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The future of health care: Medtech's innovation hotspots

Belinda Gan
ESG Investment Director

Lily Ghebrai
ESG Analyst

Key takeaways

- Chronic diseases are among the leading causes of death worldwide, and their rising prevalence is driving massive spending in health care. Breakthroughs in medical technology (medtech) are creating compelling long-term investment opportunities.
- Diabetes is one of the chronic diseases on the rise. Medical devices that help monitor and manage the disease represent sizable growth potential.
- Radiology and cardiovascular devices are at the forefront of AI adoption, and cancer detection is poised for a technological revolution.
- Novel consumer-facing medtech products, such as next-generation hearing aids, are a dynamic space where we see new entrants driving disruption.

Introduction

There has been tremendous progress in global health outcomes over the past century thanks to improved hygiene, better nutrition and medical innovations. But new challenges have emerged. The increasing prevalence of major noncommunicable diseases (NCDs), including heart diseases, cancers and diabetes, is one of them. These conditions are often influenced by lifestyle risk factors, such as excessive alcohol use, tobacco use, physical inactivity and poor diet. Older age is also a key risk factor, and the aging global population underlines the urgency of addressing the challenge from NCDs.

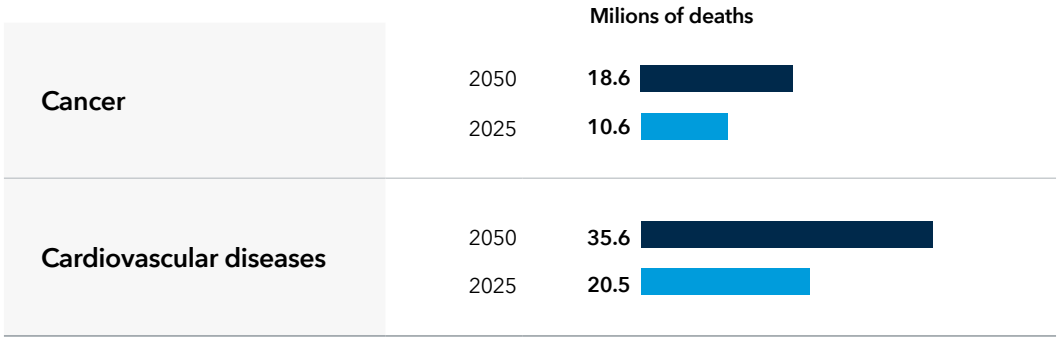
Other chronic conditions, such as obesity, are also on the rise. Innovation in treating and managing chronic diseases can help support a healthy population, keep health care spending in check and boost economic productivity. In the U.S. alone, total health spending is expected to rise from US $4.9 trillion in 2023 to US $8.6 trillion in 2033.[1]

One of the most widely discussed innovations of recent years has been around glucagon-like peptide-1 (GLP-1) drugs for diabetes and weight loss. Certainly, many of our investment professionals share the general optimism around these drugs. "GLP-1s could offer tremendous long-term growth potential with a total addressable market, depending on where pricing lands, that could be as big as US $500 billion to US $1 trillion," says equity portfolio manager Tomoko Fortune.

Another area within health care where we're seeing major innovation is medical technology (medtech). Medtech spans from large-scale imaging equipment and robotic surgery units to wearable devices such as hearing aids. We examine how technological advances in this field, including in digital technology and artificial intelligence (AI), can help address challenges from increasingly common chronic diseases and other health conditions associated with an aging population.

Performance of health stocks has been challenged. But this may open the door for investors to seek stocks that have potentially attractive valuations, given their solid fundamentals and structural growth prospects.

Deaths from cancer and cardiovascular diseases forecast to rise by about 75% by 2050



Cardiovascular diseases are the cause of death for nearly **10%** of **type-2 diabetes patients**, which amounts to around half of all deaths in this patient cohort.

Sources: Institute for Health Metrics and Evaluation. "The Lancet: Cancer Deaths Expected to Rise to over 18 Million in 2050—an Increase of Nearly 75% from 2024, Study Forecasts." September 2025. Chong, Bryan, Jayanth Jayabaskaran, et al. "Global Burden of Cardiovascular Diseases: Projections from 2025 to 2050." European Journal of Preventive Cardiology, August 2025. Einarson, Thomas R., Annabel Acs, et al. "Prevalence of Cardiovascular Disease in Type 2 Diabetes: A Systematic Literature Review of Scientific Evidence from across the World in 2007–2017." Cardiovascular Diabetology. June 2018.

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GLP-1s are good at managing existing diabetes and delaying the onset of new diabetes, but their impact on sales of diabetes devices overall will likely be negligible because current penetration is so low."

– **Alex Nicolaou**
Equity Investment Analyst

Diabetes devices have significant global growth potential

The number of adults with diabetes has more than tripled since 2000 and is set to rise nearly 45% to 852 million by 2050.[2] Advanced age, extra weight and physical inactivity are among the top risk factors of type 2 diabetes, the most common form of diabetes. The outlook is sobering for the global prevalence of obesity. An estimated 50% of the world's adult population will be overweight or obese by 2030, up from about 40% in 2015.[3]

GLP-1s are certainly a key part of treatment for diabetes and obesity, but investors' worries that their success could diminish prospects of other products for managing and treating diabetes may be overblown. For example, continuous glucose monitors (CGMs) remain essential tools for monitoring blood sugar levels for people with diabetes.

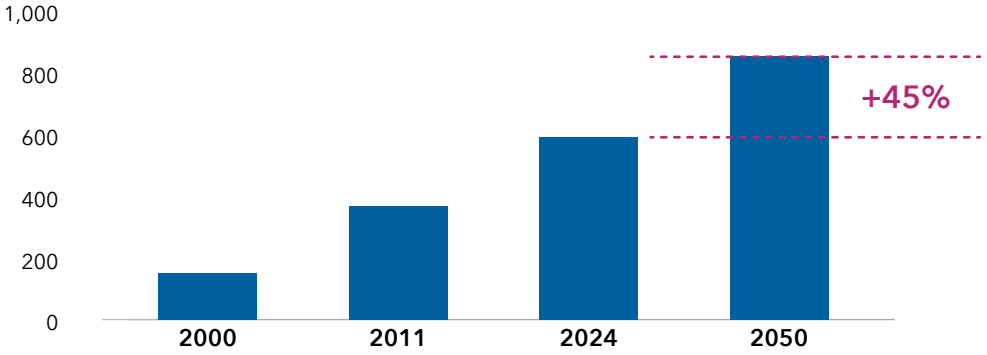
"GLP-1s are good at managing existing diabetes and delaying the onset of new diabetes, but their impact on sales of diabetes devices overall will likely be negligible because current penetration is so low," says equity investment analyst Alex Nicolaou. "There are over 500 million diabetes patients in the world, compared to 9 million CGM users and 1.3 insulin pump users."

Blood sugar monitoring is key in diabetes care. First launched in 1999, CGMs today can detect glucose levels in real time, send alerts on high- or low-glucose levels and connect to mobile devices. They are far more convenient and dependable than the traditional manual fingerstick tests. They can also connect with insulin pumps for insulin-dependent patients to manage the administration of insulin.

More innovations are on the horizon. Abbott Laboratories, for example, is developing a sensor that can detect both glucose and ketones. Elevated levels of ketones could be dangerous to certain diabetes patients. Research also shows that incorporating AI into CGM could better predict glucose levels and provide insights into an individual's underlying physiology and its impact on diabetes.

The global population of diabetics is expected to increase by nearly 45% by 2050

Number of adults with diabetes, in millions



Source: International Diabetes Federation. 2025. Note: The bar chart shows the estimated total number of adults (20-79 years) with diabetes.

See page 7 for footnotes.

At present, diagnostic errors occur in about 4% of all radiology diagnoses. This may be reduced to less than 1% with the help of AI."

– **Alina Jelamschi**
Equity Investment Analyst

Radiology and cardiovascular devices are at the forefront of AI adoption

The list of AI devices approved by the U.S. Food and Drug Administration (FDA) has been steadily growing over the past decade. Nearly 80% of them are in the field of radiology – supporting image acquisition, triage, diagnostics and scheduling.

"Existing AI applications are helping radiologists but not replacing them. At present, diagnostic errors occur in about 4% of all radiology diagnoses. This may be reduced to less than 1% with the help of AI," says equity investment analyst Alina Jelamschi.

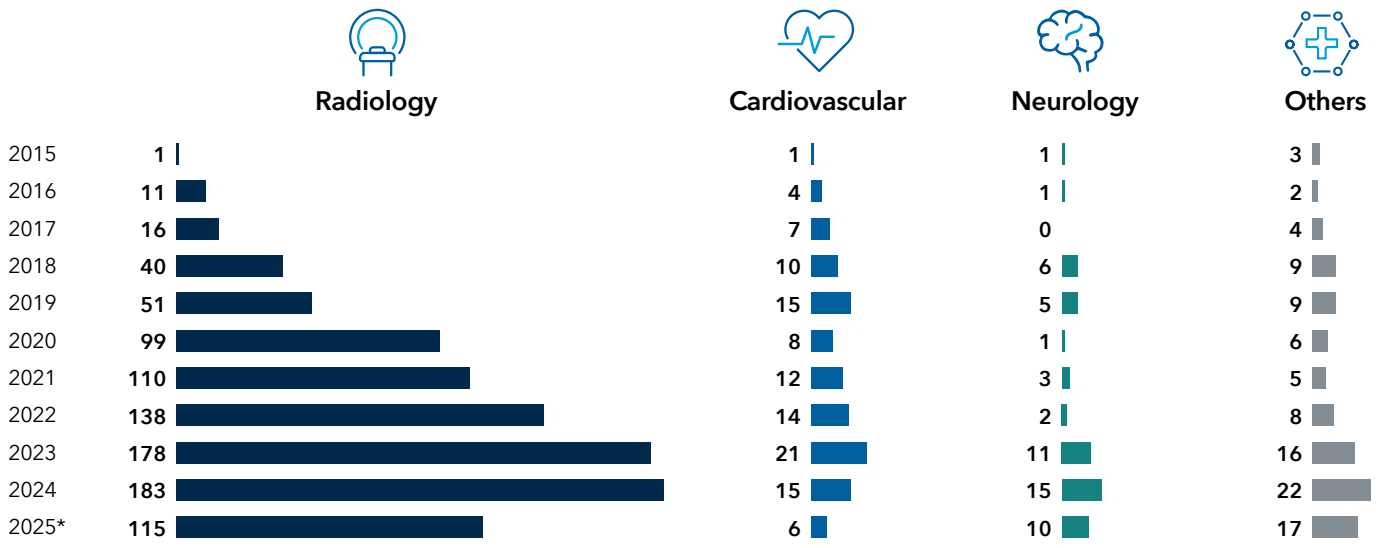
Cardiovascular devices are the next largest group. The most frequent applications are in arrhythmia detection, echocardiography (an ultrasound test for the heart) and coronary artery disease detection.[4]

AI-enabled devices can often help improve the quality of patient care and enhance operation efficiency. An AI-enabled electrocardiogram (ECG) monitor produced by iRhythm Technologies, Inc. is one example. Compared to a traditional portable ECG monitor, this device shows greater detection capabilities, is more convenient for patients and reduces burdens on health care facilities. A patient can apply the iRhythm monitor at home, wear it for up to 14 days, then mail it to the company for data analysis. In comparison, the traditional device must be set up by a health care professional and returned to a doctor's office.

In the latest development, scientists used ECG data collected by smartwatches and were able to use an AI tool to uncover structural heart problems.

AI-enabled medtech is proliferating

Number of AI-enabled medical devices approved by the FDA in the U.S., 2015 to May 2025



*January to May 2025 data.

Source: U.S. FDA, as of August 25, 2025. The category "Others" includes anesthesiology, clinical chemistry, clinical toxicology, dental, gastroenterology-urology, general and plastic surgery, general hospital, hematology, immunology, microbiology, obstetrics-gynecology, ophthalmic, orthopedic and pathology.

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Liquid biopsy is a high-growth and transformative segment in oncological diagnostics."

– **Roz Hongsaranagon**
Equity Portfolio Manager

Cancer detection is poised for a technological revolution

Today, only four single-cancer screening regimens exist: the prostate-specific antigen test, mammography (breast), colonoscopy (colorectal) and computerized tomography (lung). Each has inherent issues and limitations, including cost, access and invasiveness. Colonoscopy, for example, requires patients to fast for 24 hours beforehand and be sedated during the procedure. This might contribute to the fact that about 30% of eligible adults aged 45 and over skip the exam in the U.S.

The frontier in cancer screening and early detection is shifting from organ-specific detection to "liquid biopsy." This technology can capture circulating cancer cells and pieces of materials from these cells in a blood test. Using machine learning, liquid biopsy shows promise for capturing cancer at an early stage.[5,6] A recent study of the Galleri assay, one of the most advanced and commercially available multi-cancer early detection tests, showed the technology's potential. But more still needs to be learned about the technology, including its efficacy in reducing cancer-specific deaths and its cost-effectiveness.[7,8]

Several companies are competing in the liquid biopsy space. For example, Exact Science Corporation has introduced the first noninvasive colorectal cancer testing and is pursuing multi-cancer early-detection solutions.

"Liquid biopsy is a high-growth and transformative segment in oncological diagnostics," says equity portfolio manager Roz Hongsaranagon. "Valuations look high today, and the companies are still scaling and not profitable, but this is an exciting space with significant potential over the long term."

Multi-cancer screening could become a highly disruptive innovation in the marketplace for oncological diagnostics

Decade	Cancer type	Technology
1940s	Cervical	Pap smear
1960s	Breast	Mammography
1990s	Prostate	Prostate-specific antigen test
	Colorectal	Colonoscopy
	Selected types	Genetic testing
2010s	Lung	Low-dose CT of the chest
	Colorectal	Fecal DNA test
2020s*	Multiple types	Blood-based test

*Refers to technologies in development.

Note: The period refers to when a given technology was introduced to common practice.

See page 7 for footnotes.

The overlap between people over the age of 60 with corrective vision and hearing loss is high, and this product can help those with mild to moderate hearing loss to overcome the stigma around traditional hearing aids."

– **Lara Pellini**
Equity Portfolio Manager

Novel consumer-facing medtech products represent a new area of opportunity

The demand for innovative consumer-facing medical devices has also attracted companies outside health care. Eyewear company EssilorLuxottica SA, for example, has developed the first prescription glasses embedded with an over-the-counter (OTC) hearing aid. The company has also collaborated with Meta Platforms to develop smart glasses.

"The overlap between people over the age of 60 with corrective vision and hearing loss is high, and this product can help those with mild to moderate hearing loss to overcome the stigma around traditional hearing aids," says equity portfolio manager Lara Pellini.

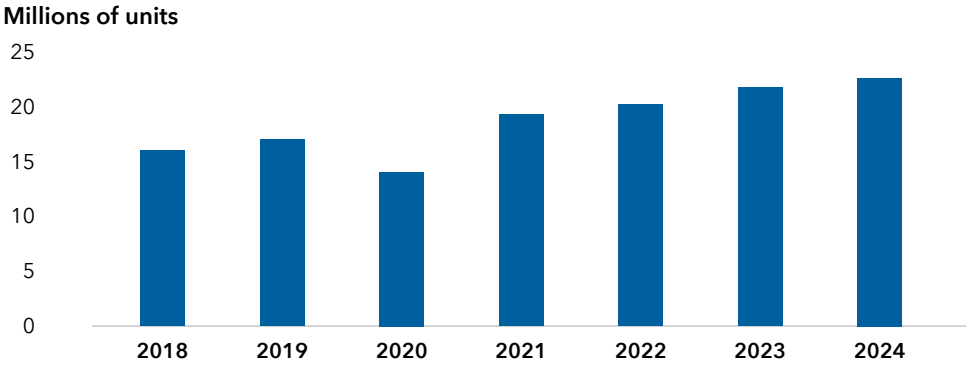
Global sales of hearing aids have been growing steadily since 2018, but hearing aid penetration is still low. In the U.S., 65% of adults aged 71 years or older have at least some hearing loss, but only 29% of them use hearing aids.[9] These devices are rarer in low- and middle-income countries, with only 3% of the need covered.[10]

Perhaps indicative of the growing recognition of untapped consumer demand in this area, Apple received approval from the U.S. FDA in September 2024 to have some models of its AirPods earbuds classified as OTC hearing aids.

EssilorLuxottica is also investing in research and development in AI-driven diagnostics. This would use the retina's biomarkers, or distinct biological indicators of certain conditions, for early detection of retinal diseases as well as systemic diseases, including Alzheimer's disease.

Our investment professionals are paying close attention to companies with consumer-facing technologies that gather biological data from users, which may raise questions related to data security and privacy. As firms consider expanding their footprint into disease diagnostics, the governance and oversight structures will need to be robust and thoughtful to mitigate potential reputational and regulatory risks.

Steady growth in global hearing aid sales



Today...

1.5 billion
globally live with hearing loss

430 million
have disabling hearing loss

By 2050...

700 million
could have disabling hearing loss

Sources: European Hearing Instrument Manufacturers Association and the World Health Organization.

See page 7 for footnotes.

Final thoughts

While health outcomes have advanced dramatically, the rising prevalence of chronic diseases presents a serious challenge to global health. Innovative medtech products, from radiology and cardiovascular devices to a new generation of hearing aids, can be part of the solution to address these challenges. Increasing integration of machine learning and AI is helping to accelerate this progress, creating long-term investment opportunities.

Health care stocks in many regions have lagged the broad market over the past year or so. This has created an attractive combination of low valuations, solid fundamentals and strong structural growth prospects in select companies, including in medtech. In this period of rapid and widespread innovation-driven disruption, it's especially important for investors to take the long view and be selective.

Footnotes

[1]Peterson-KFF Health System Tracker. "How Much Is Health Spending Expected to Grow?" August 2025.

[2]International Diabetes Federation. "Global Diabetes Atlas." April 2025.

[3]World Obesity Federation. "World Obesity Atlas 2025." March 2025.

[4]Sardar, Partha, Elena Dudorova, Saurav Chatterjee, Sahil A. Parikh, Emmanouil S. Brilakis, and Jagmeet P. Singh. "Analysis of FDA-Approved Artificial Intelligence and Machine Learning-Enabled Cardiovascular Devices." JACC: Advances 4 (10): 102174. September 2025.

[5]Johns Hopkins Medicine. "AI-Based Liquid Biopsy Shows Promise for Detecting Brain Cancer." April 2025.

[6]The University of Chicago Pritzker School of Molecular Engineering. "Quantum AI Creates a Better Liquid Biopsy for Cancer." June 2025.

[7]Eisenstein, Michael. "Putting Early Cancer Detection to the Test." Nature.com, February 2025.

[8]Lippi, Giuseppe, Mario Plebani, and Eric Topol. "Multi-Cancer Early Detection Revisited: Insights and Lessons from the PATHFINDER 2 Study." Clinical Chemistry and Laboratory Medicine, October 2025.

[9]Reed, Nicholas, Enrique Morales, Clarice Myers, Alison Huang, Joshua R Ehrlich, Olivia J Killeen, Julie Hoover-Fong, et al. "Prevalence of Hearing Loss and Hearing Aid Use among U.S. Medicare Beneficiaries Aged 71 Years and Older." JAMA Network Open 6 (7): e2326320–20. July 2023.

[10]World Health Organization. "Deafness and Hearing Loss." WHO website. n.d. Accessed December 4, 2025.