

Hinge Health

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Overview:

Hinge Health is the world's first digital musculoskeletal clinic for joint and muscle pain. But in addition to being a digital physical therapy clinic, it also combines its virtual care capabilities with in-person services through its house call system that allows patients to schedule in-person doctor appointments. Overall, Hinge Health employs a full clinical care team that consists of physicians, physical therapists, and health coaches and utilizes innovative tech such as computer vision and motion sensors to create a comprehensive digital clinic that serves as a convenient, one-stop-shop for any member's physical therapy needs.

Hinge Health offers **four** different patient care tracks:

- **Prevention:** The prevention program caters to members who want to maintain their current physical health and prevent injuries.
- **Acute:** Their acute program is designed for those who have injuries, and it covers all the muscle and joint groups.
- **Chronic:** The chronic track caters to those who have sustained long-term injuries or chronic joint and/or muscle pain. A full clinical care team that consists of physicians, physical therapists, and health coaches is onboarded to assist those in this specific program.
- **Surgery:** The surgery track offers support to those who will or have undergone surgery and supports them every step of the way, from pre to post rehabilitation services. Members are also able to seek the expertise of medical professionals on whether or not to undergo surgery.

Team:

Hinge Health was founded in 2015 by Daniel Perez and Gabriel Mecklenburg, both of whom are Oxbridge graduates who have had common difficulties in accessing high-quality care for their bone, joint, and muscle injuries. Thus, they built Hinge Health with the conviction that one's physical health shouldn't impede on one's day-to-day life. Both Perez and Mecklenburg have worked together for eight years and have an extensive educational background in the medical sciences.

Jim Pursely, President - Within Hinge Health, Pursely serves as an adviser. Pursely has had a wealth of experience within the medical field, and most recently, Pursely served as the Chief Commercial Officer for Livongo Health, which was a chronic condition management country for people with diabetes. He was on the founding executive team that helped Livongo go public in

2019, which ultimately culminated in an \$18.5B acquisition by Teladoc Health. Additionally, Pursley has held executive leadership roles at Intel-GE Care Innovations and GE Healthcare.

Lex Annison, Chief Operating Officer - Annison focuses on growing and scaling operations to support Hinge Health's capabilities to continue advancing their market-leading Digital MSK Clinic. Annison has had a variety of experiences growing tech companies. For example, Annison was formerly the Global Director of Strategy and Operations for Google where he oversaw a multi-thousand person team across 18 countries and mainly focused on supporting and growing Google's customers on a global scale. And prior to Google, Annison held senior level leadership positions at Facebook and Wish where he helped them grow from early stage startups to large, successful public companies.

Ron Will, Chief Financial Officer - As CFO, Will has had over 30 years of experience in senior finance and investment banking; he brings a wealth of experience from his past roles at Lehman Brothers, Mitsubishi Bank, Merrill Lynch & Co., and Bank of America Securities. Prior to joining Hinge Health, Will held the position of CFO at Ripple and TubeMogul. He was also CFO at BrightRoll prior to its acquisition by Yahoo.

Pain Points + Hinge Health's Solutions:

Hinge Health is truly revolutionizing how patients take care of their musculoskeletal system by offering the most complete, seamless blend of virtual and in-person physical therapy offerings to optimize the member experience and solve the following pain points:

- **Pain Point #1 - Access to Care:** Many people, particularly those living in rural areas or with mobility issues, have difficulty accessing traditional in-person physical therapy. But even for those that do reside in more populated areas, going to an in-person physical therapy clinic can be inconvenient, especially since many physical therapists recommend that patients seek treatment more than once a week.
 - **Solution:** Hinge Health's digital therapy program allows patients to receive physical therapy treatment from anywhere, at any time, making it more accessible to a wider range of people. In addition, Hinge Health employs a variety of wearable technology like sensors and motion trackers that ensure that members are not compromising personalized, effective treatment for convenience.
- **Pain Point #2 - Sole Reliance on Digital Care:** While digital care has eliminated wait times and increased access to high quality care for millions globally, many people still prefer to complement a digital experience with in-person visits. This especially applies to back, joint, and/or muscle pain where in-person evaluations can be immensely beneficial.
 - **Solution:** In response to these needs, Hinge Health has launched a "house call" system where members can conveniently schedule in-person appointments with physical therapists through the Hinge Health app. During this 45-minute visit, the doctor can conduct an in-person assessment to evaluate the member's physical

ability, flexibility, strength and balance, as well as evaluate any risks in the home (e.g. fall risk assessment).

- **Pain Point #3 - Increasing Costs in MSK:** The annual cost of MSK care represents one-sixth of all spending in the US health care market and is greater than that of heart disease, cancer and diabetes. In fact, MSK costs doubled from \$10 billion to around \$20 billion between 2010 and 2019, with no improvement in patient outcomes. In the workplace, MSK disorders result in high costs to employers due to higher healthcare compensation costs as well as employee absenteeism and lost productivity.
- **Solution:** Hinge Health is made available through partnerships with employers who agree to cover the full cost of the program. Even though employers would have to incur the cost, a research study conducted by Hinge Health showed a 2.4x ROI for employers (more detail later in memo). After all, intervening early with digital physical therapy can save employers and plans from having to pay for surgery and other medical procedures down the line.

Industry Development (Opportunities and Threats):

The COVID-19 pandemic truly accelerated digital transformation in the healthcare industry by driving a surge in demand for digital health capabilities in diagnosing and treating patients. In fact, according to a McKinsey study, telehealth usage surged in April 2020 and has since stabilized at a rate 38x higher than pre-pandemic levels. And thus, hybrid care models that encompass a complete digital ecosystem are looking increasingly appealing, and Hinge Health is capitalizing on this digital revolution through its robust virtual and in-person services.

Opportunities:

- **Rising opportunities among the older adult population:** The older adult population in the US is expected to reach 80.8 million by 2040 – up from 39.6 million in 2020. Additionally, chronic disease has grown to account for over 96% of medicare spending. Thus, this growing population indicates a larger market and thus, greater demand for MSK treatment in the future.
- **Rolling Out Individual Plans:** As of right now, Hinge Health solely caters to employers and health plans in order to cover employees and their families. However, due to the aforementioned increase in demand and high costs of MSK services, Hinge Health can capitalize on this trend by rolling out an individual plan that allows individuals to purchase Hinge Health services for themselves. In effect, this will allow Hinge Health to scale even further.
- **Lease Data to Health Organizations:** Because Hinge Health is a digital company and its services have been proven to improve patient outcomes dramatically, Hinge Health can lease data that it's collected from its clinical trials and other such programs to organizations like the The National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) in order to improve MSK treatment all-around.

Threats:

It is undeniable that economic headwinds have been negatively affecting the digital health sector in the past year, evident by the decline of dealmaking, funding, and exits by private market digital health companies in the past year. However, I strongly believe that the digital health sector will rebound in the near future due to new digital innovations in the space. This is evident by the fact that IPOs rebounded to seven in Q3 '22, bringing the number of IPOs to a level comparable to 2019. But more specifically, most of the healthcare companies that analysts believe may go public in this new year are digital healthcare companies, such as Hinge Health.

- **Challenges with Scalability:** Especially with the recent rollout of house-calls, it can be hard to scale Hinge Health due to the need for physical therapists to be of travel distance to patients. However, this can be solved by first piloting the program in more population-dense areas and then based on performance, slowly rolling it out to more states according to physical therapist availability.
- **Limited Access to High-Speed Internet Hinders Adoption in Rural Areas:** Rural populations are less likely to own smartphones when compared with urbanites. In 2018, 71% of rural US residents reported owning a smartphone, versus 83% for both suburban and urban residents. This can hinder the adoption of digital health services like Hinge Health. However, over the past decade, rural Americans have made large gains in adopting digital technology and have narrowed some digital gaps.
- **Insurers Developing In-House Primary Care Services:** Some health insurance company startups like Firefly Health are using its own team of physicians, nurse practitioners, and behavior health specialists to provide virtual advanced primary care. Thus, their virtual primary care platform can become an indirect competitor to Hinge Health.

Market Size:

Hinge Health is in the clinical care market, and that market was worth around \$70 billion in 2021. The market is forecasted to grow at a 25.5% CAGR to \$217.0 billion between 2021 and 2026, which is above the pace of the global retail healthtech market (projected to grow at a CAGR of 19.1% over the same timeframe). The clinical care market is one of the largest healthtech subsectors, just following dietary supplements (\$163 billion) and biometric wearables and devices (\$121 billion). For Hinge Health, the increasing older adult population and the shift towards remote work will drive the demand for MSK services and is thus accelerating the potential total addressable market (TAM) for Hinge Health.

Competition:

While the market for healthtech is becoming more saturated, the digital MSK space is expected to grow due to the fact that MSK disorders are common and expensive to treat. And even though digital companies don't see in-person care going away, technology and AI could complement a

traditional physical therapist's work. Hinge Health truly stands out from its competitors because it offers the most complete services and has also made notable acquisitions (Enso and wrnch) that have allowed it to enhance its robust digital ecosystem.

- **Kaia Health:** Kaia Health is a digital therapeutics company that creates treatments for a range of disorders, including musculoskeletal conditions and COPD. Kaia Health uses technology, including AI and computer vision, and works with medical professionals to create an interdisciplinary digital approach. Although Kaia Health offers similar services as Hinge Health, Hinge Health offers more robust services like its house call services as well as wearables that truly enhance the member experience.
- **Sword Health:** Sword Health is another unicorn in the MSK space that pairs licensed physical therapists with digital therapists to help people overcome chronic and post-surgical pain faster and more cost-effectively. One way that Sword Health differs from Hinge Health is that it offers educational services on its application.
- **Omada Health:** Omada Health is a digital behavioral medicine company that helps people change their habits that put them most at risk for preventable chronic conditions like heart disease and type 2 diabetes. The company brings behavioral counseling to anyone with an internet connection as well as uses insights about social networking and behavioral science to motivate lifestyle changes. While Omada Health does partake in the MSK sector, their main focus is on diabetes and hypertension.

Key Metrics/Financials:

- **Valuation & VC Funding:** Currently, Hinge Health's valuation is \$6.02 billion and has raised a total of \$854 million in funding through 10 funding rounds. Their most recent funding round was in October 2021 when they raised a \$600M Series E round, led by Tiger Global and Coatue Management.
- **Large Market Share:** Currently, Hinge Health is only offered as part of employer-sponsored healthcare plans, and it is the partner of choice for 4 in 5 employers with a digital MSK solution. In fact, Hinge Health has over 1,250 employer partners (including large corporations like L.L. Bean and Salesforce), which is a milestone that they achieved just 12 months after reaching 500 customers. Now, over 25 million people are covered under Hinge Health, and Hinge Health leads with 80% market share for digital MSK solutions.
- **ROI on Costs:** Hinge Health has published 9 peer-reviewed publications on pain reduction outcomes as well as 3 independently validated ROI studies. Most notably, Hinge Health conducted the industry's largest medical claims analysis that analyzed 8,000 health plan members (split between control and experimental) across 136 employers. The conclusion of the experiment was that the Hinge Health chronic pain program demonstrated an average cost savings of \$2,387 per participant and delivered 2.4x ROI for employers by allowing employers and payers to avoid costs from medical

claims and surgeries. The research methodology was validated by an independent actuarial firm.

- **Proven Physical Results:** Hinge Health released a new peer-reviewed study, published in JMIR Rehabilitation and Assistive Technologies, that demonstrated a 73% reduction in acute pain among its Digital MSK Clinic participants at 12 weeks.
- **Acquisitions:** Hinge Health's Enso (acquired 2021) is a FDA-cleared wearable technology that delivers electrical impulses to provide effective pain relief to those suffering from MSK pain. In a randomized controlled clinical study, Enso was found to deliver 2x more pain reduction and improve mobility 3x than a control device. Members of Hinge Health are able to gain access to Enso with no out-of-pocket costs. Enso is different from traditional pain reduction devices because it is both high frequency and provides durable pain relief while being non-invasive. Additionally, in 2021, Hinge Health also acquired wrnch, an AI and computer vision technology that will be able to measure a patient's strength, flexibility, balance, and endurance, which can be used to further personalize the patient's care plan.

Investment Thesis:

Overall, Hinge Health is a strong buy because of its high TAM, scalability, and its value proposition that enables convenient access to MSK services. Although the digital MSK space has gotten more crowded as healthcare companies see the potential in the industry, I believe that Hinge Health still has the potential to disrupt the MSK space because it offers the most robust virtual and in-person offerings that employ wearable and sensor technology to allow for the most optimal customer experience.

The market for Hinge Health is essentially infinite, and there is and will continue to be a growing need for MSK treatment. After all, MSK conditions are the leading contributor to disability worldwide. Additionally, the fact that the older adult population in the US is projected to double by 2040 and that remote work has been more normalized since the pandemic will only escalate the need for MSK services like Hinge Health, which is a more viable, convenient alternative to traditional physical therapy. And even though Hinge Health is only offered as part of employer-sponsored healthcare plans, roughly 160 million U.S. citizens receive their health care from their employer, which shows large size of the market.

Moreover, Hinge Health's unwavering focus on preventive care empowers patients to proactively mitigate the need for costly treatments and interventions in the future. Their extensive research unmistakably demonstrates a noteworthy return on investment (ROI) when leveraging Hinge Health, yielding substantial cost reductions and enhancing the overall well-being of employees.

And even though Hinge Health's house call system may impede its scalability, I believe that Hinge Health's digital offerings are infinitely scalable as anyone with internet access can utilize their services from anywhere, at any time. Thus, this will allow them to grow at a fast pace. And although Hinge Health has seen a lot of growth and success in recent years, it is clear from their

plethora of research studies and their two notable acquisitions that they will continue to innovate and find more ways to optimize their application.