

# A scalable partnership framework to streamline digital health research

## Strategy & planning. Research coordination. Scalable digital solutions.

The silver lining in the COVID-19 pandemic was the overnight acceleration of digital health innovation. No longer can pharma and life sciences companies ignore what other industries have known for decades. The ability to engage with 'customers' remotely, to deliver services virtually and to respond in real-time or better yet, anticipate an individual's needs based on their personal data, has become critical to survival.

In a recent [EY Digital Investment Index](#), 55% of the 69-life sciences C-suite executives polled said their company lacked a clearly defined digital strategy and goals; only 23% said they measured their return on digital investment (RODI).

Today, digital transformation remains a strategic priority. In fact, many biopharma companies are increasing the pace of their digital innovation and with that, taking on ambitious goals, more risk, and upping their investment to bring products to market faster and gain an edge over the competition.

Investment has come in the form of technology and talent to support the rapid adoption of digital tools, data, and analytics, like AI and machine learning. But integration with traditional biopharma teams and functions, and their expected return on digital investment has also proven to be a challenge. Most companies also lack consistent and meaningful access to patients and providers, resulting in products that have poor user adoption, disconnected clinical workflow, and a misguided strategic business model.

### The disconnect in digital health

In August 2021, an article from the [Medical Device Network](#) published findings from a [report](#) by the IQVIA Institute for Human Data Science that noted there were more than 350,000 digital health apps on the consumer market in 2020, an increase of more than 90,000 from the previous year. Yet, the quality and usage of most of these apps were mediocre.

More significantly, the number of apps available on the market only increased by 10.3% in real terms, compared to 2017. The reality, over one-third of the apps (116,000) were removed from the market during this period, with the majority (51%) having fewer than 100 downloads or were never updated (61%).

So, in a market full of opportunity and growth potential, there remain challenges, unforeseen obstacles, and shifting market dynamics. To successfully develop, validate, scale, and implement digital health solutions, biopharma companies must have a focused digital strategy and roadmap, and a trusted team with digital health experience, clinical guidance, and scientific, medical, and commercial expertise. Building an internal team with these qualifications is no small or speedy task.

## Fern Health

### Validating, piloting digital pain platform, leads to commercial partnership

Since 2019, Fern Health has been collaborating with Massachusetts General Hospital (MGH) and the MGH Center for Innovation in Digital HealthCare (CIDH) to build, validate, pilot, and launch a digital platform based on proven scientific approaches to pain management. MGH clinicians and subject matter experts continue to work with Fern Health to develop multiple clinical pathways and provide product design and feedback. Over the course of the collaboration, Fern Health has expanded functionality, features, and content to address the needs of individuals living with MSK, fibro, and chronic headaches including migraine.

In September 2022, WebMD Health Services announced a new partnership with Fern Health, to help employees and health plan members address the underlying causes of persistent pain. Developed with leading MGH pain physicians, this program is available through WebMD ONE and is “helping to reduce the social and economic impact of chronic pain both in and out of the workplace,” noted WebMD Health Services.

## Building the evidence for scalable digital health solutions

Digital research programs have the same challenges as therapeutic clinical research but require specific knowhow and capabilities. The CIDH housed within the MGH Research Institute understands the complexities of developing digital solutions and leverages the deep experience and resources of Mass General Brigham’s leading research medical centers and Harvard Medical School teaching hospitals, to:

- Accelerate innovation, gain access to subject matter experts, and improve patient care delivery
- Close the gap between transformative entrepreneurs and startups, and provider end-users
- Achieve scalable, accessible solutions to address unmet clinical needs
- Advance digital health innovation to improve the physician-patient experience, reduce burnout, improve clinical outcomes for patients

CIDH bridges science and medicine, industry knowledge and patient-centered care to support our partners, innovators, and industry leaders in creating breakthroughs and new products – while seeking to achieve scalable,

accessible solutions that transform care. On behalf of its industry partners, CIDH expedites digital health innovation through each phase of the development lifecycle, leveraging the resources and expertise of one of the largest hospital system-based research enterprises in the U.S.

As part of the acclaimed Mass General Brigham healthcare system, CIDH is built on a legacy of medical excellence and research-infused care:

- Five academic medical centers, community and rural hospitals, a payer organization, primary care network, specialty care facilities, and international affiliations
- \$2.3B in annual sponsored research, including >4,400 clinical trials
- Fully integrated clinical data platform covering 10M lives with longitudinal data since the 1970s



## Delivering outcomes

The Center for Innovation in Digital HealthCare at Massachusetts General Hospital leverages an expansive network of advisors, faculty, and experts throughout Mass General Brigham to support the acceleration of digital health solutions on behalf of industry partners. CIDH is a one-stop-shop for clinical innovation, research, and validation to streamline access to clinical thought leaders, data insights, provider-patient journeys in the real world and more.

To learn about the exclusive, limited partnership opportunities for corporate members and early-stage companies, contact [CIDH@mg.harvard.edu](mailto:CIDH@mg.harvard.edu) or visit <https://cidh.massgeneral.org>.

### AstraZeneca Collaboration to commercial success in 26 months

“By embracing the tension of different perspectives and expertise, we can move faster and more efficiently while maintaining the highest levels of scientific rigor and clinical excellence.”

In January 2020, catalyzed by the COVID-19 pandemic, AstraZeneca (AZ) and MGH CIDH began collaborating to create and clinically validate digital health solutions, establishing a new standard of care for chronic illness management outside of a clinical setting.

Two pilot studies on heart failure and asthma were launched using AZ's AMAZE™ disease management platform to improve patient engagement, care-team communication, and clinical outcomes while reducing healthcare costs.

In March of 2022, AZ announced the sale of AMAZE to Huma Therapeutics as part of a strategic partnership. Huma, a start-up focused on digital first research and healthcare, is scaling digital health innovation globally to improve patient outcomes, increase the efficiency of clinical trials, and reduce the

workload of healthcare staff through AI-driven digital technologies.

Peter L. Slavin, MD, former President of MGH, when announcing the novel partnership between MGH and AstraZeneca, said, “This extraordinary level of collaboration between an academic medical center and a pharmaceutical company opens a pathway to innovative digital health solutions that place the patient at the center of care. By embracing the tension of different perspectives and expertise, we can move faster and more efficiently while maintaining the highest levels of scientific rigor and clinical excellence.”

