

Japan AI in Medical Diagnostics Market Assessment, By Component Type [Software, Hardware, Services], By Diagnosis Type [In-Vitro Diagnostics, Diagnostic Imaging, Others], By Application [Oncology, Neurology, Cardiology, Radiology, Pulmonology, Obstetrics/Gynecology, Others], By Technology [Natural Language Processing, Machine Learning, Context-Aware Computing, Computer Vision], By Enduser [Hospitals, Diagnostic Imaging Centers, Diagnostic Laboratories, Others], By Region, Opportunities and Forecast, FY2017-FY2031F

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# **Abstracts**

Japan AI in medical diagnostics market size was valued at USD 82.3 million in FY2023, which is expected to reach USD 334.76 million in FY2031, with a CAGR of 19.17% for the forecast period between FY2024 and FY2031.

The Japan AI in medical diagnostics market is witnessing massive growth owing to heavy emphasis on technological advancements. The majority of the share of AI in the medical diagnostics market in Japan is taken by medical imaging and radiology, owing to the increasing number of deaths due to cancer and cardiovascular ailments. The demand for AI in medical diagnostics is increasing with growing oncology and cardiology patient populations.

Moreover, major market players and diagnostic companies are working in collaborative manner to develop effective AI-powered diagnostic solutions to improve workflow.



Additionally, strategic initiatives by market players, convenient regulatory policies, government initiatives, heavy emphasis on technological innovation, and ongoing research and development are fueling the market.

For instance, in August 2023, researchers in Japan developed an artificial intelligence (AI)-based diagnostic tool for colposcopy examinations that can accurately identify cervical intraepithelial neoplasia (CIN) - abnormal cells found on the surface of the cervix that may become cancer and spread to nearby normal tissue - and suggest appropriate biopsy sites.

#### Increasing Prevalence of Cancer and Cardiac Diseases

As per WHO statistics, 2020, cancer and cardiac diseases, respectively, are the first and second leading causes of death in Japan. The increasing prevalence of these diseases creates demand for early and precise diagnosis which can be achieved through AI in medical diagnostics. Predictive algorithms can help in early detection and better management of chronic diseases. For instance, according to an article published in Plos One, the deaths caused by cancer, cardiac diseases, and cerebrovascular diseases accounted for 27.3%, 15.0%, and 8.8% of all deaths, respectively, the national medical expenses accounted for 4.0 trillion yen, 2.0 trillion yen, and 1.8 trillion yen in 2019, respectively.

#### Strategic Initiatives by Market Players

The Japan AI in medical diagnostics market is being driven by the strategic initiatives from market players, such as AI-based diagnostics systems for radiology and cardiology being developed by companies like Fujifilm, Hitachi, and Toshiba. Apart from market players, healthcare institutions are adopting AI-based diagnostic tools for improving their workflow. Hitachi and Microsoft Japan launched an AI-assisted cloud service to aid medical diagnosis, leveraging artificial intelligence to help doctors make diagnoses and tapping the cloud for data-sharing to eliminate the need for special terminals.

The healthcare sector in Japan is gradually adopting AI technologies, and the government is taking initiatives to accelerate the development of artificial intelligencebased medical innovations that help ease healthcare obligations and improve healthcare quality. In October 2022, a 14-member Japanese consortium including IBM Japan, Mitsui & Co., SoftBank Roche Diagnostics, Hitachi, and Microsoft Japan announced to use artificial intelligence to help doctors make diagnoses, tapping the cloud for data-sharing to eliminate the need for special terminals. It aims to have the



service in place at 150 facilities in the first year.

#### **Government Regulation**

The Japanese government has been driving the market for AI in medical diagnostics through a series of strategic initiatives. In December 2022, Japan announced plans to accelerate the approval process of AI diagnostic imaging equipment and ease regulations on medical AI software, including clinical trial criteria and safety standards. The government's 'Society 5.0' program aims to develop a society that incorporates AI and other advanced technologies, with a focus on productivity, health, and mobility, leading to corresponding investments in research and development, talent recruitment, public data, and start-up companies. Additionally, the cabinet approved the Regulatory Reform Implementation Plan, announcing policies to further accelerate the development and commercialization of Software as a Medical Device (SaMD), including AI-based medical devices.

#### Impact of COVID-19

The COVID-19 significantly impacted the healthcare infrastructure in Japan. The pandemic had exposed shortcomings in the healthcare sector and enforced the adoption of AI and diagnostic automation to cope up with pandemic. During the COVID-19 pandemic, early diagnosis using AI solutions became crucial for the healthcare system and accelerated the growth of Japan AI in medical diagnostic market.

During the pandemic, several market participants have emerged and developed various AI-based diagnostic solutions that enable remote consultation and diagnosis of diseases. Even after the pandemic, AI-based diagnostic solutions have been well received by users as well as stakeholders, which has further boosted the market.

Natural Language Processing Segment is Expected to Grow at the Fastest Rate

The increasing demand for efficient and accurate healthcare data analysis, the growing adoption of AI in healthcare, the need for early disease detection and diagnosis, the development of innovative natural language processing applications, and the focus on patient-centered care are some of the key drivers propelling the growth of natural language processing in the healthcare industry in Japan. The industry now recognizes the significance of gathering data from Electronic Health Records (EHRs) and other sources. Huge volumes of unstructured patient data are inputted into EHRs daily, but it's challenging for a computer to help physicians aggregate critical data. Natural



language processing can help to leverage unstructured data to derive insights.

Key Players Landscape and Outlook

Japan AI in medical diagnostics market is highly competitive, with a few major players dominating the market. These players are Fujifilm, Toshiba, and Hitachi. These companies have a strong brand presence, a vast distribution network, and a focus on innovation. They are constantly investing in research and development to develop new technologies and products that meet the needs of their customers. In September 2023, Sompo, a leading commercial insurance provider in Japan, has entered a partnership with Israeli telehealth startup TytoCare to introduce its artificial intelligence-based remote medical device for elderly nursing care services.



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\*Companies mentioned above DO NOT hold any order as per market share and can be changed as per information available during research work

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