FIVE TRENDS SHAPING THE FUTURE OF THE MEDICAL DEVICE MARKET

Medical devices employ the most rapid, cutting-edge technological developments to provide a better experience and superior results for both doctors and patients. Some of the key technological trends in the medical device market are the increasing use of AI-optimized medical devices, a shift toward smaller and portable medical devices, acceptance of wearable devices, adoption of 3D printing, and Internet of Medical Things (IoMT).

The medical device market is divided into several segments, such as diagnostic and monitoring, therapeutic, surgical, and other devices. Key players in the medical device market, on the product development side, include Medtronic, Johnson & Johnson, GE Healthcare, Siemens, and Cardinal Health. These have been working on different strategies to drive sales using highly influential marketing approaches; however, as we examine the challenges and opportunities ahead in this market, companies can benefit from a strategy of pursuing technological developments, such as 3D printing medical devices and AI-optimized medical devices, along with their heterogeneous integration to drive toward the key target market trends we have identified. Lucintel predicts that the global medical device market will be valued at $426.2 billion by 2025, with an expected CAGR of 3% to 5% between 2020 and 2025.

Lucintel identifies five trends set to influence the global medical device market. Most of the industry players and experts agree that these five trends will accelerate developments in the medical device industry in the near future. In terms of the widespread knowledge about the medical device market already on the horizon, there is still a lack of unified perspective on the direction the industry is moving to proactively address developments. To help bring more clarity to this gap, our study aims to provide insights concerning the direction that changes are taking and how these changes will impact the medical device market.

1. Increasing Use of AI-Optimized Medical Devices

Medical technology is changing at a rapid pace. Medical devices are using artificial intelligence to diagnose patients more precisely and treat them more effectively. AI-assisted medical innovations offer healthcare consumers more control, options, and accuracy than previously possible. For example, in the case of diabetes patients who would like to keep track of their diet, exercise, and medications, they can take advantage of new developments like the One Drop system. A digitized glucose meter links to a mobile app and automatically records blood sugar results. Diary functions allow users to record exercise and food intake in one centralized place.

AI-optimized medical devices collect information, process data, and provide solutions. These devices have the ability to detect high-risk diseases at an early stage. Medtronic has launched its Bluetooth-enabled MiniMed 780G advanced hybrid closed loop system and a multi-clinic trial of an upgraded continuous glucose monitor (CGM) sensor for its Guardian Connect CGM.

2. Growing Use of Miniature Medical Devices

The medical market is shifting toward smaller devices with higher capabilities. Small and portable medical devices require less space and save energy. They also benefit patients in self-monitoring their health conditions, such as blood glucose and heart rate. Such portable, lightweight equipment provides greater mobility, especially for patient transport and ambulatory care.

➢ The HeartStart automatic external defibrillator from Philips Healthcare is a small, portable device that analyzes heart rhythm and prompts the user, when needed, to deliver a defibrillation shock.

➢ Philips Respironics introduced a portable oxygen concentrator that offers continuous flow and pulse-dose delivery in a single device.

➢ Cardiohelp, the world's smallest portable heart-lung support system, can monitor blood parameters, including venous oxygen saturation, hemoglobin, hematocrit and arterial, and venous blood temperature. It can change how patients regulate their health needs in the

near future.

3. Increasing Acceptance of Wearable Medical Devices

Wearable medical devices are kept on the user's body and provide medical monitoring. These devices are either embedded in clothing or worn as an accessory. They provide information about pulse, motion, orientation, glucose, blood pressure, oxygen saturation, weight, respiration, temperature, hydration, and brain activity. Smartwatches and Head Mounted Displays (HMDs) are among the most popular forms of wearable technology.

4. Internet of Medical Things (IoMT)

The Internet of Medical Things (IoMT) is a consolidation of medical devices and applications that can connect to healthcare information technology systems using networking technologies. It connects patients to their physicians and allows the transfer of medical data over a secure network, thereby reducing patients' unnecessary hospital visits and further stress on healthcare systems. Examples of IoMT include remote patient monitoring of people with chronic or long-term medical conditions; patients' wearable medical devices which send information to caregivers; tracking of patients' medication orders; and locating patients admitted to hospitals.

5. Adoption of 3D Printing of Medical Devices

Medical devices produced by 3D printing include orthopedic and cranial implants, surgical instruments, and dental restorations. 3D printing can create medical devices and implants that are tailor-made for a patient's specific physiology or even a specific surgery, making them potentially more effective than mass-produced devices. Customized surgery and patient-specific 3D-printed tools and implants are already being used in knee surgery, where surgeons have found that they speed up recovery and reduce patient pain levels. Huge potential is foreseen to improve product quality with 3D printing in the field of dentistry and orthodontic treatments.

Strategic Considerations for Key Players in the Medical Device Market

The medical device industry is dynamic and ever-changing. Successful industry players are masters of innovation, change and adaptation. To retain this status, they need to be attentive to current trends. We believe there will be promising opportunities for medical devices in the hospital and homecare sectors. As per Lucintel's latest market research report (Source: https://www.lucintel.com/medical-device-market.aspx), the medical device market is expected to grow with a CAGR of 3% to 5% between 2020 and 2025, and reach $426.2 billion by 2025. This market is primarily driven by increasing healthcare expenditure, technological development, a growing aging population, and chronic diseases.

Trends and Forecast for the Global Medical Device Market
(US $B) (2014-2025)
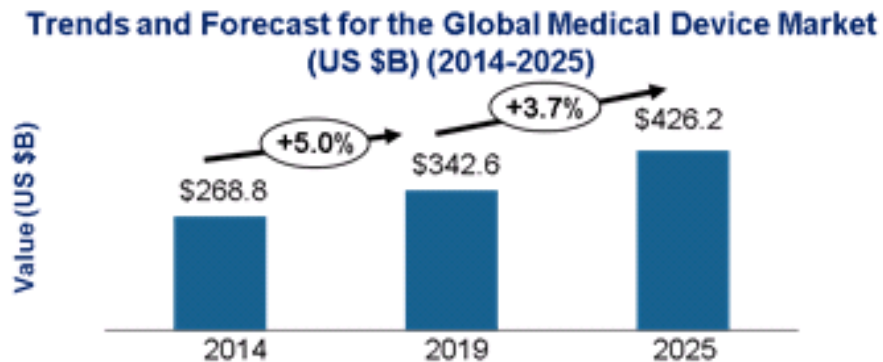
Source: Lucintel

Whether you are new to the medical device market or an experienced player, it is important to understand the trends that impact the development process, as these trends as listed above will lead players to create long-term strategy formulation that will allow them to remain competitive and successful in the long run. For example, to capture growth, medical device market players can develop capabilities in 3D-printing medical devices. Players can also focus on AI-optimized medical devices and miniature medical devices, which are expected to lead future trends.

Note: In order to gain better understanding, and learn more about the scope, benefits, and companies researched, as well as other details in the semiconductor market report from Lucintel, click on https://www.lucintel.com/medical-device-market.aspx. This comprehensive report provides you in-depth analysis on market trends and forecast, segment analysis, regional analysis, competitive benchmarking and company profiling of key players. In addition, we also offer **strategic growth consulting** to meet your customized needs. We have worked with many PE firms and corporate customers in the process of their market entry and M & A initiatives.

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Contact Us

Sanjay Mazumdar, Ph.D.
CEO, Author, & Strategist
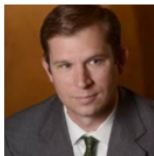Email: sanjay.mazumdar@lucintel.com
Tel.: 972-636-5056

Eric Dahl, MBA, Harvard University
Senior Executive Advisor
Email: eric.dahl@lucintel.com
Tel.: +1-323-388-6971

Brandon Fitzgerald
Director of Client Engagement
Email: brandon.fitzgerald@lucintel.com
Tel.: +1-303-775-0751

Nigel O'Dea
Business Development Manager
Email: nigel.odea@lucintel.com
Tel.: +44 (0) 7413571716