

MEDTRONIC  
2016  
**INTEGRATED  
PERFORMANCE  
REPORT**

## BUSINESS GROWTH

**\$28.8  
BILLION**  
in revenue

**\$3.5  
BILLION**  
in net earnings

## FY2016 HIGHLIGHTS

## WORKING RESPONSIBLY

**7<sup>th</sup>**  
**CONSECUTIVE YEAR**  
receiving a perfect score on  
the Human Rights Campaign  
Corporate Equality Index

**NON-REGULATED WASTE DOWN**  
**16%** per unit of revenue  
from 2013

**GHG EMISSIONS DOWN**  
**20%** per unit of revenue  
from 2013

**64,800**  
**EMPLOYEE HOURS**  
volunteered through Project 6

## VALUE TO SOCIETY

**7.7%**  
**OF TOTAL SALES**  
invested in research  
and development

**60,000**  
**MEDICAL PROFESSIONALS**  
received training on  
the newest technologies  
and treatments

**\$114.6**  
**MILLION**  
in philanthropic giving

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# CEO LETTER

## LEADERSHIP IN THE NEW HEALTHCARE ERA

Healthcare is at a crossroads. Our industry faces intense clinical and economic challenges that include an aging global population, rising incidence of chronic disease, inefficient healthcare delivery, complex regulatory systems, and fragmented fee-for-service payment models. These challenges require new approaches and creative collaboration as we pursue better healthcare delivery and improved patient outcomes for more people.

Medtronic is leading this evolution with a transformative business strategy to advance global healthcare. Our approach combines meaningful innovation in therapies, products, and systems; with value-based, cost-efficient healthcare models; and technologies and partnerships that open the door to quality care for more people around the world.

I am excited to report that in FY2016 this strategy has produced significant results. More than 65 million people benefited from Medtronic technologies — two every second — as we helped our customers deliver more seamless, integrated care for patients across the healthcare continuum. In particular, the full integration of Covidien — acquired in late FY2015 — has greatly expanded our global reach and impact. Further, we expanded our leadership in Value-based Healthcare, with a goal of sharing accountability for costs and improved patient outcomes. Additionally, in FY2016 Medtronic:

- Delivered strong financial results, with \$28.8 billion in revenue and \$3.5 billion in net earnings.
- Invested \$2.2 billion in research and development (R&D), representing 7.7 percent of net sales.
- Donated more than 2 percent of pre-tax profits — \$114.6 million — to charitable causes.
- Supported Hub & Spoke healthcare delivery models with an investment in Abraaj Group's Growth Markets Health Fund (GMHF). GMHF will purchase and build hub hospitals in several emerging markets, including Bangladesh, Ethiopia, Ghana, India, Kenya, Nigeria, and Pakistan, expanding access to specialists for millions of patients.

- Extended our lifesaving HeartRescue Project into China and India, and expanded the U.S. program nationally as the HeartRescue Consortium.
- Increased healthcare capacity and access by investing more than \$152 million in training for approximately 60,000 medical professionals.
- Progressed to meet our goal to reduce operational energy use and greenhouse gas emissions by 15 percent by 2020 from a FY2013 baseline.
- Launched a Responsible Supply Management function to support socially and environmentally responsible business practices from our suppliers.

Reflecting our focus on reshaping Medtronic for a new healthcare era, this annual integrated report is organized primarily around our most material sustainability issues. These are global access to healthcare, product quality, product stewardship, responsible sourcing, and ethics in sales and marketing.

For more than half a century, Medtronic has operated with a clear, compelling Mission: to alleviate pain, restore health, and extend life. We believe that access to quality healthcare is a fundamental right of all people around the world. We believe that continuously improving clinical outcomes through innovation will present virtually limitless opportunities to extend our Mission. Each day we challenge ourselves to make this a reality for more people.

I'm incredibly proud of our performance in FY2016 and even more excited about our future as we continue to challenge the status quo. In my five years with Medtronic, I see our value as a company, and our business performance, tied more closely than ever to our citizenship impact.



**Omar Ishrak**  
Chairman and Chief Executive Officer

# COMPANY OVERVIEW

## ABOUT OUR COMPANY

Medtronic is among the world's largest medical technology, services, and solutions companies — alleviating pain, restoring health, and extending life for millions of people around the world. Founded more than 60 years ago, today we serve hospitals, physicians, clinicians, and patients in approximately 160 countries. Our therapies improve the lives of two people every second.

Our purpose is to transform healthcare by creating meaningful innovation, expanding global access to therapies, aligning value, and being a trusted partner. Our three strategic priorities are:

- Therapy innovation (see [Access](#) for more information)
- Globalization
- Economic value (see [Economic Contributions to Society](#) for more information)

### MEDTRONIC, FY2016 SNAPSHOT

Number of Employees	88,000+
Number of Countries in Which We Operate	Approximately 160
Number of Locations	480
Research and Development Spend	\$2.2 billion
Number of Patents	45,000+
Patients Served	65 million+

## ORGANIZATIONAL PROFILE

Medtronic is a global healthcare player with four operating segments — the Cardiac and Vascular Group, Minimally Invasive Therapies Group, Restorative Therapies Group, and Diabetes Group. Each segment is divided into business divisions that deliver a wide range of medical technologies, therapies, services, and solutions.

## MEDTRONIC OPERATING SEGMENTS:

FY2016 TOTAL SALES AND BUSINESS DIVISIONS

Total net sales **\$28.8 billion**

### CARDIAC AND VASCULAR GROUP

**FY2016 net sales of \$10.2 billion**

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

### MINIMALLY INVASIVE THERAPIES GROUP

**FY2016 net sales of \$9.6 billion**

- Surgical Solutions
- Patient Monitoring and Recovery

### RESTORATIVE THERAPIES GROUP

**FY2016 net sales of \$7.2 billion**

- Spine
- Neuromodulation
- Surgical Technologies
- Neurovascular

### DIABETES GROUP

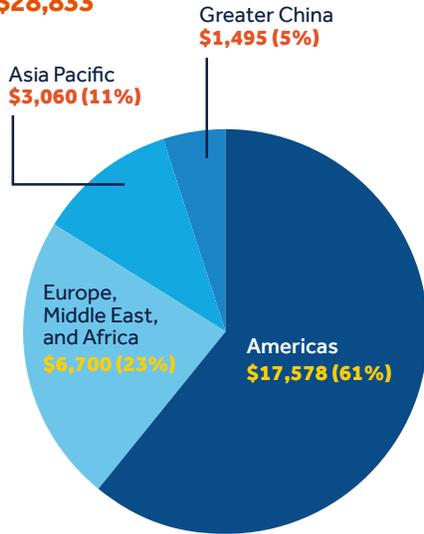
**FY2016 net sales of \$1.8 billion**

- Intensive Insulin Management
- Non-Intensive Diabetes Therapies
- Diabetes Service and Solutions

## FY2016 NET SALES TO EXTERNAL CUSTOMERS BY REGION

(\$ MILLIONS)

**Total net sales: \$28,833**



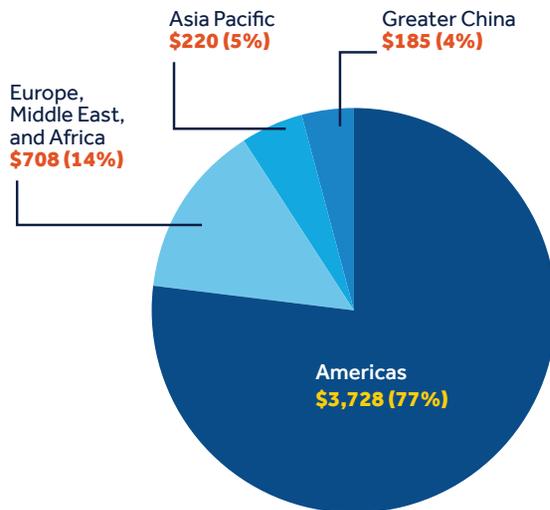
## SCOPE OF REPORT

This is our third annual integrated report. It covers our global operations for the fiscal year ended Apr. 29, 2016 (FY2016), and, for the first time, incorporates annual data from Covidien, acquired in FY2015. The FY2016 report is organized around our most material issues, summarized in **Sustainability Risks and Opportunities** and covered extensively throughout the report, GRI Supplement, and [website](#).

## FY2016 NET PROPERTY, PLANT, AND EQUIPMENT (PPE) BY REGION

(\$ MILLIONS)

**Total net PPE: \$4,841**



# SUSTAINABILITY RISKS AND OPPORTUNITIES

As a global leader in medical technology, our business generates significant benefits for society. In addition to pursuing our Mission to alleviate pain, restore health, and extend life, we embrace and act on our social and environmental responsibilities. We proactively manage risks to our operations and reputation, and capitalize on opportunities through the integration of sustainability into our business strategy.

## OUR MATERIAL ISSUES

We aim to understand, and act on, the issues most important to our stakeholders and our business. In FY2014, we consulted internal and external stakeholders including healthcare providers, policy makers, and investors to identify our material issues. In May 2016, our Sustainability Steering Committee reviewed the proposed strategy for continuous improvement of our five priority sustainability issues.

Our most material sustainability issues are:

- **Access to Care:** working with health systems around the world, sharing technologies, services, resources, and expertise to help 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 innovation.
- **Responsible Sourcing:** 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 relation to the marketing, communication, and promotion of our products and services.

We have identified the following as additional material sustainability issues: corporate governance, device security, financial strength, philanthropy, post-market surveillance, stakeholder engagement, talent, and trial data. Our efforts in all material areas are addressed within this report, in our GRI Supplement, or on our [website](#).

## SUSTAINABILITY MANAGEMENT

Sustainability is integrated into our daily operations. Individual functional groups are responsible for managing critical sustainability topics, monitoring external trends for opportunities to improve sustainability performance, and establishing stronger metrics, goals, and targets. These groups include: Environmental, Health, Safety, and Sustainability (EHS&S); Ethics and Compliance; Global Communications; Global Quality; Global Strategy; Human Resources; Investor Relations; Legal and Regulatory; Philanthropy; and Procurement.

In late FY2016, we committed to a plan to form the Medtronic Sustainability Steering Committee (SSC) comprising an Executive Champion and 10 members from business functions across our company. The committee launched in fiscal year 2017 and will continue to meet at least three times per year. The committee is responsible for sustainability oversight at Medtronic and develops strategic plans related to sustainability performance, risk, engagement and disclosure, and recognition.

## REDUCING SUSTAINABILITY RISK

Our management of sustainability issues supports our overall risk management strategy.

The table below outlines our main sustainability risks and how we manage them. These risks are subsets of the risk factors included in our periodic reports filed with the U.S. Securities and Exchange Commission (including forms [10-K](#) and [10-Q](#)). We encourage readers to review these reports for more information on risks to our business and operations. We cannot guarantee that even the most exhaustive efforts will fully mitigate or prevent impact on our business success.

SUSTAINABILITY RISK AREA	HOW WE MANAGE RISK
Reputational damage from unethical behavior	The Medtronic Office of Ethics and Compliance trains employees to comply with our <a href="#">Code of Conduct</a> . With this and additional job-specific compliance training, employees are made aware of our expectations for ethical and compliant behavior, which mitigates corruption and intentional misconduct.
Failure to meet customer sustainability requirements	We work to design our quality, access, environmental, labor practices, and responsible supply management programs to meet or exceed all customer product and service requirements.
Changing ethical, social, and environmental regulations	Our Government Affairs and EHS&S groups monitor relevant regulations in global markets. We often engage industry organizations and regulators to educate them about our industry and prepare them for potential and pending regulation. We partner with our corporate legal attorneys and paralegals to ensure compliance with applicable laws and regulations.  Medtronic is also putting in place a monitoring program for human rights and labor standards regulations across global markets.
Increasing costs from end of product life obligations	We have seen increasing expectations for stewardship over the full lifecycle of our products and packaging, including product end-of-life solutions. To address these issues, Medtronic has incorporated environmental criteria into the early stages of its product development protocol and into changes made to the product throughout its lifecycle. We are implementing training for engineers on how to perform materials of concern assessments, and are building a Sustainable Technologies business to increase product reprocessing where appropriate.

## Ensuring business continuity

Unexpected events can have an impact on our business. Our Business Continuity Management program proactively addresses potential disruptions to our operations or supply chain. Key areas of focus are:

- **Business continuity planning:** strategies to ensure that we can continue to operate and meet demand in adverse circumstances.
- **IT response and recovery:** plans designed to respond to failures in technology and recover the infrastructure that supports business continuity.
- **Emergency response:** actions to ensure health and safety, safeguard physical structures, and minimize environmental impact.
- **Crisis management and mobilization:** coordination of our responses to crises.

Our crisis management teams follow a protocol to effectively manage issues and synchronize responses across the business. The Corporate Crisis team provides regular updates to the Executive Committee, ensuring that crisis strategies and protocols are executed appropriately. For issues with potentially significant business impacts, the Medtronic Global Command Center is notified, and our Corporate Crisis Filter team determines the appropriate level of response.

## Risk profile of Value-based Healthcare

We believe that the current healthcare system is not sustainable, and needs to be transformed to improve patient outcomes and control rising healthcare costs. Medtronic accepts and supports that healthcare system leaders around the world will, in fact, implement Value-based Healthcare (VBHC) delivery and payment systems, whereby they make payment for our products and services contingent upon their ability to improve patient outcomes relative to their cost.

As the largest medical device company in the world, Medtronic has a unique role to play in ensuring that technology and innovation are leveraged to their fullest as we evolve in the shift to VBHC. To achieve that goal and fulfill our Mission, we are actively partnering to help lead this transformation. For more information about our VBHC strategy and approach, see [Economic Value](#).

## CREATING OPPORTUNITIES

Our sustainability programs complement our business objectives, improving operational efficiency, deepening relationships with customers, supporting new business, and enhancing investor relations.

### Driving business efficiency

Our 2020 sustainability targets reduce our operating costs for energy, water, and waste disposal while generating clear environmental benefits. In FY2016, we met or surpassed four of our five goals.

Progress in FY2016 is shown below and in [Operations](#).

#### 2020 ENVIRONMENTAL PERFORMANCE GOALS\*

2020 TARGET (VS. A 2013 BASELINE)	PROGRESS (% CHANGE FY2013 TO FY2016)
Reduce Non-Regulated Waste per Unit of Revenue by 15%.	-16%
Reduce Regulated Waste per Unit of Revenue by 10%.	+12%**
Reduce Energy Use per Unit of Revenue by 15%.	-17%
Reduce Greenhouse Gas Emissions per Unit of Revenue by 15%.	-20%
Reduce Water Use per Unit of Revenue by 10%.	-15%

\*All percentage reduction goals are based on a FY2013 baseline year recalculated to account for Covidien acquisition in FY2015.  
\*\*Medtronic will identify and target specific processes and waste streams in a concerted effort to reduce regulated waste in line with our 2020 goal. See [Operations](#).

We are working to achieve \$3.0 billion in cost savings across our global portfolio by FY2021. In FY2016, we achieved approximately \$400 million in cost savings through streamlined sourcing and manufacturing processes and developments in product design that reduce costs and improve performance. In addition, we renegotiated supplier contracts, identified alternate vendors, consolidated and optimized our manufacturing plants, and upgraded product design to increase manufacturing efficiency.

### Meeting customer expectations

Our healthcare customers seek business partners that align with their values and support their own sustainability and citizenship programs. Often, new business proposals include scrutiny of our sustainability credentials. To remain a partner of choice, we aim to excel in environmental and ethical performance.

### Responding to investors

Strong sustainability performance signals forward-looking management and proactive risk mitigation to investors. Medtronic is listed in the [Dow Jones Sustainability Index \(DJSI\)](#) investor ranking and satisfies criteria for inclusion in the [FTSE4Good Index](#). We also submit environmental sustainability data to the [CDP](#).

In response to shareholder requests, the Company is developing a Global Human Rights and Labor Standards Policy and will also begin to report on the percentage of significant suppliers that issue sustainability reports.

For more information, please see [Responsible Sourcing](#).

# ECONOMIC CONTRIBUTIONS TO SOCIETY

All non-GAAP 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” starting on [page 16](#).

As we pursue our growth strategies of therapy innovation, globalization, and economic value, we ensure that our actions and decisions are financially sound. A financially strong Medtronic benefits the public and private sectors by providing new jobs, infrastructure investments, shareholder returns, and taxes. We also make strategic community investments that strengthen the capabilities of healthcare providers, advocate for policy reform, support patient empowerment, and expand access to products and therapies. We focus our philanthropy on underserved communities and those affected by natural disasters as we seek to make the world a healthier place for everyone.

## FINANCIAL PERFORMANCE

Our financial planning and decision making is driven by three baseline goals:

- 1. Revenue growth:** Deliver consistent mid-single digit non-GAAP constant currency revenue growth.
- 2. Earnings per share:** Achieve double-digit non-GAAP constant currency earnings per share (EPS) growth.
- 3. Free cash flow:** Return a minimum of 50 percent of free cash flow, a non-GAAP measure, to shareholders.

### FINANCIAL PERFORMANCE SUMMARY (\$ MILLIONS EXCEPT PERCENT AND PER SHARE DATA)

	FY2012	FY2013	FY2014	FY2015*	FY2016
Net Sales (Total)	\$16,184	\$16,590	\$17,005	\$20,261	\$28,833
Net Sales (U.S.)	\$8,828	\$9,095	\$9,247	\$11,305	\$16,422
Net Sales (Non-U.S. Developed)	\$5,690	\$5,634	\$5,652	\$6,372	\$8,708
Net Sales (Emerging Markets)	\$1,666	\$1,861	\$2,106	\$2,584	\$3,703
Net Earnings	\$3,617	\$3,467	\$3,065	\$2,675	\$3,538
Net Sales (Total) Growth	4.4%	2.5%	2.5%	19.2%	42.3%
Additions to Property, Plant, and Equipment	\$484	\$457	\$396	\$571	\$1,046
Free Cash Flow (non-GAAP)**	\$3,986	\$4,485	\$4,563	\$4,331	\$4,172
Net Repurchase of Common Stock (net of issuances)	\$1,126***	\$980	\$1,246	\$1,271	\$2,339
Dividends to Shareholders	\$1,021	\$1,055	\$1,116	\$1,337	\$2,139
Dividends per Share	\$0.97	\$1.04	\$1.12	\$1.22	\$1.52
Research and Development Expense	\$1,490	\$1,557	\$1,477	\$1,640	\$2,224

\*FY2015 based on Medtronic fiscal year as reported and reflects the one-quarter contribution of the Covidien transaction which closed on Jan. 26, 2015.

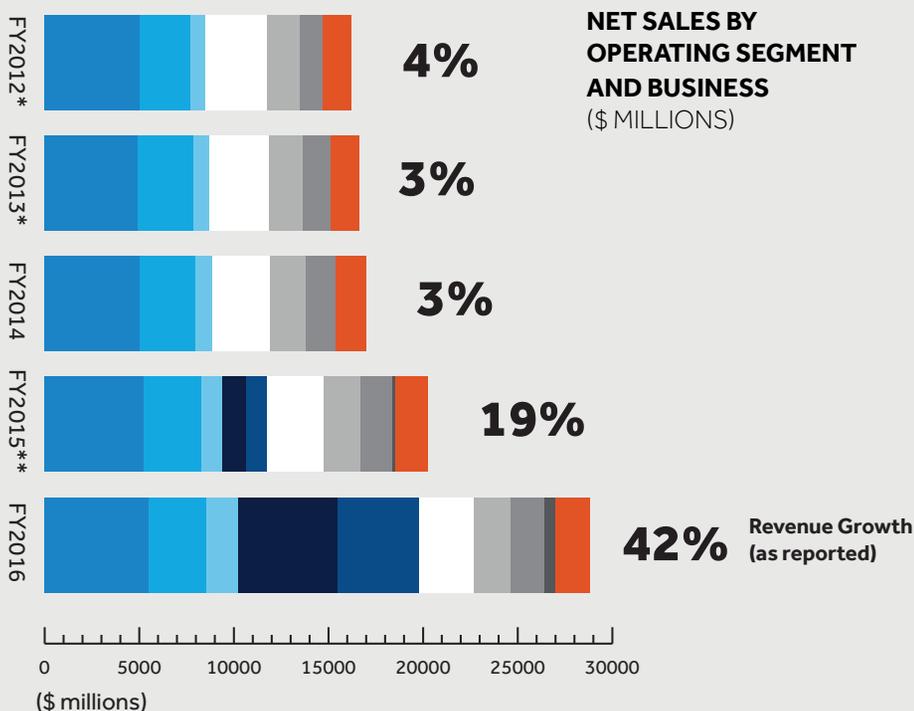
\*\*Represents a non-GAAP financial measure. For reconciliation to the most comparable U.S. GAAP measure, see Non-GAAP Financial Measures starting on [page 16](#).

\*\*\*Excluding \$218M of proceeds from Physio-Control used for repurchases.

## Revenue growth

Our revenue growth strategy relies on an unmatched pipeline of products and attractive, diversified markets. We believe emerging markets represent a long-term source of revenue growth for the company. To accelerate emerging market growth, we are focusing on public and private partnerships and on optimization of distribution channels. In FY2016, revenue in emerging markets grew 43 percent as reported, or 13 percent on a non-GAAP comparable, constant currency basis.

In FY2016, our annual revenue (net sales) increased 42 percent as reported, or 7 percent on a non-GAAP comparable, constant currency basis, in line with our baseline goal.



## Earnings per share

Our FY2016 net earnings as reported were approximately \$3.5 billion, or \$6.2 billion on a non-GAAP basis. Our diluted earnings per share (EPS) were \$2.48 as reported, or \$4.37 on a non-GAAP basis.

In FY2016, Medtronic achieved our EPS goal, which grew 780 basis points faster than revenue on a non-GAAP, constant currency basis.

## Free cash flow, a non-GAAP measure

Our strong cash position enables us to make investments in capabilities and capital investments while continuing to return value to shareholders via dividends and stock repurchases. Changes in foreign currency rates during FY2016 affected the reported value of our foreign currency revenues and cash flows.

Medtronic had \$4.2 billion in free cash flow (non-GAAP) in FY2016, and returned \$4.5 billion to shareholders, for a return of free cash flow (non-GAAP) percentage of 107 percent. See [Return to Shareholders](#) for more information.

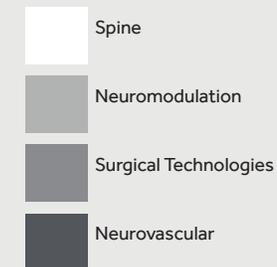
### Cardiac and Vascular



### Minimally Invasive Therapies



### Restorative Therapies



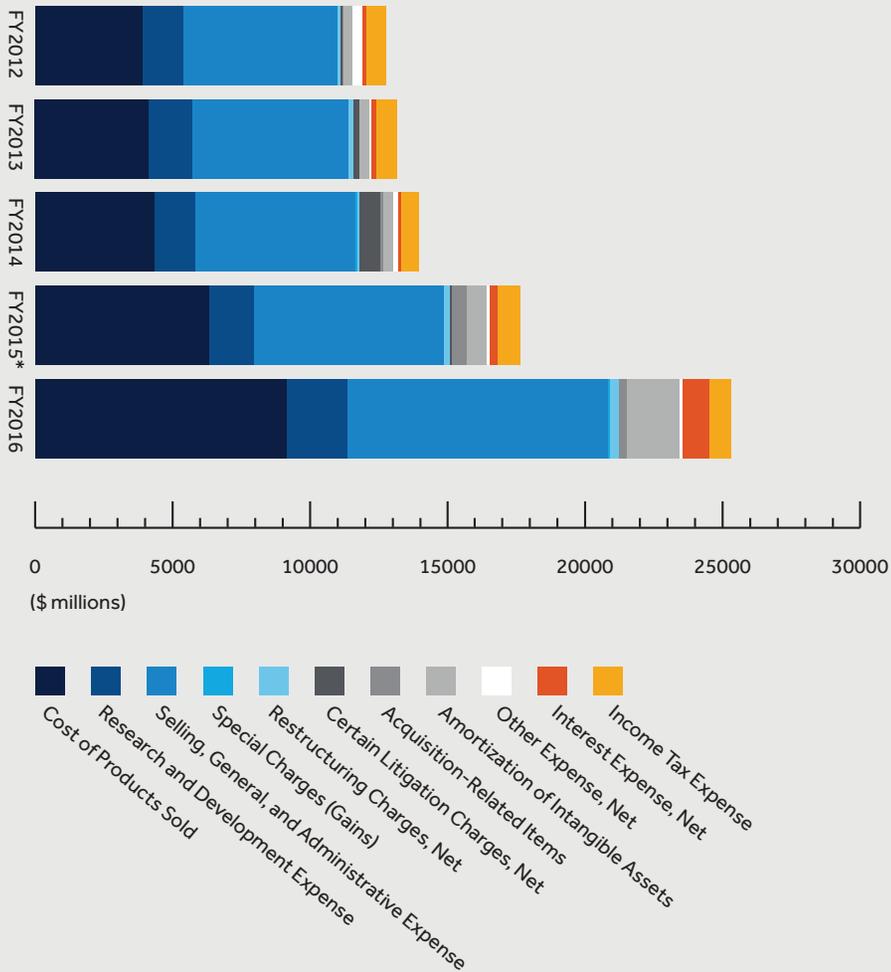
### Diabetes



\*In the first quarter of fiscal year 2014, the Company amended the way in which management evaluates performance and allocates resources for the Diabetes business, including separating the Diabetes business from the Restorative Therapies Group. Accordingly, the segment information for FY2012 and FY2013 has been realigned to present comparable segment information.

\*\*FY2015 based on Medtronic fiscal year as reported and reflects the one-quarter contribution of the Covidien transaction that closed on Jan. 26, 2015.

## MEDTRONIC EXPENSES (\$ MILLIONS)



\*FY2015 based on Medtronic fiscal year as reported and reflects the partial year contribution of the Covidien transaction that closed on Jan. 26, 2015.

## OPERATING COSTS

Around the world, communities benefit from our operating expenses, including salaries and wages; research and development (R&D) outlays; selling, general, and administrative expenses; and income taxes.

### Compensation and wages

We contribute to local communities through wages and benefits paid to more than 88,000 employees in approximately 160 countries. In both developed and emerging markets, we are growing our manufacturing, commercial, and R&D operations. We also invest in hiring and developing local talent, creating jobs that benefit local economies.

We spent \$8.1 billion on total compensation last year, including \$4.6 billion in direct salary and wages, and an additional \$584 million in retirement benefits.

### EMPLOYEE COMPENSATION (\$ MILLIONS)\*

	FY2012	FY2013	FY2014	FY2015***	FY2016****
Total Compensation**	\$5,045	\$5,322	\$5,376	\$5,614	\$8,057
Salary and Wages	\$2,864	\$2,948	\$3,051	\$3,169	\$4,634
Retirement Benefit Plans	\$319	\$419	\$419	\$433	\$584

\*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 compensation data contained in this table represents Medtronic operations for FY2015, excluding Covidien.  
 \*\*\*\*FY2016 contained 53 weeks, while other years only contain 52 weeks.

## ACQUISITIONS AND INVESTMENTS

Beyond investing in market and product development, we seek opportunities to strategically grow our business and cultivate our role as a healthcare leader through acquisitions and investments.

### Acquisitions

We make acquisitions that bring new technology, strategic skills, capabilities, and expertise to Medtronic and align 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 acquisitions that will deliver mid-teens risk-adjusted returns, result in minimal to no "net" EPS dilution for shareholders, and demonstrate clear economic value to our business. Select acquisitions in FY2016 included:

- **Twelve, Inc.:** On Oct. 2, 2015, the Company's Coronary & Structural Heart division acquired Twelve, Inc., a privately held medical device company focused on the development of a transcatheter mitral valve replacement device. Total consideration for the transaction was approximately \$472 million, which included an upfront payment of \$428 million and the estimated fair value of product development-based contingent consideration of \$44 million. Based upon the acquisition valuation, the company acquired \$192 million of in-process research and development (IPR&D) and \$291 million of goodwill.
- **RF Surgical Systems, Inc.:** On Aug. 11, 2015, the company's Surgical Solutions division acquired RF Surgical Systems, Inc., a medical device company focused on the detection and prevention of retained surgical sponges. Total consideration for the transaction was approximately \$240 million. Based upon the acquisition valuation, the company acquired \$68 million of technology-based intangible assets, \$47 million of customer-related intangible assets, with estimated useful lives of 18 and 16 years, respectively, and \$135 million of goodwill.
- **Medina Medical:** On Aug. 31, 2015, the company's Neurovascular division acquired Medina Medical, a privately held medical device company focused on commercializing treatments for vascular abnormalities of the brain, including cerebral aneurysms. Total consideration for the transaction was approximately \$219 million, which includes an upfront payment of \$155 million and the estimated fair value of revenue-based and product development-based contingent consideration of \$64 million. Medtronic had previously invested

in Medina and held an 11 percent ownership position. Net of this ownership position, the transaction value was approximately \$195 million. Based upon the acquisition valuation, the company acquired \$122 million of IPR&D and \$126 million of goodwill.

### Investments

Within our existing business, we invest in infrastructure, capabilities, and initiatives that accelerate our pace and breadth of innovation, creating competitive advantage and greater benefit for patients. Examples of these investments in FY2016 included:

- **Panama Technical Service Training Center:** At this training center, hospital biomedical technicians and engineers from across the region will learn how to correctly repair and maintain Medtronic technologies. Training will be more cost-effective and impactful for customers, with instruction provided in their native language.
- **Pointe-Claire facility:** Investment underway will consolidate production operations of the Medtronic CryoCath facility in Montreal, Canada, and make it a global center of excellence. The site will house the company's production and R&D operations along with catheter treatment teaching activities.
- **IN.PACT<sup>®</sup> Admiral<sup>®</sup> drug-coated balloon manufacturing facility:** A new manufacturing facility in Galway, Ireland, that will manufacture this market-leading product for the treatment of peripheral artery disease. The investment typifies the kind of manufacturing project Medtronic is looking to develop in Ireland — providing highly skilled jobs to manufacture innovative products for sale in global markets.

We also invest in early-stage startups whose innovative solutions have groundbreaking potential to improve lives. For example:

- In partnership with Sequoia Capital, Medtronic is setting up a China-based fund dedicated to medical sector early-stage investments. The initial fund is worth \$60 million, which is likely to be invested in local technology and services that have export potential. The fund will also provide financing to commercialize suitable overseas technology within China.
- FIRE1, a Dublin-based startup originating from The Foundry, a medical device incubator, secured Series B financing, including from existing investors Lightstone Ventures and New Enterprise Associates, as well as Medtronic.

## DIVESTITURES

When appropriate, divestitures provide the opportunity to refocus our business activities and product and therapy portfolio on our strategic priorities.

## TAXES

In part, we generate value for the communities and countries where we operate through the taxes we pay. This includes income, real estate sales and use, payroll, excise, and value-added taxes. In FY2016, we had \$798 million in income tax provisions, resulting in a 15.8 percent non-GAAP nominal tax rate, including a global effective rate of 18.4 percent.

## FINANCIAL ASSISTANCE

Stakeholder groups, including government agencies, occasionally provide Medtronic with financial incentives in order to attract and support long-term investments in their geographies or for disease states that align with our business strategy. Incentives include tax relief and tax credits, grants, and other direct incentives including subsidies, benefits, and awards.

## RETURN TO SHAREHOLDERS

One of our financial goals is to return 50 percent of our free cash flow (non-GAAP) to shareholders through dividends and share buybacks. In FY2016, we had \$4.2 billion in free cash flow (non-GAAP) and returned \$4.5 billion to shareholders, net of share issuances. We paid a total of \$2.1 billion in cash dividends at a rate of \$1.52 per share. FY2016 marked the 38th consecutive year of dividend increases and we continued to be included in the S&P 500 Dividend Aristocrats Index.

## PHILANTHROPY

Our charitable giving aims to build healthy communities and expand access to healthcare to underserved communities around the world.

Philanthropic contributions are managed by our business units and by the Medtronic Foundation. Every year we commit to donating at least 1.5 percent of pre-tax profits to charitable causes. In FY2016, we donated approximately 2.3 percent of our pre-tax profits, totaling \$114.6 million.

For the guidelines governing our philanthropic contributions by the businesses, see [Charitable Donations Guidelines](#). The businesses disclose all donations made to U.S. customers, or organizations affiliated with them, annually on our [Charitable Donations Registry](#). More information about the Medtronic Foundation is available at [medtronic.com/foundation](http://medtronic.com/foundation).

## PHILANTHROPY (\$ MILLIONS)

	FY2012	FY2013	FY2014	FY2015*	FY2016
Medtronic Foundation Giving	\$32.9	\$33.7	\$28.2	\$47.0	\$48.2
Corporate Cash Contributions**	\$22.3	\$21.7	\$27.7	\$31.3	\$49.6
Product Donations**	\$7.8	\$9.0	\$11.1	\$11.5	\$16.8
Philanthropic Contributions as a percentage of Global Pre-Tax Profits (%)	1.5%	1.5%	1.5%	1.9%	2.3%

\*FY2015 does not include legacy Covidien data.  
\*\*The significant increase in corporate cash contributions and product donations from FY2015 to FY2016 is the result of the Covidien integration.

### Medtronic Foundation — Global health programs

The Medtronic Foundation devotes a large portion of its philanthropic support to address the lack of access to adequate healthcare for underserved populations. These global health programs go beyond financial support to establish sustainable healthcare solutions in communities around the world. They collaborate with local and global partners to overcome systemic obstacles in healthcare systems and address gaps in the patient continuum of care. FY2016 progress by our three flagship programs HeartRescue, HealthRise, and RHD Action is shown below.

- **HeartRescue** aims to reduce premature mortality of acute cardiovascular disease for the underserved by empowering patients, leveraging frontline health workers, and advancing policy. The program has been implemented in Brazil, China, and India. We expanded the U.S. program, the HeartRescue Consortium, now in its fifth year, to reach 11 states and 75 million people.
- **HealthRise** provides long-term care for underserved populations by enabling frontline health workers and referral systems to deliver efficient and effective healthcare. Our primary objective is to increase accurate diagnosis and successful management of diabetes and cardiovascular disease. In FY2016, HealthRise convened government officials and experts to prioritize top barriers to care in communities in Brazil, India, South Africa, and the United States. Solution-oriented projects have already begun in India, while South Africa and Brazil plan to implement projects in FY2017.

- **RHD Action** was launched in FY2016 as a global movement to end Rheumatic Heart Disease (RHD) in vulnerable populations. This five-year, \$6 million initiative supports programs that advance the *Every Woman Every Child* commitment to reduce premature deaths from this prevalent disease. Our RHD Action partners are collaborating with local stakeholders on programs in Uganda and Tanzania to improve early detection and increase access to RHD care, and improve patient outcomes for RHD.

To learn more about how we increase access across the continuum of care through our business activities, see [Access](#).

### Community grantmaking

We have a responsibility to support the health of our neighbors. Medtronic Foundation community grants, administered over two years, provide care for underserved populations in the 72 communities where we have a significant employee presence. In FY2016, 38 communities benefited. In FY2016, Medtronic Foundation donated a total of \$5.3 million to more than 50 grant recipients. Recipient organizations are those that expand access to chronic disease healthcare, address persistent or emerging health challenges, and build partnerships to encourage collaboration.

Natural disasters create a need for healthcare supplies on the ground as well as long-term support to rebuild damaged healthcare infrastructure. In the wake of a crisis, Medtronic provides product donations and the Medtronic Foundation provides disaster relief grant funding. We encourage employees to contribute through financial donations and volunteer time.

### DISASTER RELIEF (\$ MILLIONS)

	FY2012	FY2013	FY2014	FY2015**	FY2016
Disaster Relief	\$1.3	\$0.6	\$1.6*	\$0.6	\$0.8

\*Total includes \$0.9 million donated toward the Ebola crisis.  
 \*\*FY2015 does not include legacy Covidien data.

### Patient empowerment programs

Patients who overcome a medical challenge often go on to lead extraordinary lives. The Medtronic Foundation celebrates their service and inspiration through two patient empowerment programs: the Bakken Invitation Award and the Global Heroes program.

The Medtronic Foundation Bakken Invitation Award honors individuals who have overcome health challenges with the help of medical technology and now give back to communities in need. In FY2016, the Medtronic

Foundation recognized 12 honorees from 11 countries. Their inspiring stories can be read [online](#).

FY2016 marked the 10th year of the Medtronic Foundation Global Heroes program. Twenty-five runners from 16 countries joined in Minnesota to run as a team in the Medtronic Twin Cities Marathon and Medtronic Twin Cities 10 Mile races. Each Global Hero has in some way benefited from medical technology, highlighting how “Life runs on” after a diagnosis. They demonstrate that when people have access to quality healthcare, they often can return to their passions. Read more information on the Global Heroes team [online](#).

### Community engagement

The greatest impact we have on establishing healthcare equality comes from our global workforce. The integration of Covidien has nearly doubled our reach, helping us build a global workplace culture. Medtronic and the Medtronic Foundation support employee community engagement through three signature programs:

- Global Innovation Fellows
- Project 6 Employee Volunteerism
- Global Matching Grants and Volunteer Grants

In FY2016, the Global Innovation Fellows program paired 30 Medtronic employees with nonprofits in Fiji, Ghana, India, Mexico, Tanzania, and the United States. The program harnesses employee passion to help transform communities, tapping into their experiences and expertise to improve people’s access to care around the world.

Every June, Medtronic employees participate in Project 6, our month-long global kickoff to a new year of volunteering. In FY2016, they donated 64,800 hours across 44 countries to charitable activities. The five Project 6 teams with the highest participation, impact, and unique attributes each received a \$10,000 grant from the Medtronic Foundation for a charitable organization of their choice.

In addition, the Medtronic Foundation matches dollar-for-dollar employee contributions to approved charities, ranging from \$25 to \$100,000 in FY2016, and made 2:1 contributions during June 2015. Employees donated nearly \$15 million to this program in FY2016, leading to an overall contribution of \$32 million when matched. The Medtronic Foundation also provides \$500 grants to nonprofits for every 25 hours of service an individual employee volunteers. In FY2016, more than 900 employees participated in this program, raising \$484,000.

## EMPLOYEE COMMUNITY ENGAGEMENT

	FY2012	FY2013	FY2014	FY2015*	FY2016
<b>Project 6</b>					
Volunteers	4,200	5,878	6,365	8,880	19,800
Total Volunteer Hours	18,813	19,695	18,570	29,000	64,800
Countries	28	33	30	35	44
Employee-Led Projects	221	193	215	274	512
<b>Global Innovation Fellows</b>	-	5	24	28	30
<b>Global Matching Grants</b>					
Employee Contributions (\$ Millions)**	\$1.5	\$1.5	\$7.9	\$24.3	\$14.9
Medtronic Match (\$ Millions)***	\$1.5	\$1.5	\$5.8	\$20	\$17.4
Volunteer Grants	-	-	-	786	968
Volunteer Grants (\$ raised)	\$581,229	\$457,268	\$461,667	\$515,000	\$484,000
*FY2015 does not include legacy Covidien data.					
**Covidien data for the period January–March 2016 is included in the FY2016 employee contributions. Full FY2016 Covidien data was not included due to the timing of Covidien's integration into the Medtronic Workday system.					
***The significant increase in employee contributions from FY2014 to FY2015 was a result of greater employee awareness, increasing the maximum donation threshold from \$50,000 in FY2014 to \$100,000 in FY2015, and program changes including offline acceptance of donations that were made to encourage participation.					

## NON-GAAP FINANCIAL MEASURES

Non-GAAP financial measures should be considered supplemental to, and not a substitute for, reported financial results prepared in accordance with U.S. GAAP, as set forth in the consolidated financial statements included with our periodic reports filed with the U.S. Securities and Exchange Commission. Medtronic uses non-GAAP financial measures to facilitate management's review of the operational performance of the company and as a basis for strategic planning. Medtronic believes that the resulting non-GAAP financial measures provide useful information to investors regarding the underlying business trends and performance of the company's ongoing operations and are useful for period-over-period comparisons of such operations. The non-GAAP financial measures reflect an additional way of viewing aspects of the Company's operations. Medtronic calculates forward-looking non-GAAP financial measures based on internal forecasts that omit certain amounts that would be included in GAAP financial measures. The determinations of the amounts that are omitted are a matter of management judgment and depend upon, among other factors, the nature of the charges or gains. Medtronic is unable to present quantitative reconciliations for forward-looking non-GAAP measures because management cannot reasonably predict with sufficient reliability all of the necessary components of the comparable GAAP financial measures. Medtronic has excluded from these forward-looking non-GAAP financial measures the impact of foreign exchange fluctuations, as well as certain charges or gains that contribute to or reduce earnings but that result from transactions or events management believes may or may not recur with similar materiality or impact to operations in future periods, such as amortization of intangible assets and acquisition-related items, certain tax and litigation, and restructuring charges or gains. Such items could have a substantial impact on GAAP measures of financial performance.

Reconciliations between historical non-GAAP financial measures referenced in this report and the most directly comparable U.S. GAAP measures follow.

**FY2016 NET INCOME AND DILUTED EPS GAAP TO NON-GAAP RECONCILIATIONS**

(Unaudited) (In Millions, Except Per Share Data)

	FISCAL YEAR ENDED APR. 29, 2016			
	Income from Operations Before Taxes	Net Income	Diluted EPS	Effective Tax Rate
<b>GAAP</b>	\$4,336	\$3,538	\$2.48	18.4%
Non-GAAP Adjustments: (1)				
Impact of Inventory Step-Up <sup>a</sup>	226	165	0.12	27.0
Special Charges <sup>b</sup>	70	44	0.03	37.1
Restructuring Charges, Net <sup>c</sup>	299	221	0.15	26.1
Certain Litigation Charges, Net <sup>d</sup>	26	17	0.01	34.6
Acquisition-Related Items <sup>e</sup>	283	212	0.15	25.1
Amortization of Intangible Assets <sup>f</sup>	1,931	1,467	1.03	24.0
Loss on previously held forward-starting interest rate swaps <sup>g</sup>	45	29	0.02	35.6
Debt Tender Premium <sup>h</sup>	183	118	0.08	35.5
Certain Tax Adjustments <sup>i</sup>	-	417	0.29	-
<b>Non-GAAP</b>	\$7,399	\$6,228	\$4.37	15.8%

(1) 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.

<sup>a</sup>Represents amortization of step-up in fair value of inventory acquired in connection with the Covidien acquisition, which was recorded in *costs of products sold* in our condensed consolidated statements of income.

<sup>b</sup>The \$44 million after-tax (\$70 million pre-tax) special charge was recorded in connection with the impairment of a debt investment.

<sup>c</sup>Includes a \$274 million after-tax charge (\$364 million pre-tax) related to a continuation of our cost synergies initiative, partially offset by a \$53 million (\$65 million pre-tax) reversal of excess restructuring reserves related to certain restructuring initiatives. The FY2016 restructuring charge for the cost synergies initiative primarily consisted of employee termination costs (including accelerated stock compensation due to terminations resulting from the Covidien acquisition), fixed asset impairments, and contract termination costs. The restructuring charge includes expense within cost of products sold related to inventory write-offs of discontinued product lines.

<sup>d</sup>Relates to probable and reasonably estimable product liability litigation.

<sup>e</sup>Primarily includes integration-related costs incurred in connection with the Covidien acquisition, partially offset by net income related to the change in fair value of contingent consideration associated with acquisitions subsequent to Apr. 29, 2009.

<sup>f</sup>To exclude amortization of intangible assets.

<sup>g</sup>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 is no longer expected following the internal reorganization described in footnote (i). The losses were recorded in *interest expense, net* in our condensed consolidated statements of income.

<sup>h</sup>The \$118 million after-tax charge (\$183 million pre-tax) was recorded in connection with the cash tender offer of certain outstanding debt securities issued by Medtronic, Inc. and Covidien International Finance S.A. The charge was recorded in *interest expense, net* in our condensed consolidated statements of income.

<sup>i</sup>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 our 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 the Company expects to dispose of during the foreseeable future.

MEDTRONIC PLC

**RECONCILIATION OF OPERATING CASH FLOW TO FREE CASH FLOW**

(Unaudited) (In Millions)

	FY2012	FY2013	FY2014	FY2015*	FY2016
Net cash provided by operating activities	\$4,470	\$4,942	\$4,959	\$4,902	\$5,218
Additions to property, plant, and equipment	(484)	(457)	(396)	(571)	(1,046)
Free cash flow	\$3,986	\$4,485	\$4,563	\$4,331	\$4,172

\*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.

MEDTRONIC PLC

**FY2016 RECONCILIATION OF WORLDWIDE GEOGRAPHIC REPORTED REVENUE GROWTH TO WORLDWIDE GEOGRAPHIC COMPARABLE CONSTANT CURRENCY REVENUE GROWTH**

(Unaudited) (In Millions)

	A	B	C	D=B+C	E	F=D+E	G=(A-B)/B	H	I=(A-F-H)/F
	Medtronic as Reported 12 Months Ended Apr. 29, 2016	Medtronic as Reported 12 Months Ended Apr. 24, 2015	Covidien as Reported 9 Months Ended Dec. 26, 2014	FY2015 Pro Forma Historical Revenue	Adjustment (3)	FY2015 Comparable Historical Revenue	FY2016 Reported Growth	Currency Impact on Growth	Comparable Constant Currency Growth (1)(2)
U.S.	16,422	11,305	4,123	15,428	(35)	15,393	45	-	7
Non-U.S. Developed	8,708	6,372	2,896	9,268	(66)	9,202	37	(1,069)	6
Emerging Markets	3,703	2,584	1,089	3,673	(26)	3,647	43	(433)	13
<b>TOTAL</b>	<b>\$28,833</b>	<b>\$20,261</b>	<b>\$8,108</b>	<b>\$28,369</b>	<b>\$(127)</b>	<b>\$28,242</b>	<b>42%</b>	<b>(1,502)</b>	<b>7%</b>

(1) FY2016 was a 53-week year, with the extra week included in the first-quarter results. While it is difficult to calculate the exact impact of the extra week, the Company estimates that it benefited FY2016 comparable, constant currency growth by approximately 1.5 percentage points.

(2) Management believes that referring to comparable, constant currency growth rates is a useful way to evaluate the underlying performance of Medtronic sales. 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.

(3) Represents the decrease in Covidien revenue for the nine months ended Jan. 23, 2015, as compared to Covidien revenue for the nine months ended Dec. 26, 2014.

VALUE TO  
SOCIETY:  
**OUR  
PRIORITIES**

# ACCESS

Noncommunicable diseases are among the greatest threats to human health and economic prosperity. Medical technology and therapy innovations can treat unserved medical conditions and help patients everywhere lead better, more productive lives. But for millions of people who lack access to financial resources or quality healthcare infrastructure, lifesaving care may be out of reach. Our approach to expanding access is aligned with our revenue growth strategy. By connecting more patients around the world to new medical products and therapies, we continue to grow our business.

## THERAPY INNOVATION

Medtronic expands access to healthcare by developing products and therapies that meet unserved medical needs and treat conditions more effectively. In FY2016, we continued to conduct clinical trials and introduce innovative new products and therapies that support our Mission.

### Research and clinical trials

In FY2016, we invested \$2.2 billion in research and development (R&D), representing 7.7 percent of net sales.

#### ANNUAL R&D SPENDING

	FY2012	FY2013	FY2014	FY2015*	FY2016
R&D Spend (\$ millions)	\$1,490	\$1,557	\$1,477	\$1,640	\$2,224
R&D Spend (% net sales)	9.2	9.4	8.7	8.1	7.7

\*FY2015 based on Medtronic fiscal year as reported and reflects the partial year contribution of the Covidien transaction that closed on Jan. 26, 2015.

Our R&D efforts take place globally. In emerging markets, our expert teams focus on conditions that disproportionately affect local populations. For example, nearly 300 researchers in China are developing tailored solutions for the Chinese market, where conditions such as type 2 diabetes and chronic kidney disease are prevalent.

In addition to R&D, clinical trials help establish the effectiveness and safety of our innovations. We are committed to conducting our clinical trials in accordance with our Clinical Trial Principles and all applicable laws and regulations. See [page 28](#) for more information about clinical trial oversight.

In FY2016, our groundbreaking R&D pipeline and discoveries include:

- Genetic risks for sudden cardiac death: We identified a gene associated with life-threatening abnormal heart rhythms and sudden cardiac death in two studies presented to the 2015 European Society of Cardiology Congress in London. The gene is associated with a 50 percent relative risk increase in these life-threatening heart rhythms.
- Progress toward an artificial pancreas: Outside the United States, we offer our MiniMed 640G® System, an integrated system with the Enhanced Enlite CGM sensor that features SmartGuard technology, which automatically suspends insulin delivery when sensor glucose levels are predicted to approach a low limit and then resumes insulin delivery once sensor glucose levels recover. Our MiniMed® 640G User Evaluation Study demonstrated reduced hypoglycemia and further advancements in automation for Medtronic insulin pump systems. We presented the results at the American Diabetes Association's 75th Scientific Sessions. In addition, patient enrollment was completed for a pivotal study of a Hybrid Closed Loop system, designed to personalize and automate the delivery of basal insulin 24 hours a day to maximize the time glucose levels are in a predefined target range.
- Early detection of lung cancer: Minimally Invasive Therapies Group (MITG) launched a 2,500-patient study to assess the benefits of the superDimension™ navigation system on early detection of lung cancer. Lung cancer is the No. 1 cancer-related cause of death, accounting for more cancer deaths than breast, colon, and prostate cancer combined.<sup>1</sup> Early detection has been shown to dramatically increase long-term survival rates.

1 American Cancer Society: Cancer Facts & Figures 2013

- Treatment for stroke patients: In FY2015, the results from four trials conducted and/or funded by our Restorative Therapies Group led to new stroke treatment guidelines from the American Heart Association and American Stroke Association. The new guidelines, which were introduced in June 2015, recommended the use of a stent retriever, such as the Medtronic Solitaire™ Revascularization device, in addition to IV-tPA for treatment of stroke patients. In addition, the Solitaire Revascularization device was named to the Cleveland Clinic's list of top medical innovations for 2016.

### New product introductions

Following successful R&D and clinical trial programs, we introduce new products and therapies that help patients live healthier, more productive lives.

Many of these innovations will have significant impacts on expanding access to treatment for those in need of new healthcare products and therapies. Examples include:

- Evera MRI™ SureScan® ICD System: FDA approval for an implantable cardioverter defibrillator system for MR Conditional use with magnetic resonance imaging scans without positioning restrictions.
- IN.PACT® Admiral® Drug Eluting Balloon: CE mark approval of arteriovenous access to help maintain hemodialysis access in patients with end-stage renal disease.
- Micra Transcatheter Pacing System: FDA approval of the world's smallest pacemaker, which provides a safe alternative to conventional pacemakers without the complications associated with cardiac wires.
- NURO™ System: Launch of the percutaneous tibial neuromodulation system, a minimally invasive treatment for overactive bladder.

We also introduced several new products that use data to provide better guidance or care to patients including:

- **CareLink iPro Pattern Snapshot:** Commercial availability of a new report for the iPro2 Professional Continuous Glucose Monitoring System that provides healthcare professionals with information for quick interpretation of detailed glucose data over time.
- **MiniMed® Connect:** FDA clearance of the first product that enables people with diabetes to discreetly and conveniently view insulin pump and continuous glucose monitoring information on a smartphone.

- **MyCareLink Smart™ Monitor:** FDA approval for the world's first app-based remote monitoring system for patients with implantable pacemakers.

Information about other products receiving FDA and CE mark approval in FY2016 can be found in the [Medtronic Newsroom](#).

## ECONOMIC VALUE

As our business grows, we are building on our expertise in working across healthcare systems to enhance economic value.

### Value-based Healthcare

We believe that the current healthcare system is not sustainable and needs to be transformed to improve patient outcomes and control rising healthcare costs. Medtronic accepts and supports that healthcare system leaders around the world will, in fact, implement Value-based Healthcare (VBHC) delivery and payment systems, whereby they make payment for our products and services contingent upon their ability to improve patient outcomes relative to their cost. To compete in this new world and to advance the transformation, we are assessing new business models where we share direct accountability for system costs and patient outcomes.

Launched in January 2016, the Value-based Healthcare Council is charged with accelerating our vision, deepening our knowledge, and sharing best practices in VBHC. The Council comprises leaders from across our business units, regions, and functions, including clinical, healthcare economics, policy reimbursement, and legal experts.

Medtronic has created and follows a proprietary, seven-step framework for VBHC that helps to develop value-based business models that offer a value proposition that meets baseline outcomes that are meaningful for patients.

#### Medtronic VBHC Business Model Definition

**When we share direct accountability for system costs and patient outcomes in our business models.**

*There are certain elements that must always be true in a VBHC solution:*

- Outcomes must be measured, with metrics approved by all stakeholders.
- Relevant costs of care must be known and agreed upon by all stakeholders.
- Payment to Medtronic is based (or contingent) on the clinically meaningful outcomes and economic value created by our products, services, and solutions.

## Outcome-based payments

A patient-centric VBHC system should prioritize health outcomes, or patient value, over the volume of medical devices sold or therapies provided. With this in mind, we are pursuing outcome-based payment models that make the entire industry more accountable for patient health by aligning the financial incentives for healthcare providers and manufacturers.

Since announcing a shift toward risk-sharing and outcome-based payments in FY2015, the U.S. Centers for Medicare and Medicaid Services has introduced a bundled payment strategy for treating disease states. Medtronic has responded by identifying baseline metrics and factors to develop and standardize new risk-sharing approaches with our healthcare partners. Our Global Health Economic and Reimbursement team leads this effort, analyzing the impacts of our product pricing and reimbursement policies and guiding our business units on improvement strategies.

## Managed services

As part of our economic value strategy, we have invested heavily in our managed services business, which saw strong growth in FY2016. Through Medtronic Integrated Health Solutions, we manage facilities and clinics for hospital partners, with a focus on improving efficiency and quality of care in catheterization labs and hospital operating rooms. We expect this business to generate \$1.5 billion in revenue in the Americas by 2021.

In Lagos, Nigeria — a population of more than 16 million — patients had access to only two operational catheterization labs. During the year, we entered into our first agreement in Africa to bring efficient catheterization labs and operating rooms to patients in Lagos at the Gbagada Cardiac and Renal Centre. Medtronic Integrated Health Solutions set out to ensure that the catheterization labs are up and running, effectively managed, staffed with nurses and technicians, fully equipped with consumables, receiving adequate power and water, and staffed with clinicians who can execute high-quality cardiac catheterization procedures.

In the Netherlands, our May 2016 majority investment in Nederlandse Obesitas Kliniek (NOK) expanded our managed care services to provide nutritional, psychological, exercise, and medical support to bariatric surgery patients. The integrated approach provides more sustainable weight loss for patients, optimizes patient flow for healthcare

providers, and reduces comorbidities for healthcare payers. By bringing NOK into our portfolio, we are expanding this model across Western Europe, launching it as a new standard of care in the Middle East, and offering a more effective business model in the United States.

## Telehealth

Advanced telecommunications technologies enable long-term patient care with increasing efficiency and reduced costs. Medtronic Care Management Services business provides telehealth services to monitor patients following acute care admissions and surgical procedures, which delivers improved long-term health outcomes. Hospitals also benefit from reduced readmission rates.

Through the Latin America Telemedicine Infarct Network (LATIN), a partnership among Medtronic, the Lumen Foundation, and ITMAS (a telemedicine provider), we are making heart attack diagnosis treatment more efficient in São Paulo, Brazil. The partnership enables patients to receive EKGs at local primary care centers, which are read by specialists hundreds of miles away to diagnose and confirm severe heart attacks. By promptly bypassing local ERs, patients are able to save precious time and be admitted to specialized cardiac catheterization labs to receive treatment.

## Product pricing and cost savings

Even with efficient contracts in place, we recognize a continual need to improve the affordability of our products and therapies. We offer a variety of pricing models, including volume pricing and rebate models for hospitals, adaptive pricing for treating long-term conditions, and assisting new and existing patients through other programs.

## GLOBALIZATION

Our access initiatives focus most heavily on patients and communities in need of disruptive models of care — where expansion of existing systems and economic development cannot sufficiently meet healthcare needs. Our globalization strategy focuses on reducing inequity everywhere through solutions tailored to market needs and expanding access to care in emerging markets.

To learn more about the Medtronic Foundation's global health programs, see [page 14](#).

### **A Hub & Spoke model of healthcare delivery**

The Hub & Spoke delivery model is one approach we are applying that is designed to increase access to care through efficient treatment across the entire continuum of care. In limited-resource settings, it is important to organize healthcare systems strategically to maximize patient outcomes.

The model centers on “hub” hospitals with highly trained physicians and sophisticated infrastructure that provide state-of-the-art, specialist care. Healthcare centers in the surrounding communities operate as the “spokes” to create an integrated model of care that handles screening and diagnosis, refers patients to specialists, and supports long-term disease management. Wherever patients enter the system, they encounter an efficient, integrated system designed to support their health over the long term.

In FY2016, Medtronic made a significant investment in the Abraaj Group’s Growth Markets Health Fund (GMHF). GMHF is a private equity fund focused on improving healthcare access primarily in Asia and Africa by reducing the gap between supply and demand for health services. Our investment supports GMHF’s focus on purchasing and building hub hospitals in emerging markets including Bangladesh, Ethiopia, Ghana, India, Kenya, Nigeria, and Pakistan.

In partnership with Abraaj, we also invested in the CARE hospital network, which operates in nine cities across India. CARE is one of India’s leading hospital systems, and offers opportunities to pilot Hub & Spoke models and managed care systems across India using GMHF’s reach.

### **Innovations in delivery for emerging markets**

In communities and markets where the disparity between healthcare needs and access is greatest, we believe that new and innovative business models can bridge the gap. We pursue these models agnostic of any specific technology, product, or therapy.

One way that we do this is through our Global Health Initiative (GHI), in which we identify pressing, widespread health problems facing local communities, and look across the entire continuum of care to identify the barriers to treating patients. GHI then designs solutions and business models that help overcome those barriers in ways that meet local needs.

GHI programs made significant progress in FY2016. In Ghana, we completed the plans for a FY2017 pilot of Akoma Pa, a new hypertension management system that addresses the country’s significant shortage of cardiologists. The new model blends hypertension monitoring hardware with risk assessment software. Between appointments with cardiologists, patients can visit local pharmacies for blood pressure monitoring, and the platform automatically contacts the patient’s physician for a prescription refill or when a problem is detected. Benefits will include patients making fewer physician visits, pharmacies building long-term customer relationships, and physicians able to focus on patients most urgently in need of care.

Applying a different set of strategies and technologies, we launched Project Elevate, addressing barriers to timely interventional care for cardiac patients. Although it is widely recognized that patients experiencing serious heart attacks need surgical intervention within 90 minutes of arriving at the hospital, the typical waiting time is much longer in emerging markets. Project Elevate uses mobile applications to reduce that time by allowing physicians to remotely diagnose patients, evaluate test results, and determine the intervention needed. We are partnering with hospital systems and governments to bring this solution to patients in Malaysia, Nigeria, and Russia.

In FY2017, we plan to make further investments in our ability to develop new, for-profit models of healthcare delivery for emerging markets.

### **Patient Access Acceleration and Patient Access Solutions**

Our Patient Access Acceleration (PAA) methodology helps identify global market opportunities and unmet patient needs. The four-step approach helps quantify the need for treatment, identifies the barriers to care, prioritizes these barriers, and formulates strategies to tackle them.

This supports expanded access to care in developed and developing economies alike, and informs the way we approach new challenges.

Through Patient Access Solutions (PAS), Medtronic provides consulting services to hospitals around the world that help bring medical technology and therapies to new markets and patient populations. Our PAS group has conducted workshops in 11 countries, including China, Colombia, Kazakhstan, Romania, and Saudi Arabia.

## Partnerships

We also rely on partnerships to help scale our impact and reach more patients. Opportunities range from developing new technologies and therapies with our peers to thought leadership and research collaborations with universities, and on-the-ground care delivery with governmental and nongovernmental organizations.

- **IBM Watson Health:** A new partnership between Medtronic and IBM Watson Health combines data gathered from our diabetes therapies with the advanced computing and analytic power of IBM's Watson software to predict hypoglycemic attacks to one day be able to alert patients hours before they occur, with the hope of preventing these events altogether.
- **World Economic Forum:** In FY2016, our CEO was appointed co-chair of the World Economic Forum's Healthcare Community, a public-private partnership bringing together stakeholders from across the continuum of care to discuss healthcare access and value-based models for care.

## Capacity building

In order for our product and therapy innovations to reach local communities in emerging markets, healthcare providers must be equipped with the skills and knowledge to offer them, and patients must have access to information about their medical conditions and their treatment options. In FY2016, we invested \$152.4 million in capacity building and training for medical professionals and \$20.3 million in patient education. The vast majority of these efforts took place in emerging markets including:

- **China:** Our Cardiac Rhythm and Heart Failure business hosted a series of 12 pacemaker implantation training sessions for 120 physicians from across China at our innovation center in Shanghai. Despite similar rates of arrhythmia, pacemakers are used in China at less than 0.5 percent the rate of the United States. This is due primarily to a lack of physician proficiency in the procedure.
- **Panama:** We opened the Panama Technical Service Training Center, a facility that will train approximately 100 hospital biomedical technicians and engineers to correctly use and repair Medtronic technologies. Previously, healthcare providers across Latin America had to travel to the United States for this training. In addition, the ability to offer training in the local language will enhance its effectiveness.

- **Turkey:** Our MITG innovation center in Istanbul offers training for up to 5,000 physicians, nurses, and hospital technicians each year in advanced procedures and surgical techniques for treating vascular disease, metabolic disorders, and chronic obstructive pulmonary disease.

Patient outreach and education efforts raise awareness about health conditions and when to seek medical attention. In FY2016, we partnered with the World Stroke Organization as part of the "Take 2... Tell 2" campaign which encourages people to spend two minutes learning about the warning signs of stroke and sharing that knowledge with two others. By raising baseline awareness of medical conditions among patients, we hope to reach more patients who can benefit from our products and therapies.

## HEALTHCARE CAPACITY BUILDING

	FY2014	FY2015	FY2016*
Education for Medical Professionals (\$ millions)	\$97.5	\$108.8	\$152.4
Education for Patients (\$ millions)	\$23.0	\$18.7	\$20.3
Medical Professionals Reached	N/R	50,796	64,233

\*Excludes MITG Patient Monitoring and Recovery business

In FY2016, we made \$17 million in product donations, our largest amount ever, through the philanthropic efforts of our business units. See [Economic Contributions to Society](#) for more information.

# PRODUCT QUALITY

Medtronic always puts patient safety first. We deploy rigorous controls at every stage of the value chain to ensure the safety and efficacy of every product we make. Our patient-centric quality culture, strategy, and programs incorporate the highest ethical standards, and build employee capabilities. This unerring focus on quality improves patient outcomes and builds trust in our company.

## RESPONSIBILITY AND QUALITY

We design and manufacture medical devices that patients rely on daily, many of which are implanted inside their bodies. To protect patients' health and maintain their confidence, it is imperative that these products, and the materials of which they are made, are of the highest quality.

Our Global Quality Strategy takes a patient-centered approach to deliver consistent, enterprise-wide quality. This supports our business, increasing operational efficiency and reducing reputational risk.

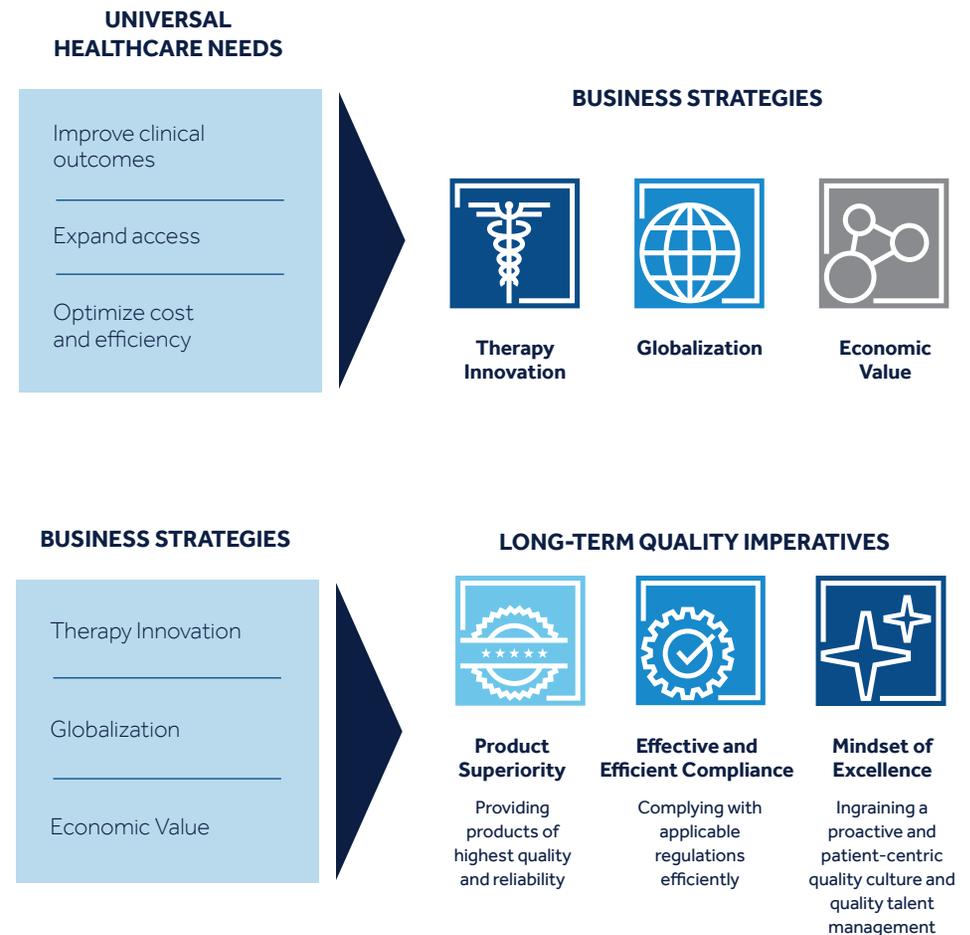
## Employee responsibility

Originally launched by Covidien in 2011, Quality Begins with Me is now integral to our Global Quality Strategy to improve our mindset of excellence. In FY2016, we began rolling out patient-centric and leader-led employee training across our combined company (legacy Medtronic and legacy Covidien). The program empowers employees to demonstrate excellence and individual leadership through the following behaviors:

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

We also require employees worldwide to obtain our Annual Quality Training Certification, which focuses on regulatory compliance, good documentation practices, continual improvement, and product quality. By June 2016, 98 percent of employees completed this training, meeting our participation goal.

Our business strategies and long-term quality imperatives are summarized below.



## Design and production

Our Design for Reliability and Manufacturability (DRM) program brings quality into research and development (R&D), designing safety and reliability throughout the R&D process. By simulating real-world product use, we collect valuable information that helps us predict product performance.

The Medtronic Operating System (MOS) embeds quality into production by applying Lean Six Sigma principles, a team-based methodology for achieving continual improvement in waste reduction and efficiency (see also **Product Stewardship**). We also use International Standards Organization (ISO) 13485, a leading standard for comprehensive quality management systems that meet international medical device regulations.

## Third-party safety and quality

Medtronic provides training and learning opportunities to help our third-party suppliers build their own systems and capabilities in alignment with our expectations. See **Responsible Sourcing** for more information about our approach to supply chain management.

## MAINTAINING QUALITY FACILITIES

External regulatory agencies review and monitor our performance for quality and safety every year. We welcome these inspections because they help us understand each regulatory body's expectations and priorities, and identify areas where we can improve. Through our Inspection Knowledge Management process, we share what we learn and roll out necessary changes across our global facilities.

In FY2016, we hosted 242 global regulatory inspections, of which 88 percent resulted in no findings. Our goal is to maintain an average of 0.5 or fewer findings per global regulatory inspection, which we met with 0.31 this year.

However, with respect to FDA inspections, we received 1.5 findings per FDA inspection, which fell short of our expectations but below the overall industry average. Our goal for FY2017 is to have 1.0 or fewer findings per FDA inspection.

Our global compliance oversight program, Medtronic Corporate-Wide Assessment for Regulatory Excellence (MCARE), analyzes quality management systems, identifies gaps, develops corrective action plans, and focuses on our readiness to address changing regulatory requirements. In FY2016, the team completed investigations and supported improvements at 37 Medtronic facilities.

## MAINTAINING QUALITY FACILITIES

	FY2015	FY2016
Global External Regulatory Inspections at Medtronic Sites	152	242
Global External Regulatory Inspections Which Resulted in No Findings	93%	88%
Average Findings per Global External Regulatory Inspection	0.15	0.31
MCARE Investigations and Supported Improvements	28	37

## PRODUCT USE AND PERFORMANCE

To support product quality and improved patient outcomes, we monitor the performance of our products in use, collecting data through corporate post-market surveillance. Our continuous improvement process involves analyzing findings and approaches to achieving measurable, cost-effective improvements.

A dedicated team at Medtronic captures critical data on products from our network of partner hospitals, health systems, physicians, clinics, governments, and third-party databases. Our partner network includes sites in North America, Europe, and Latin America, and continues to grow in line with our business.

Medtronic therapies and product lines currently under post-market surveillance include:

- Cardiac rhythm
- Deep brain stimulation
- Sacral neuromodulation
- Spinal cord stimulation
- Surgical heart valves
- Targeted drug delivery devices

## Enhancing post-market surveillance

Post-market surveillance techniques and methods play a vital role in our move toward Value-based Healthcare with a focus on patient outcomes. We collaborate with the FDA and stakeholders across the industry to enhance post-market surveillance.

More than 1,600 clinical professionals across Medtronic help develop and standardize new measurement models to improve patient safety and clinical outcomes. We are continually exploring new methods to obtain valuable product use information at lower cost. We aim to do this without compromising quality or regulatory compliance.

Collaborations and partnerships in FY2016 included:

### COLLABORATIONS AND PARTNERSHIPS FOR IMPROVING POST-MARKET SURVEILLANCE

ORGANIZATION	FY2016
The <u>Medical Device Innovation Consortium</u> (MDIC) — Public-private partnership that advances regulatory science in the medical device industry.	Our Chief Scientific, Clinical, and Regulatory Officer serves on the MDIC Board of Directors. He also chairs the Clinical Trial Innovation and Reform Steering Committee, which has the goal of increasing the efficiency and effectiveness in research design, data collection, and infrastructure both pre- and post-market.
The <u>Patient-Centered Outcomes Research Institute</u> (PCORI) — Established by the 2010 Patient Protection and Affordable Care Act. Government-sponsored organization that investigates the relative effectiveness of various medical treatments.	Our Chief Scientific, Clinical, and Regulatory Officer serves on the PCORI Board of Governors.
The <u>National Academy of Medicine</u> — Provides national advice on issues relating to biomedical science, medicine, and health. Its <u>Clinical Effectiveness Research Innovation Collaborative</u> (CERIC) provides a venue to help stimulate and support innovation by bringing together experts from various fields.	Our Chief Scientific, Clinical, and Regulatory Officer co-chairs the CERIC.

## Product-related regulatory actions

Medtronic is committed to resolving all regulatory action and field corrective action issues swiftly and effectively. When field corrective actions occur, our expertise in quality management enables us to implement the required program efficiently. We take all necessary steps to correct or remedy the root cause of any problems that occur, and have systems in place to prevent future field corrective actions. For example, we are accelerating implementation of DRM and MOS across more products and manufacturing sites in FY2017. In addition, we are expanding our supplier quality risk-reduction programs.

In the United States, the FDA classifies recalls with a numerical designation (I, II, or III) to indicate the relative degree of health hazard presented by the product. The Class I designation indicates the most serious type of recall.

### PRODUCT USE AND PERFORMANCE

	FY2015	FY2016
Open FDA Consent Decree for Product-Related Regulatory Actions	1	1
Open FDA Warning Letters for Product-Related Regulatory Actions	3	1
Open FDA Warning Letters Resolved During the Year	2	0
FDA Class I Recalls	6	4
FDA MedWatch Safety Alerts for Human Medical Products Database	1	3

### FY2016 FDA CLASS I RECALLS AND MEDWATCH SAFETY ALERT PRODUCT LIST FOR MEDTRONIC DEVICES

FDA Class I Recalls	<ul style="list-style-type: none"> <li>Shiley™ neonatal, pediatric and long pediatric tracheostomy tubes</li> <li>EnVeo R Loading System</li> <li>Puritan Bennett™ 980 ventilator</li> <li>Battery pack used with Capnostream™ 20 and Capnostream™ 20p patient monitor</li> </ul>
FDA MedWatch Safety Alerts for Human Medical Products Database	<ul style="list-style-type: none"> <li>Shiley™ neonatal, pediatric and long pediatric tracheostomy tubes</li> <li>Puritan Bennett™ 980 ventilator</li> <li>Battery pack used with Capnostream™ 20 and Capnostream™ 20p patient monitor</li> </ul>

## CUSTOMER FEEDBACK

Our businesses are responsive to customer and patient needs, and track satisfaction levels through surveys, customer visits, and net promoter scores. They then integrate this feedback into product and service development.

Our standardized global complaint handling system collects and manages customer feedback. In FY2016, we received 853,000 customer complaints, and resolved more than 99 percent during the year.

## CLINICAL TRIALS

Medtronic conducts clinical trials to measure, and provide evidence for, the safety and effectiveness of products for patients. We are committed to conducting these trials rigorously and responsibly, in line with applicable laws and regulations and with the following internal and external guidelines.

### *Medtronic guidelines*

- [Code of Conduct](#)
- [Global Business Conduct Standards Policy](#)
- [Clinical Trials Principles](#)

### *International guidelines for clinical research*

- International Conference on Harmonization / World Health Organization Good Clinical Practice (GCP) standards
- ISO 14155:2011

Medtronic also engages with organizations advancing clinical standard development and education, including those shown below.

## CLINICAL STANDARD DEVELOPMENT AND EDUCATION ENGAGEMENTS

ORGANIZATION	FY2016
<a href="#">Clinical Trials Transformation Initiative (CTTI)</a>	Our Chief Medical Officer serves on the CTTI Executive Committee.
<a href="#">Association for the Advancement of Medical Instrumentation (AAMI)</a>	Medtronic is involved in both the U.S. national and international work of AAMI. Medtronic 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.
<a href="#">International Medical Device Regulators Forum (IMDRF)</a>	Medtronic maintains an active presence in the IMDRF. Medtronic subject matter experts serve as industry representatives on IMDRF work initiatives. Medtronic has also supported the <a href="#">Medical Device Single Audit Program (MDSAP)</a> , and has participated in that pilot.

## Transparency and open data

Transparency is essential to maintaining patient safety and scientific integrity when performing clinical research. Medtronic publicly discloses clinical trials through our [Clinical Trials Registry](#) available at [clinicaltrials.gov](#). This registry and results database details information about the purpose, eligibility requirements, locations, and status of each trial we sponsor. We also publish our findings in peer-reviewed scientific and medical journals, and collaborate with researchers and external institutions when possible.

Medtronic believes that open data benefits our industry, physicians, and patients in the long term. That is why we are committed to clinical trial data transparency. In 2013, we were the first company to make all clinical trial data for a product publicly available, through a partnership with the [Yale Open Data Access Project \(YODA\)](#). Specifically, we released all clinical research trial data for the INFUSE® spinal fusion growth protein for review by two independent academic teams. While we took this action in response to complications related to that product, releasing all clinical trial data for independent review proved to be a valuable learning opportunity.

## ANIMAL RESEARCH

Regulatory requirements necessitate animal research and testing for many of our products. For this research, we apply high ethical standards and work with scientists, veterinary surgeons, pathologists, regulatory experts, and technical staff to devise the best approaches possible.

The Medtronic Institutional Animal Care and Use Committee, made up of internal and external stakeholders, evaluates all proposals for animal research, reviews our protocols and standards annually, and conducts facility and program inspections twice a year.

Our animal-related research and testing meets all relevant standards and requirements set by the:

- Food and Drug Administration (FDA)
- U.S. Department of Agriculture's Animal Welfare Act
- Association for Assessment and Accreditation of Laboratory Animal Care

Our animal research protocols are published in our [Policy Regarding Use of Animals and the Feasibility Assessment of Eliminating the Use of Animals for Training Purposes](#).

We also look for ways to replace, refine, and reduce animal testing wherever possible. In 2014, Medtronic toxicologist Kelly Coleman published his team's findings, which researched human cell-based alternatives to animal testing for skin irritation. The current industry standard uses rabbits, which are more sensitive than humans to skin irritation and can lead to over-prediction in lab testing. In FY2016, an ISO Technical Committee sponsored an international validation study to confirm Coleman's findings. The validation study, underway in 23 laboratories across the United States, Europe, and Asia, is expected to end next year. If the findings are validated, it could lead to changes in ISO standards that allow in vitro human skin assays to replace rabbit skin irritation tests in evaluation of medical devices.

# PRODUCT STEWARDSHIP

Our materiality assessment highlighted product stewardship as a sustainability priority for Medtronic. We continually pursue innovations that minimize the environmental impacts of our products and packaging throughout our value chain — from product design to end of life.

## OUR APPROACH

Medtronic has long taken steps to minimize the lifecycle footprint of our products. Our approach begins with research and development (R&D) and product design. To guide our scientists and engineers, we incorporate Environmental, Health, Safety, and Sustainability (EHS&S) guidelines into early stages of the development protocol. Product designers consider these guidelines to minimize the environmental impacts, effects of the manufacturing process, and materials used for the product and its packaging.

To reduce the incidence of potentially harmful materials in our products during manufacturing, Medtronic facilities follow all applicable laws and regulations regarding **hazardous materials**. At the end-of-life stage, we operate product reclamation programs that recover materials for reuse and divert waste from landfill where possible.

Our EHS&S program commits us to continually advance our product stewardship initiatives across the lifecycle, meeting customer needs and expectations. Our recently established Sustainability Steering Committee is responsible, among other things, for overseeing new product stewardship strategies.

## Sustainable product program

To take our product stewardship to the next level, with a focus on individual products, we completed research in FY2015 on establishing a formal product stewardship program. This process:

- Developed criteria for determining product sustainability.
- Produced a potential product sustainability scorecard.
- Established a framework for a product-specific pilot.

## Packaging design and innovation

Packaging is the first thing customers see when they purchase Medtronic products. Our companywide efforts to shrink packaging and make it more customer-friendly not only reduce our environmental impacts, but showcase our sustainability commitment to customers. In addition, minimizing packaging lowers our production costs and cuts waste management expenses for our customers.

Design is a focus when it comes to reducing the impact of Medtronic products. For example, in FY2016, we began testing new device protection options for an electrosurgical product used in the operating room. The new packaging substitutes pre-formed trays and lids for die-cut insert cards (DCICs). DCICs — which can be recycled — decrease the risk of damage to devices during transport. They also reduce the package system's overall footprint and decrease the amount of plastic used — by weight — by more than 50 percent. This lowers packaging and the associated costs for Medtronic and our customers.

## Product end-of-life management

Product stewardship includes managing the environmental impact of our products beyond delivery to patients and customers. When possible, Medtronic strives to capture value from our products beyond their usable life. Our reclamation programs collect precious metals including gold, silver, platinum, titanium, and palladium from products that are no longer in use, including pacemakers, defibrillators, and neurostimulators.

In addition, Medtronic now owns a Sustainable Technologies business acquired through Covidien. The Sustainable Technologies business delivers environmental value to healthcare by diverting a significant portion of the medical waste stream to purposeful use through reprocessing and recycling. In FY2016, this business diverted 127 metric tons (MT) of used medical devices from the landfill, primarily driven by electrocardiogram (ECG) cables and compression sleeves. The reprocessing operation based near Tampa, Florida, aims to more than triple in scale in FY2017, further reducing landfill waste associated with used medical devices.

As part of our commitment to lifecycle product stewardship, we expect our suppliers to comply with best practices that minimize their environmental impacts. Read more in [Responsible Sourcing](#).

# RESPONSIBLE SOURCING

Medtronic strives to ensure that our supply chain reflects the same responsible values we uphold in our own operations. We partner with suppliers to maintain high-quality management and ethical standards throughout our global supply chains. Careful supply management helps us reduce business risks, support safe and healthy workplaces, and meet customer needs.

Our suppliers are critical to our business, allowing us to produce and deliver the medical technologies, products, and therapies on which customers and patients around the world depend. To ensure a robust and reliable supply base, we cultivate long-standing relationships with companies committed to high standards.

Medtronic sources from more than 85,000 suppliers in 125 countries. In FY2016, we spent more than \$11.5 billion with our suppliers globally.

## SUPPLIER QUALITY MANAGEMENT

Our healthcare partners, and the patients they serve, rely on us to deliver high-quality, reliable technologies, products, and therapies. Fulfilling this charge underpins our business success, while supplier error can have an impact on patient health and damage our reputation. Our No. 1 priority in supply chain management is, therefore, to ensure that our products consistently meet both regulatory and self-imposed quality standards. Our product quality program provides direct suppliers with protocols, training, and support through the following tools:

- Our Supplier Audit and Excellence Manual, which every supplier must follow
- Continuous improvement opportunities through training and development
- Direct supplier participation in our Design, Reliability, and Manufacturability process, which ensure standard product performance

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

## SUPPLY CHAIN SPEND (\$ MILLIONS)

	FY2015*	FY2016**
Australia	\$54.9	\$52.7
Canada	\$77.4	\$139.8
China	\$143.2	\$252.5
France	\$93.3	\$247.5
Germany	\$160.9	\$233.3
Ireland	\$153.5	\$195.1
Israel	\$10.3	\$17.5
Japan	\$100.7	\$138.0
Mexico	\$55.2	\$128.0
Netherlands	\$129.7	\$179.9
Singapore	\$31.4	\$93.8
Switzerland	\$139.6	\$180.6
United States	\$4,755.3***	\$8,256.8
<b>Total for Locations Listed</b>	<b>\$5,905.4***</b>	<b>\$10,115.5</b>
<b>Total Spend</b>	<b>\$6,707.9</b>	<b>\$11,543.5</b>

\*FY2015 does not include legacy Covidien data.

\*\*FY2016 data reflects the Covidien acquisition.

\*\*\*Totals reflect all U.S. supplier spending. This differs from the FY2015 report, which only accounted for nine U.S. states.

## RESPONSIBLE SUPPLY MANAGEMENT

Our [Supplier Code of Conduct](#) requires Medtronic suppliers to follow all applicable laws related to governance, environmental responsibility, workplace health and safety, and human rights. Now that Medtronic and Covidien are fully integrated, we are working to align best practices from our legacy companies to enhance supply chain management, oversight, and performance.

During FY2016, Medtronic established a Responsible Supply Management function to encourage and support social, ethical, and environmentally responsible business practices by suppliers. Its duties include establishing overall strategy and goals, prioritizing regulatory compliance, supplier diversity, and customer compliance. As a first step, the team tracked how many of our core suppliers produced a sustainability report in FY2016. The pool included 100 legacy Medtronic suppliers and 347 legacy Covidien suppliers, and the survey found that 15 percent currently produce sustainability reports. Moving forward, we will continue to monitor the number of suppliers that publish sustainability reports and develop processes to address supplier compliance with regulatory and customer requirements.

During FY2017, we will begin developing Global Supplier Standards and release our new Labor and Human Rights policy to replace our existing Supplier Code of Conduct.

### Materials of concern

Medtronic implements practices to comply with applicable local and country-specific regulations related to the environmental and social impacts of the materials in our products. We consider the responsible management of materials of concern in products and packaging at both the design and manufacturing stages. This allows us to address the requirements of the following European Directives: Restriction of Hazardous Substances (RoHS), Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Medical Device Directive, and similar requirements.

### Conflict minerals

Medtronic actively participates in industry-wide forums such as the Ethical Sourcing Forum, Marcus Evans Conflict Minerals conference, and Conflict-Free Smelter Initiative (CFSI). Our Conflict Minerals program leader, Julia Litvak, was named to the 2016 Top 100 Conflict Minerals Influencer Leaders by Assent Compliance, an independent compliance services firm.

The U.S. Dodd-Frank Act requires companies to disclose conflict minerals — tin, tungsten, tantalum, and gold — originating from Democratic Republic of Congo and neighboring countries, where sourcing has been linked to armed conflict. We expect all suppliers using one or more of these minerals in our products or materials to comply with conflict minerals regulations and responsible sourcing practices. We reference conflict minerals requirements in supplier agreements and purchase order terms and conditions. Medtronic also performs annual due diligence by following the OECD Guidance Framework on Conflict Minerals, including surveying suppliers and collecting data. Medtronic supports and works to comply with regulations as detailed in our [Conflict Minerals Policy](#).

## SUPPLIER DIVERSITY

Medtronic is committed to partnering with a diverse group of suppliers. Our Supplier Diversity Policy, endorsed by Omar Ishrak, includes small businesses and those owned by women, minorities, and veterans. In FY2016, approximately 30 percent of our supplier spend was directed to small and diverse companies.

Our Supplier Diversity team, Supplier Diversity Steering Committee, and executive management team oversee our [Supplier Diversity program](#). We advance inclusive sourcing practices through employee training, business unit annual plans, and sponsorship of organizations that develop and promote small and diverse suppliers. As of FY2016, 99 percent of Sourcing and Supply Chain Management teams had completed Supplier Diversity eLearning training.

We also encourage our Tier 1 suppliers to track and report their own spend with diverse suppliers.

Medtronic was named “2016 Corporation of the Year” from the North Central Minority Supplier Development Council.

**U.S. DIVERSE SUPPLY CHAIN SPEND BY CATEGORY (\$ MILLIONS)\***

	FY2012		FY2013		FY2014		FY2015		FY2016**	
	\$ SPEND	% U.S. SPEND	\$ SPEND	% U.S. SPEND	\$ SPEND	% U.S. SPEND	\$ SPEND	% U.S. SPEND	\$ SPEND	% U.S. SPEND
Small Business	\$1,191.3	27.9%	\$1,175	28.9%	\$1,069	30.7%	\$1,102	29.9%	\$2,122.9	32.5%
Veteran-Owned Business	\$45.2	1.1%	\$35.4	0.9%	\$42.9	1.0%	\$49.7	1.4%	\$82.6	1.3%
Minority-Owned Business Enterprise	\$108.3	2.5%	\$106.6	2.6%	\$131.4	3.8%	\$149.0	4.0%	\$192.8	3.0%
Women-Owned Business Enterprise	\$167.1	3.9%	\$166	4.1%	\$74.2	2.1%	\$83.1	2.3%	\$123.7	1.9%

\*The diversity table includes only U.S. addressable spend. For FY2016, addressable spend was approximately \$6.5 billion. Exclusions from this total: employee-related benefits, health insurance, taxes, royalties, and others.

\*\*FY2016 data reflects the Covidien acquisition.

# ETHICS IN SALES AND MARKETING

## Guiding Policies and Principles

- [Global Business Conduct Standards Policy](#), including our Anti-Corruption Policy and Global Conflicts of Interest 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](#)
- [U.S. Patient Privacy Principles](#)

Our credibility as a healthcare industry leader is inseparable from our business success. Our ethical approach to business underpins the trust of our many stakeholders, including customers, patients, industry partners, healthcare providers, investors, regulators, governments, and employees. We are committed to being transparent about our products, services, and practices, honest in our marketing and communications, and diligent in preventing corruption. We are committed to marketing and promoting our products and therapies clearly, fairly, and lawfully.

## ETHICAL BUSINESS CONDUCT

Our business operations and marketing are guided by the Medtronic Code of Conduct and related policies and principles. Together, these inform our ethical conduct, interactions with healthcare professionals, and how we market our products to customers. The Office of Ethics and Compliance (OEC) oversees, monitors, and implements all ethics- and compliance-related obligations, policies, and programs.

### Countering corruption

Corruption and conflicts of interest in sales interactions between our employees and healthcare personnel is an ongoing risk and a sector-wide challenge.

Employees must comply with our Global Anti-Corruption Policy (ACP), Global Business Conduct Standards (BCS), and all applicable external laws, regulations, policies, and procedures. On an annual basis, employees receive training on the Medtronic Code of Conduct, which reinforces the expectation that all employees must comply with anti-corruption laws, regulations, policies, and procedures. Customer-facing employees benefit from mandatory in-depth anti-corruption training. Existing customer-facing employees must complete anti-corruption training biennially; some business groups and locations receive more frequent instruction. Additionally, we require that all new employees in customer-facing and other select roles — including senior leaders — receive anti-corruption training. Medtronic employs the equivalent of 223 full-time experts to support global anti-corruption compliance.

Medtronic distributors, dealers, and certain other third parties also undergo anti-corruption training. We maintain a distributor compliance program to support and monitor those working on our behalf. This includes:

- Conducting due diligence on distributors for potential corruption issues prior to entering or renewing a contract.
- Including terms in our distributor contracts that require the implementation of anti-corruption programs. These include: adopting compliance policies and conducting training on those policies; agreeing to be audited or monitored by Medtronic or a third party for compliance with our program requirements; maintaining accurate books and records; and complying with local and global anti-corruption laws.

In some markets, Medtronic accelerates growth by increasing our direct sales infrastructure and reducing reliance on third-party distributors. This also reduces corruption risk and provides better customer service. Medtronic continues to look for ways to transform our global sales organization to have more direct interaction with our customers and reduce dependence on the use of third parties for certain activities. Medtronic also engages in frequent dialogue with U. S. and other global anti-corruption regulators regarding market and company challenges in this space, and employs several former U.S. Department of Justice prosecutors in key leadership roles and with expertise in anti-corruption and investigation efforts.

In FY2016, Medtronic did not enter into any settlements with or pay any fines to the United States or any other national government related to noncompliance with anti-corruption laws.

### COUNTERING CORRUPTION

	FY2015*	FY2016
Employees Supporting Anti-Corruption Efforts (Full-Time Employee Equivalents)	223	223
Third-Party Distributors Receiving Anti-Corruption Training	87%	88%
Third-Party Distributors Receiving On-site Monitoring	15%	12%

\*FY2015 data does not include legacy Covidien operations.

### Responsible marketing to customers and patients

Medtronic strives to be the most trusted partner in our industry. This commitment is reflected in how we promote our products, services, and therapies to our customers and patients — honestly, factually, and with a clear explanation of intended use. Each Medtronic business unit is responsible for ensuring accurate and appropriate product promotion and full compliance with all relevant industry guidelines and government regulations. When marketing directly to healthcare providers, as in the United States, we follow our internal Code of Conduct and AdvaMed’s voluntary [Code of Ethics on Interactions with Health Care Professionals](#).

Our corporate and business-level policies prohibit unlawful promotion of products for off-label uses. To prevent promotion of off-label use, we provide ongoing education for employees who interact with healthcare professionals. We routinely review our policies to ensure effectiveness. For example, in FY2016, we updated our U.S. policy prohibiting promotion of products for off-label uses to enhance and clarify policy requirements. In support of the updated policy, Medtronic redesigned and launched new training for employees and for external faculty training on behalf of Medtronic. We also conduct structured risk assessments related to off-label use for approved or cleared products and therapies, and monitor compliance with our policies.

Medtronic adheres to appropriate marketing communications practices — in line with external regulations and internal expectations — and has a comprehensive compliance program in place. In FY2016, we tested and monitored approximately 140,000 transactions for a variety of risks including sales- and marketing-related risks, of which 99.97 percent met internal expectations. The number of transactions tested in FY2016 increased considerably due to the addition of Covidien, and expansion of the types of business transactions tested.

Globally in FY2016, the company was not subject to any fines or settlements regarding the improper marketing or sales of products.

### RESPONSIBLE MARKETING TO CUSTOMERS AND PATIENTS

	FY2015*	FY2016
Number of Fines or Settlements Related to Improper Marketing or Sales of Products	2	0
Marketing and Sales Employees Trained in Product Promotion	13,944	14,409
Transactions Monitored and Tested for Sales and Marketing Risks	50,000	140,000

\*FY2015 data does not include legacy Covidien operations.

### **Ethical partnerships with healthcare professionals**

Our close working relationships with physicians, healthcare professionals, and consultants drive the innovations that improve patient outcomes. We collaborate on physician training, product development, consultation, and clinical research. To foster trust and eliminate any potential for conflicts of interest in these relationships, our employees follow internal guiding principles for physician collaboration rooted in the overall benefit to patients.

Medtronic fully supports industry initiatives to make payments to healthcare professionals publicly available. Where required by law, such as in the United States, we disclose payments made by our business groups to physicians and teaching hospitals. This information is published on the U.S. Centers for Medicare and Medicaid Services (CMS) Open Payments website. In addition, we fully comply with related regulatory reporting requirements.

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

### **CUSTOMER AND PRODUCT SECURITY**

Our customers rely on us to keep their data safe and secure, and their medical devices functioning as intended. To meet this expectation, we continually work to strengthen our procedures, programs, and technologies.

The Global Privacy and Security Office and Security Steering Committee oversee our security framework, including all relevant practices, policies, procedures, and partnerships. In FY2015, Medtronic formally approved a companywide Global Product Security Policy to strengthen our efforts to keep all products and therapies safe from threats, including cyber-threats. In FY2016, we hired a third-party expert to assess gaps in compliance with this policy across each business unit. We are currently acting to resolve the gaps identified.

Medtronic employees are a critical line of defense. We provide mandatory training for employees who handle or have access to sensitive patient or customer data.

Medtronic maintains best practices and ensures that we meet or exceed external standards by engaging with outside organizations and experts. These include the National Health Information Sharing and Analysis Center, the Medical Device Innovation Safety and Security Consortium, and privacy regulators. In the past year, we also provided content, commentary, and feedback on newly developing product security standards in the United States and globally. Examples included new standards developed by the Association for the Advancement of Medical Instrumentation, the National Institute of Standards and Technology, and the FDA.

WORKING  
RESPONSIBLY:  
**OUR COMPANY**

# GOVERNANCE AND ENGAGEMENT

## Board Committees

- Audit
- Compensation
- Nominating and Corporate Governance
- Finance
- Quality and Technology

To learn more about committee charters and membership, please visit our [website](#).

Medtronic is committed to conducting business the right way, all the time. Every Medtronic employee has a role to play and our efforts are united by executive leadership. The Medtronic board and CEO are tasked with embedding a culture of ethics, integrity, and strong governance, and they lead by example.

We recognize that to meet our industry's challenges and support our Mission, we can go further if we collaborate. We engage governments and other stakeholders to drive meaningful change across the global healthcare system.

## CORPORATE GOVERNANCE

Our business success is built on a foundation of strong corporate governance and transparency. The Medtronic board of directors and executive leadership establish and oversee rigorous corporate policies and procedures that support our [Mission](#) and safeguard our company and the interests of our shareholders.

### Board of directors

The Medtronic board of directors comprises 13 members, including our chairman and CEO, Omar Ishrak. Five standing committees of independent directors oversee our business operations.

Diverse board leadership reflects the needs of our wide-ranging stakeholders, including patients, partners, employees, and our communities. More than 30 percent of our board members are women and more than 30 percent represent minority groups.

For more information, please visit our Corporate Governance [website](#).

### Executive compensation

To attract diverse and talented executives willing to challenge the status quo, we offer competitive benefits in addition to cash and equity incentives. The board Compensation Committee evaluates, oversees, and approves executive compensation. For more information on our compensation philosophy, please see our [Proxy Statement](#).

## ETHICAL WORKPLACE

Our board and CEO lead efforts to embed a culture of integrity across our business. We invest significant time and resources into ethics and compliance systems, data analytics, and human resources management. To drive continuous improvement, we look to industry best practices and other benchmarks to assess our performance, consistently scoring in the top quartile by these measures.

Employees are accountable for compliance with our ethics policies and guidelines, and managers assess ethical behavior during annual performance reviews. If an employee does not meet ethical expectations, recognition, in the form of awards or monetary compensation, may be withheld.

## Management approach

The Office of Ethics and Compliance (OEC) plays a role in our commitment to meet legal, compliance, and ethical obligations, and oversees, monitors, and implements all related policies and programs. The Chief Ethics and Compliance Officer reports quarterly to the Audit Committee and at least annually to the full board. OEC activities include:

- Facilitating ethics training and running ethics program analytics
- Maintaining the Medtronic Voice Your Concern Line and leading investigations into alleged misconduct
- Supporting compliance teams and leaders across the organization
- Developing and monitoring programs and campaigns that increase employees' ethical awareness

## Code of Conduct

Our global Code of Conduct underpins our ethics and compliance program and our company's reputation for integrity. The Code guides daily actions and interactions with internal and external stakeholders. Employees and board members must certify their understanding of the Code and all its requirements.

To ensure global awareness, we make the Code available in many languages and build engagement through multilingual training for new employees. Every year, Medtronic employees are retrained on and expected to certify their understanding of the Code. In FY2016, Medtronic held an Ethics and Compliance Integrity Week to reinforce messages on ethical conduct and Code compliance. In total, employees at sites in 71 countries received these messages in 17 languages.

## CODE OF CONDUCT

	FY2015*	FY2016
Employees Receiving Code of Conduct Training and Certification	98%	98%
New Employees Receiving Code of Conduct Training and Certification	99%	99%
U.S. Employees Certified as Having Read and Understood the Code of Conduct	100%	100%
Employees Terminated for Ethical and Compliance-Related Infractions	99**	125***
*FY2015 data does not include legacy Covidien operations. **Calendar year 2014. ***Calendar year 2015.		

## Reporting concerns

Medtronic employees can report questions or concerns about potential legal or ethics violations directly to their managers, Human Resources, Legal or Compliance representatives, the OEC, the Director's email inbox, or the confidential Voice Your Concern Line. The OEC processes, tracks, and oversees all reported concerns from investigation to resolution. In FY2016, the OEC tracked 905 concerns.

Our annual employee engagement survey includes compliance-related questions to measure employee confidence in how concerns are reported and managed. Employees evaluate the company on three ethical culture topics. The FY2016 survey found that:

- 80 percent of employees believe unethical behavior is not tolerated at Medtronic.
- 78 percent of employees think unethical behavior prompts a quick response from the organization.
- 77 percent of employees are willing to raise concerns without fear of retaliation.

We use survey findings to identify ethical topics to highlight during training and communication campaigns. We also use the survey results with small groups of employees to identify and provide solutions for ethical challenges at specific Medtronic locations. The first four programs supporting these efforts launched in FY2016 and more than 30 are planned for FY2017.

In FY2017, we will conduct a dedicated compliance culture survey to assess employee attitudes toward the company's management of this business-critical issue.

## **PUBLIC POLICY**

Medtronic engages governments in support of public policies that advance our business objectives and Mission. We advocate for policies that enable therapy innovations, facilitate access to lifesaving devices, generate economic value, and increase globalization.

Around the world, our Government Affairs and Regulatory Affairs teams and other functions support efforts that improve access to innovative care for patients and promote outcome-driven and Value-based Healthcare.

Our teams focus on advocacy efforts that build care continuum pathways, increase access to lifesaving therapies and technologies, and streamline international regulatory practices.

We maintain active membership in numerous medical device trade organizations globally, such as [AdvaMed](#) and [MedTech Europe](#).

Medtronic complies with all relevant state and federal political contribution disclosure laws.

## **STAKEHOLDER ENGAGEMENT**

Medtronic actively engages a wide spectrum of stakeholders across the healthcare system. Our daily collaborations advance the innovative medical solutions necessary to improve patient outcomes and increase global access to healthcare.

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

Examples of how we engage these stakeholders are presented throughout this report and on our [website](#).

# OPERATIONS

Medtronic is committed to conducting business in a safe and environmentally sustainable way. In support of our [Mission](#), we promote the health of our employees, customers, community, and the planet. Minimizing our impact is good for the environment and helps save resources, resulting in cost savings across our business. We set ambitious goals to measure our progress toward reducing our climate impact, water use, and waste generation, and have already exceeded several of them.

## OUR ENVIRONMENTAL, HEALTH, SAFETY, AND SUSTAINABILITY APPROACH

We proactively manage environmental, health, safety, and sustainability issues across our value chain to reduce our environmental impact and address workplace hazards. In January 2015, the acquisition of Covidien significantly increased our global footprint, adding more than 100 facilities worldwide. In FY2016, Medtronic introduced a new Global Environmental Health and Safety (EHS) Policy, combining the operational best practices of legacy Medtronic and Covidien. Guided by our Mission and Code of Conduct, our [EHS Policy](#) requires that we:

- 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.

In FY2016, Medtronic also introduced a new corporate EHS&S team, which oversees EHS&S governance, programs, systems, and talent for all businesses and regions.

The corporate EHS&S team leads four program offices:

- Environmental Management
- Health and Safety and EHS Compliance
- Sustainability
- Environmental Remediation

Four regional EHS directors coordinate with EHS representatives throughout the company to support program management and ensure compliance with all relevant regulations. The directors oversee the following regions:

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

In May 2016, Medtronic established a Sustainability Steering Committee to develop and oversee sustainable business strategies. The committee comprises executive-level leaders in sustainability priority areas. For more information, see [Sustainability Risks and Opportunities](#).

To expand and report on our internal EHS&S management commitments, we participate in the [CDP](#) and the U.S. Environmental Protection Agency's (EPA) [SmartWay Transportation Partnership](#) and [Energy Star Program](#).

## Site management standards

Every Medtronic facility must meet rigorous EHS&S standards that go beyond many country regulations. In some cases, we require sites to implement an EHS&S management system based on ISO 14001 and OHSAS 18001 standards. We conduct internal EHS&S audits across our major factories and offices worldwide to ensure compliance with both internal and external obligations and regulations.

Many of our facilities with higher potential for EHS&S risks have received formal certification to ISO 14001 and OHSAS 18001.

### CERTIFIED MEDTRONIC FACILITIES

EHS&S MANAGEMENT SYSTEMS STANDARD	# OF CERTIFIED FACILITIES	% OF TOTAL MANUFACTURING FACILITIES	# OF FACILITIES WORKING TOWARD CERTIFICATION
ISO 14001	27	24%	4
OHSAS 18001	8	10%	0

## OPERATIONAL FOOTPRINT

Our environmental performance priorities are to reduce waste, water, energy, and greenhouse gas (GHG) emissions intensity across our global operations. In FY2013, we set ambitious 2020 Environmental Performance Goals for each of these areas to underscore our commitment. In FY2016, even with the acquisition of Covidien, we made accelerated progress toward these goals, surpassing the 2020 targets for non-regulated waste, GHG emissions, and energy and water use as shown to the right.

### 2020 ENVIRONMENTAL PERFORMANCE GOALS\*

	FY2013 (BASELINE)	FY2014	FY2015	FY2016	% CHANGE FY 2013 TO FY 2016	2020 GOAL
Non-Regulated Waste (Metric Tons/\$ Billion Revenue)	1,950	1,924	1,854	1,635	-16%	-15%
Regulated Waste (Metric Tons/\$ Billion Revenue)	90	98	98	101	+12%	-10%
Energy Use (MWh/\$ Million Revenue)	51.3	50.5	47.7	42.4	-17%	-15%
GHG Emissions (Metric Tons/\$ Million Revenue)	20.0	19.6	18.5	16.0	-20%	-15%
Water Use (Cubic Meters/\$ Million Revenue)	136	142	128	116	-15%	-10%

\*All percentage reduction goals are based on a FY2013 baseline year recalculated to account for Covidien acquisition in FY2015. All data reflects Medtronic and Covidien operations.

## ENERGY USE AND GHG EMISSIONS

In recognition of global climate change concerns, we are working hard to conserve energy and reduce GHG emissions across our facilities. The majority of these emissions come from the use of electricity, natural gas, liquefied petroleum gas, and fuel oil. In FY2016, we used 1.2 million megawatt-hours (MWh) of energy, with corresponding GHG emissions of about 462,000 metric tons (MT). The combined emissions performance by legacy Medtronic and Covidien facilities met our goal to reduce our energy use and GHG emissions by 15 percent by 2020 from a FY2013 baseline. Our energy conservation strategy focuses on best practice energy conservation in the short and long term and on-site renewable energy generation.

## Efficiency best practice

Wherever feasible, our facilities use energy-efficient lighting, ventilation systems, and equipment, as well as automated building controls. In FY2016, we implemented more than 50 energy conservation projects globally, including process efficiency, lighting upgrades, building automation, and equipment upgrades as well as renewable energy installations. Each year, our energy conservation projects prevent an estimated 30,000 MT of GHG emissions and cut operating costs by approximately \$5 million.

## Renewable energy

Medtronic generated 50,000 MWh of on-site renewable or clean energy from solar, cogeneration, and fuel cell technologies in FY2016 at five sites in California, Ireland, Italy, Puerto Rico, and South Africa. During the year, we installed a 4.5 MW solar energy system at our Juncos, Puerto Rico, facility. Additional sites are under evaluation for solar installations.

## FY2016 performance

### ENERGY USE

	FY2012	FY2013	FY2014	FY2015	FY2016*
MWh	512,000	528,000	533,000	524,000	1,224,000
MWh/\$ Million Revenue	31.6	31.9	31.3	29.6	42.4

\*FY2016 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.

### GHG EMISSIONS

	FY2012	FY2013	FY2014	FY2015	FY2016*
Metric Tons	242,000	199,000	200,000	197,000	462,000
Metric Tons/\$ Million Revenue	14.9	12.0	11.8	11.1	16.0

\*FY2016 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.

### FY2016 ENERGY AND COST SAVINGS

Energy Conservation Savings	45,000 MWh
Savings from Energy Rebates and Energy Cost Avoidance	\$4.7 million

## MANAGING WASTE

We strive to generate less waste in our operations through a variety of innovative landfill diversion initiatives. These include: reducing production scrap rates, eliminating paper use, composting food waste in our cafeterias, and increasing recycling opportunities such as reclaiming raw materials used in our products.

In FY2016, our manufacturing facilities and office buildings generated more than 47,000 MT of non-regulated office and cafeteria waste, and more than 900 MT of regulated waste. Of this, we recycled more than 28,000 MT — 56 percent of the total.

During the year, we surpassed our 2020 goal to reduce non-regulated waste by 15 percent by 2020 compared to a FY2013 baseline. However, our regulated waste, which comprises less than 6 percent of our total waste generation and includes production-related metals and chemicals, increased by 12 percent from FY2013. To address this challenge, we will identify and target specific processes and waste streams in a concerted effort to reduce regulated waste in line with our 2020 goal.

In addition to day-to-day operational waste management, we manage 28 clean-up sites across the globe. This includes a former Medtronic operating site in Maine where remediation and restoration work is underway. Most of our clean-up sites in the United States fall under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund.

## FY2016 performance

### NON-REGULATED WASTE

	FY2012	FY2013	FY2014	FY2015	FY2016*
Metric Tons	12,914	12,806**	12,950**	12,998**	47,145
Metric Tons/\$ Billion Revenue	798	772	762	734**	1,635

\*FY2016 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.  
\*\*Restated from 2015 Integrated Report due to internal validation processes.

## REGULATED WASTE

	FY2012	FY2013	FY2014	FY2015	FY2016*
Metric Tons	1,576	1,651**	1,831**	1,912**	2,922
Metric Tons/\$ Billion Revenue	97	99	108**	108**	101

\*FY2016 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.  
 \*\*Restated from 2015 Integrated Report due to internal validation processes.

## RECYCLING

	FY2012	FY2013	FY2014	FY2015	FY2016*
Metric Tons	7,745	7,806**	8,036	7,667**	28,207
% Recycled	53	54	54	51	56

\*FY2016 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.  
 \*\*Restated from 2015 Integrated Report due to internal validation processes.

## WATER

While our operations are not water intensive, we recognize the need to promote water conservation. Our initiatives include improving efficiencies in production line processes, installing landscape and irrigation system updates, and upgrading heating and cooling systems.

In FY2016, our water use totaled close to 3.3 million cubic meters, surpassing our 2020 water reduction goals by 5 percent from a FY2013 baseline.

### FY2016 performance

#### WATER USE

	FY2012	FY2013	FY2014	FY2015	FY2016*
Cubic Meters	1,190,472	1,241,880**	1,326,452**	1,240,867**	3,334,349
Cubic Meters/\$ Million Revenue	74	75	78**	70	116

\*FY2016 data reflects January 2015 Covidien acquisition. Prior year data does not include legacy Covidien operations.  
 \*\*Restated from 2015 Integrated Report due to internal validation processes.

# EMPLOYEES

Our ability to address the world's most pressing medical challenges and improve the lives of patients everywhere is a direct result of our talented workforce. We are committed to advancing Tenet 5 of our Mission, which is "to recognize the personal worth of employees by providing an employment framework that allows personal satisfaction in work accomplished, security, advancement opportunity, and means to share in the company's success." We work to create and support an inclusive and diverse culture where the varied backgrounds and experiences of our employees spur innovation. By engaging employees, and advancing their personal and professional growth, we invest in our company's future and the patients we serve.

## GLOBAL WORKFORCE

A diverse, dedicated, and growing workforce supports our strategic business priorities of therapy innovation, globalization, and economic value. Our workforce nearly doubled following the acquisition of Covidien in January 2015. In FY2016, Medtronic hired more than 16,000 new employees, 45 percent of which were female. Our turnover rate during this time period was 16 percent. At the end of FY2016, Medtronic employed more than 88,000 people,<sup>2</sup> and operated in 160 countries.

A complete breakdown of our workforce, including new hires by region and gender is located in the [Data Summary](#) at the end of this section.

## INVESTING IN OUR WORKFORCE

To develop an exceptional, diverse, and collaborative workforce, we continue to expand opportunities for learning and advancement. In FY2016, we launched a Career Development for All framework to give employees the tools to successfully navigate their careers at Medtronic. We believe this comprehensive approach supports Tenet 5 of our Mission and will improve employee engagement, retention, and ultimately, business results.

## Performance management

To drive personal and professional growth, we expect employees to participate in annual performance reviews. In FY2016, we enhanced our procedures by:

- Identifying four leadership expectations — Shape, Engage, Innovate, and Achieve — to provide a common foundation for performance management and development activities
- Adding a Mid-Year Performance and Career Development Conversation, based on feedback from our Employee Engagement Survey, that focuses mainly on career aspirations and development

These new steps reinforce our commitment to developing and retaining the world-class workforce we need to achieve our strategic priorities.

## Learning and development

Employee learning begins on day one with most new employees completing a virtual or in-person new employee orientation workshop. New managers and leaders receive additional online orientation and participate in leader-led onboarding activities.

Employees have the opportunity to participate in in-person programs and workshops. In FY2016, more than 75 percent of employees took advantage of development resources, including Career Development for All workshops, webinars, and eLearning opportunities, as part of our mid-year performance and career development conversations. Nearly 3,000 leaders attended leadership development programs offered by the enterprise, groups, and regions.

Medtronic is working to harmonize and streamline its leadership development programs in FY2017 to ensure that all leaders around the world are consistently equipped with the foundational skills required to be effective managers and developers of talent.

<sup>2</sup> This total workforce number is in accordance with our 2016 10-K. Employee population numbers may vary depending on the time of year in which data was gathered.

In April 2016, Medtronic established a Leadership Advisory Panel comprising 24 vice presidents from around the globe, representing groups, regions, corporate functions, and employee network groups. This panel was established to provide visible leadership and strategic guidance on program prioritization, design, and development. The panel participates in the communication, advocacy, and often the delivery of key programs, and is led by Executive Committee members Geoff Martha and Hooman Hakami, in partnership with Human Resources.

## EMPLOYEE ENGAGEMENT

An engaged workforce is critical to business performance. Each year, our Employee Engagement Survey elicits feedback on topics such as ethical behavior, inclusion, and leadership and management performance.

In FY2016, more than 77,000 employees took the survey, a response rate of 87 percent. The company's employee engagement score was 74 percent, well above the industry average of 65 percent. Seventy-seven percent of respondents reported that they feel they belong at Medtronic, a strong number given the recent integration with Covidien. Employees cited areas for improvement including more opportunities to voice their ideas and better career development for manufacturing employees.

Medtronic also conducts monthly pulse surveys distributed to 5,000 randomly selected employees. Leaders use business and organizational key performance indicators measured in these surveys to make improvements and better manage change.

## INCLUSION AND DIVERSITY

Our commitment to fostering an inclusive working environment and increasingly diverse workforce is good for business and aligns with our values. We are committed to equal employment opportunity and to growing our representation of women and ethnically diverse employees at all levels and in all locations. Our Global Inclusion, Diversity, and Engagement (GIDE) team leads these efforts.

### Diversity networks

Medtronic has four Diversity Networks: the Global Medtronic Women's Network, the African Descent Network, the Hispanic Descent Network, and the Asian Descent Network. The Networks are designed to help accelerate the advancement of women and ethnically diverse leaders, and identify initiatives to improve healthcare for their respective populations. Executive Committee members support the Networks, providing momentum and enabling change across the organization.

The Medtronic leadership team is actively engaged in diversity initiatives across the company. Our CEO is a strong advocate for inclusion and diversity in the workplace, and regularly shares these views with employees, customers, and stakeholders. He has also established an operating mechanism and added rigor to monitoring inclusion and diversity progress by conducting quarterly Diversity Reviews with the Network leadership teams.

## WORKFORCE DIVERSITY (RACE/ETHNICITY)

	FY2012	FY2013	FY2014	FY2015	FY2016
Minority representation in the United States excluding Puerto Rico	28%	28%	29%	30%	33%

### Employee Resource Groups

We also unite and empower employees through Employee Resource Groups (ERGs). The ERGs are affinity groups that organize around a common identity and partner with the GIDE team to support the company's recruiting, development, and community involvement efforts. The groups host events and activities to provide career development and networking opportunities for their members.

Our PRIDE (LGBTQA<sup>3</sup>) ERG plays a leading role in creating and maintaining an inclusive culture. For the seventh consecutive year, Medtronic received a perfect score on the Human Rights Campaign Corporate Equality Index in FY2016.

### Creating opportunities for women

Gender balance remains a priority for Medtronic. Currently, women make up 49 percent of our total workforce and 33 percent of management positions or higher.

The Medtronic Women's Network supports our GIDE office in improving our ability to attract, develop, retain, and advance women employees. FY2016 marked the Network's first signature event, a two-day conference in Minnesota for approximately 800 Medtronic employees focused on community-building and skills development.

<sup>3</sup> Lesbian, gay, bisexual, transgender, and queer employees and their allies

## EMPLOYEE COMPENSATION

Our compensation package is competitive and determined by industry and local market standards, our company's overall performance, and individual accomplishments. For information on executive compensation, see

### Governance and Engagement.

We are also committed to offering retirement, health, and other benefits that are:

- Flexible, so employees can choose benefits that meet their needs
- Affordable for employees and the company
- Competitive for our industry and attractive to current and future employees
- A valuable and important part of an employee's total rewards package

Benefits vary by country and comply with all relevant national regulations. Employees receive benefit information through in-person presentations, AskHR support, on-demand web-based tools, and our virtual, interactive benefit counselor, "Alex."

Typical benefits include:

- Health, dental, and vision coverage for employees and eligible dependents
- Life and disability insurance
- Paid time off and leaves of absence
- Retirement plans
- Employee stock purchase program, offering stock at a 15 percent discount

## Recognition

Our global Recognize! program empowers managers and employees to reward colleagues who model behavior that meets the high expectations grounded in our patient-centered Mission. In FY2016, we recognized more than 50,000 employees through this program, including 1,711 for outstanding ethical behavior.

## SAFETY AND WELLNESS

Employee safety is a top priority at Medtronic. In FY2013, we established 2020 health and safety improvement goals which include:

- Identifying injury trends and reducing injury risk
- Reducing ergonomic-related injury rates

- Establishing a safe driving program
- Accelerating global employee training on environmental, health, and safety requirements

FY2016 saw noticeable improvement in our safety record. The employee incident rate fell by 10 percent over FY2015, and the employee lost/restricted workday case rate decreased by 4 percent over FY2015 (see table). No work-related fatalities occurred.

As a healthcare company, Medtronic is deeply committed to the health and happiness of our employees. We invest in global wellness programs that contribute to employees' physical, emotional, social, and financial well-being. In FY2016, 50,700 employees, approximately 57 percent of our workforce, participated in the program, Healthier Together.

### SAFETY RECORD

	FY2012	FY2013	FY2014	FY2015	FY2016
Employee Injury Incident Rate <sup>1,3</sup>	1.05	1.03	0.87	0.50	0.45
Employee Lost/Restricted Workday Case Rate <sup>2,3</sup>	0.47	0.45	0.39	0.23	0.22

<sup>1</sup>The number of work-related injuries or illnesses serious enough to require treatment beyond first aid, per 100 employees working a full year.

<sup>2</sup>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.

<sup>3</sup>FY2015 and FY2016 data include both legacy Medtronic and legacy Covidien employees.

### HEALTHIER TOGETHER

	FY2012	FY2013	FY2014	FY2015	FY2016
Countries with Program Access	12	19	43	43	65
Employees with Program Access	82%	85%	98%	98%	100%
Employees Registered on the Wellness Platform <sup>1</sup>	-	-	-	-	50,769

<sup>1</sup>Historical participation rates were based on questionnaires that are no longer used. Employee participation is now measured by registration on the wellness platform. Historical data has been removed.

## DATA SUMMARY

### MEDTRONIC GLOBAL WORKFORCE<sup>1,2</sup>

	FY2012	FY2013	FY2014	FY2015	FY2016 <sup>3</sup>
<b>Total</b>	42,471	43,091	43,707	46,368	90,549
Female	20,824	21,148	21,468	22,657	44,371
<b>Asia-Pacific</b>	3,465	4,053	4,470	4,950	12,363
Female	1,549	1,754	1,959	2,169	5,381
<b>Canada</b>	734	749	738	792	1,544
Female	451	474	462	495	900
<b>Europe/Central Asia/Middle East/Africa</b>	9,229	9,126	9,270	9,754	17,820
Female	4,798	4,875	4,944	5,069	9,149
<b>Latin America</b>	2,972	3,064	3,302	3,786	16,425
Female	2,172	2,201	2,357	2,628	10,019
<b>U.S. and Puerto Rico</b>	26,071	26,099	25,927	27,086	42,397
Female	11,854	11,844	11,746	12,296	18,922

<sup>1</sup>FY2015–FY2012 does not include legacy Covidien employees.

<sup>2</sup>Employee population data expressed here may vary from our 2016 10-K form depending on the time of year when the data was gathered.

<sup>3</sup>595 records do not specify gender.

### EMPLOYMENT TYPE<sup>1,2</sup>

	FY2016
<b>Support staff</b>	40,213
Female	23,972
<b>Professional</b>	39,268
Female	16,733
<b>Management<sup>3</sup></b>	9,313
Female	3,109
<b>VPs and higher</b>	498
Female	117

<sup>1</sup>Employee population data expressed here may vary from our 2016 10-K form depending on the time of year when the data was gathered.

<sup>2</sup>1,257 employees do not have a job category designation.

<sup>3</sup>Management = managers, senior managers, directors, and senior directors.

## GLOBAL FULL-TIME<sup>1,2</sup>

	FY2012	FY2013	FY2014	FY2015	FY2016 <sup>3,5</sup>
<b>Total</b>	41,293	41,895	42,497	45,084	88,520
<b>30 and under</b>	7,464	6,950	7,065	7,967	18,043
<b>31–50</b>	26,570	27,076	27,299	28,341	52,891
<b>51 and above</b>	7,259	7,869	8,133	8,776	16,546
<b>Female<sup>4</sup></b>	19,767	20,066	20,371	21,530	42,687
Asia-Pacific	1,492	1,694	1,900	2,113	5,299
Canada	444	465	456	484	896
Europe/Central Asia/Middle East/Africa	4,000	4,054	4,099	4,192	7,939
Latin America	2,172	2,201	2,357	2,628	10,013
U.S. and Puerto Rico	11,659	11,652	11,559	12,113	18,540

<sup>1</sup>FY2015–FY2012 does not include legacy Covidien employees.

<sup>2</sup>Employee population data expressed here may vary from our 2016 10-K form depending on the time of year when the data was gathered.

<sup>3</sup>1,041 records have values out of bounds and are not included in age breaks.

<sup>4</sup>Numbers by region are based on female employees only.

<sup>5</sup>595 records do not specify gender.

## GLOBAL PART-TIME<sup>1,2</sup>

	FY2012	FY2013	FY2014	FY2015	FY2016 <sup>3,5</sup>
<b>Total</b>	1,177	1,196	1,210	1,284	2,029
<b>30 and under</b>	94	73	71	66	228
<b>31–50</b>	897	924	937	985	1,373
<b>51 and above</b>	186	199	202	233	427
<b>Female<sup>4</sup></b>	1,057	1,082	1,097	1,127	1,684
Asia-Pacific	57	60	59	56	82
Canada	7	9	6	11	4
Europe/Central Asia/Middle East/Africa	798	821	845	877	1,210
Latin America	0	0	0	0	6
U.S. and Puerto Rico	195	192	187	183	382

<sup>1</sup>FY2015–FY2012 does not include legacy Covidien employees.

<sup>2</sup>Employee population data expressed here may vary from our 2016 10-K form depending on the time of year when the data was gathered.

<sup>3</sup>1,041 records have values out of bounds and are not included in age breaks.

<sup>4</sup>Numbers by region are based on female employees only.

<sup>5</sup>595 records do not specify gender.

**NEW EMPLOYEE HIRES<sup>1,2</sup>**

	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>FY2016<sup>4,5</sup></b>
<b>Total<sup>3</sup></b>	4,784	4,581	4,699	5,407	16,026
<b>30 and under</b>	2,001	1,736	1,959	2,384	7,344
<b>31–50</b>	2,501	2,521	2,450	2,702	6,673
<b>51 and above</b>	282	324	290	321	867
<b>Female<sup>6</sup></b>	2,462	2,255	2,302	2,574	7,266
Asia-Pacific	413	463	394	431	1,189
Canada	32	59	24	29	132
Europe/Central Asia/Middle East/Africa	354	336	420	440	1,255
Latin America	509	295	360	255	2,027
U.S. and Puerto Rico	1,154	1,102	1,104	1,419	2,663

<sup>1</sup>FY2015–FY2012 does not include legacy Covidien employees.

<sup>2</sup>Employee population data expressed here may vary from our 2016 10-K form depending on the time of year when the data was gathered.

<sup>3</sup>Fiscal years 2012–2015 did not include employees who were hired and terminated within the same year.

<sup>4</sup>1,142 records have values out of bounds (e.g., age=0).

<sup>5</sup>672 records do not specify gender.

<sup>6</sup>Numbers by region are based on female employees only.

# ABOUT THIS REPORT

This is our third annual Integrated Performance Report, which includes both financial and nonfinancial information. Our reporting reflects the way we do business, combining social, environmental, ethical, and financial performance.

The Report was prepared in accordance with the G4 Core guidelines of the Global Reporting Initiative (GRI), the world's most recognized framework for sustainability reporting. It also references points of interest as determined by the Sustainability Accounting Board Standards (SASB) for Medical Equipment and Supplies and the Dow Jones Sustainability Index questionnaire.

Unless otherwise stated, all performance data covers our fiscal year 2016 (FY2016) from Apr. 25, 2015, through Apr. 29, 2016. Our last integrated report, which covered FY2015, was published in November 2015.

This report includes data from Medtronic plc and all of its consolidated subsidiaries. Financial and nonfinancial data from Covidien plc, acquired by Medtronic in January 2015, is fully incorporated in all FY2016 disclosures unless otherwise stated. FY2015 financial reporting (and our FY2015 Form 10-K) includes Covidien's fourth quarter performance and results. Except where otherwise noted, Covidien's FY2015 nonfinancial performance data has not been integrated in this year's report. All data reported is best estimates. Some entity data has been excluded from the report because it is believed to be not significant (<10 percent effect on overall data). Data exclusions are noted throughout the report.

All financial information is reported in U.S. dollars. Environmental, health, and safety data is from our manufacturing and research and development facilities.

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

For additional business and sustainability information, please refer to our SEC filings, including [Form 10-K](#), [Proxy filings](#), [press releases](#), and our [CDP](#) disclosure.

Medtronic has not sought independent verification of this report but has practices in place to internally validate the data.

The integrated reporting index that follows highlights some of the most important ways that our business success is tied to our social, environmental, and ethical performance, and provides page references for more information.

We want to hear from all our stakeholders. To provide feedback or request additional information, please email [integratedreport@medtronic.com](mailto:integratedreport@medtronic.com).

# MEDTRONIC 2016 INTEGRATION INDEX

## Integrated reporting at Medtronic

We believe that our integrated report provides a comprehensive overview of Medtronic. It reflects how we operate, considering the social and environmental factors and impacts. This Integration Index highlights some of the most important ways that our social, environmental, and ethical performance is tied to our business success.

SECTION	INTEGRATION FEATURE
Sustainability Risks and Opportunities	<b>Sustainability risk management</b>
Sustainability Risks and Opportunities	<b>Business continuity risk management</b>
Sustainability Risks and Opportunities	<b>Meeting customer expectations through sustainability performance</b>
Sustainability Risks and Opportunities	<b>Responding to investor requirements</b>
Economic Contributions to Society	<b>Driving revenue growth in emerging markets</b>
Economic Contributions to Society	<b>Supporting local communities through operating costs</b>
Economic Contributions to Society	<b>Aligning business with healthcare needs through strategic acquisitions</b>
Economic Contributions to Society	<b>Philanthropy as a percentage of pre-tax profits</b>
Access	<b>Meeting unserved medical needs and treating conditions more effectively through R&amp;D, clinical trials, and innovative new products and therapies</b>

Access	<b>Exploring Value-based Healthcare models to share accountability, improve clinical outcomes, and align value across healthcare systems</b>
Access	<b>Expanding our managed services businesses to improve efficiency and quality of care</b>
Access	<b>Addressing affordability through a variety of pricing models and product donations</b>
Access	<b>Developing new business models to address local healthcare needs around the world</b>
Product Quality	<b>Quality imperatives support business strategy</b>
Product Quality	<b>Enhancing post-market surveillance to improve patient outcomes</b>
Product Quality	<b>Product-related regulatory actions</b>
Product Quality	<b>High ethical standards for animal research</b>
Product Stewardship	<b>Reducing waste and saving costs across the value chain</b>
Responsible Sourcing	<b>Supplier quality management to avoid errors that can affect patient health and damage reputation</b>
Responsible Sourcing	<b>Advancing inclusive sourcing practices through training, strategic planning, and supporting diverse suppliers</b>
Ethics in Sales and Marketing	<b>Reducing risk in distribution channels</b>
Ethics in Sales and Marketing	<b>Protecting patient privacy and health data</b>
Governance and Engagement	<b>Assessing ethical behavior in performance reviews</b>
Operations	<b>Environmental, Health, Safety, and Sustainability (EHS&amp;S) management to improve operational efficiencies and save costs</b>
Employees	<b>Building a diverse and inclusive workforce</b>

