# MEDTRONIC
# FY17
# INTEGRATED PERFORMANCE REPORT

Medtronic

# CEO LETTER

For more than 55 years, we have pursued our Mission to alleviate pain, restore health, and extend life. Our values have been instrumental in earning the trust of partners, customers, and employees. As a result, 70 million people benefited from Medtronic technology, services, and solutions this year — more than ever before.

This achievement comes at a time when healthcare systems face mounting economic pressures, leaving millions unable to benefit from modern medical technologies. As a global healthcare leader, Medtronic is an integral part of the solution to addressing the industry's biggest challenges.

By extending our existing therapies into emerging markets, we are increasing access for more people and contributing to revenue growth. In FY17, revenue in emerging markets grew in the double-digit range[1]. Our total annual revenue increased approximately 5 percent[1] globally as we continued our focus on achieving our Mission.

Sustainability is critical to our business performance, helping us mitigate risk, enhance quality, increase efficiency, and drive innovation. In this annual integrated report, we outline performance across our most important sustainability issues: global access to care, product quality, product stewardship, responsible supply management, and ethics in sales and marketing.

We continue to innovate to meet the healthcare needs of a growing global population. I'm proud of the many successes we achieved in FY17, including:

- Investing $2.2 billion in research and development, representing 7.4 percent of net sales
- Launching Medtronic Labs, a new initiative designed to deliver financially sustainable businesses that expand access and reduce health inequality in emerging markets
- Investing $139.7 million in capacity building and training for medical professionals and $22.6 million in patient education
- Donating $101.8 million to charitable causes through corporate cash contributions, giving through the Medtronic Foundation, product donations, and employee volunteering
- Investing more than $76 million in employee training and development programs
- Achieving four out of five of our 2020 Environmental Performance Goals, including reductions in energy, emissions, waste, and water

Looking ahead, we will continue to work toward key business and sustainability objectives that will help us transform the way healthcare is delivered. Innovation and partnership will be critical to our success. Innovative products and processes will help us bring effective treatments to more people. And our partnerships with healthcare providers, governmental organizations, and others will help to multiply our efforts to improve patients' lives around the world.

Our Mission will remain our guide to meeting the challenges of the future. I look forward to sharing our progress in the coming year.

**Omar Ishrak**
**Chairman and Chief Executive Officer**

1. Figures represent comparison to prior year on a constant currency, constant week basis (non-GAAP).

# COMPANY OVERVIEW

Medtronic is improving healthcare for more people, in more places, than ever before. We are among the world's largest medical technology, services, and solutions companies. We are guided by our Mission to alleviate pain, restore health, and extend life, helping us transform millions of lives every year.

## ABOUT OUR COMPANY

We deliver innovative services and solutions to hospitals, physicians, clinicians, and patients in approximately 160 countries. Our goal is to be a trusted partner in the transformation of healthcare through meaningful innovation and by expanding global access to therapies. Our three strategic priorities are:

- Therapy innovation (see **Access**)
- Globalization (see **Expanding Global Access**)
- Economic value (see **Economic Contributions to Society**)

| **Medtronic, FY17 Snapshot** | |
|---|---|
| **Number of Employees** | 91,000 |
| **Number of Countries in Which We Operate** | Approximately 160 |
| **Number of Locations** | 260 |
| **Research and Development Spend** | $2.2 billion |
| **Number of Patents** | 53,000+ |
| **Patients Served** | 70 million |

## ORGANIZATIONAL PROFILE

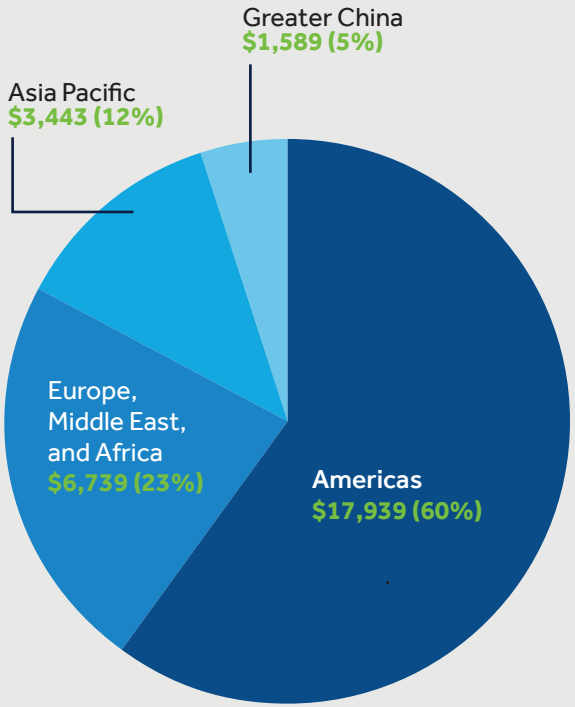
Medtronic has four operating segments: Cardiac and Vascular, Minimally Invasive Therapies, Restorative Therapies, and Diabetes. Each group is separated into business divisions that deliver a wide range of medical technologies, therapies, services, and solutions. In FY17, we realigned the divisions within the Restorative Therapies Group to include Spine, Brain Therapies, Pain Therapies, and Specialty Therapies.

**Medtronic Operating Segments:**
**FY17 Total Sales and Business Divisions**
Total Net Sales $29.7 Billion

| **Operating Segments and Business Divisions** | **FY17 Net Sales** ($ billion) |
|---|---|
| **Cardiac and Vascular Group**<br>▪ Cardiac Rhythm and Heart Failure<br>▪ Coronary and Structural Heart<br>▪ Aortic and Peripheral Vascular | $10.5 |
| **Minimally Invasive Therapies Group**<br>▪ Surgical Solutions<br>▪ Patient Monitoring and Recovery | $9.9 |
| **Restorative Therapies Group**<br>▪ Spine<br>▪ Brain Therapies<br>▪ Specialty Therapies<br>▪ Pain Therapies | $7.4 |
| **Diabetes Group**<br>▪ Intensive Insulin Management<br>▪ Non-Intensive Diabetes Therapies<br>▪ Diabetes Service and Solutions | $1.9 |

## GLOBAL FOOTPRINT

**FY17 Net Sales to External Customers by Region** ($ million)
**Total Net Sales: $29,710**




**Annual Research and Development Spend** ($ million)


* FY15 based on Medtronic fiscal year as reported and reflects the partial year contribution of the Covidien transaction that closed on Jan. 16, 2015.

# SUSTAINABILITY RISKS AND OPPORTUNITIES

By fulfilling our Mission, we are transforming people's lives — making our greatest contribution to society. We bring further social and environmental benefits by promoting high sustainability standards across our operations, products, and supply chain. Doing business responsibly and sustainably helps us to mitigate risks, reduce operating costs, and enhance our reputation as an employer and trusted partner.

## OUR SUSTAINABILITY MATERIAL ISSUES

We focus on the sustainability issues that are most important to our business and our stakeholders. We identified our material issues in FY14 by consulting internal and external stakeholders, including healthcare providers, policy-makers, and investors. In FY17, our Sustainability Steering Committee (SSC) reviewed our strategy on each of our priorities.

Our sustainability priorities are:

- **Access to care:** working with health systems around the world, sharing technologies, services, resources, and expertise to remove barriers to affordable treatment of chronic diseases
- **Product quality:** ensuring that our products and services clearly comply with the highest standards of safety and reliability
- **Product stewardship:** minimizing the lifecycle footprint of our products and packaging through design innovations
- **Responsible supply management:** collaborating with our supply chain to develop long-term relationships that enhance product quality, worker rights, and environmental protection
- **Ethics in sales and marketing:** leading our industry as a trusted partner with a commitment to ensure responsible business practices in marketing, communication, and promotion of our products and services.

Additional material issues identified through the review include: corporate governance, device security, financial strength, philanthropy, post-market surveillance, stakeholder engagement, talent, and trial data.

We explain our approach to each priority sustainability issue in this integrated report and our GRI Supplement.

## SUSTAINABILITY MANAGEMENT

The SSC develops strategy and oversees sustainability performance, risk, engagement, disclosure, and recognition. The committee meets at least twice a year and includes leaders from business functions across the company. Our chief financial officer is the SSC's executive champion.

We take implementation of social and environmental responsibilities seriously and manage these issues in our daily operations through the following functions:

- Environmental, Health, Safety, and Sustainability (EHS&S)
- Ethics and Compliance
- Global Communications
- Global Quality
- Global Strategy
- Human Resources
- Investor Relations
- Legal
- Regulatory
- Philanthropy
- Procurement

## REDUCING SUSTAINABILITY RISK

We manage sustainability risks as part of our overall risk management strategy. To see how these fit within our most significant business risks, see the risk factors included in our form 10-K and 10-Q filings with the U.S. Securities and Exchange Commission. We cannot guarantee that even the most exhaustive efforts will fully mitigate or prevent impact on our business success.

The table below outlines our top sustainability risk areas and how we manage them.

| Sustainability Risk Area | How We Manage Risk |
|---|---|
| **Evolving ethical, social, and environmental regulations** | Our Government Affairs, Human Resources, EHS&S, and Procurement groups monitor relevant regulations in global markets, while our legal and compliance teams oversee compliance with those regulations. We engage industry organizations and regulators to educate them about our industry perspectives and prepare for potential and pending regulation. |
| **Failure to meet customer sustainability requirements** | We design our programs to meet or exceed customer requirements on all aspects of sustainability, including quality, access, environment, labor practices, and responsible supply management. We further enhanced requirements for global conduct related to human rights and labor standards in FY16 when we established our Responsible Supply Management function. In FY17, we developed the foundational elements of the program, including the release of our Global Human Rights and Labor Standards Policy. |
| **Increasing costs from end-of-product-life obligations** | We incorporate criteria into our development processes that consider a product's environmental impacts throughout its lifecycle. Our commitment to product stewardship includes efforts to reclaim and recycle products at the end of their useful life through our Sustainable Technologies business. We also aim to reduce the cost of end-of-life obligations by minimizing the use of hazardous materials. |
| **Reputational damage from unethical behavior** | Our Office of Ethics and Compliance trains employees to comply with our Code of Conduct and we have clear processes to report and act on any concerns. We also offer additional compliance training for employees in certain roles to mitigate the risk of corruption and misconduct. |

### Ensuring business continuity

Our Business Continuity Management program proactively identifies and manages risks that could result in disruptions to our operations or supply chain. Key focus areas are:

- **Business continuity planning:** developing strategies designed to ensure that we can continue to operate and meet demand in adverse circumstances
- **Crisis management and mobilization:** coordinating responses in case of crises
- **Emergency response:** establishing procedures to keep people and assets safe and to minimize environmental impact in emergencies
- **IT response and recovery:** planning responses to deal with any failures in technology and reinstate affected infrastructure to support business continuity.

Our crisis management teams follow a robust protocol to manage issues effectively and coordinate responses across the company. If any issues arise that could have significant impact on the business, our teams notify the Medtronic Global Command Center, and our Corporate Crisis Filter team determines an appropriate response. The Corporate Crisis team updates the Executive Committee regularly on progress.

## CREATING OPPORTUNITIES

Our sustainability program is not only about managing risk. It also helps us generate new business opportunities, strengthen relationships with customers, improve efficiency, and meet investor, customer, and regulatory requirements.

### Leading in value-based healthcare

Traditional healthcare systems are based on payments for products and services rather than results. This can lead to rising healthcare costs and suboptimal patient outcomes. We advocate for a value-based healthcare (VBHC) system, in which payment is based on the ability of products and services to improve patient outcomes relative to their cost.

Our current VBHC offerings fall under three categories: therapy optimization, episodic bundles, and chronic care management. For more information about our VBHC strategy and approach, see **Economic Value**.

### Meeting customer expectations

Our healthcare partners want to work with businesses that share their values. We must demonstrate strong credentials on ethical, environmental, and social issues to meet customer requirements, win new business, and remain a partner of choice.

### Driving business efficiency

Setting goals on energy use, emissions, waste generation, and water use helps us minimize our environmental impacts — and our operational costs.

Our 2020 sustainability goals, using a FY13 baseline, are to reduce:

- Energy use per unit of revenue by 15 percent
- Greenhouse gas (GHG) emissions per unit of revenue by 15 percent
- Non-regulated waste per unit of revenue by 15 percent
- Regulated waste per unit of revenue by 10 percent
- Water use per unit of revenue by 10 percent

For information on progress toward our sustainability goals, see **Operations**.

### Responding to investors

Investors recognize strong performance in sustainability as an indicator of forward-looking management and proactive risk mitigation. Medtronic has been included in the Dow Jones Sustainability Index since 2008 and the FTSE4Good Index since 2001. We submit environmental data to the CDP annually. We also report on indicators set by the Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board in our GRI Supplement.

# ECONOMIC CONTRIBUTIONS TO SOCIETY

Our contribution to society is linked to the success of our company. As we grow our business, we reach more patients, contribute more to local economies, and deliver consistent returns for our shareholders. We make important economic contributions through the jobs we create, the taxes we pay, and the capital investments we make. Our corporate donations and grants, channeled through the Medtronic Foundation and other charitable giving, provide further support to improve access to healthcare for underserved communities.

## FINANCIAL PERFORMANCE

Strong financial performance ensures that we can deliver consistent growth and returns while also contributing to the local economies where we live and work. In FY17, we made meaningful progress in our core growth strategies of Therapy Innovation, Globalization, and Economic Value. As a result, we delivered record revenue of $29.7 billion, an increase of 3 percent on a reported basis and approximatively 5 percent on a constant currency, constant week basis compared to the previous year.

For more information on our financial performance, see our 2017 10-K.

### Revenue growth

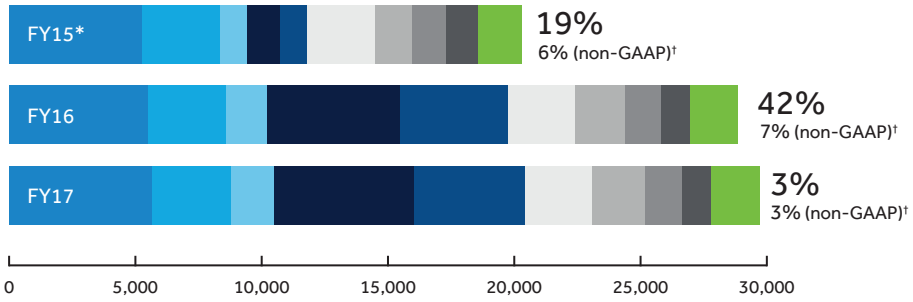
Our strategy for revenue growth is based on an unmatched pipeline of products and services and our global reach in diversified markets. Extending our existing therapies into emerging markets represents the greatest opportunity for our business.

We are working to accelerate growth in emerging markets through public and private partnerships and by optimizing our distribution channels. In FY17, revenue in emerging markets grew 7 percent, or in the double digits on a non-GAAP constant currency, constant week basis.

All non-GAAP (generally accepted accounting principles) financial measures referenced throughout this report are identified as "non-GAAP" measures. For reconciliation of each non-GAAP measure to the most directly comparable measure determined using U.S. GAAP, please see the section titled "Non-GAAP Financial Measures" at the back of this report.

**Net Sales by Operating Segment and Business** ($ million)

Revenue Growth (as reported)




**Cardiac and Vascular**

- Cardiac Rhythm and Heart Failure
- Coronary and Structural Heart
- Aortic and Peripheral Vascular

**Minimally Invasive Therapies**

- Surgical Solutions
- Patient Monitoring and Recovery

**Restorative Therapies**

- Spine
- Brain Therapies
- Specialty Therapies
- Pain Therapies

**Diabetes**

- Diabetes

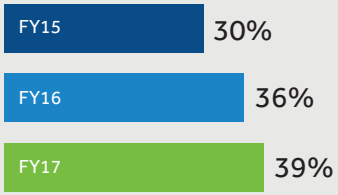
* FY15 based on Medtronic fiscal year as reported and reflects the one-quarter contribution of the Covidien transaction, which closed on Jan. 26, 2015.
† Figure represents comparison to prior year on a constant currency, constant week basis.

## RETURN TO SHAREHOLDERS

In FY17, we had $5.6 billion in free cash flow (non-GAAP) and returned $5.5 billion to shareholders, net of share issuances. We paid a total of $2.4 billion in cash dividends at a rate of $1.72 per share. We continued to be included in the S&P 500 Dividend Aristocrats Index, marking our 39th consecutive year of dividend increases.

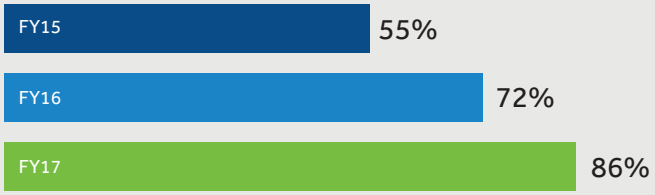
**Dividend Per Share**


**Dividend Payout Ratio***




* Calculated by taking the current annualized dividend per share ($1.84) and dividing it by the prior fiscal year non-GAAP diluted earnings per share.

**Total Payout Ratio***




* The Payout ratio for FY16 and FY17 include a contribution from a $5 billion incremental share repurchase commitment.
† Calculated by taking the current annualized dividend per share ($1.84) and dividing it by the prior fiscal year non-GAAP diluted earnings per share.

## COMPENSATION AND WAGES

We are investing in talent for our manufacturing, commercial, and R&D operations globally. In FY17, we had more than 91,000 employees in approximately 160 countries. Where possible, we hire and develop local talent leading to job creation in communities near our operations.

We spent $8.5 billion in total compensation in FY17, including $5.0 billion in direct salary and wages, and an additional $602 million in retirement benefits.

| **Employee Compensation*** ($ million) | | | |
|---|---|---|---|
| | **FY15**** | **FY16††** | **FY17** |
| Total Compensation† | $5,614 | $8,057 | $8,486 |
| Salary and Wages | $3,169 | $4,634 | $5,006 |
| Retirement Benefit Plans | $433 | $584 | $602 |
| Employees | 85,000+ | 88,000+ | 91,000+ |

* All amounts are based on actual exchange rate.
† Total Compensation includes salary and wages, incentives, overtime, severance pay, payroll taxes, retirement benefits, auto allowance, and other benefits.
** The FY15 compensation data contained in this table represents Medtronic operations, excluding Covidien. However, the "Employees" data for this same period includes Covidien.
†† FY16 contained 53 weeks, while other years only contain 52 weeks.

## TAXES

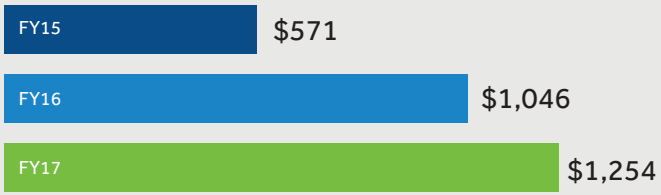
We also contribute to the communities and countries in which we operate through the taxes we pay. These include income, real estate sales and use, payroll, excise, and value-added taxes.

In FY17, we had $578 million in income tax provisions, resulting in a 16.2 percent non-GAAP nominal tax rate. On a GAAP basis, our global effective rate was 12.6 percent.

## EXPENDITURES

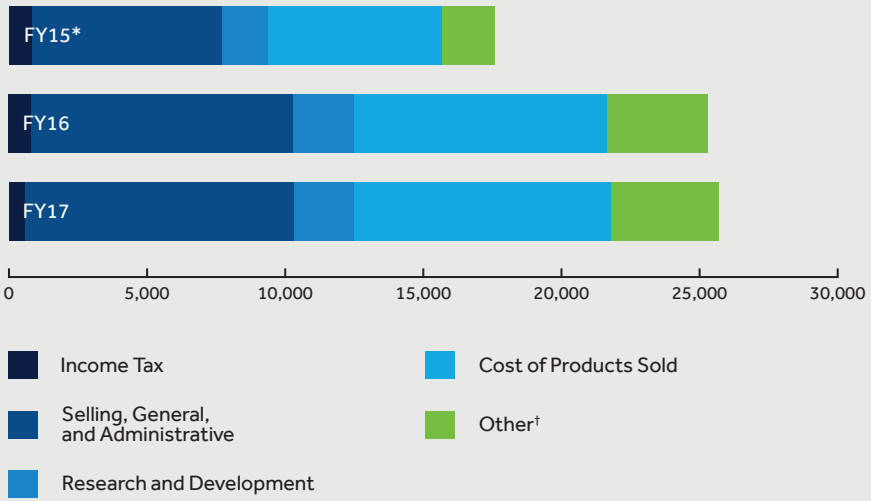
We make investments in infrastructure, manufacturing capabilities, and technology that allow us to grow our business. In FY17, these capital expenditures totaled nearly $1.3 billion.

**Capital Expenditures** ($ million)
**Additions to Property, Plant, and Equipment**




Operating costs and other expenditures are essential to running our business. Through these expenses, we also enhance our economic contribution and positive impacts on society. For instance, communities in which we operate can benefit from our salaries and wages; research and development (R&D) outlays; sales, general, and administrative expenses; and taxes.

**Medtronic Expenses** ($ million)




* FY15 based on Medtronic fiscal year as reported and reflects the partial-year contribution of the Covidien transaction, which closed on Jan. 26, 2015.
† Includes the following expenses: Interest expense, net; amortization of intangible assets; acquisition-related items; certain litigation charges, net; restructuring charges, net; special charges (gains).

## ACQUISITIONS AND INVESTMENTS

We support business growth by investing in the development of our markets, products, and services. We also seek opportunities for strategic acquisitions and investments that will help us enhance our role as a healthcare leader.

### Approach to acquisitions

We pursue acquisitions that bring new technology, strategic skills, capabilities, and expertise to Medtronic. Our approach aligns with our strategy to provide a broad range of therapies to restore patients' health and extend lives through positive clinical outcomes. We target firms that support our core growth strategies — therapy innovation, economic value, and globalization — and will produce strong financial returns. Specifically, we look for tuck-in acquisitions that will deliver mid-teens risk-adjusted returns, and demonstrate clear economic value to our business. Acquisitions in FY17 included:

- **HeartWare International, Inc.:** On August 23, 2016, our Cardiac and Vascular Group acquired HeartWare International, Inc. (HeartWare). HeartWare develops and manufactures miniaturized implantable heart pumps to treat certain populations of patients suffering from advanced heart failure. Total consideration for the transaction was approximately $1.1 billion.
- **Smith & Nephew's gynecology business:** On August 5, 2016, our Minimally Invasive Therapies Group acquired Smith & Nephew's gynecology business. This expands and strengthens our minimally invasive surgical offerings and further complements its existing global gynecology business. Total consideration for the transaction was approximately $350 million.

### Approach to investments

In addition to making acquisitions, we invest in infrastructure, capabilities, and initiatives within our existing business that accelerate the pace and breadth of innovation. This enables us to gain competitive advantage and enhance benefits for patients. For example, in FY17 we invested in a new Non-Intensive Diabetes Therapies (NDT) facility in Plymouth, Minnesota. It will serve as the global headquarters for NDT where dedicated teams will focus on product development for addressing Type 2 diabetes.

### Divestitures

When appropriate, divestitures provide the opportunity to refocus our business and portfolio on our strategic priorities. On July 29, 2017, we completed the sale of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses for $6.1 billion in cash. These businesses were located within the Patient Monitoring and Recovery division of our Minimally Invasive Therapies Group and included 17 dedicated manufacturing facilities.

## FINANCIAL ASSISTANCE

Government agencies and other stakeholder groups occasionally provide financial incentives, including tax relief, tax credits, and grants. Other direct incentives include subsidies, benefits, and awards. These financial incentives aim to attract and support long-term investments in specific regions or for disease states that align with Medtronic's business strategy.

## PHILANTHROPY

Our philanthropic efforts — alongside our products, core business, and Mission — aim to expand access to healthcare and build healthy communities globally.

In FY17, we donated approximately 1.9 percent of our pre-tax profits. We manage these philanthropic contributions through our corporate charitable giving, our business divisions, and the Medtronic Foundation (see next page). More information about the Medtronic Foundation is available here.

We disclose all donations made to U.S. customers, or organizations affiliated with them, annually on our Charitable Donations Registry. To view the guidelines governing our philanthropic contributions by the businesses, see Charitable Donations Guidelines.

To learn more about Medtronic product donations, see **Access**.

| **Philanthropy** ($ million) | | | |
|---|---|---|---|
| | **FY15*** | **FY16** | **FY17** |
| Medtronic Foundation Giving | $47.0 | $48.2 | $40.0 |
| Corporate Cash Contributions† | $31.3 | $49.6 | $43.4 |
| Product Donations† | $11.5 | $16.8 | $16.8 |
| Volunteering** | – | – | $1.6 |
| Philanthropic Contributions as a Percentage of Global Pre-Tax Profits (%) | 1.9% | 2.3% | 1.9% |

* FY15 does not include legacy Covidien data.
† The significant increase in corporate cash contributions and product donations from FY15 to FY16 is the result of the Covidien integration.
** Calculated with an hourly rate of $23.56 provided by Independent Sector. FY17 was the first year we tracked the value of volunteering.

## Medtronic Foundation global health programs

Through its Global Health programs, the Medtronic Foundation aims to establish sustainable healthcare solutions in communities around the world. Its global health programs focus on increasing access to healthcare for underserved populations by working with local and global partners.

In FY17, the Foundation contributed to three flagship programs:

- **HeartRescue** applies best practice to reduce premature mortality from acute cardiovascular events. To best serve the unique needs of each community, the program combines localized patient empowerment, engagement with frontline health workers, and policy advancement. In FY17, the U.S. HeartRescue consortium expanded to 16 states covering nearly 80 million people. HeartRescue China and HeartRescue India completed the second year of a five-year international expansion project. Plans are also under way to establish the program in Brazil.
- **HealthRise** aims to enable accurate diagnosis and successful management of diabetes and cardiovascular disease for underserved populations. The program enhances care provision by working with frontline health workers, improving the efficiency of referral systems, and empowering patients in self-management strategies. In FY17, HealthRise addressed barriers to care in communities in Brazil, India, South Africa, and the United States.
- **RHD Action**, launched in FY16, aims to cultivate a global movement to end Rheumatic Heart Disease (RHD) in vulnerable populations. Led by a coalition of core organizations, the initiative seeks to unite and empower the global RHD community by sharing technical advice, advocacy support, and policy insights. In FY17, RHD Action focused its efforts in Uganda to decentralize screening and diagnosis, improve referrals, and strengthen the capacity of existing medical facilities that treat RHD. It also assessed needs to inform the expansion of the program in Tanzania in FY18.

## Community well-being

The Medtronic Foundation provides Health Access Grants for underserved populations in the communities where our employees have a significant presence. These two-year grants are awarded to organizations that expand access to healthcare for people with chronic diseases, address persistent or emerging health challenges, and build partnerships to promote collaboration. In FY17, the Foundation distributed grants worth a total of $5.1 million to more than 40 organizations in 37 communities around the world.

Disaster relief grants from the Foundation help to fund emergency healthcare in the wake of a crisis and support rebuilding of damaged infrastructure in the long term. Medtronic also provides product donations to support disaster relief efforts and encourages employees to donate funds and volunteer their time.

| **Disaster Relief** ($ millions) | | | |
|---|---|---|---|
| | **FY15*** | **FY16** | **FY17** |
| Medtronic Foundation Disaster Relief | $0.6 | $0.8 | $0.7 |

* FY15 does not include legacy Covidien data.

## Promoting volunteering

We encourage employees to participate in our Medtronic Foundation philanthropic efforts through volunteering and employee giving.

We kick off each new fiscal year with a monthlong volunteering drive, Project 6, that encourages employees to get involved in their local communities. In FY17, nearly 15,000 employees in 48 countries volunteered a total of approximately 62,000 hours. The five teams with the highest participation, greatest impact, and most unique approach won a $10,000 grant from the Medtronic Foundation for their chosen charity.

The Foundation also donates funds to nonprofits for every 25 hours that an individual employee volunteers throughout the year. More than 1,000 employees participated in FY17, raising more than $500,000.

The Medtronic Foundation matches employee contributions to approved charities dollar-for-dollar through Global Matching Grants. In FY17, employees donated approximately $14 million, leading to a total contribution of more than $27 million when matched.

The Foundation's Bakken Invitation Award recognizes individuals who — with the help of medical technology — have overcome health challenges and now give back to their communities. In FY17, the award honored 15 individuals from seven countries. Their inspiring stories can be read online.

| Employee Community Engagement | | | |
|---|---|---|---|
| | FY15* | FY16** | FY17 |
| **Project 6** | | | |
| Volunteers | 8,880 | 19,800 | 14,900† |
| Total Volunteer Hours | 29,000 | 64,800 | 62,000† |
| Countries | 35 | 44 | 48 |
| Employee-Led Projects | 274 | 512 | 462 |
| **Volunteer Grants** | | | |
| Volunteer Grants | 786 | 968 | 1,106 |
| Volunteer Grants ($ raised) | $515,000 | $484,000 | $553,000 |
| **Global Matching Grants** | | | |
| Employee Contributions ($ million)† | $24.3 | $14.9 | $14.2 |
| Medtronic Match ($ million)*** | $20 | $17.4†† | $13.1 |

* FY15 does not include legacy Covidien data.
† The decrease in number of volunteers and volunteer hours from FY16 to FY17 is primarily a result of a significant campaign around volunteering during the integration of Covidien in FY16, leading to increased participation.
** Covidien data for the period January-March 2016 is included in the FY16 employee contributions. Full FY16 Covidien data was not included due to the timing of Covidien's integration into the Medtronic Workday system.
†† The Foundation held a 2:1 matching campaign in FY16, resulting in a greater dollar amount matched than employee donations.
*** Medtronic Matches are made on a 1:1 basis up to $500. As a result, matches are not the same amount as employee contributions.

# VALUE TO SOCIETY: **OUR PRIORITIES**

# ACCESS

Medical technology and therapies are essential tools in the treatment of noncommunicable diseases. Our core business delivers positive outcomes for more patients and invests in new solutions for unserved health needs.

Lack of healthcare infrastructure and limited resources mean essential care and treatment are inaccessible to millions of people. We aim to create wider access to quality, affordable healthcare. Our business model focuses on improving patient outcomes and reaching more people while taking into account the economic realities of specific markets.

By demonstrating the value of new products and making them widely accessible, we are growing our business and delivering our Mission to improve health outcomes for people around the world.

## THERAPY INNOVATION

Our continued investment in research and clinical trials is delivering innovative new therapies that improve patients' lives.

### Research and clinical trials

A robust innovation pipeline is critical to our success. Our global research and development (R&D) prioritizes unserved health needs, including conditions that disproportionately affect people in emerging markets. We take promising innovations through to clinical trials to establish their safety and effectiveness.

In FY17, we invested $2.2 billion in R&D (7.4 percent of net sales) and launched 75 new clinical trials. Read about our responsible approach to clinical trials in **Product Quality**.

| Annual R&D Spending | | | |
|---|---|---|---|
| | FY15* | FY16 | FY17 |
| R&D Spend ($ million) | $1,640 | $2,224 | $2,193 |

* FY15 based on Medtronic fiscal year as reported and reflects the partial year contribution of the Covidien transaction that closed on Jan. 26, 2015.

### Introducing new products

Many of our new products and therapies are designed to treat patients directly, enabling positive health outcomes and a better quality of life. Others use data to help physicians provide better guidance or to support more effective management of specific conditions.

Our new products, therapies, and data platforms launched in FY17 include:

- Micra™ Transcatheter Pacing System, the miniaturized pacemaker is 93 percent smaller than its conventional counterparts. It can be implanted through a noninvasive procedure and is self-contained within the heart. Micra was approved for use in the United States by the FDA in April 2016.
- MiniMed® 670G Insulin Pump, the world's first hybrid closed-loop system that can self-adjust to help keep sugar levels in range. It is FDA approved for use in the United States.[2]
- StealthStation™ S8, our most advanced surgical navigation system that combines hardware, software, tracking algorithms, image data merging, and specialized instruments to help guide during surgical procedures. It received FDA 510(k) clearance in March 2017.
- In FY17, Medtronic became the first company to receive FDA approval for our suite of cardiac devices and leads, able to be scanned in both 3 and 1.5 tesla magnetic resonance imaging (MRI) machines. Patients using these devices can now receive MRI scans on any part of the body, which may not have been possible previously.

2. The MiniMed 670G Insulin Pump is indicated for Type 1 diabetes patients age 14 and over. Prescription required. WARNING: may not be safe for children under age 7 or those requiring less than 8 units of insulin per day. "Self-adjusts" refers to the Auto Mode function. Some user interaction required. Individual results may vary. For detailed boxed warning and important safety information, see here.

Read more about products receiving FDA clearance and approval and CE mark approval in FY17 at the Medtronic Newsroom.

In addition to our own focus on innovation, we also invest in or acquire other medical technology companies to expand our offering to patients. Read about other partnerships and acquisitions in **Economic Contributions to Society**.

## ECONOMIC VALUE

We continually look for efficiencies to improve the affordability of our products and therapies and enhance economic value across global healthcare systems. This includes offering a variety of pricing models, such as volume pricing or rebate options for hospitals, adaptive pricing for treating long-term conditions, and a range of programs to assist new and existing patients. We pursue efficiency gains in tandem with improving the effectiveness of interventions and the number of patients achieving positive health outcomes.

### Value-based healthcare

The majority of current healthcare systems base payment on the volume of procedures performed. Traditional payment and delivery models have produced treatment costs that are unsustainable for many healthcare systems. We believe there must be a fundamental shift in the way healthcare is delivered globally — toward value-based healthcare (VBHC).

In a VBHC system, payment for products and services is based on their ability to improve patient outcomes relative to their cost. This means sharing direct accountability for delivering meaningful results.

Leaders from across our business divisions, regions, and functions — including clinical, healthcare economics, policy reimbursement, and legal experts — comprise our Global VBHC Council. Launched in January 2016, the council is responsible for accelerating our VBHC vision, deepening our knowledge, and facilitating the sharing of best practices within Medtronic. Under the direction of the Global VBHC Council, we are establishing councils within our regions to further local knowledge and action.

### Developing value-based models

Investment and innovation are essential to achieve the shift to a VBHC system. We are creating new business models that will enable us to take the lead in driving industrywide transformation.

We follow a proprietary seven-step VBHC framework to ensure we develop value-based business models built around clear, measurable patient outcomes. In FY17, we created a new Data Science function to facilitate collaboration within and outside Medtronic in developing enterprise-wide data systems that support our VBHC initiatives.

With many conditions or treatments, we have an opportunity to improve patient outcomes and reduce costs at the same time. For example, Type 1 diabetes costs healthcare systems around the world billions of dollars every year. Nearly 500,000 children under the age of 15 globally live with Type 1 diabetes, and long-term complications include kidney disease, amputation, and stroke.

Our Diabeter clinic network, based in the Netherlands, offers a solution for improving patient outcomes and reducing costs using a VBHC model. The Diabeter clinics are currently the best performing of their kind in the country, with 55 percent of patients under age 18 achieving target blood glucose concentrations. Diabeter also achieves a lower rate of hospitalization among clinic patients, leading to a reduction in direct annual patient costs of 8.6 percent.

Our experiences with programs such as Diabeter inform our continued development of VBHC models for a wide range of treatments.

### Managed services

Through Medtronic Integrated Health Solutions, we form relationships with healthcare providers around the world — helping them to achieve their goals for access, cost, and high-quality care. We administer units, facilities, and clinics on their behalf, with a focus on catheterization labs and hospital operating rooms. Benefits include an increase in lab capacity between 25 and 35 percent.

In FY17, we formed a collaboration with University Hospitals Cleveland in the United States to define new models of efficient and outstanding care delivery in catheterization and electrophysiology laboratories at UH Cleveland Medical Center. A key focus is increasing lab capacity and creating an optimized environment where the clinical staff can focus on care delivery. Medtronic helps implement advancements and also provides on-site staff to manage nonclinical operations, such as scheduling, materials management, and room turnover.

### Telehealth

Enabling patients who require long-term care to stay in their homes rather than be admitted to a healthcare facility can improve quality of life, increase service efficiency, and reduce costs. A 2016 study showed that monitoring patients remotely can yield savings of $8,375 per patient each year.[3]

Medtronic Care Management Services provides remote monitoring systems for patients with chronic conditions or for follow-up after acute care admissions and surgical procedures. Mobile or tabletop monitoring platforms collect biometric and symptom data, triggering a clinical review if necessary. Patients can access our Patient Advocacy and Support Services should they need additional advice from an experienced staff member. We currently offer more than 20 different programs for patients with single or multiple diseases.

In FY17, we launched Beacon, a new service for high-risk heart failure patients who have Medtronic ICD and cardiac resynchronization therapy (CRT) devices. By combining data from the patient's device with symptoms and biometrics, Beacon enables providers to evaluate early intervention for patients at risk of heart failure.

## EXPANDING GLOBAL ACCESS

We continually look for new ways to expand our treatments and presence to serve more people in more places around the world. Rather than taking a single global approach, we develop our solutions to reflect market needs. This enables us to tailor access initiatives to suit the specific infrastructure, economics, and health priorities of a given location.

In certain emerging markets, we employ a Hub & Spoke strategy to increase efficiency and accessibility of care (see below). For underserved populations in those markets, where the disparity between healthcare needs and access is greatest, we develop solutions through initiatives such as Medtronic Labs, outlined at right.

Read more about the Medtronic Foundation's global health programs in **Philanthropy**.

### Hub & Spoke models

The Hub & Spoke model of healthcare delivery is designed to maximize efficiency and improve patient access where resources are limited. The model offers a strategic approach to healthcare infrastructure — an efficient, integrated system designed to support long-term health and care needs.

A state-of-the-art "hub" hospital is at the center, offering specialist intervention from highly trained physicians. The "spokes" consist of healthcare centers in surrounding communities. Together, they offer complete coordinated care, with improved patient convenience and economies of scale. A well-defined patient pathway and referral system is an important part of the model. Our patient pathway innovation approach offers a systematic way to characterize the current care pathway, identify barriers to access, and develop workable solutions for a given location. The result is a set of consistent, high-quality diagnostic and treatment protocols, clearly supported by clinical evidence.

In FY17, as part of our Hub & Spoke approach, we continued our work with Abraaj Capital's Global Healthcare Fund. This work focuses on improving healthcare access, primarily in Africa and the Indian subcontinent, by reducing the gap between supply and demand for health services. In addition, Medtronic entered into several new Hub & Spoke partnerships with a variety of health system organizations — including private equity firms, academics, and startups developing innovative healthcare solutions — to deploy Hub & Spoke models in Africa.

### Medtronic Labs

Removing barriers to healthcare access and reducing health inequality in emerging markets requires an understanding of local context and priorities. Medtronic Labs is our response to this challenge. Launched in FY17, it is an evolution of our Global Health Initiative and seeks to deliver financially sustainable businesses structured for impact and scale. Medtronic Labs draws on the expertise and knowledge of our employees to develop locally appropriate business models and provide ambitious ideas for expanding healthcare access.

One of the Medtronic Labs programs, Akoma Pa, aims to help patients and clinicians in Sub-Saharan Africa manage hypertension more efficiently. In Ghana, nearly 30 percent of the population has hypertension. Yet only 2.8 percent of those affected can control it adequately through pharmacological management and lifestyle modifications. Akoma Pa offers enhanced management and access to treatment, combining a proprietary mobile application with support from local pharmacists and clinicians. By providing tailored management plans, this novel model offers significant opportunity to reduce the burden of chronic care management for clinicians, patients, and health systems. Based on our learning from Akoma Pa, we plan to roll out a wider hypertension program — Empower Health — in FY18.

3. @Home pilot study undertaken by Geneia.

## Understanding access needs

For our access initiatives to be appropriate and effective, we must understand evolving patient needs and market opportunities. We do this through our Patient Access Acceleration (PAA) methodology — a consistent approach to identifying and tackling access needs in any location. PAA includes four steps:

- Quantify treatment needs
- Identify barriers to care
- Prioritize barriers to care
- Formulate strategies to tackle barriers

Through our Patient Access Solutions (PAS) consulting service, we partner with hospitals around the world to identify access needs and barriers, and implement appropriate local solutions. In FY17, our PAS group completed 10 consulting engagements in three countries. We focused these activities in the Asia Pacific region, enabling us to build intensive expertise and integration with local healthcare services within a single region.

## Partnering with others

Collaboration is an essential component of our efforts to reach more patients around the world. We partner with a range of stakeholders to tackle access needs, including:

- Healthcare providers as well as governmental and nongovernmental organizations to enhance on-the-ground delivery
- Peer companies to develop new technologies and therapies
- Universities and academics to promote thought leadership and research

Cardiovascular disease causes more deaths in Russia than any other chronic disease, yet only 7 percent of affected patients receive stents each year. In FY17, we partnered with the Renova Group, Russia's leading private business group, to establish a new joint venture. Known as Stentex, this joint venture aims to enable local production of Medtronic catheter balloons and stents for the treatment of acute coronary syndrome — with the potential to support thousands of patients through life-saving interventions.

In China, we are collaborating with the Chengdu municipal government to invest in a manufacturing facility for state-of-the-art diabetes management technology. The aim is to expand access to essential interventions for the growing number of people with diabetes in China and nearby countries.

## Capacity building

Simply expanding patient access to products and therapies is not enough to deliver transformative change. Local infrastructure needs to support effective interventions, and healthcare providers and patients must have the skills and knowledge to offer and understand specific treatment options.

Through our Hub & Spoke model described above, we create capacity in healthcare systems by developing infrastructure and investing in the skills of healthcare professionals. We also partner with local healthcare providers to deliver infrastructure changes through Medtronic Integrated Health Solutions (see **Managed Services**).

In FY17, we invested $139.7 million in capacity building and training for medical professionals and $22.6 million in patient education. Specific activities included:

- **Launch of Medtronic Impact in our Europe, Middle East, and Africa region.** As part of our drive toward VBHC models, we are introducing a novel approach to healthcare education and development. Medtronic Impact extends beyond traditional product and procedure training, offering an extensive range of topics to the entire spectrum of healthcare professionals. Online and offline programs will be developed and delivered through a network of collaborations with world-class healthcare institutions. Our ambition is for Medtronic Impact to reach more than 500,000 healthcare professionals in the next five years.
- **Enhancing clinical training in Africa.** In partnership with Stellenbosch University, South Africa, we launched a new clinical training laboratory for healthcare professionals. The lab offers a real-world training environment for cutting-edge procedures — including use of high-definition surgical microscopes, image-guided navigation equipment, and keyhole surgery endoscopes. The facility hosts professionals from across Africa and has the capacity to train up to 1,200 people in its first year alone.

- **Medtronic Innovation Centers (MICs).** MIC training centers offer specialist facilities for healthcare professionals to enhance their knowledge and skills. The center in Shanghai, China, hosted nearly 7,000 physicians for training sessions on surgical technique. In Osong, South Korea, we delivered training for more than 1,000 physicians, including programs for trainee surgeons to gain hands-on experience with Medtronic technologies and products.
- **Capacity building through Patient Access Solutions (PAS).** Our PAS group examines capacity as part of its consulting engagements. In FY17, PAS interventions resulted in the development of a tool to identify patient groups needing better access in Kazakhstan as well as improved clinician capacity at a facility in Australia.
- **Partnership with the World Stroke Organization (WSO).** Through our continued partnership with the WSO, we developed new programs focused on increasing stroke awareness among patients and healthcare professionals. We sponsored the WSO Road Map for Quality Stroke Care, which provides guidance on stroke care for local healthcare providers and clinical groups. We also collaborated with the WSO on the delivery of awareness-raising activities in China and India.

| Healthcare Capacity Building | | | |
|---|---|---|---|
| | FY15 | FY16* | FY17 |
| Education for Medical Professionals ($ million) | $108.8 | $152.4 | $139.7 |
| Education for Patients ($ million) | $18.7 | $20.3 | $22.6 |
| Medical Professionals Reached | 50,796 | 64,233 | 52,193 |

* Excludes MITG Patient Monitoring and Recovery business.

## Product donations

To further improve patient access to essential treatments, we made $16.8 million in product donations in FY17.

Read more in **Economic Contributions to Society**.

# PRODUCT QUALITY

Patients rely on our products to be safe and effective. We deploy controls at every stage of the value chain — from clinical research to post-market analysis — so patients and physicians can be confident in the quality we deliver. We reinforce our commitment to product quality through regular training for our employees and suppliers.

## RESPONSIBILITY FOR QUALITY

We protect patients' health through our unwavering focus on product excellence. Our commitment to quality helps us effectively treat patients, reduce reputational risk, maintain trust in our business, and improve operational efficiency.

Patients are at the heart of our Global Quality Strategy. Our programs are designed to ensure that Medtronic products are of high quality and, above all, safe.

We expect our people to take individual responsibility and demonstrate leadership on quality. Our culture of quality training and communications focuses on one key message, Quality Begins with Me, reinforcing four fundamental behavior expectations:

- Put the patient first
- Be courageous
- Strive to prevent issues before they arise
- Hold each other accountable

In FY17, we extended our Quality Begins with Me training to more than 200 suppliers. We also help suppliers build their own systems and capabilities to align with our quality requirements. See **Responsible Supply Management** for more information.

**How Medtronic's Global Quality and Supply Management Strategies Support Our Business Strategy**

Employees worldwide complete an Annual Quality Training Certification. This focuses on product quality, regulatory compliance, good documentation practices, and continual improvement. In FY17, 97 percent of employees completed the training.

Our Design, Reliability, Manufacturability (DRM) program integrates safety, quality and reliability throughout our product development process. Engineers can simulate how products are used in the real world to better understand and predict performance. Through our First Time Quality (FTQ) methodology, we train our manufacturing employees to see the potential for error, develop strong controls, and identify where improvements have the biggest impact on product quality.

We use the Medtronic Operating System (MOS) to embed quality into production by applying Lean Six Sigma principles, a team-based system for achieving continual improvement. We also use the leading international standard for medical device quality system management, ISO 13485.

In FY17, we expanded our DRM, MOS, and FTQ processes to all new product development and manufacturing sites. We also expanded our supplier quality initiatives by rolling out trainings and FTQ programs to contract manufacturers and suppliers.

## MAINTAINING QUALITY FACILITIES

External regulatory agencies review and monitor our performance on quality and compliance with regulations every year. Their assessments help us better understand regulatory priorities and identify areas where we can further enhance our policies, procedures, and processes. We share what we learn across the business through our Inspection Knowledge Management process and implement improvements at our facilities worldwide.

In FY17, there were 284 regulatory inspections at Medtronic sites. Of these, 93 percent resulted in no findings. Our goal is to maintain an average of 0.5 or fewer findings per inspection. In FY17, we achieved this goal with an average of 0.18 findings per inspection.

In the subset of inspections conducted by the FDA, we received 0.73 findings per inspection, meeting our goal of 1.0 or fewer findings per U.S. FDA inspection.

We assess our quality management systems through our global compliance oversight program, Medtronic Corporate-Wide Assessment for Regulatory Excellence (MCARE). This helps us maintain consistent quality and regulatory compliance across the business and enhance our readiness to comply with new regulatory requirements. In FY17, we assessed and implemented improvements at 40 of our facilities through MCARE.

**Maintaining Quality Facilities**

| | FY15 | FY16 | FY17 |
|---|---|---|---|
| External Regulatory Inspections at Medtronic Sites Globally | 168* | 244† | 284 |
| External Regulatory Inspections Globally Which Resulted in No Findings | 92%* | 89%† | 93% |
| Average Findings per External Regulatory Inspection | 0.18* | 0.30† | 0.18 |
| Average Findings per FDA Inspection | 0.48 | 1.44† | 0.73 |
| MCARE Assessments and Supported Improvements | 28 | 37 | 40 |

* Numbers are restated from 2015 Integrated Report due to the inclusion of regional inspections.
† Numbers are restated from 2016 Integrated Report due to an internal validation process that identified a missing inspection.

## PRODUCT USE AND PERFORMANCE

We monitor the performance of our products in use and collect data on quality and patient outcomes through post-market surveillance.

We capture critical data on products through our Post-Approval Clinical Surveillance process, which draws on a network of partner hospitals, health systems, physicians, clinics, governments, and third-party databases. This process covers North America, Europe, and Latin America, and continues to expand as our business grows.

Medtronic also funds in-depth post-market clinical studies on specific therapies and product lines to support further improvements.

### Enhancing post-market surveillance

Post-market surveillance helps us fulfill our commitment to prioritize patient outcomes and offer value-based healthcare. We collaborate with global regulators and industry stakeholders to enhance our post-market surveillance techniques and methods.

More than 1,900 clinical professionals across Medtronic work to develop and standardize models to measure and improve patient safety and clinical outcomes. We are exploring new methods to obtain valuable information on enabling product use at lower cost, without compromising quality or regulatory compliance.

We collaborate with our customers to help improve our products and services. We collect and manage feedback using a global complaint handling system.

### Product-related regulatory actions

We implement corrective actions swiftly and effectively when regulatory or field safety issues are identified, including initiation of voluntary product recalls. We aim to understand and remedy the root cause of any problem, and have systems in place to prevent recurrence.

The FDA classifies product recalls with a numerical designation (I, II, or III) to indicate the relative degree of health hazard. Class I is the most serious. In FY17, five Medtronic products were subject to Class I recalls (see tables). More detail on the nature of these recalls can be found on the FDA List of Device Recalls website.

**Product Use and Performance**

| | FY15 | FY16 | FY17 |
|---|---|---|---|
| Open FDA Consent Decree for Product-Related Regulatory Actions | 1 | 1 | 1 |
| Open FDA Warning Letters for Product-Related Regulatory Actions | 3 | 1 | 2 |
| Open FDA Warning Letters Resolved During the Year | 2 | 0 | 1 |
| FDA Class I Recalls | 6 | 4 | 5 |

**FY17 FDA Class I Recalls and MedWatch Safety Alert Product List for Medtronic Devices**

| | |
|---|---|
| FDA Class I Recalls | 1. Pipeline Classic, Marathon, Ultraflow, X-Celerator<br>2. HeartWare Ventricular Assist Device (HVAD) System Controller<br>3. HT70 Ventilator<br>4. StrataMR<br>5. Synchromed II Bolus Priming Software Card |
| FDA MedWatch Safety Alerts for Human Medical Products Database* | 1. StrataMR Adjustable Valves and Shunts<br>2. Capnostream 20 Patient Monitor Battery Packs<br>3. Capnostream 20p Patient Monitor Battery Packs<br>4. SynchroMed II and SynchroMed EL Implantable Drug Infusion Pumps<br>5. Medtronic Neurovascular Products |

* The FDA issues MedWatch Safety Alerts to provide the public with new safety information about a product. This includes some actions that have been classified as recalls by the FDA.

## CLINICAL TRIALS

Clinical trials test the safety and efficacy of our products before they go on the market. We are committed to conducting all our clinical trials in accordance with relevant laws and regulations, and with our own Code of Conduct, Global Business Conduct Standards Policy, and Clinical Trials Principles. We are also committed to following international guidelines for clinical research, such as the International Conference on Harmonization / World Health Organization Good Clinical Practice standards and ISO 14155:2011.

We collaborate with organizations working to advance the development of clinical standards and support related educational engagements (see table below).

| Clinical Standard Development and Education Engagements | |
|---|---|
| **Organization** | **FY17** |
| Clinical Trials Transformation Initiative (CTTI) | Our senior vice president and chief scientific, clinical, and regulatory officer serves on the CTTI executive committee. |
| Association for the Advancement of Medical Instrumentation (AAMI) | Medtronic is involved in the AAMI's U.S. and international work. Our employees participate in more than 120 AAMI committees and working groups and hold 11 leadership positions, including the rotating chair of the board of directors. |
| International Medical Device Regulators Forum (IMDRF) | Medtronic maintains an active presence in the IMDRF. Our subject matter experts serve as industry representatives on IMDRF initiatives. We also supported and participated in the pilot of the IMDRF's Medical Device Single Audit program. |
| Medical Device Innovation Consortium (MDIC) | Our chief medical officer serves on the board of directors of MDIC, a public-private partnership which aims to advance regulatory science in the medical device industry. |

### Transparency and open data

Sharing data from clinical trials helps Medtronic and the broader scientific community to deliver benefits for patients in the long term. It also supports our commitment to maintaining patient safety and scientific integrity when performing clinical trials.

We publicly disclose information on clinical trials, as required, through the Clinical Trials Registry, available at clinicaltrials.gov. This registry and results database details the purpose, eligibility requirements, locations, and status of the applicable clinical trials we sponsor. We also publish findings in peer-reviewed scientific and medical journals and collaborate with external researchers and institutions.

## PRE-CLINICAL RESEARCH

Regulatory requirements sometimes necessitate animal research and testing for our products. For more than 30 years, Medtronic has been a leader in pioneering innovative approaches to reduce the use of animals.

Medtronic Senior Principal Scientist Mike Wolf has worked diligently to develop innovative animal-free alternatives for blood interaction tests. Over half of Medtronic's products come into contact with patient blood. Consequently, the ISO 10993-4 standard on blood interaction testing is a key guideline for the pre-clinical evaluation of our devices. Due to his efforts, a revised ISO 10993-4 standard was published in April 2017. It includes new non-animal testing methods and serves as the medical device industry's global guidance document for the selection of blood interaction tests.

An important international validation study on alternatives to animal testing for skin irritation was completed in FY17. The original research was put forward by the distinguished Medtronic Toxicologist Kelly Coleman. The follow-up validation study, conducted at 20 labs and sponsored by the ISO Technical Committee, confirmed that synthesized human skin is an acceptable replacement for the existing rabbit skin irritation test. The findings of the study will be submitted in FY18 and will support the planned ISO 10993 standard on human skin cell-based irritation testing.

Our Policy Regarding the Use of Animals requires that animals only be used in research activities where there are no acceptable alternatives. This includes research that contributes significantly to patient welfare as well as work specifically mandated by regulatory agencies in order to ensure patient safety or efficacy. All such activities are conducted only after approval from the Institutional Animal Care and Use Committee.

When it is necessary to use animals in research, we are committed to treating them respectfully and humanely by taking every measure to safeguard their welfare. This includes minimizing pain, suffering, distress, and harm. We work with scientists, veterinary surgeons, and other experts to refine trials to develop the best possible approach.

We are committed to meeting all relevant standards and requirements for animal-related research and testing set by the Association for Assessment and Accreditation of Laboratory Animal Care, the FDA, and the U.S. Department of Agriculture's Animal Welfare Act.

# PRODUCT STEWARDSHIP

From pacemakers to insulin pumps, our products improve and save patients' lives. While our products offer clear benefits for people and society, their manufacture, use, and disposal can impact the environment. We work to minimize our products' environmental impact, reducing energy and resources used and waste created at every stage of the product lifecycle.

## OUR APPROACH

Customers increasingly expect us to demonstrate strong product stewardship across the lifecycle. Through our Environmental, Health, Safety, and Sustainability (EHS&S) program, we require the implementation of product stewardship initiatives throughout Medtronic, helping us better meet these expectations.

To reduce the environmental footprint of our products from the start, our engineers and scientists have started incorporating EHS&S guidelines as they research, develop, and design new products. We consider environmental impacts related to manufacturing and the materials used in our products and their packaging. When products reach the end of their usable life, we reclaim materials for reuse where possible.

We monitor regulatory changes globally and implement practices to comply with all applicable local regulations, including the European Union directives on Restriction of Hazardous Substances (RoHS) and Registration, Evaluation, Authorization and Restriction of Chemicals (REACH); and California Proposition 65. In FY17, we began transitioning to compliance with the European Union's new Medical Device Regulation (MDR), which will replace the previous Medical Device Directive and Active Implantable Medical Device Directive.

### Packaging design and innovation

Sourcing sustainable packaging materials and cutting our overall packaging needs reduces environmental impacts, production costs, and waste. In FY17, we launched a Sustainable Packaging Working Group that will establish processes and programs to promote, assess, and measure sustainability in our packaging design. In FY18, we aim to refine our sustainable packaging guidelines, identify targets, and track progress on sustainable packaging projects across the business.

### End-of-life management

An important part of our product stewardship strategy is understanding, managing, and reducing the impact of products at the end of their usable life. We aim to capture value from used products and divert them from landfill.

In FY17, our Sustainable Technologies business diverted more than 308 metric tons (MT) of used medical devices. Our Nellcor business alone collected and recycled more than 2,700 MT of used medical sensors that would otherwise have gone to landfill. Through other reclamation programs, we collected more than 5.4 MT of precious metals — such as gold, silver, platinum, titanium, and palladium — from products like pacemakers, defibrillators, and neurostimulators.

# RESPONSIBLE SUPPLY MANAGEMENT

Our Mission supports a culture of citizenship, purpose, and responsibility. We hold ourselves accountable to promote human rights, environmental stewardship, and ethical behavior, and we extend the same expectations to our suppliers.

Suppliers are integral to the delivery of the products, therapies, and technologies we need to improve patient outcomes. To maintain the quality and reliability of our supply chain, we aim to forge long-standing relationships with suppliers that share our commitment to high standards.

We have more than 73,000 suppliers in 129 countries. In FY17, we spent nearly $12 billion with our suppliers globally.

| **Supply Chain Spend** ($ million) | | | |
|---|---|---|---|
| | **FY15*** | **FY16** | **FY17** |
| Australia | $54.9 | $52.7 | $73.7 |
| Canada | $77.4 | $139.8 | $149.0 |
| China | $143.2 | $252.5 | $281.9 |
| France | $93.3 | $247.5 | $185.6 |
| Germany | $160.9 | $233.3 | $220.0 |
| Ireland | $153.5 | $195.1 | $205.9 |
| Israel | $10.3 | $17.5 | $21.1 |
| Japan | $100.7 | $138.0 | $164.9 |
| Mexico | $55.2 | $128.0 | $151.9 |
| Netherlands | $129.7 | $179.9 | $184.9 |
| Singapore | $31.4 | $93.8 | $126.9 |
| Switzerland | $139.6 | $180.6 | $191.1 |
| United States | $4,755.3 | $8,256.8 | $8,498.7 |
| **Total for Locations Listed** | **$5,905.4** | **$10,115.5** | **$10,455.6** |
| **Total Spend** | **$6,707.9** | **$11,543.5** | **$11,927.5** |

* FY15 does not include legacy Covidien data.

## SUPPLIER QUALITY MANAGEMENT

Healthcare partners and patients expect us to deliver flawless products and therapies. Our product quality is critical to our reputation and future success. To achieve the highest quality standards, we focus not just on our own operations (see **Product Quality**) but also on our management of suppliers.

We provide protocols, tools, training, and support to help suppliers meet our quality standards, including:

- Continuous improvement opportunities through training and development
- Participation in our Design, Reliability, Manufacturability (DRM) process, which ensures standardized product performance
- Our Supplier Quality Excellence Manual that all suppliers are required to follow

In FY17, Medtronic was recognized in the Gartner *Healthcare Supply Chain Top 25* — an acknowledgment of leading companies in demand-driven supply chain management.

For more information about how we manage quality in our finished products, see Supplier Quality on our website.

## RESPONSIBLE SUPPLY MANAGEMENT

We expect our suppliers and contractors to behave ethically, abide by applicable laws, uphold the human rights of workers, ensure a safe and healthy working environment, and use environmentally responsible practices. The mission of our Responsible Supply Management program is to:

- Uphold human rights and labor standards in our supply chain
- Reduce our environmental impact globally and locally
- Enhance Medtronic's reputation

In FY17, we introduced Global Supplier Standards that outline the minimum social, ethical, and environmental requirements our suppliers must comply with. These standards will become part of our selection criteria for new suppliers. In FY18, we will begin monitoring compliance against the standards, with an initial focus on suppliers in high-risk countries. In cases of serious noncompliance with our standards, we reserve the right to terminate supplier contracts.

Agents and contractors working with Medtronic must comply with the Medtronic Global Code of Conduct. We investigate all reported violations and take appropriate action where necessary, including terminating agreements with contractors. In addition, our Global Human Rights and Labor Standards Policy applies to all Medtronic suppliers, service providers (including third-party labor agencies), and business partners.

Responsible Supply Management best practices are integrated in our purchasing decisions. We train our supply management teams to work with suppliers to help them improve labor standards. In FY17, we launched and expanded our Labor Standards Assurance System to better monitor labor issues within our operations and those of our suppliers.

We track how many of our core suppliers produce sustainability reports as an indicator of their public commitment to social and environmental responsibility. Our FY17 survey found that 34 percent of our top 208 suppliers produce a sustainability report. Of these, 10 percent publicly state sustainability goals on their website. We will continue to monitor our core suppliers and encourage them to make public sustainability commitments.

For more information about our supply chain policies, procedures, and best practices, see Responsible Supply Management on our website.

### Materials of concern

Where materials of concern are used in our products or packaging, we require suppliers to manage these responsibly and in line with regulatory requirements, such as the European Union directives on Restriction of Hazardous Substances (RoHS) and Registration, Evaluation, Authorization and Restriction of Chemicals (REACH); and California Proposition 65 (see **Product Stewardship**).

### Conflict minerals

The U.S. Dodd-Frank Act requires companies to disclose the use of conflict minerals originating from the Democratic Republic of Congo and neighboring countries where the proceeds of mining have been linked to armed conflict. We support and work to comply with regulations as detailed in our Conflict Minerals Policy.

Where minerals covered by this regulation are used in our products, we expect suppliers to comply with this law and uphold responsible sourcing practices. We reference conflict minerals requirements in supplier agreements and purchase order terms and conditions. We also perform annual due diligence by following the OECD guidance on conflict minerals, including surveying suppliers and collecting data.

We participate in industrywide forums on conflict minerals, such as the Ethical Sourcing Forum, Marcus Evans Conflict Minerals conference, and Conflict-Free Sourcing Initiative. Our conflict minerals program leader, Julia Litvak, was named in the *2017 Top 100 Conflict Minerals Influence Leaders* by Assent Compliance, an independent compliance services firm.

Medtronic's FY17 Conflict Minerals Report is published on the SEC website.

## SUPPLIER DIVERSITY

We are committed to supporting diverse suppliers, including small businesses as well as businesses owned by women, minorities, LGBT members, veterans, and people with disabilities. This commitment is set out in our U.S. Supplier Diversity Policy. In FY17, approximately 35 percent of our U.S. supplier spend was with small and diverse companies. We also encourage our Tier 1 suppliers to track and report their spend with diverse businesses.

Our Supplier Diversity team, Supplier Diversity Steering Committee, and executive management team oversee our Supplier Diversity program. We promote inclusive sourcing through employee training, business unit annual plans, and sponsorship of organizations that develop and promote small and diverse suppliers in the U.S. In FY17, 99 percent of Sourcing and Supply Chain Management teams in the U.S. completed our Supplier Diversity eLearning training.

Medtronic was recognized by DiversityInc's 2017 *Top 50* list honoring leading companies that support workforce diversity, inclusion management, and supplier diversity.

| **U.S. Diverse Supply Chain Spend by Category** ($ million)* | | | | | | |
|---|---|---|---|---|---|---|
| | **FY15†** | | **FY16** | | **FY17** | |
| | **$ U.S. Spend** | **% U.S. Spend** | **$ U.S. Spend** | **% U.S. Spend** | **$ U.S. Spend** | **% U.S. Spend** |
| Small Business | $1,102 | 29.9% | $2,122.9 | 32.5% | $1,796.9 | 28.1% |
| Veteran-Owned Business | $49.7 | 1.4% | $82.6 | 1.3% | $79.1 | 1.2% |
| Minority-Owned Business Enterprise | $149.0 | 4.0% | $192.8 | 3.0% | $279.0 | 4.3% |
| Women-Owned Business Enterprise | $83.1 | 2.3% | $123.7 | 1.9% | $139.0 | 2.1% |

* The diversity table includes only U.S. addressable spend. For FY17, addressable spend was approximately $6.3 billion. Exclusions from this total: employee-related benefits, health insurance, taxes, royalties, and others.
† FY15 data was prior to the Covidien acquisition.

# ETHICS IN SALES AND MARKETING

Earning the confidence of our stakeholders and partners is key to our continued business success. To maintain their trust, we must be honest and transparent in our product information. We must also eliminate any potential conflicts of interest between employees and healthcare professionals in our sales and marketing activities.

### Guiding Policies and Principles

- Global Business Conduct Standards Policy (Includes our Global Anti-Corruption Policy)
- Code of Conduct
- Code of Ethics for Senior Financial Officers
- Code of Business Conduct and Ethics for Members of the Board of Directors
- Medtronic Donations

## ETHICAL BUSINESS CONDUCT

The Medtronic Code of Conduct and related policies inform the way we interact with healthcare professionals and how we market our products. Our Office of Ethics and Compliance oversees, monitors, and implements accompanying policies and programs.

### Countering corruption

Conflict of interest is a recognized risk in our industry. Eliminating potential conflicts, particularly those related to sales interactions between employees and healthcare professionals, is a priority.

All employees must comply with our Global Anti-Corruption Policy, Global Business Conduct Standards, and applicable external laws, regulations, policies, and procedures. Mandatory annual training on our Code of Conduct reinforces these requirements. Customer-facing employees complete additional anti-corruption training every two years.

This training is also part of the orientation process for individuals joining Medtronic as senior leaders and in other high-risk roles.

Distributors, dealers, and certain other third parties also complete our anti-corruption training. We support and monitor third-party distributors working on our behalf through our distributor compliance program.

In FY17, we launched a new Distributor Code of Conduct and trained 93 percent of our distributors on this code. Before entering or renewing a contract, we conduct due diligence to assess the potential for corruption, and our contracts require distributors to implement their own anti-corruption programs. In some markets, we are expanding our own direct sales infrastructure to reduce our reliance on third-party distributors, decrease the risk of corruption, and improve customer service.

Approximately 220 experts (full-time equivalent) support compliance with our anti-corruption policies worldwide. We also consult regulators on our anti-corruption measures and employ several former U.S. Department of Justice prosecutors in leadership roles at Medtronic.

In FY17, Medtronic was not subject to any fines or settlements related to noncompliance with anti-corruption laws.

**Countering Corruption**

| | FY15* | FY16 | FY17 |
|---|---|---|---|
| Employees Supporting Anti-Corruption Efforts (Full-Time Employee Equivalents) | 223 | 223 | 220 |
| Third-Party Distributors Receiving Anti-Corruption Training | 87% | 88% | 93% |
| Third-Party Distributors Receiving On-Site Monitoring | 6.4%† | 2.7%** | 2.5% |

* FY15 data does not include legacy Covidien operations.
† Restated from 2015 and 2016 Integrated Report due to internal validation process.
** Restated from 2016 Integrated Report due to internal validation process.

### Responsible marketing to customers and patients

Each business unit is responsible for making sure products are promoted accurately and appropriately in line with industry guidelines and government laws and regulations. When marketing directly to healthcare providers, we follow an internal Code of Conduct and AdvaMed's voluntary Code of Ethics on Interactions with Health Care Professionals.

We have a comprehensive program in place to help ensure our marketing practices comply with our own ethical policies and external regulations. As part of this program, we monitor thousands of transactions annually for sales and marketing risks, such as anti-kickback, bribery, and corruption. In FY17, we updated 24 training modules that educate employees and external faculty on appropriate product promotion practices. Medtronic was not subject to any fines or settlements related to allegations of improper marketing or sales of products in FY17.

**Responsible Marketing to Customers and Patients**

| | FY15* | FY16 | FY17 |
|---|---|---|---|
| Number of Fines or Settlements Related to Allegations of Improper Marketing or Sales of Products† | 2 | 0 | 0 |
| Marketing and Sales Employees Trained in Product Promotion | 13,944 | 14,409 | 14,899 |

* FY15 data does not include legacy Covidien operations.
† Fines noted represent the year the fine was paid.

### Ethical interactions with healthcare professionals

We promote integrated healthcare systems by working with healthcare professionals to develop innovative solutions. Our guiding principles ensure our interactions with these partners are founded on achieving the best outcomes for patients and eliminating any potential for conflicts of interest.

We support industry initiatives to make information about payments to healthcare professionals publicly available. We disclose payments made to physicians and teaching hospitals in the countries where this is required by law. In the United States, this information is published on the U.S. Centers for Medicare and Medicaid Services Open Payments website. We also comply with related regulatory reporting requirements.

For more information on our approach to physician collaboration, see our website.

## CUSTOMER DATA SECURITY

Medtronic relies on data to make our products and therapies effective. Our customers and patients expect us to keep their data secure; this responsibility remains a high priority for Medtronic. The Global Security Office and Security Steering Committee oversee our security program, ensuring we have policies in place designed to protect this information. We continually look for ways to strengthen our program and to address evolving threats (including cyber-threats). The design of our information security management controls is based on recognized standards, such as the National Institute of Standards and Technology and ISO 27001.

A key tenet of the security program includes mandatory security training for employees and contractors, with a special focus on those who handle, or have access to, sensitive data. In addition, Medtronic launched medtronic.com/security, in November 2016, a disclosure website that enables customers, physicians, patients, and other interested parties to submit inquiries about medical device security matters. Our security teams conduct thorough investigations across relevant departments to respond to inquiries about product vulnerabilities.

We actively engage with outside organizations, third parties, and experts to assist us in ensuring continuous improvement with our security program in order to address the evolving threat landscape and meet or exceed external best practice standards. These include information-sharing bodies such as the National Health Information Sharing and Analysis Center, the Medical Device Innovation Safety and Security Consortium, regulators and government agencies, our customers, and other medical device manufacturers. We also contribute to the development of product and cybersecurity standards globally.

# WORKING RESPONSIBLY: **OUR COMPANY**

# GOVERNANCE AND ENGAGEMENT

We expect all of our employees to demonstrate a strong commitment to ethical behavior through their attitude and actions. Creating an ethical workplace culture starts with the board of directors and CEO, who set companywide expectations for strong governance and integrity. Our commitment to integrity underpins our interactions with external stakeholders and partners as we collaborate to drive meaningful, sustainable change in the global healthcare system.

## CORPORATE GOVERNANCE

The Medtronic board and executive leadership guide our approach to corporate governance and transparency — practices that are fundamental to the success of our business. They oversee policies and procedures that support our Mission, safeguard the interest of our company and shareholders, and ensure employees understand what is expected of them. The board is also deeply involved in developing our corporate strategy, and they are responsible for reviewing and approving Medtronic's annual strategic plan.

### Board of directors

The Medtronic board of directors comprises 12 members, including our chairman and CEO, Omar Ishrak, and our appointed lead independent director, Scott Donnelly. Six standing committees of independent directors oversee our business operations:

- Audit
- Compensation
- Nominating and Corporate Governance
- Finance and Financial Risk
- Quality
- Technology and Value Creation

Diversity in our leadership helps us reflect the needs of our varied stakeholders, including patients, partners, employees, and communities. Twenty-five percent of our board members are women and 25 percent represent minority groups.

If the Nominating and Corporate Governance Committee identifies a need to replace a current member of the board, fill a vacancy, or expand the size of the board, it considers candidates from a variety of sources, including third-party search firms that assist with identifying, evaluating, and conducting due diligence on potential director candidates.

Potential candidates are evaluated based on criteria established in our Governance Principles. These criteria include business experience and skills, judgment, honesty and integrity, the ability to commit sufficient time and attention to board activities, and the absence of potential conflicts with Medtronic's interests. Additional factors considered include diversity with respect to background, viewpoint, skills, experience; community involvement; and input from other members of the board. The full board then chooses a nominee after considering the recommendations and report of the Nominating and Corporate Governance Committee and any other evaluations that occurred.

For more information about our board of directors, committee charters, and memberships, visit our Corporate Governance website.

### Executive compensation

To drive innovation — and ultimately long-term business success — we must attract talented executives with diverse skills and backgrounds who can challenge the status quo. We offer competitive benefits alongside cash and equity incentives. The board's Compensation Committee evaluates and approves executive compensation. Read more about our approach to compensation in our Proxy Statement.

## ETHICAL WORKPLACE

We have well-established policies and practices to reinforce our culture of integrity companywide. These include ethics and compliance systems, data analytics, and human resources management. We look to industry best practices and benchmarks, including CEB, to track performance against our peers.

Every employee is accountable for compliance with our ethics policies and guidelines. Managers assess ethical behavior during annual performance reviews. Where an employee does not meet expectations, recognition, awards, or monetary bonuses may be withheld.

### Engaging employees in ethics and compliance

Our global Code of Conduct is central to our ethics and compliance program, guiding our everyday actions and our interactions with internal and external stakeholders.

The Code is available in 22 languages, meaning 99 percent of our employees can read it in their first language. We also provide multilingual training for new employees and those joining Medtronic through acquisitions. In FY17, 97 percent of employees joining through acquisitions received compliance and ethics training within 90 days of the transaction.

Employees are retrained on the Code of Conduct each year. Everyone at Medtronic, including board members, must certify their understanding of the Code and all its requirements annually. In FY17, we introduced specialized ethics training for new managers and updated our training for new employees. To promote ethical behavior, we asked all employees to set a personal ethics goal outlining what they will achieve and how.

| Code of Conduct | | | |
|---|---|---|---|
| | FY15* | FY16 | FY17 |
| Employees Receiving Code of Conduct Training and Certification | 98% | 98% | 97% |
| New Employees Receiving Code of Conduct Training and Certification | 99% | 99% | 99% |
| U.S. Employees Certified as Having Read and Understood the Code of Conduct | 100% | 100% | 100% |
| Employees Terminated for Ethical and Compliance-Related Infractions | 99† | 125** | 218††,*** |

* FY15 data does not include legacy Covidien operations.
† Calendar year 2014.
** Calendar year 2015.
†† Calendar year 2016.
*** Increase from the previous year is primarily due to an expanded definition of "termination due to ethical and compliance-related infractions."

In FY17, we conducted an online survey to gauge employee perceptions of our performance on ethics and compliance. Responses from 55,000 employees revealed that we are doing well at making expectations clear and cultivating open relationships with managers. The survey also identified opportunities for improvement by encouraging employees to voice their thoughts and enabling them to feel they can trust colleagues when raising a concern.

During our Ethics & Integrity Week, we reinforced the importance of ethical behavior through actions and activities that reached 60 countries in 11 languages. Our Cardiac and Vascular Group held a leadership panel event focused on ethics that was open to all its employees. More than 3,500 people attended in person or virtually, or watched a recording of the event.

We also launched more than 100 new Ethics Circle groups worldwide, engaging small groups of employees on specific ethical issues. One program in Latin America received the Medtronic Compass Award — Medtronic's highest award for acting with ethics and integrity, presented by our CEO. The program was recognized for identifying difficult ethical situations employees may encounter and suggesting ways to deal with these. More than 2,100 people have joined one of our 111 Ethics Circle groups across 11 countries.

4. The inbox is monitored by the administrative staff of the board of directors, with pertinent matters being brought to the board's attention for discussion.

### Management approach

The Office of Ethics and Compliance (OEC) oversees, monitors, and implements policies and programs related to our legal, compliance, and ethical obligations. Its activities include:

- Facilitating ethics training and running ethics program analytics
- Maintaining our confidential reporting hotline, Voice Your Concern Line
- Leading investigations into alleged misconduct
- Supporting compliance teams and leaders across the organization
- Developing and monitoring programs and campaigns that increase employees' ethical awareness
- Reporting quarterly to the Audit Committee and at least annually to the full board, via the chief ethics and compliance officer

### Reporting concerns

We encourage employees to seek guidance on ethical issues and raise any concerns about possible legal or ethical violations. They can do so via their manager, Human Resources, Legal or Compliance representatives, the OEC, the board of directors' email inbox,[4] or Voice Your Concern Line.

The OEC processes, tracks, and oversees all reported concerns from investigation to resolution. In FY17, the OEC tracked more than 1,200 concerns. Approximately 75 percent of these related to workplace conduct. The remaining concerns covered issues such as accounting, anti-corruption, and interactions with healthcare professionals or governments. Disciplinary action — where appropriate — included coaching, changes in job responsibilities or title (primarily demotion), discussion in performance reviews, or, in serious cases, dismissal. During calendar year 2016, a total of 218 employees were terminated for ethical and compliance-related infractions (see Code of Conduct table on previous page).

If external ethics or compliance issues arise, we work with the relevant authorities to resolve them quickly and effectively.

## PUBLIC POLICY

Our Government Affairs, Health Economics and Reimbursement, and Regulatory Affairs teams lead our government engagement activities. We advocate for public policies that advance our Mission and business objectives, including those that:

- Enable therapy innovations
- Facilitate access to lifesaving therapies and devices
- Generate economic value
- Promote outcome-driven and value-based healthcare
- Streamline international regulatory practice

We maintain active membership in medical device trade organizations globally, including AdvaMed, APACMed, and MedTech Europe, as well as associations in many different countries and U.S. states. Our CEO co-chairs the World Economic Forum Global Health and Healthcare Partnership Community and is a trustee of the Asia Society and a board member of the U.S.-India Business Council.

Medtronic complies with all relevant country and state laws on disclosure of political contributions. Read more about our Political Contribution Policy.

## STAKEHOLDER ENGAGEMENT

We engage and collaborate with a broad spectrum of stakeholders across the healthcare system. We work together to overcome industrywide challenges, deliver meaningful innovation, improve patient outcomes, and increase global access to healthcare.

Stakeholders include: patients, physicians, hospital administrators, advocacy groups, governments, nonprofits and nongovernmental organizations, employees, suppliers, shareholders, regulators, and the communities where we operate.

In FY17, we hosted a Global Medical Device Security Symposium, inviting industry experts to share insights around product security. Other examples of stakeholder engagement activities are presented throughout this report and on our website.

# OPERATIONS

Medtronic is committed to operating in a safe and environmentally sustainable manner. Our proactive approach reduces health and safety hazards in the workplace, minimizes the impact of our operations on the environment, and enhances business efficiency. We drive progress and monitor environmental performance through our goals to reduce energy use, emissions, waste, and water use.

## OUR MANAGEMENT APPROACH

Our Global Environmental Health and Safety (EHS) Policy guides our approach to operating in a safe and environmentally sustainable manner. It requires us to:

- Comply with applicable laws, regulations, and corporate and industry standards
- Establish EHS goals and targets to measure and continually improve our performance
- Integrate EHS into business decisions
- Minimize our impact on the environment
- Create a safe and healthy workplace
- Communicate our policy to stakeholders

Our corporate Environmental, Health, Safety, and Sustainability (EHS&S) team oversees programs on health and safety, EHS compliance, sustainability, environmental management, and environmental remediation. We provide training to help our EHS professionals implement the policy and accompanying standards at our sites around the world.

Four regional EHS&S directors coordinate with local representatives throughout the company to manage EHS&S programs and ensure compliance with relevant regulations. The directors oversee operations in the following regions:

- Americas
- Asia Pacific
- China
- Europe, Middle East, and Africa

### Environmental management systems

All our facilities must meet rigorous EHS&S standards. These go beyond national regulations in many of the countries where we operate.

Medtronic organizations are held to an internal EHS&S Management system based on the principles of ISO 14001 and OHSAS 18001. At sites with greater potential for EHS&S risks, our environmental management systems are certified to ISO 14001 and our safety systems are certified to OHSAS 18001.

Internal audits at major manufacturing facilities and offices worldwide ensure compliance with our standards and external regulations. In FY17, site gap assessments helped guide the implementation of our recently updated EHS standards.

We participate in the following external sustainability initiatives to enhance our environmental management and report on our performance:

- CDP for climate disclosure and performance
- U.S. Environmental Protection Agency's SmartWay Transportation Partnership for sustainable fleet management
- Energy Star program for energy efficiency

## OPERATIONAL FOOTPRINT

Our environmental priorities are focused on energy use and greenhouse gas (GHG) emissions, regulated and non-regulated waste, and water use.

We have made significant strides toward our 2020 Environmental Performance Goals over the last four years, meeting our targets on energy use, GHG emissions, non-regulated waste, and water use (see table). In FY17, we saw an increase in the rate of regulated waste generated and are working to address this across our operations (see **Managing Waste**).

**2020 Environmental Performance Goals***

| | FY15 | FY16 | FY17 | % Change FY13 to FY17 | 2020 Goal |
|---|---|---|---|---|---|
| Energy Use (MWh/$ million Revenue) | 47.7 | 42.4 | 43.8 | -15% | -15% |
| GHG Emissions (Metric Tons/ $ million Revenue) | 18.5 | 16.0 | 16.9 | -17% | -15% |
| Non-Regulated Waste (Metric Tons/ $ billion Revenue) | 747† | 1,645† | 1,318 | -32% | -15% |
| Regulated Waste (Metric Tons/ $ billion Revenue) | 91† | 92† | 120 | +48% | -10% |
| Water Use (Cubic Meters/ $ million Revenue) | 128 | 116 | 105 | -23% | -10% |

* All percentage reduction goals are based on a FY13 baseline year recalculated to account for Covidien acquisition in FY15. All data reflects Medtronic and Covidien operations.
† Restated from 2016 Integrated Report due to internal validation process.

## ENERGY USE AND GHG EMISSIONS

We recognize the risks that climate change poses to society and our business. We aim to reduce the carbon footprint of our operations by using less energy and less carbon-intensive energy sources.

Almost all of our emissions come from the use of electricity, natural gas, liquefied petroleum gas, and fuel oil. In FY17, our GHG emissions totaled 493,000 metric tons (MT). We used approximately 1.28 million megawatt-hours (MWh) of energy in FY17, 5 percent more than the previous year. The increase between FY16 and FY17 is largely a result of recent acquisitions and increased production. Despite this, we maintained our overall 15 percent reduction goal for energy use compared to a FY13 baseline when normalizing for our increased revenue. During this same time, we further surpassed our GHG emissions goal by achieving a total reduction of 17 percent compared to a FY13 baseline when normalizing for our increased revenue.

### Energy efficiency

Wherever feasible, we use energy-efficient lighting, ventilation systems, and equipment at our facilities. Combined with automated building controls, this helps us achieve significant savings in our energy use, emissions, and costs. Energy conservation projects enable us to avoid an estimated 25,000 MT of GHG emissions per year and cut annual operating costs by approximately $5.5 million. In FY17, we implemented 145 energy conservation projects globally, including the extension of our energy-efficient lighting installation.

### Clean and renewable energy

Medtronic invests in on-site clean and renewable energy from solar, cogeneration, and fuel cell technologies. We generated more than 64,000 MWh of clean and renewable energy in FY17 across 10 sites in Ireland, Italy, Puerto Rico, South Africa, and the United States.

For example, our newly deployed fuel cell technology at our Northridge, California, site will provide more than 12,400 MWh of clean energy annually, meeting approximately 60 percent of the site's energy needs. We are evaluating additional opportunities for renewable and clean energy installations at sites worldwide, including two fuel cells planned at our site in North Haven, Connecticut.

## FY17 Performance

| Energy Use | | | |
|---|---|---|---|
| | FY15 | FY16* | FY17 |
| MWh | 524,000 | 1,224,000 | 1,282,000 |
| MWh/$ million Revenue | 29.6 | 42.4 | 43.8 |

* FY16 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.

| GHG Emissions | | | |
|---|---|---|---|
| | FY15 | FY16* | FY17 |
| Metric Tons | 197,000 | 462,000 | 493,000 |
| Metric Tons/$ million Revenue | 11.1 | 16.0 | 16.9 |

* FY16 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.

| FY17 Energy Conservation | |
|---|---|
| Energy Conservation Projects | 145 |
| Energy Conservation Savings (MWh) | 49,000 |
| GHG Emissions Avoided (MT) | 25,000 |
| Operating Cost Savings ($ million) | $5.5 |
| Savings From Energy Rebates ($ million) | $1.8 |

## MANAGING WASTE

We strive to avoid waste generation to minimize environmental impact and reduce costs. Our landfill diversion initiatives include cutting the amount of scrap produced during manufacturing, making our offices paper free, and composting food waste in our cafeterias. Sixty percent of all waste generated was recycled in FY17.

We reduced the amount of non-regulated office and cafeteria waste generated from our facilities by 19 percent in FY17 to approximately 38,600 MT. We achieved our 2020 goal to reduce non-regulated waste intensity by 15 percent twice over, with a total reduction of 32 percent compared to a FY13 baseline.

Regulated waste, such as materials and chemicals used in production, comprise less than 10 percent of our overall waste. Yet in FY17, it increased by 32 percent to a total of 3,500 MT primarily due to increased manufacturing. We have a robust process to evaluate and address significant waste generators and categorize waste types and quantities in a concerted effort to meet our 2020 goal.

In addition to managing waste from our day-to-day operations, we also manage 26 cleanup sites globally. These sites are identified by reports showing a possible release of hazardous materials. Eight of these sites in the United States fall under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund.

We also look for opportunities to increase recycling through product reclamation and reuse. For more information and examples, see **Product Stewardship**.

## FY17 Performance

| Non-Regulated Waste | | | |
|---|---|---|---|
| | FY15 | FY16* | FY17 |
| Metric Tons | 13,277† | 47,456** | 38,567 |
| Metric Tons/$ billion Revenue | 747† | 1,645** | 1,318 |

* FY16 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.
† Restated from 2015 Integrated Report due to internal validation process.
** Restated from 2016 Integrated Report due to internal validation process.

| Regulated Waste | | | |
|---|---|---|---|
| | FY15 | FY16* | FY17 |
| Metric Tons | 1,714† | 2,659** | 3,500 |
| Metric Tons/$ billion Revenue | 97† | 92** | 120 |

* FY16 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.
† Restated from 2015 and 2016 Integrated Report due to internal validation process.
** Restated from 2016 Integrated Report due to internal validation process.

| Recycling | | | |
|---|---|---|---|
| | FY15 | FY16* | FY17 |
| Metric Tons | 7,667† | 28,207 | 25,435 |
| % Recycled | 51 | 56 | 60 |

* FY16 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.
† Restated from 2015 Integrated Report due to internal validation process.

## WATER

Although our operations do not consume a significant amount of water, we recognize the importance of water to local communities and ecosystems. We aim to minimize our water use by improving the efficiency of production processes, landscape and irrigation systems, and heating and cooling systems.

In FY17, we used approximately 3.1 million cubic meters of water worldwide — 8 percent less than the previous year. We surpassed our 2020 goal to reduce water use intensity by 10 percent from a FY13 baseline, achieving a 23 percent reduction overall.

### FY17 Performance

| Water Use | | | |
|---|---|---|---|
| | FY15 | FY16* | FY17 |
| Cubic Meters | 1,240,867† | 3,340,321** | 3,070,925 |
| Cubic Meters/ $ million Revenue | 70 | 116 | 105 |

* FY16 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.
† Restated from 2015 Integrated Report due to internal validation process.
** Restated from 2016 Integrated Report due to internal validation process.

# EMPLOYEES

Our talented and dedicated workforce helps us grow our business by solving pressing medical challenges to improve the lives of patients worldwide. As part of our Mission, we recognize the valuable contribution our employees make and we work to advance their personal and professional growth through learning and development opportunities.

## GLOBAL WORKFORCE

At the end of FY17, Medtronic employed more than 91,000 people and operated in approximately 160 countries. During the year, we hired more than 17,000 new employees.

The **Data Summary** provides more detailed data on our workforce.

## INVESTING IN OUR WORKFORCE

We invest in talent management and leadership development programs that enhance the expertise and productivity of our employees and enable them to achieve their personal goals.

### Performance and career development

In FY17, Medtronic launched a new global Performance and Career Development process. The process is made up of three required conversations annually between employees and their managers. It ensures that employees have the opportunity to discuss career aspirations, set goals, and review performance with their managers regularly. This integrated approach supports clear and consistent performance and career management across the company. It also establishes a robust framework for career development and differentiated pay based on both results and the leadership behaviors demonstrated in pursuit of high performance.

Our investment in career development and performance management also extends to our supply chain. Manufacturing direct labor populations have unique needs and follow local processes to ensure an effective annual performance appraisal process.

### Learning and development

Following an employee orientation when individuals join the company, we offer continued learning and development opportunities throughout their career at Medtronic.

More than 570 online learning tools and courses are available, including virtual and in-person workshops, webinars, and eLearning opportunities. Many supporting tools and resources exist on our Performance and Career Development portal, which is aligned to our Career Development Framework. We believe in offering not only educations, but also differentiated exposure opportunities and experiences for continued career growth. In FY17, we invested more than $76 million in employee training and development programs.

Our leadership development programs help ensure that leaders are equipped with the skills needed to effectively manage and develop their teams. In FY17, we launched several new programs to set consistent expectations of Medtronic leaders and enhance their skillsets.

Our leadership programs include:

- **Enrich —** Assisting new managers in building essential leadership skills. More than 1,000 managers have participated since the start of the program in June 2017.
- **Elevate —** A nomination-based development program for high-potential leaders. It is designed to accelerate their skills and strengthen the leadership pipeline across the organization. During FY17, more than 200 high-potential managers and senior managers graduated from the program.
- **Vice President Onboarding —** A program that supports the successful transition for vice presidents who are new to Medtronic, or those promoted to a vice president position for the first time. It aims to familiarize them with the business, their team, and the expectations associated with their role. During FY17, more than 80 people participated.

## EMPLOYEE ENGAGEMENT

We engage our employees to gather valuable feedback on their experiences at Medtronic. In FY17, more than 75,000 employees took part in our Employee Engagement Survey — a strong response rate of 82 percent. The overall engagement score was 74 percent, higher than the industry average of 65 percent.

We performed well in areas such as support for our Mission and contributions to patient safety. Opportunities for improvement include facilitating reasonable risk-taking for innovation and providing employees more opportunities to share their voice and see meaningful action as a result of their feedback.

Through the engagement survey, managers receive baseline metrics and insights to help identify areas of strength and opportunities for improvement. They work with their teams to develop action plans and are encouraged to share responsibility for progress throughout the year.

## INCLUSION AND DIVERSITY

We embrace diversity as a key differentiator and accelerator of innovation and business performance. Our CEO, executive committee, and board of directors are advocates for inclusion and diversity and have quarterly reviews with Diversity Network leadership teams. Twenty-five percent of our board members are women and 25 percent represent minority groups.

The Global Inclusion, Diversity, and Engagement (GIDE) team lead our efforts to promote diversity and create an inclusive workplace through our human resources processes and priorities. The team provides analysis and strategic support to help leaders drive measurable progress.

Our Diversity Networks aim to accelerate the careers of women globally and ethnically diverse leaders in the United States, while also influencing key business strategies to meet the healthcare needs of the populations they represent. We have four Diversity Networks: the Global Medtronic Women's Network, the African Descent Network, the Hispanic Latino Descent Network, and the Asian Descent Network. Executive Committee members support Diversity Networks by providing executive sponsorship including advocating for resources and change across the organization.

By 2020, our aspiration is to have women represent 40 percent or more of our managers and above globally. We also aspire for ethnically diverse talent to represent 20 percent or more of roles in management and above in the United States.

| **Workforce Diversity** (Race/Ethnicity) | | | |
|---|---|---|---|
| | **FY15** | **FY16** | **FY17** |
| Minority representation in the United States, excluding Puerto Rico | 30% | 33% | 33% |

### Creating opportunities for women

In FY17, women made up 34.4 percent of management or above positions globally and represented 47 percent of our new hires.

The Medtronic Women's Network supports the GIDE team in improving our ability to attract, retain, and advance women employees. More than 9,000 women are part of the network, which operates 90 hubs in 32 countries. In FY18, we plan to launch WISE, a program specifically to encourage more women to join science and engineering roles.

### Employee Resource Groups

More than 14,000 employees take part in 13 grassroots-driven Employee Resource Groups (ERGs) in 32 countries. ERGs unite around a common identity and help foster an inclusive culture across the business. They partner with the GIDE team to support recruiting, development, and community involvement efforts related to their focus.

In FY17, we received external recognition for our inclusive and diverse culture, including:

- Achieving a perfect 100 percent score for the eighth consecutive year on the Human Rights Campaign *Corporate Equality Index*
- Rising four spots in DiversityInc's *Top 50 Companies for Diversity* — ranking #46 out of 1,800+ participating companies
- Being named the Asia Society's *Best Employer for Promoting Asian Pacific American Women* and *Best Employer for Marketing and Support to the Asian Pacific American Community*

## EMPLOYEE COMPENSATION

We offer competitive compensation packages based on individual and business performance as well as industry benchmarks in each local market. For information on executive compensation, see **Governance and Engagement**.

Benefits are a valuable part of Medtronic's total rewards package. Our benefits are flexible, affordable, and competitive within our industry. Benefits vary by country and comply with all relevant national regulations. They typically include:

- Health, dental, and vision coverage for employees and eligible dependents
- Retirement plans
- Life and disability insurance
- Paid time off and leaves of absence
- Employee stock purchase program

Employees can obtain information on benefits through in-person presentations, on-demand web-based tools, AskHR support, and our virtual benefits counselor, "Alex."

### Recognition

We value our people's diligence and innovation and believe their efforts should be recognized. Managers and employees can celebrate their colleagues' successes through our global Recognize! program, which honors those who model our leadership expectations and help us drive progress toward our patient-centered Mission. In FY17, we recognized more than 77,800 employees, including 3,370 for outstanding ethical behavior.

## SAFETY AND WELLNESS

Ensuring the safety of our employees is a top priority for us. We continued to make progress on our 2020 health and safety improvement goals, which include:

- Identifying injury trends and reducing injury risk
- Reducing ergonomic-related injury rates
- Accelerating global employee training on environmental, health, and safety requirements

We proactively reduce injury risks by reporting significant incidents to management, publishing safety alerts, and focusing specific programs at sites with higher numbers of injuries. For example, in certain manufacturing systems, we incorporated ergonomic reviews and an Ergonomic Playbook. We will expand the playbook in FY18 to include a variety of Environmental, Health, Safety, and Sustainability (EHS&S) considerations.

We engage Operations executives in quarterly reviews of our health and safety performance at the business group and regional level. During FY17, we achieved a 6 percent improvement in our recordable incident rate, compared with the previous year, and had no work-related fatalities.

In addition, we rolled out 18 updated EHS&S standards in FY17 and provided corresponding training for all EHS&S representatives globally. We also provided site representatives with gap assessment tools to evaluate site performance and opportunities for ongoing improvement. In FY18, our internal audit program will continue to audit regulatory requirements and our revised internal EHS&S standards.

We also invest in employees' physical, emotional, social, and financial well-being through our global wellness program, Healthier Together. All employees have access to this program, and in FY17 approximately 43 percent, or 38,700 employees, participated.

**Safety Record**

| | FY15 | FY16 | FY17 |
|---|---|---|---|
| Employee Injury Incident Rate*,** | 0.50 | 0.45 | 0.39 |
| Employee Lost/Restricted Workday Case Rate†,** | 0.23 | 0.22 | 0.21 |
| Fatalities | 1 | 0 | 0 |

* The number of work-related injuries or illnesses serious enough to require treatment beyond first aid, per 100 employees working a full year.
† The number of work-related injuries or illnesses serious enough to cause an employee to miss one or more workdays or to have one or more workdays of restricted duty, per 100 employees working a full year.
** FY15 and FY16 data include both legacy Medtronic and legacy Covidien employees. Injury rates do not include portions of Asia, Eastern EU, or Latin America sales.

**Healthier Together**

| | FY15* | FY16 | FY17 |
|---|---|---|---|
| Employees Registered on the Wellness Platform | – | 50,769 | 38,725 |
| Workforce Participation Rate | – | 57% | 43%† |

* Historic participation rates were based on questionnaires that are no longer used. Employee participation is now measured by registration on the wellness platform. Historic data has been removed.
† Medtronic's new wellness website launched in FY17 Q4. All employees must re-register on the platform, which caused a decrease in our overall reported participation rate.

## DATA SUMMARY

### Medtronic Global Workforce*

| | FY15† | FY16** | FY17†† |
|---|---|---|---|
| **Total** | **46,368** | **90,549** | **94,834** |
| Female | 22,657 | 44,371 | 46,769 |
| **Asia Pacific** | **4,950** | **12,363** | **13,188** |
| Female | 2,169 | 5,381 | 5,745 |
| **Canada** | **792** | **1,544** | **1,634** |
| Female | 495 | 900 | 956 |
| **Europe/Central Asia/Middle East/Africa** | **9,754** | **17,820** | **18,854** |
| Female | 5,069 | 9,149 | 9,562 |
| **Latin America** | **3,786** | **16,425** | **17,621** |
| Female | 2,628 | 10,019 | 10,983 |
| **U.S. and Puerto Rico** | **27,086** | **42,397** | **43,537** |
| Female | 12,296 | 18,922 | 19,523 |

* Employee population data expressed here may vary from our 2017 10-K form depending on the time of year in which the data was gathered.
† FY15 does not include legacy Covidien employees.
** 595 records do not specify gender.
†† 123 records do not specify gender.

### Employment Type*,†

| | FY17 |
|---|---|
| **Support staff** | **42,531** |
| Female | 25,142 |
| **Professional** | **41,368** |
| Female | 17,750 |
| **Management**** | **9,816** |
| Female | 3,429 |
| **VPs and higher** | **528** |
| Female | 141 |

* Employee population data expressed here may vary from our 2017 10-K form depending on the time of year when the data was gathered.
† 591 employees do not have a job category designation.
** Management = managers, senior managers, directors, and senior directors.

### Global Full-Time*

| | FY15† | FY16** | FY17†† |
|---|---|---|---|
| **Total** | **45,084** | **88,520** | **92,943** |
| 30 and under | 7,967 | 18,043 | 20,013 |
| 31–50 | 28,341 | 52,891 | 55,243 |
| 51 and above | 8,776 | 16,546 | 17,687 |
| **Female***** | **21,530** | **42,687** | **45,181** |
| Asia Pacific | 2,113 | 5,299 | 5,665 |
| Canada | 484 | 896 | 947 |
| Europe/Central Asia/Middle East/Africa | 4,192 | 7,939 | 8,386 |
| Latin America | 2,628 | 10,013 | 10,971 |
| U.S. and Puerto Rico | 12,113 | 18,540 | 19,212 |

* Employee population data expressed here may vary from our 2017 10-K form depending on the time of year in which the data was gathered.
† FY15 does not include legacy Covidien employees.
** 1041 records have out-of-bound values so are not included in age breaks. 595 records do not specify gender.
†† 478 records have out-of-bound values so are not included in age breaks. 123 records do not specify gender.
*** Numbers by region are based on female employees only.

### Global Part-Time*

| | FY15† | FY16** | FY17†† |
|---|---|---|---|
| **Total** | **1,284** | **2,029** | **1,891** |
| 30 and under | 66 | 228 | 172 |
| 31–50 | 985 | 1,373 | 1,291 |
| 51 and above | 233 | 427 | 428 |
| **Female***** | **1,127** | **1,684** | **1,588** |
| Asia Pacific | 56 | 82 | 80 |
| Canada | 11 | 4 | 9 |
| Europe/Central Asia/Middle East/Africa | 877 | 1,210 | 1,176 |
| Latin America | 0 | 6 | 12 |
| U.S. and Puerto Rico | 183 | 382 | 311 |

* Employee population data expressed here may vary from our 2017 10-K form depending on the time of year in which the data was gathered.
† FY15 does not include legacy Covidien employees.
** 1,041 records have out-of-bound values so are not included in age breaks. 595 records do not specify gender.
†† 478 records have out-of-bound values so are not included in age breaks. 123 records do not specify gender.
*** Numbers by region are based on female employees only.

| **New Employee Hires*** | | | |
|---|---|---|---|
| | **FY15†** | **FY16**** | **FY17††** |
| **Total***** | **5,407** | **16,026** | **17,408** |
| 30 and under | 2,384 | 7,344 | 9,591 |
| 31–50 | 2,702 | 6,673 | 6,801 |
| 51 and above | 321 | 867 | 1,016 |
| **Female†††** | **2,574** | **7,266** | **8,234** |
| Asia Pacific | 431 | 1,189 | 1,184 |
| Canada | 29 | 132 | 126 |
| Europe/Central Asia/Middle East/Africa | 440 | 1,255 | 1,350 |
| Latin America | 255 | 2,027 | 2,894 |
| U.S. and Puerto Rico | 1,419 | 2,663 | 2,680 |

* Employee population data expressed here may vary from our 2017 10-K form depending on the time of year in which the data was gathered.
† FY15 does not include legacy Covidien employees.
** 1,142 records have values out of bounds (for example, age=0). 672 records do not specify gender.
†† 1,510 records have values out of bounds (for example, age=0). 578 records do not specify gender.
*** Fiscal years 2015 did not include employees who were hired and terminated within the same year.
††† Numbers by region are based on female employees only.

| **Employee Turnover** (Voluntary and Involuntary) | | | |
|---|---|---|---|
| | **FY15†** | **FY16**** | **FY17††** |
| **Total (#)** | **4,453** | **13,509** | **15,022** |
| 30 and under (#) | 1,174 | 5,313 | 6,649 |
| 31–50 (#) | 2,492 | 6,216 | 6,295 |
| 51 and above (#) | 787 | 1,980 | 2,078 |
| **Female (#)***** | **2,236** | **6,873** | **7,167** |
| Asia Pacific (#) | 292 | 816 | 826 |
| Canada (#) | 18 | 181 | 128 |
| Europe/Central Asia/Middle East/Africa (#) | 517 | 1,073 | 1,312 |
| Latin America (#) | 383 | 2,455 | 2,462 |
| U.S. and Puerto Rico (#) | 1,026 | 2,348 | 2,439 |

† FY15 does not include legacy Covidien employees.
** 105 records have values out of bounds (for example, age=0). 81 records do not specify gender.
†† 1,440 records have values out of bounds (for example, age=0). 674 records do not specify gender.
*** Numbers by region are based on female employees only.

# ABOUT THIS REPORT

Our reporting reflects the way we do business — integrating social, environmental, ethical, and financial performance. This is our fourth annual Integrated Performance Report, comprising both financial and nonfinancial information.

The report covers issues that are most material to our business and our stakeholders. These are summarized in the **Sustainability Risks and Opportunities** section.

The report was prepared in accordance with the G4 Core guidelines of the Global Reporting Initiative (GRI), an internationally recognized framework for sustainability reporting. The content is also informed by the reporting requirements of the Sustainability Accounting Standards Board (SASB) for Medical Equipment and Supplies, and the Dow Jones Sustainability Index.

## SCOPE AND DATA

Unless otherwise stated, all performance data covers our fiscal year 2017 (FY17) from April 29, 2016, through April 28, 2017. Our previous report for FY16 was published in November 2016.

This report includes data from Medtronic PLC and all of its consolidated subsidiaries. Environmental, health, and safety data covers our manufacturing and research and development facilities.

All reported data are best estimates. Some entities are omitted from metrics where their impact on overall data is less than 10 percent. Such exclusions are noted throughout the report.

All financial information is reported in U.S. dollars.

## ASSURANCE AND FORWARD-LOOKING STATEMENTS

We have not sought independent verification of this report, and we have practices in place to internally validate the data.

Any forward-looking statements are subject to risks and uncertainties, such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission (SEC). Actual results may differ materially from anticipated results.

## FURTHER INFORMATION

For additional business and sustainability information, please refer to our SEC filings, including Form 10-K and proxy filings, as well as press releases and our CDP disclosure.

We value our stakeholders' views. To provide feedback or request further information, please email **integratedreport@medtronic.com**.

# INTEGRATION INDEX

## INTEGRATED REPORTING AT MEDTRONIC

This report provides an overview of how sustainability is integrated in Medtronic's business. The index below highlights some of the most important ways that our social, environmental, and ethical performance is tied to our business success.

| Section | Integration Touchpoint | Subsection |
|---|---|---|
| Sustainability Risks and Opportunities | Sustainability risk management | **Sustainability Management** |
| | Business continuity risk management | **Reducing Sustainability Risk** |
| | Meeting customer expectations through sustainability performance | **Creating Opportunities** |
| | Responding to investor requirements | **Creating Opportunities** |
| Economic Contributions to Society | Driving revenue growth in emerging markets | **Financial Performance** |
| | Supporting local communities through operational costs | **Expenditures** |
| | Aligning business with healthcare needs through strategic acquisitions and investments | **Acquisitions and Investments** |
| | Philanthropy as a percentage of pre-tax profits | **Philanthropy** |
| | Product donations | **Philanthropy** |
| Access | Investing in R&D to spur new product, service, and therapy innovation | **Therapy Innovation** |
| | Pursuing value-based healthcare and managed services for improved clinical outcomes and value alignment | **Economic Value** |
| | Addressing affordability through pricing models | **Economic Value** |
| | Building the capacity of local infrastructure, healthcare providers, and patients to increase the effective use of our products and services | **Expanding Global Access** |
| | Addressing healthcare needs worldwide through innovative business models | **Expanding Global Access** |

| Section | Integration Touchpoint | Subsection |
|---|---|---|
| Product Quality | Expanding our commitment to product quality through supplier engagement | **Responsibility for Quality** |
| | Enhancing post-market surveillance to improve patient outcomes | **Product Use and Performance** |
| | Monitoring our facilities to avoid disruptions to our operations and supply chain | **Maintaining Quality Facilities** |
| | Maintaining high ethical standards for animal research to support our brand reputation and license to operate | **Pre-Clinical Research** |
| Product Stewardship | Reducing waste and saving costs | **Our Approach** |
| Responsible Supply Management | Supplier quality management to avoid errors that can impact patient health and damage reputation | **Supplier Quality Management** |
| | How our Global Human Rights and Labor Standards and Supplier Diversity programs support our brand reputation and license to operate | **Responsible Supply Management** |
| Ethics in Sales and Marketing | Reducing risk in distribution channels | **Ethical Business Conduct** |
| | Protecting patient privacy and health data | **Customer Data Security** |
| Governance and Engagement | Ethical conduct as an integral part of our credibility and success | **Ethical Workplace** |
| | Advocating for public policies that advance our Mission and business objectives | **Public Policy** |
| Operations | Environmental, Health, Safety, and Sustainability (EHS&S) management to improve operational efficiencies and save costs | **Our Management Approach** |
| Employees | Investing in our employees' personal and professional development to drive business success | **Investing in Our Workforce** |
| | Building inclusion and diversity as an enabler of innovation | **Inclusion and Diversity** |

# NON-GAAP FINANCIAL MEASURES

This report contains financial measures, including free cash flow figures (defined as operating cash flows less property, plant, and equipment additions), revenue growth rates, and diluted EPS figures on a constant currency basis and as adjusted for the extra week in fiscal year 2016. Constant currency growth measures the change in revenue between current and prior year periods using average exchange rates in effect during the applicable prior year period. These figures are "non-GAAP" financial measures under applicable SEC rules and regulations.

Management believes that referring to constant currency growth rates is a useful way to evaluate the underlying performance of Medtronic's sales. Medtronic generally uses non-GAAP financial measures to facilitate management's review of the operational performance of the company and as a basis for strategic planning. Non-GAAP financial measures should be considered supplemental to and not a substitute for financial information prepared in accordance with generally accepted accounting principles (GAAP). The company's definition of these non-GAAP measures may not be the same or similar to measures presented by other companies.

Non-GAAP financial measures exclude the effect of items that will increase or decrease the company's reported results of operations. Therefore, management strongly encourages investors to review the company's consolidated financial statements and publicly filed reports in their entirety.

**Medtronic PLC**
**FY17 Net Income and Diluted EPS GAAP to Non-GAAP Reconciliations***
(Unaudited) (In $ million, Except Per Share Data)

| | Fiscal Year Ended April 28, 2017 | | | |
|---|---|---|---|---|
| | Income Before Provision for Income Taxes | Net Income Attributable to Medtronic | Diluted EPS† | Effective Tax Rate |
| GAAP | $4,602 | $4,028 | $2.89 | 12.6% |
| Non-GAAP Adjustments:** | | | | |
| Impact of Inventory Step-Up†† | $38 | $24 | 0.02 | 36.8% |
| Special Charges*** | $100 | $63 | 0.05 | 37.0% |
| Restructuring Charges, Net | $373 | $272 | 0.20 | 27.1% |
| Certain Litigation Charges | $300 | $190 | 0.14 | 36.7% |
| Acquisition-Related Items††† | $230 | $156 | 0.11 | 32.2% |
| Amortization of Intangible Assets | $1,980 | $1,460 | 1.05 | 26.3% |
| Certain Tax Adjustments, Net**** | – | $202 | 0.15 | – |
| Non-GAAP | $7,623 | $6,395 | $4.60 | 16.2% |
| Foreign Currency Impact | | | 0.17 | |
| Constant Currency Adjusted | | | $4.77 | |

* See description of non-GAAP financial measures contained on page 47 of this report.
† The data in this schedule has been intentionally rounded to the nearest $0.01 and, therefore, may not sum.
** Non-GAAP adjustments relate to charges or benefits that management believes may or may not recur with similar materiality or impact on results in future periods.
†† Represents amortization of step-up in fair value of inventory acquired in connection with the HeartWare acquisition.
*** The charge represents a contribution to the Medtronic Foundation.
††† Integration-related costs incurred in connection with the Covidien acquisition, and charges incurred in connection with the pending divestiture of a portion of our Patient Monitoring and Recovery division to Cardinal Health.
**** The net charge primarily relates to the tax effect from the recognition of the outside basis difference of certain subsidiaries which are included in the expected divestiture of a portion of our Patient Monitoring and Recovery division to Cardinal Health, certain tax charges recorded in connection with the redemption of an intercompany minority interest, and the resolution of various tax matters from prior periods.

**Medtronic PLC**
**FY17 Net Income and Diluted EPS GAAP to Non-GAAP Reconciliations***
(Unaudited) (In $ million, Except Per Share Data)

| | Fiscal Year Ended April 29, 2016 | | | |
|---|---|---|---|---|
| | Income From Operations Before Taxes | Net Income Attributable to Medtronic | Diluted EPS† | Effective Tax Rate |
| GAAP | $4,336 | $3,538 | $2.48 | 18.4% |
| Non-GAAP Adjustments:** | | | | |
| Impact of Inventory Step-Up†† | 226 | 165 | 0.12 | 27.0% |
| Special Charges*** | 70 | 44 | 0.03 | 37.1% |
| Restructuring Charges, Net | 299 | 221 | 0.15 | 26.1% |
| Certain Litigation Charges | 26 | 17 | 0.01 | 34.6% |
| Acquisition-Related Items | 283 | 212 | 0.15 | 25.1% |
| Amortization of Intangible Assets | 1,931 | 1,467 | 1.03 | 24.0% |
| Loss on Previously Held Forward Starting Interest Swap Rates | 45 | 29 | 0.02 | 35.6% |
| Debt Tender Premium | 183 | 118 | 0.08 | 35.5% |
| Certain Tax Adjustments, Net††† | – | 417 | 0.29 | – |
| Non-GAAP | $7,399 | $6,228 | $4.37 | 15.8% |
| Year-Over-Year Percent Change | | | | |
| GAAP | | | 17% | |
| Non-GAAP | | | 5% | |
| Constant Currency Adjusted Non-GAAP**** | | | 9% | |

* See description of non-GAAP financial measures contained on page 47 of this report.
† The data in this schedule has been intentionally rounded to the nearest $0.01 and, therefore, may not sum.
** Non-GAAP adjustments relate to charges or benefits that management believes may or may not recur with similar materiality or impact on results in future periods.
†† Represents amortization of step-up in fair value of inventory acquired in connection with the Covidien acquisition.
*** The impairment of debt investment.
††† Primarily related to U.S. income tax expense resulting from the company's completion of an internal reorganization of the ownership of certain legacy Covidien businesses that reduced the cash and investments held by Medtronic's U.S.-controlled non-U.S. subsidiaries. Also includes a benefit related to the establishment of a deferred tax asset on the tax basis in excess of book basis of a wholly owned U.S. subsidiary of which the company disposed.
**** Due to its 52/53 week fiscal year calendar, the company had an additional selling week in the first quarter of fiscal year 2016. While it is difficult to calculate an exact impact from the extra week, the Company estimates an $0.08 to $0.10 benefit to non-GAAP diluted earnings per share (EPS) in the first quarter of fiscal year 2016. The company estimates that, adjusting for the extra week, non-GAAP earnings, diluted EPS, and operating margin increases were approximately 8 to 9 percent, approximately 11 to 12 percent, and approximately 1 percent, respectively, on a constant currency, constant week basis when compared to the prior fiscal year.

**Medtronic PLC**
**Reconciliation of Operating Cash Flow to Free Cash Flow***
(Unaudited) (In $ million)

| | FY15 | FY16 | FY17 |
|---|---|---|---|
| Net Cash Provided by Operating Activities | $4,902 | $5,218 | $6,880 |
| Additions to Property, Plant, and Equipment | (571) | (1,046) | (1,254) |
| Free Cash Flow† | $4,331 | $4,172 | $5,626 |

* Investors should consider these non-GAAP measures in addition to, and not as a substitute for, financial performance measures prepared in accordance with U.S. GAAP.
† Free cash flow represents operating cash flows less property, plant, and equipment additions.

**FY17 Reconciliation of Worldwide Geographic Reported Growth to Worldwide Geographic Constant Currency Growth***
(Unaudited) (In $ million)

| | Fiscal Year as Reported | | | Fiscal Year Constant Currency Adjusted | | |
|---|---|---|---|---|---|---|
| | FY16 Total | FY17 Total | Reported Growth** | Currency Impact on Revenue | FY17 Total | Constant Currency Growth†,** |
| U.S. | $16,422 | $16,663 | 1% | – | $16,663 | 1% |
| Non-U.S. Developed | $8,708 | $9,085 | 4% | 44 | $9,041 | 4% |
| Emerging Markets | $3,703 | $3,962 | 7% | (78) | $4,040 | 9% |
| Total | $28,833 | $29,710 | 3% | (34) | $29,744 | 3% |

* U.S. includes the United States and U.S. territories. Non-U.S. developed markets include Japan, Australia, New Zealand, Korea, Canada, and the countries of Western Europe. Emerging Markets include the countries of the Middle East, Africa, Latin America, Eastern Europe, and the countries of Asia that are not included in the non-U.S. developed markets, as previously defined.
† Constant currency growth, a non-GAAP financial measure, measures the change in revenue between current and prior year periods using average exchange rates in effect during the applicable prior year period.
** Fiscal year 2016 was a 53-week year, with the extra week included in the first quarter results. While it is difficult to calculate the impact of the extra week, the company estimates that the extra week impact on worldwide, fiscal year 2016 first quarter revenue was approximately $450 million. Excluding the approximately $450 million from FY16 total revenue would result in approximately 5 percent overall growth and low double digit Emerging Markets growth, in each case on a constant currency, constant week basis.

**Medtronic PLC**
**Reconciliation of Diluted EPS to Non-GAAP EPS and Dividend Payout Ratio*** (Unaudited)

| | FY15 | FY16 | FY17 |
|---|---|---|---|
| **Diluted EPS** | $2.41 | $2.48 | $2.89 |
| Non-GAAP Adjustments† | | | |
| Impact of Inventory Step-Up | 0.41†† | 0.12†† | 0.02** |
| Restructuring Charges, Net | 0.16 | 0.15 | 0.20 |
| Acquisition-Related Items | 0.39 | 0.15 | 0.11*** |
| Amortization of Intangible Assets | 0.49 | 1.03 | 1.05 |
| Certain Litigation Charges | 0.02 | 0.01 | 0.14 |
| Certain Tax Adjustments, Net | 0.31†††† | 0.29**** | 0.15††† |
| Special Charge (Gain), Net | (0.02)****** | 0.03††††† | 0.05***** |
| Loss on Previously Held Forward Starting Interest Rate Swaps | – | 0.02†††††† | – |
| Debt Tender Premium | – | 0.08 | – |
| Impact of Product Technology Upgrade Commitment | 0.06******* | – | – |
| Impact of Acquisition on Interest Expense | 0.04††††††† | – | – |
| **Non-GAAP EPS** | $4.28 | 4.37 | 4.60 |
| Currency Impact | | 0.47 | 0.17 |
| **Adjusted Non-GAAP EPS** | | $4.84 | $4.77 |
| Dividend Per Share | $1.22 | $1.52 | $1.72 |
| **Dividend Payout Ratio** | 40% | 63% | 69% |
| Impact of Non-GAAP Adjustments | (10) | (27) | (30) |
| **Dividend Payout Ratio, Non-GAAP Basis** | 30% | 36% | 39% |

Investors should consider these non-GAAP measures in addition to, and not as a substitute for, financial performance measures prepared in accordance with U.S. GAAP.
* The data in this schedule has been intentionally rounded to the nearest $0.01 and, therefore, may not sum.
† Non-GAAP adjustments relate to charges or gains that management believes may or may not recur with similar materiality or impact on results in future periods.
** Represents amortization of step-up in fair value of inventory acquired in connection with the HeartWare acquisition.
†† Represents amortization of step-up in fair value of inventory acquired in connection with the Covidien acquisition.
*** Integration-related costs incurred in connection with the Covidien acquisition, and charges incurred in connection with the pending divestiture of a portion of our Patient Monitoring & Recovery division to Cardinal Health.
††† The net charge primarily relates to the tax effect from the recognition of the outside basis difference of certain subsidiaries which are included in the expected divestiture of a portion of our Patient Monitoring & Recovery division to Cardinal Health, certain tax charges recorded in connection with the redemption of an intercompany minority interest, and the resolution of various tax matters from prior periods.
**** Primarily relates to U.S. income tax expense resulting from the company's completion of an internal reorganization of the ownership of certain legacy Covidien businesses that reduced the cash and investments held by Medtronic's U.S.-controlled non-U.S. subsidiaries. Also includes a benefit related to the establishment of a deferred tax asset on the tax basis in excess of book basis of a wholly owned U.S. subsidiary of which the company disposed.
†††† Primarily relates to a $329 million tax expense for anticipated resolution of the Kyphon acquisition-related issues with the IRS.
***** The charge represents a contribution to the Medtronic Foundation.
††††† The impairment of a debt investment
****** Special gain includes $64 million after-tax charitable contribution made to the Medtronic Foundation, $25 million after-tax gain on divestiture recognized in connection with the sale of the MicroFrance product line, and $62 million after-tax net gain recognized in connection with the sale of a certain equity method investments.
†††††† Relates to losses incurred from the unwinding of forward starting interest rate swaps, which were previously entered into in advance of a planned debt issuance that was no longer expected post the internal reorganization.
******* Probable and reasonably estimable charges related to a CRHF global comprehensive program for home based monitors due to industry conversion from analog to digital technology.
††††††† Represents the incremental interest expense incurred to hold $17 billion of debt from December 10, 2014 through the end of the third quarter of FY15. On December 10, 2014, Medtronic Inc. issued $17 billion of debt to finance, in part, the cash component of the Covidien acquisition consideration including the payment of certain transaction and financing expenses and for working capital and general corporate purposes.

**Medtronic PLC**
**Reconciliation of Net Income to Non-GAAP Net Income*** (Unaudited) (in $ million)

| | FY15 | FY16 | FY17 |
|---|---|---|---|
| **GAAP Net Income attributable to Medtronic** | $2,675 | $3,538 | $4,028 |
| Non-GAAP Adjustments† | | | |
| Impact of Inventory Step-Up | 455†† | 165†† | 24** |
| Restructuring Charges, Net | 180 | 221 | 272 |
| Acquisition-Related Items | 433 | 212 | 156*** |
| Amortization of Intangible Assets | 538 | 1,467 | 1,460 |
| Certain Litigation Charges | 27 | 17 | 190 |
| Certain Tax Adjustments, Net | 349†††† | 417**** | 202††† |
| Special Charge (Gain), Net | (23)****** | 44††††† | 63***** |
| Loss on Previously Held Forward Starting Interest Rate Swaps | – | 29†††††† | – |
| Debt Tender Premium | – | 118 | – |
| Impact of Product Technology Upgrade Commitment | 61******* | – | – |
| Impact of Acquisition on Interest Expense | 49††††††† | – | – |
| **Non-GAAP Net Income attributable to Medtronic** | $4,744 | $6,228 | $6,395 |
| **Dividends** | 1,337 | 2,139 | 2,376 |
| **Share Repurchases, Net** | 1,271 | 2,339 | 3,116 |
| **Total Payout Ratio** | 97% | 127% | 136% |
| Impact of Non-GAAP Adjustments | (42) | (55) | (50) |
| **Total Payout Ratio, Non-GAAP Basis** | 55% | 72% | 86% |

Investors should consider these non-GAAP measures in addition to, and not as a substitute for, financial performance measures prepared in accordance with U.S. GAAP.
* The data in this schedule has been intentionally rounded to the nearest $0.01 and, therefore, may not sum.
† Non-GAAP adjustments relate to charges or benefits that management believes may or may not recur with similar materiality or impact on results in future periods.
**Represents amortization of step-up in fair value of inventory acquired in connection with the HeartWare acquisition.
†† Represents amortization of step-up in fair value of inventory acquired in connection with the Covidien acquisition.
*** Integration-related costs incurred in connection with the Covidien acquisition, and charges incurred in connection with the pending divestiture of a portion of our Patient Monitoring & Recovery division to Cardinal Health.
††† The net charge primarily relates to the tax effect from the recognition of the outside basis difference of certain subsidiaries which are included in the expected divestiture of a portion of our Patient Monitoring & Recovery division to Cardinal Health, certain tax charges recorded in connection with the redemption of an intercompany minority interest, and the resolution of various tax matters from prior periods.
**** Primarily relates to U.S. income tax expense resulting from the company's completion of an internal reorganization of the ownership of certain legacy Covidien businesses that reduced the cash and investments held by Medtronic's U.S.-controlled non-U.S. subsidiaries. Also includes a benefit related to the establishment of a deferred tax asset on the tax basis in excess of book basis of a wholly owned U.S. subsidiary of which the company disposed.
†††† Primarily relates to a $329 million tax expense for anticipated resolution of the Kyphon acquisition-related issues with the IRS.
***** The charge represents a contribution to the Medtronic Foundation.
††††† The impairment of a debt investment.
****** Special gain includes $64 million after-tax charitable contribution made to the Medtronic Foundation, $25 million after-tax gain on divestiture recognized in connection with the sale of the MicroFrance product line, and $62 million after-tax net gain recognized in connection with the sale of a certain equity method investments.
†††††† Relates to losses incurred from the unwinding of forward starting interest rate swaps, which were previously entered into in advance of a planned debt issuance that was no longer expected post the internal reorganization.
******* Probable and reasonably estimable charges related to a CRHF global comprehensive program for home based monitors due to industry conversion from analog to digital technology.
††††††† Represents the incremental interest expense incurred to hold $17 billion of debt from December 10, 2014 through the end of the third quarter of FY15. On December 10, 2014, Medtronic Inc. issued $17 billion of debt to finance, in part, the cash component of the Covidien acquisition consideration including the payment of certain transaction and financing expenses and for working capital and general corporate purposes.

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