



WHITE PAPER

Going Beyond Digital: Why Hybrid Care is the Future of Health Care

January 2024

Authors: Andreas Klar, Nicolas Busch, Steffen Simon, Andreas Hartmann, Joachim Engelhard, Lisa Schäfer

A New Health Care Model Emerges

Health care systems worldwide continue to grapple with a growing imbalance between supply and demand. The demand for health care continues to soar because of factors such as an aging population, an increase in chronic illnesses, and the need to treat an expanding range of diseases with innovative drugs and new procedures. Simultaneously, it's become increasingly difficult to deliver adequate care to meet demand due to soaring costs and a shortage of skilled labor.

This crisis has forced health care providers to look for alternatives to traditional care, such as the development of new digital treatment forms. Many had hoped these technological solutions would help resolve the health care conflict.

After more than a decade of implementing digital health solutions, it's time to acknowledge that technology alone is not the answer. Purely digital solutions have a hard time to show to reduce costs or save time for the health care system. In fact, it's proven challenging to establish profitable business models, with many digital health companies having gone bankrupt in recent years.

It's also critical to recognize that the on-premises aspects of health care diagnostics and treatment, such as scans and surgeries, remain crucial to providing adequate care.

What's now emerging are new models for health care that merge aspects of virtual and on-site care, known as hybrid care. A host of leading-edge providers are demonstrating that this hybrid approach can potentially address some of the issues that the first wave of digital therapies was unable to resolve in helping transform and modernize how we access health care systems around the world.

In a previous article we detailed why standalone digital health has not yet lived up to its full potential ([Digital Solutions Reduce Waste in the Health Care System](#)). While investments in digital health have been on a consistent upward trajectory since 2010, reaching unprecedented highs in 2021 due to the surge in demand for telehealth and remote health services amid the COVID-19 pandemic, an aversion to investment in the sector over more recent years has stalled any further progress.

That's created an opportunity for hybrid care to emerge as a resilient alternative, which is now estimated to reach an economic value of €300-€500bn in Europe and the Middle East.

Key highlights we will focus on in this discussion of hybrid care include:

- **Hybrid care can create value across various dimensions, improving access, efficiency, patient and provider experience and patient outcomes with similar or lower costs.** Hybrid care has the power to fundamentally transform care pathways and allows care providers to move from punctual consultations to continuous and cross-sectoral care. Outpatient, rehabilitation, and long-term care are areas that offer the greatest economic potential.
- **Technological advancements and regulatory shifts are together accelerating the expansion of hybrid care.** Innovations like Generative AI, smart sensors, advanced camera systems, as well as augmented and virtual reality, are fueling hybrid care, enabling automated consultations, home monitoring, and telehealth. Regulatory changes enable telemedicine in pharmacies, prescription of digital therapies, and the reimbursement for telemedicine and remote patient monitoring.
- **There are seven critical success factors that fall under three key pillars that can guide health care stakeholders in the establishment of hybrid care. Value:** Addressing a significant problem, producing robust evidence of effectiveness, Fostering

cross-sector and stakeholder collaboration. **Policy:** Establishing supportive regulations and reimbursement models. **Technology:** Creating a reliable technological infrastructure, Ensuring interoperability.

We will delve into these important components of hybrid care, aiming to contribute to a more efficient and effective health care system and show how companies like Platform 24, Avi Medical, Tia, GluCare, FlexDokters and Dermanostic are building into this field.

We can't solely rely on physical health care anymore as the demand requires an Exorbitant number of resources we don't have, and we can't AFFORD. However, we can't go entirely digital because some elements, like physical examinations, are irreplaceable. Hence, a hybrid approach becomes essential.

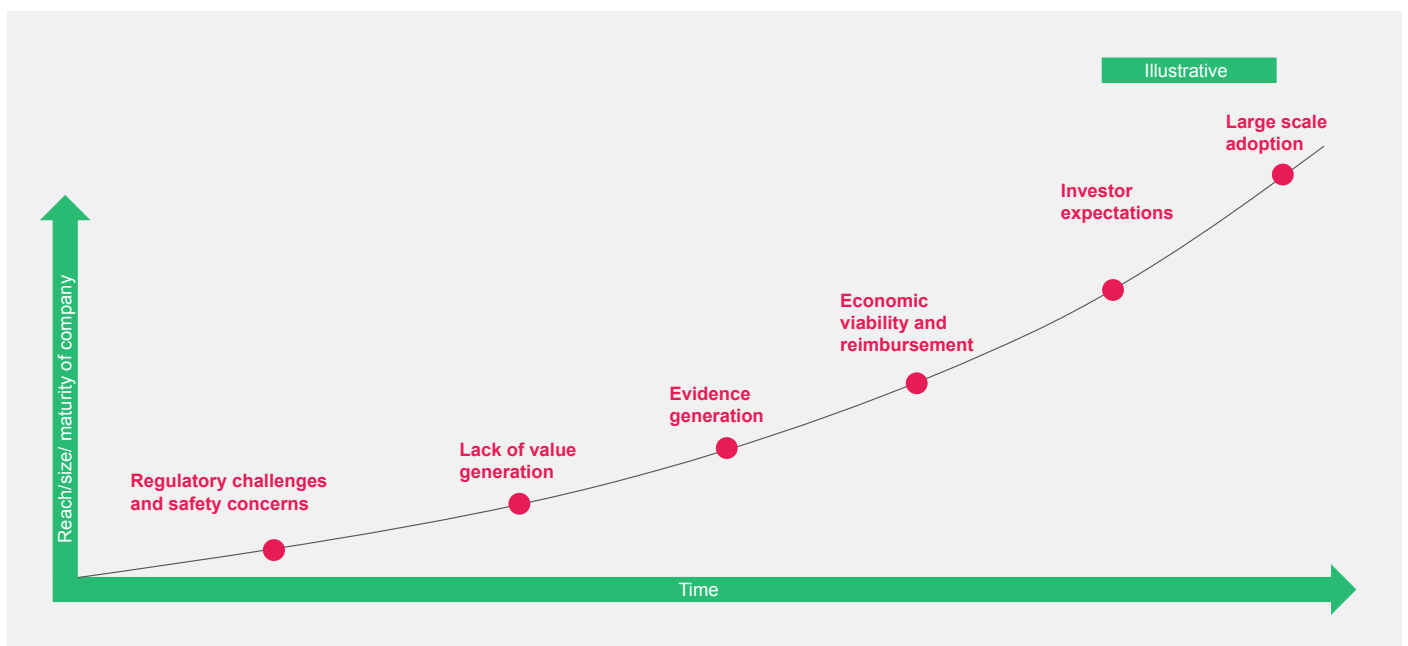
Julian Kley, MD, Founder and COO of avi medical.

Moving From Digital Health to Hybrid Care

Despite the recent fluctuations in investments and acknowledged challenges, the importance of digital health in enhancing access to and quality of care remains undisputed. However, our observations show that digital health companies, when operating in isolation from the traditional health care system, have often trouble surviving.

To truly tap into the potential that digital health offers, health care providers can construct hybrid care models that optimize the delivery of health services. The ultimate objective of these hybrid models is the improvement of patient outcomes while also establishing robust health care systems capable of serving future demand.

Exhibit 1 - Adoption barriers for digital health solutions



Source: Expert interviews, BCG analysis.

Hybrid care offerings have the potential to create enormous value for stakeholders including the patient and the provider. The success of the hybrid care model depends on ensuring that all stakeholders benefit while addressing the primary question of: How do we create value for the patient with the same or less cost?

An effective hybrid care model also addresses the shortcomings of a purely physical or digital approach in the following ways:

- 1. Regulatory challenges and safety concerns.** Incorporating physical health care into a digital health model brings an established understanding of regulatory norms and safety protocols. Embracing a hybrid approach to care allows health care providers to navigate regulatory processes more smoothly, ensuring patient safety without significantly hindering growth and expansion efforts.
- 2. Streamlined care.** Hybrid care offers an opportunity to create value by transforming traditional care delivery. Unwieldy manual processes can be streamlined, such as enabling early patient discharge from the hospital, remote patient monitoring, and virtual rechecks. As a result, patient outcomes can be improved with integrated care and shared insights from physical and digital care. Physician workflows and experience can also be improved.
- 3. Evidence generation.** By integrating physical and digital care, hybrid models can leverage existing evidence-generating systems to validate digital health solutions. These models benefit from the data-rich environment created by a robust, physical health care system in validating the efficacy of digital interventions and creating stakeholders' trust.
- 4. Economic viability and reimbursement models.** The hybrid care model can more readily align with traditional reimbursement structures. Existing physical care services that have established reimbursement pathways can be integrated with innovative digital health solutions, creating a comprehensive service package that is more likely to receive insurance and other third-party coverage.
- 5. Investor expectations and pace of progress.** Hybrid care models can help align investor expectations with the real-world pace of progress in health care. By merging the robust and familiar infrastructure of physical care with the innovation of digital health, start-ups might be able to achieve early-stage results while navigating the slower regulatory landscape. The tangible presence of physical infrastructure care can provide a sense of assurance to financiers, maintaining their interest and investment over the long term.
- 6. Adoption barriers.** If physicians are taught the value of embracing hybrid care solutions, there is a higher likelihood of adoption and continuous usage by patients and physicians. For example, the physician can regularly check in with the patient to check on adherence and hold the patient accountable.

In order to move the needle on metabolic health, companies need to think how they can transform the current episodic care model with a hybrid, continuous approach to bring about improved clinical outcomes. Providers need to have control of both elements- the physical and digital aspects of the care model. If you have the most advanced digital solution but the physical care process is broken, you will simply have a broken digitized offering that quickly becomes redundant.

Dr. Ihsan AL Marzooqi, Co-Founder of Glucare.

The Economic Impact of Hybrid Care

In 2022, health care expenditure in Europe and the Middle East surpassed the €2.1 trillion mark. A closer inspection of the World Health Organization's breakdown of total health spending reveals that over three-quarters of the expenditure is channeled into areas with the potential for hybrid care disruption. These sectors include inpatient and outpatient care, preventive care, and a category labeled "others," which encompasses rehabilitative care, ancillary services, and day and home-based care.

Overall, we estimate that approximately 15%-25% of current health care spending will be attributable to hybrid care. This shift represents an economic value potential of around €300-500 billion in Europe and the Middle East.

There is also the potential for hybrid care to help cut spending by enhancing efficiency and mitigating waste and inefficiency. (In our previous article, "Digital Solutions Reduce Waste in the Health Care System," we highlighted the potential of hybrid care solutions in waste reduction.)

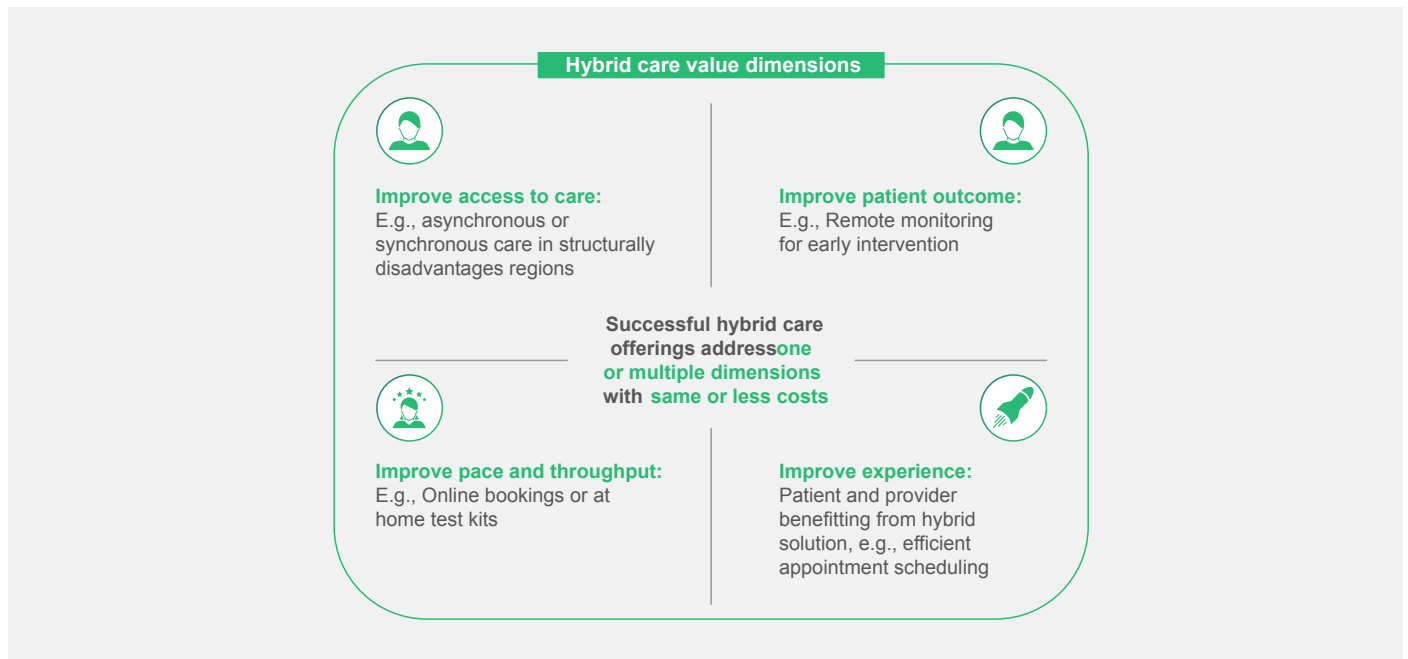
When forecasting the economic impact of hybrid care, it is important to differentiate between the percentage of patients who can be served with a hybrid model and the economic value of the service. For instance, while studies suggest that 30%-50% of outpatient care can be delivered virtually, more expensive procedures, such as MRI scans and surgeries, will continue to be conducted physically.

We estimate that hybrid care will most dramatically impact the outpatient care sector, with approximately 30%-40% of spending transitioning to hybrid care. There will also be major impacts on rehabilitative and long-term care services, where 25%-35% of spending will shift to hybrid because of digital enhancement.

With studies and expert opinions suggesting that 15% of hospitalized patients can be treated virtually or in a hybrid manner, we also estimate that about 15%-20% of inpatient care spending will gravitate towards hybrid care. The need for inpatient care may also decrease due to reduced hospitalization rates and emergency room occupancy.

Spending on preventive care, including health information campaigns, immunizations, and screenings, is also likely to see some transition toward a hybrid model. We estimate that 10%-15% of preventive care's economic value will shift to a hybrid setting, such as a mix of digital and physical education, as well as some at-home preventative screening tests.

Exhibit 2 - Examples of how stakeholders can benefit of hybrid care



Source: Expert interviews, BCG analysis

The best hybrid care models create value in multiple dimensions with similar or fewer costs by transforming the care delivery. Combining physical and digital care as the potential to redesign current care pathways, improve patient outcomes while reducing costs. However, solutions need to be reimbursed and convenient for both patients and physicians to ensure adoption.

Nicolas Busch, Partner at BCG.

The Three Pillars of Success For Hybrid Care Offerings

Given the tremendous economic upside of hybrid care, the question arises of how to create such an offering and where to start. We have identified critical success factors across three major pillars that will drive the successful adoption of hybrid care: Value, Technology, and Policy:

Exhibit 3 - The three success pillars of hybrid care



Source: Expert interviews, BCG analysis

Pillar One: VALUE.

For a hybrid care solution to be successful, it must create palpable value for both patients and providers by addressing a critical problem without adding complexity. The solution needs to be user-friendly, causing no additional burden to either party involved. Significant improvement in care quality or cost savings are crucial elements that ensure the viability of reimbursement for the solution or induce willingness to pay out-of-pocket.

Organizations also need to demonstrate the sustainability and profitability of their business model. To date, few hybrid health start-ups have managed to achieve profitability, underlining the difficulty and lengthy process to profitability in digital health.

A few examples of companies on the leading edge of **addressing the factor significant improvement** include:

Platform 24: Platform 24 is a Swedish enterprise offering a modular, cloud-based Software as a Service (SaaS) solution. Its products aim to improve access, efficiency, and medical safety. One such offering is the ‘Digital Front Door’ solution, which provides patients with a safe, well-informed care path, including all pertinent care information.

Avi medical: Avi medical, a German primary care company, develops patient-friendly, tech-enhanced, and innovative primary care clinics. These tech-enhanced practices enhance both patient and physician experience, offering online appointment booking, digital medical history questionnaires, and a blend of virtual and physical appointments for patients. For physicians, the benefits include flexible working models and a reduction in administrative burdens.

Tia: Tia is a comprehensive women’s health platform based in the U.S. It combines in-person and virtual care, with services spanning gynecology, primary care, mental health, and wellness. Tia improves access, patient outcomes, and efficiency by offering a digital platform with resources, appointment scheduling, virtual appointments, and personalized health advice, along with an integrated care team composed of various specialists.

Orri Eating Disorder Treatment Clinic: Orri Eating Disorder Treatment Clinic is a blended approach to treat eating disorder patients through Online treatment, Intensive Day treatment and outpatient services - all delivered by one health provider. Online treatment provides a flexible and accessible option to those patients who wish to remain connected to their everyday lives outside treatment and can be delivered in morning, afternoon, or full day sessions online. Intensive Day treatment spans the core of the therapy, on-site work with clinicians in clinic. Outpatient Services are individual in-person therapy sessions with clinicians either pre- or post-acute and complementary to intensive day treatment.

Proving efficacy and improved patient outcomes is critical in creating a compelling offering that can earn the trust of physicians, patients, payers, and regulators. It’s crucial to clearly define the level of cost savings, increased access, or efficiency gains achievable to demonstrate the solution’s value to the health care system. Emphasizing patient and provider experiences, as well as the convenience of the solution, can aid adoption and usage. It is essential to develop solutions together with patients and physicians to address their needs and ensure seamless integration into existing workflows.

An example of a company providing **evidence-based value** is:

GluCare GluCare, an integrated diabetes center located in Dubai, offers a comprehensive suite of diabetes care, involving various specialists, medical devices, wearables, and therapeutics. They publish an outcome report that contrasts parameters such as HbA1c of GlueCare patients versus usual care patients. Remarkably, HbA1c values improved by 2.14% as opposed to a mere 0.05% improvement after 90 days for typical care patients.

In a complex and often fragmented health care system with extensive patient pathways, collaboration across sectors becomes vital. It’s key to breaking down silos and fostering an interlinked, cooperative system. Providers of hybrid care thus face significant strategic decisions: understanding what should be developed and offered in-house and identifying strategic partners. Such decisions can help to build a cost-efficient solution that optimizes the use of existing health care system offerings.

A few examples of a company providing **collaborative-based value** include:

Sante & Spitex: In Switzerland, Sante24 and Spitex have initiated a cooperative pilot project, bridging the gap between telehealth and elderly care. Telemedical physicians from Sante24 can call upon on-site support from Spitex specialists. If a suspected diagnosis warrants a physical check-up, a nursing expert is dispatched for an in-person visit.

Dermanostic: In Germany, a startup called dermanostic provides telemedical skincare services. Patients can upload images and fill out questionnaires via an app, which are then assessed by dermatologists. To ensure comprehensive care, the company maintains partnerships with over 300 private dermatology practices in Germany, facilitating in-person examinations when necessary.

FlexDokters: FlexDokters is a dutch non-profit start-up who invented a new way of working for GPs. Currently 22 GPs form physician collaboration at which patients make online appointments and select a time when the doctor will call them via an app or a calling system. When connecting, patients will speak to a doctor immediately, without an assistant upfront. The doctor can immediately take the anamnesis, answer the request for help if necessary or schedule a physical consultation if desired. Patients get to see their known GP each time, GPs have more control over their workday and running their own practice and are supported by the network with proven processes and functionable technologies.

Pillar Two: POLICY.

An increasing number of countries recognize the potential of hybrid care and are introducing new policies to facilitate the integration of virtual and physical care. The changing regulatory environment is crucial to ensure reimbursement and seamless integration of digital care into the physical world.

Policies that remove obstacles will be critical to establishing a hybrid care offering. Examples include the establishment of interfaces, standard data formats, usage of cloud and data analytics and the regulation of health data ownership as well as use of health data. These regulations should also incentivize innovation and investment in the health care sector by deregulating certain aspects without compromising patient outcomes, thereby allowing private investors to realize substantial ROI.

Here are a few highlight changes in the regulatory environment:

Telemedicine in pharmacies:

France: The regulation of telehealth consultations in pharmacies was introduced in 2019 to address the shortage of doctors in rural regions. The cost for a video consultation is €25. Statutory health insurance covers two-thirds of this cost, while the remaining third is typically covered by additional private insurance, which most people in France possess.

Germany: The Digital Act that was finalized end of 2023 proposed of making assisted telemedicine accessible to insured persons in pharmacies. In addition, there will be adjustments to the DiGA that will also include aspects of telemonitoring and continues collecting of health data – enabling hybrid instead of pure digital solutions. A nationwide e-prescription is a prerequisite for telehealth in pharmacies and started at the beginning of this year. Therefore TESSAN, a provider of telehealth cabins, is planning to launch in the German market in 2024.

More and more countries are enabling telemedicine in pharmacies, which is one of the best examples of hybrid care. This completely transforms the role of pharmacies in the health care delivery pathway and enables care even in structurally disadvantaged areas.

Dr. Anne Geier, Managing Director of Spitzenverband Digitale Gesundheit

Reimbursement of telemedicine and remote monitoring: Reimbursement policies are crucial to incentivize the use of digital care components. The remuneration for digital and physical care should be comparable to motivate providers to include digital elements in their care pathways. Shifting from traditional fee-for-service models, which focus on the quantity of care, to value-based care models, which emphasize quality and outcomes, encourages providers to deliver high-value, cost-efficient care, and reduces unnecessary procedures.

- **Netherlands: Reimbursement equalization of telehealth and physical care.** The Netherlands has been promoting digital health care solutions with the Health Insurance Act (Zorgverzekeringswet), which ensures telemedicine services receive the same reimbursement as in-person health care services. This is further boosted by the eHealth at Home Scheme (SET), a government initiative that provides grants to home care organizations and nursing homes, incentivizing the utilization of digital resources in home care settings.
- **Germany: Reimbursement for telemonitoring of heart failure patients.** In Germany, the reimbursement landscape is also evolving, particularly with the statutory health insurance funds providing coverage for remote patient monitoring of individuals with heart failure since January 2022. This scheme encompasses vital parameters collected from implanted cardiac devices and external apparatus like scales, ECGs, and blood pressure monitors, which are subsequently evaluated by physicians. To address challenges with enrollment first selective contracts are arranged.
- **UAE: Mandatory remote services for all health care provider.** In the UAE, a regulatory framework mandating remote services for all health care providers is expected to launch by the end of 2023. The Smart Digital Health regulation will define roles and responsibilities of medical facilities and patients' rights. As per the framework, health care providers will be required to offer at least one of the four forms of remote health services: consultation, prescription of medications, patient monitoring, or robotic surgeries.
- **Switzerland: Reimbursement of telehealth and digital therapeutics.** In Switzerland, telemedicine appointments are generally regarded as equivalent to in-person consultations and are therefore reimbursed at the same rate by mandatory health insurance. Additionally, digital therapeutics are generally reimbursable under the current regulations of mandatory health insurance ("OKP"). The reimbursement process operates via the existing system for OKP services.
- **Sweden: Moving towards value-based care.** Sweden is moving towards a value-based care model. Known as one of the global leaders in value-based health care, Sweden pays providers based on patient health outcomes. While the country has successfully run various value-based initiatives, implementing a nationwide value-based health care system remains challenging. Key enablers for this model include Sweden's advanced and interconnected electronic health records system, and the country's quality health registries, which provide a foundation for data collection and analysis to measure outcomes and enable value-based pricing and reimbursement.
- **Israel: Incentivizing innovation and investments.** Israel incentivizes innovation and investment. Home to over 1,400 digital health startups, Israel boasts one of the most robust digital health ecosystems worldwide, ranking sixth according to the 2022 World Index for Health care Innovation. Institutions such as the Israel Innovation Authority provide government funds, promote digital health innovation, and facilitate connections with international investors, companies, and institutions to scale startups globally. The Israeli government further encourages investment in digital health by offering various incentives, including tax breaks, R&D grants, and low-interest loans.

Reimbursement for digital services is crucial. Currently there is no general reimbursement by statutory health insurance companies for diagnosing via images in Germany even though it works much better than video consultations in dermatology. First, videos often falsify the picture due to light conditions or beautification of the skin. Second, pictures can be used as documentation in the patient letter. And Third, diagnosis by pictures is more efficient.

Dr. med. Alice Martin, Founder dermanostic.

Pillar Three: TECHNOLOGY.

Technologies such as machine learning, generative AI, sensors, and AR/VR hold immense potential to propel and expedite the progress of hybrid care, thereby enhancing convenience. These technologies can elevate accessibility, quality, and efficiency of care. However, they also necessitate investment in technical infrastructure for seamless integration. Furthermore, there is a need for robust regulatory oversight to guarantee data privacy, security, and ethical use, ensuring that these advances benefit all users while upholding essential safeguards.

Here are a few examples of tech segments that promise to shape the future of hybrid health technology.:

Infrastructure

For successful integration of digital and in-person care, governments must establish robust infrastructure including national IDs, electronic health records (EHRs), e-prescriptions, and health data warehouses. Furthermore, stringent privacy and security measures are crucial to protect data exchange and prevent misuse.

- **Estonia: Leading the way in national ID and electronic patient records.** Estonia leads the way in establishing national ID and electronic patient records. With one of the most advanced national identity systems, Estonia has enabled eGovernment services including access to electronic patient records and usage of electronic prescriptions. Nearly the entire population has an electronic ID card and almost 100% of citizens' medical data is accessible on a central platform. This transparency facilitates access to treatment information and medication and supports rapid report generation and information exchange in emergencies.
- **Sweden: Creation of a central database for prevention.** Sweden, meanwhile, is developing a centralized health data platform combining data from various sources for research and improvement of care. This data will drive the development of personalized medicine and preventative care solutions, as well as improve patient journeys.

Interoperability

Interoperability is a critical component in hybrid care, as most solutions won't cover the entire continuum of care. For a best-of-breed approach, interfaces and standardized data formats are necessary to ensure seamless data exchange among diverse systems and solutions..

- **Denmark: Comprehensive health care IT strategy ensuring interoperability.** Denmark is a European leader in health care system interoperability, with the national eHealth authority (Sundhedsdatastyrelsen) overseeing the national health care IT strategy. They develop guidelines for data sharing and data standards, which ensures the interoperability of different systems. Denmark's nationwide IT infrastructure connects all health care providers, enabling efficient health data sharing. Data standards and protocols like SNOMED CT, HL7, and ICD-10 have been established to ensure health care data consistency and interoperability across different systems and services.
- **UK: NHS with Open API Policy and Guidance enabling data exchange.** The NHS implemented the Open API Policy and Guidance in 2020 to standardize data exchange between different health care providers. As part of the Transfers of Care mandate, providers must issue a Discharge Summary in a structured narrative and coded content, which must be human and machine-readable and transferable. With CareConnect open APIs have been developed by NHS Digital to aid the delivery of data delivery, utilizing a nationally defined FHIR resource.

Developing Technologies

- **Generative AI.** Generative AI, or GenAI, is an advanced technology that uses artificial intelligence to generate new, original content from patterns it has learned from existing data. This technology can significantly enhance hybrid care in several ways. Fields of application include:
 - **Virtual Health Assistance:** GenAI can send customized messages to patients, for example, to help improve treatment adherence and answer patient queries.
 - **Mental Health Support:** GenAI can support patients with mild mental health issues and guide users to appropriate resources and support systems.
 - **Remote Patient Monitoring:** GenAI can monitor patients, especially those with chronic diseases, alerting health care professionals in the event of detected abnormalities.
 - **Health Education:** GenAI can provide personalized health education, for instance, after surgery, to improve patients' understanding of their condition and the recovery process.

The application of GenAI in health care is promising, as initial studies have shown. For instance, ChatGPT, a form of GenAI, has been found to produce even more empathetic responses than doctors, with responses rated 3.6 times higher in quality and 9.8 times higher in empathy.

However, ensuring the privacy and safety of patients is crucial and requires robust quality control. Several open questions need to be addressed, and the integration of these solutions into mainstream health care could still take some time. The goal is to ensure the seamless and safe application of these technologies while harnessing their potential to transform health care.

- **Smart sensors:** Smart sensors are increasingly playing a pivotal role in modern health care. These devices can detect, measure, and record health-related and environmental parameters. They can then send this vital data, along with alerts, to patients, providers, and caregivers.

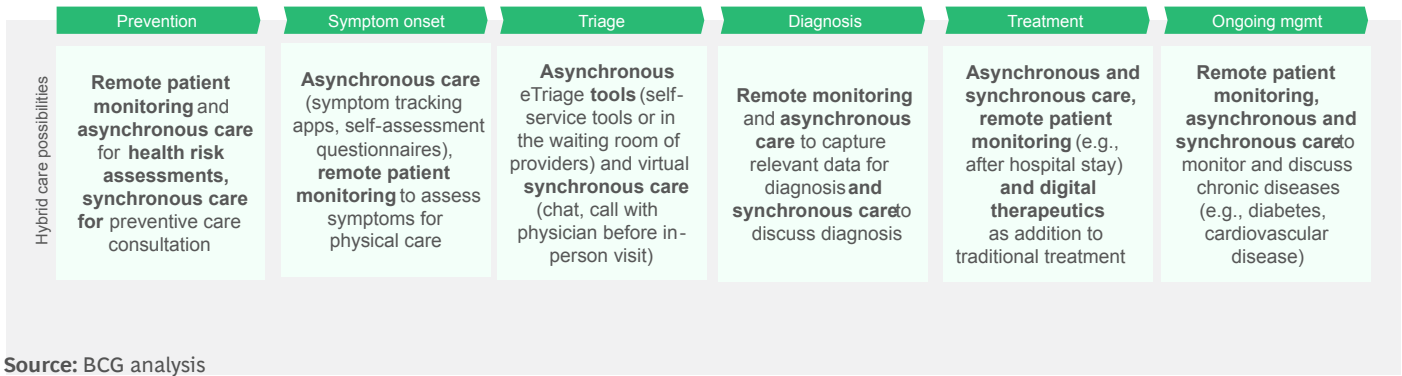
These sensors are commonly integrated into wearable and implantable devices, as well as home monitoring systems. Their application areas are diverse, enhancing multiple aspects of health care delivery and patient well-being.

For instance, smart sensors can assist with medication adherence, tracking whether patients are taking their prescribed treatments at the right times. They are also invaluable in elderly care, where they can monitor a patient's health parameters consistently and detect potential issues like falls. Additionally, these sensors can be used for sleep and activity tracking, providing valuable insights into a patient's lifestyle and overall health.

Moreover, smart sensors have applications in environment monitoring. For example, they can detect allergens in the environment, which is crucial for people suffering from allergies. This wide-ranging utility makes smart sensors an integral part of the drive towards more personalized, efficient, and effective health care delivery.

- **Advanced camera systems and AR/VR enabling telehealth:** Advanced cameras now enable physicians to conduct precise remote examinations, thus improving the quality of virtual consultations. At the same time, Augmented Reality (AR) and Virtual Reality (VR) technologies are advancing tele-rehabilitation and different therapies. These innovations allow patients to participate in therapeutic activities from home, broadening treatment possibilities and enhancing the delivery of health care.

Exhibit 4 - Examples of hybrid care along the continuum of care



Why the Future of Health care is Hybrid

While the digital health industry faces a multitude of challenges, technology holds the power to transform the delivery of care. With the right integration of digital and physical care, patient outcomes can be improved while costs are decreased.

With rising interest rates making money more expensive, the pressure to build profitable solutions is increasing. The days of cheap and readily available funding are in the past, necessitating a shift in strategy for start-ups. Surviving in this landscape will require solutions that provide substantial value, address significant problems, and transform the care pathway. Optimally, these solutions will not only improve care but also reduce care fragmentation and costs.

This paves the way for both purely physical and purely digital providers to transition into a hybrid model. As traditional players will most likely not become the next big tech player and not all digital players have the capital and expertise to establish physical care, we can expect an increase in collaborative efforts across the industry. Governments are starting to recognize the potential and need for the integration of digital and physical care and will play a crucial role in enabling hybrid care with sufficient regulatory and technical infrastructure.

By crafting innovative, hybrid solutions, we are not merely adapting to change, but actively shaping the future of care, paving the way for a health care system that is dynamic, resilient, and patient-focused.

The authors thank all interview partners, Matthias Becker, Heike Dorninger and Konstantin Storms for their valuable input to develop this publication.

Boston Consulting Group

Boston Consulting Group partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG was the pioneer in business strategy when it was founded in 1963. Today, we work closely with clients to embrace a transformational approach aimed at benefiting all stakeholders—empowering organizations to grow, build sustainable competitive advantage, and drive positive societal impact.

Our diverse, global teams bring deep industry and functional expertise and a range of perspectives that question the status quo and spark change. BCG delivers solutions through leading-edge management consulting, technology and design, and corporate and digital ventures. We work in a uniquely collaborative model across the firm and throughout all levels of the client organization, fueled by the goal of helping our clients thrive and enabling them to make the world a better place.

© Boston Consulting Group 2022. All rights reserved. 2023

For information or permission to reprint, please contact BCG at permissions@bcg.com. To find the latest BCG content and register to receive e-alerts on this topic or others, please visit [bcg.com](https://www.bcg.com). Follow Boston Consulting Group on [Facebook](#) and [Twitter](#).

