



# FY 2019 Sustainability Report



# To our stakeholders

I believe that healthcare is the most consequential industry in the world. Our work provides an opportunity to make a life-changing difference for our customers, their patients, and the communities we serve and in which we live and work. Our Purpose—*advancing the world of health™*—is as impactful as it is inspiring; it reminds us that we all play a part in changing the world for the better, every single day.

With the global reach of BD comes a great deal of responsibility. Five years ago, we initiated a broader and more integrated approach to sustainability, and I am pleased with not only how far we have come, but how that approach has enabled us to respond to the significant social issues that have reverberated across the globe in recent months. Our associates have rallied around our Purpose, developing innovative diagnostic solutions for COVID-19 in record time, increasing the availability of products used in sample collection and the treatment of critically ill patients, and working with countries around the world to enable the delivery of a potential COVID-19 vaccine. And we have come together to have important, frank discussions about race and equality, celebrating our differences while challenging each other to make further progress in advancing our own culture of inclusion while addressing the systemic inequities faced by people of color.

We remain focused on supporting priority health needs that are aligned with the U.N. Sustainable Development Goals (SDG) and shared value creation—meaning how we address unmet societal needs through business models and initiatives that also contribute to the commercial success of BD. I am pleased to share with you the progress we are making toward our 2020 sustainability goals. These goals provide the framework for how we manage, and make an impact on, the most relevant social and environmental issues for our company.

## Innovation

In recent years, we've assembled a leading portfolio of solutions to better serve the entire healthcare continuum—from discovery to diagnosis, to the process of care, to the treatment of disease. Our evolution has been driven by the successful acquisition and integration of CareFusion and C. R. Bard, and we are leveraging our broad new capabilities to accelerate innovation, seeking new and better solutions that address our customers' unmet needs, improve patient outcomes, reduce the cost of care and expand access.

Our Purpose and innovating to solve major health problems are mutually reinforcing goals. When we innovate to increase access to quality healthcare, it benefits people and societies throughout the world and drives our business performance. We call this “innovating on Purpose,” and it's an approach that led to 25 major product launches in FY 2019, including the Purewick™ Female External Catheter and WavelinQ™ 4F Arteriovenous Fistula Creation Device in our BD Interventional segment; the BD HealthSight™ Data Manager 1.1 Suite of Technologies in our BD Medical segment; and the BD Cor™ and BD FACSDuet™ Systems in our BD Life Sciences segment.

While we have even more major launches planned for FY 2020, we are also working to tackle some of the largest challenges in healthcare—including rapidly mustering our resources to respond to the global COVID-19 pandemic by developing multiple products for the rapid diagnosis of the virus.

## Access

We partner and collaborate with public and nonprofit organizations around the world to address priority health needs.

This year, we were recognized by *Fortune* magazine on its annual list of companies who “Change the World.” We earned this honor for our work, helping to combat the threat of antimicrobial resistance through programs that raise awareness and mobilize and activate the healthcare industry, as well as leaders and communities around the world, to take action to extend the useful life of medications.

This is the third time BD has made this prestigious list since its inception—something only 17 companies can claim.

## Efficiency

As climate change increasingly becomes one of the most disruptive forces around the world, we have identified opportunities to make environmental improvements across our value chain and build resilience in our global operations. This year, we have integrated environmental performance data for Bard into our reporting, and while this has impacted progress against some of our targets, I'm confident that integration efforts will drive continued improvements. Since setting our 2020 sustainability targets, we've continued to reduce our Scope 1 and 2 greenhouse gas emissions and water consumption. We remain committed to renewable energy, such as installations of on-site solar power generation across our sites—most recently, at our global headquarters in Franklin Lakes, NJ.

Recognizing the increased interest from our stakeholders about our climate change management program, we are also publishing disclosures in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). BD is one of over 1,000 organizations that supports the recommendations of the TCFD.

## Empowerment

By building and engaging diverse teams and leveraging the unique ideas, backgrounds and experiences of our associates, we can deliver better outcomes for our global marketplace. This focus on inclusion and diversity has long been a cultural priority at BD, and it is embedded in The BD Way, the set of values, leadership commitments and mindset that guides our behavior and actions.

As executive sponsor of WIN (Women's Initiative Network), the company's largest associate resource group (ARG), I've seen firsthand the impact we can have when we create a culture of individual belonging and empowerment. Members of our ARGs have been instrumental in creating opportunities for our more than 65,000 global associates to network, navigate their careers and find—or be—a mentor.

## Long-term impact

While we're proud of our accomplishments in FY 2019, we will never be satisfied with maintaining the status quo. Just as we continuously seek new innovations to help more patients live better lives, we strive to be the best employer, the best environmental steward and the best corporate citizen we can possibly be. We are in the process of taking our sustainability work to the next level, developing our 2030 impact goals that reflect the new company that BD has become. I'm excited to share the new strategy later in 2020, along with bold commitments that will continue our focus on shared value creation.

Our role in creating a better, healthier world has never been more clear than it is today, and our associates take tremendous pride in helping the caregivers, researchers and other healthcare professionals who serve patients all around the world. We look forward to working with you—our stakeholders—as we continue *advancing the world of health™*.



Sincerely,

A handwritten signature in black ink that reads "Tom Polen". The signature is fluid and cursive, written in a professional style.

Tom Polen  
CEO and President



## About this report

This report provides an update on our global environmental, social and governance (ESG) performance against our 2020 goals, during Fiscal Year 2019 (October 1, 2018 to September 30, 2019) for Becton, Dickinson and Company (also known as “BD”) and our subsidiaries, unless otherwise stated.

We report annually on our sustainability performance, and published our last report, which highlighted progress made in Fiscal Year 2018, in June 2019.

In December 2017, BD acquired C.R. Bard (“Bard”), a leading multinational developer, manufacturer and marketer of innovative, life-enhancing medical technologies in the fields of vascular, urological, oncological and surgical specialty products. Bard data is integrated into all data provided throughout this report, unless noted.

This report contains standard disclosures from the Global Reporting Initiative™ (GRI) Sustainability Reporting Guidelines. While this report is not intended to meet the requirements of the GRI Sustainability Reporting Guidelines, reference numbers for standard disclosures have been included where full or partial information has been provided.

This report contains standard disclosures from the Sustainability Accounting Standards Board (SASB) Medical Equipment and Supplies Sustainability Accounting Standard. While this report is not intended to meet all the requirements of the SASB standard, reference numbers for disclosures have been included where full or partial information has been provided.

Data in this report has not been externally assured.

Reporting and performance data include information on our owned and operated facilities. We have processes in place to ensure that reporting on key sustainability performance indicators is as accurate and robust as possible, and we continually work to improve them.

We seek feedback from stakeholders each year, which informs our selection of content for sustainability reporting. For contact information, see the final page of this report.

Our previous sustainability report is available on our [website](#).

# About BD

BD is one of the largest global medical technology companies in the world and is *advancing the world of health™* by improving medical discovery, diagnostics and the delivery of care. The company supports the heroes on the front lines of healthcare by developing innovative technology, services and solutions that help advance both clinical therapy for patients and clinical process for healthcare providers. BD and its 65,000 employees have a passion and commitment to help enhance the safety and efficiency of clinicians' care delivery process, enable laboratory scientists to accurately detect disease and advance researchers' capabilities to develop the next generation of diagnostics and therapeutics. BD has a presence in virtually every country and partners with organizations around the world to address some of

the most challenging global health issues. By working in close collaboration with customers, BD can help enhance outcomes, lower costs, increase efficiencies, improve safety and expand access to healthcare.

For more information on BD, please visit our [website](#).

BD is headquartered in Franklin Lakes NJ and serves over 190 countries.

Further details about BD (including location of operations and direct economic impact generated and distributed) can be found in our [2019 10-K filing](#).

GRI disclosures: 102-1, 102-2, 102-3, 102-4, 102-5, 102-6, 102-7, 201-1



BD corporate headquarters, Franklin Lakes, NJ.

# About our businesses

## The BD Medical segment

focuses on providing innovative solutions to reduce the spread of infection, enhance diabetes treatment, advance drug delivery, improve surgical procedures and provide effective and safe medication management. Customers served include hospitals and clinics; physicians; governmental and public health agencies; healthcare workers; retail pharmacies; pharmaceutical and biotech companies; and consumers.

### Sample products:



BD Alaris™ Infusion System



BD MaxZero™  
Needle-Free  
Connector



BD Nano™  
4mm Pen Needle



BD Hypak™  
Glass  
Prefillable  
Syringes

## The BD Life Sciences segment

delivers innovative solutions from discovery to diagnosis, continually advancing science and clinical outcomes across infectious disease and cancer. Offerings include preanalytical solutions for sample management; immunology research solutions, including flow cytometry and multiomics tools; microbiology and molecular diagnostics; lab automation and informatics solutions; and differentiated reagents and assays. Customers served include research institutions, industrial and reference laboratories; blood banks; hospitals and clinics; alternate site healthcare; public health agencies; academic and government institutions; and pharmaceutical and biotech companies.

### Sample products:



BD Vacutainer® Blood  
Collection Tubes



BD FACSLyric™ Flow Cytometry System



BD Kiestra™ Lab  
Automation Solutions

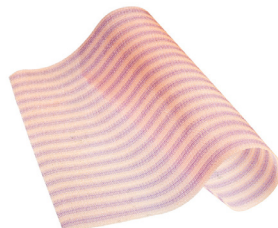


BD MAX™ Open  
System Reagent Suite

## The BD Interventional segment

focuses on developing innovative surgical, endovascular, urological and critical care interventions that not only meet clinical needs but also deliver value to health systems and improve patients' lives. Customers served include hospitals and clinics; physicians; ambulatory surgery centers; nurses; and consumers.

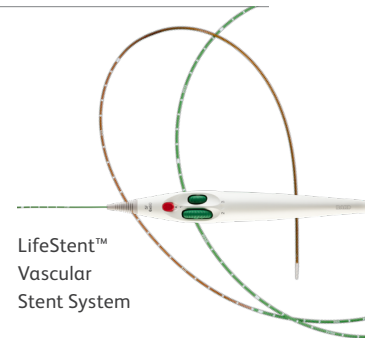
### Sample products:



Phasix™ ST Mesh



Lutonix™ 035 Drug Coated  
Balloon PTA Catheter



LifeStent™  
Vascular  
Stent System



Arctic Sun™  
Temperature  
Management  
System

# Company structure

BD is structured to serve customers by providing unique solutions. The data below represents the company structure for FY 2019.

## Revenue by geography

(millions of dollars)



## Revenue by segment

(billions of dollars)



Values in this exhibit reflect rounded numbers in billions and include Bard.

# Value chain profile

BD has more than 700 core suppliers that provide key materials, including plastics, glass, metals, textiles, electronic and mechanical sub-assemblies, and various paper, agricultural, biological, chemical and petrochemical products.

BD manufactures and sells over 80,000 products worldwide. We market our products in the United States and internationally through independent distribution channels and directly to end users with company associates or independent sales representatives.

## Customers served

	BD Medical	BD Life Sciences	BD Interventional
Hospitals	•	•	•
Clinics	•	•	•
Laboratories		•	
Physicians' office practices	•	•	•
Consumers and retail pharmacies	•		
Government agencies*	•	•	•
Academic and government institutions	•	•	•
Public health agencies	•	•	
Nonprofit public health agencies	•		
Blood banks		•	
Pharmaceutical companies†	•	•	
Biotechnology companies	•	•	
Healthcare workers	•		
Ambulatory surgical centers			•

# How we do business

## Ethics and compliance

We are committed to a strong ethics and compliance culture. We do not tolerate actions or behaviors that are inconsistent with our values or violate the BD Code of Conduct or applicable laws and regulations. All BD associates are responsible for reinforcing our ethics and compliance culture and sustaining our reputation as a company dedicated to quality and integrity. We encourage and expect everyone at BD to speak up by asking questions, raising concerns, seeking guidance and reporting actual or suspected violations of laws, our Code of Conduct, our policies or our high ethical standards. This requirement extends to all associates, vendors and other third parties working on our behalf.

The following BD Values further strengthen our culture of ethics and compliance and guide how we hold ourselves accountable to our shareholders and stakeholders.

- We do what is right.
- We thrive on innovation and demand quality.
- We are all accountable.
- We learn and improve every day.
- We help each other be great.

These values are cascaded through all levels of the organization.

Read more about our commitment to ethics and compliance on our [website](#).

**GRI disclosure: 102-16**

## Code of Conduct

The BD Code of Conduct sets the foundation for how we behave at BD. The value “We do what is right” is the cornerstone of our code. To do what is right, we follow the laws, rules and company policies that apply to us. We also follow the highest ethical standards, even when there’s no specific law or policy. Our code provides guidance and resources to help us follow through on these ethical standards and protect our reputation.

Everyone at BD—from directors to officers and associates—must follow our code. It applies equally to everyone, no matter their position or level. This is a condition of employment at BD. Our code is available in English and 20 other languages. All associates are required to complete training on our code annually, and the code is easily accessible to all associates on our company intranet pages.

Our Code of Conduct is available on our [website](#) and through our Ethics and Compliance mobile app for BD associates.

**GRI disclosure: 102-16**

## Antibribery and anticorruption

The Antibribery and Anticorruption Program helps keep associates pointed in the right direction. In support of the program, the Ethics and Compliance function provides resources to regional and local country management to enhance their anticorruption and compliance business practices. This includes incorporating compliance requirements into existing business practices and advising local management on anticorruption compliance-related issues.

A key focus for BD is driving compliance in our distributor networks across the globe, resulting in stronger business relationships while upholding our reputation.

The Antibribery and Anticorruption Program is advanced by fostering collaboration with business leaders to deliver consistent and clear policies and approval processes—along with enhanced third-party due diligence procedures—to help provide assurance that BD is “winning business the right way.”

BD is committed to training all associates via both in-person, scenario-based sessions and learning management system courses that leverage policy materials, such as the Global Standards for Interactions with Healthcare Professionals, Healthcare Organizations and Government Officials.

Joint training with distributors is a core component of the Antibribery and Anticorruption Program. These sessions combine required anticorruption training with information about our overall strategy, progress updates for each business segment and new products.

**GRI disclosure: 102-16**



## Reporting ethics concerns

Our associates are expected to report any actual or suspected violations of laws, the BD Code of Conduct, our policies or our high ethical standards. Associates can report these in a number of ways, including via the BD Ethics Helpline, which is available anywhere in the world 24 hours a day, 7 days a week.

Alternatively, associates may use our independently operated, web-based reporting tool, where BD associates worldwide can make a report in their native language from any computer or mobile device with internet access. The helpline provides translation services as needed, and reports can be made anonymously where permitted by law. Associates can also report violations to their supervisor, management, Human Resources, the Law Group or directly to Ethics & Compliance. Regardless of the outcome, associates are never penalized for bringing such matters to the company's attention in good faith. BD does not tolerate any form of retaliation.

## Interactions with healthcare professionals

We comply with all applicable laws and regulations that govern the interactions between medical technology companies and healthcare professionals, healthcare organizations and government officials in the many countries in which we do business. To help ensure compliance, BD has adopted various industry codes, including the Advanced Medical Technology Association (AdvaMed) Code of Ethics in the United States and MedTech Europe Code of Ethics. BD associates receive information and training about these codes in a number of ways, including periodic communications, and online and

## Human rights

At BD, we are committed to operating in a way that respects the human rights of all associates, as well as the people in our supply chains, the communities in which we operate and those who are impacted by our products.

Rather than doing the minimum required, BD is focused on *doing what is right*. This value, along with the rest of our values, guide our efforts on having a positive social impact across our businesses and operations.

Our commitment to human rights is guided by the principles outlined in the UN Declaration of Human Rights, and extends beyond BD processes and practices to those in our supply chains.

We believe that all people should be treated with dignity and respect, and we are committed to conducting our business in a manner consistent with this principle.

We comply with applicable employment and human rights laws and regulations wherever we have operations; we expect our suppliers to do the same.

Local toll-free numbers for the helpline are included in our Code of Conduct, and the web-based reporting tool can be accessed from any computer or mobile device with internet access from our [website](#) or directly via our Ethics and Compliance mobile app for BD associates.

In FY 2019, the Ethics Office received more than 800 contacts from associates worldwide seeking guidance or reporting concerns. BD takes all reports of violations of laws, BD policies and our high ethical standards seriously. We promptly, fairly and thoroughly investigate all reports. Depending on the findings, we may take corrective action, such as discipline up to and including termination of employment or providing nondisciplinary-based training and process improvements in areas where a gap has been identified.

**GRI disclosure: 102-17**

in-person trainings at conferences and meetings. Associates can access detailed information on our expectations through our intranet and our Ethics and Compliance mobile app. Key provisions of applicable industry codes are also incorporated into various global policies, including the Global Standards for Interactions with Healthcare Professionals, Healthcare Organizations and Government Officials.

**GRI disclosure: 102-16**  
**SASB disclosure: HC-MS-510a.2**

In all of our operations:

- We provide a safe and healthy workplace for our associates.
- We do not use child labor.
- We do not use forced, prison, indentured, bonded or involuntary labor.
- We prohibit discrimination in our hiring and employment practices.
- We prohibit physical abuse and harassment of associates, as well as the threat of either.
- We support the freedom of association and the rights of workers and employers to bargain collectively.

BD has programs in place to monitor and advance human rights efforts throughout the company. These include:

- Policies
  - **BD Code of Conduct**, which reinforces our commitment to human rights and details how to report suspected violations anywhere in our supply chain
  - **BD Expectations for Suppliers**, our code of conduct designed for our thousands of suppliers
- Practices geared towards ensuring modern slavery and human trafficking do not exist in our workforce and those of our suppliers.
  - We do not charge any of our associates recruitment fees, and do not work with recruitment agencies that engage in this practice.
  - We do not withhold identity documents, immigration documents, or any other personal documentation of our associates.
  - We encourage our associates to report, without fear of retaliation, any matters related to human trafficking, modern slavery or any other human rights violations.
- Due diligence, including initial assessments of suppliers against 12 risk factors including ESG risk
- Risk management efforts to ensure compliance against related policies throughout our operations
  - For example, our Global Operations and Human Resources teams work to ensure compliance with our policies prohibiting forced labor, human trafficking and modern slavery across all of our operations, including manufacturing operations.
- Training and capacity building, both internally and for key suppliers

BD strives to continuously improve its programs to ensure compliance with applicable laws and high ethical standards to meet the expectations of our customers, shareholders, associates, communities and other stakeholders.

## Corporate governance

### Corporate Governance Principles

Our Corporate Governance Principles outline how we hold ourselves accountable to shareholders and stakeholders. These principles address the operation of our Board and its committees; strategic and succession planning; director qualifications, independence, compensation and equity

ownership; and the ability of shareholders and others to communicate directly with Board members.

Further details can be found on the [Corporate Governance website](#).

**GRI disclosures: 102-18, 102-22, 102-23, 102-24, 102-25, 102-28, 102-35**

### Board composition

BD is governed by a Board of Directors consisting of 12 members, 11 of whom are independent. Our Board members have a variety of backgrounds, which reflects our continuing efforts to achieve a diversity of viewpoints, experiences and knowledge, as well as ethnicities and genders. Our Board is comprised of four female directors and eight male directors, one of whom is African American.

There are five operating Board committees (listed below) and an executive committee that meets only as needed:

- Audit
- Compensation and Management Development
- Corporate Governance and Nominating
- Quality and Regulatory
- Science, Marketing, Innovation and Technology

A charter for each committee outlines its mission, the qualifications required for membership and its members' duties.

See more about our Board of Directors on the [Corporate Governance website](#).

#### Leadership recognition

*FORTUNE's* America's Most Innovative Leaders List  
(Vince Forlenza ranked #41)

AdvaMed—Lifetime Achievement Award for BD Board Member, Catherine Burzik

### Executive compensation

Our goal is to provide an executive compensation program that best serves the long-term interests of our shareholders. We believe that attracting and retaining superior talent and rewarding performance is key to delivering long-term

shareholder returns, and that a competitive compensation program is critical to that end. For further details of executive compensation, see our [proxy statements](#).

# Participation in the political process

Strong, long-term relationships with policymakers help us better understand unmet public health needs around the world.

BD engages in public policy advocacy through ongoing, constructive and transparent interactions with government officials and stakeholder groups. All advocacy activities are directed toward furthering the company's Purpose of *advancing the world of health™*, without regard to the personal political affiliations or views of any individual BD associates at any level across the organization. We employ public policy professionals

who work closely with our country and business leaders to make constructive contributions to policy discussions relevant to the company and to the communities in which we operate. We leverage our diverse expertise, global reach and collaborations with healthcare professionals, patients and others to advance sound public policy.

Our participation in the political process, including lobbying and the BD Political Action Committee "PAC", is governed by the Board of Directors and the Executive Leadership team.

## Engaging in a transparent manner

The **Center for Political Accountability (CPA)** recognized BD with a first-place rating of 100% on their 2019 corporate political disclosure and accountability index. The ranking benchmarks Fortune 500 companies and is produced by CPA in conjunction with the Zicklin Center for Business Ethics Research at the

Wharton School at the University of Pennsylvania. This is the third year in a row that BD has received a perfect score for the transparency with which we conduct our political engagement, and it is a designation that investors watch.

## Public policy advocacy

In areas where BD has deep experience, the company develops public policy positions that guide our advocacy efforts worldwide. We currently have a range of global public policy positions available **online**.

We also engage in policy dialogues to advance regulatory and reimbursement frameworks that ensure the safety and efficacy

of medical technologies while enabling timely patient access to them. We promote sensible tax policies that enhance competitiveness and innovation, support policies and programs that advance biomedical research and seek to expand access to care for all people.



## Role of political contributions

The company prohibits the use of corporate funds and assets to support U.S. federal or state candidates, political parties, ballot measures or referendum campaigns. Exceptions to this policy require approval by the CEO, the general counsel and a designated member of the Board of Directors Corporate

## Political Action Committee: BD PAC

As permitted under U.S. law, the company operates a political action committee. The BD PAC is a mechanism to enable eligible U.S. associates to voluntarily support candidates for elected office who share our perspectives and approaches to public policy issues. BD has not authorized the establishment of any PACs operating on the state or local level. Contributions to

Nominating and Governance Committee. To date, no exceptions have been sought or approved.

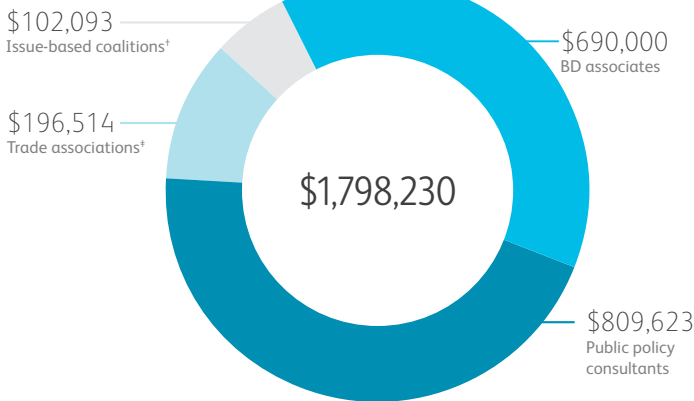
Certain conditions must also be met for any political contributions outside of the United States.

the BD PAC are entirely voluntary and are governed by the BD PAC Bylaws. BD provides administrative support to the PAC, as permitted under federal law.

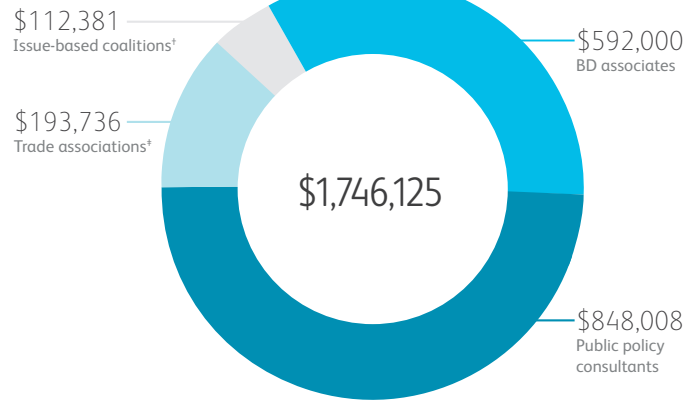
For annual reporting of itemized PAC contributions and any other corporate contributions, visit our [website](#).

## U.S. lobbying expenditures

2018\*



2019\*



\*Data represents calendar years (including Bard data)

\*Trade associations: AdvaMed, Healthcare Institute of New Jersey, California Life Sciences Association, North Carolina Biosciences Organization

\*Issue-based coalitions: Diagnostic Test Working Group, Medical Device Competitiveness Coalition, Physicians Fee Schedule Pathology Payment Coalition, United for Medical Research

For calendar year 2019, the company spent approximately \$1.7 million on salaries and expenses associated with lobbying in the United States, which was roughly the same as the company's 2018 expenditure. We file quarterly reports regarding our federal lobbying activities with the Office of the Clerk of the House of Representatives and the Secretary of the Senate. The BD PAC

contributed a total of \$101,000 to candidates in 2019, an increase of approximately \$16,000 over the prior year. All contributions made by the BD PAC are also publicly reported.

For details on U.S. lobby expenditures by year, visit our [website](#).

GRI disclosure: 415-1

# Ensuring product safety

At BD, we create value for our patients and customers through predictable delivery of differentiated, high-value products and solutions. We work relentlessly to develop solutions that advance healthcare and improve worker and patient safety.

Product safety is at the heart of how we design, manufacture and deliver products. This section details some of that work.

## Product quality and safety

As BD continues to introduce innovative technologies, our robust quality and regulatory management ensures we deliver to the highest standards to the millions of people who use our products each day. Our Quality Policy guides us to consistently provide superior products and services worldwide, achieved through customer focus, continuous improvement and maintaining an effective quality system. From our suppliers, we expect superior levels of service, quality, cost effectiveness and innovation. Finally, compliance with existing and emerging regulations is the foundation of what we do.

### Quality management and training

Quality management plays a key role in our success by “making quality certain.” We are driven by our vision of an organization where transactions are correct the first time, where efficient and effective processes drive our competitiveness and where all associates can successfully demonstrate the intent and spirit of the Quality Policy.

Our quality systems help ensure compliance with applicable global regulations and establish standards for product design, manufacturing and distribution. Prior to marketing or selling most of our products, we must secure approval or clearance from the FDA and counterpart regulatory agencies outside of

the United States. Once BD introduces a product into the market, the FDA and counterpart regulatory agencies outside of the United States periodically review our quality systems and product performance. We regularly analyze our quality processes and specifications to ensure efficiency and effectiveness.

When an associate joins BD, they complete training on the quality and regulatory requirements for the medical device industry as part of their orientation. All associates receive the required training to perform their roles and responsibilities effectively.

### Quality management systems

All BD manufacturing locations operate under a certified quality system. For the vast majority (100 sites), this is ISO 13485:2016 Medical Device Quality System. We have a few sites which operate under a more general ISO 9001:2015 system as they manufacture products for research use only. All sites with an ISO 13485 or 9001 quality system undergo an annual surveillance audit to assure conformance of the QMS to the standards. Additionally, BD has 23 sites which have a Medical

Device Single Audit Program (MDSAP) ISO 13485:2016 certification. The certification program includes regulations for five countries and these audits are shared with the competent authorities in these countries. The MDSAP participating countries are Australia, Brazil, Canada, Japan and the United States. MSDAP audits are conducted by third-party notified bodies which are themselves certified by the five member countries as auditing organizations for the program.

### Supplier managements and audits

In addition to designing quality into our products, it is essential to implement best-in-class supplier quality programs. The Global Procurement function partners with the Quality function to ensure that we clearly define the impact suppliers of materials and services can have on BD products and put the appropriate controls in place when selecting, approving and maintaining our suppliers.

Our supplier management program oversees the quality and safety practices of all our suppliers. Our program focuses on four areas:

- **Performance management** comprises the procedures that govern how BD identifies, classifies and assesses the qualifications of our suppliers, and manages our relationship with each of them.

- **Supplier continuous improvement programs** employ our operational excellence methodologies (Lean and Six Sigma), with specific vendors to define, plan and execute projects that bring significant improvements in performance, savings and overall value to BD.
- **Supplier engagement** is central to our ability to identify and partner with suppliers capable of bringing innovation and new technology to the market.
- **Supply base risk management** quantifies and mitigates risks posed to our supply chains, such as business discontinuity, financial liquidity, price fluctuations and pandemics.

Performance management processes include conducting quality systems assessments (QSAs) for key suppliers according to a risk-classification process, determined by both a fixed frequency and the quality history of the supplier's site. QSAs ensure that the facilities' manufacturing materials or components we procure have effective quality systems in place to ensure the final product will consistently comply with our specifications and adhere to all regulatory requirements. BD participates in the MDSAP, an international coalition to jointly leverage regulatory resources to manage an efficient, effective and sustainable single audit program focused on the oversight of medical device manufacturers. Participation in this program will allow for the conduct of a single regulatory audit of a medical device

## Regulatory compliance

The Regulatory Affairs, Quality Assurance and Quality Compliance teams at BD work together on product-related regulatory processes, from product concept to obsolescence.

The Global Regulatory Affairs Monitoring Initiative (GRAMI), a system that links our worldwide regulatory associates, is set up to allow the global regulatory team members to monitor changes in regulations, requirements and regulatory agency policies that could affect BD operations and products.

The GRAMI team is comprised of BD regulatory professionals with expertise in worldwide regulatory policy areas, including

## Product marketing

BD has policies and procedures to ensure the advertising and promotion of our products complies with applicable laws and

manufacturer's quality management system that satisfies the requirements of multiple regulatory jurisdictions. Auditing Organizations (e.g., BSI, NSAI) execute audits. The FDA is transitioning from the Quality System Regulation (QSR) to ISO 13485 to better align with MDSAP. As of August 31, 2018, 2,711 MDSAP certificates have been issued to the industry. Currently there are 5 participating countries which include Australia, the United States, Brazil, Canada and Japan as well as 2 observers, WHO and the European Union. Other countries can voluntarily accept the MDSAP audit reports from the manufacturer but do not have access to the MDSAP Regulatory Portal. Learn more about our [Procurement Strategy](#).

compliance, product registrations, labeling standards and other areas of pre- and postapproval regulatory requirements.

When changes are identified, they are communicated to individuals in relevant business units, functions and manufacturing sites who are part of the GRAMI notifications system. In addition, BD regulatory leaders in various regions engage in meaningful dialogue with their regulators and trade associations to seek better understanding, alignment and improvements in regulatory requirements and processes that affect BD as well as the regulated medical technology industry.

regulations. Expectations around the promotion of our products are laid out in our Code of Conduct.

SASB disclosure: HC-MS-270a.2

## Postmarket surveillance

BD is committed to ensuring patient safety via robust postmarket surveillance of our products. Central to this is a comprehensive product complaint management program, where every complaint is evaluated for potential safety issues and determination of need to report as a vigilance event to the FDA and other global competent authorities. BD business units conduct routine complaint trending evaluations as part of corrective and preventive action programs to address corrections needed for complaint issues where any trend is detected.

In addition, as part of the BD Global Medical Safety and Governance organization, a medical safety review board and medical affairs safety council routinely reviews complaints and adverse event data specifically looking for potential safety signals. The results of these reviews are shared with the BD business unit VP of Medical Affairs when applicable, as well as part of a monthly Quality and Regulatory leadership meeting.

## Selecting materials

A key part of our product development program is the selection of the right materials that ensure patient safety, device functional performance and continuity of the device to the healthcare market. There are five criteria that are considered when selecting materials for any of our devices:

- What is critical to the function of the product?
- What is critical to the manufacturability of the product?
- What is crucial to the quality of the product?
- What is critical to compliance with regulation?
- What is critical to business requirements?

Once required material properties have been established, potential materials can be identified for feasibility studies. These studies

We have escalation policies where potential safety-related issues are investigated with the objective of determining the need for field actions. BD has a corporate-level policy for internal communications and escalation regarding any allegation of a patient death related to a BD product. This policy requires reporting to the chief medical officer, the chief quality officer, the chief regulatory officer and the chief regulatory counsel. The process assures each and every potential patient death is investigated in a prompt and thorough manner. The escalation process is in addition to routine evaluation of all complaints and global vigilance reporting requirements.

Details of FDA actions, including recalls and number of fatalities related to products as reported in the FDA Manufacturer and User Facility Device Experience (MAUDE) can be found on the [FDA website](#).

SASB disclosures: HC-MS-250a.1; HC-MS-250a.3  
GRI disclosure: 416-2

include selection regarding characteristics that include chemical, toxicological, physical and mechanical properties. All materials are rigorously evaluated for safety and suitability for their intended clinical application. Such evaluations include qualification against national and international standards for biological safety (e.g., ISO 10993 and U.S. FDA guidance on same [2016]) and comply with U.S. and international regulations for biological (patient) safety. Materials are also subject to re-evaluation under conditions as defined in these standards and regulations, for example, upon any change in source or specification. All materials are subject to BD established controls with respect to formulation continuity and ongoing quality conformance.

**For each of the critical areas, various questions will be asked in order to generate a list of required material properties. For example:**

**Critical to function:**

*Who is the end user? What critical material properties will enable function?*

**Critical to manufacturability:**

*What manufacturing processes will be used? What sterilization method is necessary to ensure sterility?*

**Critical to quality:**

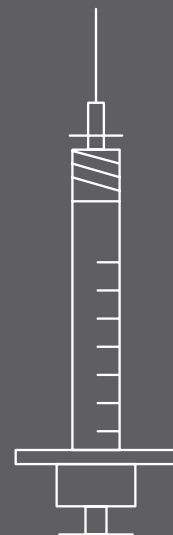
*What properties need to be monitored/measured to ensure the product performs consistently?*

**Critical to compliance:**

*What regulatory requirements must the product comply with?*

**Critical to business requirements:**

*Are there constraints on cost or supplier? What options are available for second sources?*



## Management of Materials of Concern

Our Materials of Concern (MOC) list guides the way we address the reduction of MOC across our portfolio. The list contains both regulated and nonregulated substances that we consider to be of concern and is updated twice a year. It includes substances the company has put special emphasis on—for example, PVC and phthalates—and those that BD has chosen to avoid and/or reduce from its products and packaging.

BD carefully considers the potential impact of the materials we use in our products and packaging and considers customer preferences related to chemicals of concern in finished goods. In order to monitor the changing landscape around chemicals of high concern among customers, regulatory bodies and advocacy groups, BD established a Chemical Review Board in 2013. This internal board, led by our director of Global Product Stewardship, includes representation from R&D for each of our business units and functional expertise from toxicology and procurement.

This group is equipped to evaluate the feasibility of alternative materials, provide guidance to R&D within the company and leverage material expertise across the organization to accelerate our work to reduce priority MOC from the portfolio.

While our 2020 sustainability goals related to the reduction of priority MOC do not specifically reference safer alternatives, internal work processes (such as the Chemical Review Board) exist to manage that aspect of chemicals management.

At the corporate level, BD has a Global Product Stewardship function, led by a director of Global Product Stewardship and

director of Global Product Stewardship Compliance. The Global Product Stewardship function reports to the VP of Environment, Health & Safety and Sustainability (EHS&S); the VP EHS&S reports to the company's executive VP Integrated Supply Chain.

The Global Product Stewardship team is in place to monitor changing global environmental regulations affecting our product portfolio (including chemicals of high concern) and provide governance over compliance activities carried out by our business units. The Global Product Stewardship team also administers our system of collecting information from suppliers through a dedicated team of supply base compliance associates. The team also maintains our MOC list, and owns the central database used to manage chemical information at the product portfolio level.

The Global Product Stewardship team, and in turn our EHS&S function, are accountable for the company's overall system of chemicals management and are responsible for governance over compliance with product environmental regulations, such as REACH and RoHS.

Following the acquisition of Bard, we are currently evaluating our expanded portfolio against our 2020 product stewardship goals.

Our MOC list and materials for suppliers are available on the Supplier Resources page on our [website](#).

**SASB disclosure: HC-MS-410a.1**



## Laboratory animal welfare

BD belongs to a broad industry sector whose products include a variety of medical devices, diagnostics, biotechnology and pharmaceuticals. Products in this sector must meet very stringent requirements for demonstration of safety, efficacy and suitability for their intended use. As part of this work of ensuring ultimate patient safety, existing regulations and standards require the use of laboratory animals in research and product evaluation.

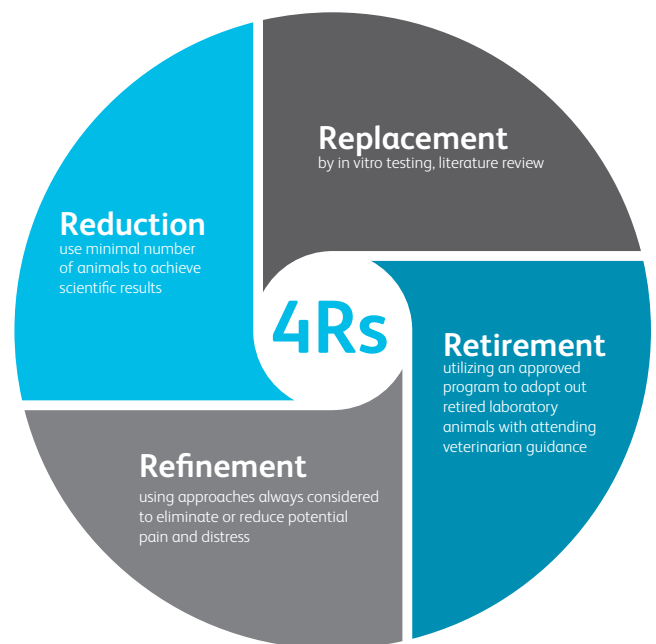
This use of carefully selected and defined animal models is required in the development and testing of certain products. Further, a defined scope of laboratory animal testing is required for regulatory approval and market access of BD products for human or veterinary applications. Throughout this essential work, BD is committed to animal welfare, as good, sound animal welfare is not only the right thing to do, it also leads to good scientific data. It is emphasized that any testing involving live research animals is undertaken only when absolutely necessary, and in keeping with all applicable regulations and current best practices.

Our company's Animal Research Program is led by a proactive, committed team of animal care professionals, that employ best practices to ensure all animal associates are treated humanely and respectfully. Our program is a leader in animal welfare best practices and is influencing the animal research community in positive ways. Best practices include providing animal acclimation, socialization, stress-free handling and environmental enrichment; all to enable animals to display natural behaviors and control over their environment.

BD makes every effort to minimize animal testing by practicing the 4 Rs: Replacement (e.g., in vitro testing, literature review), Refinement (e.g., approaches always considered to eliminate or reduce potential pain and distress), Reduction (e.g., use minimal number of animals to achieve scientific results) and Retirement (e.g., approved program to adopt out retired laboratory animals with attending veterinarian guidance). Very significant effort is applied to leveraging alternative information as much as possible to preclude direct testing (e.g., historical testing results, existing information on materials, history of safe clinical use, chemical analysis and toxicologic risk assessment). BD is also committed to the pursuit of alternative methods to lab animal testing, including in vitro alternatives, computer simulation and modeling and application of anatomical models derived from 3D printed facsimiles.

Our approach is detailed in a BD company policy reviewed and approved by senior management of the corporation. The requirements of this policy apply not only to internal BD studies, but we also require that any/all third parties who carry out animal testing on our behalf are covered by our Expectations for Suppliers (EFS) and our company policy. We preferentially use AAALAC accredited third parties, with limited exceptions when other qualification information is considered sufficient and if unique expertise limits options. Even in the latter case, the BD Animal Research Program performs full supplier animal welfare audits to ensure sound animal welfare among animal vendors and suppliers, and adherence to our EFS and content of our policy.

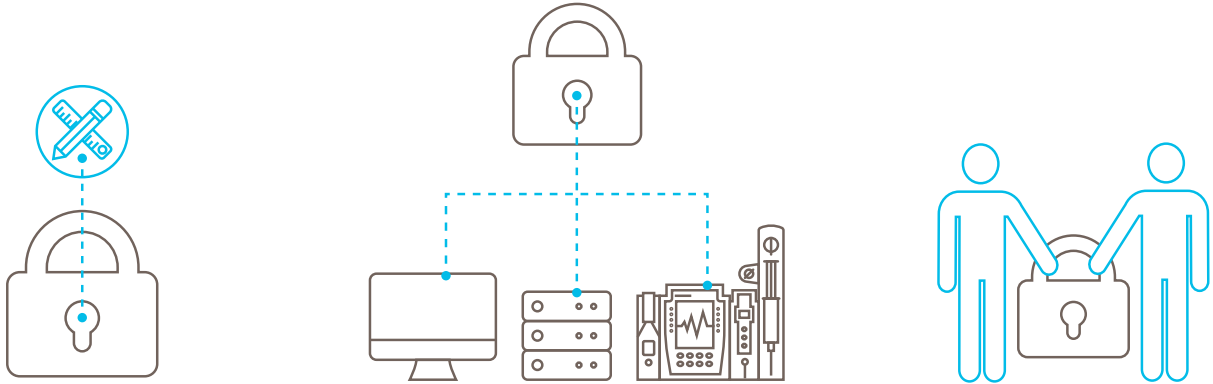
BD maintains an ongoing focus on developments in the research animal study and animal welfare communities, with senior staff involved in numerous relevant governmental and academic organizations. As such, BD is striving to increase transparency in this area, and address the potential questions or concerns of our customers, shareholders and patients. As one example, BD will be hosting its first BRAD (Biomedical Research Appreciation Day) event in 2020 as part of an international effort to celebrate the contributions of research animals in biomedical research. BD is committed to honoring the contributions of animal research to ensuring our products are safe and effective for use across human and veterinary medicine.



# Cybersecurity

At BD, our commitment to cybersecurity includes product security, manufacturing security and enterprise security. We strive to ensure our products, and the environments in which they are used, meet high security standards so our customers can focus on what matters most: caring for patients. While we maintain robust security protocols, we also recognize that new security threats emerge daily in the healthcare industry. That is why we believe transparency and collaboration are essential.

Our strategic approach to cybersecurity includes:



## Secure by design

BD products and systems are designed to be secure and are developed using industry-leading cybersecurity standards.

## Secure in use

BD products and systems are secured and maintained throughout their intended life cycle, across all technologies and sites.

## Secure through partnership

BD ensures our strategic vendors also meet or exceed our cybersecurity standards.

In an effort to continually improve cybersecurity, we regularly:

- Adopt and update secure and certified standards to mature our cybersecurity governance models;
- Perform vulnerability scanning, risk assessments and penetration testing for BD products and enterprise systems; and

- Provide proactive and timely communications around cybersecurity as it relates to our products, enabling customers to understand and properly manage a potential risk through awareness and guidance.

## Certifications and attestations

BD recognizes the value to our customers of independent cybersecurity accreditation. Each year, a range of third-party audits are performed on BD products and internal cybersecurity controls, including:

**Service and Organization Controls (SOC 2®):** SOC 2+ is a technical audit developed by the American Institute of Certified Public Accountants (AICPA) that focuses on the design and operating effectiveness of a company’s controls and includes compliance with the HIPAA security rule. BD maintains a SOC 2+ program to provide controls assurance for those BD products and platforms that collect and process patient health information.

These audit reports are prepared annually by an independent third party and address the effectiveness of BD internal controls and the security of our products.

**Underwriters Laboratory Cybersecurity Assurance Program (UL CAP):** BD cybersecurity programs and policies have been evaluated by the Underwriters Laboratory Cybersecurity Assurance Program (UL CAP), which is an independently audited certification that demonstrates the cybersecurity of medical device products through a rigorous program of analysis, including penetration and vulnerability testing.

## Collaborating to improve cybersecurity

At BD, we believe industry collaboration makes us stronger. The following examples represent the types of collaborations we engage in regularly.

### The Biohacking Village Device Lab at DEF CON

BD co-sponsored and participated in the medical device lab, which allows medical device manufacturers to submit medical devices to be tested by security researchers in a high-trust, high-collaboration environment that includes manufacturers, regulatory bodies and security researchers collaborating to enhance medical device cybersecurity. Forty medical devices from ten manufacturers were tested, including four BD products. As a result, several third-party vulnerabilities, known as the **Interpeak IPNET TCP/IP stack**, were confirmed. While these third-party vulnerabilities were not limited to BD products, BD shared them as part of our commitment to transparency and participation in the Coordinated Vulnerability Disclosure process.

### Healthcare & Public Health Sector Coordinating Councils (HSCC)

BD participated in the HSCC Med Tech Cybersecurity Risk Management Task Group, co-chaired by Rob Suárez, VP, Chief Information Security Officer for BD. In 2019, the task group issued the seminal **Medical Device and Healthcare Information Technology Joint Security Plan (JSP)**. The JSP outlines specific recommendations for developing, deploying and supporting secure medical devices and health IT products. Our contribution included a deidentified version of the BD Product Security Framework, a scheme that drives the security-by-design principle all medical device manufacturers now follow in alignment with the JSP.

### International Medical Device Regulators Forum – Medical Device Cybersecurity Working Group

BD is one of seven nonregulatory members actively participating in the International Medical Device Regulators Forum (IMDRF) – Medical Device Cybersecurity Working Group. This is a collaborative effort with the shared goal of harmonizing medical device cybersecurity around the world. BD made significant contributions to the IMDRF's **Principles and Practices for Medical Device Cybersecurity**, which was developed in 2019 and finalized in March 2020.

### Cybersecurity bootcamps

In 2019, BD partnered with the New Zealand Ministry of Health and healthAlliance on a series of cybersecurity bootcamps in collaboration with security researcher and co-founder of I Am the Cavalry, Beau Woods. Over 50 clinicians, procurement specialists, auditors, biomedical engineers and health IT leaders met with security researchers, security experts and device manufacturers to discuss how to better collaborate and coordinate to protect patient safety.

For more information about BD cybersecurity, visit the **Cybersecurity** section of our website.



## Sterilization

Medical device sterilization is essential to a functioning and effective healthcare system. Sterilization protects patients from the risks of infectious diseases caused by bacteria, viruses and fungi. At BD, we use a variety of methods to safely sterilize our products, including ethylene oxide (or “EtO”), gamma radiation, e-beam and moist heat.

The appropriate method of sterilization depends on a variety of factors. For example, a large number of devices can be damaged by moist heat, radiation and other modes of sterilization, making EtO the only practical sterilization option for those devices. Further, viable sterilization methods must not only ensure the safety of devices but also provide the ongoing capacity and scale required to process the billions of medical devices needed

by patients in today’s modern healthcare systems. For these reasons and others, EtO sterilization is the method used for approximately 50% of our company’s sterile devices.

We recognize the responsibility we have to safely use all modes of sterilization in our operations. That is why for decades, BD has invested in emission control technologies, process safety controls, as well as subject matter expertise in process safety engineering, environmental engineering, radiation safety, industrial hygiene, sterility assurance and other disciplines. Our Environmental Health and Safety (EHS) standards ensure that all BD sterilization facilities are designed and operate with a high level of process safety and environmental controls.

## U.S. FDA Innovation Challenge

In FY 2019, BD was selected as a participant in the U.S. FDA’s innovation challenge to identify new sterilization methods and technologies as alternatives to EtO and reduce EtO emissions. We were 1 of 12 accepted proposals out of 46 applicants. The FDA’s selection of our proposal into the program marks a critical step in our ongoing partnership with the FDA.

It demonstrates the company’s commitment to improve upon and ensure the continued safe use of EtO, and to investigate alternative sterilization methods that will provide the same sterility assurance and result in the same device performance as EtO, at the scale required.

## Reducing EtO consumption

Until there is a safe and effective replacement for EtO, BD will continue to pursue our goal to reduce the amount of EtO used and minimize emissions from the process. Optimizing EtO sterilization cycles, evaluating new device packaging

configurations and evaluating new approaches to validation are examples of possible ways to minimize the amount of EtO used in the sterilization process.



## Enforcement action

While we have implemented, and continue to improve upon, programs and management systems around product quality and safety, we are on occasion subject to enforcement action.

- In May 2017, the FDA conducted inspections at BD's Preanalytical Systems ("PAS") facility in Franklin Lakes, New Jersey. In July 2017, the FDA issued a Form 483 to BD PAS in connection with these inspections that contained observations of non-conformance relating to quality system regulations and medical device reporting relating to certain of our BD Vacutainer™ EDTA blood collection tubes. On January 11, 2018, BD received a Warning Letter from the FDA, citing certain alleged violations of quality system regulations and of law. The Warning Letter states that, until BD resolves the outstanding issues covered by the Warning Letter, the FDA will not clear or approve any premarket submissions for Class III devices to which the non-conformances are reasonably related or grant requests for certificates to foreign governments. We submitted our response to the Warning Letter on January 31, 2018.

BD is working closely with the FDA and intends to fully implement corrective actions to address the concerns identified in the Warning Letter. However, BD cannot give any assurances that the FDA will be satisfied with its responses to the Warning Letter or as to the expected date of resolution of matters included in the Warning Letter. While BD does not believe that the issues identified in the Warning Letter will have a material impact on BD's operation, no assurances can be given that the resolution of this matter will not have a material adverse effect on BD's business, results of operations, financial conditions and/or liquidity.



- Our infusion pump organizational unit is operating under an amended consent decree entered into by CareFusion with the FDA in 2007. CareFusion's consent decree with the FDA related to its Alaris™ SE infusion pumps. In February 2009, CareFusion and the FDA amended the consent decree to include all infusion pumps manufactured by or for CareFusion 303, Inc., the organizational unit that manufactures and sells infusion pumps in the United States. The amended consent decree does not apply to intravenous administration sets and accessories.

While this BD organizational unit remains subject to the amended consent decree, which includes the requirements of the original consent decree, it has made substantial progress in its compliance efforts. However, we cannot predict the outcome of this matter, and the amended consent decree authorizes the FDA, in the event of any violations in the future, to order us to cease manufacturing and distributing infusion pumps, recall products and take other actions. We may be required to pay damages of \$15,000 per day per violation if we fail to comply with any provision of the amended consent decree, up to \$15 million per year.

We also cannot currently predict whether additional monetary investment will be incurred to resolve this matter or the matter's ultimate impact on our business. We may be obligated to pay more costs in the future because, among other things, the FDA may determine that we are not fully compliant with the amended consent decree and therefore impose penalties under the amended consent decree, and/or we may be subject to future proceedings and litigation relating to the matters addressed in the amended consent decree.

As of September 30, 2019, we do not believe that a loss is probable in connection with the amended consent decree, and accordingly, we have no accruals associated with compliance with the amended consent decree.

# COVID-19—How BD is mobilizing to help combat the virus

The global pandemic resulting from the COVID-19 virus has brought about unprecedented change and challenges.

BD recognizes that worldwide, hospitals, physicians, laboratories and clinics rely on our products to maintain the health of their patients. As a company with a global supply chain, we understand the importance of ensuring that we can continue to supply customers around the world with the products their patients rely upon. With over 65,000 associates, we have a responsibility to provide safe working conditions, to ensure they, their families and the communities they live in, remain healthy.

We have mobilized our product portfolio, to expand diagnostic testing; to track and report COVID-19 data and impact; and help accelerate discovery of potential therapies and vaccines.

We have engaged on the front lines, by providing new training on infection control practices; our service engineers are installing and servicing medical instruments in hospitals caring for COVID-19 patients; and we are supporting clinically trained BD associates who wish to volunteer to support healthcare facilities in their communities.

The situation will continue to evolve, and we will continue to prepare and respond. For example, our full portfolio of medication delivery devices can support rapid deployment of novel COVID-19 treatments and vaccine trials.

Mobilization to respond to the pandemic has been needed across the public, private, nonprofit sectors and civil society.

We are committed to transparency on our response to the pandemic and its impacts on our business. Impacts as they pertain to our business will be reported via our financial filings and quarterly earnings calls, available on the **Investors** section of our website.

For current information on our response to COVID-19, please visit our **website**.

The information provided below outlines our response up to July 2020. We will provide an update in our next sustainability report.

## Protecting the health, safety and well-being of BD associates



Protecting health and safety

- ✓ Early to implement **visitor restrictions, travel restrictions, limits on group meetings**
- ✓ Enabled **remote work** for office-based associates
- ✓ Deployed **PPE** to field-based associates supporting critical customer needs
- ✓ Implemented **screening, social distancing, enhanced cleaning** and **PPE** for essential workers at BD facilities



Caring for our associates

- ✓ Provided **pandemic pay** to support self-quarantine
- ✓ **Enhanced healthcare benefits**, including expanding access to telehealth services and our Employee Assistance Program
- ✓ Increased **paid volunteer leave** for medically trained professionals and created **Employee Assistance Fund** for furloughed associates

Our more than 65,000 associates are essential to ensuring our customers and their patients continue to receive our products and support services. We have taken numerous steps to ensure the safety of our associates.

Leveraging technology, much of our global workforce has successfully transitioned to working from home. We continue to provide a range of guidance and support to help our associates maintain physical and mental health.

For associates who remain working at BD facilities, we have implemented several protective measures, including:

- Weekly calls are held with site and operations leaders to share guidance and best practice.
- Anyone entering a BD facility is temperature screened, and only business-critical visitors are allowed on-site.
- Physical distancing measures, tailored by facility, including modifying break rooms to provide physical separation and staggering break times and modifying workstations to create physical distance. Where a physical distance of at least 6 feet cannot be fully obtained, associates are provided with face shields or masks.
- All associates performing field work have been issued PPE, tailored to the risk level of their activities, along with training and guidance on COVID-19 and PPE protocols.

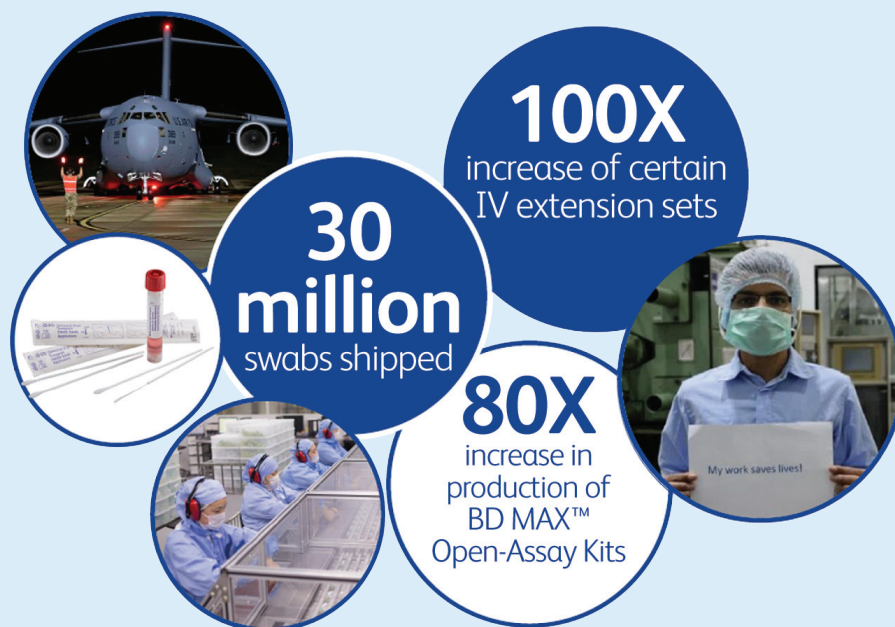
For field service associates, protocols have been implemented to reduce the number of associates who are deployed, while ensuring we meet overall continuity of care and meet customer needs due to the COVID-19 pandemic. Additional personal protective equipment, along with guidance for use, has been issued to any field service associate entering high-risk areas.

Changes in demand across our portfolio has resulted in the need to take temporary actions to reduce our costs so we can continue to serve our customers now and into the future. Steps included temporary work reductions, by slowing or suspending production at select manufacturing locations. This has led to furloughs, which allows us to retain BD associates as employees. While pay has been adjusted accordingly, we recognize the disruption this can cause to our associates and their families and we want to do everything we can to support and care for associates—this includes affected associates retaining their benefits, including medical benefits.

We also believe leaders in the company have the responsibility to serve and act in the best interest of the company and our associates, helping to ensure that we can emerge stronger. Therefore, all BD leaders globally, along with the chairman and Board of Directors, are subject to a temporary reduction in base pay.\*

## BD operations

### Leveraging our world-class manufacturing excellence to address critical customer and patient needs



#### Built for scale and impact

- Significantly ramped production of all critical-to-COVID devices, maintaining our strong focus on quality and compliance
- Reduced production of select products due to lower demand: reinforced strong liquidity position
- Engaged governments to ensure business and supply chain continuity

\*Subject to any required consultation process and local law where applicable

BD continues to closely monitor the COVID-19 situation across the world and guidance from the CDC, the WHO and health officials in a variety of affected countries to ensure the health and safety of BD associates while ensuring continued availability of our company's critical medical devices.

BD manufactures and sources product from multiple locations around the world. Our manufacturing and distribution centers remained operational and enacted business continuity plans to minimize the risk of disruption to our customers.

## Product availability: supply and business continuity

In response to very high demand for our critical medical devices, production was increased for many of our high-demand products and we closely monitor inventory and customer ordering to ensure supply continuity. While we continued to meet demand for the vast majority of our products, we saw high demand in select product categories because of a prolonged flu season and the coronavirus pandemic.

We have experienced volatile and unpredictable level of product demand across our portfolio. We have seen significant increases in demand for products used in sample collection, diagnosis and treatment of COVID-19. However, in other parts of our business, we've experienced drops in demand as healthcare providers followed guidance to slow or stop most other hospital visits, non-urgent surgeries, elective procedures and other research.

As a result, a number of products were placed on manual inventory allocation to supply our customers as much as possible. Manual inventory allocation is an internal process that allows BD to retain greater visibility and control of available product to effectively serve our customers by ensuring an equitable allocation of available inventory. This includes reviewing orders for disproportionate quantities based on historic demand.





## Our products: supporting a global response

As one of the largest global medical technology companies in the world, BD has deployed our capabilities, expertise and scale to address critical health needs related to coronavirus—from our diagnostic offerings to identify COVID-19, to real-time informatics and electronic surveillance technology, to essential medical devices to support patient care.

### Specimen collection

### Diagnostic testing

### Drug delivery

### Treatment

Real-time surveillance, reporting and understanding of geographic impact for COVID-19 along with medication use tracking

**Specimen collection and transport**—used for the collection and transport of clinical specimens, including viruses.



**Swabs**—used to collect clinical specimens from various body sites.



**UVT medium vials**—used for the transport of clinical specimens, including viruses.



**UVT kit**—a prepacked, individually wrapped kit that includes swab(s) and a vial for the collection and transport of clinical specimens, including viruses.

**BD MAX™ System**—an open platform system that enables exploratory development of rapid tests for COVID-19.



**BD Veritor™ System**—a rapid point-of-care (POC) platform used to diagnose Flu A, Flu B, RSV and Strep in minutes. Assay for COVID-19 granted emergency use authorization by the FDA.



**Injection devices**—specific needles and syringes used to administer medications required for COVID-19 treatment, as well as vaccination clinical trials and future campaigns.



**BD Alaris™ System**—controls precise delivery of IV medication for COVID-19 treatment.



**Foley Catheters**—used to drain urine from the bladder in acute care settings.



**Peripherally inserted central catheters (PICCs) and midlines**—used to rapidly deliver drugs required for COVID-19 treatment.



**Acute dialysis catheters**—used to administer immediate dialysis for patients who enter acute renal failure.



**BD Vacutainer® Luer-Lok™ Access Devices**—used specifically to facilitate blood sample collection from hospitalized patients who have existing access lines.



- BD announced multiple new products to help aid in the detection and identification of COVID-19, including **a molecular test for the detection of COVID-19 for clinical laboratories in countries recognizing the CE mark**.
- BD received **CE mark and emergency use authorization (EUA) from the FDA for an additional molecular diagnostics test for COVID-19** that can return results in two to three hours, helping to increase the availability of tests around the world.
- BD partnered with BioGX to **launch a new diagnostic test that will enable hospitals to screen for COVID-19 on-site** and get results in under three hours.
- BD was granted an **EUA for a rapid, point-of-care, SARS-CoV-2 diagnostic test for use with the BD Veritor™ Plus System**. This new assay delivers results in 15 minutes on a highly portable instrument. Portability and ease of use is critical for improving access to COVID-19 diagnostics, providing real-time results and enabling decision-making while the patient is still on-site.

- BD collaborated with peers from across the industry, HHS, FDA and private partners to identify and validate additional swab types as well as transport medium options in order to expand capacity and alternative collection methods.
- BD announced **the launch of the Prevention Course in HAI Knowledge and Control**, developed independently by the Society for Healthcare Epidemiology of America (SHEA) and supported in full by an educational grant from BD.

In response to the heightened need for trained clinical staff, many individuals have chosen to re-enter the medical profession, in some cases coming out of retirement. To enable them to quickly and easily obtain access to information and guidance about our products, we have added instructional training videos to our **YouTube channel**.

## Public-private partnerships

BD has long been known for its public-private partnerships to tackle global challenges. On March 13, BD attended a White House meeting with President Trump, Vice President Pence, HHS Secretary Azar and others, alongside CEOs of companies who have been involved in the effort to expand access to COVID-19 testing and test development.

The meeting, which encouraged the private sector to continue innovating with full support from the U.S. government, was an example of our long history of building relationships with the public sector to address and tackle global challenges, particularly in times of crisis.

### Engagement at all levels of government to:

	<h4>Safeguard operations</h4>	<ul style="list-style-type: none"> <li>Engaged the governors of six states in <b>Mexico</b> to ensure the continuity of BD manufacturing</li> <li>Coordinated with the governments of <b>India, Malaysia</b> and <b>Singapore</b> to ensure BD and our suppliers can continue our manufacturing</li> <li>Increased sterilization capacity for products critical to COVID-19 response</li> </ul>	
	<h4>Communicate capabilities</h4>	<ul style="list-style-type: none"> <li>Partnered with the <b>White House Coronavirus Task Force</b> to expand access to diagnostic testing</li> <li>Installed BD MAX™ System at <b>China CDC</b> and universities in <b>Japan</b> to support lab-developed tests</li> </ul>	
	<h4>Mitigate capacity constraints</h4>	<ul style="list-style-type: none"> <li>Worked with <b>Health Canada</b> to ensure adequate supply of injection devices for vaccination</li> <li>Supported <b>European Commission</b> efforts to defer new regulations that could impede supply</li> </ul>	

The coronavirus pandemic demonstrates just how vulnerable the world's population is to infectious disease risks and outbreaks. We've seen natural parallels between the objectives for combating COVID-19 and AMR—when medications commonly used to treat infections stop working because the organism becomes resistant to the drug.

Both of these global health challenges rely heavily on effective infection prevention and control, accessible testing, and surveillance and reporting data to track prevalence, progression and patient outcomes.

Based on the fundamental premise that health challenges and threats as large and encompassing as AMR and COVID-19 cannot ever be addressed by one sector alone, BD will continue to engage in extensive cross-sector collaboration with leading health agencies, foundations and other organizations around the world, underpinned by common motives and goals.

## Grantmaking: funding frontline relief agencies in the U.S. and globally

At the end of June, BD donated **\$1,245,000** in cash and product to COVID-19 response efforts in the U.S. and internationally. The new funding is being deployed through

6 nonprofit partners, to support healthcare workers in the United States, Europe, Latin America and China in their collaborative battle against COVID-19.



Throughout the pandemic, we will continue to create and deliver value to all our stakeholders, by prioritizing the needs of our associates and customers around the world, while remaining focused on our long-term strategy.

Further details can be found at the [BD COVID-19 response webpage](#).



Solar panels installed at the BD European Headquarters in Eysins, Switzerland.

## Sustainability strategy

We center our sustainability strategy upon our Purpose—*advancing the world of health™*—and integrally tie it to our business strategy.

We utilize a defined process to evaluate and prioritize the ESG factors most relevant to our business and stakeholders. By using this process, we have defined four areas of focus that provide the framework for our 2020 sustainability goals:

- Innovation – How we contribute to more sustainable healthcare systems by improving outcomes, reducing system costs and protecting patients and healthcare workers
- Access – How we support health system leapfrogging in emerging and developing economies, and reach vulnerable populations globally
- Efficiency – How we work across our value chain to minimize environmental impact and create positive social impact

- Empowerment – How we advance our purpose-driven culture through workforce and community engagements

During FY 2019, we began developing our next generation sustainability strategy. The first two phases of this work were conducted in parallel: 1) identifying our significant ESG issues and 2) developing a climate change management program. In FY 2020, we will be taking the output of the first two phases to develop our impact goals, which we expect to announce in late 2020.

As with the current 2020 goals, our new impact goals will ensure we remain focused on shared value creation—meaning how we address unmet societal needs through business models and initiatives that also contribute to the commercial success of BD.

## Significant ESG issues

Our ESG issues are:



### Innovation

- Data security
- Informatics and innovation



### Access

- Collaborations and partnerships
- Value-based outcomes
- Patient-centric care
- Healthcare access and affordability



### Efficiency

- Planetary health
- Sustainable supply chain
- Product design and life cycle management
- Energy and GHG management
- Waste
- Water



### Empowerment

- Inclusion and diversity
- Associate health and safety
- Attraction and retention of talent
- Transparent and ethical business practices

GRI disclosure: 102-47

## Sustainability governance

The Environment, Health, Safety and Sustainability Team manages our ESG reporting, as well as stakeholder engagement activities relevant to our sustainability strategy. This group reports directly to the executive vice president of Integrated Supply Chain and engages directly with the Executive Leadership team.

Our sustainability strategy is governed by the Executive Leadership team, which maintains a dialogue with our stakeholders, businesses and associates about issues relevant to each group and monitors performance related to our 2020 sustainability goals.

## Stakeholder engagement

Because of our global reach and the nature of our work, we serve and rely on a wide range of stakeholders. Engaging with them through a variety of channels across many parts of our organization is critical to how we apply the principle of shared value and therefore essential to our business success. Often, we work collaboratively with stakeholders who share our objectives, and, in the process, we gain a deep understanding of their work. We listen to our stakeholders' views and suggestions, and use that feedback to improve our products, services and business practices. During FY 2019, as we began development of our future sustainability strategy, we consulted with our stakeholders to understand which ESG factors are most important to them.

Our stakeholders:

- **Customers:** Our customers are at the center of everything that we do. In a fast-changing environment, it is vital for BD to understand what our customers value most to develop solutions that will best meet their needs. We create a deep understanding of the healthcare market and its customers through a fact-based approach across regions and strategically engage with customers to develop and deploy our products and solutions.
- **Shareholders:** Our focus on shareholders is to ensure that the combination of our business and geographic diversity—our balanced capital allocation and our drive for efficiency—provides a long-term pathway toward sustainable profit growth that returns capital to shareholders. We engage with shareholders in a variety of forms, including quarterly calls and in-person meetings, on specific topics that range from our long-term growth and innovation strategy to how we integrate ESG factors into our business.
- **BD associates:** BD has grown to over 65,000 associates. The capabilities and dedication of these associates are critical to achieving our strategy. We engage and develop our associates through a variety of mechanisms including internal social networks, town hall meetings, leadership and mentoring programs and associate resource groups.

Our Board of Directors—as a board or through its committees—also oversees several sustainability-related issues, including:

- Community relations
- Employment practices
- Environment, health and safety
- Ethics and enterprise compliance

In addition, the Corporate Governance and Nominating Committee oversees matters that involve the company's image, reputation and our standing as a responsible corporate citizen. This includes ESG issues and initiatives relating to sustainability, access to healthcare and other social topics.

- **Business partners:** Our suppliers, distributors and other partners in the supply chain help us effectively serve our customers. We engage with them through a variety of strategic programs, including through relationship managers within our Integrated Supply Chain function.
- **Communities:** At the country level, our general managers engage with a variety of community stakeholders to understand the health system's priorities and align our capabilities to them. In communities where we have manufacturing operations, we engage with local government officials and civic organizations, and often develop relationships with teaching institutions to help develop the skill sets we require in our operations. In addition, our associates engage in community-organized volunteer efforts to support local programs.
- **Governments and policymakers:** We engage governments and policymakers through various ways, primarily through our public policy teams. We engage at the agency and legislative levels in many countries to enhance our understanding of the priorities of governments. From these engagements, we seek ways to deploy our capabilities, products and solutions to help support and achieve national health objectives. We also share our expertise and global experience in key focus areas.
- **International agencies:** We engage with UN agencies such as the World Health Organization (WHO), the United Nations InterAgency Coordinating Group (UN IACG) on Antimicrobial Resistance, UNICEF, the Joint United Nations Programme on HIV & AIDS (UNAIDS) and other international and intergovernmental organizations through collaborations that aim to address pressing global health needs. We routinely pursue these types of collaborations as an integral part of our business model in countries throughout the world.
- **Nongovernmental organizations (NGOs):** In many cases, NGOs and relief organizations are strategic partners in helping us meet unmet health needs. We engage with them through in-person meetings, collaborative initiatives and site visits to strengthen how we serve those in need.

# 2020 sustainability goals

Our sustainability strategy addresses a wide range of challenges in our industry while helping to make a difference on relevant issues that affect society and the planet. We also actively evaluate how we can mobilize and contribute to the achievement of the UN SDGs through our product and service offerings as well as collaborative efforts across various sectors—most prominently around SDG #3, for good health and well-being.

We launched our 2020 sustainability goals in July 2015, reflecting a broader and more integrated agenda than previous

years. In line with our significant sustainability issues, we arranged our goals and programs around four strategic areas: innovation, access, efficiency and empowerment.

We have also outlined alignment to our current strategy, core activities and 2020 goal framework against the 17 SDGs and associated 169 targets. Our analysis reviewed the type of impact BD has on the SDG target, the location of impacts within the value chain and our degree of control and relevant ESG factors.



## Innovation

**Innovate** key healthcare processes such as medication management and lab automation

**Develop** innovations and informatics to enable disease management across the care continuum

**Enable** the transition from research into clinical practice

**Provide** solutions that improve healthcare worker and patient safety



## Access

**Develop** low-cost innovations to address leading causes of mortality and morbidity

**Collaborate** on health system strengthening with leading agencies and NGOs

**Further expand** BD manufacturing, product array and employment in emerging countries



## Efficiency

**Reduce** GHG emissions and increase climate resilience throughout operations and value chain

**Minimize** our environmental footprint and conserve natural resources

**Establish** a supplier responsibility evaluation methodology

**Reduce** priority materials of concern in specified product categories

**Improve** life cycle impacts of current and future products



## Empowerment

**Increase** the diversity of our workforce, particularly in leadership roles

**Achieve** best-in-class associate safety performance

**Partner** with nonprofits to address unmet needs locally and globally

**Drive** social impact and associate engagement through volunteer programs

For case studies of how BD is supporting the SDGs, visit the [BD sustainability page](#).



# Innovation

## Healthcare safety, outcomes and cost

### Introduction

BD is on the forefront of helping healthcare systems balance four key priorities: increasing access, improving outcomes, mitigating healthcare system cost pressures and protecting patients, and healthcare workers. A sustainable innovation system needs investment, discipline and leadership to succeed.

Innovation requires diligence and partnering, and our capabilities span ideation through market development. Along this continuum, we can increase our impact through selective partnerships.

We think a broad definition of the term “innovation” is the best way to advance healthcare. Whether it is technology, processes, systems partnerships or any dimension of business, we pioneer new, relevant ways to address healthcare’s most pressing problems. Our technologies and execution capabilities allow BD to make a profound impact on the quality of care.

### R&D investments

Our Purpose—*advancing the world of health™*—and innovating to solve major health problems are mutually reinforced goals. When we innovate to increase access to quality healthcare, it benefits people and societies throughout the world and drives our business performance.

BD conducts its R&D activities at its operating units and at BD Technologies in Research Triangle Park, North Carolina. The majority of the company’s R&D activities are conducted in North America. Outside North America, BD primarily conducts R&D activities in China, France, India, Ireland and Singapore. BD also collaborates with certain universities, medical centers and other entities on R&D programs and retains individual consultants and partners to support its efforts in specialized fields.

Our investments in research and development led to 25 major product launches in FY 2019, including:

- Venovo™ Venous Stent, the first stent indicated to treat iliofemoral venous occlusive disease.

- Purewick™ Female External Catheter, a simple, noninvasive option for managing female urinary incontinence.
- WavelinQ™ 4F Arteriovenous Fistula Creation Device, which offers an alternative to open surgery for patients being treated for end-stage renal disease.
- BD HealthSight™ Data Manager 1.1, which was introduced as part of a suite of technologies and services that are helping make medication management safer, simpler and smarter.
- BD Cor™ System, a high-throughput solution for infectious disease diagnostics, which launched in Europe and sets a new standard in automation for molecular testing in core laboratories and other large centralized laboratories.
- BD FACSDuet™ Sample Preparation System, an automated sample processing system for flow cytometry that enables clinical laboratories to improve their efficiency by reducing errors and limiting manual user interactions.

#### R&D expense (USD, millions)

FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
472	494	550	632	828	770*	1,004*	1,062

\*Numbers restated in FY 2019 10-K filing.

## Innovation awards



For the fifth year in a row, BD was included in the Derwent Top 100 Global Innovators list.<sup>1</sup>

This list highlights high-impact innovation

and the companies who rank among the world's 100 most successful innovators.

The ranking celebrates innovation as measured by the number and impact of the company's patents, using data from the Derwent World Patents Index™. In 2019, BD received more than 500 U.S. patents and more than 3,000 patents worldwide.

BD spends more than \$1 billion dollars each year on innovation annually and has more than 250 new products in our development pipeline, spread across our three business segments and nine business units.

## Innovation strategy

BD remains focused on delivering sustainable growth and shareholder value, while making appropriate investments for the future. We operate the business in a manner consistent with various core strategies, including:

- Increasing revenue growth by focusing on our core products, services and solutions that deliver greater benefits to patients, healthcare workers and researchers;
- Supplementing our internal growth through strategic acquisitions;
- Continuing investment in research and development for platform extensions and innovative new products; and
- Making investments in growing our operations in emerging markets.

Our strategy focuses on four specific areas within healthcare and life sciences:



Reference

1 Derwent. Derwent Top 100 Global Innovators 2020 Report. <https://clarivate.com/derwent/top100innovators>. Accessed April 20, 2020.

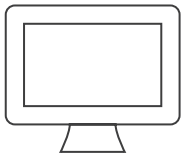


## Medication management

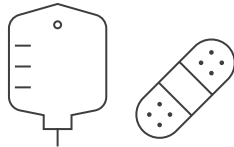
### BD Pyxis™ SupplyStation™ RF Cabinet and BD Pyxis™ KanBan RF System

**The BD Pyxis™ SupplyStation™ RF Cabinet** is a scalable and secure cabinet that leverages ultra-high frequency (UHF) radio-frequency identification (RFID) technology for touchless inventory management of high-value inventory. This solution offers real-time updates for better control and enhanced security. This product drives workflow optimization in a simple process that links patient electronic medical records (EMRs) with associated inventory usage with RFID technology, and provides analytics on supply usage, helping to reduce documentation error and increase compliance and charge capture.

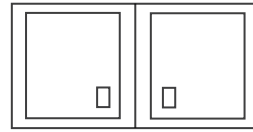
What's more, the BD Pyxis™ SupplyStation™ RF Cabinet is compliant with FDA regulations for device recall management and unique device identification (UDI), which automatically captures an item's lot, serial number and expiration dates, helping healthcare facilities to properly rotate about-to-expire items.



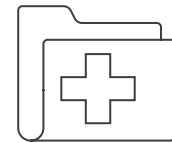
- 1 Clinicians log in and select patient and procedure



- 2 Access cabinet and select associate supplies



- 3 Upon door closure, cabinet scans for removed items in real time



- 4 Patient record automatically updates with removed supplies

The BD Pyxis™ SupplyStation™ RF Cabinet is not only a flexible platform that promotes safe and secure inventory management, but it also paints a clear picture of inventory visibility. Such accurate reporting helps standardize par levels and supply usage data, which in turn optimizes inventory control and procedural costs. The BD Pyxis™ SupplyStation™ RF Cabinet

also offers automatic and accurate charge capture by interfacing with patient billing software. By minimizing their clinical supply chain engagement and maximizing access to the right inventory at the right time, clinicians can focus on what matters and deliver thorough patient care.

**The BD Pyxis™ Kanban RF System** is an RFID-enabled inventory management system that allows for easy tracking of supply levels in healthcare facilities. Lack of usage tracking for low-value and high-volume supply items can lead to skewed inventory levels. For materials management, this causes ambiguity in procurement, constant over/under inventory levels and can lead to an endless cycle of out-of-balance budgets. The BD Pyxis™ Kanban RF System is a modular, integrated and automated end-to-end supply management solution that tracks when inventory bins become empty through unique RFID tags, and sends an alert to materials management to replenish supplies. This helps minimize misplaced, expired or out-of-stock inventory, ultimately helping to reduce supply inventory cost in healthcare facilities. Even though the product is called BD Pyxis™ Kanban System in reference to a two-bin system, the BD Pyxis™ Kanban RF System is not tied to a certain number of bins.

The BD Pyxis™ Kanban RF System can be used with an existing shelving solution, one bin or multiple bins. The system can support up to 150 RFID tags. The BD Pyxis™ Kanban RF System is a flexible solution that can be configured to any inventory point in a customer's facility. Making it a flexible solution for all open nonpatient specific open clinical supply scenarios.

The BD Pyxis™ SupplyStation™ RF Cabinet and BD Pyxis™ Kanban RF System innovate healthcare procedures by facilitating supply through accurate usage tracking, billing and materials management. By ensuring that supply closets are optimized for usage, healthcare providers can free up time and capacity to focus on what matters most, the patient.

To learn more, contact [pyxis\\_supply\\_solutions@bd.com](mailto:pyxis_supply_solutions@bd.com)

## Lab automation and efficiency

### BD COR™ System

The BD COR™ System is the company's newest solution for high volume molecular laboratories. The high throughput solution for infectious disease diagnostics sets a new standard in automation for molecular testing in core laboratories and other large centralized laboratories. The system's initial launch occurred in June 2019 with CE-Marking for the BD COR™ PX and GX Instruments, automating the testing for BD Onclarity™ HPV Assay used for the detection and extended genotyping of human papillomavirus (HPV). The system enables the processing of samples directly from liquid-based cytology vials, the creation of molecular aliquot tubes and assay testing, replacing labor-intensive and error-prone manual processes with automated ones.

The BD COR™ System integrates and automates the complete molecular laboratory workflow from preanalytical processing to diagnostic test result. The system includes three instruments, the PX, GX and MX instruments that can be used in multiple configurations. The BD COR™ PX Instrument is the system's preanalytical module—processing samples and sending to either the GX or MX for testing. The GX instrument performs the BD Onclarity™ HPV Assay and the MX instrument will perform other molecular assays that will be available in the future.

The BD COR™ System was designed to meet the needs of centralized testing laboratories, helping address many of the challenges they face in high-volume molecular testing. The system design provides:

- Complete automation with a fully integrated preanalytical solution for samples requiring additional processing prior to analysis;
- High capacity for samples and reagents resulting in minimal intervention for laboratory staff enabling resource allocation where needed;
- Ready-to-load reagents in bulk format to reduce hands on time and possible errors;
- Continuous access for loading samples and consumables for flexible workflow; and
- Multiple configurations to meet the needs of multiple laboratories.

Over the coming years, BD plans to continue seeking regulatory authorizations to sell the BD COR™ System around the world while expanding the instrument configurations and content.



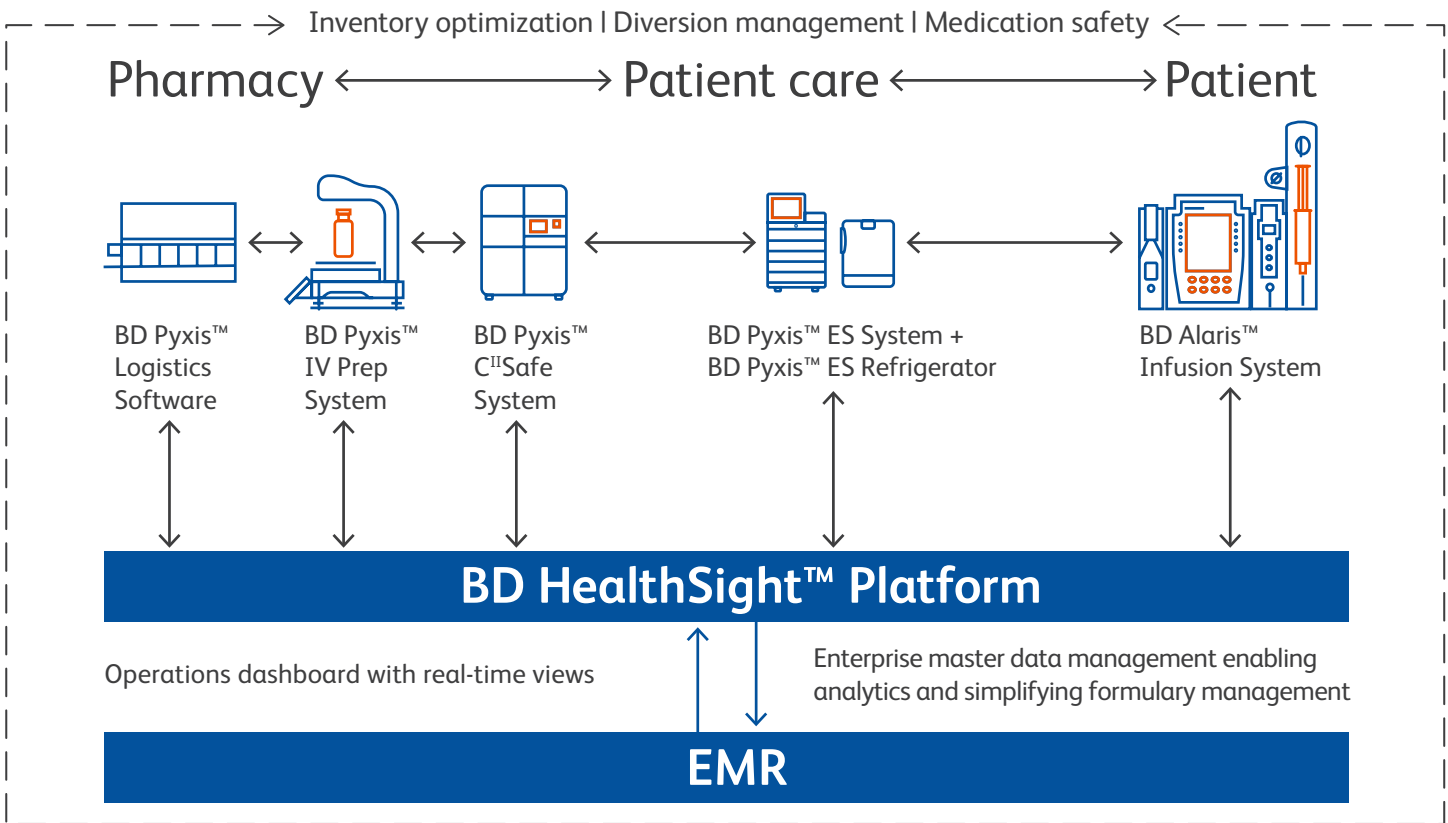
**BD HealthSight™ Diversion Management Analytics**

Addiction to prescription narcotics in the U.S. has reached epidemic proportions, contributing to the opioid crisis and becoming a major driver of drug diversion within healthcare settings.<sup>2</sup> Diversion of drugs, for personal use or illegal distribution, can cause significant financial loss<sup>3</sup> and potentially impact care to patients and staff safety.<sup>4</sup>

As part of the **BD HealthSight™ Platform** that is designed to support enterprise-wide medication management, the BD HealthSight™ Diversion Management Analytics Application assists with opioid drug diversion investigations by creating an investigation workflow to monitor, triage and assign potential diversion cases to specific investigators. Compared to traditional, statistically based analytical tools that only look at opioid amounts dispensed to identify potential diversion, BD utilizes machine learning algorithms and multiple dispensing behaviors—such as overrides, canceled transactions, delays in dispense, administration or waste—to surface clinicians whose behavior indicates higher risk for diversion.

BD has partnered with Microsoft, who brings industry-leading expertise in artificial intelligence (AI) and data science methodologies, to support development of these machine learning based algorithms. Importantly, the application also aggregates EMR and dispensing cabinet data to automate a normally time consuming and tedious manual review process to reconcile and automatically flag anomalous dispense administration and waste transactions.

To enable analytics and support data normalization, BD introduced the BD HealthSight™ Data Manager, which is a hosted, cloud-based solution that provides a single platform to normalize medication data. The tool can map disparate med IDs to enable analytics, including BD HealthSight™ Diversion Analytics risk algorithm, while simplifying formulary maintenance across a health system.



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- 2 Cicero TJ, Ellis MS. The prescription opioid epidemic: a review of qualitative studies on the progression from initial use to abuse. *Dialogues Clin Neurosci.* 2017;19(3):259-269.
- 3 Bouffard K. UM pays 4.3M to settle federal charges for stolen drugs, but criminal charges possible. *The Detroit News.* August 30, 2018. <https://www.detroitnews.com/story/news/local/michigan/2018/08/30/university-michigan-3-million-settle-federal-drug-diversion-lawsuit/1145373002/>; Accessed October 30, 2018.
- 4 Hospital tech who spread hepatitis C through drug use sentenced to 39 years. *CBS News.* December 2, 2013. [https://www.cbsnews.com/news/lab-tech-hepatitis-c-kwiatkowski-sentenced-39-years.](https://www.cbsnews.com/news/lab-tech-hepatitis-c-kwiatkowski-sentenced-39-years/) Accessed October 30, 2018.

### BD FACSLyric™ Clinical Flow Cytometer and BD FACSDuet™ System

The BD FACSLyric™ Clinical Flow Cytometer is a standardized, easy-to-use in vitro diagnostic (IVD) system, for use with BD Multitest™ Assays for immunological assessment of individuals and patients having, or suspected of having, immune deficiency. BD FACSLyric™ Flow Cytometer is available in 4-color to 12-colors with on-site upgradeable features to adapt to a lab's changing needs. It supports the BD Multitest™ 4-Color Assays and the BD Multitest™ 6-Color TBNK Assay, which are some of the most used flow-based IVD assays. These tests determine the percentages and absolute counts of T, B and natural killer (NK) cells, as well as the CD4 and CD8 subsets of T cells. Together, these metrics can be used in the immunological assessment of individuals and patients having, or suspected of having, immune deficiency. BD FACSLyric™ Clinical Flow Cytometer capabilities enable standardization and collaboration through consistent results and unique assay portability across labs, in the same site or across the globe.

The BD FACSDuet™ Automated Flow Cytometry System is a fully automated sample preparation instrument that enables

clinical laboratories to improve their efficiency by reducing errors and limiting the manual user interactions required to run assays on the BD FACSLyric™ Clinical Flow Cytometer. These solutions may help clinical laboratories improve accuracy and repeatability of their assays by minimizing manual steps that can introduce errors. With complete workflow traceability, it supports the labs to be compliant with ISO-15189 accreditation.

Physical integration between the BD FACSDuet™ System and the BD FACSLyric™ Clinical Flow Cytometer allows technicians to load samples and reagents onto the BD FACSDuet™ System and receive data once the samples are fully processed from the BD FACSLyric™ Clinical Flow Cytometer—a complete walkaway sample to answer solution. Data integration using the BD FACSLink™ Middleware Solution offers bidirectional communication between the instruments and connectivity with laboratory information systems (LISs).

Visit our [biosciences site](#) to learn more about the company's portfolio of clinical flow cytometry products.



## 2020 goal

**Provide solutions that improve healthcare worker and patient safety**

Technology is advancing capabilities for how clinicians and patients manage disease across the care continuum. We work closely with healthcare systems to improve safety, costs and outcomes. We continue to invest in new technologies and leverage informatics to enhance our product and solution offerings. As we pursue new digital technologies, we are committed to providing secure products to our customers.

**OptiFix™ AT Absorbable Fixation System**

The OptiFix™ AT Fixation System is an articulating mesh fixation device that allows for traditional straight fixation plus the option to articulate the tip to better access areas where mesh fixation may otherwise be difficult, such as locations close to the trocar. OptiFix™ AT Fixation System helps address some of the challenges associated with traditional straight fixation devices which includes technical limitations that may result in nonideal fastener placement, which is a mechanism for mesh shift, migration, inadequate mesh overlap, folding and fastener engagement. The ergonomic OptiFix™ AT Fixation System is designed to provide full mesh access from one side of the patient, deliver more consistent perpendicular fastener deployment and enhance surgeon comfort. Improved access may reduce the total number of trocars needed. Studies

demonstrate that reducing trocars can result in cost savings, reduced risk of infections and reduced trocar site herniation. Further, consistent perpendicular fastener deployment enables secure fixation across the entire mesh, leading to improved fastener tissue purchase and fixation strength, as well as facilitating mesh positioning and reducing the chance for mesh to be pulled away during fastening.

**PureWick™ Female External Catheter Kit**

An estimated 35,600<sup>5</sup> patients experience catheter-associated urinary tract infections each year, also known as CAUTIs—which lead to increased costs and longer hospital stays.<sup>6</sup> The #1 risk factor for CAUTI is prolonged catheterization.<sup>6,7</sup> The #2 risk factor is female gender and 61% of catheterized patients are women.<sup>8</sup> Until recently, external catheters were only available for men—leaving women with no external catheter option for urine output.

The PureWick™ Female External Catheter was the first female external catheter that allowed for simple, noninvasive urine management for women. The PureWick™ Female External Catheter helps lower CAUTI risk by providing an alternative for urine management and helps facilitate approximate urine measurement when utilizing an appropriate collection canister. First used in a hospital in January 2016, the PureWick™ Female External Catheter uses low pressure wall suction and wicks away urine from the patient and into a designated collection canister. Today, PureWick™ Female External Catheter is used in over 2,200

hospitals in the United States and has also recently become available in Canada, Japan, the U.K., Brazil, Chile and China.

The latest PureWick™ Female External Catheter platform innovation is the launch of a new user-friendly kit. The PureWick™ Female External Catheter Kit is a solution designed to help with consistent practice of noninvasive urine management for women. A duration label assists nursing staff in determining how long the device has been in place and standardized SureStep™ Peri-Care Wipes help facilitate patient cleaning practice through step-by-step instructions. These aspects of device and patient care play a vital role in patient hygiene and skin integrity.

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## Venovo™ Venous Stent System

The Venovo™ Venous Stent System is indicated for the treatment of symptomatic iliofemoral venous outflow obstruction. The stent is designed with the balance of radial strength, compression resistance and flexibility needed for the treatment of symptomatic postthrombotic and nonthrombotic iliofemoral lesions. Key product features include 3-mm flared ends designed to prevent stent migration, broad size range (10- to 20-mm diameters, 40- to 160-mm lengths) and a triaxial delivery system designed for placement accuracy.

One-year results from the product's prospective, multicenter, single-arm VERNACULAR trial\* involving 170 patients demonstrated the safety and effectiveness of the Venovo™ Venous Stent for the treatment of symptomatic iliofemoral venous outflow obstruction. The clinical findings showed a weighted primary patency rate of 88.3%, with a 96.9% patency rate in nonthrombotic lesions and an 81.3% patency rate in postthrombotic lesions, a statistically significant difference from the performance goal of 74%. For more information regarding Venovo™ Venous Stent System, visit the [product webpage](#).

## WavelinQ™ 4F EndoAVF System

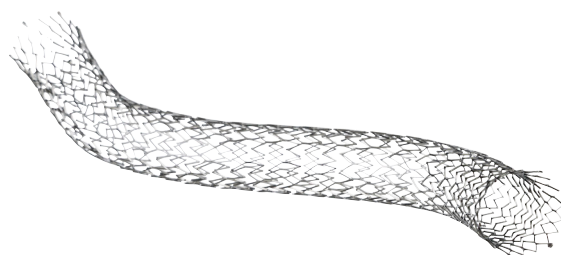
Chronic kidney disease affects millions of people worldwide. The final stage of kidney disease is called end-stage kidney disease (ESKD). Patients with ESKD require dialysis treatments or a kidney transplant to sustain life. Globally, there are more than 2 million patients on hemodialysis with the majority depending on a fistula as their lifeline for dialysis therapy.<sup>10</sup>

To administer hemodialysis treatment, an “access” to the bloodstream is required. Arteriovenous fistulas (AVF) are the preferred access method. An AVF is a connection between an artery and a vein, most often created surgically. This connection increases blood flow in the vein, providing a method to perform hemodialysis. Surgical AVFs have been the standard of care for hemodialysis patients for over 50 years, until now.

The WavelinQ™ 4F EndoAVF System is designed to create an endovascular AVF (endoAVF) for hemodialysis access in patients who have ESKD and need dialysis. This innovative technology is one of the first to provide a nonsurgical option to create an AVF.

The WavelinQ™ 4F EndoAVF System is comprised of two 4-French (4F) single-use, disposable, magnetic,

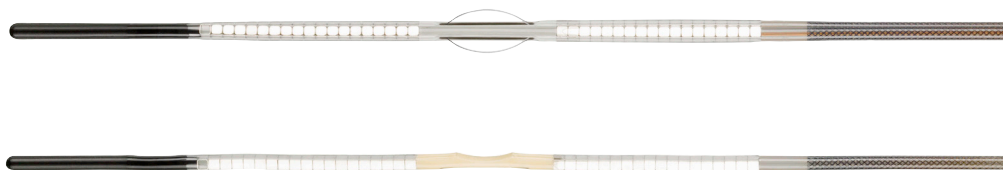
\*The Venovo™ Venous Stent System was studied in the global VERNACULAR clinical trial, which was a prospective, multicenter, nonrandomized, single-arm study of 170 patients. The primary effectiveness endpoint of the study was primary patency (PP) at 12 months post-index procedure. Patients who received a Venovo™ Venous Stent had a weighted PP rate of 88.3%, demonstrating a statistically significant difference from a literature-derived performance goal (PG) of 74%, with an 81.3% PP rate for subjects with postthrombotic syndrome and 96.9% PP rate for subjects with nonthrombotic iliac vein lesions.<sup>9</sup>



hydrophilic-coated catheters: a venous catheter and arterial catheter. The venous catheter contains a radiofrequency (RF) electrode for the delivery of RF energy. The arterial catheter contains a ceramic backstop for receiving the electrode. Each catheter is equipped with 36 square magnets, which allow for flexibility and coaptation while navigating in the vessels. When placed in proximity, the magnets attract to each other, pulling the vessels together and aligning the electrode with the backstop.

Once the catheters are aligned, a small burst of RF energy is used to create a channel between the artery and vein to create the endoAVF. The catheters are then removed, and blood will flow from the artery into the vein, creating an enhanced blood flow that can support hemodialysis.

For more information, visit the [WaveLinQ™ 4F EndoAVF System webpage](#).



\*The VENOVO® Venous Stent System was studied in the global VERNACULAR clinical trial, which was a prospective, multicenter, nonrandomized, single-arm study of 170 patients. The primary effectiveness endpoint of the study was primary patency (PP) at 12 months postindex procedure. Patients who received a VENOVO® Venous Stent had a weighted PP rate of 88.3%, demonstrating a statistically significant difference from a literature-derived performance goal (PG) of 74%, with an 81.3% PP rate for subjects with post-thrombotic syndrome and 96.9% PP rate for subjects with nonthrombotic iliac vein lesions.<sup>9</sup>

### References

<sup>9</sup> Data on file. Bard Peripheral Vascular Inc., Tempe, AZ.

<sup>10</sup> National Kidney Foundation. Global facts about kidney disease. <https://www.kidney.org/kidneydisease/global-facts-about-kidney-disease>. Accessed June 23, 2020.

# AMR

Antimicrobial resistance, or AMR for short, is among the greatest threats to the health and well-being of the world's population. If present trends continue, by 2050 AMR will become a greater cause of mortality than heart disease or cancer.<sup>11</sup> As the bacteria that cause infections become increasingly drug resistant, even common medical procedures—including surgery, childbirth and chemotherapy—will become increasingly life-threatening. This is not a theoretical future risk; it is already happening. In 2019, the CDC released updated estimates for the toll of drug-resistant infections in the United States, demonstrating that the risk is greater than previously believed, affecting over 2.8 million patients annually. And as the COVID-19 pandemic has demonstrated, the threat of untreatable infections remains very real.

Antimicrobials are a mainstay of modern medicine, but decades of outmoded prescribing practices and extensive use of antimicrobials in food production have driven a rise in organisms that are resistant to these life-saving drugs. While much of the focus on AMR has highlighted the need for a renewed pipeline of new antimicrobials, experts including the WHO and CDC recognize the need for a multipronged approach which includes improved infection prevention, increased utilization of diagnostic testing and antibiotic stewardship to preserve our current antibiotics.

## Cost<sup>12</sup>

\$20 billion annually in the United States

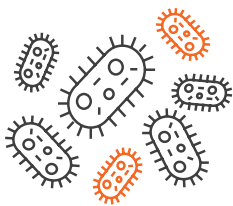
## Impact<sup>13</sup>

700,000 preventable deaths worldwide annually

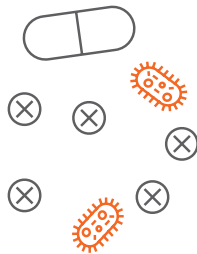
## Projections<sup>14</sup>

10 million deaths and more than \$1 trillion per year by 2050

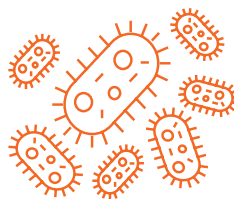
**Some bacteria are resistant to antibiotics**



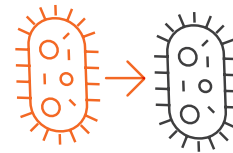
**Antibiotics kill both good and bad bacteria**



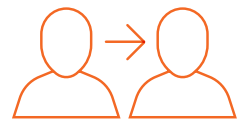
**Drug-resistant bacteria survive and multiply**



**Drug-resistant bacteria become dominant and spread**



**Resistant bacteria pass between people**



## References

<sup>11</sup> O'Neill J; The Review on Antimicrobial Resistance. Tackling drug-resistant infections globally: final report and recommendations. [https://amr-review.org/sites/default/files/160518\\_Final%20paper\\_with%20cover.pdf](https://amr-review.org/sites/default/files/160518_Final%20paper_with%20cover.pdf). Published May 2016. Accessed March 15, 2020.

<sup>12</sup> Centers for Disease Control and Prevention. Antibiotic threats in the United States 2013. <https://www.cdc.gov/drugresistance/threat-report-2013/index.html>. Accessed March 15, 2020.

<sup>13</sup> O'Neill J; Tackling drug-resistant infections globally: final report and recommendations. [https://amr-review.org/sites/default/files/160525\\_Final%20paper\\_with%20cover.pdf](https://amr-review.org/sites/default/files/160525_Final%20paper_with%20cover.pdf). Published May 2016. Accessed March 15, 2020.

<sup>14</sup> O'Neill J; Antimicrobial resistance: tackling a crisis for the health and wealth of nations. [https://amr-review.org/sites/default/files/AMR%20Review%20Paper%20-%20Tackling%20a%20crisis%20for%20the%20health%20and%20wealth%20of%20nations\\_1.pdf](https://amr-review.org/sites/default/files/AMR%20Review%20Paper%20-%20Tackling%20a%20crisis%20for%20the%20health%20and%20wealth%20of%20nations_1.pdf). Published December 2014. Accessed March 15, 2020.

BD is leveraging its extensive global capabilities to meaningfully engage around each of the five key strategies outlined in the WHO's Global Action Plan on AMR and adopted by the United Nations Interagency Coordination Group on Antimicrobial Resistance:

## Strategy 1: Improve awareness, education and training

Improving awareness and education remain a critical component of efforts to combat AMR. The **Antimicrobial Resistance Fighter Coalition (ARFC)**, mobilized by BD, aims to raise awareness and emphasize the need for a broad array of stakeholders to take personal responsibility in combating AMR. The Coalition continues to grow with over 200 participants from 43 countries, including government and nongovernment organization leaders, patient advocacy groups, clinicians, researchers, patients and family members. With the launch of a new website and social media channels, the Coalition engages globally to provide information and updates with videos, online education and news articles. In September 2019, the Coalition co-hosted a side event during the United Nations General Assembly week with the CDC, Wellcome Trust, the American Society of Microbiology and the Bill and Melinda Gates Foundation. An international audience attended the event to hear from global leaders and were invited to view the U.S. premiere of a full-length documentary on AMR titled *Antimicrobial Resistance Fighters*.

To reinforce appropriate infection prevention and control behaviors, BD partnered with SHEA to launch Prevention CHKC, an online course for frontline providers reinforcing the importance of infection prevention practices in healthcare. To support understanding of the role of diagnostics in the appropriate use of antimicrobials, BD partnered to create and launch new training and assessment tools. Read more about the massive online open course on AMR diagnostics and AMR scorecard in the **Access** section of this report.



## Strategy 2: Strengthen evidence via surveillance

Strengthening surveillance and reporting are necessary to better understand the scale of the challenge and develop an appropriate response. In 2019, BD provided extensive data and analytics to the CDC utilizing insights from our proprietary hospital surveillance and analytics platforms. These data were integrated in the CDC Antibiotic Resistance Threats Report,<sup>15</sup> released last year, which highlights the prevalence and impact of antibiotic-resistant bacteria and fungi on patients in the United States.



### Reference

15 Centers for Disease Control and Prevention. Antibiotic resistance threats in the United States: 2019. <https://www.cdc.gov/drugresistance/pdf/threats-report/2019-ar-threats-report-508.pdf>. Updated December 2019. Accessed March 15, 2020.



## Strategy 3: Reduce incidence of infection

Reducing risk of infection is an essential component of the global effort to combat AMR. When selecting, placing and maintaining medical devices, proper hand hygiene, aseptic technique and compliance to guidelines are necessary to reduce risks to patients from healthcare-associated infections (HAIs). And since resistant infections spread easily among patients in healthcare facilities, patient screening and universal precautions may reduce transmission of infections. BD is leveraging our expertise in diagnostics, vascular access, surgical preparation and critical care to support hospitals' infection prevention and control programs.

In addition to deploying these programs at an individual health facility level, BD has worked in collaboration with national governments in multiple countries, including the U.S., China, Kenya, Cambodia and India, via public-private partnerships to improve infection prevention and control capabilities in hospitals.

See the **Access** section for additional details on our programs to improve infection prevention practices.

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## Strategy 4: Optimize the use of antimicrobials

Diagnostic tests classify infections and guide therapies, enabling clinicians to implement effective antimicrobial stewardship interventions. In 2019, BD announced a collaboration with the Fleming Fund to equip more than 70 labs in developing and emerging countries with diagnostic instruments, tests and training to help aid in the diagnosis of infections and guide physicians on appropriate antimicrobial prescribing and use.

In the U.S. and other industrialized countries, BD introduced the BD HealthSight™ Clinical Advisor Platform to identify when an inappropriate and potentially ineffective antibiotic has been

prescribed. Actionable alerts are delivered to clinicians involved in the medication management process to assist with selection of antibiotics and avoid waste of resources associated with compounding of unnecessary medications. BD HealthSight™ Clinical Advisor is a key component of our connected medication management system, which includes automated dispensing and infusion technologies that help pharmacies efficiently dispense, track and deliver medications.

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## Strategy 5: Innovations to help combat AMR

Minimizing risk of infections is the first step in combating AMR. BD Chloraprep™ Skin Preparation is the leading standard of care for preoperative antiseptic skin preparations. In 2019, BD announced it received FDA approval for BD Chloraprep™ Skin Preparation with sterile solution, the only fully sterile chlorhexidine gluconate (CHG) antiseptic skin preparation commercially available in the U.S. This new BD Chloraprep™ Skin Preparation product uses a proprietary and patented process to sterilize the antiseptic solution inside the sealed ampoules located in the BD applicator.

“Outbreaks of highly resistant bacteria and spore contamination have been reported with contaminated antiseptic products in the past. Now with a fully sterilized skin preparation product, BD is assisting healthcare providers with a tool to enhance patient safety by the reduction of risk from intrinsic contamination in antiseptic solutions,” said Donald E. Fry, M.D., a nationally recognized expert in infection prevention.

In response to the global threat of AMR and under the guidance of the UN AMR Interagency Coordination Group, most countries throughout the world have established AMR national action plans. BD is engaging with ministries of health, international agencies and other partners to integrate our AMR capabilities and initiatives within these country-level plans. We are doing so in a manner that appropriately aligns our actions to the stage of development of the countries and the hospitals we are working in. These actions and activities reflect the company's strong commitment to combating the global risk of drug-resistant infections. And as the COVID-19 pandemic has reminded all of us, untreatable infectious diseases remain a very real threat to all of us.



# Access

## Healthcare in resource-limited populations

### Introduction

BD believes in the vision of a world free of disease and needless suffering. We think healthcare is so fundamental that it can create more productive, educated and equitable societies.

BD Global Health works to expand access and drive capacity building through partnerships with leading organizations and governments. We engage in advocacy with governments, donors and health agencies to advance innovations around the world to address the world's leading public health needs, which are highly aligned with the UN SDGs.

The business model for emerging markets encourages our country leaders to understand the health system priorities in their country and engage with key opinion leaders responsible for health policies and practices. This enables BD to engage at earlier stages in the healthcare decision-making process and adapt our strategic plans for product array, manufacturing and talent accordingly.

### 2020 goal

**Develop low-cost innovations to address leading causes of mortality and morbidity**

## Maternal and newborn health; investigative BD Odon Device™

In FY 2019, the first feasibility clinical trial of the BD Odon Device™ was completed in the U.K. and two safety and efficacy clinical trials received ethics and regulatory approvals and started in the U.K. and France. This investigative device is intended to provide a safe and effective alternative for assisted vaginal birth (AVB) when labor is prolonged or complicated, a condition that occurs in approximately 10% of pregnancies. Untreated, prolonged/complicated labor can lead to serious complications for mothers and babies, including postpartum hemorrhage, birth asphyxia, maternal infection, fistulas or even death.<sup>16</sup> In addition, increased access to AVB could reduce the use of cesarean delivery and its associated higher costs for the health system and the inherent risks of severe complications (e.g., hemorrhage, stillbirth, abnormally invasive placenta) in the current and subsequent pregnancies.<sup>17-20</sup>

Maternal and newborn health is a key component of UN Sustainable Development Goal 3 for good health and well-being. Although WHO guidelines call for access to AVB at all facilities that provide basic management of obstetric emergencies, a recent study in sub-Saharan Africa showed that only 54% of hospitals and 6% of health centers were able to conduct AVB in the past year.<sup>21</sup> By driving forward the investigative BD Odon Device™, this partnership is moving this technology closer to in-field use.

### References

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- 18 Moraitis AA, Oliver-Williams C, Wood AM, Fleming M, Pell JP, Smith G. Previous caesarean delivery and the risk of unexplained stillbirth: retrospective cohort study and meta-analysis. *BJOG.* 2015;122:1467-1474.
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- 20 Bailey PE. The disappearing art of instrumental delivery: time to reverse the trend. *Int J Gynaecol Obstet.* 2005;91:89-96.
- 21 Bailey PE, van Roosmalen J, Mola G, Evans C, de Bernis L, Dao B. Assisted vaginal delivery in low and middle income countries: an overview. *Br J Obstet Gynaecol.* 2017;124(9):1335-1344.

## 2020 goal

**Collaborate** on strengthening health systems with leading agencies and NGOs

## Innovative partnerships to strengthen lab systems and combat AMR

AMR is among the most significant threats to health and well-being of the world's population. If present trends continue, AMR is projected to become one of the leading causes of human mortality and may cause 10 million deaths each year by 2050. AMR is a global concern that endangers people in every region and country around the world—and is a particular threat to low- and middle-income countries.

BD has formed several innovative partnerships with leading health agencies and NGOs, each of which aims to raise awareness of this growing global threat; better understand the scale and scope of the challenge; help reduce the risk of infection and drive optimal antimicrobial use—particularly in low- and middle-income countries.

## Educating and advocating for AMR

Global experts have identified several challenges that low- and middle-income countries face when addressing AMR. There are too few trained microbiologists, few health facilities that routinely undertake bacterial culture and still fewer facilities that meet the requirements for accreditation.

To respond to these challenges, BD and The London School of Hygiene & Tropical Medicine, together with a global advisory group of experts, have partnered to create the Massive Open Online Course (MOOC) that educates participants about how diagnostics can be leveraged to reduce the inappropriate use of antibiotics, screen patients with resistant bacteria in healthcare settings, and monitor AMR trends and the effectiveness of antibiotic stewardship strategies.

By the end of FY 2019, this curriculum had reached 9,000 participants; 97% of whom said they gained new knowledge; and 87% said they have applied what they learned. Two new courses will be launched in 2020.

### Six weekly modules that focus on WHO priority pathogens

**Module 1:** Introduction

**Module 2:** Common clinical syndromes

**Module 3:** Healthcare-associated infections by pathogens

**Module 4:** Enteric infections and One Health

**Module 5:** TB/Neisseria gonorrhoea

**Module 6:** The path forward and certification\*

\*Certification is optional, at a cost.



## Scaling technologies to combat AMR

The Fleming Fund, a U.K. aid program, provides grants to improve the surveillance of AMR and generate relevant data that is shared nationally and globally. In 2019, The Fleming Fund awarded grants to diagnostic sector companies for strengthening laboratory systems in 24 countries. BD was awarded grants to expand its automated blood culture and identification and

antimicrobial susceptibility testing (ID/AST) technologies to help strengthen laboratory systems' ability to combat AMR in 19 of the 24 countries. This broad-based award includes application of the company's collaborative program initiatives for strengthening laboratory systems.

## Evaluating AMR-related lab capabilities

To strengthen capacities to combat AMR at an individual laboratory level and across the national laboratory system, in FY 2019 BD partnered with the Foundation for Innovative New Diagnostics (FIND), a Geneva-based NGO, to develop the AMR Scorecard for Lab Quality Improvement. The program, which will

be launched in FY 2020, will utilize a stepwise evaluation methodology to assess AMR-related laboratory capabilities and address the specific gaps through mentorship and training.

## Making STRIDES against drug-resistant TB in high-burden countries

Lack of access to reliable drug-susceptibility testing (DST) is a critical public health challenge posed by drug resistant forms of TB. On average, it is estimated that 50% of those in need of second-line drug-susceptibility testing in high-burden countries do not receive it.

To better understand the barriers that stand in the way of patient access to this life-saving testing, BD and USAID formed a partnership, called STRIDES (Strengthen TB Resistance Testing and Diagnostic Systems).

As part of the partnership, BD and USAID are working in India with the National TB Elimination Program (NTEP) to strengthen liquid culture and drug-susceptibility testing across all 55 labs in the national network to improve detection and appropriate treatment for multidrug-resistant TB patients across the country. Key FY 2019 highlights of this partnership include:

- the development of a first-of-its-kind lab assessment tool for liquid culture and drug-susceptibility testing for TB;
- the completion of an assessment of the specimen referral system (SRS) for sputum samples;
- work toward an integrated, GIS-enabled, barcode-enabled software for tracking specimen to help reduce the turnaround time from sample collection to diagnosis and treatment; and
- strengthening data management systems for tracking specimen results and optimizing lab workflow.

At the 50th Union World Conference on Lung Health in Hyderabad, USAID honored BD for its commitment to strengthening the national TB program in India.

“The BD-USAID STRIDES partnership has enabled us to conduct lab assessments and lab staff trainings at our public sector Liquid Culture and Drug Susceptibility Testing sites, which are critical to

our National Tuberculosis Elimination Program. The BD-USAID STRIDES team brings innovation and technical expertise to the table, and we look forward to continuing to collaborate with them to achieve the goal of eliminating TB from India by 2025,” states Dr. Nishant Kumar, Deputy Director, Central TB Division, Ministry of Health and Family Welfare, Govt. of India

In FY 2019, BD signed a memorandum of understanding with USAID to expand the STRIDES program to Indonesia—with the goal of working across 4 national labs and 15 labs that are part of the country's TB diagnostics network.

## BD, PEPFAR and CDC public-private partnerships to strengthen lab effectiveness

The year 2019 marked the 12th year of the company's collaboration with PEPFAR and the CDC on the Labs for Life program, which seeks to strengthen laboratory systems and upgrade clinical practices in phlebotomy, infusion and injection.

Through this program, BD has deployed more than 300 associates, called BD Global Health Fellows, for short-term, in-country assignments, to strengthen and support 38 laboratories in India, Kenya, Ethiopia, Rwanda, Uganda and Haiti. In some participating laboratories, lab assessment scores have improved by as much as 150% and average turnaround time for select diagnostic tests have been reduced by as much as 75%.



## Infection prevention in China

Infusion-related infections pose a significant threat to healthcare workers and patients. China has one of the highest rates of infusion per person in the world, and treatment via intravenous therapy is commonplace. However, in Western China, nearly 42% of procedures are still conducted using a steel needle rather than the best practice IV catheter.<sup>22</sup> Improper use of steel needles for IV therapy can lead to increased pain and higher rates of health complications.

To address this challenge, BD signed a multiyear agreement in FY 2018 with long-term partner, Project HOPE, to reduce infusion-related infections among healthcare workers and patients in four provinces in Western China.

In FY 2019, BD and Project HOPE recruited and trained 25 master trainers to conduct 8 training workshops in 4 provinces, training a total of 241 nurses and 36 nursing students. To increase the number of healthcare workers reached, the trained nurses then conducted cascade training for a total of 1,555 nurses, with the goal of reaching 90% of the target units (outpatient, surgery, obstetrics and ICU) at 12 hospitals. Educational materials were also developed and distributed to participating hospitals.



### Reference

22 Zhang M, Li WP, Cheng WP, et al. Investigation and analysis of the medical practices of the standardized nursing practices for intravenous therapy in western region hospitals in China. *Chinese Nurs Manager*. 2018;18(5): 623-635.

## Infection prevention in Kenya

More than 20% of needlestick injuries in Kenya occur from starting IVs or connecting a syringe into an IV line. To address these patient safety risks, BD signed a memorandum of understanding with the CDC and PEPFAR in FY 2018 to create an infection prevention partnership, called KINGA (the Kenya Infection Prevention Global Collaboration for Advancement).

In FY 2019, as part of this partnership, BD Global Health Fellows conducted baseline observational and quality improvement assessments to document key gaps in infusion practices. During this time, nearly 1,000 unique catheters and their associated procedures were observed.

BD Global Health Fellows then developed a training program, tailored to address the gaps in infusion practice that were identified during the assessments. BD Global Health Fellows will be deployed for short-term assignments in FY 2020 to implement this training, train others to deliver it and provide mentorship in hospitals across Kenya.

*"I am extremely proud that BD has taken the initiative to support this program. I did not realize the magnitude of impact we make on patient care in these developing countries until this trip. We help bridge the gap in knowledge of lab personnel and overall lab system quality that translates into an improved patient experience—that is reliable test results and patient satisfaction. I have not worked for or known any other company that goes to this extent to help without any hidden agendas."*

—Kokeb Tefera, Senior Program Manager, who served as a BD Global Health Fellow through the Labs for Life program in Ethiopia in June 2019

## Driving global conversations about key global health issues

### BD Global Health Summit

In FY 2019, BD business leaders joined together in The Hague, Netherlands with more than 50 global health thought leaders and key partners from international agencies, academia, governments and other private sectors for a multiday BD Global Health Summit. Attendees engaged in valuable dialogue about the current priorities and challenges in healthcare delivery in the developing and developed world, and identified opportunities through which BD and its partners can make a greater impact.

BD global health experts also participated in several key international events to raise awareness of the importance of public-private partnerships in addressing global health challenges, including:

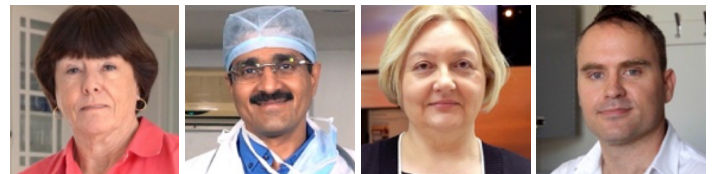
- The Public-Private Partnership Forum of the National Academies in Washington DC
- The Union Conference on Lung Health in Hyderabad, India
- The International Conference on AIDS and Sexually Transmitted Infections in Africa

### Driving a global conversation about...safety

BD partnered with Devex International Development to launch a dedicated digital platform called "**Safety First**," to drive a global conversation about healthcare worker and patient safety. The integrated series of online content features a series of portraits of individuals who have experienced needlestick injuries and have become advocates for healthcare provider and patient safety.

### SAFETY FIRST

MEET THE CHAMPIONS WHO ARE MOVING THE NEEDLE ON PATIENT AND HEALTH CARE WORKER SAFETY



### Driving a global conversation about...drug-resistant TB

BD and USAID also partnered with an award-winning documentary filmmaker in India to launch "**TB Talk, Unmasked**," a platform through which policymakers, TB survivors and treating physicians can share their unique stories and perspectives.

TB TALK  
UNMASKED

WE AIM TO UNMASK STORIES OF TB SURVIVORS THROUGH UNIQUE PERSPECTIVES OF PATIENTS, TREATING DOCTORS AND POLICY MAKERS.



## BD expands manufacturing site in China

BD is committed to bringing the world's leading products, technologies and manufacturing processes to China. In FY 2019 BD continued to expand our manufacturing array in our Suzhou plants by introducing two new manufacturing lines, BD Hypak™ Pre-Fillable Syringes and BD OptiBuild™ Reagents. These new manufacturing capabilities have employed an additional 40 associates, and will employ another 150 associates after all the BD Hypak™ Pre-Fillable Syringe lines are completed.

In 2016, BD initiated work to equip one of our plants in Suzhou, China with a BD Hypak™ Pre-Fillable Syringes production line. This work included a multiphased concept to design process for clean rooms, utility systems and laboratories. BD invested \$25 million in Phase I of this installation project that will be ready for launch production in FY 2020, and the other two subsequent phases, several times larger than one, will be completed in the next few years. As a world leader in prefillable injection technology, BD will accelerate the development and transformation of drug delivery systems in China through this project.

BD has always attached great importance to providing a total solution, combining flow cytometry and reagents for scientific researchers. BD OptiBuild™ Custom Reagents offer more fluorochrome options with the antibodies the researchers need.

## BD Technology Campus in India

In June of 2019, BD opened a technology campus in Bangalore, India (BDTCI). BDTCI is positioned as an extension of global R&D to support sustaining engineering initially, with a long-term vision to own the product life cycle management for BD products. As BDTCI becomes fluent with the life cycle management, the center will be positioned to drive design

and innovation for global products and global markets. BD has further plans to expand this site to provide cross-functional support to support this work, as well as to provide full capabilities to support product testing. Currently there are 80 associates at BDTCI, with a planned addition of another 200 associates in the next 2 years.

Whether they want to minimize compensation or add new markers to complex experiments, BD OptiBuild™ Custom Reagents provide flexibility to evaluate new colors and simplify panel design. The 2019 completion of a new production line of BD OptiBuild™ Custom Reagents in our BD factory located in Suzhou, China can significantly shorten the delivery cycle and deliver products from the factory to the customer in as little as 4 days, providing more options for scientific research and greatly improving research efficiency which will directly benefit scientists in China and Pan-Asia.



and innovation for global products and global markets. BD has further plans to expand this site to provide cross-functional support to support this work, as well as to provide full capabilities to support product testing. Currently there are 80 associates at BDTCI, with a planned addition of another 200 associates in the next 2 years.



# Efficiency

## Environmentally sound products and resilient operations

### Introduction

We understand that the health of the planet is linked to the health of people, and reducing our impact on the environment supports our Purpose of *advancing the world of health™*. With continuing pressure on natural resources and the predicted impacts of climate change, it is imperative that we continue to increase the resilience of our operations and explore opportunities for environmental improvements across our value chain. By partnering more closely with suppliers, customers and peers, we can address some of the world's most pressing environmental issues more broadly than we could on our own.

### Status of performance against 2020 goals

In FY 2019, BD continued to make progress toward our 2020 efficiency goals. This year we have integrated Bard operations into our environmental performance reporting process. The data reported here is inclusive of the former-Bard operations.

The addition of Bard operations into our portfolio has impacted performance to our 2020 goals (set prior to the acquisition). While we have achieved our targets for Scope 1 and 2 greenhouse gas (GHG) reduction and water reduction, we have more work to do in reducing waste and air emissions.

All data relating to our performance can be found at the end of this section in the [Efficiency data tables section](#).

#### 2020 goal

**Reduce GHG emissions and increase climate resilience throughout operations and value chain**

### GHG emissions



Despite an increase in revenues, absolute Scope 1 and 2 GHG emissions have been reduced by 48% from our baseline year of FY 2008.

After normalization, we have reduced emissions by 67% from our baseline year. Facilities continue to identify carbon reduction opportunities on-site by utilizing best available technology where feasible. We also continued our commitment to increasing our use of on-site generation and renewable energy sources, when feasible.

Click here to view the [GHG data tables](#).

We provided limited reporting of Scope 3 emissions in previous years, and in FY 2019 we continued to work with external partners to establish baseline Scope 3 emissions across all relevant categories. Our largest sources of Scope 3 emissions are estimated to be from purchased of goods, distribution and the use and disposal of products. Therefore, these sources represent the largest areas for opportunity and will be subject of our focus in our future sustainability strategy.

Further information about our climate change strategy and programs to reduce GHG emissions can be found in our separate Climate Change Management report, available August 2020 on our [website](#), as well as in our responses to the [CDP](#) (formerly the Carbon Disclosure Project). BD has reported to the CDP since its inception in 2003.

GRI disclosure: 201-2



## 2020 goal

**Minimize our environmental footprint and conserve natural resources**

In FY 2019, we continued to invest in on-site power generation and identify opportunities to reduce our environmental footprint across all sites.

## Energy



Our energy consumption decreased in absolute terms and normalized terms for FY 19. We have focused on identifying opportunities by assessing and incorporating new available technology to further reduce energy consumption.

While the amount of green energy increased in FY 2019, the overall percentage of power from renewable sources fell slightly. This was due to budget constraints caused by the COVID-19 pandemic that limited the number of supplemental renewable energy credits that we could purchase. However, we remain committed to renewable energy and expect to continue progress set in previous years.

Over the course of FY 2019, BD identified over 204 energy reduction projects that will amount to over \$5 million in energy savings, once completed. The Utilities Center of Excellence worked closely with sites around the world to identify key

projects that will reduce energy usage and improve efficiency of plant operations. Many of these projects will be completed in the coming years, but work has already begun with some projects being completed in 2019. Those projects completed saw savings of \$1.5 million in FY 2019—approximately 15 million kWh.

Projects include the replacement of existing lighting with LED lighting; recommissioning of an ice plant; combined heat and power projects, installation of solar panel projects and various equipment upgrades.

Click here to view the [Energy data tables](#).

## Solar

The second phase of the on-site solar installation for the BD manufacturing plant in Canaan, CT was completed. The system was expanded from a 2,655-kilowatt system with 6,400 ground

and roof mounted panels to a 3,350-kilowatt system with 7,650 ground and roof mounted panels.

## Combined heat and power

The combined heat and power (CHP) generation continues to be utilized at BD sites. The latest CHP installation was completed in Drogheda, Ireland where it will provide 75% of the site's electrical usage. On-site generation increases site's resilience and is a more

efficient use of energy, therefore reducing GHG emissions. Solutions such as combined heat and power continue to be assessed to achieve our sustainability goals and build energy resilience into our sites.

# Water

## Water management



Water is essential to human life, the environment and the planet. BD recognizes the importance of water in our manufacturing processes, for our products, our suppliers, in our environment, and to our associates and their communities. Maintaining a clean and ample supply of water is imperative both to the future of our company, supply chain and to the future of the communities where we live, work and do business.

Water quality and quantity is fundamental to ensure that highest healthcare product safety standards are met. A key focus is the efficient use of water, especially as some of our company's products contain purified water. Freshwater is used in manufacturing, sanitation, sterilization, processing and cooling for our direct operations. Indirect water is used in the manufacturing and/or processing of many raw materials used in our products, such as resins, steel, packaging and electrical components.

Recycled and brackish water is used in ancillary operations, such as cooling towers, because it does not meet quality standards for most other uses.

Operating in accordance with local regulations that protect people and the environment, approximately 97% of water used at our facilities comes from, and is discharged to, third-party sources (such as local municipal water sources). We collect water-related data for total withdrawals from our sites worldwide through an online system. This data is monitored and reviewed on an ongoing basis.

We are committed to responsible and sustainable use of water and strive to include water sustainability considerations in business decisions. We seek to achieve efficient use of water resources at our operational locations by investing in and using new technologies when feasible and implementing water

conservation and water management practices. Our facilities conduct audits that include water usage, particularly in areas of concern for water quality and quantity.

Water risks are considered part of business continuity planning and are assessed as part of an enterprise risk management framework on an annual basis, using established water risk tools to evaluate overall water stress areas.

Water-related issues (such as resilience from water scarcity and internal water efficiencies) are integrated into our long-term business objectives. We see opportunities to continue to improve operational efficiencies. These are strategic opportunities that will contribute to long-term resiliency and operational cost savings.

Further information about our water management strategy and programs can be found in our responses to the **CDP** (formerly the Carbon Disclosure Project). BD has reported to the CDP since its inception in 2003.

Clean water plays a role in global health. Damaged ecosystems affect the quantity and quality of water available for human consumption. Extreme weather events are impacting water availability and quality.

Today, 2.1 billion people live without safe drinking water at home, which can affect their health, education and livelihoods.<sup>23</sup> Children under-five are on average more than 20 times more likely to die from illnesses linked to unsafe water and bad sanitation, than from conflict.<sup>24</sup>

BD has partnered with Charity: Water and Planet Water in previous years to provide clean drinking to communities around the world. You can read more about our work with Planet Water in 2019 in the **Empowerment** section of this report.

## Water use

Water consumption decreased slightly in FY 2019 as a result of continued water conservation efforts and we exceeded our target of 40% reduction of water use (normalized by COPS). We will continue to identify and implement viable water reduction

projects. Of the amount of water consumed, the percentage of wastewater discharge also increased reflecting efforts to improve system efficiencies.

Click here to view the [Water data table](#).

### References

<sup>23</sup> World Health Organization. 2.1 billion people lack safe drinking water at home, more than twice as many lack safe sanitation. <https://www.who.int/news-room/detail/12-07-2017-2-1-billion-people-lack-safe-drinking-water-at-home-more-than-twice-as-many-lack-safe-sanitation>. Published July 12, 2017. Accessed May 8, 2020.

<sup>24</sup> UN News. More children killed by unsafe water, than bullets, says UNICEF chief. <https://news.un.org/en/story/2019/03/1035171>. March 21, 2019. Accessed May 8, 2020.

## Waste

### Waste management



Effective waste prevention and management practices are critical for protecting human health and the environment. BD acknowledges the importance of responsible end disposal

management for the various types of waste generated from our operations. Recognizing the current and future potential liabilities associated with waste disposal is necessary to safeguard our company, communities and planet.

We follow the waste management hierarchy for waste generated. Source reduction and waste minimization practices are utilized when feasible. End disposal site risk is evaluated by using audits, vendor management and risk assessment tools.

We are committed to reducing nonhazardous and hazardous waste generated. Waste generation is tracked through an online system with the data collected being reviewed and monitored on an ongoing basis. We partner with disposal vendors to evaluate areas for waste reduction.

### Waste performance

While we continue to assess and implement waste reduction projects, our performance in this area indicates there is opportunity for improvement. Disposal methods have remained largely unchanged from previous years, and we continue to face

challenges with recycling waste streams. However, hazardous waste generation saw a decrease due to operational improvements.

Click here to view the [Waste data tables](#).

### Air emissions



While our facilities continued to make absolute reductions in VOC and HAP emissions through process improvement projects and installation of emission control equipment, data demonstrates areas for opportunity remain.

We continue to make progress on the reduction of ozone-depleting substances, which are used at several of our legacy BD facilities. Conversion plans to eliminate the use of HCFC141b remain in progress and are expected to be completed as scheduled.

Click here to view the [Air emissions data tables](#).

### Reducing EtO emissions

Our EtO sterilization facilities in Covington and Madison, Georgia (U.S.) are among the first in the industry to install dry bed scrubber systems, a new innovative emission control system designed to reduce fugitive (i.e., trace) emissions that occur from product off-gassing after the sterilization process is complete. Both facilities are already equipped with regenerative thermal oxidizers (RTOs), the best available emission control technology, to destroy EtO emitted from the

sterilization process. The combination of the new dry bed scrubber systems to control fugitive emissions and the existing RTOs to control point source emissions makes the Covington and Madison facilities two of the most sophisticated EtO sterilization facilities in the world. At our Covington facility, for example, these new upgrades have reduced EtO emissions at the facility by an additional 94%.

For more information about our EtO facilities in Georgia, please visit the [EtO safety page on our website](#).

## Environment, Health and Safety (EHS) management

We set expectations of EHS management via three key documents:

- Our **EHS policy**
- Our **Code of Conduct**
- Our **Expectation for Suppliers**

At the corporate level, BD has an EHS team, led by the VP of EHS&S; the VP EHS&S reports to the company's executive VP Integrated Supply Chain (EVP ISC). Reporting to the VP EHS&S are the following individuals with responsibility for EHS activities.

- Director, EHS Governance & Compliance. This individual is responsible for governance and compliance activities, including the company's internal EHS audit program, EHS standards and training programs and communicating EHS matters to relevant stakeholders throughout the organization.

### Training

At a corporate level, we provide various training to our associates, including new hire orientation to EHS professionals; training on new or revised corporate EHS standards, internal EHS auditor training and ongoing training for our EHS management of information systems. We use a variety of training mediums, including classroom training, webinars and on-demand compliance training via our online training system. In 2020, we

### EHS Management Information Systems

We use global EHS Management Information Systems, provided by third-party vendors, to collect and manage EHS information, including:

### Internal Audits

We have a global internal audit program covering all BD locations. Audits are typically carried out by a third party and are occasionally supported by associates from the corporate EHS team. Frequency of audits are on a risk basis, determined by factors such as type, size and scale of operations and previous

### EHS Management Systems

To ensure continuous improvement of environmental performance at a facility level, BD is implementing ISO 14001-certified environmental management systems at our manufacturing sites around the world. Currently, 46 BD sites have ISO 14001-certified environmental management systems; most of these sites are manufacturing locations, but also includes HQ offices and some sales offices in Europe.

This individual also oversees the Global EHS Advisory Council (see the **Empowerment** section for further information).

- Director, Sustainability. In addition to stakeholder engagement and development of the company's sustainability strategy, this individual is responsible for the development of the company's water stewardship and waste management programs; and management of the company's EHS information management systems.

The VP EHS&S engages directly with the executive leadership team and provides a report on EHS activities to the Board on an annual basis. The Corporate Governance and Nominating Committee oversees matters that involve the company's image, reputation and our standing as a responsible corporate citizen; this includes EHS matters.

are enhancing governance structures around our training programs to consider our expanded operations following the acquisition of Bard.

Individual sites are responsible for identifying site-specific EHS training needs and implementing training programs on a variety of EHS topics, taking into consideration the risks that are present and any local regulatory requirements.

- EHS incident reporting (including near misses) and corrective action tracking
- EHS performance metric reporting and tracking
- Safety data sheet management

audit findings. Audit reports from each audit are provided to site management, operational leaders, EVP ISC and the CEO. All corrective actions are tracked to closure, with a follow-up audit carried out approximately 12 months later.

Around two-thirds of these certified locations are part of a group certificate, where we have established standardized procedures and methods for program implementation. This standardized approach allows sites to work together in a collaborative way with extensive sharing and interaction to enhance program effectiveness. For example, all corrective actions are logged and shared with all sites in the respective group certificates to facilitate learning from each other's experience and to take proactive actions to prevent similar issues happening at other

sites. Furthermore, every EMS-certified site sets environmental improvement objectives on an annual basis and these are reviewed for progress quarterly.

Our plan is to continue ISO 14001 certification of remaining BD manufacturing plants over the coming years.

The ISO 50001 energy management standard provides a framework of requirements to measure and use data for better understanding of energy use, set objectives for energy use reduction and continually improve energy management. Many BD facilities have a strong focus on energy management and reduction and are pursuing many aspects of a responsible energy management program. We currently have four facilities in Spain, Hungary and Germany that have implemented energy management systems which are certified to ISO 50001.

All BD manufacturing locations have strong focus on Occupational Health & Safety (OHS) management for injury

reduction and prevention. Significant OHS risks associated with our activities are identified and reviewed for elimination and/or control to minimize their potential effects on our employees. The most accepted OHS management system in the past has been the OHSAS-18001 standard and two BD sites in Spain and China are certified in this standard. OHSAS-18001 standard is currently being replaced by ISO-45001 and both of our sites will convert to this new standard before the deadline of March 2021. Although our other sites are currently not formally certified in any OHS standard, their site safety programs follow many of the elements included in the OHSAS-18001/ISO-45001 standards.

For additional details on work carried out in FY 2019 related to associate safety, please see our goal around achieving best-in-class associate safety performance in the **Empowerment** section of this report.

**GRI disclosures: 403-1, 403-5**

## 2020 goal

### Establish supplier responsibility evaluation methodology

Supplier risk management is a major focus area for BD. The overarching strategy of the risk program is to enable processes and procedures that reduce or eliminate the likelihood and minimize the impact of a supplier event that could affect the company's continuity of supply. We have developed a robust assessment process to identify our "critical to healthcare" products, which has allowed us to prioritize preventative risk management best practices for not only our significant financial impacting products but also those critical to the healthcare market. With a top-down directive on risk management, we are implementing an enhanced risk model with a consistent framework across all of our business units to assess, identify,

prioritize, mitigate and monitor top risks. The program takes a quantifiable approach to assess multiple risk factors, including direct supplier-driven risks, such as operational and financial risk, as well as indirect or market-driven risks, such as natural disasters and geopolitical risks. Additionally, we have formed a cross-functional crisis management team to proactively monitor and respond to events around the world that may impact our supply chain. The program will continue to evolve as we leverage sophisticated technologies to aid us in our journey to resiliency.



# Supplier Diversity Program

Supplier diversity encompasses more than simply tracking spending or “doing the right thing”—it supports our business objectives. Being committed to supplier diversity entails developing and implementing strategies that ensure our supply base aligns with the diverse customers and communities we serve, as well as the diverse markets we seek.

Further details on our Supplier Diversity Program can be found on our [website](#).

While we remain committed to increasing the number of small and diverse-owned businesses in our supply chain, our supplier diversity performance was negatively impacted in FY 2019 due to a number of factors.

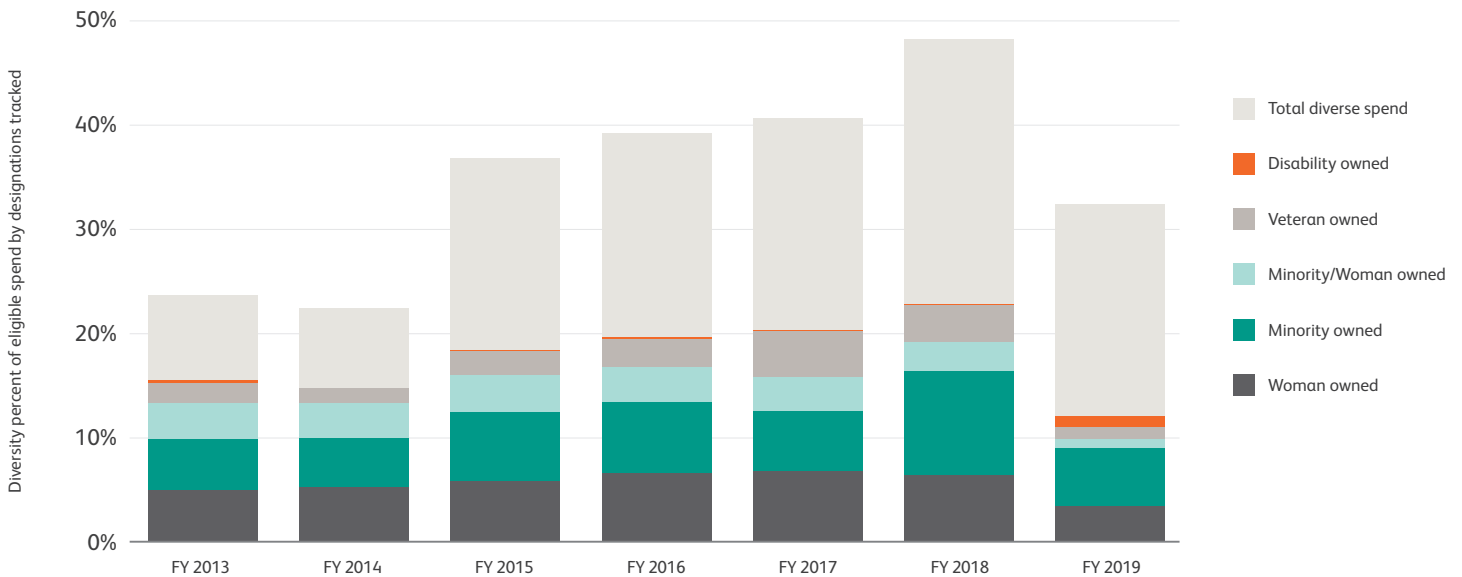
Firstly, total reported procurement spend increased due to the inclusion of Bard. However, as Bard supplier diversity data was

not aligned with legacy BD data, we have been unable to include Bard data in our FY 2019 performance data.

Secondly, as part of efforts to reduce overall procurement spend, work continued in FY 2019 to implement a managed service provider strategy. This has reduced the number of small and diverse-owned businesses who are our tier 1 suppliers. At this time, we are only able to capture spend with our tier 1 suppliers and this is reflected in the data presented.

We are in the process of revising our data tracking and management systems. This will allow us to capture, track and report spend with small and diverse-owned businesses who are tier 2 suppliers, via our managed service providers. We will also close remaining gaps in tracking and reporting supplier diversity spend from legacy Bard.

## Supplier Diversity Program: percent of spend by designation



## Chemical Footprint Project

BD actively engages in dialogue with our customers and advocacy groups to understand their position on the use of safer chemicals for consideration in our work to eliminate priority MOC. This engagement includes our continued response to the Chemical Footprint Project. The mission of the **Chemical Footprint Project** is to transform global chemical use by

measuring and disclosing data on business progress to safer chemicals. It provides a tool for benchmarking companies as they select safer alternatives and reduce their use of chemicals of high concern. As in previous years, we have chosen to make our response public.

## BD® IV Fluids

As part of the BD portfolio of IV products, we introduced a variety of IV solutions in different sizes for intravenous administration. These products also help move forward our broader goal of reducing priority materials of concern in specified product categories. The *freeflex*® bag\* is a multilayer polyolefin film that is non-PVC and non-DEHP. The bag is not made with natural rubber latex. The container closures are also not made with natural rubber latex and are non-PVC and non-DEHP.

These IV solution products include various sizes of 0.9% sodium chloride injection, Lactated Ringer's injection, 5% dextrose injection and 0.45% sodium chloride injection, as listed on our [website](#).

**BD is working to reduce priority materials of concern\* in each of the following product categories:**

**Devices:**

PVC and phthalates

**Instruments:**

Phthalates, brominated flame retardants (BFRs) and heavy metals

**Packaging:**

PVC and expanded polystyrene

\*Intentionally added



\*freeflex® is a registered trademark of Fresenius Kabi. Manufactured by Fresenius Kabi.

## 2020 goal

**Improve life cycle impacts of current and future products**

BD continues to focus efforts on improving the life cycle impacts of our products.

In 2019, we continued our engagement with the Healthcare Plastics Recycling Council (HPRC) both in the United States and

## Product takeback

Where required by law, we participate in compliance schemes to ensure responsible collection, management and disposal (including recycling) of packaging, batteries and waste electrical and electronic equipment.

For details regarding product donation, please refer to the **Empowerment** section of this report.

As noted in our FY 2018 Sustainability Report, we have established a process at our facility in San Diego to manage the end-of-life disposal of products from the BD Pyxis™ Portfolio, by recovering materials and components for refurbishment or recycling.

the European Union, and the Sustainable Healthcare Coalition (SHC) in Europe. The activities we undertake as part of our engagement with these entities support, among other projects, our efforts to limit and minimize waste produced during the life cycle of our products.

In FY 2019, 19,213 units were processed through our facility, representing 2,750 metric tonnes of materials that were either refurbished, reused or recycled.

We will continue to explore opportunities to improve the end-of-life disposal options for products through programs such as this. Where product take-back is not appropriate or viable, we will look to alternatives—such cross-industry partnerships found in HPRC—to make progress on our goal of improving the life cycle impacts of our products.





# FY 2019 efficiency targets— performance data tables

## Notes on data

For most performance indicators, we have included data for legacy Bard back to our baseline year of FY 2008; however, in a few instances, no historical data was available. This is noted where applicable.

We have strengthened our data collection processes by reviewing our reporting threshold. This has increased the number of facilities included in our reporting boundary. Therefore, data has been restated.

To allow for year-on-year comparability and transparency, we are reporting performance data separately for both legacy BD and Bard organizations across all performance indicators, in addition to combined performance data.



Solar panels installed at Canaan, CT site. A total of 2.9 mega-watts are generated from solar panels at this site.

Reduce GHG emissions and increase climate resilience throughout operations and value chain

GHG emissions—Scope 1 and 2

Legacy BD Legacy BARD BD + BARD combined

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Total GHG emissions</b>												
Scope 1 absolute (metric tonnes CO2-e), legacy Bard	11,345	11,345	11,345	11,317	14,932	16,869	20,727	17,486	16,434	23,856	36,781	16,357
Scope 1 normalized (metric tonnes CO2-e per \$M COPS), legacy Bard	12	12	11	10	13	14	17	13	12	17	36	12
Scope 1 absolute (metric tonnes CO2-e), legacy BD	87,852	88,809	91,327	85,931	84,125	80,251	77,505	76,850	74,989	88,730	100,402	101,875
Scope 1 normalized (metric tonnes CO2-e per \$M COPS), legacy BD	18	19	18	16	15	14	13	14	12	14	13	13
Scope 1 absolute (metric tonnes CO2-e), combined	99,197	100,154	102,672	97,249	99,057	97,120	98,232	94,336	91,424	112,585	137,183	118,232
Scope 1 normalized (metric tonnes CO2-e per \$M COPS), combined	17	18	17	15	15	14	13	14	12	15	16	13
Scope 2 absolute (metric tonnes CO2-e), legacy Bard	65,713	65,800	62,976	63,338	62,380	63,281	68,212	75,016	73,554	78,335	70,006	65,786
Scope 2 normalized (metric tonnes CO2-e per \$M COPS), legacy Bard	70	70	62	59	56	54	55	58	55	54	69	48
Scope 2 absolute (metric tonnes CO2-e), legacy BD	530,133	511,114	430,824	377,152	310,580	249,722	266,936	226,888	169,073	164,483	145,002	175,552
Scope 2 normalized (metric tonnes CO2-e per \$M COPS), legacy BD	112	108	84	71	56	44	44	41	26	27	19	23
Scope 2 absolute (metric tonnes CO2-e), combined	595,846	576,914	493,800	440,490	372,959	313,003	335,148	301,904	242,627	242,818	215,007	241,338
Scope 2 normalized (metric tonnes CO2-e per \$M COPS), combined	105	101	81	69	56	46	46	44	31	32	25	27
Total absolute (metric tonnes CO2-e), legacy Bard	77,058	77,145	74,320	74,656	77,312	80,150	88,939	92,502	89,989	102,190	106,787	82,143
Total normalized (metric tonnes CO2-e per \$M COPS), legacy Bard	83	82	73	69	69	68	71	71	67	71	105	59
% reduction from baseline												-28%
Total absolute (metric tonnes CO2-e), legacy BD	617,985	599,923	522,151	463,083	394,705	329,973	344,441	303,738	244,062	253,213	245,404	277,427
Total normalized (metric tonnes CO2-e per \$M COPS), legacy BD	130	127	102	87	71	58	57	54	38	41	32	36
% reduction from baseline												-72%
Total absolute (metric tonnes CO2-e), combined	695,043	677,068	596,472	537,739	472,017	410,123	433,380	396,240	334,051	355,403	352,191	359,570
Total normalized (metric tonnes CO2-e per \$M COPS), combined	122	119	97	84	71	60	59	58	43	47	40	40

2020 goal: Reduce Scope 1 and 2 GHG emissions by 50% (normalized to COPS). Current status: reduced by 67% TARGET ACHIEVED

Data represents Scope 1 (direct) and Scope 2 (indirect from electricity) energy sources.

BD uses emission factors that are temporally, geographically and technologically accurate for each site and source within its operational boundary as specified by the WRI/WBCSD GHG Protocol. This includes updating electric power emission factors to reflect changes in the grid mix for areas in which BD operates. In general, historical emission factors remain consistent with the publication that was most recent at the time of original reporting.

# GHG emissions—Scope 3

Measurement and UOM	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>GHG (absolute) (metric tonnes Co2-e)</b>								
Purchased goods and services					966,282	1,069,505	1,065,132	1,147,552 <sup>1</sup>
Capital goods					42,728	37,691	39,602	21,516 <sup>2</sup>
Fuel-and-energy-related activities (not included in Scope 1 or 2) <sup>3</sup>	106,340	103,995	106,451	106,360	101,856	105,617	111,946	101,392
Upstream transportation and distribution					72,640	125,904	280,636	286,051 <sup>1</sup>
Waste generated in operations <sup>1</sup>	15,266	15,302	13,789	13,071	15,465	15,380	19,239	19,359
Business travel <sup>4</sup>	35,273	38,230	41,171	68,259	107,049	95,612	117,116	147,795
Employee commuting	1,743	9,157	13,061	4,888	102,232	73,195	83,829	138,010 <sup>1</sup>
Upstream leased assets					27,094	47,011	32,299	1,359 <sup>5</sup>
Downstream transportation and distribution					Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	Not relevant <sup>6</sup>
Processing of sold products					Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	Not relevant <sup>6</sup>
Use of sold products					263,924	298,638	326,682	415,882 <sup>1</sup>
End-of-life treatment of sold products					87,558	97,082	191,821	192,440 <sup>7</sup>
Downstream leased assets					Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	1,524 <sup>5</sup>
Franchises					Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	Not relevant <sup>6</sup>
Investments					Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	Not relevant <sup>6</sup>	Not relevant <sup>6</sup>

2020 goal: Establish Scope 3 GHG emission baselines for categories applicable to BD. Current status: We provided limited reporting of Scope 3 emissions in previous years, and in FY 2019 we continued to work with external partners to establish baseline Scope 3 emissions across all categories. This information will be used to inform future strategy.

2020 goal: Initiate climate resilience planning for BD facilities. Current status: As the devastating hurricanes across the U.S. in 2017 demonstrated, resilience planning for extreme weather events is essential to ensure operations are restored as quickly as possible. Work has been carried to deepen our understanding of potential risks to our supply chain and operations, to ensure potential impacts are mitigated or reduced. Further work was carried out in FY 2019 to understand risks and opportunities associated with climate change and will be reported on in future reports.

<sup>1</sup> Includes CR Bard.  
<sup>2</sup> Includes CR Bard. Reduction is driven by change in sector classification, which have lower capital goods emission intensities.  
<sup>3</sup> Data for all years reported has been recalculated to include legacy CR Bard. Data for all years also now includes emissions related to transmission and distribution losses and well to tank emissions from all energy sources, not just electric power. (In prior years, we disclosed emissions related to transmission and distribution losses from electric power only.)  
<sup>4</sup> FY 2019 includes CR Bard. FY 2016 and FY 2017 have been restated due to error in earlier calculations.  
<sup>5</sup> Includes CR Bard. Significant decrease due to more accurate data used in calculations.  
<sup>6</sup> Relevance based on 1% threshold relative to total Scope 3 emissions inventory. Determined this category to be not relevant to the company's business activities and did not estimate the associated GHG emissions.  
<sup>7</sup> Emissions are for a subset of our portfolio only.

GRI disclosure: 305-3

Minimize our environmental footprint and conserve natural resources

Energy

Legacy BD Legacy BARD BD + BARD combined

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Total energy consumption</b>												
Scope 1 absolute (GJ), legacy Bard	219,899	219,899	219,899	219,899	270,744	302,468	381,073	332,693	316,465	413,807	620,237	311,520
Scope 1 normalized (GJ per \$M COPS), legacy Bard	236	232	217	204	242	258	305	256	236	287	610	225
Scope 1 absolute (GJ), legacy BD	1,640,772	1,663,840	1,707,033	1,615,278	1,568,897	1,442,703	1,459,149	1,447,472	1,410,399	1,695,223	1,922,421	1,953,835
Scope 1 normalized (GJ per \$M COPS), legacy BD	345	351	334	303	284	256	240	259	217	277	250	256
Scope 1 absolute (GJ), combined	1,860,671	1,883,740	1,926,933	1,835,178	1,839,641	1,745,171	1,840,221	1,780,165	1,726,864	2,109,030	2,542,658	2,265,355
Scope 1 normalized (GJ per \$M COPS), combined	327	331	315	286	277	256	251	258	220	279	292	252
Scope 2 absolute (GJ), legacy Bard	449,174	450,250	450,346	450,346	463,907	475,639	495,386	560,506	575,758	623,298	612,855	587,901
Scope 2 normalized (GJ per \$M COPS), legacy Bard	482	476	445	417	414	406	396	431	429	432	603	425
Scope 2 absolute (GJ), legacy BD	3,654,412	3,651,153	3,773,760	3,740,213	3,689,441	3,605,946	3,660,163	3,620,781	3,647,823	3,597,540	3,725,284	3,782,484
Scope 2 normalized (GJ per \$M COPS), legacy BD	769	770	738	702	668	639	602	648	562	587	484	497
Scope 2 absolute (GJ), combined	4,103,586	4,101,402	4,224,106	4,190,559	4,153,349	4,081,585	4,155,548	4,181,287	4,223,582	4,220,837	4,338,138	4,370,385
Scope 2 normalized (GJ per \$M COPS), combined	722	721	690	654	625	599	567	607	539	558	498	485
Total absolute (GJ), legacy Bard	669,073	670,149	670,245	670,245	734,651	778,107	876,458	893,199	892,223	1,037,105	1,233,092	899,421
Total normalized (GJ per \$M COPS), legacy Bard	718	708	663	621	656	664	701	687	664	719	1,214	650
% reduction from baseline												9%
Total absolute (GJ), legacy BD	5,295,183	5,314,993	5,480,794	5,355,491	5,258,338	5,048,649	5,119,311	5,068,253	5,058,223	5,292,763	5,647,705	5,736,319
Total normalized (GJ per \$M COPS), legacy BD	1,114	1,121	1,072	1,005	952	895	842	907	779	864	734	753
% reduction from baseline												32%
Total absolute (GJ), combined	5,964,257	5,985,142	6,151,039	6,025,737	5,992,990	5,826,756	5,995,770	5,961,452	5,950,446	6,329,868	6,880,797	6,635,740
Total normalized (GJ per \$M COPS), combined	1,049	1,053	1,004	941	902	855	818	866	759	836	790	737

2020 goal: Reduce energy consumption by 40% (normalized by COPS). Current status: reduced by 30%

Data represents Scope 1 (direct) and Scope 2 (indirect from electricity) energy sources.

# Energy

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Renewable energy (RECs, Green Power)—combined</b>												
Electric power	4,053,831	4,062,147	4,186,898	4,153,453	4,114,317	4,037,109	4,109,512	4,136,047	4,178,426	4,214,796	4,294,092	4,313,424
Green energy	104,745	161,475	181,361	264,315	203,857	172,132	100,695	98,970	249,444	449,119	347,022	577,860
Renewable Energy Credit (REC)	18,547	133,415	570,815	670,714	1,012,696	1,318,215	1,326,356	1,492,190	1,861,873	2,020,847	1,920,501	1,463,321
Total Greenpower	123,293	294,890	752,176	935,030	1,216,554	1,490,347	1,427,051	1,591,160	2,111,316	2,469,966	2,267,524	2,041,181
<b>As part of electric power consumption:</b>												
% from RECs	0.5%	3%	14%	16%	25%	33%	32%	36%	45%	48%	45%	34%
% from green energy	3%	4%	4%	6%	5%	4%	2%	2%	6%	11%	8%	13%
% of all green power	3%	7%	18%	23%	30%	37%	35%	38%	51%	59%	53%	47%
<b>As part of total energy:</b>												
% from RECs:	0.3%	2%	9%	11%	17%	23%	22%	25%	31%	32%	28%	22%
% of all green energy	2%	5%	12%	16%	20%	26%	24%	27%	35%	39%	33%	31%
2020 goal: Increase renewable energy consumption by 50% of total energy (absolute). Current status: increased to 31%												

# Water

Legacy BD   Legacy BARD   BD + BARD combined

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Water consumption</b>												
Absolute (cubic meters), legacy Bard	704,997	939,996	939,996	939,996	948,089	915,978	917,275	924,565	933,623	910,725	1,262,707	1,122,258
Normalized (cubic meters per \$M COPS), legacy Bard	756	993	929	871	847	782	734	711	695	631	1243	811
% discharge, legacy Bard												-7%
Absolute (cubic meters), legacy BD	5,525,385	5,032,947	4,539,546	4,536,329	4,524,766	4,590,243	4,869,887	5,043,004	4,967,181	4,433,752	4,696,157	4,696,855
Normalized (cubic meters per \$M COPS), legacy BD	1,163	1,062	888	851	819	814	801	903	765	724	610	617
% reduction from baseline, legacy BD												47%
Absolute (cubic meters), combined	6,230,381	5,972,943	5,479,542	5,476,325	5,472,855	5,506,221	5,787,162	5,967,569	5,900,804	5,344,477	5,958,863	5,819,113
Normalized (cubic meters per \$M COPS), combined	1,096	1,050	895	855	824	808	790	866	753	706	684	646

2020 goal: **Reduce water consumption by 40% (normalized by COPS).** Current status: **reduced by 41%. TARGET ACHIEVED**

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Waste water discharge</b>												
Absolute (cubic meters), legacy Bard	0	0	0	0	0	185,028	242,905	242,536	248,418	359,572	775,805	824,778
Normalized (cubic meters per \$M COPS), legacy Bard	0	0	0	0	0	158	194	186	185	249	764	596
% discharge, legacy Bard	0%	0%	0%	0%	0%	20%	26%	26%	27%	39%	61%	73%
Absolute (cubic meters), legacy BD	4,310,030	4,007,322	3,182,309	3,152,513	3,282,185	3,415,973	3,716,419	3,633,440	3,507,233	3,240,171	3,627,941	3,953,509
Normalized (cubic meters per \$M COPS), legacy BD	907	845	623	592	594	605	611	650	540	529	471	519
% discharge, legacy BD	78%	80%	70%	69%	73%	74%	76%	72%	71%	73%	77%	84%
Absolute (cubic meters), combined	4,310,030	4,007,322	3,182,309	3,152,513	3,282,185	3,601,001	3,959,324	3,875,976	3,755,650	3,599,743	4,403,746	4,778,287
Normalized (cubic meters per \$M COPS), combined	758	705	520	492	494	529	540	563	479	475	505	531
% discharge, combined	69%	67%	58%	58%	60%	65%	68%	65%	64%	67%	74%	82%

\*Combined COPS were used to calculate normalized performance back to FY 2008 baseline.

# Waste—nonhazardous

Legacy BD Legacy BARD BD + BARD combined

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Total nonhazardous waste generated</b>												
Absolute (Metric tonnes), legacy Bard	3,799	5,066	5,066	5,066	5,066	5,582	6,201	7,589	8,002	9,113	12,829	8,855
Normalized (Metric tonnes per \$M COPS), incl. regulated waste, legacy Bard	4.08	5.35	5.01	4.70	4.52	4.77	4.96	5.83	5.96	6.32	12.63	6.40
% reduction from baseline, legacy Bard												-57%
Absolute (Metric tonnes), legacy BD	50,882	47,610	48,929	49,105	47,441	46,800	45,078	44,159	49,862	46,371	54,712	58,141
Normalized (Metric tonnes per \$M COPS), incl. regulated waste, legacy BD	10.71	10.04	9.57	9.22	8.59	8.30	7.42	7.90	7.68	7.57	7.11	7.63
% reduction from baseline, legacy BD												29%
Absolute (Metric tonnes), combined	54,681	52,676	53,994	54,171	52,506	52,383	51,280	51,748	57,864	55,484	67,541	66,996
Normalized (Metric tonnes per \$M COPS), incl. regulated waste, combined	9.62	9.26	8.82	8.46	7.90	7.69	7.00	7.51	7.38	7.33	7.75	7.44
2020 goal: <b>Reduce total waste by 50% (normalized by COPS)</b> . Current status: <b>reduced by 23%</b>												

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Nonhazardous waste landfilled</b>												
Absolute (Metric tonnes), legacy Bard	1,364	1,819	1,819	1,819	1,819	2,093	2,592	2,870	2,917	3,184	3,813	2,969
Normalized (Metric tonnes per \$M COPS), legacy Bard	1.46	1.92	1.80	1.69	1.62	1.79	2.07	2.21	2.17	2.21	3.75	2.15
% landfilled, legacy Bard	36%	36%	36%	36%	36%	37%	42%	38%	36%	35%	30%	34%
% diversion, legacy Bard	64%	64%	64%	64%	64%	63%	58%	62%	64%	65%	70%	66%
Absolute (Metric tonnes), legacy BD	24,107	23,707	19,912	15,545	13,189	12,267	9,363	8,229	9,654	9,466	11,981	12,237
Normalized (Metric tonnes per \$M COPS), legacy BD	5.07	5.00	3.90	2.92	2.39	2.17	1.54	1.47	1.49	1.54	1.56	1.61
% landfilled, legacy BD	47%	50%	41%	32%	28%	26%	21%	19%	19%	20%	22%	21%
% diversion, legacy BD	53%	50%	59%	68%	72%	74%	79%	81%	81%	80%	78%	79%
Absolute (Metric tonnes), combined	25,472	25,526	21,731	17,364	15,008	14,360	11,955	11,099	12,571	12,649	15,794	15,206
Normalized (Metric tonnes per \$M COPS), combined	4.48	4.49	3.55	2.71	2.26	2.11	1.63	1.61	1.60	1.67	1.81	1.69
% landfilled, combined	47%	48%	40%	32%	29%	27%	23%	21%	22%	23%	23%	23%
% diversion, combined	53%	52%	60%	68%	71%	73%	77%	79%	78%	77%	77%	77%

2020 goal: **Increase diversion rate by over 85% (absolute as % of total nonhazardous waste)**. Current status: **increased to 77%**

# Waste—nonhazardous

Legacy BD      Legacy BARD      BD + BARD combined

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Nonhazardous waste incinerated</b>												
Absolute (Metric tonnes), legacy Bard	0	0	0	0	0	0	0	0	0	22	212	221
Normalized (Metric tonnes per \$M COPS), legacy Bard	0	0	0	0	0	0	0	0	0	0.02	0.21	0.16
% incinerated, legacy Bard	0	0	0	0	0	0	0	0	0	0%	2%	3%
Absolute (Metric tonnes), legacy BD	5,096	3,226	3,228	3,198	2,998	4,156	4,231	3,550	5,980	6,237	8,158	9,545
Normalized (Metric tonnes per \$M COPS), legacy BD	1.07	0.68	0.63	0.60	0.54	0.74	0.70	0.64	0.92	1.02	1.06	1.25
% incinerated, legacy BD	10%	7%	7%	7%	6%	9%	9%	8%	12%	13%	15%	16%
Absolute (Metric tonnes), combined	5,096	3,226	3,228	3,198	2,998	4,156	4,231	3,550	5,980	6,259	8,371	9,767
Normalized (Metric tonnes per \$M COPS), combined <sup>1</sup>	0.90	0.57	0.53	0.50	0.45	0.61	0.58	0.52	0.76	0.83	0.96	1.08
% reduction from baseline, combined	9%	6%	6%	6%	6%	8%	8%	7%	10%	11%	12%	15%

<sup>1</sup>Combined COPS were used to calculate normalized performance back to FY 2008 baseline.

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Nonhazardous waste recycled</b>												
Absolute (Metric tonnes), legacy Bard	2,435	3,247	3,247	3,247	3,247	3,489	3,609	4,720	5,085	5,907	8,803	5,664
Normalized (Metric tonnes per \$M COPS), legacy Bard	2.61	3.43	3.21	3.01	2.90	2.98	2.89	3.63	3.78	4.09	8.66	4.09
% recycled, legacy Bard	64%	64%	64%	64%	64%	63%	58%	62%	64%	65%	69%	64%
Absolute (Metric tonnes), legacy BD	21,678	20,677	25,788	30,362	31,253	30,377	31,485	32,380	34,228	30,668	34,573	36,358
Normalized (Metric tonnes per \$M COPS), legacy BD	4.56	4.36	5.04	5.70	5.66	5.38	5.18	5.80	5.27	5.00	4.49	4.77
% recycled, legacy BD	43%	43%	53%	62%	66%	65%	70%	73%	69%	66%	63%	63%
Absolute (Metric tonnes), combined	24,113	23,924	29,035	33,609	34,500	33,866	35,094	37,099	39,313	36,576	43,376	42,023
Normalized (Metric tonnes per \$M COPS), combined	4.24	4.21	4.74	5.25	5.19	4.97	4.79	5.39	5.02	4.83	4.98	4.67
% recycled, combined	44%	45%	54%	62%	66%	65%	68%	72%	68%	66%	64%	63%

2020 goal: [Increase recycling rate by over 70% \(absolute as % of total nonhazardous waste\)](#). Current status: [increased to 63%](#)



## Waste—regulated

Legacy BD Legacy BARD BD + BARD combined

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Regulated waste (bio-hazardous and controlled waste)</b>												
Absolute (Metric tonnes), legacy Bard	0	0	0	0	0	0	0	0	0	5	187	276
Normalized (Metric tonnes per \$M COPS), legacy Bard	0	0	0	0	0	0	0	0	0	0	0.18	0.20
Absolute (Metric tonnes), legacy BD	196	181	707	1,504	858	687	1,028	1,216	1,117	1,095	934	1,015
Normalized (Metric tonnes per \$M COPS), legacy BD	0.04	0.04	0.14	0.28	0.16	0.12	0.17	0.22	0.17	0.18	0.12	0.13
Absolute (Metric tonnes), combined	196	181	707	1,504	858	687	1,028	1,216	1,117	1,101	1,121	1,291
Normalized (Metric tonnes per \$M COPS), combined <sup>*</sup>	0.03	0.03	0.12	0.23	0.13	0.10	0.14	0.18	0.14	0.15	0.13	0.14

<sup>\*</sup> Combined COPS were used to calculate normalized performance back to FY 2008 baseline.

## Waste—hazardous

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Hazardous waste generation</b>												
Absolute (Metric tonnes), legacy Bard	253	338	338	338	347	449	1,066	1,178	1,098	1,227	1,199	914
Normalized (Metric tonnes per \$M COPS), legacy Bard	0.27	0.36	0.33	0.31	0.31	0.38	0.85	0.91	0.82	0.85	1.18	0.66
% reduction, legacy Bard												-143%
Absolute (Metric tonnes), legacy BD	2,853	2,219	2,617	2,141	1,939	1,896	1,728	1,806	1,946	1,756	2,088	1,784
Normalized (Metric tonnes per \$M COPS), legacy BD	0.60	0.47	0.51	0.40	0.35	0.34	0.28	0.32	0.30	0.29	0.27	0.23
% reduction, legacy BD												61%
Absolute (Metric tonnes), combined	3,107	2,556	2,954	2,479	2,286	2,345	2,794	2,984	3,044	2,983	3,287	2,698
Normalized (Metric tonnes per \$M COPS), combined	0.55	0.45	0.48	0.39	0.34	0.34	0.38	0.43	0.39	0.39	0.38	0.30

2020 goal: Reduce hazardous waste by more than 60% (normalized by COPS). Current status: reduced by 45%

## VOC emissions

Legacy BD   Legacy BARD   BD + BARD combined

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>VOC emissions</b>												
Absolute (Metric tonnes), legacy Bard	-	-	-	-	-	-	-	-	-	-	182	155
Normalized (Metric tonnes per \$M COPS), legacy Bard	-	-	-	-	-	-	-	-	-	-	0.18	0.11
Absolute (Metric tonnes), legacy BD	339	139	116	113	134	123	139	138	151	191	225	207
Normalized (Metric tonnes per \$M COPS), legacy BD	0.07	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
Absolute (Metric tonnes), combined	339	139	116	113	134	123	139	138	151	191	407	362
Normalized (Metric tonnes per \$M COPS), combined <sup>*</sup>	0.06	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.05	0.04

<sup>\*</sup>Combined COPS were used to calculate normalized performance back to FY 2008 baseline.

## HAPs emissions

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>HAPs emissions</b>												
Absolute (Metric tonnes), legacy Bard	0	0	0	0	0	0	0	0	0	0	82	79
Normalized (Metric tonnes per \$M COPS), legacy Bard	0	0	0	0	0	0	0	0	0	0	0.08	0.06
Absolute (Metric tonnes), legacy BD	15	13	23	23	18	17	14	12	16	23	26	21
Normalized (Metric tonnes per \$M COPS), legacy BD	0.003	0.003	0.004	0.004	0.003	0.003	0.002	0.002	0.002	0.004	0.003	0.003
Absolute (Metric tonnes), combined	15	13	23	23	18	17	14	12	16	23	107	100
Normalized (Metric tonnes per \$M COPS), combined <sup>*</sup>	0.003	0.002	0.004	0.004	0.003	0.003	0.002	0.002	0.002	0.003	0.012	0.011

<sup>\*</sup>Combined COPS were used to calculate normalized performance back to FY 2008 baseline.

## VOC + HAPs emissions

Legacy BD Legacy BARD BD + BARD combined

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>HAPs emissions</b>												
Absolute (Metric tonnes), legacy Bard	0	0	0	0	0	0	0	0	0	0	264	235
Normalized (Metric tonnes per \$M COPS), legacy Bard	0	0	0	0	0	0	0	0	0	0	0.26	0.17
Absolute (Metric tonnes), legacy BD	355	152	138	137	152	141	153	150	167	214	251	228
Normalized (Metric tonnes per \$M COPS), legacy BD	0.07	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03
% reduction, legacy BD												60%
Absolute (Metric tonnes), combined	355	152	138	137	152	141	153	150	167	214	515	462
Normalized (Metric tonnes per \$M COPS), combined <sup>†</sup>	0.06	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.06	0.05

2020 goal: Reduce VOC and HAPs emissions by 65% (normalized by COPS). Current status: reduced by 18%

<sup>†</sup>Combined COPS were used to calculate normalized performance back to FY 2008 baseline.

## Ozone-depleting substances emissions

Measurement and UOM	FY 2008 baseline	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Ozone-depleting substances emissions</b>												
Absolute (Metric tonnes), legacy Bard	0	0	0	0	0	0	0	0	0	0	0	0.091
Normalized (Metric tonnes per \$M COPS), legacy Bard	0	0	0	0	0	0	0	0	0	0	0	0.00
Absolute (Metric tonnes), legacy BD <sup>†</sup>	339	274	249	254	235	236	228	218	192	185	172	103
Normalized (Metric tonnes per \$M COPS), legacy BD	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.01
% reduction, legacy BD												81%
<sup>†</sup> Legacy BD data has been restated in FY 2018, due to error detected in data calculation.												
Absolute (Metric tonnes), combined	339	274	249	254	235	236	228	218	192	185	172	104
Normalized (Metric tonnes per \$M COPS), combined <sup>†</sup>	0.06	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.01

2020 goal: Reduce ozone-depleting substance emissions by 95% (normalized by COPS). Current status: reduced by 81%

2020 goal: 100% elimination of use of HCFC141b in manufacturing. Current status: While a number of our facilities have completed conversion plans and eliminated the use of hydrochlorofluorocarbon (HCFC), we continue to make progress implementing conversion plans at remaining facilities and expect to complete all conversions as scheduled.

<sup>†</sup>Combined COPS were used to calculate normalized performance back to FY 2008 baseline.



# Empowerment

## Positive workforce and community impacts

### Introduction

We profoundly respect that what we do is for the good of people. That's why BD associates work with humanity and kindness across cultures, regions and relationships. It is the behavior that is necessary to be responsible global citizens. It is what it means to care.

#### 2020 goal

**Increase the diversity of our workplace, particularly in leadership roles**

At BD, we are committed to driving inclusion and diversity across our global organization by building and engaging strong and inclusive teams and individuals. We leverage their unique ideas, backgrounds and experiences to deliver better outcomes for our global marketplace. We've become a more inclusive organization, celebrating our diversity and embedding both in the BD Way: "Inclusion and diversity make us a stronger team." Our associates come from all backgrounds, races, ages, colors, creeds, religions, genders, orientations, abilities, thoughts and experiences, reflecting the communities we live and work in, the customers and patients we serve, and our broad range of thought and experience. Their diversity is an integral part of our success. We are better because of it and we all share the responsibility to drive our culture of inclusion, where all associates feel they belong at all times.

### Associate Resource Groups

We look to our Associate Resource Groups (ARGs) to provide insights and counsel on how BD can best attract, develop and retain diverse talent in ways that meet their unique needs, drive business improvement and innovation, and help us to continually commit to being a socially responsible community partner. Our ARGs raise awareness and celebrate the differences that make us unique, while ensuring our associates feel a sense of belonging, and contribute to our business goals. Our first ARG—the Women's Initiative Network (WIN)—launched in 2015 and we have continuously added additional ARGs since that time. This year, we successfully launched two more ARGs:

- LimitlessBD, whose mission is to raise awareness of people's unique abilities and ensures a supportive environment where those impacted are continually advancing to their fullest potential; and
- Network for Employee-led Cross-Company Transformation (NEXT), whose mission is to foster a community that empowers associates looking to lead BD in the cross-company transformation of culture, policy and capabilities.

We now have eight ARGs, each with at least one member of our Executive Leadership team as an executive sponsor. The ARGs

create professional development opportunities for associates through peer mentoring, leadership and networking. Each ARG aligns its mission with the inclusion and diversity strategy and establishes annual impact objectives that affect our culture, business, community and associate professional development.

This year, our ARGs focused efforts on diversity recruiting. BD supports organizations like the National Black MBA Association, Society of Women Engineers, National Sales Network and MVPvets. Our ARGs also identified areas to improve supplier diversity, influence company policies, programs and technology and continued building cultural competence and awareness. In partnership with our CEO, Tom Polen, ARGs provided quarterly career development sessions, open to all associates globally, engaging senior leaders to share stories of their personal career pursuits, challenges encountered and the resulting lessons learned. ARGs were also instrumental in addressing community-based needs by supporting organizations like the Human Rights Campaign, First Robotics and Special Olympics of New Jersey. They also partnered with organizations like Girl Scouts of the USA for a day of mentoring, Rise Against Hunger for our MLK Day of Service and Heart to Heart International, supporting asylum seekers at the U.S. border.

## Global Inclusion Council

BD continued leadership engagement in inclusion and diversity in 2019 through our Global Inclusion Council, made up of senior leaders representing each business, region and function across the global enterprise. The council continues to advance inclusion and diversity to drive innovation and growth, ensuring a better understanding of our organizational needs and making BD the best possible place for all people to work. Each year, council members and their respective executive leaders identify inclusion and diversity priorities and associated objectives and metrics to work towards over the course of the year. This year, the council's top priority was to lay a foundation of education for all associates

on conscious inclusion, opening our associates to greater awareness of their personal biases and reaffirming the conscious behaviors and decision-making that drive our culture of inclusion. Council members identified leaders to be trained to deliver the learning content to associates within their respective organizations and across the enterprise, resulting in approximately 250 leader teachers. The training continues as we enter 2020 and will remain a priority for the council, along with designing future learning curriculum to build upon the foundation established.

## Recognition

We are proud that our inclusion and diversity efforts have not only been instrumental to shaping our culture and impactful to our associates at BD but have also afforded us recognition by leading external organizations in inclusion and diversity. In 2019, BD was recognized for gender diversity by, among others, the Women's Forum of New York, Executive Women of New Jersey, Society of Women Engineers and the Australian Government's Workplace Gender Equality Agency.

For the first time, BD was named as a Best Place to Work for Disability Inclusion with a score of 90 on Disability:IN's 2019 Disability Equality Index® (DEI). The DEI is a joint initiative by Disability:IN and the American Association of People with Disabilities (AAPD), and is considered the most comprehensive benchmarking tool for corporate disability inclusion developed by disability advocates and business leaders.

For the third consecutive year, BD was named to the 2020 list of Best Places to Work for LGBT Equality by the Human Rights Campaign and received a 100% score on its Corporate Equality Index (CEI). The CEI recognizes companies who have taken concrete steps to ensure greater equity for LGBTQ workers and their families in the form of comprehensive policies, benefits and practices. In addition to our internal work this year, BD actively lobbied for the Equality Act, demonstrating our support for consistent and explicit nondiscrimination protections for the LGBT community in the United States. BD also became a signatory for the United Nations' LGBTI Business Standards and Open for Business, further demonstrating our commitment to equality and inclusion for the global LGBT+ community.

Finally, in 2019, we also increased our leadership role in industry-specific inclusion and diversity advocacy. BD is one of several peer companies playing a leadership role in AdvaMed's efforts to leverage collective expertise to help other U.S. medical

technology companies achieve meaningful progress in improving the representation of diversity throughout the leadership pipeline. With our Chairman, Vince Forlenza, on the AdvaMed Board's Inclusion & Diversity (I&D) Committee and our VP of I&D, Johnel Evans, a subcommittee member, BD is highly engaged and actively working towards improving diversity in the medical technology industry.

In FY 2020 and beyond, we are challenging ourselves to further mature our inclusion and diversity commitment, programs and impact. Next year, through our ARGs, we will focus on encouraging a culture of greater dialogue. And, through our I&D Center of Excellence, we will develop a new 3-year inclusion and diversity strategy to continue advancing our efforts and meeting the needs of our culture and our talent.



### Leadership representation metrics

	End of FY 2016	End of FY 2017	End of FY 2018	End of FY 2019
Executive gender	22%	21%	23%	25%
Management gender	37%	38%	39%	39%
Executive ethnicity	14%	17%	17%	18%
Management ethnicity	26%	27%	27%	26%

FY 2019 data includes Bard associates.

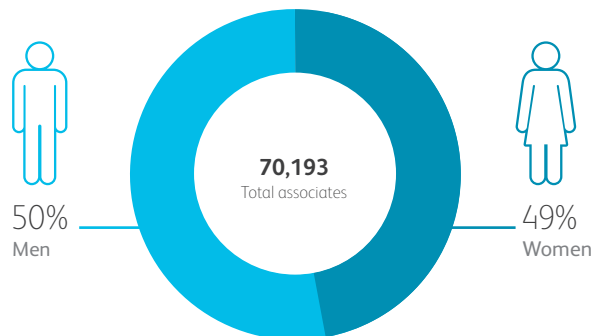
## Demographic data

In this section of the report, the total number of associates being reported is 70,193, which includes Bard associates.

As part of the integration activities following the acquisition of Bard, BD worked to incorporate Bard associates into our single HR IT system. FY 2019 is the first reporting year to reflect this change in data; FY 2019 forward will include Bard associates. All reporting data for years previous to FY 2019 does not include Bard associates.

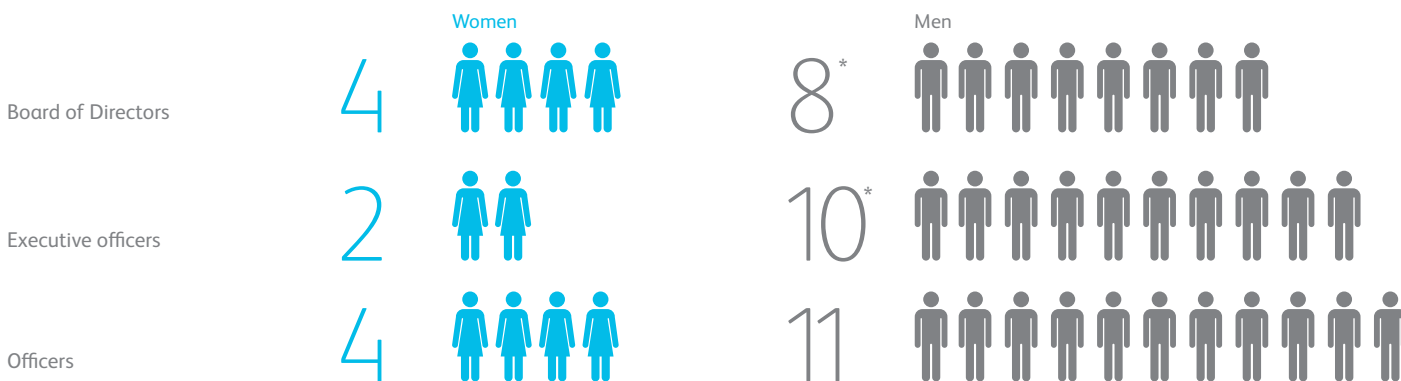
In the charts below, “other” is defined as people who do not identify as those ethnicities listed above, or who identify as more than one ethnicity, and “not disclosed” indicates that the associate chose not to answer.

### FY 2019 worldwide associates by gender



In FY 2019, gender was not disclosed for 1% of the dataset.

### Gender breakdown of the Board of Directors and executive officers



2019 Board of Directors—ethnicity	
Asian/Indian	0
Black or African American	1
Hispanic/Latino	0
Other	0
White	11

\*Includes Vincent A. Forlenza, Chairman of the Board and former CEO.

## Executive and management positions

For the following tables, the total number of associates for each disclosure in executive and management positions is noted in the corresponding table. Bard associates are included in FY 2019 data.

Executives and management positions by gender (worldwide)								
	Executive				Management			
	FY 2016	FY 2017	FY 2018	FY 2019 BD+BARD	FY 2016	FY 2017	FY 2018	FY 2019 BD+BARD
Female	22%	21%	23%	25%	38%	38%	39%	39%
Male	78%	79%	77%	75%	62%	62%	61%	61%
<b>Total associates</b>	<b>295</b>	<b>280</b>	<b>283</b>	<b>354</b>	<b>6,923</b>	<b>7,340</b>	<b>7,722</b>	<b>10,074</b>

BD defines executives as those in VP, SVP or EVP roles. Management positions are defined as those in manager, director or equivalent roles. FY 2019 reporting numbers include Bard associates. All previous years excluded Bard associates.

Executive and management positions by age (worldwide)								
	Executive				Management			
	FY 2016	FY 2017	FY 2018	FY 2019 BD+BARD	FY 2016	FY 2017	FY 2018	FY 2019 BD+BARD
Under 35	0%	1%	0%	0%	11%	11%	11%	11%
35–54	72%	70%	68%	72%	72%	72%	72%	72%
55 and older	27%	29%	32%	28%	17%	17%	17%	17%
<b>Total associates</b>	<b>295</b>	<b>280</b>	<b>283</b>	<b>354</b>	<b>6,923</b>	<b>7,340</b>	<b>7,722</b>	<b>10,074</b>

BD defines executives as those in VP, SVP or EVP roles. Management positions are defined as those in manager, director or equivalent roles. FY 2019 reporting numbers include Bard associates. All previous years excluded Bard associates.

Executive and management positions by ethnicity (U.S. only)								
	Executive				Management			
	FY 2016	FY 2017	FY 2018	FY 2019 BD+BARD	FY 2016	FY 2017	FY 2018	FY 2019 BD+BARD
Asian/Indian	9%	11%	10%	10%	14%	15%	14%	14%
Black or African American	3%	3%	2%	3%	4%	4%	4%	3%
Hispanic/Latino	2%	3%	4%	4%	5%	7%	7%	8%
Not disclosed	5%	2%	3%	4%	4%	3%	5%	5%
Other	0%	1%	1%	1%	3%	2%	2%	1%
White	81%	81%	80%	78%	71%	71%	68%	69%
<b>Total associates</b>	<b>237</b>	<b>225</b>	<b>225</b>	<b>291</b>	<b>4,354</b>	<b>4,555</b>	<b>4,698</b>	<b>6,027</b>

BD defines executives as those in VP, SVP or EVP roles. Management positions are defined as those in manager, director or equivalent roles. FY 2019 reporting numbers include Bard associates. All previous years excluded Bard associates.

## Associates

For the following tables, the total number of associates for each disclosure is noted in the corresponding table. Bard associates are included in FY 2019 data.

Associates by age (worldwide)				
	FY 2016	FY 2017	FY 2018	FY 2019
Under 35	35%	36%	32%	38%
35–54	52%	51%	54%	50%
55 and older	12%	12%	14%	12%
<b>Total associates</b>	<b>45,814</b>	<b>47,750</b>	<b>43,581</b>	<b>70,193</b>

In 2016 and 2017, age was not disclosed for 1% of the dataset. Workforce includes all associates, both management and nonmanagement. FY 2019 reporting numbers include Bard associates. All previous years excluded Bard associates.

Associates by ethnicity (U.S. only)				
	FY 2016	FY 2017	FY 2018	FY 2019
Asian/Indian	13%	13%	13%	11%
Black or African American	7%	8%	8%	9%
Hispanic/Latino	13%	16%	15%	16%
Not disclosed	5%	3%	2%	9%
Other	3%	2%	7%	2%
White	59%	59%	55%	54%
<b>Total associates</b>	<b>17,375</b>	<b>17,528</b>	<b>17,943</b>	<b>24,216</b>

Ethnicity data reflects that of the U.S. workforce including Alaska and Hawaii, but excluding Puerto Rico or any other U.S. territories. Workforce includes all associates, both management and nonmanagement. FY 2019 reporting numbers include Bard associates. All previous years excluded Bard associates.

New hire rate by age (worldwide)				
	FY 2016	FY 2017	FY 2018	FY 2019
Under 35	10%	13%	13%	20%
35–54	6%	5%	7%	7%
55 and older	1%	0%	1%	1%

Workforce includes all associates, both management and nonmanagement. FY 2019 reporting numbers include Bard associates. All previous years excluded Bard associates.

New hire rate by gender (worldwide)				
	FY 2016	FY 2017	FY 2018	FY 2019 +BARD
Female	8%	10%	9%	15%
Male	9%	9%	11%	14%

Workforce includes all associates, both management and nonmanagement. FY 2019 reporting numbers include Bard associates. All previous years excluded Bard associates.

Turnover rate by age (worldwide)				
	FY 2016	FY 2017	FY 2018	FY 2019
Under 35	13%	15%	8%	10%
35–54	7%	7%	6%	3%
55 and older	13%	2%	2%	3%

By turnovers, we mean the associates in the workforce who were with the company on the last day of the previous financial year (September 30, 2018) but no longer with the company in the reporting time period. Workforce includes all associates, both management and nonmanagement. FY 2019 reporting numbers include Bard associates. All previous years excluded Bard associates.

Turnover rate by gender (worldwide)				
	FY 2016	FY 2017	FY 2018	FY 2019
Female	12%	14%	8%	6%
Male	9%	10%	9%	5%

By turnovers, we mean the associates in the workforce who were with the company on the last day of the previous financial year (September 30, 2018) but no longer with the company in the reporting time period. Workforce includes all associates, both management and nonmanagement. FY 2019 reporting numbers include Bard associates. All previous years excluded Bard associates.



2020 goal

**Achieve best-in-class associate safety performance**

At BD, safety is our priority. Our EHS efforts are driven by the goal of ensuring all associates are working safely and in an environment designed to protect and maintain health.

Our work in FY 2019 sought to continue our EHS integration work across BD and Bard. We completed BD corporate audits for all legacy Bard facilities against the BD corporate standard, and have laid the groundwork to transition to a new governance model that enables us to standardize high-level EHS objectives as one BD. This will allow us to drive objectives core to the organization directly to our sites in a more systemic fashion and will streamline EHS communications, ultimately facilitating an effective integration of two EHS cultures. This project culminated in the establishment of a global advisory council consisting of business units, EHS and regional leaders—this council began meeting in early FY 2020 to solidify the work systems moving forward. In addition to our focus on designing a

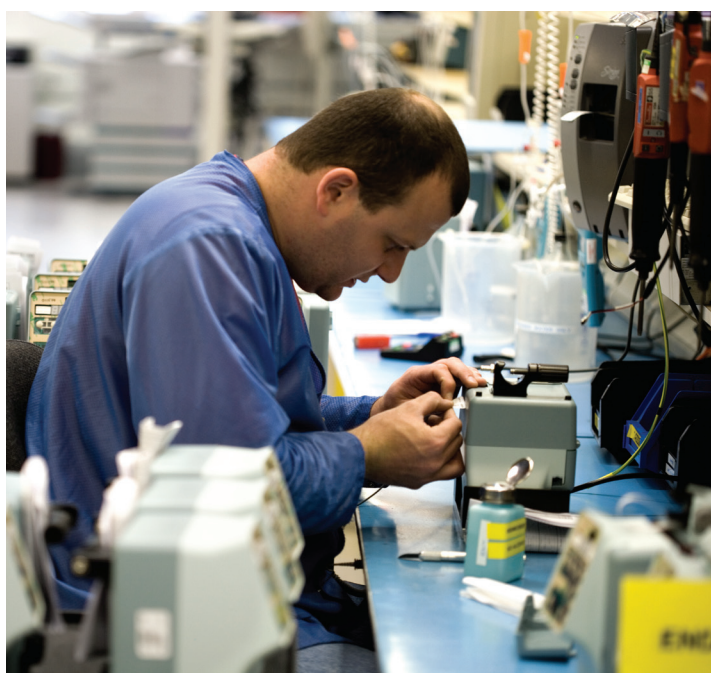
new governance model, we also worked to design a new audit model that will be launched in FY 2020 taking into consideration the depth and breadth of our new organization.

BD continues to reinforce systems that strengthen our goal to drive a culture in which the health and well-being of our associates, visitors and contractors are an integral part of every decision we make at BD. Instrumental in driving this vision is the continuation of programs that drive management and leadership engagement, peer-to-peer coaching, and education and training.

Further details about our EHS management programs, please see EHS management in the **Efficiency** section of this report.

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
LTIFR* per 200,000 hours worked									0.29	0.32	0.26	0.24
OIFR† per 200,000 hours worked									0.004	0.03	0.00	0.00
Occupational IIR‡ rate per 200,000 hours worked	1.4	1.2	1.1	1.0	1.0	0.9	1.1	0.9	0.7	0.7	0.6	0.51

Data provided reflects manufacturing sites only.  
 FY 2008–FY 2017, excludes Bard.  
 \*Lost time injury frequency rate (LTIFR)  
 †Occupational illness frequency rate (OIFR)  
 ‡Occupational injury and illness rate (IIR)  
 There have been no fatalities since 2014.

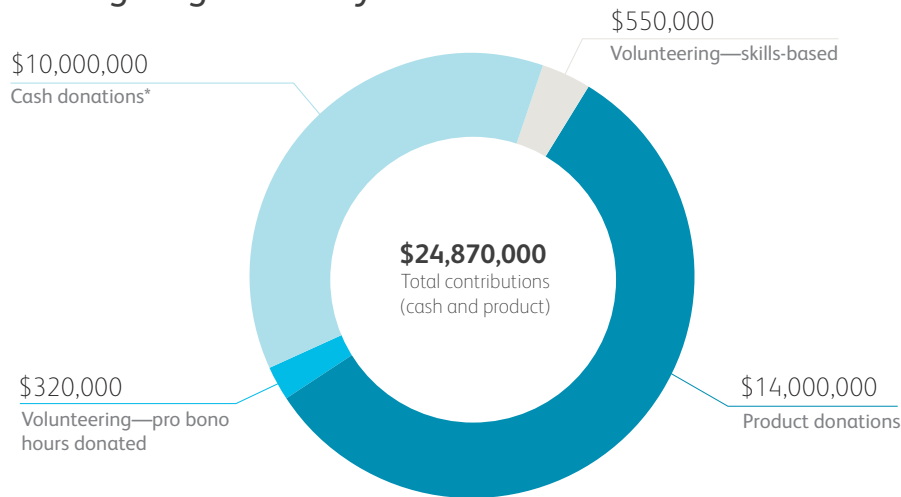


# Social Investing

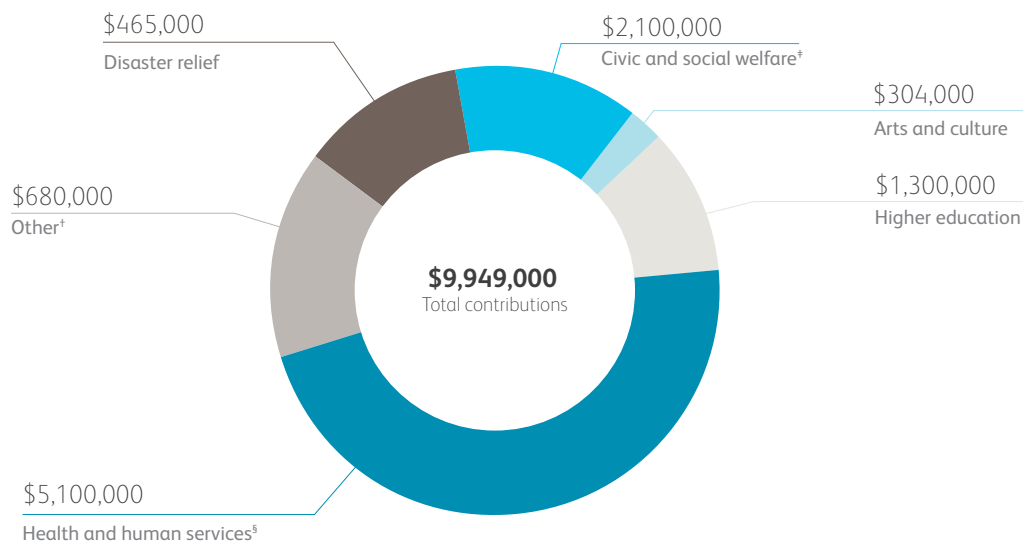
## Charitable giving summary, by the numbers

Total cash donations	<b>\$10 million</b>
Total product donations	<b>\$14 million</b>
Value of company match to associate donations	<b>\$1.7 million</b>
Number of grants issued, worldwide	<b>472</b>
Number of nonprofit beneficiaries	<b>415</b>
Number of matching gifts distributed	<b>13,000</b>

## FY 2019 charitable giving summary



## FY 2019 cash contributions



\*Includes matching gifts and contributions from individual BD locations

†Includes inclusion and diversity and volunteer associate engagement

‡Includes basic needs/hometown giving

§Includes care for the uninsured/underinsured, diabetes and prevention, global health, infection prevention, maternal and newborn health, vaccine preventable diseases, women's health, cancer and other health

**Partner with nonprofits to address unmet needs, locally and globally**

## BD Helping Build Healthy Communities™ Initiative

Community health centers are on the front lines, every day, providing life-saving care to more than 29 million people in vulnerable rural and urban communities across the United States.

Without these community-based “family doctors,” millions of uninsured and underinsured patients would go without healthcare.

Implemented in partnership with [Direct Relief](#) and [the National Association of Community Health Centers](#), the BD Helping Build Healthy Communities™ Program awards grants to community health centers to support the implementation of innovative approaches to meeting the unique healthcare needs of local, underserved and vulnerable populations.

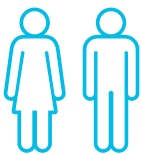
- In FY 2019, the program’s 7th year, BD invested \$1.2 million, with 6 health centers each receiving \$200,000.
- Clinical data indicates that this funding is having a meaningful impact in the grant winners’ ability to expand access to quality patient care, particularly among patients with diabetes, hypertension, depression and difficulty with medication compliance.
- In FY 2020, BD will continue to work with Direct Relief to monitor the longer-term clinical impacts this funding is having on patient care.



### BD Helping Build Healthy Communities™ Initiative, by the numbers



Product donations have reached **400,000 patients**.



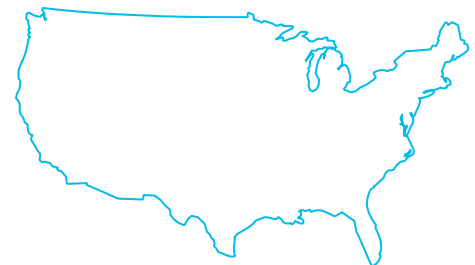
Health outcomes of **65,000 patients** have been improved through our cash support.



**42 grants**, totaling **\$5.8 million**, have been issued to community health centers in **20 states**.

BD has provided Direct Relief with more than **34 million insulin syringes** and **720,000 pen needles**, valued at **\$9.9 million**.

These items have been distributed to **1,300** community health centers, free clinics and community clinics in **all 50 states and Puerto Rico**.



## Expanding on program success

In response to the success of the BD Helping Build Healthy Communities™ Program, and to reach an even broader vulnerable population, BD worked with the [National Association of Free and Charitable Clinics \(NAFC\)](#) to introduce three companion programs in 2017, which support free and charitable clinics.

One of these programs, the [BD® Advancing Community Health: Enhancing Clinical Effectiveness Program](#), was co-developed with [Heart to Heart International](#). It aims to improve the diagnosis and treatment of chronic disease among vulnerable populations through the installation of point-of-care (POC) laboratories.

## Strategic product donation

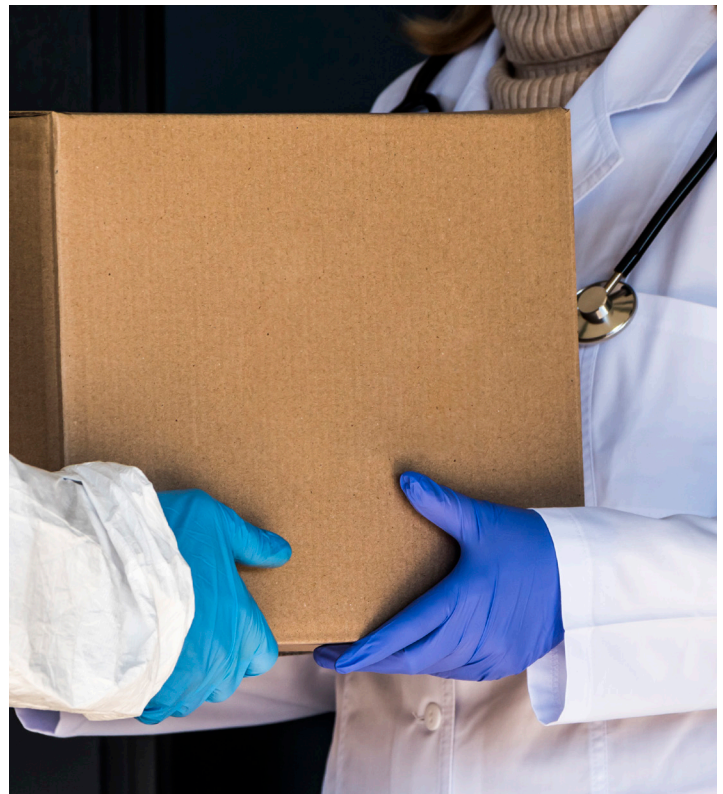
For more than a decade, BD has partnered with international relief agencies, such as Direct Relief, AmeriCares, MAP International and Heart to Heart International, to ensure its supplies and financial support are deployed as quickly and efficiently as possible to the people and communities who need them most. Notable FY 2019 product donations include:

- [\\$1 million in insulin syringes, pen needles, swabs and lancets](#) to 150+ summer camps for children with type 1 diabetes via [Direct Relief](#).

Through this program in FY 2019:

- BD awarded \$360,000 in funding and \$14,000 in product to support lab installations at six community clinics located in Indiana, Georgia, Maryland, Mississippi, Virginia and Louisiana.
- BD associate volunteers were deployed to six clinics, and spent 2–3 days each, providing mentorship, laboratory set up guidance and diagnostic training.

- [600,000 syringes, swabs and sharps containers](#) donated to Direct Relief for distribution to U.S. community health centers to accompany Pfizer's Naloxone product donations for people experiencing a drug overdose in [49 states and territories](#). The impact of this donation has contributed to [saving an estimated 10,000 lives](#) that would have been lost to drug use.
- [\\$1.3 million in instrument donations](#) (BD FACSymphony™ System, BD FACSMelody™ Cell Sorter, BD FACSLytic™ System) to [Johns Hopkins Bloomberg School of Public Health's Immune Function Lab](#) to support interdisciplinary, translational research efforts.



**Drive social impact and associate engagement through volunteer programs**

## BD Volunteer Service Trip Program

Having celebrated its 15th year in 2019, the company's Volunteer Service Trip (VST) Program sends teams of BD associates to developing countries to help strengthen local health systems through training, education, laboratory services and construction projects. In FY 2019:

- 14 BD associates completed the company's second VST to Mexico, where they continued efforts to serve Casa de la Amistad, a nongovernmental organization that provides comprehensive services to pediatric cancer patients and their caregivers. The team continued work on projects ranging from business development, marketing and program management to space utilization, process efficiency and IT.
- 17 BD associates completed a VST to Haiti, where they worked with Heart to Heart International to provide training

to help local healthcare workers, nurses and lab technicians improve the quality of care they deliver to thousands of local families living in poverty. The volunteers also completed construction projects to strengthen the infrastructure of a local healthcare clinic, which provides health services to 3,000 vulnerable women.

- 29 BD associates from our Humacao, Puerto Rico site took part in a 2-day, local VST to transform a local school—which had been closed since Hurricane Maria—into a thriving community center that offers a health clinic, health fairs, summer camps and serves as a disaster relief shelter. This project was accepted as a Clinton Global Initiative (CGI) Commitment to Action.



# BD Volunteer Service Trips, by the numbers

 **14** years of VST programs

 **89** BD sites, globally

 **262** BD volunteers

 **33** country locations

## Henry P. Becton Volunteer Impact Awards

These global awards celebrate the outstanding and creative volunteer service of BD associates. In FY 2019, BD awarded grants totaling \$80,000 to 14 nonprofit organizations around the world, recognizing the community service of 14 associates from 3 countries.

  
**\$80,000**  
in grants

  
**14**  
nonprofit organizations

  
**14**  
BD associates recognized for volunteerism



## Dr. Martin Luther King Jr. Day of Service

BD is committed to encouraging associates around the world to join together to serve their local communities through volunteerism—with the goal of bringing our company's values to life, while making meaningful differences in the communities where they live and work.

As just a single example of this team-based volunteerism, in 2019, 1,000+ BD associates at 14 sites across the United States celebrated the Dr. Martin Luther King Jr. Day of Service by packaging 260,000+ meals over 3 days for Rise Against Hunger programs. BD associate resource groups, including the Women's Initiative Network (WIN) and African Americans at BD (AABD) helped coordinate the event at several sites, as did local associate volunteer councils at each location. In FY 2020, BD associates are aiming to reach the ambitious goal of packing their one-millionth meal for Rise Against Hunger through this day of service initiative.



## World Water Day

BD collaborated with the Planet Water Foundation to celebrate World Water Day by deploying 22 BD associates to volunteer 132 hours to Project 24, a 1-day volunteer effort that brought clean water to 18,000 people, and health and hygiene education and lasting change to 18 communities in 4 countries. In a later deployment, a second team of 10 BD volunteers from Mexico participated in another 1-day service project to construct a water tower serving 360 students and 2,500 residents of the community of San Jacinto.



## BD Matching Gift Program

BD matches charitable donations to eligible nonprofit organizations, up to \$5,000 per U.S. associate, per year. In FY 2019, BD matched 30,000+ associate donations to 501(c)(3) organizations in the United States, for a total investment of \$1.7 million.

In FY 2018, BD harmonized its matching gift program with Bard's to ensure all associates receive the same match for their FY 2019 community giving. In 2019, BD expanded its Annual Payroll Deduction Campaign to include legacy Bard associates.



# Awards, recognitions and affiliations

## Corporate recognition

Dow Jones Sustainability North America Index since 2005

*Forbes* Just 100 list

*FORTUNE*'s 2019 World's Most Admired Companies list

*FORTUNE*'s 2019 Change the World list

FTSE4Good Index since 2003

*CR Magazine*'s 100 Best Corporate Citizens List

2019 CPA-Zicklin Index on Corporate Political Disclosure and Accountability—Center for Political Accountability

*Newsweek*'s America's Most Responsible Companies List

## Innovation

2020 Derwent Top 100 Global Innovators list—Clarivate Analytics

## Efficiency

U.S. EPA Green Power Partner

U.S. EPA SmartWay® Transport Partner

## Empowerment

Best Places to Work for LGBTQ Equality—Human Rights Campaign Foundation

Bloomberg—2020 Gender Equality Index

Disability Equality Index - Best Places to Work—The American Association of People with Disabilities and Disability

Employer of Choice for Gender Equality—Australia Workplace Gender Equality Agency (Australia)

*Forbes* Best Employers for Diversity 2020

Top Employers Africa 2019—Top Employers Institute (Africa)

Top Employers China 2019—Top Employers Institute (China)

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In Collaboration with RobecoSAM



FTSE4Good





To find out more about sustainability at BD or to provide feedback on our reporting, please contact [BD\\_Sustainability\\_Office@bd.com](mailto:BD_Sustainability_Office@bd.com)

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