Japan's Quiet Rise in Global Health Care

Japan is heralding a new era of global health care innovation through technology, strategy and cross-sector collaboration. *By Bernard Thompson and Daniel de Bomford*

Japan is transforming a major demographic challenge into a powerful driver of health care innovation. As the population ages and medical needs become more complex, the country is leveraging its renowned engineering capabilities to pioneer new approaches in digital health, oncology, medical technology and care infrastructure. This convergence of necessity and ingenuity is fueling a health care renaissance—one grounded in long-term vision, strategic investment and global collaboration. With the world's third-largest pharmaceutical market, valued at over $95 billion, and the second-largest medical device market, Japanese firms are increasingly contributing to global solutions. Their work is helping define the next generation of patient care systems, therapeutic models and technology-enabled medicine.

Japan's AI health care market is set to reach 15 billion yen by 2025, up from 3.7 billion in 2016, led by drug discovery and diagnostic AI.

Source: Materials on AI Development Acceleration Consortium for Healthcare, ReportLinker, & Fuji Keizai Co., Ltd. (n.d.). AI market in Japan: Forecasts and trends in healthcare applications.

Building Through Medtech Leadership

Olympus Corporation exemplifies this shift from manufacturer to systems enabler. As a global leader in medical devices, Olympus holds roughly 70 percent of the world market for *gastrointestinal* endoscopes. The company's evolving strategy illustrates a broader trend in Japanese medtech—moving beyond product delivery to capacity-building in emerging regions. "We are enhancing access to care through regional professional education and AI-driven innovations," sstates Marc Radatt, chief executive officer of Olympus Corporation Asia Pacific. The establishment of an R&D Offshore Development Center in Hyderabad, India, and a subsidiary in Indonesia demonstrates Olympus' strategic response to rising diagnostic needs across the Asia-Pacific region. These efforts reflect Japan's ability to apply domestic demographic lessons to regional health system development, amplifying global impact through localized investment.

By 2040, Japan's elderly will peak at 39 million, accounting for over one-third of the population.

Source: Mitsubishi Research Institute, Inc. (2023). Population outlook based on the 2023 revision. Based on data from the National Institute of Population and Social Security Research.

Advancing Digital Health in Dentistry and Beyond

Despite its technological strengths, Japan faces lagging adoption rates in key health care areas. As of 2023, its national electronic medical record (EMR) adoption rate stood at just 42 percent—significantly below the OECD average. This shortfall has prompted private-sector innovation, particularly in niche domains like dentistry. MEDIA Group Holdings, a specialist in dental IT solutions, has emerged as a pivotal driver of health care digitization. The company developed Visual-MAX, a pen display system enhancing dentist-patient communication, and Japan's first AI-approved diagnostic tool for osteoporosis detection using dental panoramic X-rays. "We are a leader in medical DX in dentistry based on our many years of experience," says Chairman Hironobu Tsuji. MEDIA Group's commitment to a nationally interoperable electronic health record system that links dental and medical domains reflects a strategic alignment with Japan's push toward integrated, preventative care.

Comprehensive Medical Care by Hospitality Experts

Japan's soaring tourism numbers and advanced health care system is creating an opportunity for new business models to emerge. Case in point is Resorttrust, a leading membership-based hospitality company that has expanded into the health care sector. Through its HIMEDIC subsidiary, the company offers medical screening and treatment services in close collaborations with Japan's top medical institutions. "By combining advanced screening with targeted therapy, we deliver a seamless and efficient approach to cancer care, creating a robust and complementary service offering," explains Ariyoshi Fushimi,president of Resorttrust Co., Ltd. Building on its domestic success, Resorttrust is extending its reach internationally through NOAGE International, a joint venture with Mitsubishi Corporation. Leveraging Resorttrust's hospitality expertise, this collaboration not only establishes the company as a pioneer in medical tourism, but also enables it to provide comprehensive support for the development of overseas oncology centers.

Redesigning Innovation Spaces for Global Impact

Spatial design is often an overlooked yet critical factor in health care innovation. ORIENTAL GIKEN Inc., a subsidiary of 600 HOLDINGS, is tackling this issue head-on by creating research environments that foster multidisciplinary collaboration. The firm's TECH HUB YOKOHAMA supports Earth-tech startups by blending architecture and functionality, while its AI Lab Kiosk—a vending-machine-style inventory management system—facilitates shared resource use in research facilities. "Innovation thrives in an environment without boundaries, both physically and mentally," observes Masayoshi Hayashi, president and CEO of ORIENTAL GIKEN. These initiatives align closely with Japan's national "Life and Wellness" strategy and mirror the design-forward philosophy underpinning Expo 2025 Osaka. As health care becomes increasingly interconnected, such innovation ecosystems will be key to fostering discovery and well-being at scale.

Japan is expected to become the world's third-largest medical device market by 2029, overtaking Germany in market share.

Source: Fitch Solutions Group Limited. (2024). Japan medical device market forecast to 2029.

These four companies demonstrate how Japan is moving beyond its traditional role as a technology exporter to become a systems-level innovator in the global health care sector. Together, they illustrate how Japan's industrial transformation, one supported by data, strategy and international collaboration, is redefining its place in the future of health care.

MEDIA Leads Japan's Dental DX Revolution

MEDIA is breaking down barriers to patient communication and facilitating cross-specialty medical collaboration for a healthier tomorrow.

By Cian O'Neill and Paul Mannion

Our mouths can tell stories about us without saying anything. Just by looking at the condition in the oral cavity, we can make inferences about our lifestyle habits and health status, and more importantly, we can gain insights, beyond dentistry, into the health of our entire body.

These insights come not through words, but through subtle clues that can be understood only by a trained eye. However, when explaining complex and sensitive content such as medical information, it is necessary to communicate effectively with patients and provide easy-to-understand explanations to guide them in making decisions.

MEDIA's imaging system embodies the company's product development philosophy, which emphasizes the relationship between dentistry and the whole body. The company has been developing and providing VisualMAX, a user-friendly product based on the Pen significantly improve communication between dentists and patients, allowing patients to gain a deeper understanding of their treatment.

Patients want clear, easy-to-understand explanations from professionals about their oral health condition. MEDIA Chairman Hironobu Tsuji believes that "in the future, medical care will move from an era in which it is handled by doctors and other specialists to an era in which patients themselves will receive advice from specialists and live their lives with a health-conscious mindset," and he says that, among all types of medical information, image information has immeasurable value.

In addition, the company has developed a system based on AI technology to utilize panoramic X-rays taken during dental consultations as a secondary tool, helping dentists detect patients with osteoporosis early. The AI-based tool checks panoramic X-ray images to screen for jawbone fragility and can help dentists detect early osteoporosis and refer patients to medical care.

"This software was approved by the Ministry of Health, Labor and Welfare as the first medical device in the field of dentistry in Japan, which diagnoses the fragility of jawbones, using AI. This will be a groundbreaking step toward the start of health care collaboration through information-sharing between dentistry and medicine," says Tsuji.

Osteoporosis is a silent disease that goes undetected until a fracture occurs. This disease is particularly common in women and can cause fractures in the elderly, leaving patients bedridden. Tsuji says, "This technology can detect potential diseases early and prevent fractures, thus contributing to many people maintaining longer, healthier lives."

Since its inception, MEDIA has focused on developing and popularizing electronic health record (EHR) systems specifically for dentistry. Tsuji envisions EHR systems as a vast network connecting all medical institutions. In this system, daily clinical records from these institutions would be compiled into a national database, managing patient medical information longitudinally and making it accessible for future treatments. "The EHR network should be established as a fundamental national medical infrastructure," he states. "Within this networked society, dentistry must provide valuable new insights to medical doctors and other health care and nursing facilities for the benefit of patients."

While Japan has been said to be tardy in digitalization, particularly lagging behind other developed countries, its medical administration has been rapidly building a medical information network over the past several years. In the future, the major business theme will be to pave the way for digital transformation across the entire health care industry, transcending the boundaries between dentistry and medicine, thereby eliminating interdisciplinary barriers and promoting information exchange through the medical information network. Tsuji says, "I believe that by 2032, when the company will celebrate its 50th anniversary, digital transformation in Japan's health care will become widespread and bring about major changes to Japan's health care system. The changes brought about by the results of ICT and AI will create a new era for Japan's health care system."

www.media-inc.co.jp

"We are a leader in medical DX in dentistry based on our many years of experience."

Hironobu Tsuji,
chairman, MEDIA Group Holdings

Patient communication via interactive display

AI tool to support dentists for osteoporosis screening

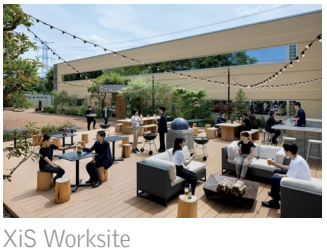
Japanese Innovation Spaces Foster Global Breakthroughs

ORIENTAL GIKEN's visionary approach to architecture and innovation is reshaping global workspaces, empowering collaboration, creativity and discovery in industries from tech to science. *By Daniel de Bomford, Bernard Thompson and Paul Mannion*

Lab Furniture "DAHLIA"

When Einstein realized the Theory of Relativity, it wasn't in the seclusion of a stuffy laboratory. For years, in a patent office in Bern, he collaborated with his peers and formed the "Olympia Academy," where they discussed philosophy and physics. The "aha" moment of discovery was the culmination of a collaborative effort, in which ideas and discussions were encouraged. According to Masayoshi Hayashi, the creative director, designer, president, and CEO of ORIENTAL GIKEN, modern spaces are not conducive to creativity that creates these aha moments.

ORIENTAL GIKEN and its holding company, 600 HOLDINGS, are creating spaces that encourage collaboration, foster creativity and contribute to the health and well-being of researchers and staff.



XiS Worksite

Each of the five businesses within the holding company is working tirelessly to create these moments of inspiration that spur humanity forward. The group focuses on three key pillars: place, organizational culture and talent. Hayashi explains, "When these three elements are aligned in a positive direction, it creates an environment where people and companies feel empowered to take on new challenges and drive innovation."

EBINAXCITE

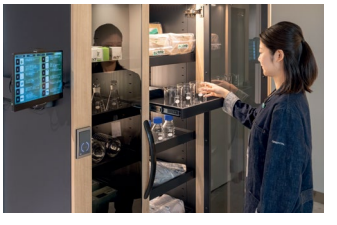
To establish this first pillar, Hayashi founded Planus Inc., an architectural company specializing in innovative architectural designs and dynamic working environments. Notable projects include a research center for Sumitomo Chemical Company. TECH HUB YOKOHAMA, which hosts a variety of earth-tech startups, is a prime example of its philosophy. The space is designed to be dynamic and engaging, breaking down the barriers that separate people with thoughtfully curated spaces, and includes a café where residents can mingle. The company's approach is comprehensive, extending beyond architectural design to include operational and interior design services as well as the selection and placement of furniture, demonstrated in its EBINAXCITE project.

Architecture is but a single pillar; organizational culture is essential to foster collaboration, and it is a space Japan has struggled with historically, where the primary focus is on functionality, leading to what Hayashi describes as almost "factory-like" workplaces. In the case of research facilities, this often results in laboratories that prioritize efficiency over creativity. To foster human resource development, ORIENTAL GIKEN established XiS Worksite, an incubation center for tech startups that supports their research and collaboration. It approaches its mission by creating spaces, fostering culture by hosting events and seminars featuring high-profile Japanese speakers and bridging the gap between startups and industry players.

Hayashi describes imagination as the "final frontier" for human innovation. The final pillar is developing talent, and AI and DX are driving that development by freeing up time and energy from menial and repetitive tasks. Where traditional labs can become cluttered, and researchers often bring in their personal equipment, which discourages sharing. The AI Lab Kiosk overcomes this barrier to collaboration by creating a vending machine-style system that automates inventory management and streamlines the process, reducing clutter and ensuring a more organized and collaborative environment. It also offers digital twinning services, creating a 360 virtual walk-through of facilities to optimize equipment and resource utilization.

The company is looking to break into international markets and began last year in Southeast Asia. Despite challenging global competitors from the U.S. and Europe with established presences, it is being sought out by clients who specifically seek Japanese quality and standards.

> "Innovation thrives in an environment without boundaries, both physically and mentally."
>
> **Masayoshi Hayashi**, creative director, designer, president and CEO, ORIENTAL GIKEN Inc.



AI LAB KIOSK "GALAXY"

Hayashi has a vision to help people around the world recognize these aha moments and wants 600 HOLDINGS to be the company that facilitates them. "Through our work, we hope to redefine innovation spaces and inspire more people to embrace creativity and collaboration in their industries," he says. Perhaps the next Theory of Relativity will be realized in one of the company's collaborative spaces.

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