

# U.S. AI in Healthcare Market: Focus on Offerings and End Users - Analysis and Forecast, 2024-2034

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## Abstracts

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This report will be delivered in 7-10 working days. Introduction of U.S. AI in Healthcare Market

The U.S. AI in healthcare market, initially valued at \$5,254.3 million in 2023, is set for substantial growth, projected to surge to \$229,699.4 million by 2034, marking a remarkable compound annual growth rate (CAGR) of 40.41% over the period from 2024 to 2034. This impressive trajectory is fuelled by rapid technological advancements that are fundamentally reshaping healthcare delivery. Breakthroughs in machine learning and deep learning algorithms drive the development of highly accurate diagnostic tools and personalized treatment plans, improving patient outcomes and operational efficiencies. The integration of digital health solutions, such as wearable devices and telemedicine, further expands the capabilities of AI, enabling real-time monitoring and remote patient management. Significant investments from both private and public sectors are accelerating research and development, fostering a continuous cycle of innovation and application. Additionally, a supportive regulatory environment is paving the way for seamless adoption of AI solutions within traditional healthcare frameworks, while strategic partnerships among industry stakeholders are facilitating knowledge exchange and technological integration. Together, these factors create a robust ecosystem that not only supports but actively propels the rapid growth of the U.S. AI in healthcare market over the coming decade.

## Market Introduction

The AI in healthcare market in the U.S. has been experiencing significant growth, driven

by rapid technological innovation, evolving regulatory support, and a surge in strategic investments. Advanced AI applications, including predictive analytics and sophisticated diagnostic tools, are transforming traditional healthcare practices by enabling more accurate and timely clinical decision-making. This shift is further bolstered by the integration of digital health solutions, such as wearable devices and telemedicine, which facilitate continuous patient monitoring and remote care. Additionally, healthcare providers are increasingly embracing data-driven approaches to enhance personalized treatment protocols and improve overall patient outcomes. As these technological advancements align with a broader move towards preventive care and operational efficiency, the U.S. AI in healthcare market is witnessing a paradigm shift reshaping healthcare delivery's future.

## Industrial Impact

The U.S. AI in healthcare market is set for steady growth, driven by rapid technological advancements, supportive regulatory frameworks, and increased investments in digital health innovation. Emerging AI algorithms and machine learning platforms are enhancing diagnostic accuracy and enabling personalized treatment plans, while streamlined government initiatives and evolving FDA guidelines are creating an environment conducive to integrating AI into clinical practices.

The industrial impact of AI in healthcare is profound, fundamentally reshaping clinical processes and operational efficiencies across the sector. AI-driven solutions have been shown to reduce diagnostic errors by up to 30%, leading to more accurate treatments and significant cost savings, bolstering the \$500 million in venture capital funding secured by U.S.-based healthcare AI startups in 2023. This influx of investment is accelerating innovation, paving the way for advanced diagnostic tools and predictive analytics that are streamlining workflows in hospitals and clinics alike. Moreover, governmental initiatives, including those by the U.S. Department of Health and Human Services, project up to \$150 billion in annual savings by 2026 through optimized treatment protocols and reduced misdiagnoses. These factors collectively are not only enhancing patient outcomes but are also transforming healthcare institutions into agile, data-driven entities, much like a well-orchestrated industrial upgrade that replaces outdated systems with next-generation technologies, thereby setting new benchmarks for efficiency and quality in healthcare delivery.

## Market Segmentation:

### Segmentation 1: by Offering

- Hardware
- Software and Services

### Software and Services Offering Segment to Dominate the U.S. AI in Healthcare Market (by Offering)

Based on offering, the U.S. AI in healthcare market was led by the software and services offering segment, which held a 72% share in 2023. Software and services offer a comprehensive suite of solutions, ranging from predictive analytics and diagnostic support to electronic health record integration and natural language processing, that empower healthcare providers to enhance clinical decision-making and operational efficiency. These tools enable real-time data processing and personalized treatment planning, ultimately contributing to improved patient outcomes and significant cost savings. Much like an advanced operating system that seamlessly integrates various applications to optimize performance, these software-driven solutions serve as the backbone of digital transformation in healthcare, streamlining workflows and facilitating faster, more accurate diagnoses. With ongoing investments in digital health innovation, the prominence of software and services is expected to continue expanding, solidifying its pivotal role in shaping a more efficient and patient-centric healthcare landscape.

### Segmentation 2: by End User

- Healthcare Providers
- Healthcare Payers
- Patients
- Other Healthcare Providers

### Other Healthcare Providers Segment to Dominate the U.S. AI in Healthcare Market (by End User)

Based on the end user, the U.S. AI in healthcare market was led by the other healthcare providers segment, which held a 46% share in 2023. Other healthcare providers are a diverse group that includes specialized diagnostic centers, outpatient clinics, ambulatory care centers, and independent laboratories. These entities are increasingly adopting AI-

driven testing solutions to enhance diagnostic accuracy, reduce turnaround times, and tailor treatment protocols for better patient outcomes. By leveraging advanced algorithms and real-time data analytics, they are able to identify patterns and anomalies that might otherwise be overlooked in traditional testing methods. Much like a network of interconnected specialists in a well-coordinated healthcare system, these providers play a crucial role in expanding access to cutting-edge diagnostic technologies, driving the digital transformation of healthcare, and ultimately contributing to more efficient and personalized care delivery.

### Recent Developments in the U.S. AI in Healthcare Market

- In October 2023, Medtronic Plc partnered with Nvidia to build an AI platform for medical devices.
- In July 2022, Amazon.com, Inc. acquired One Medical for \$3.9 billion, expanding AI-enabled primary care.

### Demand – Drivers, Challenges, and Opportunities

#### Market Drivers:

**Growing Need for Early Detection and Diagnosis:** The growing need for early detection and diagnosis has become increasingly critical as the complexity of healthcare challenges continues to rise. Timely identification of diseases allows for prompt and targeted intervention, which can significantly enhance treatment effectiveness. Innovative diagnostic technologies, particularly AI-powered, enable clinicians to detect subtle changes and early warning signs that might otherwise go unnoticed. Early diagnosis paves the way for personalized care plans and reduces the risk of severe complications. By shifting the focus toward prevention rather than reaction, healthcare systems are better equipped to manage patient outcomes proactively. This proactive approach alleviates long-term burdens on healthcare resources and minimizes overall treatment costs. Ultimately, the emphasis on early detection is driving a transformative shift toward precision medicine and a more sustainable future for patient care.

#### Market Challenges:

**Concerns Regarding Data Privacy:** Data privacy concerns in healthcare have become increasingly significant as AI systems process vast amounts of sensitive patient information. The aggregation of data from diverse sources introduces vulnerabilities that

can lead to unauthorized access and data breaches, putting personal health records at risk. Regulatory frameworks, although robust, often struggle to keep pace with rapid technological advancements and the complexities of cross-border data flows. This situation underscores the challenge of balancing the benefits of AI-driven healthcare innovations with the imperative to protect patient confidentiality. Healthcare organizations are, therefore, investing heavily in cybersecurity measures, such as advanced encryption and data anonymization, to mitigate these risks. At the same time, ongoing updates to privacy regulations and best practices are essential to address evolving cyber threats. Ultimately, maintaining stringent data protection protocols is critical to preserving patient trust and ensuring the ethical use of AI in healthcare.

#### Market Opportunities:

**Pain Management and Personalized Care:** AI-driven innovations are revolutionizing pain management by offering highly personalized care tailored to each patient's unique needs. Continuous monitoring through wearable devices and sensors captures real-time data on pain levels, enabling clinicians to adjust treatments promptly and effectively. Advanced data analytics identify individual pain triggers and patterns, paving the way for targeted and efficient interventions. Enhanced diagnostic imaging further refines these approaches by accurately pinpointing the sources of pain, which supports the development of more precise treatment strategies. Integration with telemedicine platforms also plays a crucial role, allowing remote monitoring and timely consultations that ensure care remains responsive and accessible. By combining historical patient data with live insights, clinicians can create dynamic pain management plans that evolve with each patient's condition. Ultimately, this personalized approach improves pain control and enhances overall quality of life, empowering patients through tailored, proactive care.

#### How can this report add value to an organization?

**Product/Innovation Strategy:** The U.S. AI in healthcare market has been extensively segmented based on various categories, such as offerings and end users. This can help readers understand which segments account for the largest share and which are well-positioned to grow in the coming years.

**Growth/Marketing Strategy:** Mergers, acquisitions, and product launches accounted for the maximum number of key developments, i.e., nearly 41.67% of the total developments in the U.S. AI in healthcare market were between January 2019 and December 2023.

**Competitive Strategy:** The U.S. AI in healthcare market has numerous established players with product portfolios. Key players in the U.S. AI in healthcare market analyzed and profiled in the study involve established players offering products for U.S. AI in healthcare.

## Methodology

### Key Considerations and Assumptions in U.S. AI in Healthcare Market Engineering and Validation

The base year considered for the calculation of the U.S. AI in healthcare market size is 2023. A historical year analysis has been done for the period FY2021-FY2022. The U.S. AI in healthcare market size has been estimated for FY2023 and projected for the period FY2024-FY2034.

The scope of this report has been carefully derived based on interactions with experts in different companies. This report provides a market study of upstream and downstream technologies of the U.S. AI in healthcare market.

The U.S. AI in healthcare market contribution of U.S. AI in healthcare is anticipated to be launched and calculated based on a historical analysis of the solutions.

The company's revenue has been referenced from their annual reports for FY2022 and FY2023. For private companies, revenues have been estimated based on factors such as inputs obtained from primary research, funding history, market collaborations, and operational history.

The U.S. AI in healthcare market has been mapped based on the available U.S. AI in healthcare data. This report has considered and profiled all the key companies with significant offerings in this field.

## Primary Research:

The primary sources involve industry experts in U.S. AI in healthcare, including the market players offering products and services. Resources such as CEOs, vice presidents, marketing directors, and technology and innovation directors have been

interviewed to obtain and verify both qualitative and quantitative aspects of this research study.

The key data points taken from the primary sources include:

Validation and triangulation of all the numbers and graphs

Validation of the report's segmentation and key qualitative findings

Understanding the competitive landscape and business model

Current and proposed production values of a product by market players

Validation of the numbers of the different segments of the U.S. AI in healthcare market in focus

Percentage split of individual markets for regional analysis

## Secondary Research

### Open Sources

Certified publications, articles from recognized authors, white papers, directories, and major databases, among others

Annual reports, SEC filings, and investor presentations of the leading market players

Company websites and detailed study of their product portfolio

Gold standard magazines, journals, white papers, press releases, and news articles

Paid databases

The key data points taken from the secondary sources include:

Segmentations and percentage shares

Data for market value

Key industry trends of the top players of the U.S. AI in healthcare market

Qualitative insights into various aspects of the U.S. AI in healthcare market, key trends, and emerging areas of innovation

Quantitative data for mathematical and statistical calculations

### Key Market Players and Competition Synopsis

Profiled companies have been selected based on inputs gathered from primary experts, who have analysed company coverage, product portfolio, and market penetration.

Some prominent names established in this market are:

International Business Machines Corporation

Google LLC

Microsoft Corporation

Amazon.com, Inc.

NVIDIA Corporation

GE HealthCare

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