

# North America AI-Driven Retinal Screening Device Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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## Abstracts

North America AI-Driven Retinal Screening Device Market was valued at USD 905.6 million in 2024 and is estimated to grow at a CAGR of 11.8% to reach USD 2.8 billion by 2034.

The market's expansion is driven by the increasing prevalence of retinal diseases, continuous innovation in artificial intelligence, and integration with telemedicine platforms that enable remote screening and diagnosis. A growing diabetic population, a rapidly aging demographic, and heightened public health awareness are fueling the adoption of AI-powered retinal screening solutions across the region. These technologies facilitate early and accurate detection of eye disorders while reducing the need for in-person specialist consultations. With telemedicine becoming an integral part of healthcare delivery, AI-based retinal screening devices are providing a practical solution for remote areas, improving accessibility and efficiency in patient care. Cloud-enabled AI platforms allow healthcare providers to analyze retinal images securely and deliver rapid diagnostic insights, contributing to preventive care and reduced delays in treatment. In both the U.S. and Canada, government programs and funding initiatives are accelerating AI integration in healthcare, making these advanced diagnostic systems more affordable and widely available through established reimbursement structures.

The fundus image-based AI segment held a share of 58.2% in 2024. This technology is gaining momentum due to its ability to detect early signs of various eye diseases. Using two-dimensional retinal images captured by fundus cameras, these AI models identify surface-level abnormalities such as hemorrhages and optic nerve irregularities. They are trained to assist in diagnosing multiple conditions, including diabetic retinopathy,

glaucoma, and hypertensive retinopathy, helping clinicians make timely and accurate decisions.

The hospitals segment held a 48.9% share in 2024. Hospitals experience high patient volumes and possess the infrastructure to invest in advanced diagnostic systems. The integration of AI-driven retinal screening devices in hospital workflows enables early detection of vision-threatening conditions and improves efficiency by seamlessly linking with electronic health record systems. These tools support preventive screening programs, reduce specialist workloads, and enhance overall patient outcomes.

U.S. AI-Driven Retinal Screening Device Market was valued at USD 851.4 million in 2024. The adoption of AI-integrated diagnostic technologies is expanding rapidly as healthcare facilities seek faster, more accurate, and cost-efficient methods for disease detection. The U.S. remains the largest and most technologically advanced market in the region, with AI-enabled screening solutions widely utilized in hospitals, retail health outlets, and primary care clinics to deliver efficient and accessible diagnostic services.

Major players operating in the North America AI-Driven Retinal Screening Device Market include DIGITAL DIAGNOSTICS, EYENUK, Visionix, Forus Health, Remidio, Topcon Healthcare, Evolucare, AEYE Health, NOTAL VISION, OPTOMED, and iCare. To strengthen their position, companies in the North America AI-driven retinal screening device market are pursuing strategic initiatives centered on innovation, collaboration, and market expansion. Leading manufacturers are investing heavily in research and development to enhance the precision, speed, and interoperability of AI-based diagnostic systems. Strategic alliances with healthcare providers, clinics, and telemedicine platforms are expanding their deployment networks. Firms are also focusing on regulatory approvals to ensure faster market entry while emphasizing data security and patient privacy in AI models. Mergers, acquisitions, and partnerships are being leveraged to broaden product portfolios and geographical presence.

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