Pharmaceuticals & Medical Products Practice

# Germany's e-health infrastructure strengthens, but digital uptake is lagging

McKinsey's *eHealth Monitor 2020*, a report on digitization in German healthcare, shows a solid—and expanding—digital infrastructure that appeals to patients but remains underutilized by physicians.

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**The *eHealth Monitor 2020*** is the first of a series of annual status reports on the digital maturity and infrastructure of German healthcare. Drawing on 30 indicators, our two-part report analyzes where Germany's healthcare system currently stands in digital infrastructure, supply and demand for digital services among healthcare providers, and the appetite for digital healthcare among patients (see sidebar "Notes on methodology"). We also outline the quantitative benefits that e-health has delivered to date by reviewing the latest medical literature, and we examine the obstacles and opportunities for the increased adoption of telemedicine.

In the past two years, Germany's healthcare system has made a lot of progress, driving forward the legislative framework for the digitization of healthcare—especially in electronic patient records, telemedicine, and e-prescriptions. That work was urgently needed in view of Bertelsmann Stiftung's 2018 Digital Health Index ranking, which placed Germany second to last among 17 countries.[1] Germany has also played a pioneering role in e-health: it was the world's first country to establish a combined regulatory and reimbursement process for digital e-health applications ("apps on prescription").

Results from the recent survey of healthcare players and experts by the German Managed Care Association (BMC) supplement this report (see sidebar "BMC Innovation Panel Survey"). We also include outside perspectives: insights from a virtual-roundtable discussion on the outlook for telemedicine and an article featuring the Federal Ministry of Health's outlook on the future of e-health in Germany.

## Part one: German e-health—insights and analysis

The first part of the report provides its most important insights on e-health in Germany. It focuses on four core areas: technical infrastructure and digital maturity, digital supply and demand, the acceptance and use of digital healthcare solutions by patients, and the benefits of e-health as documented in the literature.

— **A. Technical infrastructure and digital maturity**
Although more than eight in ten doctors are already linked to the telematics infrastructure, healthcare facilities still mainly share medical data in analog form. In 2019, 93 percent of doctors communicated with hospitals on paper, and less than half (44 percent) of all healthcare facilities (such as hospitals, outpatient medical practices, and medical centers) exchanged medical data by digital means.[2]

— **B. Digital supply and demand**
German healthcare facilities use a broad range of digital systems, tools, and services and provide them to their patients. Likewise, health insurers offer a diverse range of digital services, from the online promotion of health and

### Notes on methodology

**The *eHealth Monitor*** indicators cover the full spectrum of participants in Germany's healthcare system: hospitals, doctors' practices, telemedicine providers, pharmacies, health insurers, and patients. This report is based in part on publicly accessible sources from professional associations, commercially available analyses, and McKinsey's own research. Some surveys integrated into the *eHealth Monitor* were conducted online. The report contains data primarily for the period from the start of 2020 through the end of August, though several indicators relate to 2018 or 2019.

[1] Thomas Kostera and Timo Thranberend, "#SmartHealthSystems," *Spotlight Healthcare*, November 2018, Number 5, Bertelsmann Stiftung, bertelsmann-stiftung.de.
[2] This point was substantiated by the HIMSS Analytics eHealth Trend Barometer and the KBV PraxisBarometer digitalization surveys in 2019.

well-being to online stores to medical information dispensed via video chat. By contrast, relatively few practices of outpatient doctors provide digital offerings: for example, just 15 percent of the practices that participated in the 2019 KBV PraxisBarometer survey reported that they offer an option for booking appointments online or make it possible for a patient to order prescriptions via their websites. Fifty-nine percent offered no digital services at all.[3]

Many outpatient doctors and pharmacists remain skeptical of digital solutions. Surveys suggest that 43 percent of doctors in outpatient settings expect doctor–patient relationships to deteriorate as digitization progresses, and only 14 percent expect them to improve. Almost half of all pharmacists worry about losing their regular customers once e-prescriptions are widely available.

In a 2018 study, Bertelsmann Stiftung reported on regional and selected telemedicine projects.[4] As a result of the COVID-19 pandemic, telemedicine services are now in high demand. In the spring of 2020, 52 percent of all outpatient doctors were offering video consultations—a 50-percentage-point increase from the end of 2017.[5]

— **C. Acceptance and use of digital healthcare solutions by patients**
The majority of patients are open to the digital opportunities available in Germany's current healthcare system. One in three of the respondents to an online survey reported that they have scheduled a doctor's visit online. Two in three Germans welcome the introduction of electronic health records and e-prescriptions—including more than 60 percent of people in the 65-plus age group. The pandemic has further

## BMC Innovation Panel Survey

**Our *eHealth Monitor 2020*** report includes results from a survey conducted by the German Managed Care Association (BMC) for the report. This BMC survey of healthcare players and experts includes these key findings:

— Eighty-five percent of respondents believe it's the job of politicians to speed up the implementation of e-health in Germany. Around two-thirds think that healthcare policy in the past 12 months has motivated providers and health insurers to offer more digital services, ramped up competition among providers of digital innovations, and helped digital offerings find their way more quickly into the actual provision of healthcare.

— Eighty-two percent see digital health firms as the most important driver behind the spread of e-health solutions, followed by pharmaceutical and medical-technology companies and health insurers. Seventy-five percent of respondents believe that patients benefit most from e-health, followed by doctors and digital firms.

— Most participants in the healthcare system believe that the greatest challenge facing digitization is acceptance by providers—physicians in particular. For representatives of health insurers, governance bodies, and politicians, data protection and data security are the biggest hurdles.

[3] "Praxisbarometer digitalisierung 2019," KBV, October 2019, kbv.de.
[4] "#SmartHealthSystems," November 2018.
[5] Confirmed in a study of 2,000 doctors conducted by Stiftung Gesundheit (the nonprofit Public Health Foundation) and hih – health innovation hub.

increased the willingness of Germans to use digital healthcare services. A McKinsey survey in August 2020 revealed that more than two-thirds of respondents are more open to these services now than they were before the crisis.

The launch of apps on prescription, and with it the remuneration of digital health applications, will probably increase patients' demand for electronic health tools. In the 2018 study, Bertelsmann Stiftung determined that the use of mobile applications in German healthcare was limited at that time but showed significant potential for the future. Today, around 59 percent of Germans say they can imagine using apps that are only available on prescription—even almost 50 percent of people in the 65-plus age group. This widespread acceptance of e-health is expected to drive far higher utilization in the future: for example, at the start of 2020, less than 5 percent of patients who suffer from common ailments such as chronic back pain, high blood pressure, or migraines had downloaded apps that helped support the treatment for their conditions.

The dynamic nature of the growth in Germany's health-app market is demonstrated by McKinsey's eHealth App Barometer, which measures app use by the number of downloads. At the first peak of the COVID-19 crisis, during the first quarter of 2020, health apps and services were downloaded almost two million times—twice as many as during the same period in the previous year.

— **D. Benefits of e-health documented in the medical literature**

From 2000 to 2020, PubMed registered 158 medical articles researching the advantages of e-health solutions in Germany for five therapeutic areas: diabetes, cardiovascular disease, respiratory disease, depression, and rehabilitation. Over this period, the total number of publications on these five therapeutic areas in Germany reached 14,468, so e-health has not been a focus of scientific research. However, the number of e-health studies will probably rise, since the government's approval process for digital health applications requires providers to meet higher-than-usual standards for scientific evidence of the benefits offered by e-health solutions.

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Around 80 percent of analyzed German research papers that included quantitative assessments of e-health applications confirm their positive benefits—mainly improvements in the patients' health (79 percent of the studies analyzed), but also greater savings in costs and time.

## Part two: Focus on telemedicine

The nascent market for telemedicine has exploded as a result of the COVID-19 pandemic and might well serve as a role model in the digitization of healthcare. All of the second part of *eHealth Monitor 2020* is therefore devoted to telemedicine.

The main article looks at the evolution of telemedicine over the past few years and explores its significance in the German healthcare system. Our conclusion: in Germany, telemedicine services (such as video consultations) are still a long way from crossing the finish line. To reach it, the country must, first of all, provide financial incentives and regulatory support for telemedicine and, second, expand the digital infrastructure and improve interoperability. In a guest feature, Ulrich von Rath, an internist and general-medicine practitioner, reports that "Telemedicine makes sense because it enriches the care we provide." He offers insights into the use of telemedicine in a medical practice and shows what will be needed to drive digitization in outpatient settings.

In a virtual-roundtable discussion, three telemedicine providers—Katharina Jünger from TeleClinic, Claudia Linke from Zava, and Florian Weiß from jameda—share their perspectives on where telemedicine is headed and what might speed up its expansion. They believe that the future of medical-care delivery in Germany will be "blended care": a hybrid of digital and in-person visits. However, for that to happen, telemedicine must be embedded deep in the national health ecosystem.

The *eHealth Monitor 2020* report closes with the outlook of the Federal Ministry of Health on the future of e-health in Germany. This article covers what has been achieved to date from the ministry's perspective and what must happen to facilitate the broader provision of digital healthcare in Germany. First and foremost, this will mean opening up the healthcare system to innovation, the development of a comprehensive communications network with the electronic patient record as a central platform, and the creation of a European Health Data Space[6] for the fair processing and use of healthcare data.

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[6] "European Health Data Space," European Commission, ec.europa.eu.

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