
Agile Healthcare 4.0

Business agility will help healthcare companies respond to the immediate challenge of COVID-19 and keep pace with industry transformation



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EXECUTIVE SUMMARY

Healthcare companies need to become more agile to respond at speed to the COVID-19 pandemic, which has intensified the existing challenges of an increasingly complex customer landscape and growing competition. Some companies have already started to apply agile principles to transform themselves into nimble market participants and retain their “right to win”. Recent research by Strategy& into the changes they have made identified six key success factors which will help all industry players to follow suit.

To build what we call the Agile Healthcare Organization 4.0, companies should:

- Ensure the empowerment of teams and speed through a results-oriented working culture
- Focus agile transformations on new drug research, market access, and marketing and sales
- Transform culture, ways of working, organization, and infrastructure simultaneously
- Determine the appropriate level of agile for the company as a whole and for individual units
- Apply a piloting approach appointing key employees as “ambassadors” for the rapid adoption of agile
- Build bridges between agile and traditional parts of the company

COVID-19 is a threat to healthcare companies which fail to update their capabilities to respond to the pandemic’s unprecedented impact. Yet the current crisis is also creating opportunities for companies with the agility to navigate a globally disrupted and rapidly evolving market landscape.

This report sets out how companies can seize these opportunities by achieving the right level of business agility, in line with their “way to play”, and build up required future healthcare capabilities.

Why COVID-19 means agile transformation should be on top of the agenda for healthcare companies

As governments worldwide race to contain and eventually suppress the COVID-19 pandemic, the global healthcare industry is responding to the crisis with unprecedented speed. New hospitals are being built in a matter of days. Medical supply companies such as Roche or Quotient are mass producing test kits, yet they still cannot keep pace with demand. Pharmaceutical companies are quickly shifting research and development (R&D) resources into the search for an effective vaccine.

Given the healthcare industry's critical role in the fight against COVID-19, the good news is that many leading pharmaceutical, biotech, and medical device companies have already put in place ambitious programs to make their organizations more adaptable and responsive to rapid disruption and an increasingly unpredictable environment. They have chosen operating models that follow principles of business agility, a framework designed to convert slow-moving, hierarchical departments, divisions or whole companies into nimble, results-driven teams and organizations capable of reacting quickly to change.

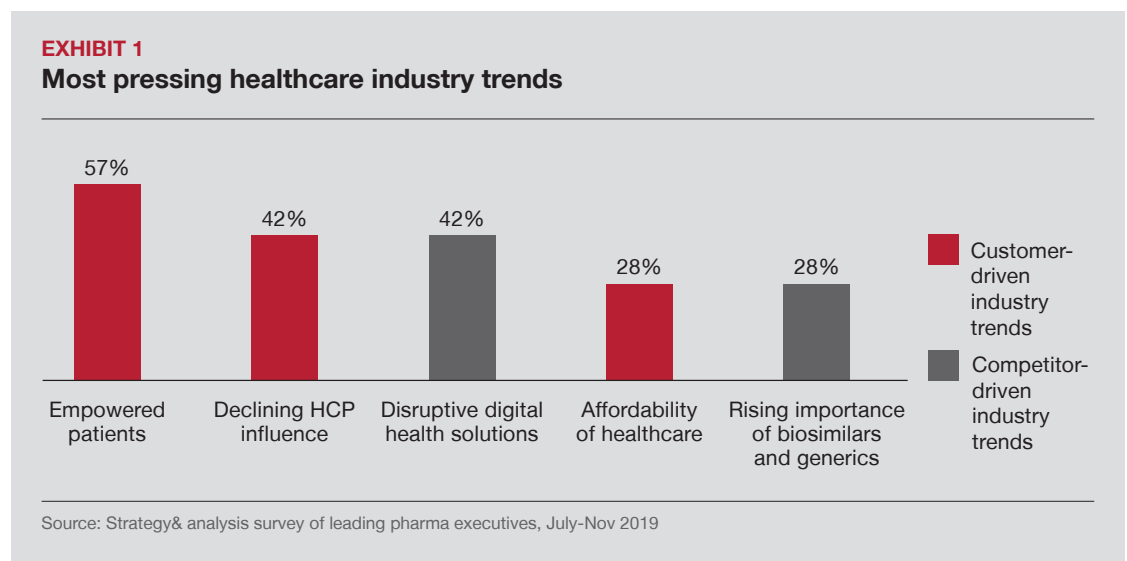
Between July and November 2019, we surveyed senior executives at eight leading healthcare companies in Europe, the United States and Asia about their organizations' agile transformation programs. Our research has proved timely as the current COVID-19 crisis has dramatically reinforced the industry case for adopting agile business models.

The main purpose of our survey was to identify examples of best practices in the implementation of an operating model that fosters business agility, as well as potential pitfalls and hazards. Additionally, we gained insights about agile transformations during our work with healthcare clients.

Given the large-scale disruption caused by COVID-19, this report builds on our survey findings to set out a practical agile roadmap for healthcare companies to follow. However, this is not a journey where all players, regardless of their sector or size, will arrive at the same destination. Our survey findings prove that healthcare companies need to identify where business agility is beneficial and where it is not suitable due to high regulatory requirements.

An industry in flux

The starting point for our survey was to understand how healthcare companies are adapting to two significant changes that were already impacting the industry before the daunting challenge of responding to COVID-19 arose. First, there is increasing patient demand for more personalized care and medication. Second, incumbent healthcare companies face growing competition from new entrants such as generic drug companies in the prescription drug market and technology giants offering innovative digital health solutions. More than half (57%) of our survey respondents identified “empowered patients” as a pressing industry trend, followed by “disruptive digital health solutions” (42%) and “declining healthcare provider influence” (also 42%) (see *Exhibit 1*).



Healthcare companies know they can no longer afford to ignore the need to develop capabilities that enable rapid reactions to these market changes. And now, the impact of COVID-19 only adds to existing pressure on traditional business models.

As the COVID-19 pandemic further disrupts the rapidly evolving market landscape, we believe healthcare companies can secure their market position by choosing one of three pathways, depending on their organization’s core strengths:

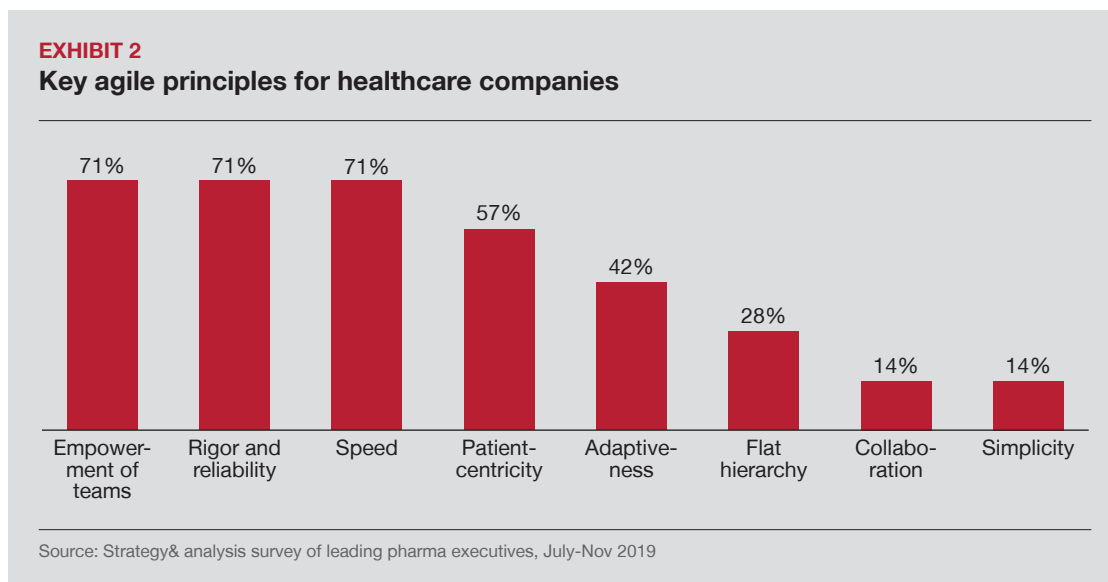
- **Scientific breakthrough developer:** Create new clinical technologies and platforms across a range of diseases
- **Disease outcome innovator:** Help patients manage specific conditions
- **Disciplined portfolio manager:** Leverage a broad group of products and global markets

How can agile enable the transformation?

Once companies have chosen the route that best suits their differentiating capabilities, the following key agile principles will enable them to adapt continuously as they transform their business model to meet new market demands. These are: customer-centricity; empowerment of teams across functions and hierarchies; adaptability through rapid prototyping; speed through a results-oriented working culture; and rigor and reliability, where solutions must be right at the first attempt.

Since the pandemic's eruption, empowerment of teams and speed have come to the fore as the most critical principles for healthcare companies that are engaged in the battle against COVID-19. With no definitive end in sight to state-imposed lockdowns, companies need self-empowered teams that can work remotely and independently in home-offices and react flexibly to volatile markets. Speed is also crucial, most obviously in rapid prototyping of potential therapies and drugs to combat the virus, with an effective vaccine as the ultimate prize.

Reflecting this context, the executives we surveyed (see *Exhibit 2*) believe that empowerment of teams, rigor and reliability, and speed are the most important principles for an operating model that fosters business agility in healthcare companies. How and where to put these changes in place will differ in every organization, and companies must remain focused on the problems they are trying to solve. As the head of pricing at a large Swiss-based pharmaceutical company told us: "We are still focusing too much on the methodologies behind the concept of agile, and not the people and its implications. Instead, we should create an environment that provides the best support to our employees to deliver fast results of the highest quality possible."



Using agile principles will help leaders build what we call the "Agile Healthcare Organization 4.0". In the following sections of this paper, we set out where business agility works best in a healthcare organization and how to implement it most effectively through three specific initiatives:

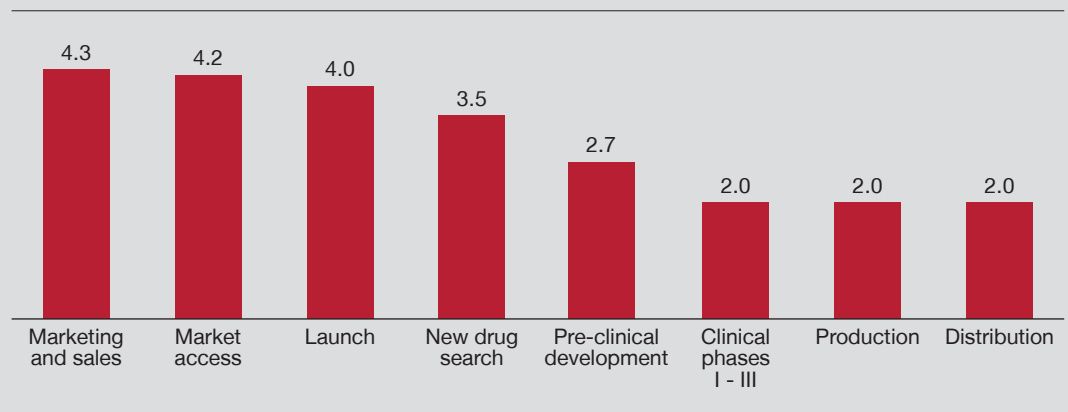
- Focusing agile programs on drug discovery, launch, market access, and marketing and sales
- Encouraging motivated employees to act as ambassadors for rapid adoption of agile
- Building bridges between agile and traditional parts of the company

Where to use agile in healthcare organizations

While the whole healthcare value chain offers opportunities to introduce an agile framework, our survey results confirm that specific areas hold the most potential. For example, the head of pricing at a major European pharmaceutical company told us that agile was particularly relevant in the company's drug discovery and marketing and sales prototyping, where "faster working speed and potential failures are possible". By contrast, a senior Europe-based product executive at a large Japanese pharmaceutical company said agile was much less well-suited to clinical trials and drug manufacturing, where "no mistakes are possible" and companies must have "complete control and be right the first time". These personal views were broadly reflected by the overall survey findings (see *Exhibit 3*).

EXHIBIT 3

Positive impact of agile across the value chain (1 low, 5 high)



Source: Strategy& analysis survey of leading pharma executives, July-Nov 2019

Research and product development

Agile opportunities in drug discovery include moving toward decentralized innovation across departments. For instance, companies can create internal, independent research teams that compete for funding and foster a success-driven research environment. In addition, collaborations and partnerships with universities and biotech firms can accelerate drug discovery. A leading European pharmaceutical company recently collaborated with the University of Pennsylvania to bring the first-in-class CAR T-cell therapy to the market faster than competitors developing CAR T-cells in-house. Agile is especially suited to the early stages of drug discovery, where prototyping and the acceptance of failures should be encouraged. An outstanding example is the current global race to develop an effective vaccine for COVID-19. It should be noted, however, that the virus is also holding up some clinical trials, as doctors and scientists focus on the emergency at hand.

Launch

Agile principles can help pharmaceutical companies improve the launch of a new drug by promoting experimentation and a shift to a customer-centric approach. For example, best-in-class pharmaceutical companies regularly collaborate with patients and doctors to co-create prototypes for more comprehensive, beyond-the-pill solutions. In turn, prototyping offers the possibility of exploring different launch approaches. One recent case involved a small-scale launch with selected hospitals in China in order to gain experience for larger markets. Key performance indicators (KPIs) that measure continuous improvement can also make launch strategies more customer-centric.

Marketing and sales, including market access

Cross-functional teams are one of the cornerstones of agile, and in the healthcare industry, working in this way helps to develop innovative pricing and reimbursement models. Pharmaceutical companies should explore how to introduce further innovations by developing new payer relationships, such as partnering with one local hospital rather than a leading clinical provider, where the potential cost of failure is lower.

In marketing and sales, agile can promote rapid prototyping, which allows flexible marketing plans to be rolled out quickly. In addition, modular brand plans can enable marketing departments to work across several small budgets instead of a single consolidated budget. Agile implementation is especially beneficial for over-the-counter products, where it is critical to adapt to rapidly changing market trends. This is especially true since the pandemic's outbreak and associated lockdowns, which have restricted physical access to healthcare providers and patients. Healthcare companies need agility to adapt to this new reality with innovative go-to-market models.

Production

Overall, our survey participants did not find production and distribution especially fruitful areas for the implementation of agile. However, this perception is being challenged by the growth of precision medicine, which requires agile production because batch sizes are shrinking as drugs become more tailored to individual patients. Batch sizes shrink to just one unit with autologous cell therapies such as CAR T-cells, for example. Pharmaceutical companies should build so-called continuous manufacturing facilities that permit rapid changeovers between different drugs and small batch sizes, such as Pfizer's recently opened production site in Freiburg, Germany.

Distribution

Agile helps pharmaceutical companies develop more responsive supply chains by deploying the digitized, connected machines and tracking systems that make up the Industrial Internet of Things (IIoT). For example, IIoT and radio-frequency identification (RFID) is enabling Merck & Co. to install an agile end-to-end integrated supply chain in the United States. As a result of COVID-19, healthcare companies in both the United States and Europe are experiencing disruptions to the supply of active pharmaceutical ingredients (APIs), and those with a highly responsive system with real-time reporting in place are mitigating this impact better. Precision medicine will also continue to be a key driver of agile supply chains.







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How healthcare companies are implementing agile on the ground

Once companies have identified their future business model – triggered by market changes and disruptions such as COVID-19 – and assessed where agile techniques will add the most value, how do they put these changes into action? Our survey respondents identified four key areas to address: culture, organization, ways of working and infrastructure (see *Exhibit 4*):

EXHIBIT 4

Four organizational building blocks

Traditional model	Organizational building blocks	Agile model
<ul style="list-style-type: none"> • Stable and risk-averse • Process- and planning-oriented • Set tasks in silos • “Best-in-class” 	<p>Culture</p> 	<ul style="list-style-type: none"> • Willing to learn and experiment • Result- and product-oriented • Strong collaboration across silos • “Best- and first-in-class”
<ul style="list-style-type: none"> • Homogenous, segregated teams • Strong hierarchy and slow decision making • Predefined career paths • Execution within the team 	<p>Organization</p> 	<ul style="list-style-type: none"> • Mixed, integrated teams • Flat hierarchy (empowerment) and fast decision making • Unpredictable, flexible career paths • Innovation across teams
<ul style="list-style-type: none"> • Experience-proven and traditional methods • Affinity with like-minded customers 	<p>Ways of working</p> 	<ul style="list-style-type: none"> • Agile methods (process mechanics: SCRUM, OKR, Product mgmt.: Product backlog, Technical practices: Continuous delivery) • Keeping pace with changing customer needs
<ul style="list-style-type: none"> • Conventional office hardware • Desk- and office-based work • Standard corporate employee agreements 	<p>Infrastructure</p> 	<ul style="list-style-type: none"> • Mobile, collaborative tools and systems • Open-plan office and flexible work models • Updated corporate employee agreements

Source: Strategy& analysis

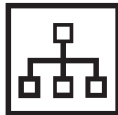
Culture



Agile healthcare companies are organizations that learn continuously, with a culture of experimentation in which empowered employees collaborate across silos. “Culture, and especially taking personal responsibility, should be addressed because it represents an enabler for agile,” the business operations manager at a leading Swiss pharmaceutical company told us. Fostering an innovative, experimental culture is also Pfizer’s goal in its so-called “Dare to Try” program, which uses various tools, training sessions, and advocates among its staff to drive change.

It is important to note that cultural change is one of the toughest parts of an agile transformation: PwC’s 12th annual State of Agile survey, published in 2018, reported that 53% of respondents saw organizational culture as the main impediment to an agile transformation, followed by resistance to change (46%) and lack of adequate leadership backing (42%). Our survey of healthcare executives reflects these findings, with respondents identifying organizational culture, inadequate management support and organizational resistance as the main barriers to implementation. However, we believe the changes imposed by COVID-19, including remote working and no in-person meetings with clients, could spur the development of agile cultures as healthcare companies and their customers seek to solve problems quickly and in new ways.

Organization



Agile organizations rely on nonhierarchical, multidisciplinary teams to achieve faster decision-making and more innovation. An outstanding example is GSK’s consumer health division, which has built diverse, cross-functional teams with bonus systems that reward team results. Such teams are especially valuable in the current COVID-19 crisis because they can ensure that companies are not paralyzed and can respond rapidly to the pandemic. Roche, for instance, was able to receive rapid FDA approval for its COVID-19 antibody test and announced plans for an accelerated ramp-up of its production capacity to provide millions of the tests per month.

Ways of working



An agile working environment fosters innovation and learning in line with customer needs, following Amazon’s principle that “every day is day one”. Johnson & Johnson is one of several leading healthcare companies using the “scrum” method to achieve this outcome, where frequent communication and reassessment of plans are prioritized. Another tool is the Objectives and Key Results (OKR) approach, which Sartorius is using to reduce lead times in the production of single-use bioreactors. In recent weeks, we have seen that clients whose agile programs are well underway have been better prepared for the COVID-19 crisis. Several of them, for instance, already use transparent backlog tools such as digital Kanban Boards.

Infrastructure



Employees in agile companies typically work in open-plan offices, have flexible working hours and use innovative collaboration tools like video conferencing to form global virtual teams. Such teams are proliferating during the international COVID-19 shutdown, which has required many healthcare company employees to work remotely from home.

However, it is important to note that some common agile working infrastructures, such as extensive data sharing via cloud-platforms, may create security and compliance risks at large healthcare companies. For instance, the global head of strategy and customer solutions at a medical technology group told us that infrastructure was “an ongoing problem” after the company introduced issue-tracking software to improve its agile performance.

One-by-one or all-in-one-go: How to lay agile building blocks

Should healthcare companies introduce all four of these agile building blocks at the same time or sequentially?

Based on our research, we recommend a simultaneous approach when seeking to promote agility. The four organizational building blocks (see Figure 5) work best as an interdependent system and they should all be transformed together when applying an agile framework. We believe that sequential agile transformation should only concern selecting the sequence of value chain parts that need to become agile, in order to give the organization sufficient time to change.

Healthcare companies also need to answer the following strategic questions as they go through the transformation of their culture, organization, ways of working and infrastructure: What is the ‘right level of agile’ for the company, and how can agile and traditional parts of the company thrive alongside each other?

The right level of agile

Our research suggests that healthcare companies fall into three distinct categories regarding the adoption of agile. The first group merely uses agile as a buzzword: Almost every meeting is called a “sprint” (meaning specific goals to be achieved over short-time periods, typically from two weeks to a month) despite the lack of an agile framework. The second group implements some agile principles where appropriate, and a third group is aiming for the full implementation of an agile transformation. An all-out approach, however, can overwhelm employees, as a European Market Access executive at a global healthcare company confirmed to us: “You have to give people more time to change. As a firm, we are too focused on methodologies and not enough on people.” The COVID-19 crisis, which has put healthcare companies on an emergency footing, underscores the importance of this insight. The middle of a pandemic is no time to burden employees with complex transformation programs.

We recommend that large healthcare companies should choose the more measured “agile where appropriate” approach. Given the additional stress imposed by COVID-19, we advise companies to identify carefully which parts of the value chain have experienced the most negative impact from using the traditional operating model during the pandemic. These parts should be selected for pilot projects, led by the most suitable teams for kickstarting an agile transformation journey in areas such as product launch or marketing and sales. The pilot scheme gives the company practical experience of what does and does not work in the context of its own processes, and thereby informs the next steps.

In the second phase, the number of teams using agile principles increases, with these groups acting as ambassadors for early agile success stories to generate momentum and support across the organization. Finally, the model is scaled up to include all the parts of the organization, increasing the likelihood of a successful agile transformation.

Bridging the divide between agile and traditional parts of the organization

This leaves the challenge of how to align the agile and traditional parts of the organization for the overall benefit of the company. The pilot approach naturally creates an operating model that includes both agile and non-agile teams as the program gradually expands. In addition, as we have shown, agility is not appropriate for every part of the value chain.

Every company will therefore need to form a “bridge” between the two parts to overcome this critical governance challenge. Questions about how to do this arise in each of the four organizational building blocks: culture, organization, ways of working and infrastructure. They include alignment risk appetite, career models and processes, as well as the impact of parallel agile and traditional parts of the company on IT systems and compliance standards. A European affiliate of a leading global pharmaceutical company offers an example of successful bridge-building, following the establishment of a strong trial-and-error / “try fast, fail fast” mentality in one of its research teams. The company prioritized timing for the agile teams, in order to ensure that new ideas and projects are introduced with enough time to make sure they can meet requirements from non-agile regulatory compliance teams. In addition, alignment between agile and traditional parts of the company is encouraged on rapid prototyping projects by using sprints that are supplemented by “classic” regular team meetings.



Every company will need to form a “bridge” between the agile and traditional parts.”

CONCLUSION

Prioritizing agile principles in uncertain times

We believe that an agile transformation can help healthcare companies combat the short-term challenges, such as disrupted supply chains, as well as to adapt to the longer-term reality in which restricted direct access to healthcare providers and patients will require a new go-to-market model.

To achieve both these goals and build a strong company for the future, we advise healthcare companies to take the following five practical steps:

- 1** Select a “way to play”, based on the organization’s strengths
- 2** Focus on developing capabilities in line with the chosen “way to play”
- 3** Kickstart an agile transformation by selecting the most promising initiatives
- 4** Include all parts of the value chain where agile principles have a strong chance of succeeding
- 5** Build bridges between the agile and traditional parts of your organization

By engaging with people at every stage of an agile transformation program, companies can reduce the problem of resistance to change. Crucially, management can also pinpoint key employees who, as standard bearers for transformation, can encourage their colleagues to embark on this five-step agile journey.

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