries who presented to either a practice with physicians and PTs on staff, a direct access practice with PTs, or a practice with physicians who referred them to physical therapy outside of the practice.
- Patients presenting to a practice with no PTs on staff were prescribed medications more than 80% of the time, while those at practices with PTs on staff received prescriptions about half of the time. Patients were referred for imaging twice as often at practices without PTs on staff.

% of Patients Receiving Prescription Medications



> "Both [on-site] and direct access physiotherapy were associated with fewer prescriptions and lower overall prescribing costs per patient than access to physiotherapy via consultants."

"Direct Access Compared With Referred Physical Therapy Episodes of Care: A Systematic Review"

Physical Therapy, 2014
Ojha HA, Snyder RS, Davenport TE

- Authors concluded that direct access to physical therapy can potentially "decrease costs and improve outcomes in patients with musculoskeletal complaints" without prescription medication or adjunctive testing.
- The systematic review of the literature compared health care costs and patient outcomes when patients with musculoskeletal injuries received physical therapy via direct access compared with when they did so via physician referral.
- The authors found that costs incurred by patients and health insurance companies were significantly less for the direct access patients compared with the referred patients.
- Of three studies investigating the use of imaging, all found significantly fewer radiology claims in the direct access group.
- Of three studies investigating pharmacology, all found fewer drug claims among the patients who received physical therapy via direct access.

8 Studies Conclude Direct Access Resulted In:

- **Less imaging ordered**
- **Fewer injections performed**
- **Fewer medications prescribed**

> "Third-party payers should consider paying for physical therapy by direct access to decrease health care costs and incentivize optimal patient outcomes."

"The Influence of Patient Choice of First Provider on Costs and Outcomes: Analysis From a Physical Therapy Patient Registry"

Journal of Orthopaedic & Sports Physical Therapy, 2017
Denninger TR, Cook CE, Chapman CG, et al.

- Authors found that patients seen via direct access had significantly fewer physical therapy treatment sessions, lower costs of physical therapy, lower costs associated with imaging, and similar functional outcomes compared with those seen via physician referral.
- Total cost savings for all patient care, including physical therapy, imaging, surgery, medications, and other treatments averaged more than $1,500 per patient seen via direct access.
- The retrospective, non-randomized, comparative analysis included 477 patients who saw a PT for neck or back pain either through the direct access model or through traditional medical referral. Data was extracted from the ATI Patient Outcomes Registry and Blue Cross Blue Shield of South Carolina claims information.

$1,543

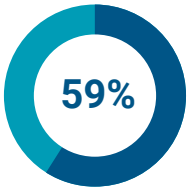
Average total cost savings for physical therapy patients seen via direct access vs. physician referral

> "The initial patient choice to begin care with a physical therapist for back or neck pain resulted in lower cost of care over the next year, while resulting in similar improvements in patient outcomes at discharge from physical therapy."

"Implementation of an Alternative Pathway for Patients Seeking Care for Low Back Pain: A Prospective Observational Cohort Study"

Physical Therapy, 2018
Magel J, Hansen P, Meier W, et al.

- Authors concluded that direct access to physical therapy results in decreased resource utilization, shorter duration of care, and improved functional outcomes compared with patients who receive physical therapy via physician referral.
- The researchers used the RE-AIM framework to evaluate the implementation of the "RapidAccess" to physical therapy program at University of Utah Health.
- When patients with low back pain called the UUH physiatry clinic to schedule an appointment, those who were eligible (based on payer and chief complaint) were advised that they could see a PT first instead.
- Patients with low back pain who received physical therapy directly rather than first consulting with a physiatrist were less likely to have lumbar radiographs (26% versus 66%), advanced imaging (9% versus 27%), epidural injections (8% versus 29%), or a visit with a spine surgeon (2% versus 8%) than those who did not.



Patients canceled their physiatry appointment after seeing a PT via direct access

"The objective of an evidence-based pathway is coordination of care across multidisciplinary settings and timely resource allocation to appropriate patients."

Appropriate Provision of Physical Therapist Services

Does direct access to PTs improve care efficiency? The evidence says yes.

"Physical Therapy Care for Low Back Pain: Monitored Program of First-Contact Nonphysician Care"

Physical Therapy, 1988
Overman SS, Larson JW, Dickstein DA, Rockey PH

- In this first study highlighting direct access in a nonmilitary setting, the researchers, including two who were physicians, found that PT-managed patients averaged fewer visits and less total time in the physical therapy department than did physician-managed patients while achieving equal or better functional outcomes.
- PTs referred more patients for follow-up physical therapy appointments, but physician-managed patients averaged more visits and more total time in physical therapy.
- The authors concluded that PTs provide safe, effective, and efficient first-contact care for patients experiencing low back pain.

PT-Managed Patients Needed 65% Fewer Follow-Up Visits

2.7 Visits
PT-managed patients

7.7 Visits
Physician-managed patients

> "Patients were more satisfied with several aspects of first-contact physical therapist care and demonstrated greater functional improvement with such care than when physician-referred."

"A Comparison of Health Care Use for Physician-Referred and Self-Referred Episodes of Outpatient Physical Therapy"

Health Services Research, 2011
Pendergast J, Kliethermes SA, Freburger JK, Duffy PA

- Authors concluded that self-referred patients had significantly fewer physical therapy visits and lower costs than patients who were referred by physicians.
- The retrospective analysis of health care use was conducted using private insurance claims data from physician-referred (45,210) and self-referred (17,497) ambulatory PT episodes of care over five years. The two groups were similar in regard to diagnosis and case mix.
- Patients who self-referred had 86% as many visits per episode as patients who were physician-referred. Cost per episode for self-referred patients was $347, compared with $420 for physician-referred patients.

$73

Savings per episode for direct access patients versus physician-referred

> "Our findings suggest that the role of the physician gatekeeper in regard to PT may be unnecessary in many cases. Health care use did not increase in the self-referred group, nor was continuity of care hindered."

"Expanded Role for the Physical Therapist: Screening Musculoskeletal Disorders"

Physical Therapy, 1975
James JJ, Stuart RB

- Researchers concluded that patients initially screened for low back pain in the physical therapy clinic have shorter wait times and shorter durations of treatment than patients who see physicians first.
- Conducted at two large Army hospitals, the study included measurements of patient wait times, treatment times, and total care times. Care quality was assessed through patient and physician interviews, and reviews of patient records.
- Orthopedic surgeons who evaluated the screenings reported no significant errors were made by any of the PTs and concluded "that the physical therapists had demonstrated the capability to provide quality medical care in the screening role."
- Patients reported satisfaction with the care they received from PTs, and participating PTs reported increased job satisfaction.

41-60 minutes
Reduction in patient wait time when patients are screened by PTs versus when they are screened by physicians

42-54 minutes
Reduction in total treatment time when patients are screened by PTs versus when they are screened by physicians

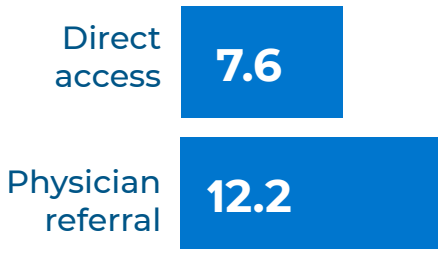
> "Patients presenting with low back pain should be able to receive more expeditious treatment in a physical therapy screening clinic than when they begin treatment at some other entry point in the medical care system."

"A Comparison of Resource Use and Cost in Direct Access Versus Physician Referral Episodes of Physical Therapy"

Physical Therapy, 1997
Mitchell JM, de Lissovoy G

- Authors concluded that patients required fewer services, at less expense, when they obtained physical therapy via direct access compared with when they were referred by a physician.
- The retrospective analysis considered paid claims data over a period of four years for episodes of physical therapy for acute musculoskeletal disorders.
- Direct access claims were characterized by 65% fewer physical therapy visits and significantly lower costs of care ($1,004 versus $2,236) when controlling for medications, hospitalizations, and imaging procedures.

Office Visits Per Episode



> "Direct access episodes were shorter, encompassed fewer numbers of services, and were less costly than those classified as physician referral episodes"

"Physical Therapy Direct Patient Access Versus Physician Patient-Referred Episodes of Care: Comparisons of Cost, Resource Utilization & Outcomes"

Physical Therapy Journal of Policy, Administration and Leadership, 2014
Badke MB, Sherry J, Sherry M, et al.

- Authors concluded that direct access episodes of care are less costly, require fewer physician services, and are characterized by less advanced imaging procedures than physician referral episodes of care while achieving the same quality in functional outcomes for patients with spinal dysfunction.
- The retrospective analysis considered billing data and electronic medical records from hospital outpatient care episodes for patients with spinal impairments and sports injuries.
- Episodes were categorized as direct access or physician referred and analysis was adjusted for age, gender, chronicity, and health care utilization during the previous six months.
- Total visits for direct access episodes of care averaged 72% of total visits for physician referral episodes.

Direct Access vs. Physician Referral

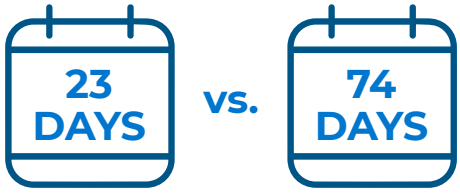
- **1.5** fewer PT visits (3.9 vs. 5.4)
- **1.8** fewer weeks of care (8.4 vs. 10.2)
- **$1,455** in average cost savings

> Comparison of the DA and PR patient episodes also revealed 92% more plain film radiography and 193% more advanced imaging procedures in the PR episodes. These findings are consistent with previous reports that MRI use dropped approximately one-third when patients were initially seen by a physical therapist.

"Management of joint and soft tissue injuries in three general practices: value of on-site physiotherapy"

British Journal of General Practice, 1993
Hackett GI, Bundred P, Hutton JL, et al.

- Authors concluded that physical therapy services accessed through direct access result in shorter wait times for initial appointments compared with services accessed by referrals from physicians to PTs outside of the physician's practice.
- The study considered patients with joint and soft tissue injuries who presented to either a practice with physicians and PTs on staff, a direct access practice with PTs, or a practice with physicians who referred them to physical therapy outside of the practice.
- The authors also found that physical therapy services accessed through direct access result in lower prescription rates, less imaging, and lower costs compared with services accessed via physician referral.



Initial mean appointment wait time for direct access services

Initial mean appointment wait time with no direct access or PT on staff

"Direct Access Compared With Referred Physical Therapy Episodes of Care: A Systematic Review"

Physical Therapy, 2014
Ojha HA, Snyder RS, Davenport TE

- Authors concluded that patients seen via direct access have the same or better discharge outcomes in fewer visits compared with those seen with a physician referral.
- The systematic review of the literature found that the costs incurred by patients and health insurance companies per episode of care were significantly less for the direct access patients compared with the referred patients.
- Of three studies that investigated the use of imaging, all found significantly fewer radiology claims in the direct access group.
- Of three studies that investigated pharmacology, all found fewer drug claims among the patients who received physical therapy via direct access.
- One study reported that direct access patients missed an average of 17 fewer work days than the referred patients.

17 **Fewer workdays missed for direct access patients compared to those seen via referral**

"The results of these studies directly support recent health care reform efforts in which legislators and health care providers have sought to provide efficient care through cost reduction and optimizing patient outcomes."

"An Overview of 5 Years of Patient Self-Referral for Physical Therapy in the Netherlands"

Physical Therapy, 2015
Swinkels ICS, Kooijman MK, Spreeuwenberg PM, et al.

- Authors concluded that patients seen via the direct access model obtain therapy faster.
- The researchers also found that patients seen via direct access require fewer treatment sessions than patients seen following a physician's referral.
- The retrospective analysis of 81,950 patients who received physical therapy services in the Netherlands between 2004 and 2010 also revealed that direct access improved patient outcomes.

3 Fewer
average physical therapy sessions for direct access patients compared to those referred by a physician

> When looking at access to care, we see that a large, growing group of patients used self-referral. As this was already the case in the initial period after introduction, it appears that self-referral fulfilled a need among patients and was a logical choice in the health care pathway for many patients.

"Implementation of an Alternative Pathway for Patients Seeking Care for Low Back Pain: A Prospective Observational Cohort Study"

Physical Therapy, 2018
Magel J, Hansen P, Meier W, et al.

- Authors concluded that direct access/early access to physical therapy results in decreased resource utilization, shorter duration of care, and improved functional outcomes compared with patients who receive physical therapy via physician referral.
- The researchers used the RE-AIM framework to evaluate the implementation of the "RapidAccess" to physical therapy program at University of Utah Health.
- When patients with low back pain called the UUH physiatry clinic to schedule an appointment, those who were eligible (based on payer and chief complaint) were advised that they could see a PT instead.
- Patients who obtained physical therapy via direct access were less likely to have lumbar radiographs, advanced imaging, epidural injections, or a visit with a spine surgeon than those who did not.
- Patients also had a similar number of physical therapy visits, a shorter duration of physical therapy care, and greater functional improvements than those who saw a PT following a physician's referral.

> "[Previously,] patients with LBP were often referred to physiatry following a primary care visit for LBP, or directly entered care with a physiatrist. Many were then referred to physical therapy. This represented an inefficient pathway associated with increased use of low-value care, including advanced imaging and injections, and longer episodes of care due to appointment waiting times."

"The impact of direct access physiotherapy compared to primary care physician led usual care for patients with musculoskeletal disorders: a systematic review of the literature"

Disability and Rehabilitation, 2021
Demont A, Bourmaud A, Kechichian A, Desmeules F

- Authors concluded that direct access to physical therapy reduces patient wait times, improves treatment compliance, decreases medication use, reduces the frequency of advanced medical imaging, and decreases total health costs (with superior outcomes and no documented adverse events) when compared with standard physician-led care for patients with musculoskeletal disorders.
- The systematic review included 18 studies related to direct access physical therapy for patients with musculoskeletal disorders.
- Of six studies assessing the number of physical therapy visits per episode of care, four found there were fewer visits when patients were seen via direct access, and two found no difference compared with physician-led care.
- Patients treated via direct access were significantly less likely to have X-ray imaging, be referred to a specialist, or receive a prescription for NSAIDs, analgesics, or muscle relaxants.
- Four studies found significant average cost savings per patient per episode of care for those who utilized direct access.

$47-$710 (US) / £36-£538 (Pounds)
Direct access approximate cost savings, per patient per episode of care, compared to the physician referral model

"Evidence suggests several benefits of direct access physiotherapy in terms of better initial management including a more valid diagnosis than primary care physician-led medical usual care, better clinical outcomes for patients, more efficient use of resources, and diminished health care costs while maintaining high patient satisfaction."

"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"

Physical Therapy, 2021
Hon S, Ritter R, Allen DD

- Authors concluded that direct access reduced physical therapy costs, total health care costs, and total number of physical therapy visits compared with when patients see a physician first.
- They also found that functional outcome improvements were significantly better when patients were seen via direct access.
- The systematic review and meta-analysis encompassed five retrospective studies of patients who received physical therapy for spine-related musculoskeletal disorders (MSDs).

> "This [review] suggests that direct access to physical therapy produces a more economical alternative to physician-first access, while providing greater improvement with no reported adverse effects for patients with spine-related MSDs."

"Implementation of Direct Access Physical Therapy Within the Military Medical System"

Military Medicine, 2022
Syzmaneck E, Jones M, Schutt-Hoblet C, Halle R

- Authors concluded that direct access to physical therapy resulted in more timely access to care, fewer total physical therapy visits, shorter episodes of care, less frequent imaging, fewer referrals to specialists, and improved functional outcomes when compared with care delivered via a referral-based model.
- The retrospective analysis of care delivered to 3,653 patients seen via direct access was carried out along with a sub-analysis comparing referral-based care with direct access care for 86 patients with ankle injuries.
- The researchers estimated that direct access saved $1,543 per episode of care and $3.6 million overall during the 18-month study period.

$3.6M Saved Over 18 Months

Direct access is estimated to have saved $1,543 per episode of care and $3.6 million overall during the 18-month study period

> "[This implementation of direct access PT] demonstrates a way to optimize the military healthcare system in order to potentially reduce cost and healthcare utilization and minimize duty days lost to MSK injuries."

Patient Functional Outcomes

Does direct access to physical therapy improve functional outcomes? The evidence says yes.

"Physical Therapy Care for Low Back Pain: Monitored Program of First-Contact Nonphysician Care"

Physical Therapy, 1988
Overman SS, Larson JW, Dickstein DA, Rockey PH

- In this first study highlighting direct access in a nonmilitary setting, the researchers, including two who were physicians, concluded that PTs provide safe, effective, and efficient first-contact care for patients experiencing low back pain.
- Outcomes were compared between those who saw either a PT first or an internist first.
- Patients with severe dysfunction who saw a PT first had far greater functional improvement than those who saw a physician.
- Improved functional status among the most impaired patients was correlated with reduced use of muscle relaxants and analgesics by physical therapists.

For Patients With Severe Dysfunction

	Prescribed muscle relaxant	Prescribed narcotic analgesics	LBP recurrences
PT-managed	10%	35%	24%
Physician-managed	42%	65%	44%

> "The outcomes of LBP care provided by physical therapists working in an organized, hospital-based outpatient department were equal to or better than those of LBP care provided by primary care internists working in a similar setting."

"Direct Access Compared With Referred Physical Therapy Episodes of Care: A Systematic Review"

Physical Therapy, 2014
Ojha HA, Snyder RS, Davenport TE

- Authors concluded that "physical therapists practicing in a direct access capacity have the potential to decrease costs and improve outcomes in patients with musculoskeletal complaints without prescribing medication and ordering adjunctive testing."
- The systematic review of the literature compared health care costs and patient outcomes when patients with musculoskeletal injuries attend physical therapy via direct access compared with when they do so via physician referral.
- Four of the investigated studies reported on discharge outcomes, and all four found improvements in the direct access group compared with the referred group.
- One study reported that direct access patients missed an average of 17 fewer work days than referred patients.

9% higher
Difference in the number of direct access patients reporting they fully achieved their goals at discharge compared to physician-referred patients in one study

"These observations are consistent with prior individual studies that collectively support improved outcomes for patients and decreased costs associated with earlier initiation of physical therapy clinical management."

"Implementation of an Alternative Pathway for Patients Seeking Care for Low Back Pain: A Prospective Observational Cohort Study"

Physical Therapy, 2018
Magel J, Hansen P, Meier W, et al.

- Authors concluded that direct access/early access to physical therapy results in decreased resource utilization, shorter duration of care, and improved functional outcomes compared physical therapy via physician referral.
- The researchers used the RE-AIM framework to evaluate the implementation of the "RapidAccess" to physical therapy program at University of Utah Health.
- When patients with low back pain called the UUH physiatry clinic to schedule an appointment, those who were eligible (based on payer and chief complaint) were advised that they could see a PT instead.
- Patients who obtained physical therapy via direct access were less likely to have lumbar radiographs, advanced imaging, epidural injections, or a visit with a spine surgeon than those who did not. They also had a similar number of physical therapy visits, a shorter duration of physical therapy care, and greater functional improvements than those who saw a PT following a physician's referral.

> "Functional outcomes were better with no increase in physical therapy use for patients who attended physical therapy as RapidAccess participants relative to those receiving physical therapy after physiatry consultation."

"The impact of direct access physiotherapy compared to primary care physician led usual care for patients with musculoskeletal disorders: a systematic review of the literature"

Disability and Rehabilitation, 2021
Demont A, Bourmaud A, Kechichian A, Desmeules F

- Authors concluded that direct access to physical therapy reduces patient wait times, improves treatment compliance, decreases medication use, reduces the frequency of advanced medical imaging, and decreases total health costs (with superior outcomes and no documented adverse events) when compared with standard physician-led care for patients with musculoskeletal disorders.
- The systematic review included 18 studies related to direct access physical therapy for patients with musculoskeletal disorders.
- Four studies utilizing the Roland-Morris Disability Questionnaire and the EQ-5D-5L found improved functional outcomes in patients who sought care via direct access.

"Several studies suggest that patients receiving physiotherapy through direct access have better outcomes in terms of disability and quality of life at discharge."

"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"

Physical Therapy, 2021
Hon S, Ritter R, Allen DD

- Authors concluded that functional outcomes were significantly better when patients were seen via direct access compared with when they saw a physician first.
- They also found that direct access to physical therapy reduces physical therapy costs, total health care costs, and total number of physical therapy visits.
- The systematic review and meta-analysis encompassed five retrospective studies of patients who received physical therapy for spine-related musculoskeletal disorders.

Direct Access Care Saved

$242
per patient in physical therapy costs

$1,828
per patient in total health care costs

> "The findings show improved functional outcomes, lower physical therapy and total health care costs, and fewer physical therapy visits for patients using direct access to physical therapy compared with patients who access physical therapy services after physician referral."

"Implementation of Direct Access Physical Therapy Within the Military Medical System"

Military Medicine, 2022
Syzmaneck E, Jones M, Schutt-Hoblet C, Halle R.

- Authors concluded that direct access to physical therapy leads to improved functional outcomes compared with physical therapy via physician referral.
- The retrospective analysis of care delivered to 3,653 patients seen via direct access was carried out along with a subanalysis comparing referral-based care with direct access care for 86 patients with ankle injuries.
- The subanalysis of patients post-ankle injury found long-term functional limitations in 36 percent of patients seen via referral versus 9 percent of patients seen through direct access.
- The researchers also found that direct access patients had quicker access to services, shorter episodes of care, fewer total physical therapy visits, fewer referrals for diagnostic imaging, and fewer physician specialty referrals.

> "In the military, where readiness is the number one priority, it is essential that we optimize the medical resources available to our soldiers and airmen in order to minimize lost duty days and overall long-term disability … Physical therapists have the education and credentialing to perform appropriate medical screening, prescribe medications based on a limited formulary, order diagnostic imaging, order appropriate laboratory testing, and provide limited duty restrictions to soldiers and airmen when needed."

Physician Approval

Do physicians approve of direct access to physical therapy? The evidence says yes.

"The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary"

Institute of Medicine of the National Academies, 2010
Yong PL, Saunders RS, Olsen L

- The editors noted that for patients with low back pain, substituting an initial physician evaluation with one performed by a PT could "reduce health care costs substantially" while also improving access to care, patient satisfaction, and functional outcomes.
- The report is a summary of presentations and discussions from workshops convened by the Institute of Medicine (now the National Academy of Medicine) and attended by health care leaders from a wide variety of disciplines, including physicians.
- NAM provides evidence-based information and advice concerning health and science policy to policymakers, professionals, and the public.

4 Workshops in the Series:

Understanding the Targets

Strategies That Work

The Policy Agenda

Getting to 10%: Opportunities and Requirements

"Physical Therapy Care for Low Back Pain: Monitored Program of First-Contact Nonphysician Care"

Physical Therapy, 1988
Overman SS, Larson JW, Dickstein DA, Rockey PH

- In this first study highlighting direct access in a nonmilitary setting, the researchers, including two who were physicians, concluded that PTs provide safe, effective, and efficient first-contact care for patients experiencing low back pain.
- Outcomes were compared between those who saw either a PT first or an internist first.
- Patients with severe dysfunction who saw a PT first had far greater functional improvement than those who saw a physician.
- PTs made fewer recommendations for medications or bed rest.
- PT-first patients had higher satisfaction with several aspects of their care.

Conclusions on Direct Access to Physical Therapy

- "Safe"
- "Effective"
- "Efficient"

"An expanded physical therapy role would give patients more health care-provider choices, improve access to services that promote prevention and rehabilitation, and reduce the costs of care and disability."

"Expanded Role for the Physical Therapist: Screening Musculoskeletal Disorders"

Physical Therapy, 1975
James JJ, Stuart RB

- The authors, both physicians, concluded that PTs provide quality medical care when screening patients with low back pain.
- Conducted in two phases at two large Army hospitals, the study included measurements of patient wait times, treatment times, and total care times. Care quality was assessed through patient and physician interviews, and through reviews of patient records.
- All 14 orthopedic surgeons involved in the study approved the direct access model and reported that no significant errors were made by any of the PTs.

100%

All 14 participating orthopedic surgeons approved the direct access to physical therapy model

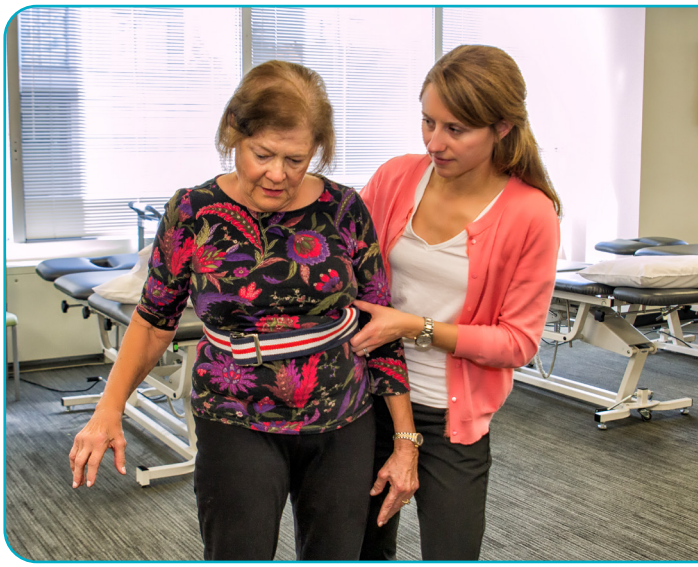
> "The care those patients receive should be of acceptable quality as assessed by professional judgment, and furthermore, that care should be acceptable and satisfactory to the patient."

"Management of joint and soft tissue injuries in three general practices: value of on-site physiotherapy"

British Journal of General Practice, 1993
Hackett GI, Bundred P, Hutton JL, et al.

- The authors, including a physician, concluded that offering physical therapy via direct access or as a service through a general medical practice is a cost-effective way to manage joint and soft-tissue complaints.
- The study considered patients with joint and soft-tissue injuries who presented to either a practice with physicians and PTs on staff, a direct access practice with PTs, or a practice with physicians who referred them to physical therapy outside of the practice.
- The authors found that physical therapy services accessed through direct access result in lower prescription rates, less imaging, and lower costs compared with services accessed via physician referral.

> "Access to physiotherapy via hospital specialists resulted in considerably longer delays than [on-site] physiotherapy and greatly increased the financial costs for the patient."



"Validation of an Advanced Practice Physiotherapy Model of Care in an Orthopaedic Outpatient Clinic"

BMC Musculoskeletal Disorders, 2013
Desmeules F, Toliopoulos P, Roy J-S, et al.

- The authors, including physicians, concluded that advanced practice PTs in Canada can "accurately diagnose and make treatment recommendations in the context of an outpatient orthopaedic clinic."
- 120 patients were independently assessed by an APP and one of three orthopaedic surgeons for hip or knee complaints at an outpatient orthopaedic clinic in Montreal.
- The PT had 30 years of practice experience and received 11 months of training from the orthopaedic surgeons on orthopaedic diagnoses and indications for imaging.
- The orthopaedic surgeons and PT agreed on primary diagnosis 88% of the time (93% of the time when secondary diagnoses were considered), on conservative treatment approaches 96% of the time, and on recommending surgery 89% of the time.

9 out of 10

Orthopedic surgeons agreed with the PT on primary diagnosis (88%)

"We found very high concordance on diagnoses and on treatment approach between the APP and orthopaedic surgeons."

"Pursuit and Implementation of Hospital-Based Outpatient Direct Access to Physical Therapy Services: An Administrative Case Report"

Physical Therapy, 2010
Boissonnault WG, Badke MB, Powers JM

- Authors described the process of obtaining institutional medical board and hospital authority board approval to implement a direct access program at the University of Wisconsin Hospital and Clinics (UWHC) Authority.
- Wisconsin State Administrative Code for hospitals reflects Centers for Medicare and Medicaid Services guidelines related to provision of physical therapy. The Wisconsin Department of Health and Family Services stated that hospitals could adopt the direct access model if authorized by the facility's medical board.
- In 2007 the UWHC Medical Board (made up of hospital risk management representatives and UW-Madison Medical School department chairs) and Hospital Authority Board both unanimously approved the direct access model.
- The approved scope of practice included PTs referring patients directly to radiologists for plain film radiography.

100%

Accuracy of decisions made by PTs who participated in the UWHCA direct access program, per physician chart reviewers

"Consumer choice and timely patient access to the appropriate practitioner were the impetus for obtaining UWHCA administrative approval of and implementation of the direct access model."

Patient Satisfaction

Does direct access to physical therapy improve patient satisfaction? The evidence says yes.

"Physical Therapy Care for Low Back Pain: Monitored Program of First-Contact Nonphysician Care"

Physical Therapy, 1988
Overman SS, Larson JW, Dickstein DA, Rockey PH

- In this first study highlighting direct access in a nonmilitary setting, the researchers, including two who were physicians, compared outcomes for two groups of patients with low back pain: those who saw a PT first, and those who saw a physician first.
- The PT-first patients expressed greater satisfaction with several aspects of their care, including overall experience, time spent receiving care, and time spent waiting for care.
- Physician-managed patients who were referred to physical therapy were more satisfied with the care they received than those who were never referred to physical therapy.
- The authors concluded that PTs provide safe, effective, and efficient first-contact care for patients experiencing low back pain.
- Patients with severe dysfunction who saw a PT first had far greater functional improvement than those who saw a physician.

Patients Who Were "Very Satisfied"

42% treated by a PT

32% treated by a physician

> "Our patients were more satisfied with all aspects of physical therapist primary care than with physician care."

"Expanded Role for the Physical Therapist: Screening Musculoskeletal Disorders"

Physical Therapy, 1975
James JJ, Stuart RB

- Authors concluded that patients were satisfied with the care they received through direct access to physical therapy.
- The study took place at two large Army hospitals and entailed comparing data from patients with low back pain who were initially screened either by a PT or by a physician.
- Patients screened by PTs had significantly shorter wait times and treatment times compared with those who were screened by physicians.

42-54 minutes
Reduction in total treatment time when patients are screened by PTs versus being screened by physicians

"All fifty patients randomly queried on their satisfaction with the care they had received in the physical therapy clinic were satisfied."

"Validation of an advanced practice physiotherapy model of care in an orthopaedic outpatient clinic"

BMC Musculoskeletal Disorders, 2013
Desmeules F, Toliopoulos P, Roy J-S, et al.

- Authors, including physicians, concluded that patients report higher satisfaction when evaluated by an advanced practice PT (APP) than when evaluated by an orthopedic surgeon.
- 120 patients were independently assessed by an APP and one of three orthopaedic surgeons for hip or knee complaints at an outpatient orthopedic clinic in Montreal, Canada.
- The PT had 30 years of practice experience and received 11 months of training from the orthopedic surgeons on orthopedic diagnoses and indications for imaging.
- The authors posited that the higher reported satisfaction "may be due to the fact that the APP spent more time with the patient and gave more advice, education, and exercises."

+7.1

Higher mean satisfaction scores for patients seen by the advanced practice PT compared to those seen by an orthopedic surgeon

> "Patient satisfaction was significantly higher for [advanced practice PT] care than for the surgeons' care."

"Direct Access Compared With Referred Physical Therapy Episodes of Care: A Systematic Review"

Physical Therapy, 2014
Ojha HA, Snyder RS, Davenport TE

- Authors concluded that patients who received physical therapy via direct access reported greater satisfaction with the care provided than patients in the physician-referral group.
- The systematic review of the literature compared health care costs and patient outcomes when patients with musculoskeletal injuries attended physical therapy via direct access compared with when they did so via physician referral.
- Of the two studies that investigated patient satisfaction, one found that 5% more of the participants in a direct access group were satisfied or very satisfied compared with those in a referred group, while the second showed a 9% increase in reported satisfaction among those seen through direct access.

100%

of studies investigating patient satisfaction found improved satisfaction among those seen via direct access

"There were statistically significant and clinically meaningful findings across studies that satisfaction and outcomes were superior."

"The impact of direct access physiotherapy compared to primary care physician led usual care for patients with musculoskeletal disorders: a systematic review of the literature"

Disability and Rehabilitation, 2021
Demont A, Bourmaud A, Kechichian A, Desmeules F

- Authors found that direct access to physical therapy significantly improves patient satisfaction.
- The systematic review of 18 studies related to direct access physical therapy for patients with musculoskeletal disorders included six that evaluated patient satisfaction compared with when they received physician-led medical care.
- Overall, the authors concluded that direct access to physical therapy reduces patient wait times, improves treatment compliance, decreases medication use, reduces the frequency of advanced medical imaging, and decreases total health costs (with superior outcomes and no documented adverse events) when compared with standard physician-led care for patients with musculoskeletal disorders.
- Patients treated via direct access were significantly less likely to have X-ray imaging, be referred to a specialist, or receive a prescription for NSAIDs, analgesics, or muscle relaxants.

Reasons for Higher Satisfaction Levels

- PTs may spend more time with their patients
- PTs may explain rehabilitation goals in more detail
- Many patients already had a positive opinion of physical therapy

> "[Studies] reported high levels of satisfaction of self-referred patients assessed by a physiotherapist and satisfaction levels [that] were significantly higher compared with primary care physician-led care for all studies."

Physical Therapist Job Satisfaction

Does direct access to physical therapy improve patient satisfaction? The evidence says yes.

"Primary Care Physical Therapy Practice Models"

Journal of Orthopaedic & Sports Physical Therapy, 2005
Murphy BP, Greathouse D, Matsui I

- In describing three models of primary care physical therapy, the authors suggested that PTs are more satisfied with their jobs when they practice in a direct access setting.
- The authors provided clinical commentary on direct access models at Army medical facilities, Kaiser Permanente Northern California, and at the Department of Veterans Affairs Salt Lake City Health Care System (VASLCHCS).
- Each system established a direct access model to provide high-quality patient care while maximizing cost-effectiveness.
- Participating PTs pursued advanced training prior to providing primary care services.

> "The physical therapists [at VASLCHCS] all noted a significant increase in job satisfaction due to the more collegial relationships they shared with other providers, the challenge of working with complex patients in a direct-access manner, and the additional learning that took place during the implementation of, and continued participation in, the [direct access] program."

"Student Perceived Competence in Direct Access to Physical Therapy in a Doctor of Physical Therapy Program at a Historically Black University"

Journal of Health Care for the Poor and Underserved, 2014
Owens SC, Tucker P, Rainey Y, Edmunds B, Shetty A

- Authors concluded that coursework in doctor of physical therapy programs that include screening to rule out medical pathology is essential in improving PT-perceived competence in providing care via the direct access model.
- The researchers created a survey instrument to assess 18 DPT students' perceived competence in providing physical therapist services through direct access during each year of their three-year educational program.
- They found that student-perceived competence increased after they completed courses in differential diagnosis, musculoskeletal conditions, and cardiopulmonary management.

Survey Measures

The survey measured student-perceived competence in several areas of direct access practice.

- Treating patients with musculoskeletal conditions
- Evaluating and treating patients with spine, upper extremity, and lower extremity dysfunction
- Ruling out serious pathology as a source of musculoskeletal pain

> "Clinical education is a key component to shaping students' perceived competence. Providing physical therapy students with more consistent opportunities to practice as primary care providers, as they progress through the curriculum, is critical to improving students' perceived competence with the practice of direct access."

Logistical Challenges

How do factors like public awareness of the direct access model, practice act restrictions, and copays affect utilization of direct access?

"An Overview of 5 Years of Patient Self-Referral for Physical Therapy in the Netherlands"

Physical Therapy, 2015
Swinkels ICS, Kooijman MK, Spreeuwenberg PM, et al.

- Authors noted that the number of patients in the Netherlands accessing physical therapist services via the direct access model exceeded expectations, and concluded that this may be explained by "individuals being aware that they can access physical therapy without a physician's referral."
- The retrospective analysis considered 81,950 patients who received physical therapy services between 2004 and 2010.
- The authors also concluded that patients seen via the direct access model obtained therapy faster and required fewer treatment sessions than patients seen following a physician's referral.

28.9% → 46.2%
Growth in proportion of patients in the Netherlands who self-referred to physical therapy between 2006 and 2010

> "The volume of self-referrers has exceeded expectations....This growth might partly be explained by more individuals being aware that they can access physical therapy without a physician's referral."

"Hospital-Based Outpatient Direct Access to Physical Therapist Services: Current Status in Wisconsin"

Physical Therapy, 2016
Boissonnault WG, Lovely K

- Authors concluded that "perceived obstacles [to direct access implementation and utilization] appear to be centered on a lack of awareness and understanding of [the] direct access to physical therapy services model."
- The authors surveyed the directors of rehabilitation services at 62 hospitals and medical centers in Wisconsin to investigate the extent of direct access utilization for outpatient physical therapy services. Forty-seven surveys were completed, with 20 representing facilities offering direct access to outpatient physical therapy.
- Survey respondents representing facilities with and without a direct access model identified the primary obstacles to model implementation as 1) a lack of health care provider and administrator knowledge of the direct access model, 2) concerns expressed by physician-referral sources, and 3) concerns regarding PT competence with medical screening and differential diagnosis.
- At all but one facility offering direct access services, less than 10% of patients were seen via the direct access model, with challenges to model utilization identified as 1) lack of patient and public knowledge of the direct access model, 2) lack of physician, other health care provider, and administrator knowledge, and 3) lack of public knowledge of PT's education on differential diagnosis and red flag identification.

> "Respondents representing direct access organizations reported more timely access to physical therapist services, enhanced patient satisfaction, decreased organizational health care costs, and improved efficiency of resource utilization as benefits of model implementation. For organizations without direct access, not being an organizational priority, concerns from referral sources, and concerns that the physician-patient relationship would be negatively affected were noted as obstacles to model adoption."

"Direct Access Utilization Survey Report"

The American Physical Therapy Association, 2016

- The report relied on a survey of nearly 6,000 members of APTA to conclude that direct access services are more widely used in private practice outpatient clinics and in states with unrestricted direct access laws (compared with provisional or limited direct access laws).
- The survey included questions on the provision and promotion of direct access services and barriers to implementation.
- The most frequently reported means of promoting direct access was via direct marketing to patients.
- The three most commonly identified barriers to providing direct access were institutional policy requiring referral, consumers not knowing they could seek physical therapy services without a referral, and providers not knowing whether insurers would cover services provided via direct access.

> "Direct access is utilized less often in states with limited direct access; advocating changes in these laws to reduce or eliminate restrictions will improve patient access to physical therapist services."

"Unrestricted Direct Access to Physical Therapist Services Is Associated With Lower Health Care Utilization and Costs in Patients With New-Onset Low Back Pain"

Physical Therapy, 2020
Garrity BM, McDonough CM, Ameli O, et al.

- Authors concluded that fewer restrictions on direct access to physical therapy reduces utilization of other health resources and lowers the cost of care.
- The retrospective cohort study considered 59,670 patients with new-onset low back pain. Among individuals who saw a PT first, the researchers examined health care utilization for patients in states with unrestricted direct access compared with patients in states with provisional direct access to physical therapy.
- Individuals who saw a PT first in states with provisional access were more likely to be referred for plain film imaging and had more physician visits than patients who saw a PT first in states with unrestricted access.
- When comparing total cost of care, those who saw a PT first in states with unrestricted access had the lowest average 30-day costs, followed by those who saw a primary care physician first in unrestricted states. Those seeing a PT first in provisional-access states had the highest 30-day costs.

13% **Lower costs at 30 days for patients who saw a PT first in unrestricted-access states compared to states with provisions**

> "Physician gatekeeping, referral requirements, and time or visit limits may all contribute to increased health care utilization for patients who see a physical therapist in provisional-access states. In particular, restrictions on access to a physical therapist, as seen in provisional-access states, was also associated with higher relative costs for individuals who saw a physical therapist first than for those who saw a PCP first."

"Health Insurance Design and Conservative Therapy for Low Back Pain"

The American Journal of Managed Care, 2019
Carey K, Ameli O, Garrity B, et al.

- Researchers found that out-of-pocket cost for physical therapy influences patient choice of treatment.
- The retrospective cohort study of 117,448 patients with new-onset low back pain examined the relationship between common features of health insurance plans and patient selection of primary care physician, PT, or chiropractor as first-line provider.
- Descriptive statistics were reported for plan types [Preferred Provider Organizations (PPOs), Exclusive Provider Organizations (EPOs), Health Maintenance Organizations (HMOs), Point of Service Plans (POS)], deductibles, copayments, and consumer-driven health plans with high deductibles and associated health reimbursement accounts or health savings accounts.
- PPO plans were associated with the highest odds of patients seeing a PT first; EPO plans were associated with the lowest odds.
- The odds of a patient seeing a PT first declined steadily as copayments increased, from 7% at copays of $1-$20 to 29% at copays of over $30.

Higher Copays = Less Physical Therapy

Patients with copays of $30 or more are 29% less likely to see a PT first than those with no copay

> A patient with new-onset LBP covered under a health plan with a relatively low or zero [out-of-pocket] cost for physical therapy or chiropractic care may be more likely to choose early conservative therapy, in harmony with the clinical guidelines.

Diagnostic Imaging

Do physical therapists who practice in direct access settings appropriately order diagnostic imaging when they should? The evidence says yes.

"Clinical Diagnostic Accuracy and Magnetic Resonance Imaging of Patients Referred by Physical Therapists, Orthopaedic Surgeons, and Nonorthopaedic Providers"

Journal of Orthopaedic Sports Physical Therapy, 2005
Moore JM, Goss DL, Baxter RE, et al.

- Researchers found that PTs were as competent as orthopedic surgeons in terms of clinical diagnostic accuracy, and that both groups had significantly greater diagnostic accuracy compared with non-orthopedic providers.
- The retrospective analysis of 560 patients compared clinical diagnoses by PTs, orthopedic surgeons, and non-orthopedic providers to MRI findings to determine diagnostic accuracy.
- The participating orthopedic surgeons and radiologists unanimously agreed that PTs had appropriately requested MRIs for all patients they had referred to radiology.
- Participating PTs had attended a two-week postgraduate neuromusculoskeletal evaluation course that provided advanced clinical and laboratory education in differential diagnosis, radiology, and pharmacology.

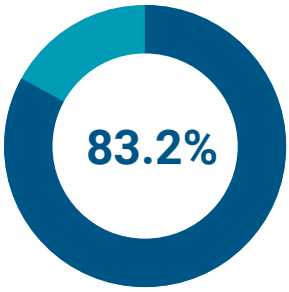
> "The findings from this study further support the basic premise that PTs are not only capable of making good clinical judgments regarding the ordering of diagnostic imaging studies and the diagnosis of musculoskeletal conditions, but that these decisions can be made independent from physician referral."

To explore resources relevant to diagnostic imaging, visit the website of the APTA Academy of Orthopaedic Physical Therapy's Imaging Special Interest Group.

"Diagnostic Imaging in a Direct-Access Sports Physical Therapy Clinic: A 2-Year Retrospective Practice Analysis"

The International Journal of Sports Physical Therapy, 2016
Crowell MS, Dedekam EA, Johnson MR, et al.

- Authors concluded that "based on imaging rates published in other studies, physical therapists did not appear to over-utilize advanced diagnostic imaging."
- The two-year retrospective cohort study included 1,303 new patient evaluations by four PTs at the United States Military Academy at West Point.
- A board-certified radiologist determined the appropriateness of each order based on American College of Radiology criteria, and found that PTs appropriately ordered advanced diagnostic imaging in more than 80% of cases.



Rate at which PTs appropriately ordered advanced diagnostic imaging

> The majority of physical therapists in the U.S. military provide some degree of direct-access musculoskeletal care and possess privileges to order both radiographs and advanced diagnostic imaging.

"Musculoskeletal Imaging for Low Back Pain in Direct Access Physical Therapy Compared to Primary Care: An Observational Study"

The International Journal of Sports Physical Therapy, 2022
Crowell MS, Mason JS, McGinnis JH

- Authors concluded that PTs practicing in a direct access setting were "significantly more likely than primary care providers to adhere to guidelines for low back pain imaging in young, athletic patients."
- The researchers reviewed Military Health System Data Repository data to compare rates of compliance among PTs and primary care providers with Healthcare Effectiveness Data and Information Set (HEDIS) diagnostic imaging measures in low back pain.
- The HEDIS measure identified the percentage of patients who did not have an imaging study ordered on the first encounter with a diagnosis of low back pain or in the 28 days following that diagnosis.

> Overutilization of diagnostic imaging is associated with poor outcomes and increased costs. Physical therapists demonstrate the ability to order diagnostic imaging safely and appropriately, and early access to physical therapy reduces unnecessary imaging, lowers healthcare costs, and improves outcomes.

"Ordering of Diagnostic Imaging by Physical Therapists: A 5-Year Retrospective Practice Analysis"

Physical Therapy, 2019
Keil AP, Baranyi B, Mehta S, Maurer A

- Researchers concluded that experienced, board-certified physical therapists who have completed relevant competencies can appropriately refer patients for imaging.
- The retrospective analysis looked at the medical records of patients who had imaging referrals placed by 10 PTs at a single practice over a period of five years.
- A radiologist reviewed the referrals and applied American College of Radiology Appropriateness Criteria to determine whether orders were appropriate.
- The authors found that in all but 10 cases out of 108, PTs had made the right the decision in ordering imaging.

Over 90%
of imaging studies requested by PTs were deemed appropriate

> "The findings of this study indicate that [experienced PTs] could exercise judicious use of referral privileges to meet 'usually appropriate' ACR guidelines. Additionally, there were no issues related to reimbursement of insurance claims for diagnostic imaging referrals when placed by a physical therapist."

"Referral for Imaging in Physical Therapist Practice: Key Recommendations for Successful Implementation"

Physical Therapy, 2021
Keil AP, Hazle C, Maurer A, et al.

- Authors provided imaging referral recommendations to PTs for use as a guideline in clinical practice.
- The article emphasized the importance of effective communication between PTs and radiologists.
- PTs should include the following information when referring a patient for imaging: 1) patient name and contact information, 2) referring PT name and contact information, 3) brief clinical summary detailing need for imaging, 4) mechanism of injury and anatomical location, 5) results of essential clinical tests (positive, negative, inconclusive), 6) neurovascular status (when considering post-trauma or neurological conditions such as radiculopathy or myelopathy), 7) brief results from prior imaging studies, 8) hypothesized clinical diagnosis, 9) study being requested, and 10) statement on urgency of results if needed sooner than routine reporting timeline.

2016

Year U.S. physical therapist educational curricula was mandated by accreditation standards to include imaging content in their programming

"As increasingly more patients access physical therapist services without a referral, it is possible that the frequency of patients presenting with conditions that fall outside a physical therapist's scope of practice may also increase. Additionally, the need for physical therapists to determine when and if diagnostic imaging is appropriate may become more relevant as patients bypass other health care providers who would traditionally weigh in on imaging decisions before patients are referred to physical therapists."

"Physical Therapists Are Routinely Performing the Requisite Skills to Directly Refer for Musculoskeletal Imaging: An Observational Study"

Journal of Manual & Manipulative Therapy, 2022
Mabry LM, Severin R, Gisselman AS

- The authors deployed a survey to determine that PTs are routinely practicing the skills required for direct referral to radiology for musculoskeletal imaging.
- An expert panel developed a list of nine requisite skills related to the referral of patients for imaging. The skills list was distributed electronically to PTs across the United States, and 4,796 responded by indicating which skills they routinely practiced.
- The researchers found that all nine skills were routinely performed by a majority of respondents.
- PTs with DPT degrees routinely exhibited more imaging skills compared with PTs with master's or bachelor's degrees. Residency/fellowship-trained PTs, board-certified PTs, and APTA members were most likely to perform requisite skills.
- Skills were identified as:
  1. Triaging the patient
  2. Utilizing evidence-based imaging guidelines
  3. Considering risk/benefit of imaging
  4. Requesting imaging
  5. Suggesting an imaging modality
  6. Reviewing imaging reports
  7. Educating patients on imaging findings

9 out of 9 **Requisite skills for imaging referral that PTs reported practicing routinely**

> "Physical therapists have repeatedly demonstrated their competency in musculoskeletal management compared to primary care physicians. Physical therapists who directly refer for imaging are more compliant with evidence-based imaging guidelines than their primary care counterparts, thereby reducing diagnostic imaging utilization."

"Diagnostic Imaging for Distal Extremity Injuries in Direct Access Physical Therapy: An Observational Study"

International Journal of Sports Physical Therapy, 2023
Crowell MS, Mason JS, Morris JB, et al.

- Authors concluded that PTs who used diagnostic imaging in a direct access setting diagnosed fractures in similar proportions for foot/ankle and wrist/hand injuries.
- They also determined that PTs quickly consulted with orthopedic surgeons or orthopedic physician associates (then called physician assistants) when fractures were identified.
- The retrospective cohort study was conducted at a direct access clinic that is part of the Keller Army Community Hospital at the U.S. Military Academy at West Point.
- The fracture screening system (Ottawa Ankle Rules) deployed by PTs resulted in diagnostic accuracy similar to that previously reported in emergency departments.

> "Physical therapists have demonstrated the ability to identify fractures when operating in a direct-access setting. Numerous case reports from a direct-access sports physical therapy clinic have been published that highlight the ability of physical therapists to appropriately recognize and disposition patients with foot/ankle and wrist/hand fractures."

Impact of Early Access to Physical Therapy

How does early access to physical therapy impact outcomes, health care utilization, and costs?

"A Novel Plan Helps Hospital Wean Itself Off Pricey Tests"

The Wall Street Journal, 2007
Fuhrmans V

- The author reported that health care inefficiencies causing patients to bounce from medical specialist to specialist can be solved by providing early access to physical therapy.
- When patients with back pain at Virginia Mason Medical Center (VMMC) went to physical therapy instead of seeing a physician first, the percentage who received MRIs dropped by a third and appointment wait time was reduced from about a month to one day.
- VMMC eventually decided to adopt a practice model where patients meet immediately with both a physician and a PT, and they typically start treatment with physical therapy.

$1,200

Average reduction in the cost of an episode of care under the Virginia Mason model

> "Once the inefficiencies were mapped out on paper, the solution was clear to everyone, Ms. King says: Put the physical therapy in front. That's also what a lot of medical literature suggests. The hospital made the change, and also worked with its team of employers to eliminate extra steps in the medical maze for patients."

"Primary Care Referral of Patients With Low Back Pain to Physical Therapy: Impact on Future Health Care Utilization and Costs"

Spine, 2012
Fritz JM, Childs JD, Wainner RS, Flynn TW

- Authors concluded that early access to physical therapy for patients with low back pain is associated with lower medical costs and reduced resource utilization.
- The retrospective analysis of data from a national database of employer-sponsored health insurance plans included patients who visited their primary care physician for low back pain and saw a PT within the following 90 days.
- Patients were categorized as having early access to physical therapy if they saw a PT within 14 days of the initial visit with their PCP. If they saw a PT 14-90 days after their initial visit with the PCP, they were categorized as having delayed access to physical therapy.
- Early access to physical therapy was associated with decreased likelihood of advanced imaging procedures, additional physician visits, surgery, injections, and opioid use.
- Total low back pain-related health care costs for patients with early access to physical therapy were $2,736 lower than costs for patients with delayed access to physical therapy.

$2,736

Average savings in low back pain-related costs for patients who received early physical therapy compared to those who received delayed therapy

"The timing of physical therapy utilization was strongly related to subsequent health care utilization and costs, with early use associated with reduced risks of advanced imaging, surgery, injections, opioid use, and lower overall health care costs compared with delayed use."

"An evaluation of prompt access to physiotherapy in the management of low back pain in primary care"

Family Practice, 2004
Pinnington MA, Miller J, Stanley I

- Authors concluded that early access to physical therapy for patients with acute low back pain is feasible, cost-effective, and leads to significant functional improvements.
- The researchers analyzed data from 522 patients with LBP who were seen by general practitioners and referred to physical therapy in the UK.
- Patients treated promptly by a PT also had significantly less pain and saw significant improvements in general health.
- Data from health diaries, patient interviews, and MD interviews suggested that patients and MDs were satisfied with the care provided by early access to physical therapy. The authors concluded that providing prompt access to physical therapy is feasible, with the greatest limitation being the number of available physical therapists.

> One benefit of prompt access identified by patients in the present study is the reassurance provided by contact with a physiotherapist early in an episode of LBP. Since the majority (72%) were seen only once, confidence in managing the condition engendered in patients by modifying their interpretation of the meaning of the pain and how to react to, manage and cope with it appears to be an important benefit of early contact.

"Physical Therapy or Advanced Imaging as First Management Strategy Following a New Consultation for Low Back Pain in Primary Care: Associations with Future Health Care Utilization and Charges"

Heath Services Research, 2015
Fritz J, Brennan G, Hunter S

- Researchers used electronic medical record and insurance claims data to analyze utilization and low back pain-related charges over a one-year period.
- The study followed 841 people with LBP who needed additional care after an initial appointment with their primary care provider, and found that costs for those whose first received an MRI averaged $6,664 over the following year.
- For those who first went to physical therapy instead, the cost of care over the following year averaged $1,871.

$4,793

Average cost increase of care for patients referred by PCPs for MRIs instead of directly to physical therapy

"Advanced imaging as a first management was associated with higher health care utilization and charges than physical therapy."

"Implications of early and guideline adherent physical therapy for low back pain on utilization and costs"

BMC Health Services Research, 2015
Childs JD, Fritz JM, Wu SS, et al.

- Authors concluded that early referral to physical therapy can drive "substantial" health cost savings.
- The researchers analyzed data from 753,450 patients with low back pain who saw a primary care physician within the Military Health System. Of the 122,723 patients who utilized physical therapy within 90 days of their initial PCP visit, 59% were categorized as having early access to physical therapy (within 14 days of seeing a PCP).
- Patients who received early physical therapy were less likely to receive advanced imaging, spinal injections, lumbar spine surgery, or opioids compared with those who received delayed physical therapy.
- LBP-related cost of care averaged $1,202 less for patients who accessed early physical therapy.

60%

Cost savings for patients who received early physical therapy compared to those who received delayed therapy

> "Initial management decisions following a new episode of LBP have profound implications for clinical outcomes and downstream utilization and costs."

"Immediate Physical Therapy Initiation in Patients With Acute Low Back Pain Is Associated With a Reduction in Downstream Health Care Utilization and Costs"

Physical Therapy, 2018
Liu X, Hanney WJ, Masaracchio M, et al.

- Researchers concluded that early referral to physical therapy for patients with acute low back pain may significantly decrease health care utilization and costs.
- The retrospective cohort study considered 46,914 patients who were evaluated by a physician secondary to acute onset of low back pain.
- The authors categorized those who were referred to physical therapy (14 percent of the total) as receiving immediate physical therapy (seen within 3 days of the physician visit), early physical therapy (within 4-14 days), delayed physical therapy (within 15-28 days), and late physical therapy (within 29-90 days).
- Patients who received immediate physical therapy had the lowest utilization of opioid medications and advanced imaging as well as the fewest emergency department visits.

$7.2 billion

Estimated annual nationwide cost savings if all acute low back pain patients received physical therapy within three days

"Our findings suggest that reduction in LBP-related health care costs could be substantive if immediate or early physical therapy initiation are achieved among patients who are going to be referred for physical therapy."

"The Timing of Physical Therapy for Low Back Pain: Does It Matter in Workers' Compensation?"

Workers Compensation Research Institute, 2020
Wang D, Mueller K, Lea R

- Authors reported that for workers with low back pain injuries and for whom physical therapy was appropriate, initiating physical therapy within 14 days of injury was associated with lower utilization of medical services, lower overall medical costs, and shorter duration of temporary disability.
- The retrospective analysis considered nearly 26,000 claims for LBP from the Workers Compensation Research Institute Detailed Benchmark/Evaluation database.
- The researchers compared outcomes based on timing of the initial visit to physical therapy: within three days, four to seven days, eight to 14 days, 15 to 30 days, or more than 30 days post-injury.
- Workers who initiated physical therapy more than 30 days post-injury were 47% more likely to get MRIs and 46& more likely to receive opioids. Temporary disability weeks were also much higher, as were average payment claims for all medical services.

58%-69%

Increase in disability claims for all medical services when physical therapy was initiated more than 30 days post-injury

"Association of Early Physical Therapy With Long-term Opioid Use Among Opioid-Naive Patients With Musculoskeletal Pain"

JAMA Network Open, 2018
Sun E, Moshfegh J, Rishel CA, et al.

- Authors concluded that early access to physical therapy reduces the use of opioids among individuals with musculoskeletal cervical, shoulder, knee, or lumbar pain.
- The researchers conducted a cross-sectional analysis of health insurance claims from 88,985 patients who went to an emergency department or a physician's office and were diagnosed with neck, shoulder, knee, or low back pain.
- Early physical therapy—defined as having at least one physical therapy visit within 90 days of the diagnosis—was associated with statistically significant reductions in opioid utilization.

10%

Reduction in use of prescribed opioids by patients who received early physical therapy

"By serving as an alternative or adjunct to short-term opioid use for episodes of acute musculoskeletal pain, early use of physical therapy may reduce total opioid exposure. In addition, by concurrently addressing physical impairments, physical therapy may present functional gains that decrease long-term opioid use."

"Delayed timing of physical therapy initiation increases the risk of future opioid use in individuals with knee osteoarthritis: a real-world cohort study"

British Journal of Sports Medicine, 2023
Kumar D, Neogi T, Peloquin C, et al.

- Authors found that delayed physical therapy was associated with higher risk of opioid use in people with knee osteoarthritis, and that the risk became greater the longer therapy was delayed.
- The researchers analyzed commercial and Medicare Advantage claims data for adults with incident knee OA who were referred for physical therapy within one year of diagnosis.
- Increased risk of opioid use with delayed physical therapy was observed regardless of prior experience with opioids.

Opioid Use by Patients With Osteoarthritis

Delayed PT = Increased risk

> Guidelines recommend exercise and education, typically delivered as part of PT care, as the first line intervention for managing pain due to knee OA. However, utilization of PT for people with knee OA remains low and healthcare providers should consider referral to PT as an early strategy for these patients.

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