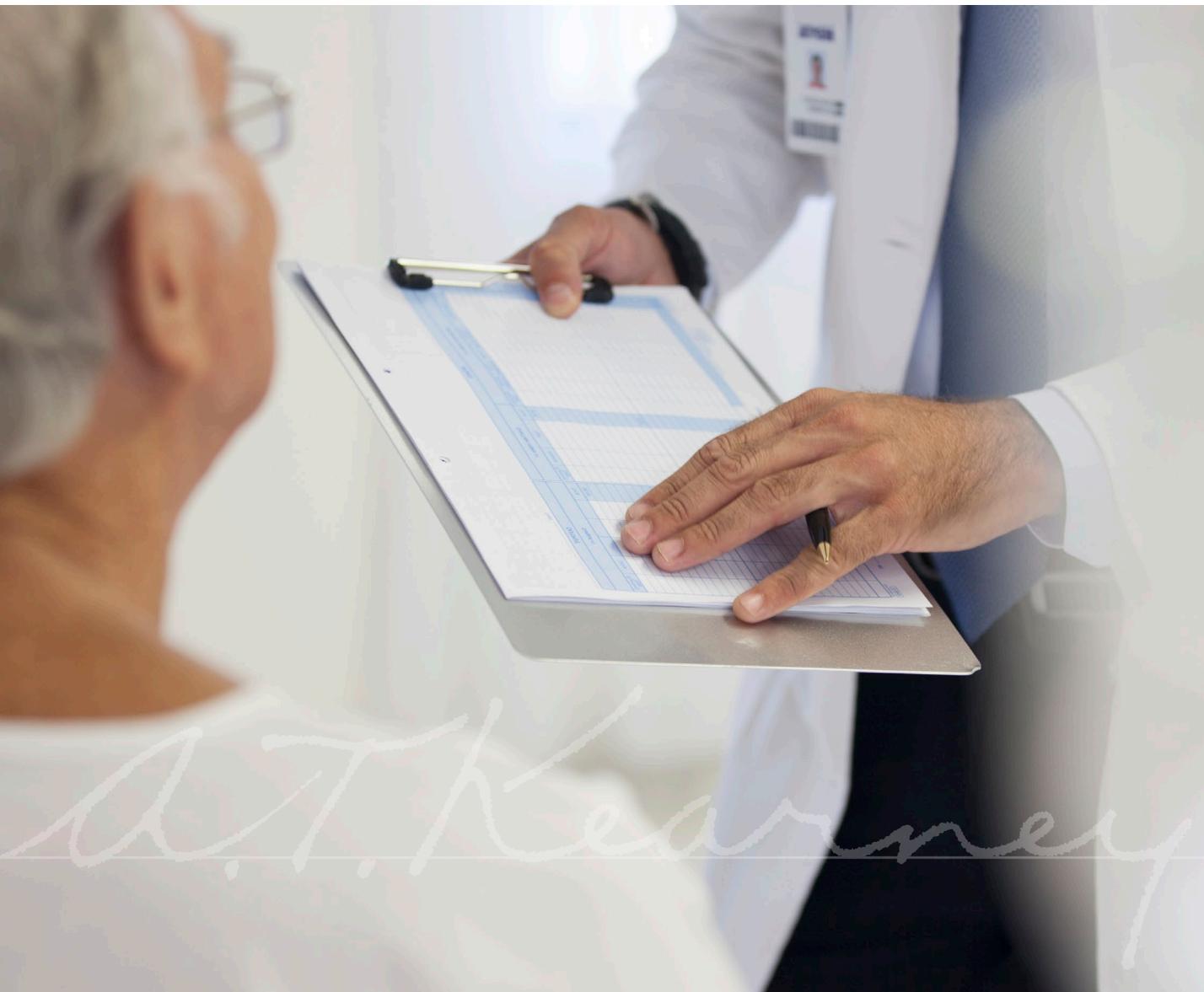


**Pharma in Europe: New Medicine for a New World**

# Building Value-Based Healthcare Business Models

As healthcare systems begin to pay for outcomes rather than products, smart patient-centric services will play a key role in the race to capture value.



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The pharmaceutical and medical technology industries survived the recent financial crisis relatively unscathed, but they are being transformed nonetheless as healthcare systems switch their reimbursement model from paying for products or services to rewarding clinical and health-economics outcomes. The task the industries face—demonstrating value based on a product focus—is far from simple.

For one thing, there are inherent limitations to the value a single drug can bring to the management of complex, chronic diseases, where therapeutic success is determined not only by the molecule but by a combination of drugs, physician intervention, home assistance, and lifestyle changes.

Moreover, providing better health outcomes in exchange for fewer resources means that medications and interventions must be targeted to the right patients. However, personalized medicine has yet to significantly permeate the operating models of the pharmaceutical and medical technology industries.

But perhaps most importantly, recent value-based price negotiations have revealed a dramatic lack of trust on both sides of the table. The pharmaceutical industry has often been accused of using its marketing machinery to churn out pills that deliver high margins no matter what value they bring to patients. And the industry perceives healthcare payers' restrictions as short-sighted penny-pinching that inhibits access to medicines and curbs innovation. In this climate, agreeing on the definition of value, let alone on the standards of evidence for value, is difficult. And indeed, even as healthcare payers push providers to show evidence of outcome, they continue to steer their spending via strict cost control. As a result, arbitrary price pressures (including forced rebates) are exerted on products in the current portfolio, and it is increasingly difficult to get new products approved for reimbursement.

The outlook may be muddled, but one thing is clear: Players will need to radically adapt. Medical technology companies will struggle to command a price premium for new technology and will need to develop user-friendly, affordable solutions. And pharmaceutical companies, traditionally product-focused organizations, will need to readjust their processes, all the way from development through marketing, to collect and promote evidence of the value their products provide to the healthcare system.

## Capturing Value with Patient-Centric Solutions

Is there an innovative way to deal with the value challenge? Several companies are embracing patient-centric solutions as an alternative business model to the traditional product focus. These models—exemplified in the United Kingdom by Pfizer Health Solutions, a division that runs integrated care programs for chronic diseases—aim to increase quality of life and avoid costly hospital treatments by offering prevention, early diagnosis, and remote care to chronically ill patients. The value proposition for healthcare payers is evident: These programs seek to reduce costs and, in theory, can legitimately aspire to be commissioned by a national health service (think the United Kingdom) or reimbursed by health insurance companies (for example, in Germany, the Netherlands, and Switzerland) or local health authorities (think Italy)—whether on a per-patient or per-time basis, or using a risk-sharing model.

Innovative solutions can be driven by technology such as remote monitoring or e-health applications or by medical understanding of certain diseases—the distinguishing competencies

of medical technology and pharmaceutical companies respectively. Philips, for example, launched its Motiva telemedicine remote monitoring program based on its device technology but provides an integrated service.<sup>1</sup> AstraZeneca, on the other hand, teamed up with Geisinger Health System in the United States to develop an e-health initiative to reduce cardiovascular disease and improve patient care.

Additionally, smaller companies and start-ups are developing a wide range of services. For example, Telbios, an Italian e-health company, provides telemedicine services to national and local payers, and SHL Telemedicine provides services to health insurance companies in Israel and Germany.

### Where do patient-centric solutions stand?

Of course, providing health solutions is not a new idea, and neither is applying IT in health services. In the past decade, there has been no shortage of ideas on how communications technologies could revolutionize the delivery of health services. Certainly, the hype cycle has gone a full round. Similarly, pharmaceutical companies have discussed services as a possibility for adjacent innovation and life-cycle management every now and then. But the expectations voiced a decade ago remain unfulfilled, resulting in widespread skepticism about whether this time is different.

But for several reasons, this time *is* different. For one thing, the product-based pharmaceutical business model has been under more pressure than ever. Ten years back, sovereign healthcare payers still had money, and the sequencing of the human genome promised to make drug innovation easier, quicker, and cheaper. Neither holds true today.

And over the years, market players have learned that patient-centric health solutions are not just another application of information and communication technology—popular thinking in the midst of the dot-com boom—but need viable value propositions for the health system. The learning curve has improved, and examples of patient-centric health solutions can be found in many healthcare markets. A look at more than 100 services now offered by pharmaceutical and medical technology companies reveals a continuum that ranges from products to stand-alone, value-based services:

- **Product-related services** have evolved straight from the products. Examples include patient adherence programs such as Roche’s Motivation, Advice, and Proactive (MAP) Support Program for patients prescribed Xenical obesity treatment, AstraZeneca’s interactive online program for asthma patients taking Symbicort, or Novartis’s ExtraCare support program for multiple sclerosis patients. In medical technology, the Philips Ambient Experience lets patients personalize their exam room with lights, images, and sounds—for example, replicating an African savanna, a rainy forest, a robot’s space journey, or an underwater adventure—while undergoing diagnostic testing with the company’s devices.
- **Adjacent services** still use the basic product but go beyond it in their value proposition. Roche’s tele-health project in rural Great Britain to support patients with recurring urinary tract infections revolves around the company’s Urisys diagnostic device, and Fresenius Medical Care’s success@home program in the United States provides comprehensive patient education for its home dialysis products.

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<sup>1</sup> All trademarks cited in this paper remain the property of their respective holders and are used only to directly describe the products or services being provided.

- In addition, there are already examples of truly stand-alone, **value-based healthcare services**, independent of single product use, along the patient pathway. Pfizer’s online male health clinic provides anonymous, confidential consultation at the user’s convenience. WellDoc’s diabetes manager provides a modular service for supporting medication adherence, clinical research trials, and disease management through the Internet and mobile devices. And Philips combines home-based tele-monitoring with an interactive health platform to promote behavioral change for patients with chronic illnesses such as chronic obstructive pulmonary disease (COPD).

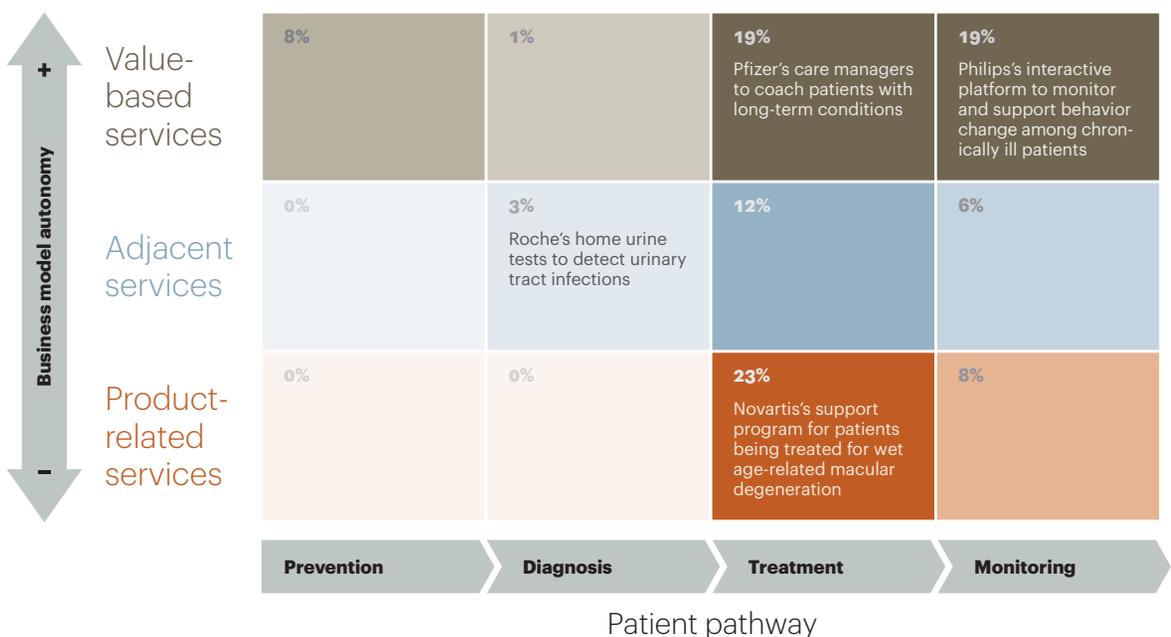
The solutions we examined span all stages of the patient pathway and display different degrees of business model autonomy, yet they all have one feature in common: Patient outcome, not products, is at the heart of the value proposition for customers. The next logical step, for those that haven’t done so already, is to split patient-centric service offers from the drug and device business and develop them in a separate business unit. Pfizer Health Solutions is a case in point, as is Johnson & Johnson Innovation.

The fact that independent value-based healthcare services have started mainly in the area of treatment and monitoring (see figure 1) can be explained by the cost dynamics along the patient pathway: Conventional wisdom says prevention is the best medicine, but commercial reality is that it is the most poorly remunerated, at least in the public sector.

At present, even private health insurers are more intent on capturing value at the cost-intensive end of the patient pathway than in prevention, where a business case for a patient-centric solution is much more difficult to make. That may be changing, however. Since the mid-2000s, Dutch insurer Achmea has offered an interesting case study proving that integrated healthcare

Figure 1  
**Most independent value-based healthcare services are in treatment and monitoring**

**Distribution and select examples of patient-centric solutions offerings**



Notes: The number in each box represents the percentage of offerings identified for each type of service and step of the patient pathway. In each row, a deeper color indicates a greater number of services.

Source: A.T. Kearney analysis of more than 100 services offered by pharmaceutical and medical technology firms

services can be a profitable way to effectively manage diseases—and we expect the aging of the population, especially in Europe, to drive further adoption of patient-centric solutions.

## Where Do Patient-Centric Solutions Go From Here?

Although the sheer number of services shows a rapidly evolving field, none of the models we analyzed has revolutionized healthcare delivery. A broad deployment of patient-centric solutions is still hampered by powerful barriers, both externally in the health marketplace and internally in the pharmaceutical and medical technology organizations. Among these barriers: misaligned incentives, distrust, and insufficiently developed capabilities (see sidebar: Barriers to Patient-Centric Solutions).

### Barriers to Patient-Centric Solutions

**A number of barriers, both external and internal, are standing in the way of widespread adoption of patient-centric healthcare solutions.**

#### External barriers

**Lack of collaboration and alignment.** Healthcare is a complex world. Navigating interests from patient to provider to healthcare payer is not easy in the normal conduct of business, let alone when introducing innovative models. Health insurance companies in Germany, for example, tried to introduce disease management programs that largely failed because resident physicians, while essential to the programs' implementation, were not involved in their design.<sup>2</sup>

**No consensus on evidence.** In the long run, economic health outcomes of patient-centric service models will need to be proved in the same way that drug effectiveness is shown in a Phase III randomized clinical trial. But quantifying savings in the real world is more difficult, and studies on health economic outcomes are less amenable to scale than clinical studies: Patients and

disease biology across the world are similar, but healthcare systems and their funding rules are not.

**Misleading incentives for parts of the healthcare system.** A short-term focus, combined with tight regulatory control over operations and balance sheets, severely limits health insurance companies' will to innovate. Meanwhile, patient-centric service models are only attractive for new entrants if they yield revenue that reflects the value contributed—revenue that depends on payers' willingness to fund these services.

**Insufficient patient targeting.** Because the value proposition of patient-centric service models relies on a clear health outcome for the patients enrolled, it is crucial to not only target the right patients but also get them actively involved.

**Distrust resulting in a lack of access to patients.** In most countries, pharmaceutical and medical technology companies are restricted from directly marketing to patients or even pharmacies. Physicians—and many patients—still perceive pharmaceutical firms as focused

on high product margins and do not want them to interfere with patient interactions.

#### Internal barriers

**Lack of new capability profiles.** Pharmaceutical companies have excellent clinical understanding, but they lack experience in service deployment and design. Managing regular customer communication as part of a distinctive value proposition and not as a duty to drug safety is also new to an organization that is accustomed to molecules as value drivers. For technology companies, deploying local services and managing customer and maintenance communication is easier, but they lack an understanding of the healthcare system's reimbursement schemes.

**Insufficient understanding of service-based business models in product-based environments.** Capability gaps can be overcome with a smart deployment of resources, but the lack of understanding about the features of a service-based versus a product-based business and revenue model is more difficult to overcome.

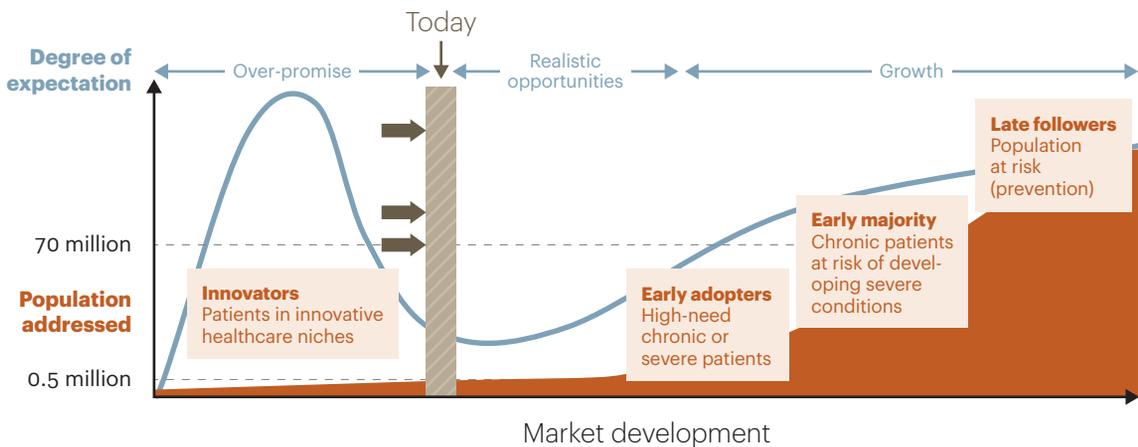
<sup>2</sup> Recent legislation in Germany has abolished incentives for disease management programs, effectively removing them from the agenda.

So far, these barriers have prevented greater adoption of patient-centric solutions—in Europe, less than 0.5 percent of the more than 70 million chronic patients participate in health service programs (see figure 2)—and a growing business can only be established once successful innovators clear these barriers.

Figure 2

**Barriers are preventing the significant adoption of patient-centric services**

**Degree of expectation versus actual population addressed in Europe**



Note: Patient numbers based on chronic diseases in Europe  
Sources: Gartner; A.T. Kearney analysis

Technology will speed up the game and force decisions. Data generation, collection, and handling will be faster and more accessible than ever before:

- Healthcare devices will become commoditized. Prices will come down for everything from basic X-ray machines at the point of care in rural emerging markets to home diagnostic equipment in supermarkets.
- Wireless communication will become standard, including machine-to-machine (M2M) communication. The “Internet of things” will be a reality before the molecules screened in today’s pharmaceutical laboratories have been launched.
- New tools and algorithms will generate insight from data that will direct the health services of the future, as exemplified by SAP’s expected applications of its business data analysis tool, HANA, in healthcare.

Collectively, these trends will bring down the technological barriers to entry and create opportunities for new entrants and innovative start-ups to provide new solutions. And the first-mover advantage will be significant, as initial successes will build the trust that will enable deeper market penetration—and set in motion a virtuous cycle that potentially leads to a sustained advantage. Furthermore, establishing scale early will enable not only lower costs but also set the standards and simplify validation of health claims in a regulated environment.

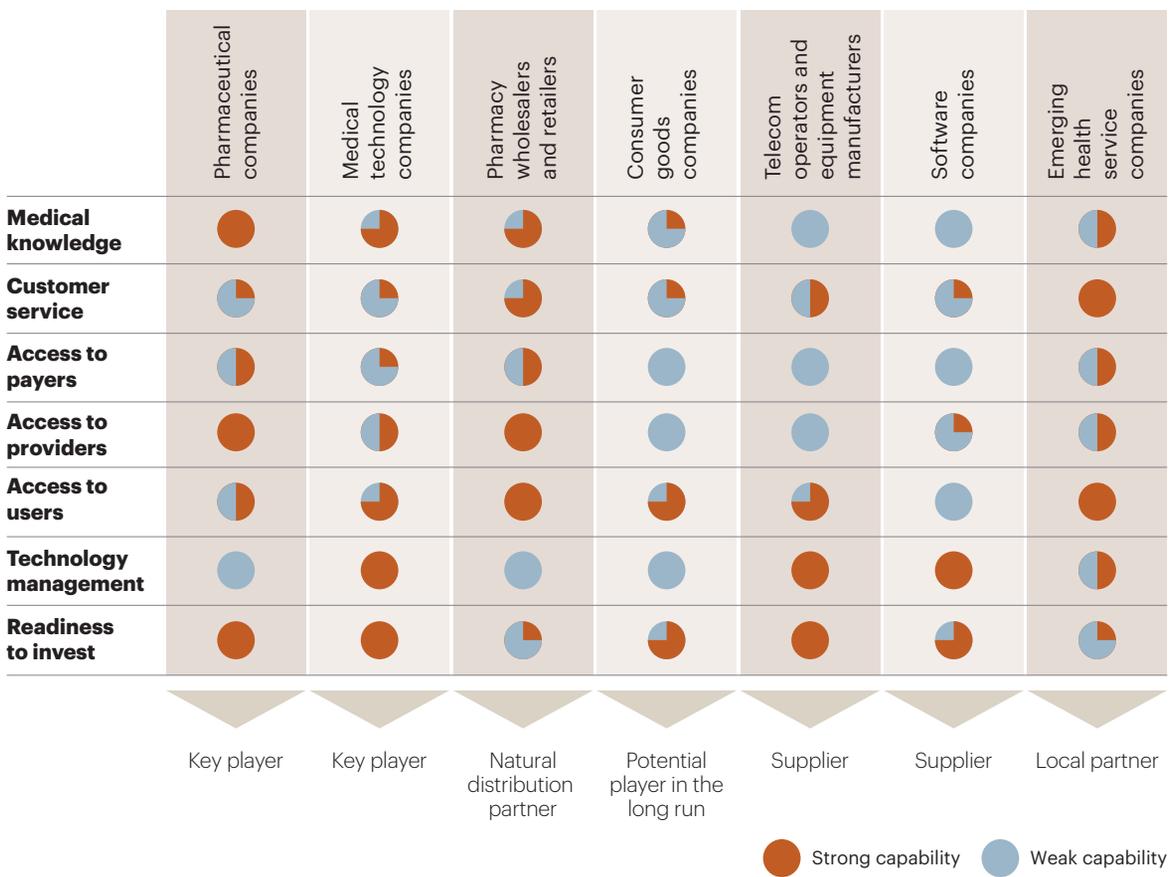
Incumbent healthcare companies should not rely on owning the market forever. That’s what the music and media giants thought too, but then new entrants such as Netflix flew by Blockbuster

and other long-standing players. Innovative companies, such as those with a health-service platform that includes a top-notch app, can raise the bar for second movers or build value as M&A targets in case a pharmaceutical or medical technology multinational decides to enter the race.

In fact, the race to scale is already on, and while pharmaceutical and medical technology companies may be in the pole position, they are hardly the only ones taking part (see figure 3). Competitors include fast-moving consumer goods and consumer health companies, telecommunications companies, and pharmacy retailers and wholesalers.

Figure 3  
**Pharmaceutical and medical technology firms are not alone in the race**

**Capabilities to provide or distribute patient-centric services**



Source: A.T. Kearney analysis

Health insurers that play a major systemic role, such as U.S.-based Kaiser Permanente, Bupa in the United Kingdom, or Achmea, might also get in on the game. Depending on their scale and capabilities, other health insurers too could transcend their role on the demand side—where they tender and buy health service solutions—and decide to design and offer services without the help of corporate players. Accessing patients will never be an issue for them. Moreover, some health authorities, including the Italian region of Lombardy, are developing innovative organizational models to coordinate assets and resources such as hospitals, physicians, and

general practitioners to manage diseases (particularly chronic illnesses) in the field. In many countries, however, scale opportunity is limited by a local focus, and flexibility is hampered by tight government regulations.

This final issue—the lack of flexibility in the healthcare system regulations—is clearly a matter to be resolved in the political arena. By 2047, there will be more people older than 60 than younger than 15 worldwide. While there is skepticism that value-based healthcare services can be afforded given current budget pressures, it is clear that any system that is not based on outcome and value cannot be sustained in the future.

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Experience shows that patient-centric health solutions must not only work, but also offer **a viable value proposition for the health system.**

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## Racing to Scale

Four actions can put innovative players in the pharmaceutical and medical technology space at the front of the race:

- **Define a long-term vision for healthy patients and a healthy business with a clear value proposition for patients, physicians, and payers.** Many programs have failed to activate all stakeholders in the short term. Healthcare payers will only support an offer that presents them with a positive business case, which is especially difficult to construct for front-end prevention programs. Hardly any offer will gain widespread acceptance without physician engagement. Despite healthcare reforms and power shifts to insurance companies and national health service structures, physician recommendations will almost exclusively determine patient participation. For patients, the value must be visible every day. User-friendly services must help them stay healthy and improve their quality of life. Solutions designed for actual consumers' habits are likely to succeed, while those that ignore real-life situations will probably fail despite scientific soundness. So, in designing a new solution, all relevant voices must be heard and their needs reflected in the offer. The ideal offer will yield continuous revenue based on patients staying healthier and ensure that costs are really taken out of the system. New, "cheaper" services should replace—rather than supplement—old, "expensive" care.
- **Target the right patients from the start, and plan a life cycle early.** If the service solution is not properly deployed to capable patients who are willing to use it, the service model will fail, no matter how solid the clinical rationale. Targeting the right patient segment requires not only an assessment of their medical needs but also of their behaviors and motivations to use a health service. The better a patient segment is defined in terms of medical need, the easier it will be to demonstrate the value proposition to payers. And only with adept, motivated patients will the value be realized.

How to continually expand the customer base is something that must be considered in the innovation strategy from the outset, because innovation cycles in services, especially

e-services, are much faster than anything pharmaceutical or medical technology companies are accustomed to. For technology-based services, this is both good news and bad: The cost to “make” will inevitably come down; but companies will need to constantly renew technology and service models, and margins on technology will drop rapidly after the initial introduction. This provides an opportunity: The better the technology and service roadmap, the easier it will be to expand into adjacent market segments, such as consumer healthcare.

- **Seek the best possible alliances, and exploit core competencies.** Many technology and service providers have already mastered the art of service deployment and customization. Forming partnerships with such companies is an intelligent way to leap up the steep learning curve that could otherwise make health services unsustainable.

On the distribution side, pharmacies are the natural partner for pharmaceutical and medical technology companies, as they have direct contact with providers and users, as well as medical knowledge. Although single pharmacies are unlikely to play a major role, large, vertically integrated pharmacy chains probably will. Mediq, Alliance Boots and Walgreens, and Shoppers Drug Mart are examples of companies that have not only captured important market shares but also are progressively moving toward a solution-provider role.

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## Technology will bring down the barriers to entry and create **opportunities for new entrants and innovative start-ups** to provide solutions.

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Of course, the core competencies of the organization (access to physicians and health insurance companies for pharmaceutical firms, and technical expertise for medical technology companies) are highly relevant for the health solutions business. The traditional virtues of pharmaceutical companies—scientific understanding of disease biology, the capability to run large-scale studies, and access to physicians—are especially needed to bring healthcare stakeholders on board for a new service model. The challenge will be to embed these competencies in a different process that leads to a new offer.

- **Prepare for a major transformation challenge.** Establishing a solutions business will be a journey, eventually resulting in a new business unit. After all, a new way of doing business needs to be executed by people who, based on their healthcare experience, have grown accustomed to the product model. In addition, corporate processes have gone through many adaptations in order to optimally support the product model. Many parts of the old, well-oiled machine, be it the technology development or medical affairs, will be needed to make the new business tick. To realign them to the new goal, consistent and frequent communication is vital. And a positive customer response to a new, value-based offer will inspire the teams working on it.

The external and internal barriers can only be overcome with clear leadership, and that implies the right moment of emancipation. If the service is close to the product, it should be kept bundled from an organizational perspective to ensure all capabilities are aligned and present. For value-based services, the new offer has to reach a point where it succeeds—or fails—based on its own business logic rather than the availability of resources from the established business.

## And the Winner Is...

Pharmaceutical companies have the benefit of deep pockets, disease and patient knowledge, and a network of care providers. Medical technology companies have an advantage because they own technology, and some players are already experienced in combining products with services.

The race is open—not only for pharmaceutical and medical technology players but also for new entrants from other industries. A variety of alliances will form and set the standards, but any partnership will struggle to succeed without embracing the systems experiences and the excellence in bringing ideas from brain to bedside that the pharmaceutical and medical technology industries command.

These companies have the power to harness their know-how in a changing healthcare world to unlock growth in mature markets—or lose margins in defense of an old business model and leave the next wave of healthcare innovation to others.

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The authors wish to thank their colleagues Giorgio Liccaro, Claire ten Hoopen, and Barbara Weiten for their valuable contributions to this paper.

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