PEER PANEL

# Validating value: Pressure-testing ROI

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# General announcement

**Full attendance is required to receive continuing education credit.**

- Your attendance will be verified through the attendance form that you complete.
- Participants **will not receive credit if they:**
  - fail to sign or initial as required, arrive late, or leave early
- To maintain an effective learning environment, attendees should remain fully engaged during class. You are to please refrain from:
    - Reading newspapers or unrelated materials
    - Completing other work
    - Checking email or texting
    - Sleeping
    - Holding private conversations
    - Other non-course activities

POLLING QUESTION WILL BE HANDLED BY SLIDO

Formatting via the polling platform and not slides



# For validating ROI methodology, what matters most?

# What are clients saying?

# MSK costs are too big to ignore

## with the majority driven by surgery, imaging and physical therapy

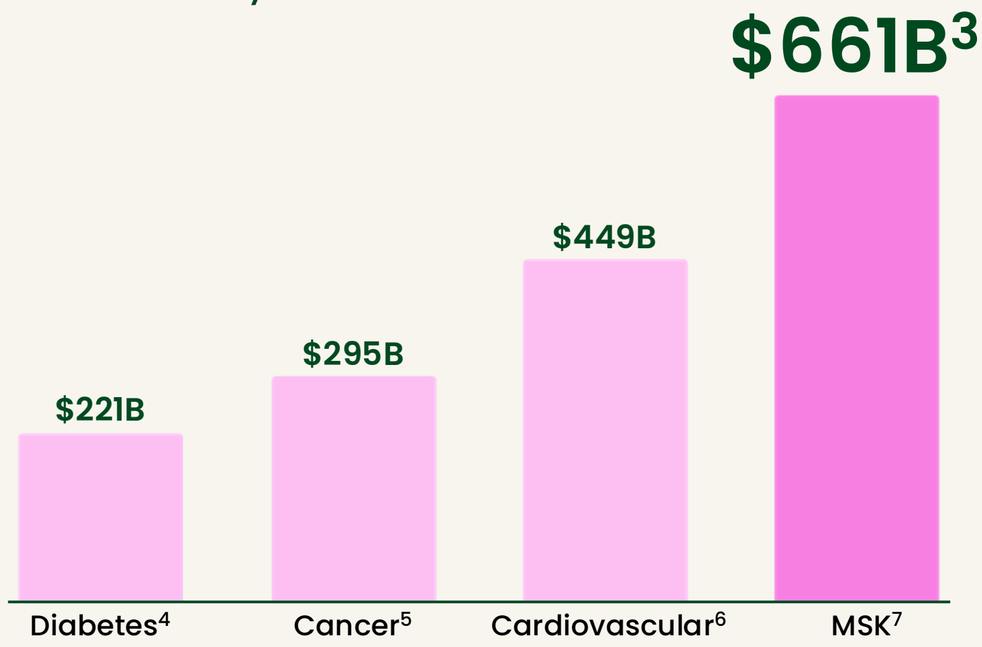
**1 in 2**

MSK impacts 1 in 2 American adults in any given year

**~9%**

of adults in the U.S. pursue in-person physical therapy[1]

Annual aggregate total spend estimates by condition[2]




Source: 1. Estimated average in 2023 based on health claims data obtained from a de-identified medical claims database representing more than 100 million commercially insured lives from January 1, 2017 through December 31, 2022, across all U.S. states and territories; 2. Health Advances: 2023 MSK Total Addressable Market Analysis (January 2025).; 3. Calculated using the number of all MSK patients receiving medical care in 2023 (~103 million) multiplied by the average annual MSK health spend per patient in 2023 (~$6,400); 4. Diabetes diagnosis codes were derived from PurpleLab's curated and clinically-validated list of ~700 ICD codes for all diabetes types; 5. Cancer diagnosis codes were derived from PurpleLab's curated and clinically-validated list of ~2,600 ICD codes for all cancer types; 6. Cardiovascular disease diagnosis codes were derived from PurpleLab's curated and clinically-validated list of ~1,600 ICD codes for all cardiovascular conditions; 7. Health Advances used PurpleLab's cohort pulled to query PurpleLab's open claim database for any patient that had a medical and/or pharmacy claim with an MSK ICD9CM and/or ICD10CM code listed as the primary diagnosis.

# 100M+

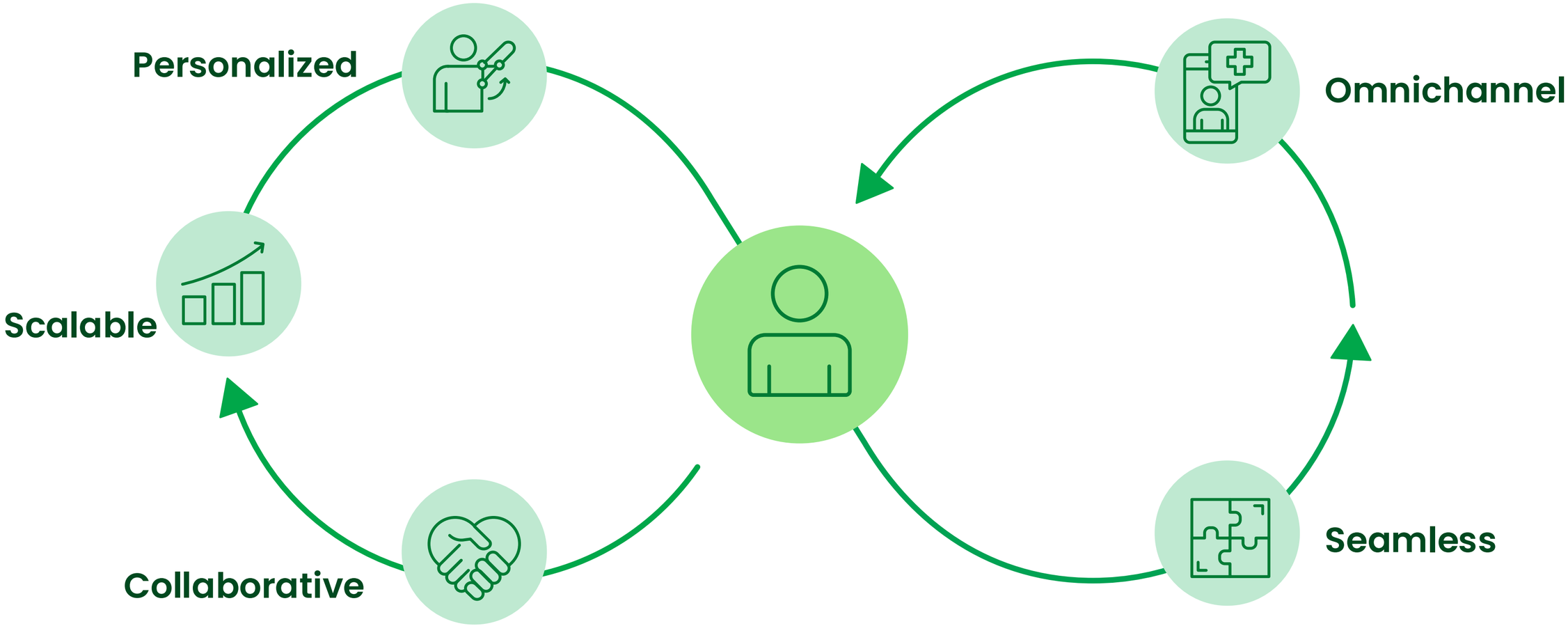
Patients received care for musculoskeletal conditions in 2023

Estimated prevalence in 2021 based on Institute for Health Metrics and Evaluation ("IHME") data. WHO Rehabilitation Need Estimator (2021), IHME, University of Washington.

THE BIG PICTURE:

# MSK solutions reduce claims across categories

# Need for an integrated care experience



# Claims reductions lead to real savings

**42%**

Fewer participants starting opioids[1]

**60%**

Reduction in imaging at 3 months[2]

**50%** Fewer hip replacements[3]

**56%** Fewer spinal fusions[4]

**73%** Fewer knee replacements[3]

Source: 1. Wang G, et al., *Opioid initiation one year after starting a digital musculoskeletal (MSK) program: an observational, longitudinal study with comparison group. J Pain Res.* 2023; 2. Lu L, Yadav S, Bailey J., *Real-World Effect of a Digitally Delivered Conservative Musculoskeletal Care Program on Spinal Diagnostic Imaging Utilization in a Commercially Insured Population with Chronic Back Pain. JHEOR.* 2025;12(2):200-208. doi:10.36469/001c.145231; 3. Lu L, et al., *Digital musculoskeletal program is associated with decreased joint replacement rates. The American Journal of Managed Care,* 30(4), e103-e108; 4. Yadav S, Gold LS, Zaidi QH, et al., *Spinal fusion surgery use among adults with low back pain enrolled in a digital musculoskeletal program: an observational study. BMC Musculoskelet Disord.* 2024;25:520.

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# Critical questions to ask every MSK vendor

## PRESSURE TEST:
# Validation & credibility

- **How are ROI claims validated?**
  (3rd party evaluations, size and source of data)
- **Have multiple independent third parties validated your methodology?**
- **What is the size and diversity of your claims studies?** (# of employers, industries, participants)
- **Where were studies conducted?**
  (U.S. healthcare system vs. international)

## PRESSURE TEST:
# Study design

- Do you use a control group with propensity score matching?
- Is the data blinded and peer-reviewed?
- What's your sample size and does it represent diverse industries?

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## PRESSURE TEST:
# Clinical outcomes

- Can you share large-scale, multi-year outcomes on avoided surgeries?
- What does your multi-year, multi-employer medical claims analysis show?
- Have you proven you work pre-surgery or just post-surgery?

# Your vendor evaluation tip sheet

## Walk away if they can't answer

- At least one independent third-party validation
- Control group with propensity score matching
- U.S.-based study, meaningful sample size

## Strong credibility

- Multiple independent validations
- Multi-employer, multi-industry, repeated studies
- Pre-surgery efficacy proven
- 12-24 month outcomes minimum

## Gold standard

- Peer-reviewed and published
- Large, diverse populations, blinded analysis
- Results replicated across years and geographies
- Transparent methodology you can audit

Q & A

# Thank you!