



Transforming the patient experience

Patients at the center, taking charge of their health

The pandemic put patients at the center of every conversation, and innovation was catalyzed. Over the last two years, collaboration across life sciences and with stakeholders was unprecedented—all mobilizing in the interest of patients.

Communication between patients, sites, sponsors, and supply partners increased.¹ As of 14 December 2021, sponsors are enrolling or have enrolled more than 90 million people in 775 COVID vaccine-related clinical trials, including 50 million estimated for a post-marketing safety study for the Moderna mRNA-1273 vaccine.²

The pandemic helped to create more patient-centric channels. Digital technologies, in particular, were globally adopted, and telemedicine became broadly available. Digital is allowing companies to collaborate with patients to develop therapies with endpoints that the patients care about—including quality of life measures.³ Collaborating with health systems is enabling insights from data, and patients are now taking charge of more of their health.⁴

Patient engagement has been an essential part of biopharma research and development and disease management.⁵ However, as one patient advocate told a pharma executive—“We’ve been engaged for a long time, it’s time to get married.”⁶

How will life sciences take advantage of this momentum and become truly patient-centric in 2022?

Becoming a more patient-centric organization

Patient-centricity is more than providing good quality care. It means making patients equal partners who are at the center of health care decisions.⁷

Co-creating with patients, the heart of patient centricity

The concept of patient-centricity is decades old—but remains a challenge to master.⁸ Patient input to life sciences companies' designs is increasingly more sophisticated and widespread. But some patient advocates believe that patients should be equal partners in the process with the patient at the center of decision-making.⁹

According to Dana Lewis, patient advocate and founder of OpenAPS, the health care system doesn't have the patient as an equal partner all along. She says that there is a huge gap, and we really need to think about redesigning the system, not just having patients as an add-on to the system.¹⁰

From concept to launch, patient "co-creation" would change many of the micro and macro decisions life sciences companies make along that journey, including—what to research, how to develop, how to package and distribute, how to get into patients' hands, and ultimately, how to measure patient outcomes (see figure1).

Pharma companies are starting to adjust their enterprise decisions by reflecting the patient needs in more decisions, and health tech and other ecosystem companies are gaining traction filling this need.

Integrating engagement, fully partnering with patients

According to Dr. Freda C. Lewis-Hall, former chief patient officer for Pfizer,¹³ life sciences organizations need to stop trying to solve problems themselves, and instead, they should fully partner with patients. "Get insights into what patients' preferences and needs are, what their current skills are, and how they can help us shape ourselves as companies and industries. Let them know that their input is important for what we are ultimately going to offer to them. When we bring the solution, they'll know that we've worked on it together to provide it," she says.¹⁴

Figure 1: The patient and life sciences co-creation process



Source: "Patient co-creation is a tall, but worthwhile, order for health innovators," MobiHealthNews, 27 November 2019.

Voice tech captures the true voices of patients providing trial sponsors with deeper insights

TrialPulse is a patient insights platform helping hundreds of pharmaceutical companies better listen to the true voices of patients. Using voice technology, patients provide insights on various parts of the R&D process, including patient experience, disease burden, unmet needs, trial design, recruitment, and retention optimization.¹¹ Language analysts and advanced natural language processing (NLP) tools are used to process, evaluate, and analyze multiple aspects of each patient's response, including emotion which may provide deeper insights for the sponsor.¹²

For accurate patient insights, it is important that life sciences companies are proactive, involving patients early, and not waiting until there is a final product such as an app or website for patients to review.¹⁵ Begin with the initial brainstorming through to the launch of the product (see figure 1),¹⁶ Be flexible—see the process of co-creation as an open dialogue and change direction based on the feedback you receive.¹⁷

In addition, life sciences companies need to plan for the investment required to really involve patients, including patient compensation. When patients aren't compensated for their time, sponsors risk bias by design and lack of diversity, because only patients who are able to—can afford to and have the time to—be involved, will.¹⁸

Just ask patients: Savvy Cooperative digital health startup

Companies and innovators are likely to waste time and money creating products and services that don't meaningfully impact patients' lives. Often, this is because developers never bothered to ask patients. They create products for patients and not with patients. Savvy Cooperative is an online marketplace for patient insights. The platform allows innovators to connect directly to patients and caregivers that match their objectives. Companies post a "Savvy Gig", and patients choose gigs that they want to participate in or that are relevant for a particular disease. Patients have the opportunity to earn rewards. The goal is to co-create a product or service that offers a better patient experience and brings real value to patients.

“ In life sciences, we have brilliant people. We have technology and deep science. But what we often don't have, is deep patient insight. We really have an opportunity now to build that in by creating an end-to-end partnership with patients. ”

*Freda C. Lewis-Hall, M.D., DFAPA, MFPM, former Chief Patient Officer, Pfizer, Inc.*¹⁹

Enhancing engagement, creating value

Digital and data solutions can help embed patient centricity across the value chain.²⁰ Digital health, medicine, or therapeutic technologies offer many ways to provide value:

- Empowering patients to monitor and self-manage their health
- Increasing access to therapies which are clinically effective and safe, with side effects that are typically less severe than in traditional pharmacological interventions
- Improving medication management and patient adherence
- Helping alleviate the limited access to therapy
- Providing updates on outcomes through regular monitoring
- Reducing medication dosages for patients who adopt healthier lifestyle habits as a consequence of tracking their symptoms and health status
- Reducing the number of face-to-face interventions, e.g., through digital cognitive behavioral therapies
- Enhancing patient experience by receiving care in a more convenient setting, e.g., in the comfort and privacy of patients' homes or wherever a patient may be
- Increasing access to interventions for underserved populations
- Enabling more predictive, preventative, personalized, and participatory care²¹

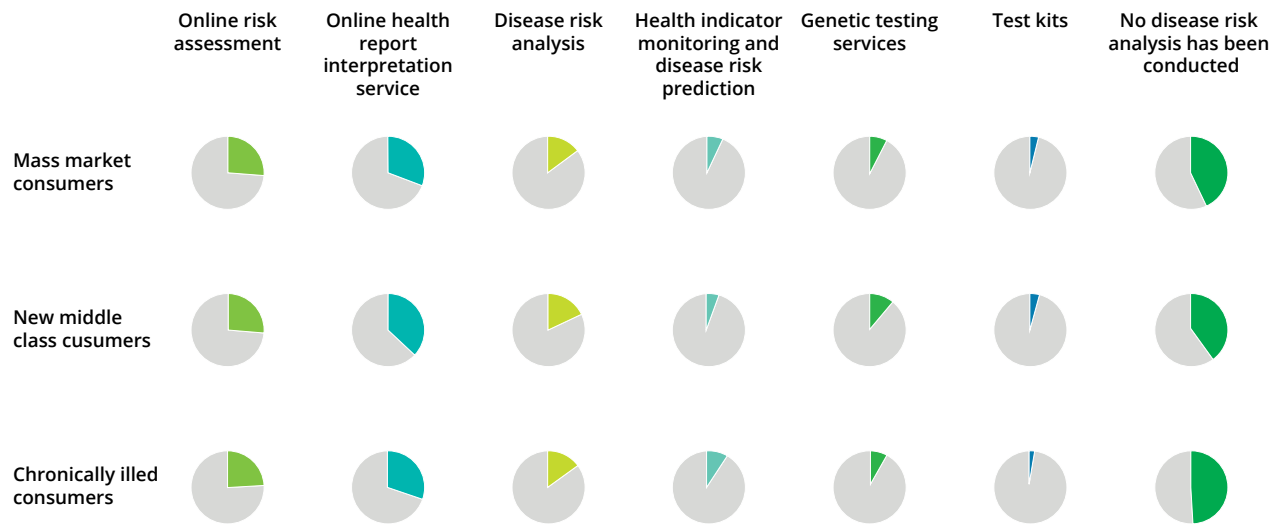
Creating an end-to-end screening, scheduling, and results delivery platform

In the early days of the pandemic, both public and private organizations were forced to develop fast, piecemeal solutions to tackle the challenges of outbreaks. But **Quebec's Ministry of Health and Social Services (MSSS)** had a vision to proactively combat these outbreaks by optimizing the testing and screening processes for its citizens. The goal was to reduce complexity, improve connectivity, automate manual tasks, and create a more efficient patient experience. Deloitte worked with the Canadian Ministry to create a centralized platform that gives citizens their appointments and results faster and provides ministry workers the tools they need for getting ahead of the virus in their community.²²

Monitoring value and use of products and services

Tracking consumer interest and actual use of technologies enables life sciences companies to be more patient-centric. For example, consumer use of risk assessment and early intervention products and services is increasing. These products and services provide early warnings regarding infectious diseases, genetic diseases, and cancer, among others. According to a survey of Chinese consumers' preferences by Deloitte, higher utilization of these products was among those with chronic disease (see figure 2).²³

Figure 2: Consumer preferences for products or services for disease risk analysis and early intervention in China



Source: Integrating digital health care solutions to better serve and protect consumers, Deloitte China, 2021.



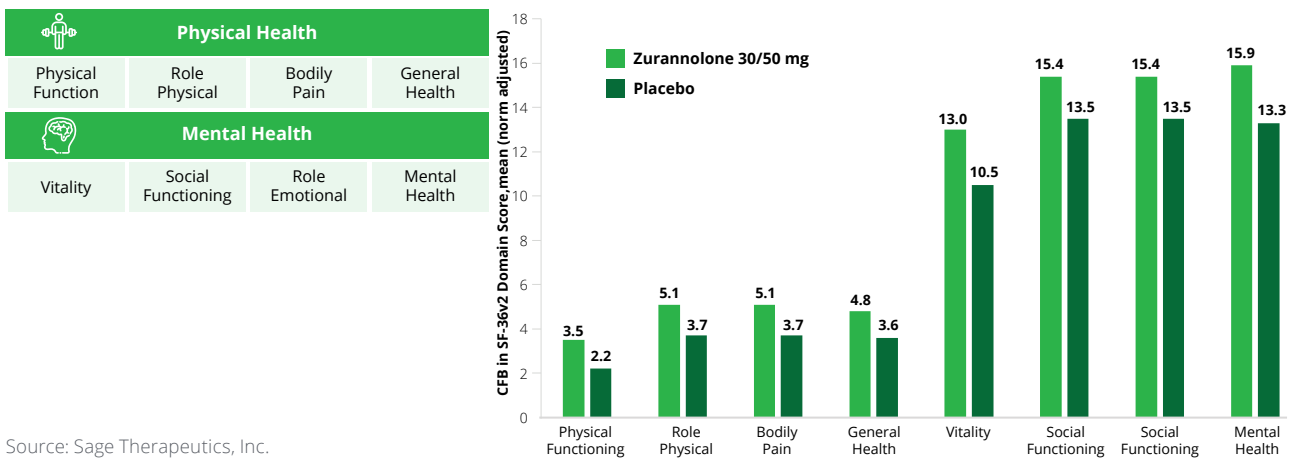
Shaping clinical trial design with patient insights

Patient-focused drug development

Patient-focused drug development incorporates patient experiences, needs, and outcomes to further drug development and evaluation—with greater emphasis being put on quality of life measurements.²⁴ The SF-36v2 (36-Item Short Form Health Survey, version 2) is a widely used and validated instrument for patient-reported outcome (PRO) measures.²⁵ Patients answer questions regarding their quality of life and overall physical and mental health (see figure 3).²⁶

Sage Therapeutics, Inc. and Biogen Inc. were able to receive patient feedback on a clinical trial for zuranolone for major depressive disorder (MDD) with the SF-36v2. The assessment reported rapid improvement in quality of life and overall health for patients across all domains at Day 42 of the trial²⁷ (see figure 3).²⁸

Figure 3: SF-36v2 Day 42 clinical trial PRO with Zuranolone treatment for MDD



Source: Sage Therapeutics, Inc.

Co-creating patient-friendly outcome measures

Pharmaceutical companies should consider more patient-friendly outcome measures and functional outcomes, as opposed to just regulatory or clinical outcomes, according to Gautam Gupta, senior vice president and head of strategy for Pfizer. He says that when selecting metrics for clinical trials, you should involve the patient, and consider:

- What metrics does the patient care about?
- What outcomes does the patient want to see?
- Is the medicine making the patient's daily functioning easier?
- Is it increasing mobility, if relevant to the disease?

Adding the endpoints patients care about should become part of the clinical trial.

Predictive engagement, using data for personalized experiences

Anticipating needs and meeting expectations

Transforming clinical trials and patient services often requires catching up to other consumer experiences. Patients have a mental picture of expectations, that they may not even be aware of, shaped from other experiences.²⁹ For example, when someone has a great customer service experience in retail or online, or a seamless experience with a tech giant's app, they expect no less from their health care app, website, or consultation.³⁰

A leading customer service experience is provided by the Ritz-Carlton, whose goal is to 'delight' customers by anticipating the unexpressed wishes of their guests. Customer data is used to shape a personalized experience, and an innovation database stores ideas to share across properties.³¹ In health care, we can anticipate adverse health events by using data and digital tools to predict and prevent, according to Gilles Marrache, senior vice president in Europe for Amgen.³² For example, building algorithms from Electronic Medical Records (EMRs) may predict who is likely to have a second heart attack, and we can work with that patient to prevent it.³³

“
Everyone aspires to be healthy and happy.
”
*Christophe Jauquet, author of Healthusiasm.*³⁴

Sparing patients an unpleasant experience with synthetic control arms

Sparing patients an unpleasant experience is also valuable. According to Alicia Staley, vice president of patient engagement for Medidata, synthetic control arms essentially enable running a clinical trial with data. “With the evolution of what can be done with data, and particularly with AI, you are perhaps sparing the patient the actual experience of taking the medicine and living through side effects. You can figure out what a potential response would be,” she says. Staley suggests companies continuously look at data sources and act upon the signals they provide.³⁵

“
Life sciences and medtech companies need to build a company culture around the patient experience and the data they're learning about the patient. Data without analysis is just ones and zeros. If you're not looking at the data and acting on that data, it's useless and has no value.
”
*Alicia Staley, Vice President, Patient Engagement, Medidata.*³⁶

This shift to predictive health and using data also requires trust. Trust by the patient that their data is being used responsibly and for their benefit. It requires pharma and device companies to invest in building that trust, to communicate openly and to be transparent.³⁷

Enhancing engagement with leading-edge technology

Life sciences companies can drive purposeful digital innovation by creating precision experiences with leading-edge technology (see figure 4).³⁸ AI-driven engagement, connected patient, and health care provider (HCP) platforms may provide patients and partners timely access to content and treatments that are relevant and personalized.³⁹

Figure 4: Sample digital innovations powering precision experiences

Digital innovations	Description
360-degree view of patients and partners (cloud/data lakes)	<ul style="list-style-type: none"> By combing behavioral and socioeconomic patient data (e.g., buying propensities, workout tendencies) with marketing data (interactions with online ads, impressions, conversions) in data lakes or the cloud, companies create 360-degree view of patient behavior across digital and physical footprints. Similarly, data on how physicians interact with the company ad affiliate web ads, email, and social media content is aggregated to provide a view of their engagement across channels and platforms and can be cross-referenced to specific patients.
AI-based engagement recommendations (AI)	<ul style="list-style-type: none"> AI marketing solutions analyze patient datasets to recommend how, when, and with what customized content to engage patients and partners (such as personalized ads, tailored medication regimens, and adherence programs) across channels and the patient journey.
Next gen HCP portals (chatbots, NLP)	<ul style="list-style-type: none"> Next generation HCP portals with NLP and AI chatbots enable on-demand access to information and seeking peer opinion to improve care delivery, while broadening access opportunities for companies.
Connected patient platforms (cloud/wearables)	<ul style="list-style-type: none"> Cloud-based connected patient platforms aggregate data from patient wearables and medical devices, track and analyze patient outcomes, and link patients to physicians and support groups to create longitudinal engagement.
Proactive market intelligence (AI/cloud)	<ul style="list-style-type: none"> AI enables curation and analysis of unique information sources to sense changes in the marketplace (such as likely changes to reimbursement practices, regulations, competitor tactics) that could affect launch strategies and competitive dynamics.

Source: Biopharma digital transformation: Gain an edge with leapfrog digital innovation. Deloitte, 2021.

Investing in more patient-centric digital capabilities

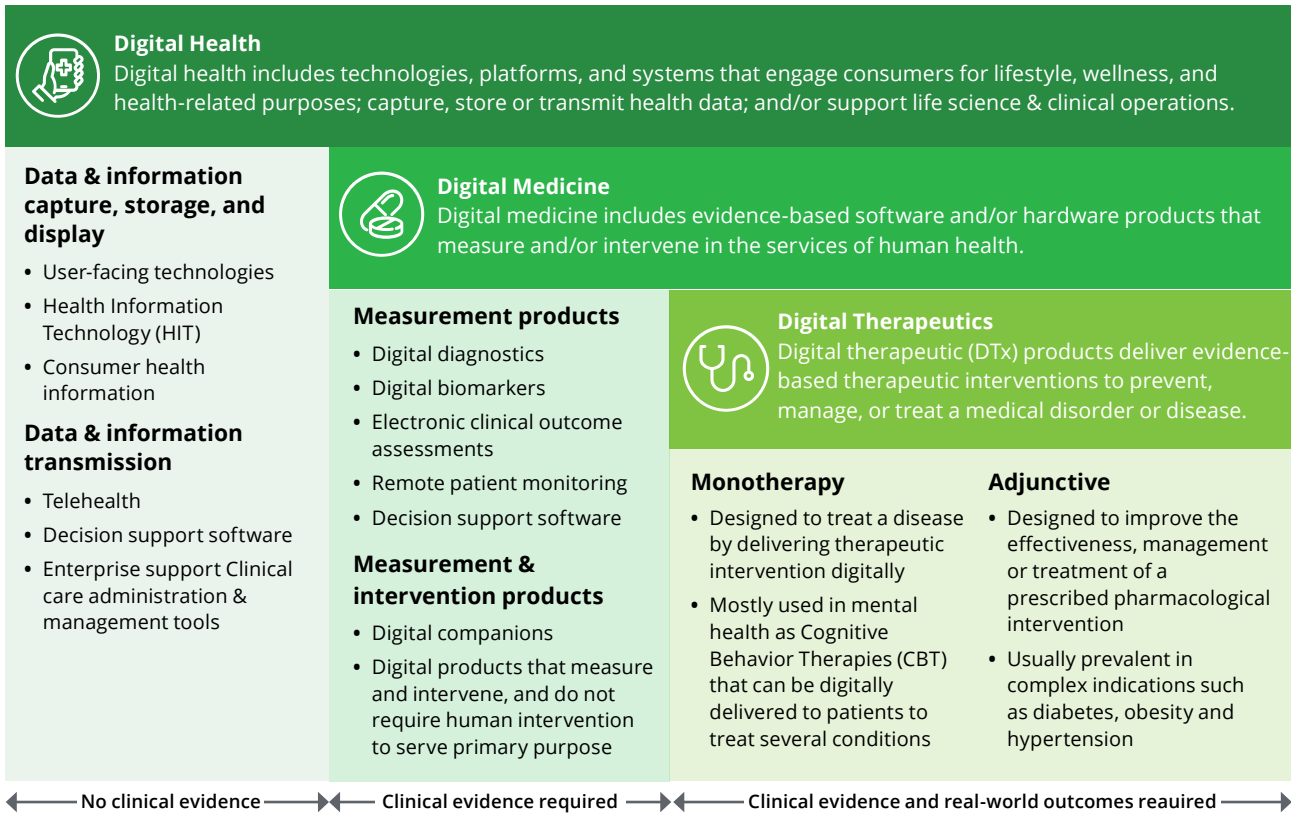
Digital becoming a strategic priority

Digital health, digital medicine, and digital therapeutics offer life sciences and stakeholders an opportunity to create more personalized experiences and new ways to become patient-centric. In the coming year, life science and medtech companies plan to grow investments in digital capabilities for more personalized therapies and patient support (see figure 5).⁴⁰

According to a recent study by Deloitte, executives from life sciences, technology, payer, and provider organizations expect digital medicine products to become a strategic priority. Digital therapeutics, in particular, are starting to impact patient outcomes and show clinical validation.⁴¹

The need for education around these solutions is intensifying. If physicians are not educated on what digital therapeutics are and how they may help patients, they are unlikely to prescribe them. Staying up to date on regulations, the types of solutions available, clinical applications, digital biomarkers, etc. will remain an on-going need as technology evolves exponentially.⁴²

Figure 5: Differences between digital health, digital medicine, and digital therapeutics



Source: Digital therapeutics, Deloitte, 2021.

Digital health venture funding boom

In 2021, US-digital health startups aimed at R&D in biopharma and medtech received funding totaling US\$5.8 billion. Investor interest was fueled by the COVID-accelerated adoption of real-world evidence and decentralized trials. Overall, 2021 was a blockbuster year for US-based digital health startups, raising US\$29.1 billion across 729 deals—nearly double the US\$14.9 billion raised in 2020, a previous record. There were nearly 23 exits via merger or acquisition monthly, almost double 2020's monthly average of 12.⁴³

2021 was also a big year for digital health in Europe. Europe had 34 digital health company exits in 2021 alone—half of the 68 exits in Europe over the past decade. Babylon became the first European digital health company to list on public markets in a SPAC (Special Purpose Acquisition Company) in deal worth US\$4.2 billion.⁴⁴

Merging different data silos from digital health partnerships or acquisitions remains a challenge for many health care and life sciences companies. There should also be a better flow of data across payers, providers, and even manufacturers. Regulators are requiring data to become more transparent and user-friendly for patients.⁴⁵ Enabling patients to provide feedback and concerns, allows patients to have more of a voice regarding how data is being captured and actioned upon.

Building holistic patient services experiences

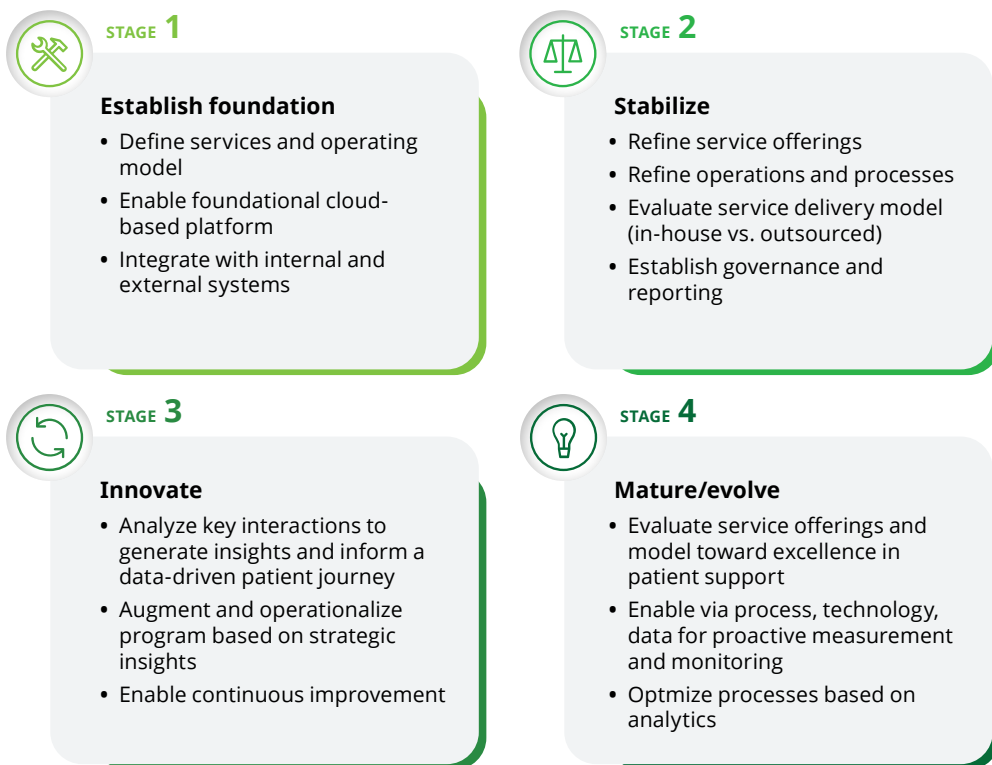
Developing patient services in-house

Life sciences companies typically manage patient services programs by therapy or therapeutic area. As patient engagement becomes more comprehensive—potentially with more value to the patient over a lifetime—an increasing number of life sciences companies are moving patient services in-house. An important first step to proving value for an in-house platform is starting small—with one or a limited number of therapies. A comprehensive program typically includes five areas:

- Financial
- Clinical
- Engagement
- Education
- Access to therapy⁴⁶

Operationalizing a patient services program and moving it in-house requires integrating with internal and external systems and refining operations and processes. Service offerings should be modelled toward excellence in patient support. Innovating means analyzing key interactions to generate strategic insights that will inform the patient journey (see figure 6).⁴⁷

Figure 6: Four stages to operationalizing a patient services program



Source: Building patient services programs to deliver better patient experiences, therapy adherence, and improved health outcomes, Deloitte Digital, 2020.

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Takeda’s OnePath is an example of a comprehensive in-house services program. OnePath is a dedicated ‘patient support manager’ that provides one-on-one service to make sure patients have access to their prescribed therapy and a personalized product support plan. Services include navigating insurance, managing costs, getting prescriptions filled, and arranging training from a nurse. There is a dedicated website for the OnePath journey that also includes a library of resources for the patient.⁴⁸

There are specialized solutions along the patient journey, with which companies will want to partner (vs. seek to build themselves). Services to facilitate scheduling, pharmacy e-commerce, drone distribution of medical supplies, best in class Natural Language Understanding, and the plethora of digital applications enhancing a specific touchpoint are all capabilities life sciences companies can harness and integrate to their in-house services programs.

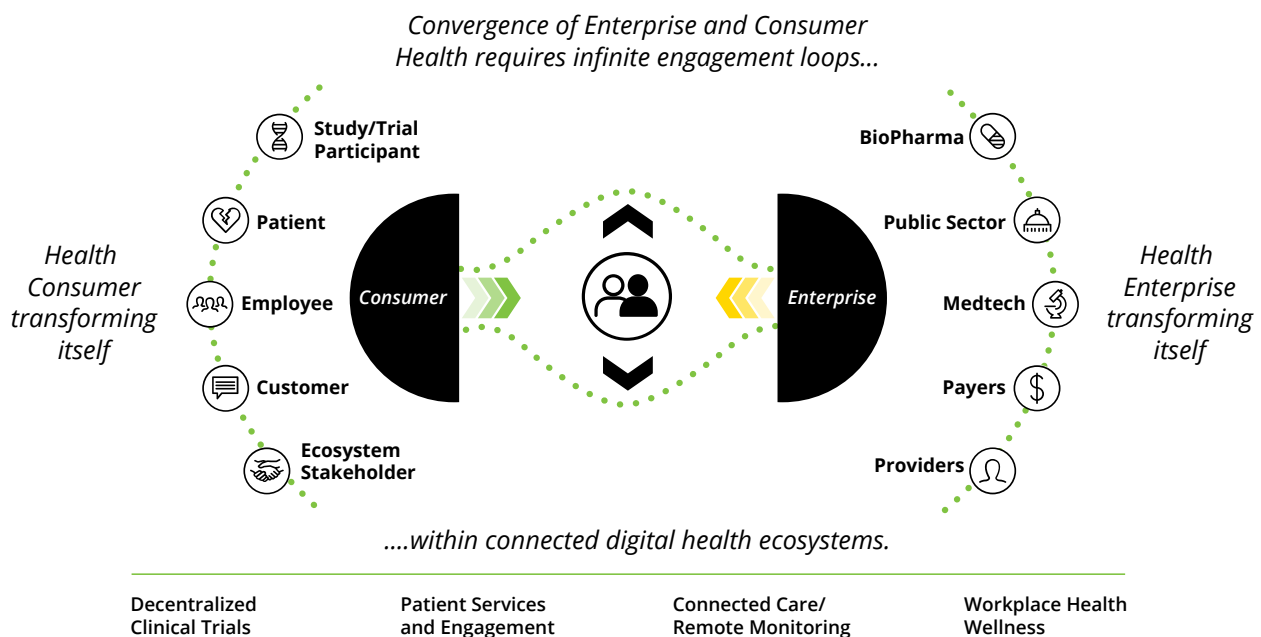
Working with partners in the ecosystem

Partnerships across the ecosystem are also key. According to Betül Susamis Unaran, chief strategy and digital officer for Zur Rose, Europe’s largest e-commerce pharmacy. When different companies deliver different parts of the journey, everyone needs to come together to create ‘one experience’ for the patient.⁴⁹

Enabling many companies to come together to create a unified experience for the patient, Deloitte’s ConvergeHEALTH Connect platform prioritizes supporting patient journeys within connected ecosystems (see figure 7). Whether for observational studies, clinical trials, or therapy support, the patient service workflows extend beyond a single life sciences and health care enterprise. ConvergeHEALTH Connect drives standardization of workflows, like enrollment, benefits checks, and authorizations through a set of interfaces and APIs. Wherever opportunity exists, it eliminates manual workflows through automation.⁵⁰

In addition, the platform provides personalization and enables the “whenever, wherever” paradigm of patient access by providing seamless integration of communication channels like phone calls, secure messaging, and video chats. In each scenario —standard workflows, communication channels, or automation—the ConvergeHEALTH product team builds partnerships with best-in-class vendors for joint innovation.

Figure 7: Delivering effective patient/health consumer experiences in connected systems



Source: Deloitte analysis.

Ping An Good Doctor and Chugai Pharma China strategic partnership for osteoporosis

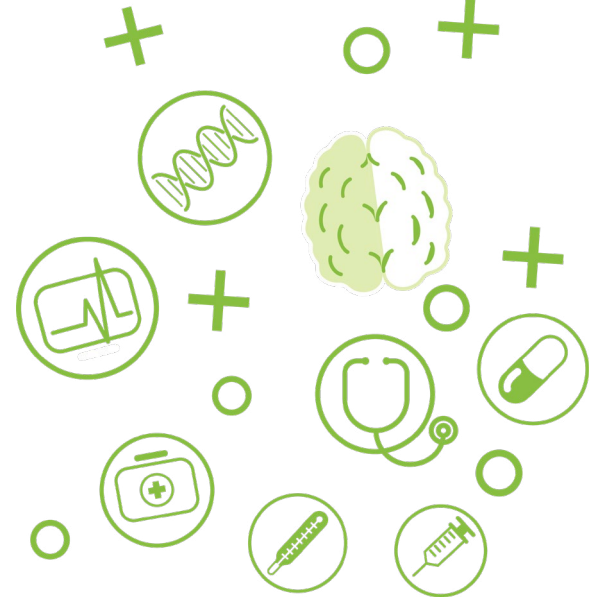
Ping An Good Doctor (Ping An Healthcare and Technology Company Limited) and **Chugai Pharma China** (Chugai Pharma China Co., Ltd.) are establishing a whole course management system for osteoporosis patients, including an osteoporosis clinic. Approximately 20% of the population over 50 years of age suffer from osteoporosis in China, but only 7% are aware of the disease. The treatment is complex—involving multiple medical departments including orthopedics, endocrinology, rheumatology, and immunology, etc.—but lacks a professional full-cycle care management platform.⁵¹

Ping An Good Doctor is a health care platform working with pharmaceutical company, Chugai Pharma China, to enhance drug accessibility, medication guidance management, and sharing of pioneering academic findings to benefit more patients. The clinic is integrating services for osteoporosis patients, including health education, disease prevention, consultation, drug purchasing, and rehabilitation etc.—optimizing the online and offline closed-loop management system. Ping An Good Doctor is offering personalized solutions for patients and adjusting treatment strategies by tracking health data.⁵²

There are more than 400 million users on Ping An Good Doctor's health care platform, and China's health care sector is projected to grow by more than 10% annually. Ping An Good Doctor is forging many alliances, including offline-to-online co-operation deals with 189,000 pharmacies, over 4,000 hospitals, around 1,700 checkup centers and more than 1,800 medical institutions, a network that keeps growing every month.⁵³

In 2022, it's time to fully partner with patients as longitudinal partners to better understand their disease and improve care outcomes.⁵⁴ Successful life sciences companies and stakeholders will be involving patients in co-creation, making investments in patient-centric digital capabilities, and working to create holistic experiences whether in-house or with partners in the ecosystem. Organizations that reimagine their business models, and put the consumer-patient at the center, are likely to succeed in transforming the patient's journey of care and deliver better outcomes.⁵⁵

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[Building patient services programs to deliver better experiences, therapy adherence, and improved health outcomes](#)

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