

# **Quantum Computing in Healthcare Market by Component (Hardware, Software), Deployment (On-premises, Cloud-based), Technology (Superconducting qubits, Trapped ions), Application (Drug discovery, Genomics), End User, and Region - Global Forecast to 2028**

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## **Abstracts**

The global quantum computing in healthcare market is projected to reach USD 503 million by 2028 from USD 85 million in 2023, at a high CAGR of 42.5% during the forecast period. The technological advancements in quantum computing supporting various healthcare applications will provide lucrative opportunities to the market during the forecast period.

“The cloud based segment registered the highest CAGR during the forecast period in healthcare market, by deployment ”

In 2022, the cloud-based segment accounted for a significant share of the quantum computing in healthcare market. The growth of the cloud-based segment can be attributed to the limited lifespan of rapidly advancing quantum computing systems, hassle-free scalability and flexibility, which in turn improves the ultimate decision-making process while using the quantum cloud services.

“Superconducting Qubits segment accounted for the largest share of the quantum computing in healthcare market, By Technology”

In 2022, the superconducting qubits segment accounted for the largest share of the quantum computing in healthcare market. The large share can be attributed to the fast

gate speed of quantum computing systems based on superconducting qubits and the high degree of control possible with this type of qubit, making them flexible to be used for various applications such as drug discovery, imaging diagnostics, personalized medicine, etc.

“Pharmaceutical and Biopharmaceutical companies was the largest segment by end user of quantum computing in healthcare market in 2022”

In 2022, the pharmaceutical & biopharmaceutical companies segment accounted for a significant share of the quantum computing in healthcare market. The growth of the pharmaceutical & biopharmaceutical companies segment can be attributed to the ability of quantum computing to make R&D dramatically faster and more targeted and precise by making target identification, drug design, and toxicity testing less dependent on trial and error and therefore expedite complex drug discovery & development procedures, and enhanced accuracy. Its long-term benefits include the better utilization of resources and capital, better return on investment, and a substantial increase in the delivery of new medicines for chronic diseases.

“APAC to witness the highest growth rate during the forecast period.”

The Asia Pacific market is projected to grow at the highest CAGR during the forecast period. Factors such as growing demand for advanced technologies such as quantum computing for research & genomics purposes, growing awareness and adoption of quantum computing in emerging regions, and improving healthcare infrastructure.

The break-down of primary participants is as mentioned below:

By Company Type - Tier 1: 45%, Tier 2: 30%, and Tier 3: 25%

By Designation - C-level: 42%, Director-level: 31%, and Others: 27%

By Region - North America: 32%, Europe: 32%, Asia Pacific: 26%, Middle East & Africa: 5%, Latin America: 5%

## Key Players in the Quantum Computing In Healthcare Market

The key players operating in the Quantum Computing in Healthcare Market include IBM (US), Google, Inc. (US), Rigetti & Co, LLC. (US), Quandela (France), D-Wave Quantum

Inc. (Canada), Quantinuum, Ltd. (US & UK), ID Quantique (Switzerland), Zapata Computing (US), Atos SE (France), IonQ (US), Classiq Technologies, Inc. (US), Xanadu Quantum Technologies Inc. (Canada), QC Ware (California), Protiviti, Inc. (US), Hefei Origin Quantum Computing Technology Co., Ltd. (China), PwC (UK), Deloitte (UK), Accenture (Ireland), Amazon Web Services (US), Pasqal (France), Fujitsu (Japan), Sandbox AQ (US), SEEQC (US), Quintessence Labs (Australia), and Qnami (Switzerland).

### Research Coverage:

The report analyzes the Quantum Computing in Healthcare Market and aims to estimate the market size and future growth potential of various market segments, based on components, deployment mode, application, technology, end user, and region. The report also provides a competitive analysis of the key players operating in this market, along with their company profiles, product offerings, recent developments, and key market strategies.

### Reasons to Buy the Report

This report will enrich established firms as well as new entrants/smaller firms to gauge the pulse of the market, which, in turn, would help them garner a greater share of the market. Firms purchasing the report could use one or a combination of the below-mentioned strategies to strengthen their positions in the market.

### This report provides insights on:

Analysis of key drivers (increasing Investments in quantum computing in developed as well as emerging economies, growing inclination of payers toward quantum computing, rising demand for personalized medicine, increasing funding and investments in quantum computing startups), restraints (accuracy issues with quantum computing systems and high implementation costs), opportunities (technological advancements in quantum computing supporting various healthcare applications, potential applications in medical image analysis and oncology), and challenges (lack of technical expertise & data management issues) influencing the growth of the healthcare interoperability solutions market.

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the quantum computing in healthcare market.

**Market Development:** Comprehensive information on the lucrative emerging markets, component, deployment mode, technology, application, end user, and region.

**Market Diversification:** Exhaustive information about the product portfolios, growing geographies, recent developments, and investments in the quantum computing in healthcare market

**Competitive Assessment:** In-depth assessment of market shares, growth strategies, product offerings, and capabilities of the leading players in the quantum computing in healthcare market like IBM (US), Google, Inc. (US), Rigetti & Co, LLC. (US), Quandela (France), D-Wave Quantum Inc. (Canada), Quantinuum, Ltd. (US & UK).

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\*Details on Business overview, Products/Solutions/Services offered, Recent Developments, MNM view might not be captured in case of unlisted companies.

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