



# ▶ Well-being and Healthcare: A Converging Ecosystem on the Rise

A point of view held by Porsche Consulting  
and Porsche Digital

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# INSIGHTS

## //01

Hybrid customer journeys consisting of physical as well as virtual elements will be the major factor of differentiation to create a lasting competitive advantage.

## //02

A new ecosystem combining well-being and healthcare is on the rise and we expect a major shift from an output-based care model to more solution-focused business models.

## //03

One of the most impactful methodologies for improving customer-centricity in complex industries is service design.

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## SUMMARY

The pandemic has shown the huge potential for direct virtual access to end customers for players across industries and particularly in the healthcare sector. With vaccination programs gearing up and more “normality” in sight, one key question remains: will the shift from the physical to the virtual world remain beyond the long-awaited lifting of lockdown restrictions?

### 01 **From physical to virtual to experience— this trend is here to stay**

We are convinced that the answer is not about forcefully shifting from physical to virtual and maximizing the use of new technological capabilities. Instead it is about deliberately utilizing both physical and virtual elements to craft better overall customer experiences. In sports and well-being there are many great examples of how physical and virtual aspects can be combined to create a unique experience. In healthcare the shift from physical to virtual dramatically accelerated when the global pandemic limited access to traditional brick-and-mortar healthcare providers. There are many indicators that the ongoing shift from physical to virtual to experience is not just a temporary trend. We believe that in the future, hybrid customer journeys consisting of a smart combination of physical as well as virtual elements will be the major factor of differentiation to create a lasting competitive advantage.

02

## The future is blurry, but one thing is clear: focus on people

In parallel, lines between the sectors of well-being and healthcare are blurring and more and more overlaps become apparent. A new ecosystem combining well-being and healthcare is on the rise. Together with the rise of more centralized platforms, we expect a major shift from a hardware-centered, output-based care model to more solution-focused business models that introduce a value-based healthcare logic at scale. At the same time, we are convinced that such platforms are only intermediary steps towards a truly customer-centered ecosystem that integrates well-being and healthcare.

03

## Customer-centricity wins—how companies can leverage service design

For most companies direct access to the customer will be a key success factor in the future. Putting the customers at the center of their corporate strategy requires more than PowerPoint slides, however. One of the most impactful methodologies for improving customer-centricity in complex industries such as healthcare, is service design. Service design is commonly defined as a human-centered, proactive approach to designing holistic experiences of services and systems using collaborative, analytical, and creative methods. We plead that service design should not be restricted to the early stages but leveraged as a practical approach for the entire innovation life cycle.



Gloria Seibert,  
Founder & CEO,  
Temedica



Before 2020, there has been more discussion than action on how healthcare can benefit from virtual services and digitalization. However, the COVID pandemic with its distancing requirements has totally changed those dynamics: from "important innovation" to a "must-have model". If COVID has one positive consequence then it is the fact that smart technologies have finally arrived in the mainstream—creating seamless experiences and leading to better patient outcomes.



Mark Miles  
CCO,  
Terumo Aortic

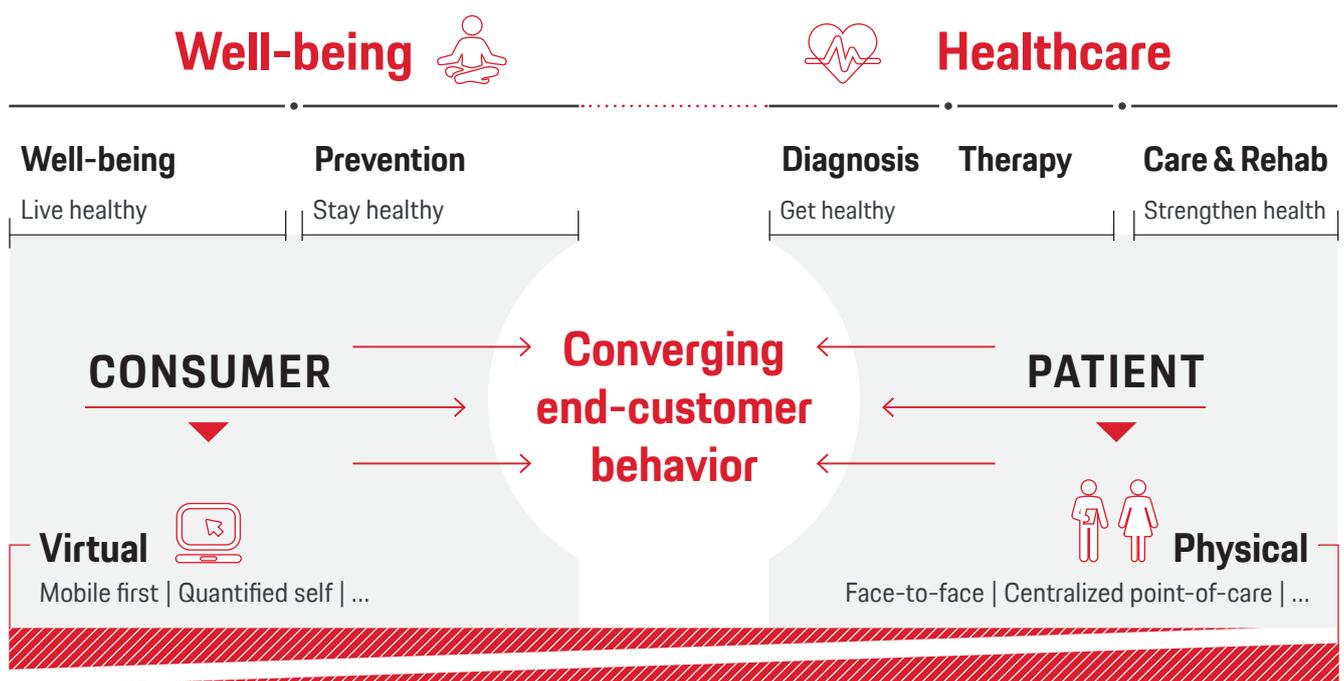


The COVID pandemic has shown the importance of remote provision of healthcare, resulting in tremendous attention for remote patient solutions like telemedicine. We expect this trend to continue, since the benefits both in convenience and in ability to reach large underserved patient populations are widely recognized. We expect innovation in the space to be driven by start-up companies, mostly focused around the implementation of AI.

# Well-being and Healthcare: A Converging Ecosystem on the Rise

Powered by the shift from physical to virtual and real customer centricity

The pandemic has forcefully shifted significant parts of our life from the physical to the virtual world. This is also true of areas that have long been deemed to stay analogue. Across the globe, people are confronted with restrictions in their lifestyle habits. They are, for example, reluctant to go see a doctor based on the perceived risk of a COVID-19 infection. In countries with lockdown, people are not allowed to go to their gym anymore. Surely the latter is a little less dramatic, but due to the duration of restrictions also harmful for individual well-being and health. Luckily a lot of people have found alternatives—mostly virtual ones.



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Fig. 1. Converging end-customer behavior: in the end a consumer and patient are the same person

Start-ups and several incumbent players have swiftly adapted their offering of products and services and introduced virtual or hybrid alternatives. This shift to virtual touchpoints happened for us as end customers—healthy or sick alike—across all industries. In the healthcare sector it happened along the entire continuum of care.

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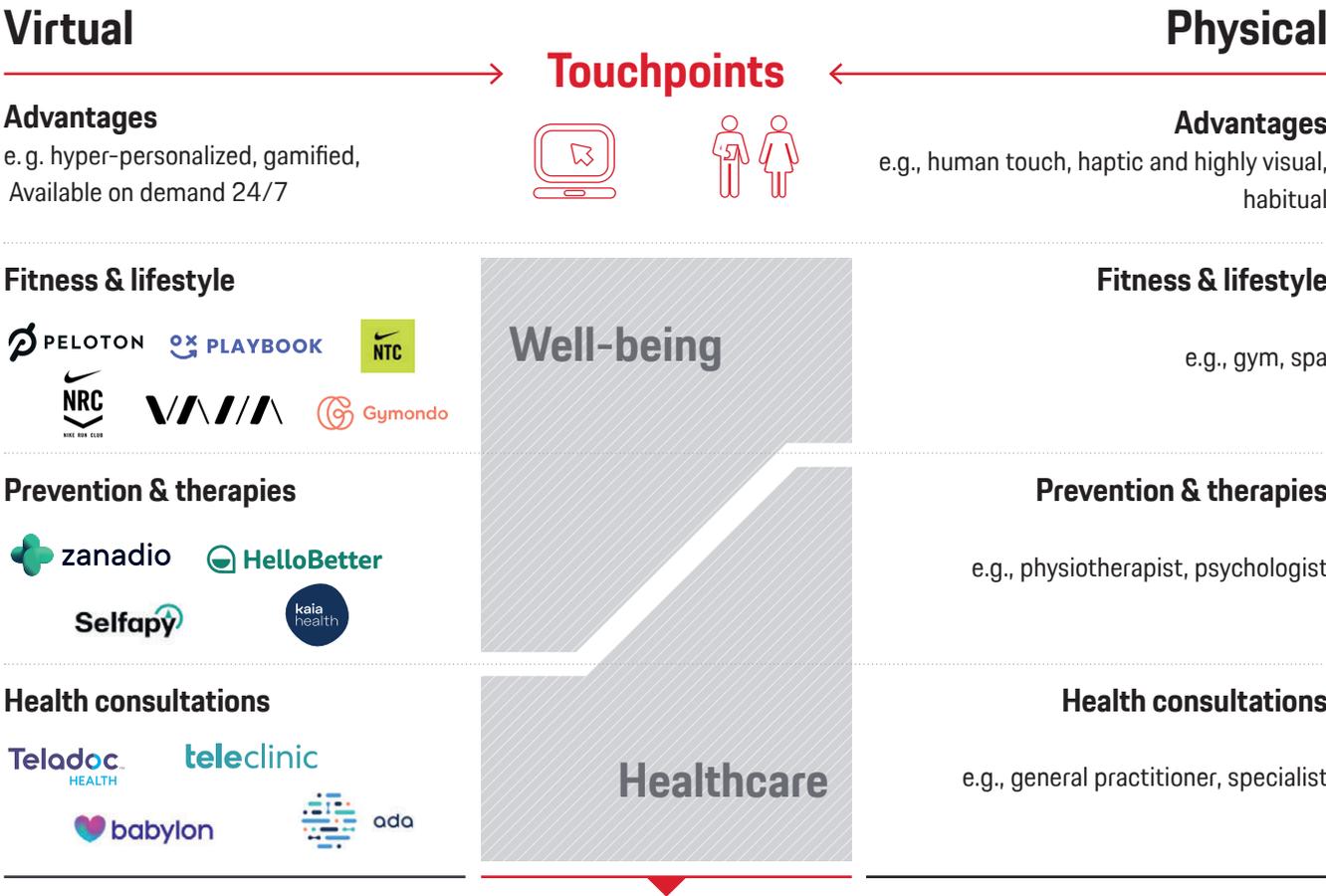
01

**From physical to virtual  
to experience—this  
trend is here to stay**

# From physical to virtual to experience— this trend is here to stay

For the B2C world it seems certain that business activity will stay virtual, since even before the COVID-19 pandemic, consumer experiences had shifted to virtual to a large degree. Meanwhile, the answer is not so clear for B2B2C industries like the healthcare sector, where virtual touchpoints are strongly rising—although still in their infancy compared to B2C.

Porsche Consulting is convinced that the answer is not about forcefully shifting from physical to virtual and maximizing the use of new technological capabilities. Instead it is about deliberately utilizing both physical and virtual elements to craft better overall customer experiences. Hence, the real shift is from physical to virtual to experience.



## A seamless customer experience

requires integrating touchpoints rather than physical and virtual only

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Fig. 2. From a physical to virtual to seamless customer experience in well-being and healthcare

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There are many indicators that the ongoing shift from physical to virtual to experience is not just a temporary trend. We believe that in the future, hybrid customer journeys consisting of a smart combination of physical as well as virtual elements will be the major factor of differentiation to create a lasting competitive advantage.

And with the shift away from physical, it is not only start-ups that reacted quickly to capture the trend. Several incumbent players in the fitness and lifestyle sectors positioned themselves as front-runners—in the truest meaning of the word.

## BEST PRACTICES

### // Nike

Nike—the famous sports brand—with annual revenues of USD 37.4 bn in its fiscal year 2020, exceeded its 30 percent goal of digital penetration across owned and partnered digital experiences in Q1 2021—three years earlier than planned.<sup>1</sup> The company has driven its digital transformation from early on to tap and actively shape business opportunities resulting from changing customer behaviors. By connecting customers with top athletes, or providing relevant resources at a fingertip, Nike is strengthening its digital ecosystem and is aiming to provide seamless experiences for its customers.<sup>2</sup>

Building blocks to push the virtual presence beyond product on shelf and to enhance the customer experience are a library of digital workouts including Nike App, Nike Training Club App (NTC), and Nike Running Club App (NRC). In addition, live workouts are streamed by Nike Master Trainers on the Nike YouTube channel. In Q2 2020, Nike generated over 7 billion brand impressions across social platforms and its most successful video on YouTube generated over 400 million social interactions.

Talking about the shift from physical to virtual, it is interesting to see that these virtual omnichannel activities have led to more than 70 million new Nike members worldwide since inception of the COVID-19 pandemic. Today, Nike is a major player in the virtual space and is offering a wide range of e-commerce shops, personalized digital services, and virtual communities.

The Nike team has created a virtual world around the physical products. In 2020, Nike's digital sales increased 84 percent, with triple-digit growth in North America and strong double-digit increases in EMEA, Greater China and APLA.<sup>3</sup>

“Digital is now woven into everything we do as a company. It's how we operate and prioritize, from how we engage with members, to how we operate our supply chain, to how we serve consumers in the marketplace,” said John J. Donahoe, President & CEO during the Q2 2021 earnings call on December 18, 2020.<sup>1</sup>

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## // Peloton

The Peloton business model is another great example of how physical and virtual aspects can be combined to create a unique experience. Peloton provides a new concept in fitness and is probably best known for its original Peloton bike, a home exercise bike that features a large screen on the front and rear speakers, allowing users to work out in one of the numerous classes available through the Peloton all-access membership.<sup>4</sup> They use a combination of technology, content, and best-in-class instructors to empower their millions-strong community through fitness.<sup>5</sup> Peloton stock has gone up nearly 500 percent over the last year. The last earnings report

showed an impressive 232 percent year-over-year increase in revenue that resulted in a substantial boost to Peloton's profit.<sup>6</sup> The virtual core of the business model allows many crucial customer needs to be addressed, including individualization, flexibility, and the idea of being part of a community or even a movement. In March 2021, Adidas AG announced a partnership with Peloton to "surprise and delight our highly engaged communities by multiplying the power of both brands in a number of exciting ways," says Aimee Arana, GM Global Training at Adidas AG.<sup>7</sup>

## // VAHA

Another rising star in this field is VAHA. Its interactive Fitness Mirror opens up new training opportunities for people in their homes with the help of artificial intelligence. Currently, the company offers more than 500 workouts on demand—from endurance and weight training to yoga. Artificial intelligence analyzes every movement of the athlete and enables real-time

correction of the exercises in front of a mirror. In addition, every VAHA customer can take part in live courses—being virtually linked to other athletes. Personal training can also be booked via the mirror's surface and offers one-on-one contact with a trainer—insofar as the pandemic situation permits.<sup>8</sup>

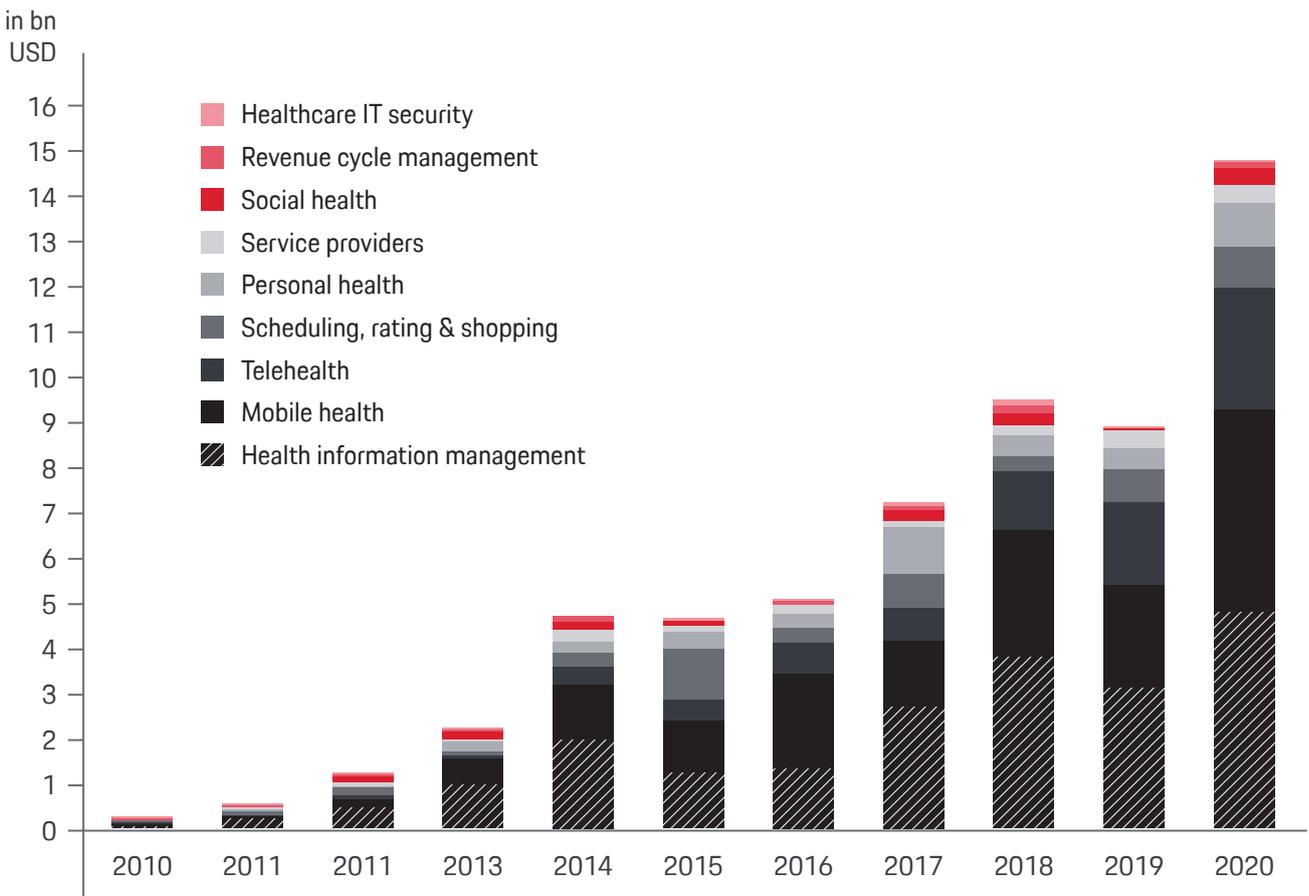
## // Lululemon & MIRROR

The home fitness innovator MIRROR was founded in 2016 and offers a similar product. A smart mirror featuring live and on-demand classes as well as one-on-one personal training. In June 2020, MIRROR was acquired by Lululemon Athletica, an athletic apparel retailer initially focused on yoga pants and other yoga wear. Lululemon Athletica now aims to leverage MIRROR to achieve its target to "create integrated Omni guest

experiences."<sup>9</sup> This acquisition is the logical next step since Lululemon Athletica is on a journey from an athletic apparel retailer to a company focusing on improving the mental, physical, and social well-being of its community. In addition to simply wearing the company's products, customers become part of a community exchanging ideas about physical exercise, healthy living, and mindfulness.

Indeed, these kinds of business models are quite attractive for founders and investors because they ensure recurring revenues and allow one to scale very fast globally. One important part of such offerings is the physical product—like the connected bike or the smart mirror. The physical product increases stickiness and helps build sustainably competitive business models that are much harder for copycats to emulate.

Similar developments can be observed in healthcare. The shift from physical to virtual dramatically accelerated when the global pandemic limited access to traditional brick-and-mortar healthcare providers.<sup>10</sup> In 2020, global venture capital funding for the digital health<sup>11</sup> sector totaled USD 14.8 bn in 637 deals—a 66 percent increase—compared to USD 8.9 bn in 615 deals in 2019. The top-funded categories in 2020 included telemedicine, data analytics, and mobile health apps.<sup>12</sup>



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Fig. 3. Digital Health Venture Capital Funding 2010–2020 (By Category).<sup>12</sup> Source: Mercom Capital Group

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## // Teladoc Health

An impressive example of transforming a former purely physical and inefficient customer journey into a nearly seamless experience is Teladoc Health. Their success is not due to a purely digital service, but rather the result of integrating connected devices and wearables into their customer-centric value proposition. The company delivers, enables, and empowers virtual care services that span every stage in a person's health journey—including wellness and prevention, acute care, and complex healthcare needs and chronic diseases. Since 2005, the company has completed more than 15 million virtual care visits, the largest volume in the digital health industry so far.<sup>13</sup> Teladoc is on the road to a whole-person virtual care provider.

In the fourth quarter of 2020, Teladoc acquired Livongo, the market leader of applied health signals—for example, for diabetes and hypertension. The company is set up for sustainable long-term growth, projecting 30 to 40 percent average annual revenue growth through 2023. "We are sitting on a trove of data, more than one billion data elements from Livongo, and data from 14 million virtual visits that we have delivered or enabled for our clients, and that puts us in an unmatched position to take care of our members and adapt and deliver in a changing environment," says Jason Gorevic, CEO of Teladoc Health.<sup>16</sup>

## // Zur Rose Group

Teladoc is not the only company to exemplify the direction of developments for the future of healthcare delivery. Just take the Zur Rose Group and see how they realize the vision of becoming a major player in the field of healthcare platforms. The core of the Zur Rose business model is their online pharmacy business. Today, the Swiss Zur Rose Group is Europe's largest e-commerce pharmacy and one of the leading medical wholesalers in Switzerland.<sup>15</sup> At the beginning of their expansion, they acquired DocMorris to grow fast and win shares in their core market. In 2020, the Zur Rose Group acquired TeleClinic, Germany's leading telemedicine provider. TeleClinic serves as an additional entry point for digital, seamless, and personalized customer health journeys. Also from a company perspective, this acquisition offers huge cross-selling potential for the Zur Rose pharmacy business: according to expert

estimates, electronic prescriptions (eRx) are issued in up to 50 percent of virtual consultations. Patients receive the e-prescription directly via their TeleClinic app on their mobile device after expert medical diagnosis, which they can then redeem at an on-site or mail-order pharmacy.<sup>16</sup> The recently won GEMATIK tender to provide the telematics infrastructure for the German e-prescriptions further strengthens Zur Rose's position.<sup>17</sup> With nearly 10 million active customers all across Europe, Zur Rose is also pushing the extension of its healthcare ecosystem in selected verticals. For example, in 2021, they announced the collaboration with Novo Nordisk—a leading Danish company with annual revenues of USD 20.9 bn in its fiscal year 2020—to improve the health journeys of people with obesity.<sup>18</sup>

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But what is the strategy of incumbent players? Their—so far successful—business models have been designed for physical space and a world of face-to-face interactions. Many medical technology and pharma companies are struggling with the transformation from a manufacturer of physical products to a provider of both products and services, digital and physical, along the customer journey of a patient, HCP, or other stakeholders. Only a few incumbents are on the way to transform into players that vertically provide holistic solutions along the care pathways of an indication, or even build horizontal platforms that reach beyond indication areas. The challenge for many incumbent players is how to integrate virtual services with a traditional brick-and-mortar business.

## // Royal Philips



Royal Philips—a Dutch multinational with annual revenues of USD 23.9 bn in its fiscal year 2020—is an impressive example of how traditional hardware companies can master this challenge. Over the past decade, Philips has transformed into a focused leader in health technology. And the transformation journey continues: Philips aims to improve 2.5 billion lives per year by 2030, including 400 million in underserved communities.<sup>19</sup> The key to making this ambition a reality is to consider people's entire health journey. Philips is therefore strengthening its presence in the virtual world, connecting the dots with the physical world. Since 2011, Philips has tripled its connected care revenue to nearly USD 5.5 bn. The connected care business includes products for (remote) patient monitoring, ICU telehealth, personal emergency response, respiratory and sleep care. In most of these product categories, Philips is the global leader with the highest market share.<sup>20</sup> Just recently, in December 2020, the Dutch healthcare player stepped up its game to becoming a leader in the virtual realm too, when it announced the acquisition of BioTelemetry, a provider of remote cardiac diagnostics and monitoring, for USD 2.8 bn.

"The acquisition of BioTelemetry fits perfectly with our strategy to be a leading provider of patient care management solutions for the hospital and the home," says Frans van Houten, CEO of Philips, in a statement.<sup>21</sup> In the future, the combination of Philips' leading patient monitoring position in the hospital with BioTelemetry's leading cardiac diagnostics and monitoring position outside the hospital should lead to a major competitive advantage.<sup>22</sup> And certainly Philips is not alone—other leading medtech players such as Boston Scientific (acquiring Preventice Solutions, Inc.), or Hillrom (which announced its planned acquisition of BardyDx in January 2021—though currently on hold due to reductions in reimbursement rates) have followed suit with large-scale acquisitions, particularly in the cardiac remote patient monitoring space.<sup>23,24</sup> The market trend of telehealth adoption and the shift to out-of-hospital settings is accelerating the growth of digital services.<sup>25</sup> These moves exemplify that incumbent medtech—and also pharma—players won't just watch from the sidelines to see how start-ups and tech giants like Apple and Google are shaking up the market.<sup>26</sup>

The business of pharma players is affected similarly. The emerging pharma industry trends depicted in Figure 4<sup>27</sup> are a mixture of physical, virtual and hybrid solutions.

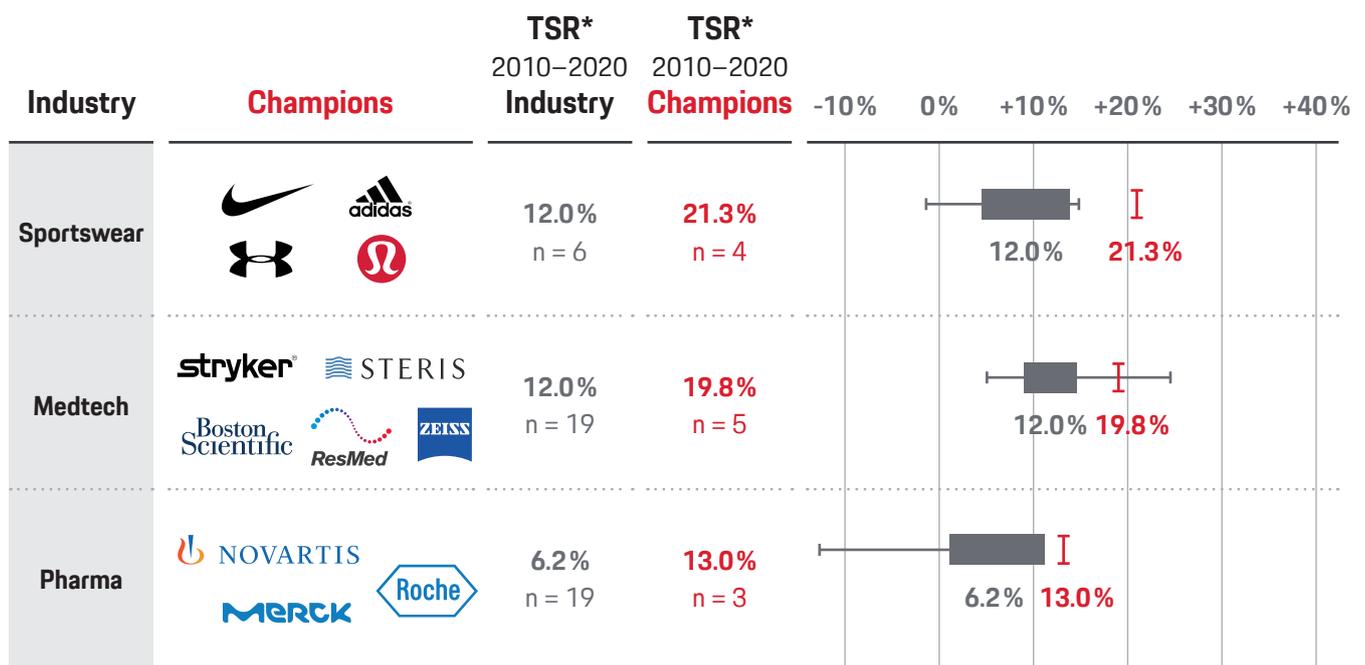
- 
- ① Immuno-oncology drug development
  - ② Personalized/precision medicine
  - ③ Remote patient monitoring
  - ④ Real-world evidence
  - ⑤ Telemedicine
  - ⑥ Decentralized/virtual clinical trials
  - ⑦ Electronic health records
  - ⑧ Patient empowerment
  - ⑨ Regenerative medicine
  - ⑩ Biosimilar uptake

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Fig. 4. Top emerging pharma industry trends, 2021.<sup>27</sup> Source: GlobalData Pharma Intelligence Center

These examples underline the shift from physical to virtual. Some of these examples also make clear how to win with a bold digital strategy. However, virtual-only strategies won't be the right approach for every well-being or healthcare experience. Most journeys will continue to rely on in-person experiences with some virtual elements on top, where those provide value add for the end customer.<sup>28</sup>

As shown in Figure 5, key players of the sportswear, medtech, and pharma industries that are on their way to mastering the creation of a customer-centric experience have shown superior shareholder returns over the past decade. Merging non-virtual and virtual touchpoints to create an end-to-end seamless experience for their end customers enabled these champions to outperform their peer group.



Industry: Boxplot indicating Minimum, 25% quartile, Median, 75% quartile, Maximum  
 Champions: Median

\* Total Shareholder Return in % p.a. – adjusted (CAGR) on December 31

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Fig. 5. Return comparison between experience champions and peers across sportswear, medtech and pharma<sup>29</sup>

To determine where and how to integrate virtual touchpoints, companies need to have a clear picture of a jobs-to-be-done framework as well as a deep understanding of their customer segments. Furthermore, companies have to match these insights with their tech-savviness and willingness to adopt new solutions. The COVID-19 pandemic has been an accelerator to infuse virtual into our predominately physical well-being and healthcare systems. We see it as an initial spark for the adoption of new hybrid or virtual solutions at a scale that has substantially lowered adoption hurdles. A lasting effect that—as in any change process—has just marked the beginning. Virtual and hybrid health is here to stay and grow!

# Porsche Consulting asked for healthcare leader's opinions



// **Prof. Dr. med. Mathias Goyen**,  
Chief Medical Officer EMEA,  
GE Healthcare



"Virtual visits, remote monitoring, home care, and home diagnostics are becoming more and more important because they are revealing their great benefits: greater productivity, faster availability, less administrative work, and the spatial separation of physician and patient. At GE Healthcare we are leveraging our best-in-class technology and digital expertise to help deliver these outcomes for our customers."



// **Dr. med. Alice Martin**,  
Co-Founder & COO,  
dermanostic GmbH



"Rather, the healthcare system is now shifting to virtual, telemedicine treatments. In the future, large companies, start-ups and pharmaceutical companies will have the opportunity to participate in the new design of the healthcare system. With a good infrastructure, the relevance of these companies increases."



// **Alexander Almerood**,  
Director Marketing & Sales,  
BioNTech Europe GmbH



"From my personal experience, I believe and expect that digital patient ecosystems are the models of the future. Every healthcare provider is committed to supply their piece of the mosaic to improve the quality of life of patients. I am already excited and thrilled to see what will come."



// **Prof. Dr. Michelangelo Canzoneri**,  
Global Head of Digital & Data,  
Healthcare,  
Merck KGaA Darmstadt



"As personalization of virtual services have become so common place in everyday life, people expect a certain level of personalization, and ease of use of services. This is something the Healthcare Industry are aware of and that must be progressively incorporated into the patient journey. However, we need to be on the cutting edge of delivering high quality End-to-End digital solutions, as consumers and patients are becoming much more digitally discerning. As part of the next generation treatment ecosystem, seamless integration into patient's lives whilst delivering tangible impact, including iterative development of solutions, is of utmost importance."

## Porsche Consulting asked for healthcare leader's opinions



// **Manuel Reiberg,**  
Managing Director,  
Daiichi Sankyo UK Ltd



"Given the magnitude and complexity of current challenges such as, access to healthcare, unwarranted variations in care, technological evolution, and finally inefficiencies and costs of purely physical care and patient pathways it is inevitably that healthcare systems need to evolve towards a more balanced approach of virtual and physical care. Otherwise we cannot ensure sustainability of our future healthcare systems. It is integral that all players within the system work towards a more collaborative approach of aligning individual capabilities and expertise."



// **Dr. Elke Frank,**  
Business Director,  
University Hospital rechts der Isar,  
Technical University of Munich



"The first steps towards implementing virtual services in healthcare have been taken. Digital robot-assisted interventions can be cited as an example of virtual service provision in hospitals. Already today, these can be performed from any location to any location. In order to expand the range of such services on a high level of quality, close cooperation between all parties involved is required."



// **Jeff Krahel,**  
Co-Founder & CEO,  
Playbook Technologies Inc.



"New players with a deep focus and expertise on building great software and seamless user experiences will be hard to contend with over time. For example, Peloton's software compared to legacy players such as NordicTrak LifeFitness, TechnoGym—Peloton's user experience is 10x better than their closest competitor. The rigidity of the existing players' experience pushes consumers to Peloton's offering with open arms. Some of the older players will catch on to that and some won't."

02

**The future is blurry,  
but one thing is clear:  
focus on people**



# The future is blurry, but one thing is clear: focus on people

We think that the discussed shift from physical to virtual and hybrid will in parallel increasingly lead to blurring lines and more and more overlaps between the formerly separated sectors of well-being and healthcare. A new ecosystem combining well-being and healthcare is on the rise. Particularly as end customers do not draw the line themselves. From an end-customer perspective, health goes beyond the absence of disease and includes many other factors typically attributed to well-being, such as mental well-being, getting enough sleep, and fitness and endurance, as shown in Figure 6.<sup>30</sup>

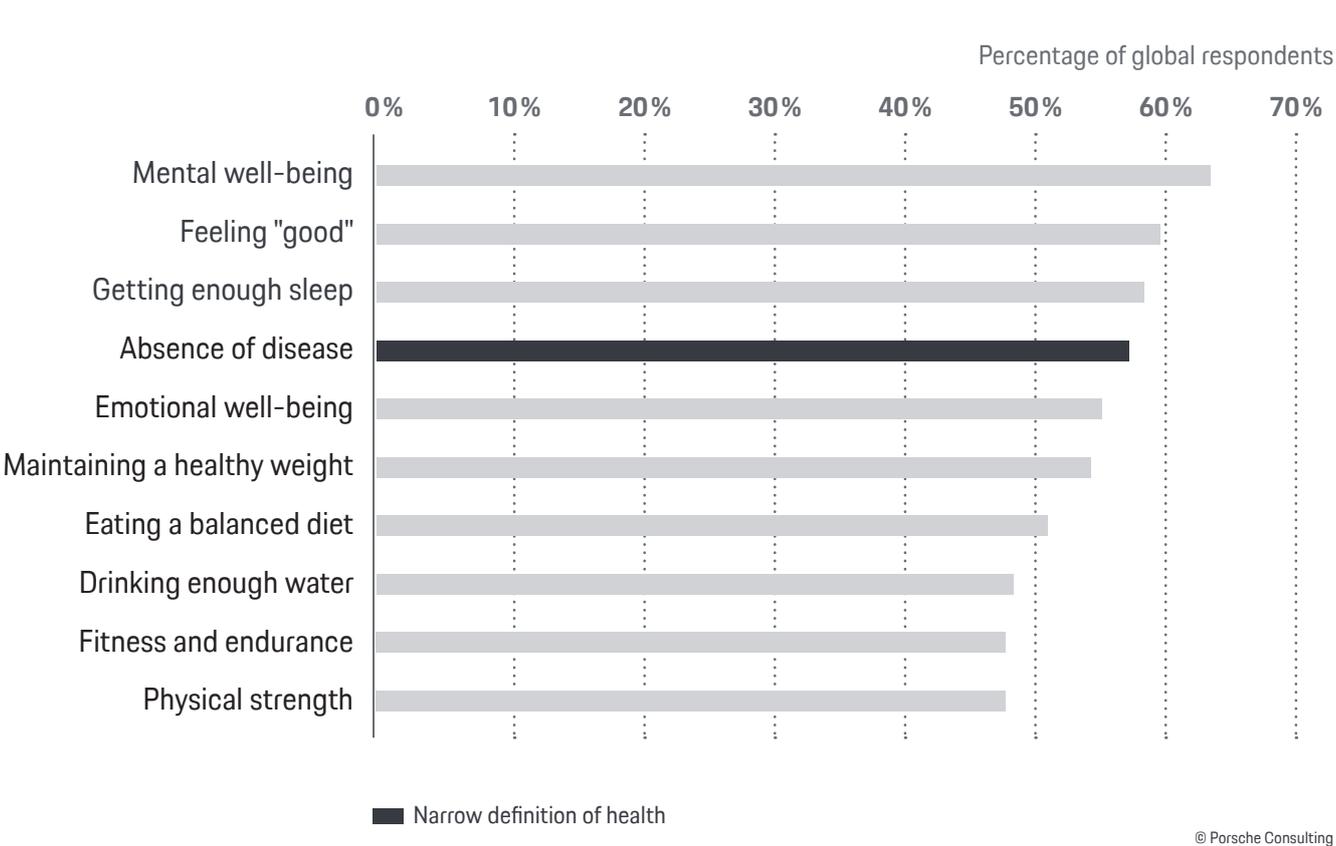


Fig. 6. Definition of health from a customer's perspective.<sup>30</sup> Source: Euromonitor International

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Driven by the human urge of the quantified self, the spreading socialization of an active lifestyle, and enabled by new technologies like smart sensors, the two sectors are increasingly merging. Personal health can be significantly impacted by one's environment and lifestyle.<sup>31</sup> This evidence is putting a spotlight on how well-being-related services can effectively decrease risk for chronic diseases including conditions such as heart failure, stroke, cancer, diabetes, respiratory conditions, and arthritis.<sup>32</sup> In general, there is a growing health awareness in our society. People focus on prevention activities, resilience, and conscious nutrition to stay healthy. They also like to know if their prevention activities work and if and how they need to adapt their behavior and daily routines. That's why an increasing number of people track their health, e.g. with devices like smart watches or health apps. If signs of abnormality show, medical consultations are triggered earlier on. This shows how the well-being and health sectors are beginning to merge at the edges.

This merge creates new opportunities for innovative business models that provide seamless experiences between health and well-being from the customer's perspective. Customers themselves are the most transformative forces here. That's a huge advantage for the big tech companies. With their direct access to customers through their platform services and

famous B2C products, tech giants such as Apple and Google approach the healthcare market more from the B2C well-being perspective.

Apple's watch OS 7 delivers enhanced customization tools and new health and fitness features—in addition to the existing ones like the ECG feature: sleep tracking, automatic hand-washing detection, additional workout types, and a hearing health feature give greater insight into overall well-being. "We're energized by the positive impact Apple Watch is having on our customers and are excited to deliver meaningful new tools that support their health, fitness, and wellness," said Jeff Williams, Apple's chief operating officer.<sup>33</sup> Furthermore, Apple provides a personal health record (PHR) feature within the health app. PHRs create a link between medical institutions and a patient's iPhone. Thus, iPhone users can see a central view of their allergies, conditions, immunizations, lab results, medications, procedures, and vitals across multiple institutions, and are notified when their data is updated. In the US, over 500 institutions currently support health records on iPhone, listing more than 11,000 care locations.<sup>34</sup> The integration of electronic health records (EHRs) with PHRs with user-friendly and seamless access and authentication via a smartphone will likely be a game changer in how health data is available and used.<sup>35</sup>



// Valerie Bures,  
CEO,  
VAHA



"Sports and well-being has been very trend driven. Healthcare has been limited by regulation but honestly focused on quality and effect of therapy. Now COVID has changed the base of many business models and I am convinced that it can lead to only one consequence: sports, well-being and healthcare will grow together to offer the customer a 360 degree assistance powered by today's potential of digital technology."



Google is trying to seize this opportunity as well. At the beginning of 2021, Google completed its acquisition of Fitbit. For more than a decade, Fitbit has helped people around the world live a healthier life and Fitbit has built a vibrant community of more than 29 million active users. Fitbit's latest health and fitness smartwatch, Fitbit Sense, features stress management tools and an ECG app to assess heart rhythm for signs of atrial fibrillation (AFib).<sup>36</sup>

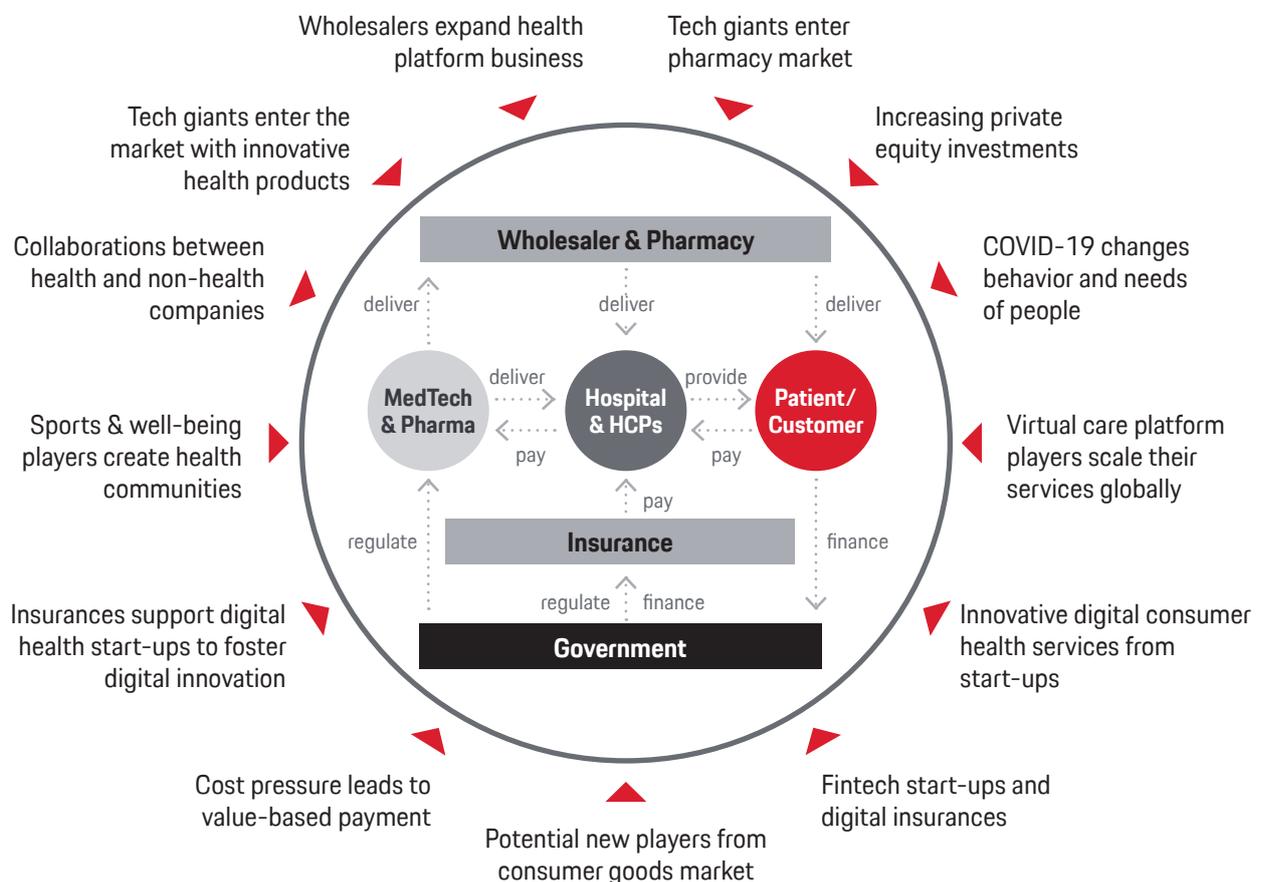
Google Health has recently announced a feature coming to its Google Fit mobile app that uses machine learning to give users heart rate and respiratory rate readings without the need for any hardware other than their smartphone's camera.<sup>37, 38</sup> At the same time, Verily LifeSciences (formerly Google Life Sciences) is building integrated solutions to improve human health. The research solutions include products and initiatives to increase participation in clinical research and support evidence generation to accelerate new medicines, devices, digital tools, and care delivery.<sup>39</sup> At the same time, their Google CareStudio advances show how an experience for doctors can look when—in typical SAP style—EHRs meet Google's core competencies in search technology, context indexing, and software engineering.<sup>40</sup> In a nutshell, all of the examples above show that Google is massively pushing its health strategy.

So far, big tech companies have leveraged their core strategic capabilities to enter the well-being and healthcare market: Amazon is the leading global logistics player, so they started with the pharmacy business; Google has a competitive advantage in data science and AI innovation, so they have applied this to EHRs; and Apple is a device company, so what is more obvious than thinking about smart watches as

medical devices?<sup>28</sup> Now let's also add Walmart to the picture. In the US they launched Walmart health centers, which feature an array of primary medical services, dental care, and behavioral health services.<sup>41</sup> Beyond their brick-and-mortar healthcare advances, they are also building a virtual footprint such as by acquiring CareZone to provide a mobile app that helps individuals and families manage medicine and chronic illness for each member of the household.<sup>42</sup>

The big tech companies are just at the spearhead of companies that are approaching the healthcare market via the well-being movement: Sports companies, nutrition providers, gyms, and numerous start-ups are on the way. While in the past, incumbent medtech and pharma players have not followed this approach, digitalization has opened up new possibilities. Previously, incumbent medtech and pharma players didn't have direct access to patients but only to healthcare providers like hospitals, doctor's practices, or pharmacies. Now, they're starting to seize the potential of virtual care and direct contact with patients. A good example: the remote patient monitoring activities from Medtronic with their MyCareLink patient-facing apps for heart failure or Abbott, which has extended the diabetes-focused LibreSense remote glucose monitoring platform to non-diabetic patients. With the Libre Sense offering, Abbott now targets athletes who want to optimize their training and recovery with a real-time view of glucose levels. Indeed, the remote monitoring market that tries to improve customer experience is the focus of numerous start-ups like FibriCheck, Myia, and Casana—as well as players like Omodo Health, Ada Health, or Babylon Health, which are by far no longer start-ups but are also fighting for access to the end customer.

Taking all this together, a great transformation is undergoing from physical to virtual to experience and the lines between well-being and healthcare are increasingly blurring. Even though current offerings are quite fragmented, come from different angles, and customers are not funneled into the right tool at the right time yet, these are the forces that are likely to create a new unified ecosystem—triggered by the end customer. Things that used to be very clear in the past are no longer carved in stone.<sup>28</sup> The rise of this new ecosystem coincides with the development from transactional experiences to relationship-driven and longitudinal, customer-centered services.



### Ecosystem observations

- ▶ Changing end-customer behaviors and innovative technologies are sustainably impacting the healthcare ecosystem
- ▶ Incumbent medtech, pharma, and insurance companies have started to launch digital services
- ▶ New players (tech giants & start-ups) are entering the market and are actively creating new opportunities
- ▶ The ability to build, govern, and scale ecosystems is key

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Fig. 7. Transformative forces in the healthcare ecosystem. COVID-19 is just one out of many transformative forces

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One thing is certain: for incumbent players, navigating these converging sectors of well-being and healthcare is not easy. Sports and lifestyle players by origin do not have the capabilities to enter the regulated healthcare market with complex stakeholder networks of policy makers, insurances, healthcare professionals, patient associations, et cetera. While start-ups in this space have historically targeted more the B2C side, they are increasingly tapping into B2B(2C) business models—like, for example, providing preventive health initiatives to companies and their employees.

On the other hand, healthcare players, for example, are not familiar with the fast-moving consumer goods market and do not have the end-customer understanding, agile processes,

and corporate structures to play an authentic role in the B2C market. That's why companies should carefully consider how to approach new opportunities beyond their home turf and evaluate collaborations with other players. However, there can be no doubt that the relevance of direct access to customers will rise. For incumbent players, preserving the status quo around product-centric business models is not an option, even if margins and growth rates in the core markets are currently still positive. In the future, we anticipate the rise of a patient-centered well-being and healthcare ecosystem. If incumbent players do not gain access to customers, patients, and their data themselves, they will have to pay the price for this access to other players—as many do today when looking at rising prices for ads on Google.



// **Jasper Bos,**  
Senior Vice President &  
Managing Director,  
M Ventures



"Patient-centered ecosystems will soon become the norm across the healthcare spectrum. Incumbent medtech players will play an important role in supporting this transformation by building digital platforms that complement existing implantable technologies and improve outcomes across the entire care pathway."

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As of now, the end customer is merely a part of the system, and certainly does not take the center stage. Other stakeholders, such as payers, hospitals, resident medical professionals or other healthcare providers are only loosely tied together and working with siloed systems and data. We believe that in the years to come, more and more interoperable healthcare platforms will arise. As a combination of vertical, indication-centered, and horizontal platforms, which center around a certain value creation step in the delivery of healthcare, these platforms will increasingly interconnect stakeholders. They will help drive down transaction costs in healthcare and push interoperability. Together with the rise of more centralized platforms, we expect a major—and more disruptive—

shift from a hardware-centered, output-based care model to more solution-focused business models that introduce a value-based healthcare logic at scale. At the same time, we are convinced that such platforms are only intermediary steps towards a truly customer-centered ecosystem that integrates well-being and healthcare.<sup>43</sup> Even now, Tencent's WeChat in China with its wide-range of health-related mini-apps provides a glimpse how customers in the future will be able to navigate their entire continuum of care—everything conveniently at their fingertips. Similar ecosystems will arise at the regional or national level. In Europe, these will likely—and hopefully—have a markedly higher emphasis on giving customers control and visibility over their own data.

It's absolutely clear that not each and every company or future start-up will become the next big platform player in the ecosystem. And there is also no need for it. However, it is crucial for every company to identify its sweet spot and consequently craft a future-proof corporate strategy, including an adapted portfolio and innovation management, M&A strategy and people strategy, and translate this into a new target operating model.

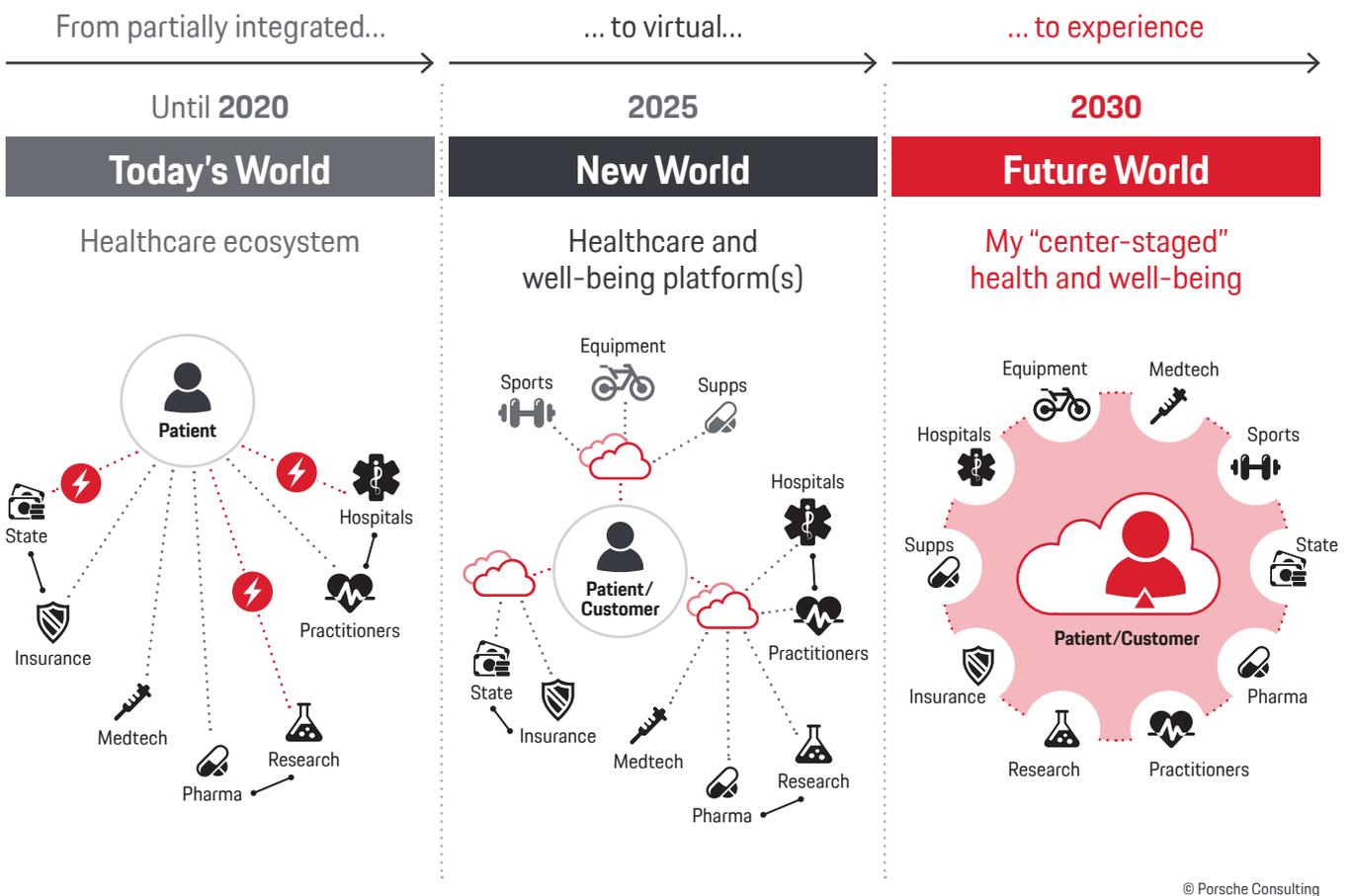


Fig. 8. From partially integrated to virtual to experience—a new ecosystem combining well-being and healthcare is on the rise.

## Porsche Consulting asked for healthcare leader's opinions



// **Annette Karoline Link-Thoma**,  
Manager Digital Content Strategy,  
Pfizer Pharma GmbH



"The shift to virtual models for patients and healthcare professionals is certainly coming! The new generation of patients expect answers in real time. Furthermore, they want to treat health, instead of just react to illness. I believe that a holistic approach where healthcare providers and start-ups act together in an ecosystem is crucial to create this seamless experience."



// **Daniel Hach**,  
COO,  
BI X GmbH



"We observe a shift into seamlessly connected virtual and in-person experiences, for example between our sales force with HCPs or veterinarians. Our strong capabilities in research and medicine are a perfect foundation to develop towards digital products and skills, and compete with start-ups or tech companies entering the healthcare market."



// **Dr. Christian Ullrich**,  
CIO,  
Bayer Consumer Health



"Ecosystems offer great opportunities, moving from treatment to prevention in healthcare. While consumer health and pharmaceutical companies have a lot of domain expertise in this space, I expect that the influence of platform and tech players will continue to increase in future."



// **Dr. Christian Weiß**,  
Managing Partner,  
Heal Capital



"The future of the healthcare system will be characterized by hybrid models: On the one hand, these full-stack digital care companies provide all the opportunities of digitalization, but at the same time they offer the full depth of added value and seamless integration into the existing healthcare system."

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03

# Customer-centricity wins—how companies can leverage service design



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# Customer-centricity wins—how companies can leverage service design

As presented above, for most companies direct access to the customer will be a key success factor in the future. Putting the customers at the center of their corporate strategy requires more than PowerPoint slides, however. While the transformation into a truly customer-centric strategy provides an attractive opportunity, it also implies that the traditional approach to value creation needs to change. Generally speaking, if companies want to create a lasting impact, they will have to change their approach.

One of the most impactful methodologies for improving customer-centricity in complex industries, is service design. In a context with fast-changing customer and employee requirements, new adaptation strategies are necessary for developing effective business models. Service design is a strategy that places people in the middle and enables a shift

from a focus on products to a service-oriented mindset. It is the role of service designers to guide the organization in their shift to this new way of working, providing a safe space for all to play a role in becoming truly customer-centric. This evolution requires a fundamental shift in mindsets, measurements, and daily practices across the organization.

## Service Design

Service design is commonly defined as a human-centered, proactive approach to designing holistic experiences of services and systems using collaborative, analytical, and creative methods.

### ▶ Human-centered

means the subject or object in focus (e.g., a system, product, service, or entire business ecosystem) is viewed from the perspective of the target group—mostly human beings with their everyday troubles, goals, values, and jobs to be done.

### ▶ Proactive

means that cross-functional teams strive to “fail fast” and learn early on in the process, with little investment. The goal is to achieve a validated value proposition to avoid costlier changes later in the development and commercializing phases.

### ▶ Holistic

means that solutions are designed to deal with challenges to key stakeholders who are part of a system and therefore create maximum value for all parties.

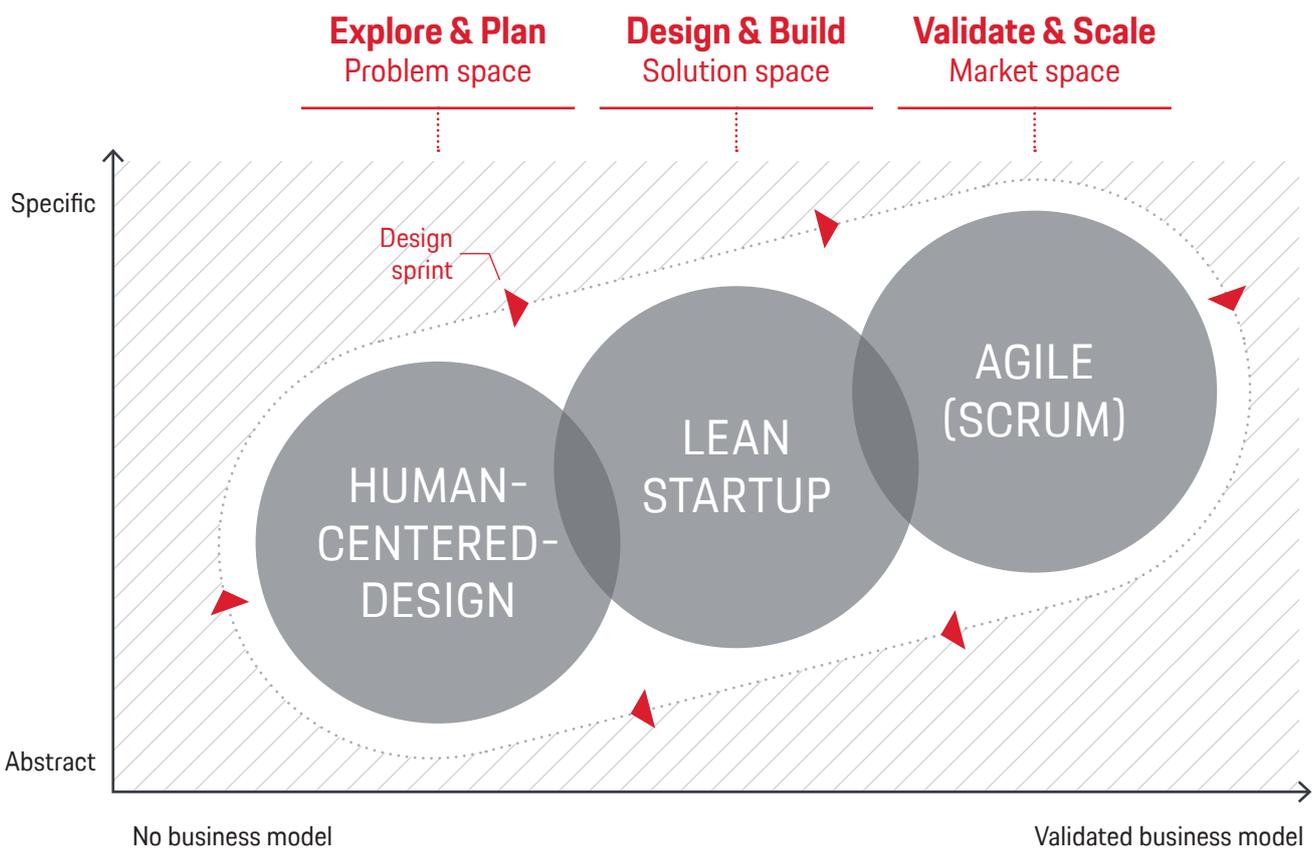
### ▶ Collaborative

means that learning happens together with key stakeholders who are knowledge experts or decision makers for the project. Value is created by multidisciplinary teamwork instead of working in silos.

### ▶ Analytical and creative

methods enhance and accelerate the learning process. Analytical methods can be, for example, the quantitative simulation of scenarios to derive performance indicators. Creative methods encompass everything from ethnographic user research to ideation methods and experience prototyping.

Designing for impact inherently means designing for implementation. In the past, the majority of design projects focused on the first phases of understanding the problem space and creating ideas. Only a minor share focused on the actual implementation. Working together with our clients, we plead that service design should not be restricted to the early stages but leveraged as a practical approach for the entire innovation life cycle. Top companies treat it as a continuum, which in turn encompasses the problem, solution, and market space. Along the path, design sprints can be used as an effective tool for creative problem-solving and accelerated decision-making at the most difficult crossways.



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Fig. 9. Service design across the problem, solution, and market space. <sup>44</sup> Source: Mind the Product

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The benefits to organizations of using design to become more customer-centric are evident. Without the right approach to operationalization, however, it is at risk of becoming just another buzzword. Regrettably, the gap between the statements of executives and the actions of their companies is significant: while the majority of corporations describe themselves as customer-centric, only 11 percent of their customers agree on this “fact”—as a representative Harvard Business Review study revealed.<sup>45</sup>

The direct impacts specific to service design are not broadly quantified in the way most other mature practices have come to expect. However, on a case-by-case basis the results are very clear—for example, service design has reduced hospital admissions, emergency room costs, and the total cost of care savings for organizations like United Healthcare.<sup>46,47</sup>

Traditionally, design has focused solely on the needs of the patient or customer experience, leading to change not being fully adopted across the ecosystem due to lack of incentives for all stakeholders in the ecosystem. In order to deliver on the

full value of service design, practitioners need to improve their ability to quantify projects through business or value cases that articulate the value for all stakeholders involved in this new service model.

Even so, service design is demonstrating that technology is not the sole answer to business or organizational challenges, especially in the shift from physical to virtual, but an enabler for empowering the customer regardless of how much or how little of that experience is in-person. Design does this by making the time and space for engaging people in the ecosystem, giving them a voice in the plan for desired changes. Moreover, service design is widening the perspective of healthcare to focus on prevention rather than just treatment. This illuminates new opportunities for healthcare companies to engage with new partners or start internal innovation projects that create upstream and downstream opportunities to help their customers— with the target to build ecosystems or platforms offering a seamless customer experience along the entire continuum of care.



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## About Porsche Consulting

Porsche Consulting GmbH is a leading German strategy and operations consultancy and employs 670 people worldwide. The company is a subsidiary of the sports car manufacturer Dr. Ing. h.c. F. Porsche AG, Stuttgart. Porsche Consulting has offices in Stuttgart, Hamburg, Munich, Berlin, Frankfurt am Main, Milan, Paris, São Paulo, Shanghai, Beijing, Atlanta, and Palo Alto. Following the principle of "Strategic vision. Smart implementation," its consultants advise industry leaders on strategy, innovation, performance improvement, and sustainability. Porsche Consulting's network of 12 offices worldwide serves clients in the mobility, industrial goods and lifesciences, consumer goods, and financial services sectors.

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## About Porsche Digital

Porsche Digital is the technology and digital unit of the Stuttgart-based sports car manufacturer. Its central task is to find and scale new digital business and optimize existing products. To this end, the subsidiary of Porsche AG develops digital offers and services, designs technologically excellent industrial solutions, and is a driving catalyst for the digital ecosystem.

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# Appendix

- (1) Nike, Inc; "FY 2021 Q2 Earnings Release Conference Call Transcript December 18"; Nike, Inc; December 18, 2020; [https://s1.q4cdn.com/806093406/files/doc\\_financials/2021/q2/NIKE-Inc.-Q2FY21-OFFICIAL-Transcript-with-QA.pdf](https://s1.q4cdn.com/806093406/files/doc_financials/2021/q2/NIKE-Inc.-Q2FY21-OFFICIAL-Transcript-with-QA.pdf)
- (2) Reinaldo Fioravanti; "Nike: Just do it. Differently!"; Harvard Business School; April 30, 2020; <https://digital.hbs.edu/platform-digit/submission/nike-just-do-it-differently/>
- (3) Baburajan Kizhakedath; "How digital transformation is powering Nike business growth"; Infotechlead; December 27, 2020; <https://infotechlead.com/cio/how-digital-transformation-is-powering-nike-business-growth-64623>
- (4) Maggie Tillman; "What is Peloton, how much does it cost, and are there alternatives?"; TOPi; January 25, 2021; <https://new.topi.io/what-is-peloton-how-much-does-it-cost-and-are-there-alternatives/>
- (5) Peloton; About Us; "The Peloton Story"; <https://www.onepeloton.com/company>
- (6) John Ballard; "2 overlooked catalysts for Peloton stock in 2021"; The Motley Fool; January 17, 2021; <https://www.fool.com/investing/2021/01/17/2-overlooked-catalysts-for-peloton-stock-in-2021/>
- (7) Adidas AG; "New partnership with Peloton"; <https://news.adidas.com/training/new-partnership-with-peloton/s/aa650037-ffd7-4c70-b482-2b8eb8fe6984>
- (8) Edelhelfer "VAHA receives investment from Porsche"; November 30, 2020; <https://www.edelhelfer.com/en/insights/details/2020/11/30/vaha-receives-investment-from-porsche>
- (9) Lululemon Athletica Inc.; "Lululemon Unveils 'Power Of Three' Strategic Plan To Accelerate Growth"; Lululemon Athletica Inc.; April 24, 2019; <https://investor.lululemon.com/news-releases/news-release-details/lululemon-unveils-power-three-strategic-plan-accelerate-growth>
- (10) Teladoc Health; "Perspectives 2021: The path forward for virtual care"; <https://perspectives.teladochealth.com/>
- (11) Includes: Social health, mobile health, telehealth, personal health, rating and shopping, health information management, revenue cycle management, service providers, security
- (12) Mercom Capital Group; "Digital Health Funding and M&A - 2020 Fourth Quarter and Annual Report"; page 4; <https://mercomcapital.com/wp-content/uploads/2021/01/MercomDigitalHealthFundingMAQ42020ExecSumm.pdf>
- (13) Teladoc Health; "What we do"; <https://www.teladochealth.com/what-we-do/>
- (14) Heather Landi; "JPM21: Teladoc projects 2020 revenue to reach \$1.1B as it expands virtual primary care"; FIERCE Healthcare; January 11, 2021; <https://www.fiercehealthcare.com/tech/jpm2021-teladoc-projects-2020-revenue-to-reach-1-1b-as-it-expands-virtual-primary-care>

- 
- (15) Zur Rose Group; "About Us"; <https://www.zurrosegroup.com/websites/zurrosegroup/English/1000/about-us.html>
- (16) Zur Rose Group; "Press Release: Zur Rose Group acquires TeleClinic, Germany's leading telemedicine provider"; July 16, 2020; <https://www.zurrosegroup.com/websites/zurrosegroup/English/201010/press-releases.html?newsID=2046807&date=2020-07-16%2017:40:02>
- (17) Deutsche Apotheker Zeitung; "GEMATIK entscheidet und schweigt: Zur Rose liefert Infrastruktur für das e-Rezept"; November 16, 2020; <https://www.deutsche-apotheker-zeitung.de/news/artikel/2020/11/16/zur-rose-liefert-infrastruktur-fuer-das-e-rezept>
- (18) Zur Rose Group; "Press Release: Collaboration between Zur Rose Group and Novo Nordisk"; January 11, 2020; <https://www.zurrosegroup.com/websites/zurrosegroup/English/201010/press-releases.html?newsID=2056016&date=2021-01-11%2007%3A00%3A17>
- (19) Philips; "About Us"; <https://www.philips.com/a-w/about.html>
- (20) Philips; "Capital markets day 2020"; November 6, 2020; pages 4, 7; <https://www.philips.com/c-dam/corporate/about-philips/investors/calendar/cmd-2020/Royal%20Philips%20Capital%20Markets%20Day%202020%206th%20November%202020.pdf>
- (21) Royal Philips; "Philips to become a global leader in patient care management solutions for the hospital and the home through the acquisition of BioTelemetry, Inc."; Royal Philips; December 18, 2020; <https://www.philips.com/a-w/about/news/archive/standard/news/press/2020/20201218-philips-to-become-a-global-leader-in-patient-care-management-solutions-for-the-hospital-and-the-home-through-the-acquisition-of-bio-telemetry-inc.html>
- (22) Philips; "News center"; <https://www.philips.com/a-w/about/news/home>
- (23) Boston Scientific; "Boston Scientific Announces Agreement To Acquire Preventice Solutions, Inc."; January 21, 2021; <https://news.bostonscientific.com/2021-01-21-Boston-Scientific-Announces-Agreement-To-Acquire-Preventice-Solutions-Inc;>
- (24) Hillrom; "Hillrom Announces Planned Acquisition Of Bardy Diagnostics, Inc."; January 19, 2021; <https://ir.hill-rom.com/press-releases/press-release-details/2021/Hillrom-Announces-Planned-Acquisition-Of-Bardy-Diagnostics-Inc/default.aspx>
- (25) Philips; "Capital markets day 2020"; November 6, 2020; page 10; <https://www.philips.com/c-dam/corporate/about-philips/investors/calendar/cmd-2020/Royal%20Philips%20Capital%20Markets%20Day%202020%206th%20November%202020.pdf>
- (26) Further reading: Artur Olesch; "23 steps Amazon, Apple and Google have taken in healthcare in 2020"; ICT & health; January 26, 2021; <https://ictandhealth.com/news/23-steps-amazon-apple-and-google-have-taken-in-healthcare-in-2020/>
- (27) Global Data; "Telemedicine expected to be a leading industry trend in 2021, with some telemedicine apps having reported whopping 8,270% increase in downloads in 2020, says GlobalData"; January 28, 2021; <https://www.globaldata.com/telemedicine-expected-leading-industry-trend-2021-telemedicine-apps-reported-whopping-8270-increase-downloads-2020-says-globaldata/>

- 
- (28) MobiHealthNews; "HIMSSCast: Is virtual care the next frontier in telehealth?"; February 5, 2021;  
<https://www.mobihealthnews.com/news/himsscast-virtual-care-next-frontier-telehealth-sean-duffy-and-chris-hogg>
- (29) S&P Capital IQ; Porsche Consulting analysis; February 15, 2021
- (30) Amrutha Shridhar; "Health and Nutrition Trends: Seeking a Healthy Life"; Euromonitor International; October 21, 2020;  
<https://blog.euromonitor.com/health-and-nutrition-trends-seeking-a-healthy-life/>
- (31) Dariush Farhud; "Impact of lifestyle on health"; Vol. 44, No. 11; Iran J Public Health; 2015; pp.1442-1444
- (32) Harald Schmidt; "Chronic disease prevention and health promotion", in *Public Health Ethics: Cases Spanning the Globe*; Springer; 2016; pp. 137-176
- (33) Apple; "Newsroom"; Press release: "WatchOS 7 adds significant personalization, health, and fitness features to Apple Watch"; June 22, 2020; <https://www.apple.com/gr/newsroom/2020/06/watchos-7-adds-significant-personalization-health-and-fitness-features-to-apple-watch/>
- (34) Apple; "Newsroom"; Press release: "Health records on iPhone available today in the UK and Canada"; October 7, 2020;  
<https://www.apple.com/newsroom/2020/10/health-records-on-iphone-available-today-in-the-uk-and-canada/>
- (35) Dave Muoio; "DrChrono's open FHIR API lets patients add their EHR to Apple Health Records"; February 19, 2021;  
<https://www.mobihealthnews.com/news/drchronos-open-fhir-api-lets-patients-add-their-ehr-apple-health-records>
- (36) Rick Osterloh; "Google completes Fitbit acquisition"; Google; January 14, 2021;  
<https://blog.google/products/devices-services/fitbit-acquisition>
- (37) Dave Muoio; "Google Fit will soon use smartphone cameras to log heart rate and respiratory rate"; mobihealthnews; February 4, 2021; <https://www.mobihealthnews.com/news/google-fit-will-soon-use-smartphone-cameras-log-heart-rate-and-respiratory-rate>
- (38) Darrell Etherington; "Google to offer heart and respiratory rate measurements"; Techcrunch; February 4, 2021;  
<https://techcrunch.com/2021/02/04/google-to-enable-heart-and-respiratory-rate-measurements-using-just-your-smartphones-camera/>
- (39) Verily; "Solutions"; <https://verily.com/solutions/>
- (40) Google; "CareStudio"; <https://health.google/for-clinicians/care-studio/>
- (41) Bruce Japsen; "Walmart opening more healthcare 'super centers'"; Forbes; June 17, 2020;  
<https://www.forbes.com/sites/brucejapsen/2020/06/17/walmart-rolling-out-more-healthcare-services-super-centers/?sh=3641d188202f>
- (42) Walmart; "Further enhancing our digital health & wellness capabilities"; June 15, 2020;  
<https://corporate.walmart.com/newsroom/2020/06/15/further-enhancing-our-digital-health-wellness-capabilities>
- (43) University of Kentucky, UK HealthCare; "The Foundation of the Strategy: Patient-Centered Care";  
<https://ukhealthcare.uky.edu/sites/default/files/2015-2020-strategic-plan.pdf>

- 
- (44) Jonny Schneider; "Understanding how Design Thinking, Lean and Agile Work Together"; *Mind the Product*; September 20, 2017; <https://www.mindtheproduct.com/understanding-design-thinking-lean-agile-work-together>
- (45) Denise Lee Yohn; "6 Ways to Build a Customer-Centric Culture"; *Harvard Business Review*; October 2, 2018; [https://hbr.org/2018/10/6-ways-to-build-a-customer-centric-culture?\\_hsenc=p2ANqtz-9EhICm6Ri-HwCr-rGGTPe-vPSQi1EiXzRxs2MsFJhh5n6lrQrMbEQE1x5uVtznQ1FSDku94v5Aq5RdY2AI75rSHPa41w](https://hbr.org/2018/10/6-ways-to-build-a-customer-centric-culture?_hsenc=p2ANqtz-9EhICm6Ri-HwCr-rGGTPe-vPSQi1EiXzRxs2MsFJhh5n6lrQrMbEQE1x5uVtznQ1FSDku94v5Aq5RdY2AI75rSHPa41w)
- (46) *Healthcare IT News*; "UnitedHealth Group relies on user-centered design approach to improve customer service"; June 29, 2019; <https://www.healthcareitnews.com/news/unitedhealth-group-relies-user-centered-design-approach-improve-customer-service>
- (47) *Design Museum Magazine – The Healthcare Issue - Issue 017*; "UnitedHealth Group and Optum Emphasize the Care in Healthcare"; <https://designmuseumfoundation.org/unitedhealth-group-and-optum-emphasize-the-care-in-healthcare/>

