Fujitsu Uvance

FUJITSU

Healthy Living

Enabling personalized, accessible, and effective healthcare

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Promoting Healthy Living: trends and opportunities

As the saying goes, prevention is better than cure.

Perhaps more than any other sector, healthcare has had to adapt to unforeseen challenges in recent years.

Governments and health institutions are under increasing pressure to provide care that's easy to access, personalized, and highly effective. That's why, with aging populations and a rise in chronic conditions, the focus is shifting to more long-term preventative models.

By harnessing the power of data and technology, Fujitsu Uvance aims to make wellbeing a reality for all, regardless of age, location, or background. And enable health organizations to transform operations and increase value in a sustainable way.

First, let's explore the emerging trends in healthcare technology.

Genomics and precision medicine

Genomics and precision medicine has the capability to revolutionize the healthcare industry. Personalized medicine uses an individual's genetic profile to guide decisions made regarding the prevention, diagnosis, and treatment of disease to help select the most appropriate medication or therapy. Genomics is facilitating this emergence by highlighting how specific genomic differences allow the opportunity for personalized predictions. This means that the right person gets the right drug at the right dose specific to their needs.

Telemedicine and Internet of Medical Things (IoMT)

In the IoT and IoMT era, ultrafast connectivity means that a wide range of medical devices and equipment can be connected to a server or the cloud. As a result, telemedicine technology can make excellent use of real-time data to drive higher-quality remote patient care. This will benefit both patients and clinicians by making patient access to healthcare easy and quick, as patients can receive real-time support from wherever they may be.
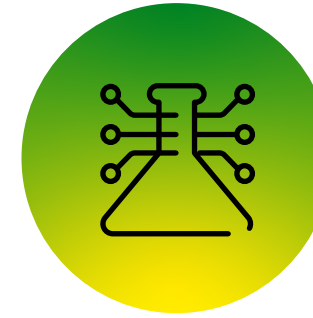
Evidence-based medicine and AI

Evidence-based medicine involves using the best available scientific evidence from clinical research to help make decisions about individual patient care. However, given the proliferation of AI and big data, medical knowledge is now being democratized. By combining AI, data, and evidence-based medicine, diagnosing and treating patients becomes more efficient, reducing staff burnout and increasing patient care and access.

Supporting society's wellbeing goals sustainably

Fujitsu Uvance helps healthcare organizations to improve their operations and ensure Healthy Living becomes accessible to all. Transforming digitally will allow healthcare organizations to meet citizen's expectations regarding access and efficiency, support the running of an efficient operation, and ensure care that's always available, personalized, and effective.

Improving healthcare for all:
key recommendations

Make care more available

Across the entire healthcare sector, care experiences will continue to move closer to wherever the patient is. Using technology, providers can improve the overall patient and professional experience by ensuring secure, quality remote care.

It's also imperative that care experiences are connected at every possible touchpoint. So, patients experience the same level of personalization and effectiveness every time. Interoperability, which is the seamless exchange of data across systems and organizations, is crucial for achieving this. By making relevant data easier to access, clinicians will have the collective knowledge and intelligence they need at any given point to provide the best care experience. Additionally, this can lower the total cost of care by reducing the number of unnecessary or repeated tests.

In Spain, for example, our Fujitsu Healthcare Suite (FHS) facilitates this change to help hospitals deliver a connected, digitally augmented health and wellbeing ecosystem that improves access to quality care.

Moving forward, instead of focusing on providing the best experience possible inside the hospital, the emphasis should be on ensuring the best experience is provided at any touchpoint a patient comes through. When paired with greater levels of personalization and effectiveness, it becomes much easier to provide more precision-based methods of treatment. "

Dr Ajay Chander,
Head of Strategy,
**Fujitsu Uvance Healthy Living**

Improving healthcare for all:
key recommendations

Use data to personalize care

Precision and personalization are inextricably linked. After all, more personalized healthcare can help provide a more effective overall experience. However, currently treatments are rarely customized based on factors such ethnicity, gender, or genetics, while the wider healthcare experience lacks personalization based on medical history, environment, and lifestyle. With data-driven, personalized care, the chance of uncovering any risks becomes much higher and increases the likelihood of successful outcomes.

We use AI and advanced data analytics to support the P5 model of precision medicine (personalized, predictive, preventive, participatory, and populational), as well as genomic data analysis. AI is also helping accelerate drug development, cut costs, and gain faster approvals while reducing errors. By leveraging advanced machine learning and deep learning technology, clinicians and researchers can rapidly analyze growing datasets to implement more personalized care.

AI, data, and machine learning are already transforming precision medicine through more accurately predicting which treatment and prevention strategies will work best for a particular patient.
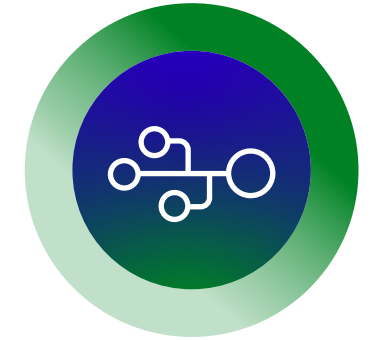
We firmly believe that the best way that our healthcare customers can face all their current problems and move forward is by initiating a digital transformation program that will target cultural changes, and take advantage of a more advanced use of new IT capabilities. "

**Jose Moyano,
Applications & Consultancy
Business Development Director,
Fujitsu, Spain**

Improving healthcare for all:
key recommendations
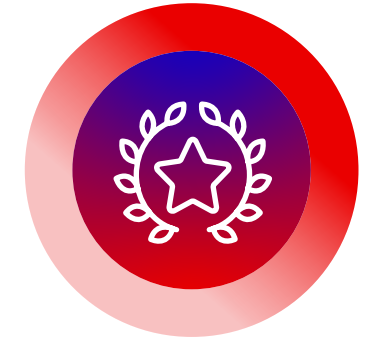
Focus on effectiveness

Healthcare organizations need to improve productivity, operational efficiency, and cybersecurity. Organizations are under huge pressure to stay effective while facing ongoing budget cuts and limitations.

We can help organizations improve effectiveness in a number of ways. For instance, the Fujitsu Productivity Suite – a project management and data storage management tool – helps teams design, test, and create more effective drugs at a population level. Our diagnostic aids can also help patients and institutions manage the growing impact of chronic diseases more effectively.

Our Healthcare AI offers high-value insights on treatments, drugs, and processes. In cybersecurity, Fujitsu helps design, deploy, secure, and manage complex interoperable hybrid infrastructures (HPC, servers, storage, workspaces, etc.) used by public or private healthcare organizations.

Building a vision for Healthy Living with Fujitsu Uvance

Fujitsu is committed to empowering people in the healthcare industry to achieve success that is sustainable. We leverage our expertise in digital transformation, along with revolutionary technologies such as artificial intelligence and high-performance computing, to ensure this is achieved throughout operational uplifts. By doing so, we aim to help facilitate a healthcare sector that provides high quality solutions to support Healthy Living.

Creating sustainable growth

Fujitsu Uvance enables sustainable economic growth within the pharmaceutical and health sectors. We transform care through optimizing healthcare capacity with a variety of digital solutions, including the use of quantum-inspired computing to resolve surgery scheduling challenges. Embracing this type of digital transformation enables health and pharmaceutical organizations to undertake sustainable operational transformations at the same time as they increase value, creating growth that is both effective and sustainable.
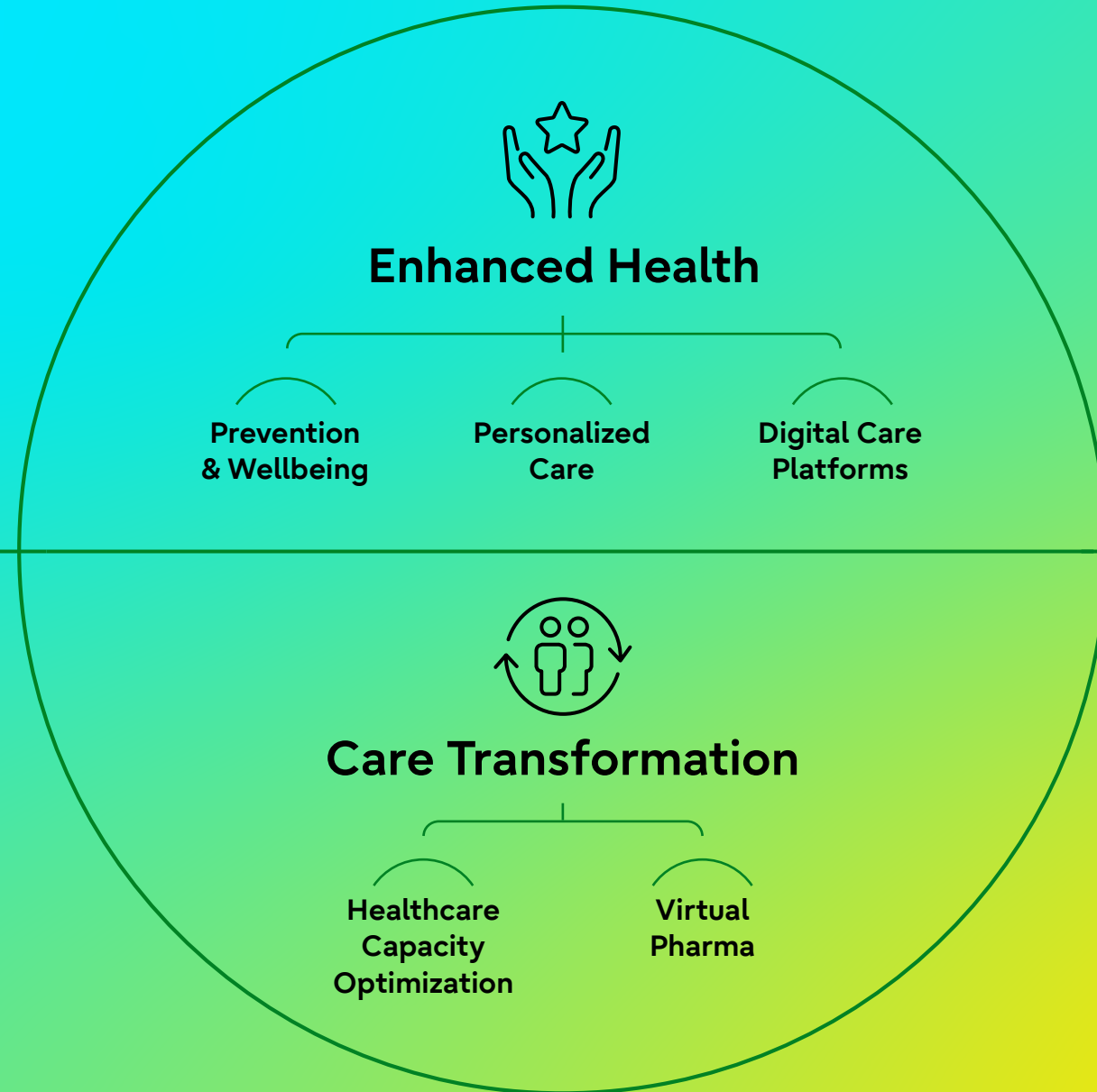
Sustainable wellbeing

Healthy Living is focused on improving the wellbeing of people across the globe. From enabling improvements in welfare to enhancing health services and accelerating drug discovery, our goal is to integrate advanced technologies to help people improve their lives.

With Enhanced Health and Care Transformation at its core, we are supporting the transformation towards more personalized and effective care, that makes wellbeing a reality for all.

Fujitsu's pillars for Healthy Living

Healthy Living looks to build an environment that enriches people's life experiences and potential. Using innovative and trusted Fujitsu infrastructure to link consumers and health plan members with medical providers, insurance companies, pharmaceutical companies and governments, our goal is to create a human-centric society that prioritizes wellbeing and healthy lives.

Enhanced Health

Prevention & Wellbeing

Personalized Care

Digital Care Platforms

Care Transformation

Healthcare Capacity Optimization

Virtual Pharma

Our vision for the future involves personalized and digitally augmented health and wellbeing ecosystems.

The core pillars on which this approach is built are Enhanced Health and Care Transformation.

Enhanced Health

Prevention & Wellbeing

Personalized Care

Digital Care Platforms

Aging populations, rises in chronic conditions and budget pressures result in the need for more treatments at greater expense. Governments, societies and providers alike are also under pressure to tackle heath inequity to ensure that everyone has equal access to care and health advice.

Fujitsu's Enhanced Health solutions are poised to revolutionize the healthcare industry. By providing focused, digitally augmented health and wellbeing ecosystems, our solutions aim to improve the accessibility, cost-effectiveness, quality, and overall experience of care.

At the core of our focus lies the belief in the importance of prevention and wellbeing. Our mission is to support healthy bodies, minds, and fulfilling lives. We are dedicated to providing optimized care that matches the unique needs of each individual, taking into account factors such as age, gender, ethnicity, and medical history. This approach leads to more effective health outcomes.

In addition, our digital care platforms benefit both patients and healthcare providers by ensuring availability and personalization of care. With the adoption of our solutions, organizations can play a key role in promoting Enhanced Health for individuals and communities.

Care Transformation

Healthcare Capacity Optimization

Virtual Pharma

In today's fast-paced digital world, healthcare has struggled to keep up with other industries when it comes to digital transformation. Despite the pressing need to tackle the rising demands on healthcare resources and spending, improve the patient and clinician experience, and reduce staff burnout, healthcare has been hindered by interoperability issues and the complex bureaucracy of health services.

Fujitsu recognizes the challenges facing healthcare today and offers solutions to help organizations overcome them. By providing the technology necessary to integrate data, streamline processes, and eliminate inefficiencies, we can make significant progress in delivering modern healthcare that prioritizes the needs of patients.

Our solutions focus on healthcare capacity optimization, which can make more efficient use of existing resources while delivering positive patient outcomes and a greater operational return on investment. Additionally, our virtual pharma technology enhances the pharmaceutical industry with cutting-edge technology to improve efficiency, efficacy, and innovation.

Partnering with Fujitsu Uvance can be the catalyst for your healthcare organization's transformation. Our technologies can help improve both availability and efficiency within healthcare services, making it possible to deliver the best possible care to patients.

Bringing Healthy Living to life: real-world examples

Innovation does not happen in silos, but from a diverse group of experts who collaborate by communicating and co-ideating. There's an innovative cycle of 'design, make, test, and analyze' in the drug discovery practice which Fujitsu is enhancing and accelerating through newly created tools. "

Todd Law,
Senior Manager & Product Lead
for Drug Discovery Collaboration

PeptiDream and Fujitsu's collaborative mission to innovate new drug development

New drug development is shifting focus from small molecule synthetic drugs to peptides and oligonucleotides. This pivot has the potential to treat previously incurable diseases and significantly reduce drug side effects. In joint research with PeptiDream, a leader in proprietary technologies for peptides and oligonucleotides drug discovery, Fujitsu has greatly improved the search process for candidate compounds.

Our Biodrug Design Accelerator helps to simplify peptide drug discovery through more centralized, easy-to-manage data controls. This gives management a much clearer picture of progress and simplifies co-ordination between departments, thanks to vastly improved data sharing and decision making.

From biological researchers to computational chemists, our SaaS solution, developed in conjunction with PeptiDream, benefits a wide range of roles within drug discovery, offering significant optimization of an immensely complicated process.

# Improving surgical capacity, improving experiences, and reducing wait times

Surgical suites are some of the most in-demand and high-profile rooms in a hospital. But sub-optimal scheduling can leave the rooms inactive for periods of time, increasing waiting lists and slowing performance. This is because conventional scheduling systems can't possibly consider the full range of variables involved in surgical bookings.

Our quantum-inspired optimization models solve this problem by building a better block schedule, based around procedural capability, then assigning patients into those blocks in order to get the maximum return from each suite.

The result is better productivity for surgeons, reduced wait times for patients, a better overall experience for all involved and improved revenue for hospitals.

Our goal is to provide quick access to surgery for people because we know that has a real impact on their future wellbeing. We want to let physicians do their work and help hospitals become more efficient and avoid wastage. "

Christian Gregory,
Chief Product Officer
Fujitsu Surgical Capacity Optimization
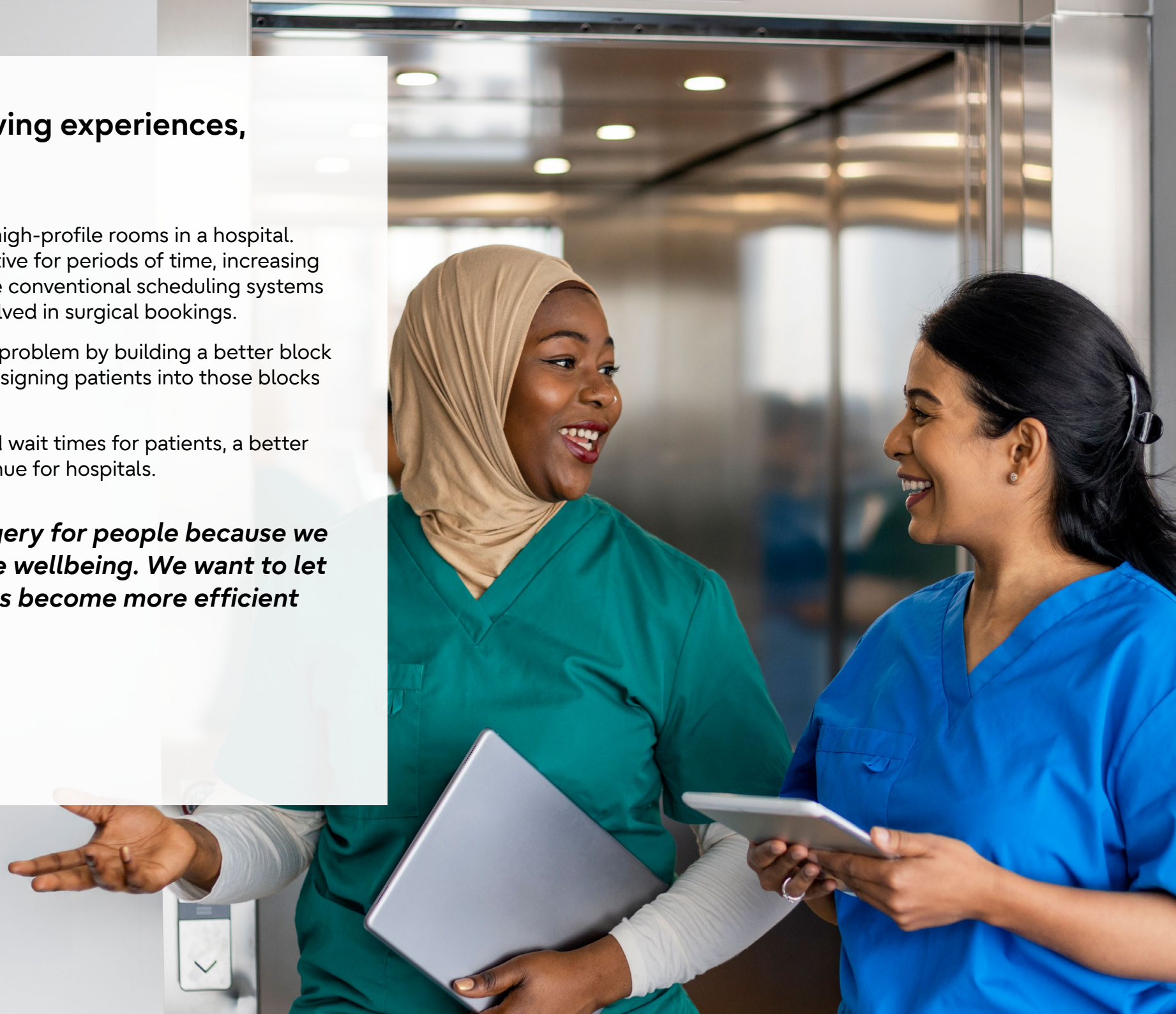
Creating a future that prioritizes health

The future of healthcare is one that emphasizes efficiency and targeted patient care, without sacrificing one for the other. This balance can be struck through connected ecosystems able to share data and focus on preventative strategies.

Whether healthcare organizations want to use AI to uncover data trends, quantum-inspired computing to shorten drug discovery periods or optimize operating room scheduling, or new IT architecture to create enhanced patient experiences, Fujitsu has the solutions to achieve these targets in a way that puts the patient first.

From keeping up with demand to overcoming cost concerns, Fujitsu's proven expertise makes transforming care operations both achievable and sustainable.

Amidst increased pressure on services due to changes in lifestyle, rising demands from better-informed patients wanting faster access to higher quality treatment, and globally aging populations driving demand on services, the healthcare sector needs support. Despite these present challenges, Fujitsu's health solutions help healthcare providers embrace the digital shift. From treatment to prevention to the creation of efficient healthcare ecosystems, Fujitsu's digital healthcare solutions are designed to enhance healthy lifestyles and support wellbeing for everyone.

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Learn more about how Fujitsu Uvance can address business and societal challenges on <u>**our website**</u>

> Or email us at <u>askfujitsu@fujitsu.com</u>
> to be put in touch with one of our experts.