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Implementing Value-Based Musculoskeletal Care in Integrated Health Systems Through Digital Clinical Models

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Musculoskeletal (MSK) conditions affect over half of U.S. adults and are a significant driver of disability and health care spending. Back and joint pain alone account for hundreds of billions in annual costs, driven largely by imaging, surgeries, and long-term functional impairment. Despite the availability of effective non-surgical treatments, care often defaults to high-cost interventions and surgeries. These challenges are especially pronounced in aging populations, where MSK conditions frequently coexist with other chronic diseases, compounding both cost and complexity.

Since the peak of the COVID-19 pandemic, MSK costs have significantly risen, placing immense strain on risk-bearing entities and value-based organizations. This challenge is especially acute for integrated health systems, which rely on traditional fee-for-service care for revenue generation but are increasingly taking on financial risk for various employee, health plan, and patient populations. Contributing factors include:

- **Delivery model centered on quantity, not quality:** Health systems have traditionally captured financial value through volume-based reimbursement, especially of tertiary and quaternary services and procedures. MSK conditions are a top cost driver at most health systems. However, this approach is misaligned with value-based care, which centers on preventive treatment and avoidance of unnecessary costs.
- **Misaligned reimbursement infrastructure:** Most preventive services and non-surgical interventions are poorly – if at all – reimbursed by conventional health insurance programs, making them challenging to implement and scale in large health systems.

- **Access constraints:** Most health systems have robust in-person clinical and rehabilitative services for managing MSK conditions. However, many patients struggle to access these services due to numerous constraints, including financial or logistical.
- **Workflow constraints:** Even if health systems do implement and scale value-based programs, providers cannot easily identify which patients have insurance or benefit coverage for those programs, making referral challenging.

As health systems continue to take on financial population risk, implementing value-based MSK specialty programs will be critical for sustainability.

About Henry Ford Health and Health Alliance Plan

Serving communities across Michigan and beyond, Henry Ford Health is a premier health care services company dedicated to helping people live their best lives. Fifty-thousand team members provide exceptional care and service at more than 550 sites across Michigan. Henry Ford Health surrounds patients, members and customers with everything they need from primary, specialty, preventive, and urgent care, health insurance coverage, retail needs including pharmacy and eye care, and a full suite of home health and virtual care services.

Health Alliance Plan by Henry Ford Health is a Michigan-based nonprofit health plan that provides health coverage to individuals and companies of all sizes, serving more than 500,000 members across the state. For 60 years, Health Alliance Plan has partnered with leading doctors and hospitals, employers and community organizations to enhance the health and well-being of the lives it touches. Health Alliance Plan offers a product portfolio with six distinct product lines: group insured commercial, individual, Medicare, Medicaid (through HAP CareSource), self-funded and network leasing. The company excels in delivering award-winning preventive services, disease management and wellness programs, as well as personalized customer service.

Health Alliance Plan is part of Henry Ford Health's Value-Based Enterprise, which also includes its value-based care management company Populance, its 5,000+ provider Mosaic Clinically Integrated Network, and its Community Care Services division, which provides a range of wraparound services from hospice and home care to retail pharmacy and optical. Through its Value-Based Enterprise and Clinical Delivery System, Henry Ford Health is deeply committed to high-value care that prioritizes outcomes, experience, affordability, and equity.

The MSK Challenge: Sustained, Rising Costs

Henry Ford Health and Health Alliance Plan regularly analyze spend by line of business and employer group, and have consistently identified MSK care as a leading driver of costs, with year-over-year increases driven in part by an aging population. Previous efforts to manage MSK spend – including prior authorization, conservative management, and proactive care management programs – had limited success in meaningfully improving outcomes, and cause disruption for patients.

Henry Ford Health and Health Alliance Plan evaluated multiple options to improve MSK outcomes while reducing costs. Henry Ford Health already provided in-person specialty care (orthopedics, neurosurgical spine, and physical therapy) for MSK patients but did not include a digital pathway. Many of the available options consisted of digital exercise apps that were intended to improve adherence to non-operative treatment and thus avoid need for more intense, and costly, specialty care. However, these solutions have numerous limitations that make them challenging to implement across the system.

Limitations to Scaling Digital Apps

1. **Lack of human clinician involvement,** which limited the acuity and complexity of conditions that could be managed.
2. **Significant up-front investment,** requiring budgetary allocation, often in the form of a per member per month (PMPM) rate, regardless of utilization of the program.
3. **Rudimentary quality control,** with program outcomes centered on simple pain scores or non-validated surgical intention measures.
4. **Lack of integration with health plan and system offerings,** resulting in a fragmented care experience for patients and plan members.

The Solution: Integrated Digital MSK Clinical Delivery

Henry Ford Health and Health Alliance Plan elected to trial – and subsequently implement – an integrated, digital approach through Protera Health. Protera Health offers a physician-led model, one-on-one supervised digital physical therapy, health and wellness coaching, and integration with health system and plan offerings. Protera's early identification and intervention, coupled with access to multidisciplinary resources, ensures timely specialty evaluation and coordinated, wraparound services that can improve outcomes while reducing unnecessary interventions.

Each participant begins with a telehealth evaluation by an orthopedic surgeon, primary care sports medicine physician, or MSK-experienced advanced practice provider. The participant then receives an individualized care plan including ongoing one-on-one, supervised digital physical therapy sessions and weekly educational videos tailored to their condition and recovery stage. Throughout the treatment process, participants also have access to ongoing digital communication with their care team and complete a supervised home exercise program.

A key feature of the digital program is its integration with the health system, which facilitates support for both in-person referrals and co-existing benefits. Participants that require in-person clinical care (e.g., surgical specialist or physical therapy) receive concierge navigation to health system providers. When available, the digital platform also connects participants to co-existing benefits available to them from the health plan.

> *While the program was successfully validated in various trials within the health system's self-funded employee base, the first large scale deployment was in the health plan's Medicare Advantage population. Protera Health and Health Alliance Plan identified members for enrollment based on a history of qualifying MSK conditions, as noted by ICD-10 codes for back, neck, hip, knee, or shoulder pain.*

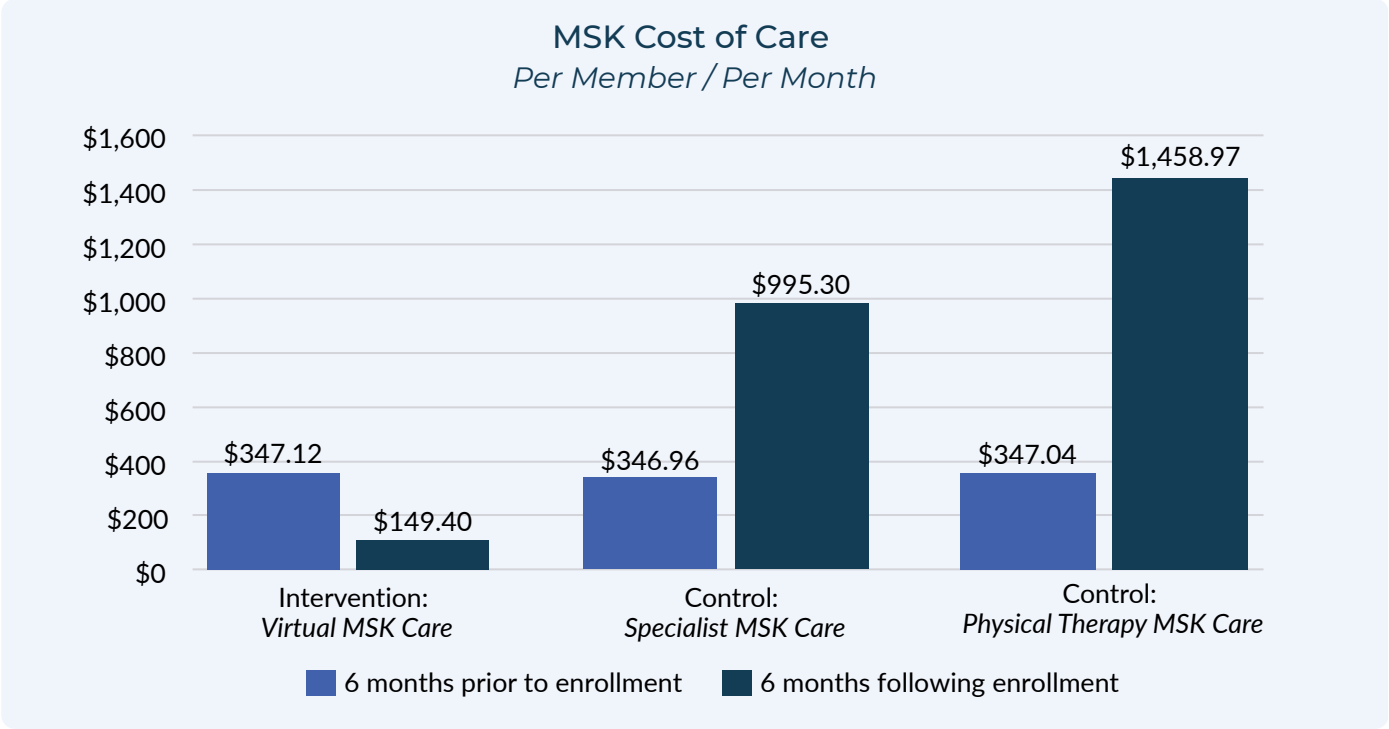
Financial Arrangement

The Protera Health program is structured as an in-network clinical solution, with the digital health group credentialed and contracted as a multispecialty provider within the Health Alliance Plan network. This arrangement enables seamless access for employees and their dependents, with standard reimbursement pathways to reduce friction for both members and providers.

Health Alliance Plan pays a monthly case rate for those engaged with the program for as long as they are engaged. These payments support services not traditionally reimbursed under fee-for-service, such as care management, navigation, and coaching, to ensure a more comprehensive care model. This also allows for tracking of utilization and outcomes. Program fees are tied directly to utilization within the claims system, facilitating ROI analyses while eliminating the need for separate PMPM payments or administrative budgeting. This design also creates a scalable financial model that can be efficiently extended across health plan and ASO partners.

Clinical and Cost-Savings Outcomes

Henry Ford Health, Health Alliance Plan, and Protera have published peer-reviewed research highlighting the intervention's cost savings and health improvement in the Medicare Advantage population. The research assessed the impact of virtual MSK care relative to two control groups: usual care with an MSK specialist and a physical therapist. When the PMPM cost savings were annualized, the virtual intervention resulted in gross cost savings of $10,152.69 and $15,715.74 per member per year, respectively. After Protera program fees were deducted, this translated to a respective net savings of $8,652.69 and $14,215.74 per member per year.



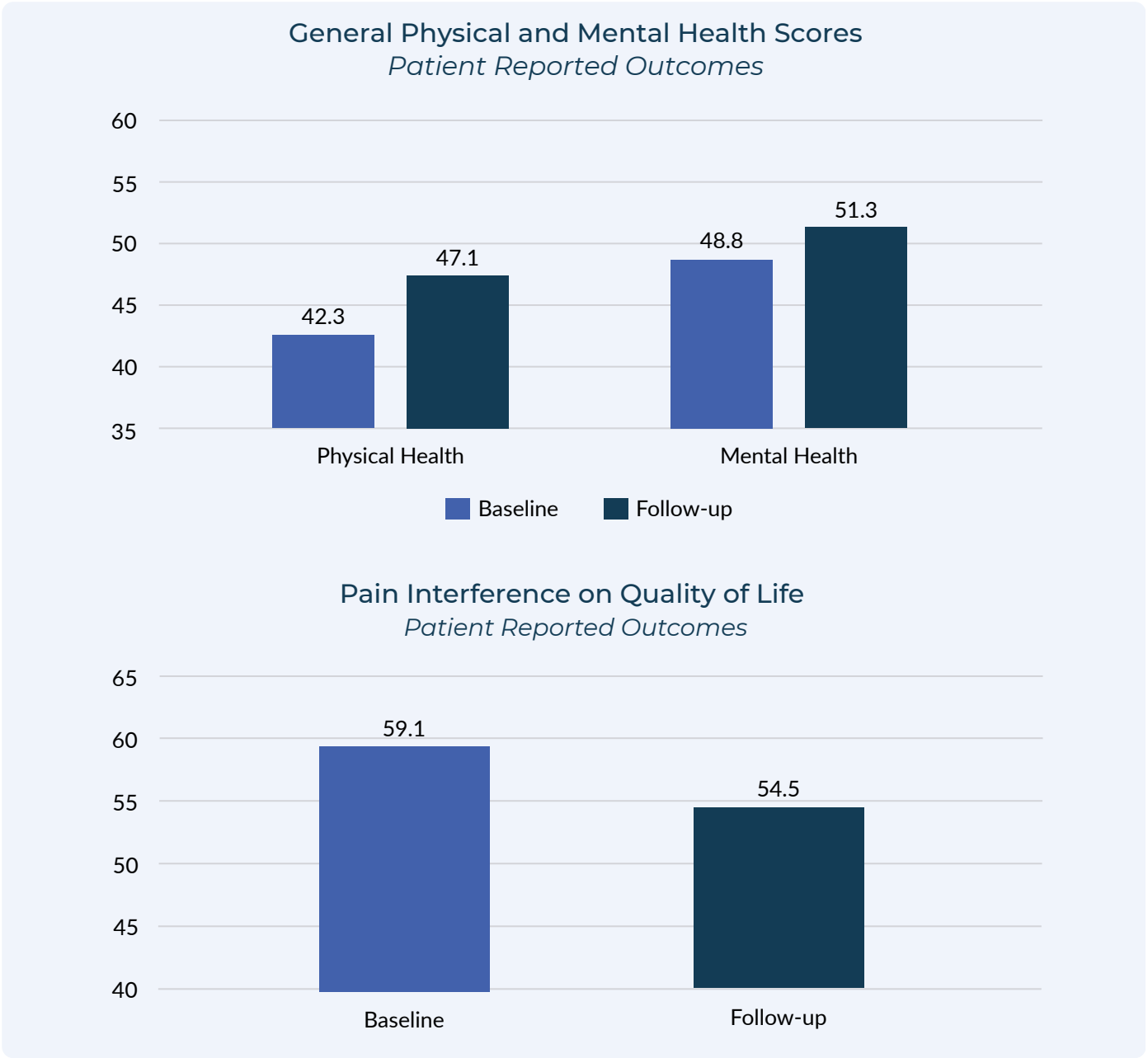
Source: Bloom C, Borschke FA, Makhni EC, Rain UZ, Raj P, Watson P. Improving Musculoskeletal Costs of Care Using a Virtual Integrated Practice Unit: A Claims-Based Analysis. NEJM Catalyst Innovations in Care Delivery.

Henry Ford Health, Health Alliance Plan, and Protera Health used the following measures to track patient-reported outcomes:

- **General Physical and Mental Health:** National Institutes of Health (NIH) Patient-Reported Outcomes Measurement Information System (PROMIS) Global 10 (Physical and Mental Health subscales)
- **Impact of Pain on Quality of Life:** NIH PROMIS Pain Interference (Short Form 4a)
- **Anxiety and Depression:** Generalized Anxiety Disorder 2-item (GAD-2) and Patient Health Questionnaire 2-item (PHQ-2)

The study found that 85% of members achieved a clinically meaningful improvement in either their physical health or pain improvement scores after completing the virtual MSK program. Members also reported a 33% improvement in depression screening scores and a 20% improvement in anxiety screening scores at the conclusion of the three-month care journey. Participants also reported that their pain levels had less impact on their quality of life after participating in the virtual MSK program.

These findings were supported by additional research, which found that 94% of members achieved a clinically meaningful improvement in their physical health pain improvement scores, a 36% improvement in depression screening scores, and a 25% improvement in anxiety screening scores after completing the program.



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Replicating this Model

Henry Ford Health and Health Alliance Plan's success depended not just on introducing a digital solution, but on thoughtfully integrating it into existing care pathways, engaging providers, and removing barriers to access. Their efforts offer several insights for others looking to replicate the model:

1. **Focus on upstream clinical interventions** designed to improve patient health outcomes and reduce the need for costly procedures and surgeries.

2. **Utilize provider-based referrals** to more effectively target patients who will benefit from the program. Henry Ford Health and Health Alliance Plan initially used claims-based identification, which yielded low engagement rates.

3. **Educate both patients and providers** about the program and the value it provides to achieve successful implementation and engagement.

4. **Secure support from specialists** within the network to ensure the program is seen as complementary rather than competitive.

5. **Engage employer groups** to promote the program to help employees understand the ease of access and availability of services outside traditional office hours.

Ultimately, replicating this model requires a coordinated, system-wide approach that brings together clinical innovation, aligned incentives, and strong stakeholder engagement. Organizations that invest in these foundational elements will be better positioned to improve outcomes, enhance patient experience, and sustainably reduce MSK-related costs.