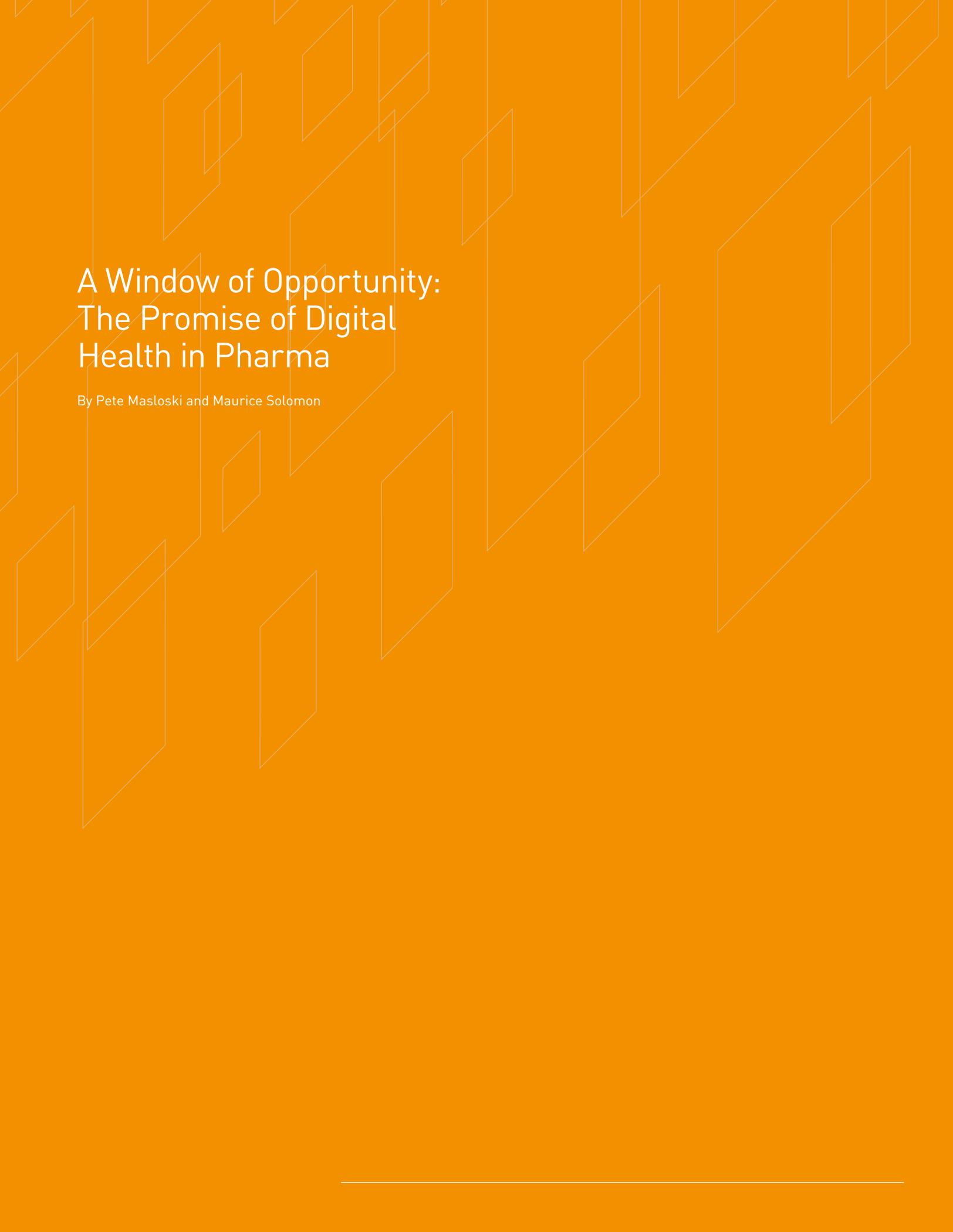




A Window of Opportunity: The Promise of Digital Health in Pharma

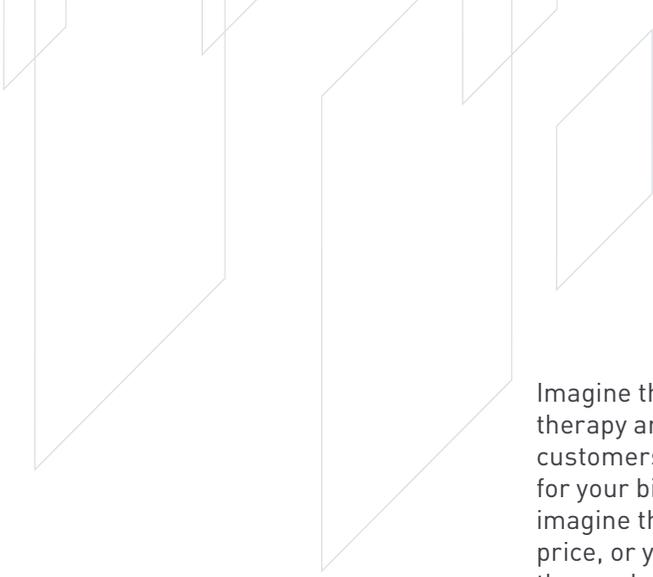
By Pete Masloski and Maurice Solomon





A Window of Opportunity: The Promise of Digital Health in Pharma

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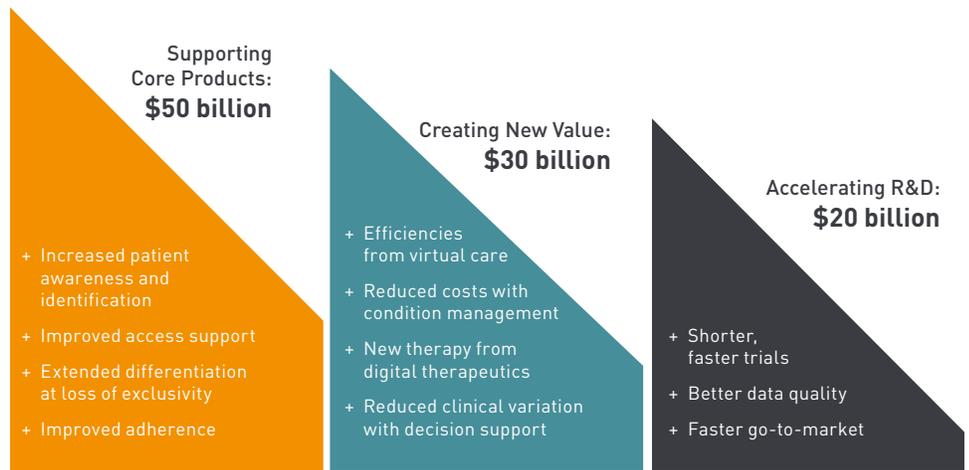
Imagine that you're a pharma executive launching a major product in a new therapy area, and you must learn the space and establish yourself with new customers quickly. You could acquire a smaller product to prepare the market for your big launch, or you could develop a unique digital offering instead. Or imagine that your product is facing generic competition: You could lower its price, or you could couple it with a novel digital device to make it stand out in the marketplace.

Today's digital health solutions can address many of pharma's most vexing problems, but unfortunately, too many pharma companies haven't yet realized digital health's full potential. Pharmaceutical firms have launched smartphone apps, included wearables in clinical trials, and experimented with novel technologies. Many have created digital health units, and some are on their third or fourth iteration of these groups. However, most companies aren't yet seeing tangible value from these efforts. As one company leader told us, "We have lots of experiments but little to show for it."

Several trends suggest that digital health overall is reaching a critical inflection point.

While examples like this can rightly create skepticism, this shouldn't cloud your vision for digital health's potential. The industry has learned a lot from its experimentation, and several trends suggest that digital health overall is reaching a critical inflection point. The FDA has gone from approving just one software-based medical device in 2016 to more than 50 in 2018, according to ZS analysis of FDA data. Meanwhile, **85% of physicians believe that digital health can have a positive impact on patient care**, according to the American Medical Association. Furthermore, **87% of consumers are using at least one digital health tool**, according to Rock Health. Increased competition from **tech players** and startups, and growing support for a range of specific and tangible use cases, also suggest that pharma is getting close to realizing the payoff from digital health.

THREE ELEMENTS OF PHARMA'S OPPORTUNITY IN DIGITAL HEALTH



Source: ZS research



The \$100 Billion Opportunity

The pharma companies that are recognizing that value and committing to digital health are poised to see significant returns. According to ZS's digital health team's research, the potential impact of digital health for pharma represents an eye-opening \$100 billion opportunity. Here's how:

- + **Enhancing value and supporting core products across the patient journey:** Companies looking to move beyond digital marketing to support their brands need to look no further than their patient journey, where there's a growing catalog of potential win-win digital health plays that can help patients and drive growth.

To grow the overall pie, digital solutions can be targeted early in the patient journey to increase diagnosis and treatment eligibility. For example, digital biomarkers can help find more patients by widely democratizing assessment capabilities. **Biogen's Multiple Sclerosis Performance Test** offers a novel hardware/software combination to simplify diagnosis of multiple sclerosis, while **Roche-Genentech's Floodlight Open** puts the diagnostic in the hands of MS patients, allowing patients to assess their health daily rather than two or three times a year at the clinic.

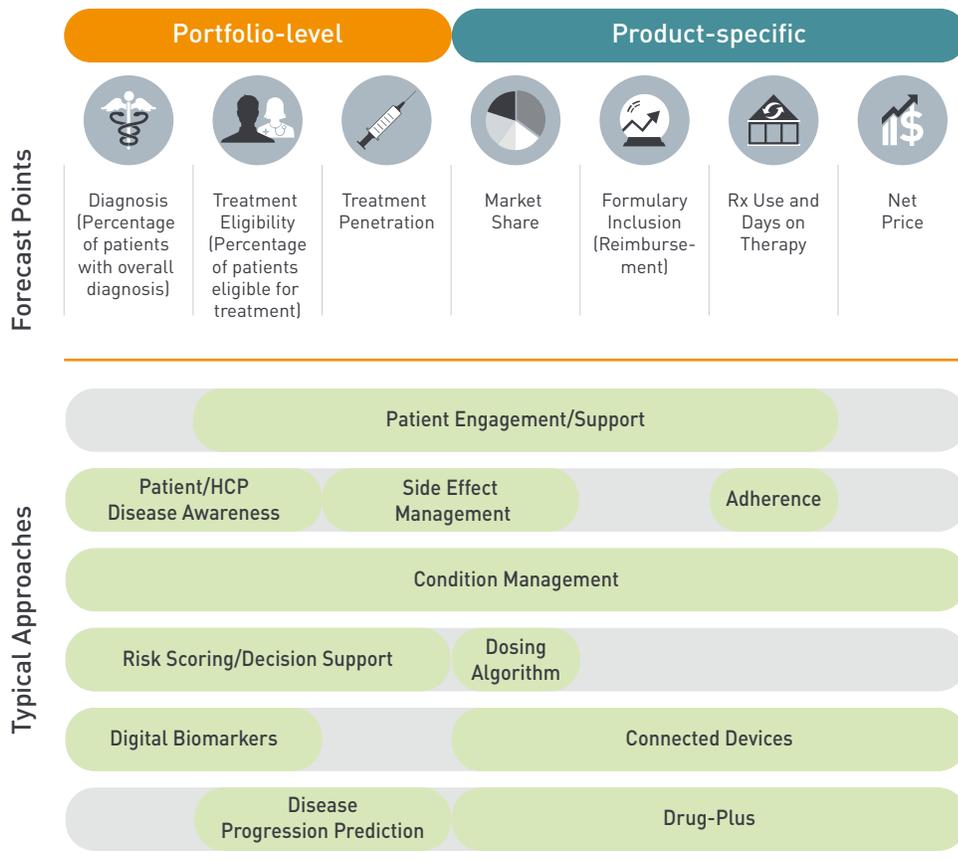
Digital health solutions will also be increasingly important for differentiating specific products and driving market share: for example, newly launched products, products in crowded categories or late-stage products looking for differentiation. Combination approaches—which, **as defined by the FDA**, closely tie a digital solution with a drug to show increased clinical impact—are especially promising. Early examples include connected devices like Otsuka + Proteus Abilify, or the AZ + Adherium SmartTouch inhaler. In these approaches, a manufacturer may ultimately receive a label claim for a product-solution combination that has been shown to produce enhanced clinical results.

Digital approaches may also be used for side effect management or behavioral-therapy-based extensions to products. For example, Novartis has a number of drugs in its portfolio with depression as a side effect, and has extended its partnership with digital therapeutics company Pear Therapeutics to **build out a companion offering to help mitigate this**.

Finally, there's the opportunity to significantly expand compliance to therapy, improving care for patients and reducing downstream, high-cost events for payers. This may be **among the largest potential opportunities for the industry**, with novel approaches ranging from passive connected devices to incentives and gamification.

+ **Capturing new value and generating sources of revenue:** In addition to supporting the core portfolio, digital health can also help pharma create and capture new value for the healthcare ecosystem. New technologies are enabling new efficiencies, cost offsets and savings, and healthcare stakeholders are willing to pay where they see clear value. A **2015 Goldman Sachs report** estimated that the commercial opportunity for new DCH technologies is more than \$30 billion. The opportunity around digital therapeutics is **estimated to grow to more than \$9 billion by 2025**, according to Grand View Research, and see annual growth rates above 20%. The space is a good potential fit with pharma capabilities like regulatory approvals and the commercialization of science-based products. Pharma-digital tie-ups like Sandoz’s commercialization of Pear Therapeutics’ ReSET, or Otsuka’s relationship with Click Therapeutics, will likely continue as pharma looks for novel offerings to bring new value to customers.

ZS’S DIGITAL HEALTH PORTFOLIO VALUE PROPOSITION FRAMEWORK



- + **Leveraging digital and connected health to accelerate R&D:** Digital health also holds significant promise to transform pharma’s own innovation engine: R&D. By digitizing many currently disjointed processes, from finding and recruiting patients, to monitoring and collecting data, to ensuring compliance to protocol, digital health tools will make trials smaller, cheaper and faster. And there’s a revenue upside, too: Faster trials mean more days on the market and faster time to peak revenue—as much as six months faster, according to ZS estimates.

Additionally, digital biomarkers and novel endpoints—which enable patient data to be captured digitally, outside of the clinic—**dramatically enhance the level of data that trials are able to collect**, and hence the precise understanding of the disease and product effects. This will allow greater understanding of variation in product effectiveness: as one industry leader noted, “saving products that would otherwise not make it.”

Overcoming the Challenges

To fully realize digital health’s significant opportunities, pharma is up against two main challenges: getting the right solution and driving adoption and value at scale.

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The first challenge is properly understanding underlying issues and matching them to the right solution. In a traditional pharma approach, problem definition might start with brand planning or patient research. However, patient insights often aren’t deeply understood at the health-behavior and digital-behavior levels. Constraints on testing or direct user feedback can slow down development. Offerings are then developed with limited integration to the healthcare and health tech ecosystems.

Since these ecosystems are evolving rapidly, tracking and predicting which technologies or partners will be successful can be overwhelming. These potential partners may not also fully understand the additional hurdles that pharma faces, resulting in frustrations on both sides. As an executive leading a digital innovation group told us, “They don’t know us, and they don’t know how to work with us.”

New capabilities are also needed on the pharma side. We frequently see challenges from siloed environments, high risk aversion, and difficulty recruiting and retaining the right talent. One pharma executive described how he hired a full digital development team only to see few remain with the company a year later in the face of constraints placed on their work. Digital innovators remain saddled with pharma-centric team structures and legal, compliance and promotional review processes. All of these challenges combine to erode pharma’s ability to field the right solution.

For those solutions that are impactful clinically, or successful in pilot studies, the second challenge is then driving success at commercial scale. To return true value, digital health efforts must have commercially relevant business cases with appropriate KPIs. Efforts that focus on résumé-building or rely on an “I’ll know it when I see it” approach to measurement typically fall short.

To reach commercial impact, solutions need to tap into emerging regulatory frameworks and payer perspectives. Workflow integration across EHR and driving consumer adoption of new solutions—as well as other aspects of go-to-market strategy such as leveraging the field force and supporting patient fulfillment—are crucial. Leaders we spoke with recognized that successful outcomes during a pilot study are only the beginning.

Additionally, solutions need to capture and harness data for further growth. Data may represent new proprietary insights, inputs into evolving algorithms within the solution or an opportunity for additional revenue. However, pharma digital health leaders cited outdated data infrastructure that couldn’t keep up with program needs, misalignment around the appropriate level of engagement with data and an inability to pull data through to value. In one situation, an incoming leader of a digital health group was dumbfounded that a successful app had a significant user base but was not set up to retain user data in any way.

Optimizing Your Approach

Pharma executives looking to capture the digital health opportunity need to be prepared for nothing short of a full transformation, from new investments to organizational design and commercial models. Here are some key starting points:

+ **Apply a therapeutic-area-specific lens to set an appropriate strategy for your core portfolio.** With chronic diseases, where drug spend is a relatively modest component of total patient cost, condition management solutions will drive significant use of generics and be well-positioned to **take on risk**. Pharma must develop compelling whole-patient solutions or be prepared to play as a participant on another’s platform. For example, in respiratory health, digital therapeutics company Propeller Health allows products from multiple manufacturers to plug into its connected inhaler, but those products give up a potential aspect of differentiation.

In specialty categories or areas such as immunology and rare disease, pharmaceuticals are a major component of care and are reimbursed accordingly. Here, as target populations narrow, each patient can be of significant value. Pharma must look to digital health to find and target the best patients for each molecule and create digital combination approaches to differentiate products and patient experiences.

+ **Emphasize integrated solutions and strong scientific evidence.** There will be significant temptation to take the traditional—and easier—route of creating point solutions for patients outside of the full healthcare context. However,

solutions that are integrated into the healthcare system will be the most meaningful and successful. The CEO of a leading digital health platform told us that the No. 1 factor that predicts long-term patient engagement is physician recommendation on the first day of use.

- + **Target efforts at the right leverage points along the patient journey and show quantifiable value.** To forecast direct value or impact on your core portfolio, use analogs, which can be refined and become more granular over time, expanding into quantitative research to support value cases for major investments. As programs move forward, set KPIs early, use a learning plan to map out information needed to reduce risks and ensure solutions hit on multiple points of value for all key stakeholders.
- + **Establish the right digital operating model and capabilities.** A committed leader, concrete goals, external commitments, centralized budgets and empowered teams are all crucial to success. Set up a digital capability at the highest levels and scale it across the organization. The team should also be cross-functional, empowered to pull in the right stakeholders and get things done. Set realistic expectations around the duration of digital health programs, which are faster than biomolecular R&D but still take time to properly design and scale. A learning plan with specific milestones will ensure organizational confidence throughout the journey.
- + **Rethink how you go to market.** Digital health solutions are products, not marketing campaigns, and they need their own marketing and commercialization efforts to create the desired impact. From co-creation with large customers to in-EHR app stores to B-to-C, there are a variety of specific channels to think through to drive value and use. Think about how to leverage existing capabilities (such as the field force) and build new ones (like the marketing of healthcare solutions).
- + **Plan analytics up front to maximize the value of data.** Digital technologies create new types and volumes of data that must be planned for appropriately. Capabilities to store and handle patient-level data, integrate data across programs and apply advanced data science will help maximize the value of data.

Digital and connected health is a significant opportunity for the pharma industry. It not only offers financial benefits but also a chance to redefine pharma's role within the healthcare system, and a promise to improve outcomes, satisfaction and cost for the benefit of all. Participating in these new technologies lets pharma get closer to patients and extend and enhance the scientific discoveries being produced in the labs. Like any new venture, there are risks and many unknowns, but the promise—and the window of opportunity—is wide open.

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About ZS

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