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Building digital ecosystems in Japan

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Two Merck Healthcare digital specialists explain their company's transformation and the impact it has had on patients.

In this interview, McKinsey's Christoph Sandler speaks with two Merck Healthcare digital-transformation specialists: Shinichiro Akaho, head of business technology, and Alan How, strategy and operations, global commercial. Their conversation touches on the evolution of digital healthcare in Japan, the deployment of digital to create a care ecosystem for patients, and the lessons learned. For more on opportunities and challenges in the region, see our Spotlight on Japan series.

McKinsey: *Japan is catching up when it comes to digital innovation in healthcare. What are the forces creating these new opportunities? And what do you see as potential disruptive events?*

Shinichiro Akaho: I think one is community care [integrated care]. Community care will be a key area for most pharma companies within the next five years. There are opportunities for digital health in the context of an aging society, for instance, with children living in cities and their parents living in the countryside. Also, the government has reduced pricing, especially for mature products, so for a pharma company, it is more attractive to innovate with new drugs and increase the efficiency of its operating model with new digital solutions.

Alan How: Specifically, with regard to Japan, I do have a worry. When you look at Japan maybe ten to 15 years ago, it was at the forefront of technology and innovation. But today, in spite of the market context mentioned above, I've seen fewer device and technology players involved in healthcare innovation—innovation is coming more from the United States, it's coming from China, but less from Japan.

The offering from the pharma company will have to go beyond just drugs and medicine. I think these have to be part of the whole ecosystem of care that goes around the patient as well as the treatment and the disease—the therapeutic area. I think it will be significantly different in five years' time. By the way, we at Merck have been looking beyond just treatment to combat diseases for quite some time. At the end of last year, we joined forces with Project Data Sphere to pioneer a global oncology big data alliance. We also recently signed a strategic

collaboration agreement with Chinese internet healthcare company, Alibaba Health, where we will also focus on internet health services, drug track and trace, pharmaceutical e-commerce, and artificial intelligence.

McKinsey: *What are some of the pressing needs and use cases for digital health solutions to supplement pharmaceutical products?*

Shinichiro Akaho: The pharma company needs to improve its level of knowledge to show that a product is innovative and to provide constructive data to prove this—so we need health-economics and health-technology professionals to measure outcomes. For instance, another pharmaco has announced value-based pricing of a new product—a digital health service will increasingly need to be bundled with the product to make sure it is working for the individual patient.

McKinsey: *So, there needs to be a well-rounded offering—not only the drug but also everything around it?*

Alan How: The medicine is only one little part of the therapeutic intervention. There is the full spectrum that goes around the care: identifying the patient early, the stage at which the disease has been caught, link to real-world evidence [having the same response from the medicine or treatment as in clinical trials], level of outcomes, et cetera.

I think there needs to be an integrated approach: a larger discussion between the payers, the patient groups, the pharma companies, and other healthcare stakeholders to look at it as a whole. It is an opportunity not just for us but also for the entire community. I would hope that the regulators, or the government, or the payers would try to look at what's best for the patient, and see how all the stakeholders can work together, and focus more on outcomes and the care of the patient.

McKinsey: *Given your international experience in this field, Alan, how do you see Japan now, and where do you see it going?*

Alan How: From what I have seen, I would say that the hospitals are very electronic: electronic patient records, EHRs [electronic health records]. Fujitsu is one big part of it. Having EHRs seems to be across the board—they seem to be in every hospital in Japan—and the fact that patient records are digitalized already, I think, makes Japan one step ahead of a lot of countries. When data is digitalized, you can then mine it and utilize it for different purposes.

An important question going forward will be how to collect health-related data from other devices—wearable sport devices, consumer-type products, blood-pressure monitors, or even thermometers. It will be crucial to get into that ecosystem of data and obtain a larger picture of the patient. From that perspective, I think Japan is in a good position to move ahead. I've seen a few companies and start-ups paving the way into making that patient data available on a large scale so that it could be mined.

Another important part is research data (for example, from universities). Japan is well known for research and has big involvement in R&D. It will be important to get the research data to involve real-world evidence and to include certain aspects and therapies around the patient as well. I think that Japan is well advanced regarding electronics and the digital side of healthcare. In Japan, there has also been talk about oncology centers looking at genomics data, for example, but the country could do better and needs to accelerate. Japan should focus on advancing digital and data even further and spread the initial successes from oncology to other therapeutic areas.

Shinichiro Akaho: In Japan, the digital maturity of patients and doctors is quite high. However, in the healthcare context, doctors don't trust digital yet. Here in Japan, a [digital] ecosystem between patient and doctor that leads to better outcomes has not yet been developed. In the US, some mobile applications have been approved by the government, but in Japan, there are only one or two applications, so we need some trials involving digital health solutions. Digital maturity in healthcare is not going to increase unless doctors change their mind-set and unless doctors use this for patients.

McKinsey: *What do you think needs to happen within a pharmaceutical company to get the ideal infrastructure and capabilities to play a larger role successfully within a digital ecosystem?*

Shinichiro Akaho: Pharma companies take ten years and spend billions to develop a product; then after launch, ten years to sell—so 20 years. So first of all, we have to change the internal mind-set and communication style. In digital, we create in two days and try it out with patients, then change it a little bit or totally change it. But that's not traditional pharma's working style, so companies need to invite some new talent in from outside of the industry to manage the process. At the same time, we need to find the right talent within pharma companies, if we want to be like that. Unless we change the mind-set within pharmacos, we won't be able to collaborate with start-ups or other industry players to create a better ecosystem.

Second, pharma companies need to be managing the digital ecosystem rather than just being part of it. This is because of the core strengths and competence of pharma companies—their relationships with doctors. If we interface with doctors, we can create an ecosystem and support it—as enablers. So, pharma companies should be able to manage this ecosystem to bundle these individual capabilities to generate tangible outcomes for doctors or patients.

Alan How: I think there will need to be collaboration with other organizations, whether we're talking about advisory organizations, data organizations, health-record organizations, or whether it's digital innovators and disruptors that are not traditionally in the healthcare environment. And we need to make sure we get to a level that is the best for the patient. As mentioned at the beginning, we at Merck are quickly progressing here, and we are establishing important partnerships to go beyond treatment to combat diseases.

McKinsey: *What are the key success factors for implementing the digital transformation within a pharma organization?*

Shinichiro Akaho: Quick digital success will generate a positive environment for the entire company. It doesn't have to be a huge one; as long as the rest of the company sees this as a bright future, it can also start working toward it. You need one catalyst to ignite all the employees. On the second point, physicians also want to know more about the patient, but they are too busy. They have a health record, but once the patient goes home, there is no way to know what's happening. So, the pharma company can support the physicians' needs for patient information by providing some of this. I think that's something these digital activities can do to close the gap between physician and patient.

Alan How: The other stakeholders that we can interact with, and provide information to, are patient groups. From a regulatory perspective, we cannot get in touch with people and speak to the patient. However, we can provide information to patient groups—we can let them know about ongoing research, the findings, what our medicines do—so they can in turn provide that information to patients and so that patient groups can have a more informed view. □

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