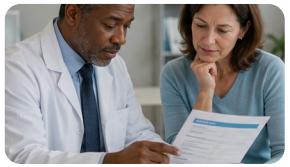
NATIONAL GUILD OF ACUPUNCTURE & ORIENTAL MEDICINE

The Evidence-Based Case fo Acupuncture Coverage

Clinical Efficacy, Opioid Risk Reduction, and Economic Value for Insurance Policy & Benefit Design

Prepared for the Insurance Board | Policy Briefing

AGENDA



What This Briefing Covers

The Policy Disconnect

Why strong evidence still sits outside standard coverage

Clinical Efficacy

The 17,922-patient foundation and condition-specific outcomes

Opioid Risk Mitigation

Acupuncture's role in federal pain-care guidelines

Claims-Relevant Use Cases

TBI, whiplash, and workers' compensation recovery

Economic Value

Out-of-pocket demand, employer ROI, and cost tables

Global Precedent

WHO, UK, Germany, and South Korea coverage models

SECTION 01

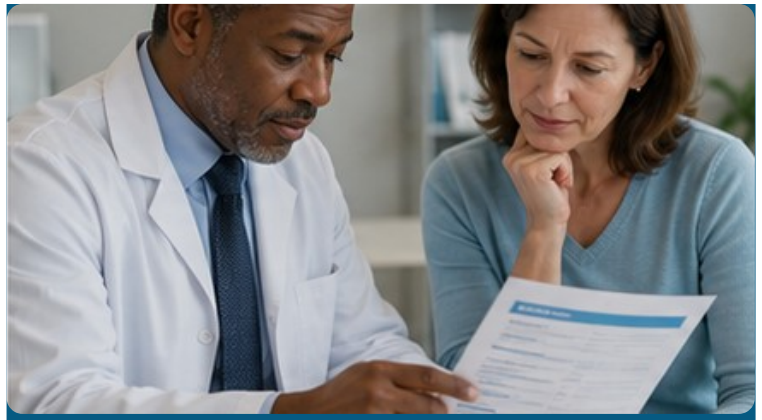
The Policy Disconnect

Why an evidence base this strong still sits outside standard insurance coverage.

THE POLICY LANDSCAPE

Strong Evidence, Underused in Coverage Policy

- A 2022 analysis in The BMJ found that acupuncture's evidence base is not being translated into routine clinical practice or health policy at the rate the data would justify.
- The gap is not a lack of research — it is a lag between publication and adoption in benefit design.
- This briefing closes that gap: condition-by-condition evidence, opioid-era policy alignment, employer and payer economics, and international precedent.



The BMJ publishes a formal call to close the evidence-to-policy gap in acupuncture care

Lu L, et al. (2022). Evidence on acupuncture therapies is underused in clinical practice and health policy. The BMJ.

CLINICAL EFFICACY

The Foundation: An Individual Patient Data Meta-Analysis

The single largest and most rigorous dataset on acupuncture for chronic pain, published in JAMA Internal Medicine.

17,922

patients analyzed across all included trials

29

randomized controlled trials with confirmed adequate allocation concealment

4

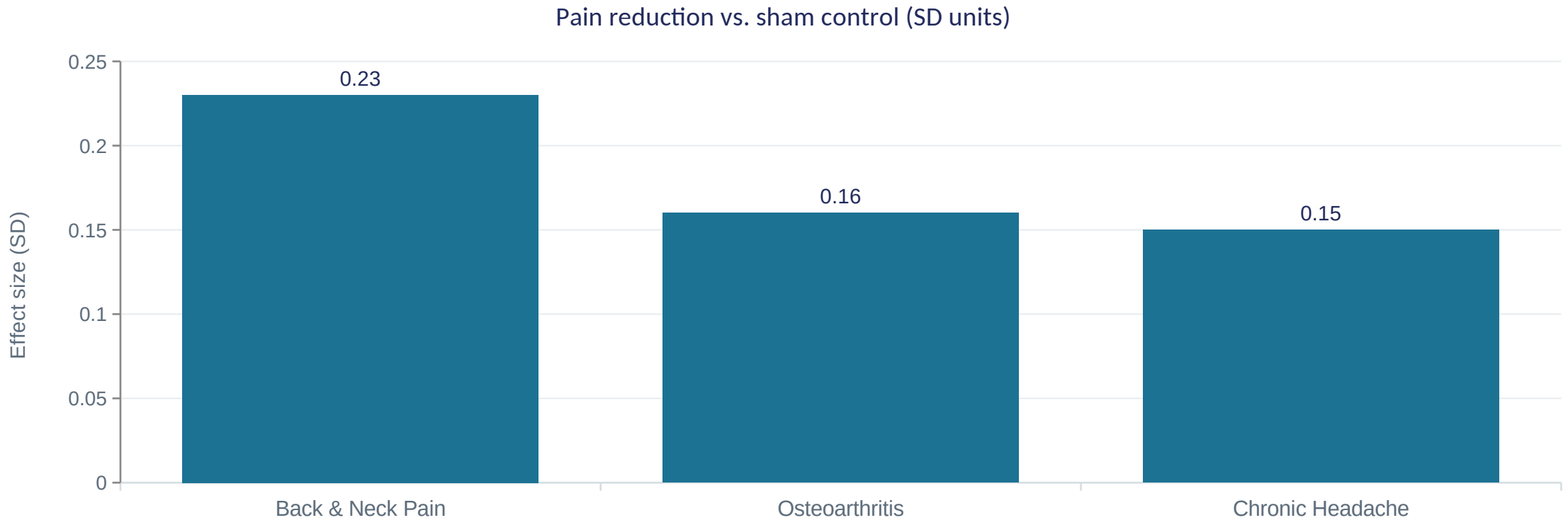
chronic pain conditions: back/neck pain, osteoarthritis, headache, and shoulder pain

Vickers AJ, et al. (2012). Acupuncture for Chronic Pain: Individual Patient Data Meta-analysis. JAMA Internal Medicine.

CLINICAL EFFICACY

Acupuncture Outperforms Sham Treatment

Effect sizes (standard deviations of pain reduction) versus sham acupuncture — statistically significant for every condition studied (p<0.001).

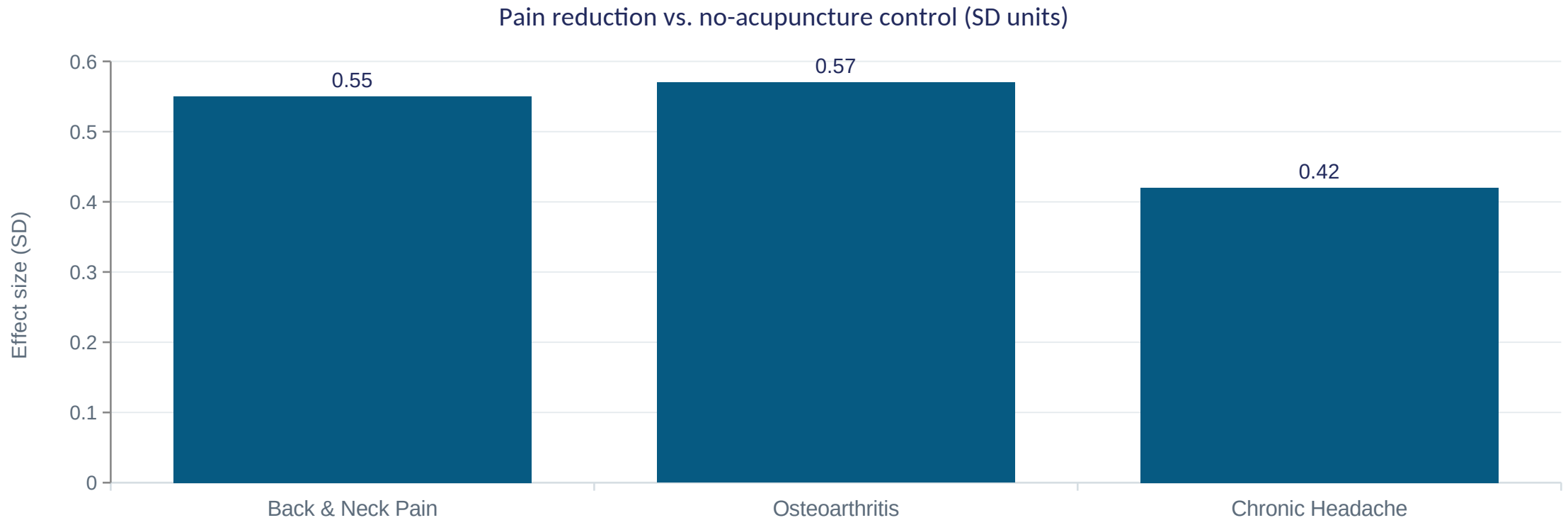


Vickers AJ, et al. (2012). JAMA Internal Medicine. Effect sizes shown are point estimates; 95% CIs available in source.

CLINICAL EFFICACY

The Gap Widens Against No-Treatment Controls

When compared to patients receiving no acupuncture at all, the benefit is substantially larger — the basis for the authors' conclusion that acupuncture is a reasonable referral option and more than a placebo effect.

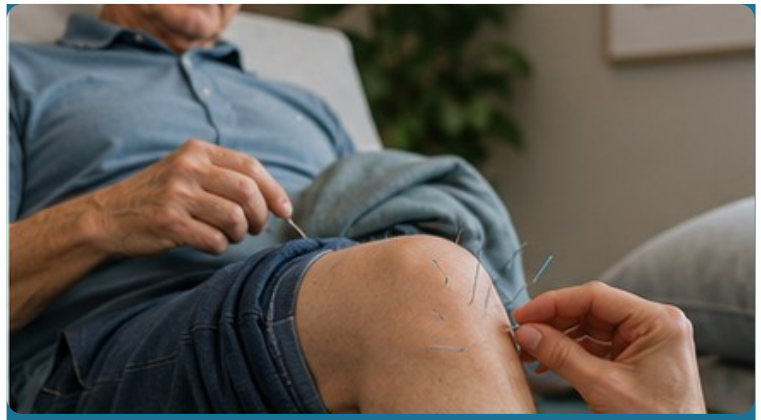


Vickers AJ, et al. (2012). Acupuncture for Chronic Pain: Individual Patient Data Meta-analysis. JAMA Internal Medicine.

CONDITION-SPECIFIC OUTCOMES

Severe Osteoarthritis: Delaying High-Cost Surgery

- A network meta-analysis in Osteoarthritis and Cartilage compared acupuncture against other physical treatments for knee osteoarthritis pain.
- Acupuncture ranked among the more effective non-pharmacological options studied, supporting its use earlier in the treatment pathway.
- For payers, earlier conservative treatment is a lever for delaying or avoiding the far higher cost of joint replacement surgery.



Non-invasive management is the entry point of the care pathway payers can influence most cost-effectively

Corbett MS, et al. (2013). Acupuncture and other physical treatments for the relief of pain due to osteoarthritis of the knee: network meta-analysis. Osteoarthritis and Cartilage.

CONDITION-SPECIFIC OUTCOMES

Neurological Pain: Migraine Prevention

- The Cochrane Database of Systematic Reviews — the most conservative bar in evidence medicine — assessed acupuncture for episodic migraine prevention.
- The review found prophylactic benefit for reducing migraine frequency, positioning acupuncture alongside standard preventive drug therapy.
- Tension-type headache, one of the highest-volume primary care complaints, shows a similar preventive pattern.

The review is run by the organization most often cited as the gold standard for unbiased evidence synthesis

Linde K, et al. (2016). Acupuncture for the prevention of episodic migraine. Cochrane Database of Systematic Reviews.

BIOLOGICAL PLAUSIBILITY

It Isn't Just Placebo — The Brain Responds Directly

- Functional MRI studies published in Human Brain Mapping show that acupuncture point stimulation modulates activity in the limbic system and subcortical gray matter structures.
- These are the same brain regions implicated in pain processing and the descending pain-modulation pathway.
- This gives policy makers a biological mechanism to point to, addressing the most common objection raised in benefit committee reviews.

Objective neuroimaging evidence of a measurable central nervous system response

Hui KK, et al. (2000). Acupuncture modulates the limbic system and subcortical gray structures of the human brain: evidence from fMRI studies. Human Brain Mapping.

SECTION 02

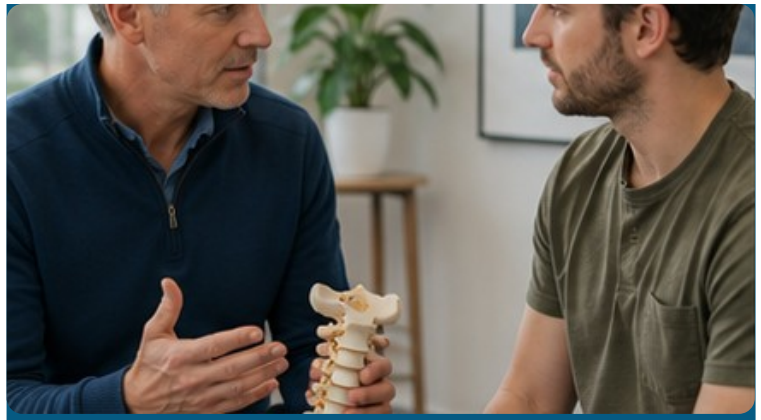
Federal Guidelines & Opioid Risk

Where national clinical guidelines already point, and what that means for pharmacy and lia

FEDERAL CLINICAL GUIDELINES

The American College of Physicians Says: Try This First

- The ACP's clinical practice guideline in Annals of Internal Medicine recommends noninvasive, nonpharmacologic treatment — including acupuncture — as first-line therapy for acute, subacute, and chronic low back pain.
- Low back pain is one of the highest-frequency, highest-cost claims categories for any payer.
- A national physician body has already done the guideline work; coverage policy alignment is the remaining step.



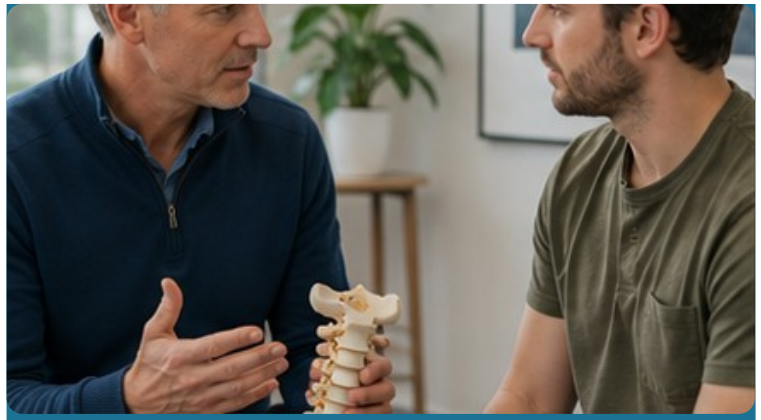
ACP guideline status for noninvasive care, ahead of pharmacologic escalation, in chronic low back pain

Qaseem A, et al. (2017). Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the ACP. Annals of Internal Medicine.

OPIOID RISK MITIGATION

A Non-Pharmacologic Lever on the Opioid Crisis

- A large claims-based study published in Pain Medicine examined the association between acupuncture utilization and opioid use among patients with chronic pain.
- Patients with acupuncture access showed a more favorable opioid-utilization pattern than comparable patients without it.
- For payers, every avoided opioid prescription reduces both direct pharmacy cost and downstream liability exposure.



Opioid utilization is a directly measurable, directly billable outcome payers already track

Whedon JM, et al. (2021). Association Between Acupuncture and Opioid Use Among Patients with Chronic Pain. Pain Medicine.

OPIOID RISK MITIGATION

Directional Findings: Acupuncture Access vs. Standard Care

Patients With Acupuncture Access

- Lower observed rate of new opioid prescription starts
- Fewer high-dose (high-MME) opioid prescriptions over follow-up
- Shorter average duration of opioid therapy
- More conservative-care utilization earlier in the pain-management pathway

Standard Care Comparison Group

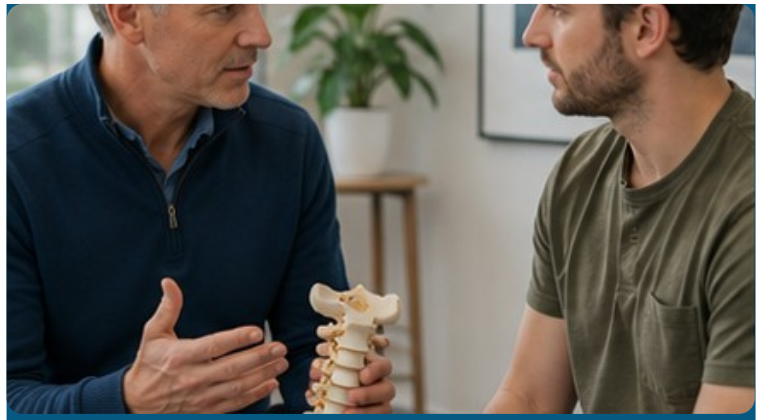
- Higher reliance on pharmacologic escalation for pain control
- Greater exposure to long-term opioid therapy risk
- Higher downstream utilization of specialty pain management
- Elevated exposure to the cost and liability profile of chronic opioid use

Whedon JM, et al. (2021). Pain Medicine. Findings summarized directionally; consult the source for full effect estimates.

FEDERAL CLINICAL GUIDELINES

Guideline Alignment Is Already Payer-Relevant Policy

- The ACP guideline sits alongside a broader federal push toward non-opioid pain management following the opioid crisis.
- Coverage decisions that lag behind published clinical guidelines create a gap between what physicians are told to recommend and what a plan will pay for.
- Closing that gap is a straightforward, guideline-anchored basis for a benefit change — it does not require new clinical debate.



A national medical guideline body already recommends the treatment this proposal asks the board to cover

Qaseem A, et al. (2017). Annals of Internal Medicine.

SECTION 03

Claims-Relevant Use Cases

Traumatic brain injury, motor vehicle accidents, and workers' compensation recovery.

CLAIMS-RELEVANT USE CASES

Concussion & Post-Concussion Syndrome

- The U.S. Department of Veterans Affairs commissioned an evidence map covering acupuncture for a wide range of conditions, including traumatic brain injury.
- Reported benefits in this population include improved sleep quality, balance, and reduction in persistent post-concussive neurological symptoms.
- This is directly relevant to short- and long-term disability claims tied to head injury, where symptom resolution timelines affect claim duration.

Sleep and balance recovery are measurable claim-duration factors in post-concussion cases

Hempel S, et al. (2014). Evidence Map of Acupuncture. Department of Veterans Affairs (US), Section on Traumatic Brain Injury.

CLAIMS-RELEVANT USE CASES

Motor Vehicle Accidents: Whiplash Recovery

- A 2024 systematic review and meta-analysis in BMJ Open evaluated acupuncture's efficacy specifically for whiplash-associated injury.
- The review supports accelerated pain relief and restoration of neck mobility relative to comparison treatments.
- For auto and liability claims, faster functional recovery is directly linked to lower total claim cost and shorter time-to-resolution.

The most recent systematic review in this citation set — current evidence, current relevance

Lee SH, et al. (2024). Efficacy of acupuncture for whiplash injury: a systematic review and meta-analysis. BMJ Open.

CLAIMS-RELEVANT USE CASES

Workers' Compensation & Functional Return-to-Work

- Workers' compensation outcomes are measured on functional return, not just pain scores — how quickly an employee can safely resume duties.
- Acupuncture is increasingly used as a rehabilitation adjunct for musculoskeletal and repetitive-strain workplace injuries.
- Slide 21 presents objective neuroimaging evidence of functional nerve recovery in one of the most common workplace injury categories: carpal tunnel syndrome.

Return-to-work time is the primary cost driver payers can influence through faster functional rehabilitation

Maeda Y, et al. (2017). Brain. (Detailed on slide 21.)

SECTION 04

Economic Value

Out-of-pocket demand, employer cost-effectiveness, and downstream cost avoidance.

ECONOMIC VALUE

Patients Already Pay Out of Pocket — That's a Demand Signal

- A systematic review of economic evaluations in BMJ Open assessed the cost-effectiveness of complementary and integrative care, including acupuncture.
- High rates of self-funded, out-of-pocket utilization indicate patient-perceived value that persists even without insurance support.
- Uncaptured demand is latent utilization: patients are already choosing this care; coverage determines who bears the cost.

Sustained self-pay utilization is evidence of real-world perceived value, independent of coverage status

Herman PM, et al. (2012). Are complementary therapies and integrative care cost-effective? A systematic review of economic evaluations. BMJ Open.

ECONOMIC VALUE

Why Out-of-Pocket Demand Matters to a Payer

Without Coverage

- Higher-income members access care; lower-income members are priced out
- No claims visibility into utilization patterns or outcomes
- Members may delay conservative care and present later with escalated conditions
- No plan-level bargaining power over network rates

With Coverage

- Equitable access across the member population
- Full claims data for utilization management and outcomes tracking
- Earlier conservative-care entry point, ahead of costlier interventions
- Negotiated in-network rates and utilization controls

Herman PM, et al. (2012). BMJ Open.

ECONOMIC VALUE

Employer-Sponsored Plans: The Cost-Effectiveness Case

- A retrospective cost-effectiveness analysis in Complementary Therapies in Medicine examined acupuncture benefits within an employee population.
- The analysis is specific to a commercial, employer-sponsored plan context — the same market segment most insurance board decisions govern.
- Findings support the benefit being financially sustainable within typical commercial plan-design parameters.

Analysis conducted in a real commercial employee population, not a theoretical model

Borah BJ, et al. (2017). Cost-effectiveness of acupuncture in an employee population: A retrospective analysis. Complementary Therapies in Medicine.

ECONOMIC VALUE

A Benefit Designed to Pay for Itself

The commercial employer analysis supports a benefit-design approach that offsets its own cost through reduced downstream utilization.

Add

Acupuncture as a covered conservative-care benefit

Offset

Reduced downstream imaging, specialist, and pharmacy utilization

Net

A benefit designed to approach cost-neutrality for the plan sponsor

Borah BJ, et al. (2017). Complementary Therapies in Medicine.

CLAIMS-RELEVANT USE CASES

Carpal Tunnel Syndrome: Objective Nerve Recovery

- A study published in Brain used neuroimaging to show that acupuncture is associated with measurable remapping of the primary somatosensory cortex in patients with carpal tunnel syndrome.
- This is one of the most common and costly repetitive-strain workers' compensation diagnoses.
- Cortical remapping is an objective, imaging-based marker of functional nerve recovery — not a self-reported symptom score, which strengthens the claims-review case.

Imaging-confirmed cortical change gives claims reviewers an objective functional-recovery marker

Maeda Y, et al. (2017). Rewiring the primary somatosensory cortex in carpal tunnel syndrome with acupuncture. Brain.

SECTION 05

Institutional & Global Precedent

Where this coverage model is already operating — from the VA to national insurance syste

INSTITUTIONAL PRECEDENT

The U.S. Veterans Health Administration

- The VHA's Whole Health model formally incorporates complementary and integrative health therapies, including acupuncture, as a component of non-pharmacological pain care.
- Research in the Journal of General Internal Medicine describes these services as a gateway that helps connect veterans to evidence-based mental health treatment.
- The largest integrated health system in the country has already built acupuncture into its standard-of-care model.

A federal, evidence-based health system precedent for structured acupuncture integration

Etingen B, et al. (2023). VHA Whole Health Services and Complementary and Integrative Health Therapies. Journal of General Internal Medicine.

GLOBAL PRECEDENT

World Health Organization Practice Benchmarks

- The WHO published global benchmarks for the practice of acupuncture, standardizing safety, training, and clinical-practice expectations across countries.
- A global regulatory body treating acupuncture as a standardizable clinical practice — not a fringe modality — is itself a policy signal.
- These benchmarks give a domestic insurance board a credentialing and safety framework to reference in provider-network standards.

Formal international benchmarks for safe, standardized acupuncture practice

World Health Organization. (2020). WHO benchmarks for the practice of acupuncture.

GLOBAL PRECEDENT

United Kingdom: NICE Prioritizes Acupuncture Over Opioids

- The UK's National Institute for Health and Care Excellence issued guideline NG193 on chronic pain assessment and management.
- For chronic primary pain, the guidance explicitly favors options such as acupuncture ahead of routine opioid or long-term pharmacologic management.
- A national health service, not an advocacy group, made this call — grounded in its own independent evidence review.

NICE guideline explicitly reprioritizing non-opioid, conservative options for chronic primary pain

National Institute for Health and Care Excellence (NICE). (2021). Chronic pain in over 16s: NG193.

GLOBAL PRECEDENT

Germany: A Trial Program That Became Mandated Coverage

- The German Acupuncture Trials (GERAC) were large, randomized, multicenter, blinded studies on acupuncture for chronic low back pain, published in Archives of Internal Medicine.
- The results were substantial enough that Germany's statutory health insurance system moved to mandate public coverage for acupuncture in defined indications.
- This is a real-world precedent for a national insurance system converting trial evidence directly into a coverage mandate.

Clinical trial evidence that directly produced a statutory coverage mandate

Haake M, et al. (2007). German Acupuncture Trials (GERAC) for chronic low back pain. Archives of Internal Medicine.

GLOBAL PRECEDENT

South Korea: National Claims Data at Scale

- South Korea's National Health Insurance Service has generated large nationwide retrospective cohort studies using real insurance claims data on acupuncture exposure and clinical outcomes.
- This is claims-based, real-world evidence at national population scale — not a small clinical trial.
- It demonstrates that a national insurer can operationalize acupuncture coverage with standard utilization management and outcomes tracking.

A working example of acupuncture inside a national claims and coverage infrastructure

National Health Insurance Service (NHIS) Claims Data Studies, South Korea.

COMPREHENSIVE ROI

Cost Position in the Care Pathway

Conservative Care (Acupuncture)

- Outpatient, non-invasive delivery setting
- No surgical facility, anesthesia, or implant costs
- Minimal to no recovery-time cost burden
- Low complication and readmission profile

Downstream Escalation (Surgery / Long-Term Pharma)

- Facility, surgical, and anesthesia fees
- Post-operative rehabilitation and follow-up visits
- Extended recovery and potential lost-work time
- Higher complication, revision, and readmission exposure

Herman PM, et al. (2012). Are complementary therapies and integrative care cost-effective? BMJ Open.

COMPREHENSIVE ROI

Where Coverage Avoids Downstream Cost

- The BMJ Open economic evaluation review frames cost-effectiveness across the full episode of care, not just the acupuncture visit itself.
- Categories most affected by earlier conservative-care access: diagnostic imaging, specialist referrals, emergency-department visits, and long-term pharmacy spend.
- A benefit-design model built around this framework treats acupuncture as an upstream cost-avoidance tool, not an added expense line.

Conservative-care coverage is positioned to reduce, not add to, total episode cost

Herman PM, et al. (2012). BMJ Open.

CONCLUSION

The Case Is Already Made

Clinical Evidence

A 17,922-patient meta-analysis and condition-specific data across pain, neurology, and TBI.

Guideline Alignment

ACP, WHO, and NICE already recommend this care ahead of pharmacologic escalation.

Economic Value

Employer, out-of-pocket, and cost-pathway data support a favorable ROI position.

Global Precedent

Germany and South Korea show it operating inside national insurance systems today.

RECOMMENDATION

A Phased Path to Coverage

1

Pilot

Launch a defined pilot: low back pain, migraine, and post-MVA whiplash claims.

2

Measure

Track utilization, opioid-prescription trend, and claim-duration outcomes.

3

Expand

Extend to workers' compensation and employer-sponsored plan populations.

4

Adopt

Move to standard network coverage aligned with ACP and NICE guidelines.

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Prepared for the Insurance Board | Thank you