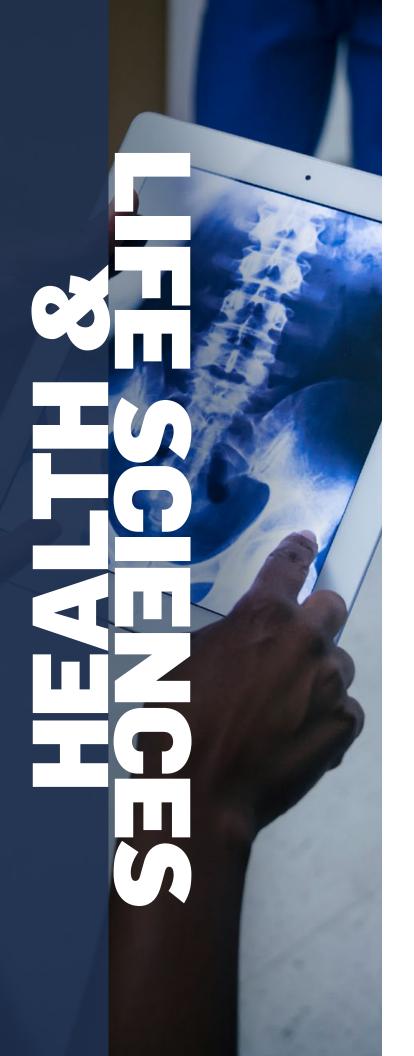
The healthcare and life sciences (LS) industries are undergoing a period of compressed transformation, driven by the global pandemic. In health, these changes focus on a more resilient, equitable healthcare system, that provide access to all. The LS industry is focused on technology-enabled drug discovery and development that provides better health outcomes and relieves pressure on the global healthcare infrastructure.

"Healthcare in the future should be personalized, and the basis of that is data. Proper collection and management of that data is instrumental to our industry."

Isao Teshirogi, Ph.D., Chief Executive Officer of Shionogi & Co., Ltd.



THE MOST PRESSING CHALLENGES



CURRENT LANDSCAPE

HEALTH

TOP RESILIENCE ACTIONS FOR HEALTH & LIFE SCIENCES CEOS

76% of **CEOs** are upskilling or reskilling their workforce for the future labor market

73% of CEOs are engaging in long-term strategic partnerships

71% of CEOs are strengthening scenario planning and analysis capabilities

81% of CEOs are upskilling or reskilling their workforce for the future labor market

■ HEALTH & LIFE SCIENCES ■ CROSS INDUSTRY

77% of CEOs are digitizing business processes

740/o of CEOs are enhancing sustainability data collection capabilities across our value chain

In recent years, health and life sciences CEOs have been forced into the spotlight as the global pandemic spurred question on the world's ability to protect the human right of health in a safe, affordable, and equitable way. As Giovanni Caforio, MD, Chairman of the Board and Chief Executive Officer of Bristol Myers Squibb notes, "The pandemic has highlighted in a very clear way, to policymakers, governments and to the private sector, the extent to which inequities of access can create challenges within individual countries, and then how those impacts ripple around the world." The pandemic clearly exposed the limits of the world's global health infrastructure, with talent shortages leading to long wait times, facility closures, and ultimately lack of healthcare access. To strengthen the system, CEOs are engaging in cross-industry and public-private collaborations, as well as embedding data at the core, strengthening their scenario planning efforts to better predict the types of drugs and therapies they will need to provide, and how to deliver them more effectively. Furthermore, CEOs are embracing technologies like artificial intelligence and machine learning to improve R&D productivity and efficiency. CEOs in health and life sciences are extremely focused on the human element of their work, with leaders embedding diversity within their drug development, clinical trial, and disease diagnosis capabilities to enable a more inclusive and resilient health ecosystem.

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WHERE IS THE INDUSTRY GOING?

TOP SUSTAINABILITY PRIORITIES FOR HEALTH & LIFE SCIENCES CEOS

65% of CEOs are constructing a responsible supply chain

61% of CEOs are investing in skills development

52% of **CEOs** are introducing new sustainable business models

61% of CEOs are investing in skills development

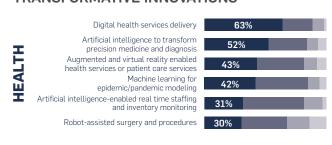
58% of CEOs are lowering greenhouse gas emissions

52% of CEOs are enhancing diversity and inclusion initiatives

Precision medicine – tailored, predictive medicine based on unique individual characteristics enabled by data – is the future of the healthcare industry. With the massive investment placed on understanding the human genome over the past two decades, the industry is beginning to reach a point where precision medicine is viable – both from the perspective of tailored treatment options and for pharmaceutical production that is better tied to demand. The ability to unlock this shift hinges on the ability to collect high-quality, consistent data, and translate into usable insights. Data is also transforming the patient experience. Providers are using data to rework the patient process – triaging patients to telehealth platforms where applicable – reducing pressure on the healthcare infrastructure and delivering faster, more affordable care.

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TRANSFORMATIVE INNOVATIONS



■ HIGH IMPACT ■ MODERATE IMPACT ■ LOW IMPACT ■ NO IMPACT

■ HIGH IMPACT ■ MODERATE IMPACT ■ LOW IMPACT ■ NO IMPACT

Artificial intelligence to transform precision medicine

Biosynthetic drug production

Machine learning to optimize drug candidate design

Artificial intelligence for efficient clinical trials

Ecosystem regeneration to protect nature-based drug ingredients

Data-sharing environments for information sharing with global health authorities

Virtual clinical trials

Digital twins of humans to model treatment hypotheses and test therapeutics

3-D printed medical devices

23%