lll Bristol Myers Squibb™







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About Our Global Access Report

About Bristol Myers Squibb

We are a global biopharmaceutical company whose mission is to discover, develop and deliver innovative medicines that help patients prevail over serious diseases. Our vision is to be the world's leading biopharmaceutical company that transforms patients' lives through science. At Bristol Myers Squibb (BMS), we are about breakthroughs—the kind that transform patients' lives through lifesaving, innovative medicines. Our business combines the agility of a biotech with the reach and resources of an established pharmaceutical company to create a leading global biopharmaceutical company.

To our patients and customers, workforce, global communities, shareholders, environment and other stakeholders, we promise to act on our belief that the priceless ingredient of every product is the integrity of its maker. We operate with effective governance and high standards of ethical behavior. We seek transparency and dialogue with our stakeholders to improve our understanding of their needs. We take our commitment to economic, social and environmental sustainability seriously, and extend this expectation to our partners and suppliers. As a responsible corporate citizen, we seek to actively improve the health of the communities where we live, work and serve. Around the globe, we promote health equity and seek to promote health outcomes for populations affected by serious diseases. We believe our inclusive culture supports better outcomes for all patients, and we seek diversity in all aspects of our business.



BMS and the United Nations Global Compact & Sustainable **Development Goals**

In 2010, BMS signed the United Nations (UN) Global Compact, which seeks to mobilize a global movement of responsible private sector enterprises that embed sustainability into their core strategies and operations and take actions to advance societal goals and the implementation of the UN Sustainable Development Goals (SDGs). For the last decade, we have submitted our annual Communication of Progress under the Advanced category. The BMS mission, values and purpose fully align with the SDGs. Since 2016, BMS has reported progress toward seven targets within Goal 3, Good Health and Well-Being, in alignment with the separate non-profit entities the BMS Foundation and the BMS Patient Assistance Foundation.



Primary







Secondary





















About This Report

This Global Access Report lays out Bristol Myers Squibb's efforts and progress towards advancing access to healthcare and health equity globally through its own efforts and in partnership with other stakeholders.

The main sections of the Report provide additional information on our access approach and the related contributions referenced in our Environmental, Social and Governance (ESG) Report, including science, partnership and access-specific initiatives of the company:

- Access strategy development & oversight.
- Research & Development partnerships & collaborations.
- Advancing diversity in clinical trials.
- Addressing the social determinants of health & advancing health equity.
- · Healthcare capacity building & optimization.

- Piloting demonstration & scaling projects to supply medicines and test for health systems capacity, feasibility, and effective use of medicines.
- Facilitating timely access through a variety of levers including rapid registration, value-based pricing, patient support and reimbursement programs, product donations, tiered pricing, voluntary licensing, and direct imports.

Finally, we cover the philanthropic contributions to the access agenda of the Bristol Myers Squibb Foundation, an independent charitable organization focusing on areas of the global sustainable development agenda strategically aligned with the knowledge and expertise of BMS. For over 20 years the BMS Foundation has had a sole focus on health equity and has served as an innovation hub for developing and strengthening health systems around the world. This section focuses on their efforts in low- and middle-income countries.

Bristol Myers Squibb is about breakthroughs—the kind that transform patients' lives through lifesaving, innovative medicines. We promote health equity and seek to promote health outcomes for populations affected by serious diseases.



Our Approach: Selected Highlights

OUR MISSION is to discover, develop and deliver innovative medicines that help patients prevail over serious diseases.

Building on Science



\$11.1B

2020 investment in R&D.

>350

Clinical Trials in over 20 tumor types: The Global **Experts Centers** Initiative (GECI) a research platform launched by BMS to accelerate oncology drug Development.

350 investigators - 250 research projects:

The II-ON (International Immuno-Oncology Network) is a global peer-to-peer collaboration between BMS and academia that aims to advance cancer research and translational medicine.

programs across nearly 20 diseases: Our immunology franchise teams work to identify mechanisms that may help the body control inflammation, reset the immune system and promote balance in immune response.

expert patient organizations: The Patient Expert Engagement Resource (PEER) ensures that the patient perspective is heard and considered along the drug discovery and development process: all pivotal trial protocols include expert patient advocate engagement prior to internal sign-off.

Advancing Healthcare Capacity & Infrastructure



>31,000 participants from 148 countries &

300 advocacy organizations have visited the Advocacy Exchange, the largest cross-disease, crosscultural knowledge exchange platform of its kind, co-launched in . 2020 by BMS and GRYT Health.

100,000 healthcare professionals in Africa, Asia and Latin America: With BMS' support, the Ecancer Global Foundation is planning oncology educational events and state-of-the-art e-learning courses in multiple languages, focusing on clinical decision making for patients with cancer.

healthcare 2.000 professionals **involved** & now >61,000 followers of the 1st Facebook page dedicated to African Americans affected by Multiple Myeloma: The Standing the Gaap initiative increases awareness about how Multiple Myeloma affects African Americans differently.

14,000 expected participants across Africa and India Oncology knowledge repository for healthcare professionals by the King Baudouin Foundation with BMS' support.

patient outreach programs, >150 healthcare >200 professionals trained by world-leading cancer centers and societies through the Cancer Care Links program, to address cancer care capacity building in resource-constrained countries.

Expanding Access to our Medicines



BMS is committed to providing access to its prescription medicines, including for underserved communities.

product \$692M donations in US via patient assistance programs.

Countries 26M Packs

122

2.1M Patient years of treatment

122 countries/ 26 million packs/ 2.1 million patient years of treatment: BMS agreement with the Medicine Patent Pool (MPP) allows for generic manufacturing of the HIV product atazanavir for sale in 122 countries.

product \$1.5B donations in US via independent charitable organizations.

143 Countries

1.2M Patients reached

143 countries/ 1.2 million patients reached as of 2021: BMS agreement with the Medicine Patent Pool (MPP) allows for generic manufacturing of the Hepatitis C product daclatasvir for sale in 143 countries.



Global leadership in partnerships for impact

Advancing access to advanced therapies is a shared responsibility that requires partnership with a broad range of actors, from patients and communities to healthcare providers, payers, and governments, and from private sector entities to civil society organizations. Bristol Myers Squibb is proud to join hands with other key stakeholders to improve healthcare systems and access to innovative medicines.



Executive Summary

Section 1: Our Commitment to Access and Health Equity

Many of Bristol Myers Squibb's medicines are breakthroughs in innovation, resulting in truly differentiated treatments that have changed the standard of care and help patients live longer and healthier lives. We firmly believe that prescription medicines are such a vital part of human healthcare that everyone who needs them should have access to them. As part of our sustainability commitment, we have been, and remain committed to, facilitating access to our medicines and to furthering our mission to help patients prevail over serious diseases.



50%

Estimated share of global population who cannot obtain essential healthcare services



2 BILLION

Estimated number of people without access to essential medicines

"We believe that all patients should have access to transformational medicines, regardless of where they live. Working with a diverse network of partners, BMS has programs globally to help strengthen health systems capacity and access to treatments for serious diseases. Through collaboration and partnership with governments and other key stakeholders, we believe it is possible to address systemic barriers to access in healthcare."

Giovanni Caforio, M.D., Chairman of the Board and Chief Executive Officer, Bristol Myers Squibb

Despite therapeutic advances, it is estimated that at least half of the world's population cannot obtain essential healthcare services,¹ and two billion people have no access to essential medicines.² Timely access to safe, effective, and quality medicines is a complex issue which is interrelated with health equity: one cannot be fully achieved without addressing the other. It includes addressing systemic barriers to accessing healthcare and ensuring that medicines are available, accessible, and appropriately used. Barriers vary by context and overcoming them requires concerted efforts from across sectors and society.

At Bristol Myers Squibb, we promote health equity globally and strive to increase access to life-saving medicines for populations affected by serious diseases and conditions, giving hope and help to some of the world's most vulnerable people. We take an intentional approach to enabling broad access, working in partnership with governments and other key stakeholders. This involves following a robust access strategy development process. Access and equity considerations are incorporated throughout the product lifecycle with oversight of our most senior leadership.

Section 2: Our Contribution to Access Globally

Our Approach to Access Builds on Science

We focus our innovation engine on the most critical unmet medical needs and involve patients at every step of the R&D process. BMS also collaborates with other stakeholders to strengthen global R&D and help advance biomedical research beyond our strategic portfolio. We incorporate access considerations with a view to ensuring our medicines can benefit diverse patient populations in a variety of contexts. This includes our long-term work to advance diversity in clinical trials which directly confronts disparities early in the product development lifecycle.

We Partner to Advance Healthcare Capacity & Infrastructure Solutions

We work with our partners to address some of the most important access and health equity challenges globally.

Our focus is on patient and provider solutions that advance access and health equity by addressing social determinants of health (SDOH) barriers along the patient journey. Understanding the role of SDOH in shaping health and healthcare outcomes guides our work in addressing disparities globally.

We have long pioneered initiatives for access to HIV and Hepatitis C medicines in low- and middle-income countries (LMICs). This experience is an example of how we have challenged ourselves to do things differently and create new access strategies and platforms. We have taken important steps to address cancer as a significant non-communicable disease (NCD). Specialty care capacity and infrastructure are critical to enabling future access to our innovations in cancer, hematologic disease, cardiovascular disease, and immunologic disease in LMICs. We also partner to strengthen health systems. This includes adopting a broad approach to building capacity for specific diseases, and piloting demonstration and scaling projects to test for health systems capacity, feasibility, and effective and sustainable use of our innovative medicines in specific contexts.

We Strive to Enable Timely Access to Our Medicines for Patients Who Need Them

To enable timely access, Bristol Myers Squibb engages in marketing authorization, value assessment and reimbursement processes. BMS is also supportive of other mechanisms that can help make medicines available (e.g., WHO prequalification) where appropriate.

We aim to meet health systems where they are by deploying a range of delivery approaches that take into consideration local country context to optimize supply chain and distribution as well as ensure affordability for the greatest number of patients. This includes value-based pricing, patient support and reimbursement programs, product donations, tiered pricing, voluntary licensing, and direct imports.

Section 3: The Road Ahead

Advancing access and health equity is a shared responsibility and requires more recognition and concerted action from across a broad range of actors, including patients, communities, healthcare providers, payers, governments, private sector entities, and civil society organizations.

Bristol Myers Squibb is committed to driving positive change through innovation. As we continue to help patients prevail over serious diseases, we steadfastly uphold our commitment to work with other stakeholders to address the root causes that underpin disparities in access, and to strengthen health systems capacity and infrastructure for specialty care so that our innovations reach patients who need them, irrespective of socioeconomic status, geography, or background.



Section 1: Our Commitment to Access and Health Equity

Bristol Myers Squibb promotes health equity globally and strives to increase access to lifesaving medicines for populations affected by serious diseases and conditions, giving hope and help to some of the world's most vulnerable people. We take an intentional approach to enabling broad access for different patient populations, irrespective of their socioeconomic status, geography, or background.

We Take an Intentional Approach to **Enabling Broad Access**

Timely access to safe, effective, and quality medicines is a complex issue and varies by context. We understand that access to innovative medicines and health equity are interrelated: one cannot be fully achieved without addressing the other. For example, BMS' Health Equity Initiative aims to

ensure a fair and just opportunity for all patients to achieve optimal health outcomes. Solutions to advancing access to healthcare and medicines must be holistic, address broad systemic barriers and involve stakeholders from across society and sectors – from patients and communities to healthcare providers, payers, and governments, and from private sector entities to civil society organizations. They must be tailored and adapted to the circumstances.

There is no standard, simple response to overcoming access barriers, and at Bristol Myers Squibb we recognize the important role we play as a leading biopharmaceutical company, in partnership with governments and other key stakeholders. We work hard to develop treatments that address critical unmet medical needs and to enhance access. We advocate for sustainable healthcare policies and infrastructure and continue to improve access to healthcare as well as supportive services for patients through partnerships and demonstration projects. Marketed products have specific access plans, and we spread a wide net to enable and expand timely access to our treatments for patients who need them.

Access Strategy Development & Oversight

Our access strategy development is integrated into our overall product development and commercialization planning process. This process is led by the Senior Vice President & Head of Worldwide Value, Access, Pricing and Health Economics and Outcomes Research, who sits on BMS' governance committees for access: Commercialization & Development Operating Committee, Research & Early Development Operating Committee, the Pipeline Steering Committee and the Global Pricing Strategy Governance Committee. The market access strategic review of any product culminates in an intensive and in-depth cross-market assessment with the BMS Board Chair and CEO responsible for the final decision. Typically, the process begins right from the design phase of the registration trials.

In some cases, the Access team starts working with the development team during the Phase II proof of concept phase of the product development life cycle. For products that are externally acquired, the access process usually starts as a part of the business development evaluation process.

The development of each product's access strategy and programs is overseen by the Executive Vice President & Chief Commercialization Officer and the Worldwide Value and Access Marketing team in close collaboration with a matrix of functions, with our Board Chair and CEO responsible for the final decision.

There are several criteria that go into determining productspecific access decisions and strategies including:

- Degree of unmet needs in disease and treatment landscape from various perspectives (e.g., patient, healthcare provider, healthcare system/payer).
- Individual country considerations (e.g., clinical trial design, overall state of the healthcare system, ability and willingness to pay, healthcare and pharmaceutical budgets).

Social Determinants of Health









Unemployment and iob security



Housing

Working life

Social protections





Food insecurity



Basic amenities & environment

Early childhood development

Social inclusion and non-discrimination

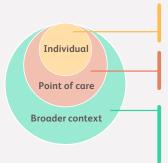
- Current standard of care.
- Existence of biomarkers.
- Target indication.
- Size of the patient population.

Along the process, input is also collected from Global Policy & Government Affairs, Global Product Development & Supply, BMS Health Equity, and Global Advocacy. Numerous decisions are made along the way, including:

- The need for an early-stage access program.
- Whether there are modifications to the study design that can improve the recognition of value on the part of payers.
- Identification of subpopulations for further analysis.
- Need for additional data or modeling to support robust submissions at the country level.
- How to best identify and participate in the regulatory review processes.

Access challenges range from unmet medical needs at the individual level to broader systemic barriers

Providing access to medicines to treat non-communicable diseases is particularly complex. Poor awareness of risk factors among patients, households and communities along with a lack of healthcare professionals and training prevent proper, timely diagnosis and care. A range of broader social and structural conditions affect a patient's ability to access critical steps of the patient journey. Other obstacles in the broader context such as a lack of funding, infrastructure and distribution channels further hinder access to healthcare and medicines.



- Limited and ineffecitve communication received, lack of education and health literacy, leading to poor
- awareness and understanding of diseases and symptoms
 Limited financial capacity underpinned by lack of health insurance
 Deeply rooteds dynamics influencing SDOH, including stigmas, and other social and cultural barriers
- Scarcity of $\mbox{healthcare}$ resources, including $\mbox{infrastructure}$ and $\mbox{workers}$ aware and able to diagnose and
- Limited geographical coverage / distribution of healthcare structures and professionals
- Poor availability of products, low-quality medicines and counterfeits
- Lack of research and development capacity and inclusiveness
- Weak distribution systems, including supply chain inefficiency and shortages
 Poor civil infrastructure, including lack of electricity and clean water, poor road quality and transportation
- Lack of universal health insurance
- Regulations, policies and market conditions that can restrict product availability
- Political, economic, social and cultural conditions, incuding competing priorities and limited political will / government focus to address disease states

Access is Complex and Context Dependent

At its core, access to medicines is about ensuring patients can benefit from the right medicine at the right time. The Sustainable Development Goal (SDG) declaration emphasizes that to achieve SDG Goal 3, Good Health and Well-Being, "we must achieve universal health coverage (UHC) and access to quality healthcare. No one must be left behind." Target 3.8 specifically mentions the importance of "access to safe, effective, quality and affordable essential medicines and vaccines for all" as a central component of UHC, and the SDG 3.b emphasizes the need to develop medicines to address persistent treatment gaps. Access is highlighted more broadly in at least seven SDG targets under SDG 3.

Access to medicines is a multifaceted, complex issue. It requires addressing systemic barriers to enable the adoption and appropriate use of medicines. It also means considering broader, deeply rooted dynamics influencing health equity, including social determinants of health (SDOH) — defined by WHO as the "conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life." Key SDOH include income and social protection, education, unemployment and job security, working life conditions, food insecurity, housing, basic amenities and the environment, early childhood development, social inclusion and non-discrimination as well as structural conflict.

Access to medicines and healthcare is rooted in the specific realities of a given region or country. The way access challenges manifest themselves varies within and across countries, depending on factors such as the burden of disease and related care needs, health system specificities, capacity, and infrastructure, as well as health disparities. These challenges are particularly acute for chronic care medicines used in the specialty care setting.

Disparities in Access to Healthcare and Health Outcomes Persist around the World

High-income countries (HICs) have relatively well-functioning healthcare systems, linked to greater government propensity for healthcare spending, and subsequently stronger healthcare infrastructure. However, disparities in access to healthcare and subsequent health outcomes persist across and within regions and countries and are rooted in structural and systemic causes. In the U.S., for example, certain subpopulation groups experience systemic issues, resulting in lesser access and quality of care.

– Latino/Hispanic and Black/African Americans have uninsured rates higher than Asians and non-Hispanic Whites. Cancer incidence among minority populations is projected to nearly double between 2010 and 2030 while increasing 31% among the non-Hispanic White population.

In the U.S., certain sub-population groups experience systemic issues, resulting in lesser access, quality of care and ultimately health outcomes. The level of health disparities in the U.S. is significant and is reflected in the considerable differences in life expectancy within the country, which ranges from 81.3 years in Hawaii to 75 years in Mississippi.

While there is a mix between private (including employment-based) and public (including Medicare and Medicaid programs) health insurance, 8% of people do not have any health insurance. Health insurance coverage differs across race and ethnic origin groups, with Latino/Hispanic and Black/

Share of US population without health insurance in 2019, by ethnic category



population

6.2%

American



9.6%

African American

5.2%

Non-Hispanic White Americans

Availability of new cancer medicines launched in OECD countries in past decade



59%

Canada & Japan

68%

France

71%

74

Germany

96%

US

African Americans facing the highest uninsured rates (in 2019, respectively, 16.7% and 9.6%, while Asians and non-Hispanic Whites rates were 6.2% and 5.2%).6 Disparities in access to healthcare can be observed throughout the entire patient pathway, from different levels of risk factors for the disease, involvement in clinical trials, access to primary care and timely screening and diagnosis, follow-up with specialists, and access to highquality care. These lead to inequities in health outcomes.

- Patients based in some HIC countries wait longer to access certain medicines. Of the new cancer medicines launched in the OECD countries in the last decade, 74% were available in Germany, 71% in the U.K., 68% in France and 59% in Canada and Japan, compared to 96% in the U.S.

Beyond the U.S., other HICs also face challenges around access and health equity. Most European Union (EU) countries have achieved universal coverage for a core set of healthcare services, although the range of services covered, and the degree of cost-sharing vary.7 Nevertheless, a significant number of medicines are not available across all markets, and patients based in some countries wait longer to access certain medicines. As an example, many new oncology medicines available to U.S. patients are not available in other countries.

Of the new cancer medicines launched in the Organization for Economic Co-operation and Development (OECD) countries between 2011 and 2019, 96% were available in the U.S., compared to 74% in Germany, 71% in the U.K., 68% in France and 59% in Canada and Japan.8 Moreover, to the extent that patients living in these geographies have access to medicines, they have to wait longer; about two years on average compared to patients in the U.S.9 These variations in availability and delay can be explained by several interrelated factors rooted in the medicines access systems and processes and the corresponding impact on commercial decision-making, including slow regulatory processes, reimbursement delays and cost-containment mechanisms, and differences in social and cultural norms.¹⁰ Finally, in the EU, distinct population groups, including the lowest income quintiles, women, ethnic minorities and migrants, experience significant difficulties in accessing healthcare.11

More than 80% of the world's population live in low- and middle-income countries (LMICs).12 Many do not have adequate access to healthcare and medicines, despite the large burden of both infectious and non-communicable diseases in these countries. Progress towards achieving Universal Health Coverage (UHC) varies significantly across LMICs. In many instances, limits on governments' and health systems' allocation of resources to finance and attain UHC leads to overreliance on out-of-pocket spending, overly strict cost-containment policies, and significant gaps in access to

-77% of the 41 million deaths related to NCDs occur in LMICs, but most countries do not have all essential NCD medicines and technologies.

Access is a critical component of **Universal Health** Coverage (UHC) – the goal for all people to have access to healthcare services, including essential medicines, without risking financial hardship. Progress towards UHC varies across geographies and countries. Middle-income countries such as Mexico and China have some version of UHC, however restricted budgets result in insufficient coverage and many populations continue to face significant out-of-pocket expenditures. Elsewhere, in many low-income countries in Africa and South-East Asia for example, coverage is severely limited, with high out-of-pocket spending for even the most basic care. Healthcare, as a result, is out of reach and/or results in considerable financial hardship.

While significant progress has been made against infectious diseases, millions continue to be affected. It is estimated that 37.7 million people worldwide are living with the Human Immunodeficiency Virus (HIV); over two thirds of whom are in the WHO African Region.¹³ Moreover, about 58 million people worldwide are living with chronic Hepatitis C virus (HCV) infection.¹⁴ About 10 million people are chronically infected in the WHO South-East Asia Region, and nine million in WHO African Region.15

Cancer Burden



9.96 million

deaths globally from cancer

16.3 million

projected cancer deaths globally by 2040

70%

low- and middle-income countries' share of total cancer deaths

Access to healthcare for people at risk from and living with HCV is unequal. In 2019, only 21% of people living with chronic HCV infection globally knew their status. ¹⁶ 9.4 million people chronically infected with HCV were cumulatively receiving treatment, a 10-fold increase from 1 million people receiving treatment at the end of 2015, yet treatment coverage was only 13% of the people in need. ¹⁷ In the WHO African Region, 5% of people infected were diagnosed, and less than 1% of people infected were treated. In the WHO South-East Asia Region, 7% of people infected were diagnosed, and 5% of people infected were treated. ¹⁸

In addition to challenges related to infectious diseases and as people are now living longer, increasing rates of NCDs such as cancers, cardiovascular diseases, diabetes, asthma, and other chronic respiratory conditions are putting an additional burden on governments, health systems and patients. NCDs account for 41 million deaths each year (equivalent to 71% of all deaths globally), with LMICs accounting for 77% of all NCD deaths.¹⁹ Globally, NCDs are projected to continue to increase and account for 52 million deaths by 2030.20 For cancer specifically, in 2020, 9.96 million people died from the disease,²¹ with as many as 70% of global cancer deaths occurring in LMICs.²² The number of deaths from cancer is projected to increase to 16.3 million globally by 2040.23 The greatest increase will be in LMICs, where more than two thirds of the world's cancers will occur.24

For NCDs in 2017, only 35% of countries worldwide had all essential NCD medicines and technologies available, and no low-income group country reported that all essential medicines and technologies were "generally available." Moreover, in most LMICs, cancer is currently diagnosed at an advanced stage, when treatment is generally less effective, more expensive and more disabling. 26



Section 2: Our Contribution to Access Globally

Bristol Myers Squibb works in close partnership with other stakeholders to address some of the most important access and health equity challenges in countries across the globe. Our focus is on advancing healthcare capacity and infrastructure solutions and enabling timely access to our medicines for patients who need them.

Bristol Myers Squibb's approach to access aligns with our overall commitment to transform treatment and defeat serious conditions worldwide. We support efforts to ensure broad and equitable access to medicines and healthcare services in low-, middle- and high-income countries. BMS follows a set of principles that guide its access work:

 We tailor our approach to circumstances: Access challenges and solutions are context dependent. To be effective, strategies must be adapted and address critiOver the past 30 years,
Bristol Myers Squibb has
made a significant impact on
serious communicable and noncommunicable diseases affecting
both high- and low-income
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that drive meaningful change
in cancer, hematologic disease,
cardiovascular disease,
and immunologic disease.

- cal bottlenecks hindering access locally. We consider the specificities of each setting to help unlock the potential of our medicines.
- We partner with other stakeholders: Collaboration across sectors is required to address access challenges at scale. We work in partnership with governments and other key stakeholders, to use our complementary skills, expertise, and experiences, and address critical access challenges in mutually reinforcing ways.
- We focus on sustainable and holistic solutions: NCDs are mostly chronic diseases and require a level of continuity, adherence to treatment and follow-up that is not present with many infectious diseases. Within our therapeutic areas, the sophistication of BMS' medicines requires long-term, sustainable case management. We strive to contribute in meaningful ways to enable holistic access solutions that address systemic challenges and root causes hindering access.

Our Approach to Access Builds on Science

Our commitment to scientific excellence and investment in research and development (R&D) are rooted in the belief that we can help millions extend their lives and/or improve quality of life. Our R&D organization is composed of industry-leading researchers and drug developers who have a passion for science, a curiosity for discovery and a commitment to translating these advances into medicines that make a difference for patients.

Our R&D efforts seek to address important unmet medical needs across a number of disease and therapeutic areas, including areas of special concern in low-income countries. Over the last 30 years, Bristol Myers Squibb has made a significant impact on serious communicable and non-communicable diseases affecting both high- and low-income countries. With a diverse and promising pipeline, we focus on innovations that drive meaningful change in cancer, hematologic disease, cardiovascular disease, and immunologic disease. Notably:

- BMS is leading a revolutionary change in the treatment of more than 10 cancers. We have demonstrated, in clinical trials, the survival benefits of our immunotherapies in patients with metastatic disease as well as earlier stages of cancer as adjuvant therapy after primary treatments, when the immune system may be more intact and potentially more responsive to treatment. By combining our immunotherapies with other medicines, as well as chemotherapies, we continue to improve response rates for certain patients.
- Through our continued investments in research, we are
 continuing to expand our pipeline of treatments that
 harness the power of the body's own immune system
 to treat cancers. Advances in genetic engineering enable
 us to use T cells that target specific proteins in cancer cells
 (CAR T cells), enlisting the body's natural immune system
 in the defeat of cancer.

- We are progressing cell therapies from pipeline to patients and are the only company as of 2021 with two approved cell therapies directed against two distinct targets. Building on this, we continue to invest in technology and manufacturing methods, using novel constructs to make CAR T cells more persistent in our pursuit of the next treatment frontiers. Leveraging one of the largest datasets of CAR T translational and clinical data in the industry, we are also evaluating a broad portfolio of cell therapy treatments across earlier lines of therapy, in purposeful pursuit of better patient outcomes.
- Today, our immunology franchise encompasses three marketed products and a robust pipeline of more than 20 programs across nearly 20 diseases. As we continuously build and expand our portfolio, our teams work to identify mechanisms that may help the body control inflammation, reset the immune system and promote balance in immune response: a three-point approach with the goal of achieving long-term remission and, ultimately, curative therapies.

We strengthened our cardiovascular (CV) franchise with the acquisition of MyoKardia, a specialized late-stage CV company. Through MyoKardia, we gained mavacamten, a potential first-in-class therapy for Obstructive Hypertrophic Cardiomyopathy, a chronic heart disease with high morbidity and patient impact. Mavacamten continues a long legacy of cardiovascular leadership at BMS, following apixaban. Apixaban (brand name Eliquis™), a novel oral anticoagulant, is an internally discovered BMS compound and is approved for stroke risk reduction in patients with non-valvular Atrial Fibrillation and the treatment of Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE), and for the reduction in the risk of recurrent DVT and PE following initial therapy. Eliquis (co-developed and co-promoted with Pfizer) is the number one novel oral anticoagulant in countries across the globe and has treated millions of patients.

Beyond our strategic portfolio, we are also participating in partnerships and research efforts to advance diagnostics and treatments for COVID-19. We have a global exclusive license to develop, manufacture and commercialize the Rockefeller University's novel monoclonal antibody (mAb) duo treatment that neutralizes the SARS-CoV-2 virus for therapy or prevention of COVID-19. We have also evaluated compounds in our portfolio that could be included in near-term clinical trials with a focus on agents that may have an impact on the inflammatory immune response associated with COVID-19, which in certain COVID-19 patients has led to life-threatening complications.

Overall, BMS has a strong record of devoting substantial portions of our overall revenue to research and development (R&D)—in 2020 alone, we invested \$11.1 billion in R&D.

R&D Partnerships & Collaborations

Supported by robust capabilities, unmatched collective experience, and a strong, global presence, we are advancing science through internally discovered medicines as well as external partnerships. Partnership and collaboration are essential to our strategy. We anchor ourselves within vibrant healthcare innovation ecosystems, where academic research centers, biotech, and biopharmaceutical companies all contribute to continued scientific advancement.

Overall, BMS has a strong record of devoting substantial portions of our overall revenue to research and development (R&D)-in 2020 alone, we invested \$11.1 billion in R&D.

Continued innovation is needed to address current and future unmet medical and healthcare needs. This requires new thinking and a comprehensive approach: all stakeholders of a healthcare system should work together in seeking sustainable solutions that promote universal access to care. BMS collaborates to strengthen global R&D overall and help advance biomedical research to unlock the discovery of innovative medicines and products beyond our own organization. For instance, BMS has supported the global research community in the neglected disease and antimicrobial resistance field by providing access to BMS' compounds for use in R&D programs for Neglected Tropical Diseases, including the *Drugs for Neglected Diseases* initiative and Medicines for Malaria Venture. BMS is building on these experiences and partnering with various stakeholders to continue to strengthen and advance R&D globally. For example:

- The company collaborates with the Innovative Medicines Initiative, the world's biggest public-private partnership in the life sciences between the European Union (represented by the European Commission) and the European pharmaceutical industry (represented by the European Federation of Pharmaceutical Industries and Associations). The aim is to improve health by speeding up the development of, and patient access to, innovative medicines, particularly in areas where there is an unmet medical or social need. The initiative does this by facilitating collaboration between the key players involved in health research, including universities, research centers, the pharmaceutical and other industries, smalland medium-sized enterprises, patient organizations, and medicines regulators.
- BMS entered into a new \$20 million collaboration with Evotec, a German-based drug discovery alliance and development partnership company. The beLAB2122

- collaboration brings together leading academic institutions from the Rhine-Main-Neckar region of Germany to efficiently identify and accelerate the next generation of first-in-class therapeutics across all modalities and therapeutic areas into investable drug discovery and early development projects. Evotec has created a new paradigm to translate early-stage academic research to drug discovery and development called Biomedical Research, Innovation & Development Generation Efficiency (BRIDGE) collaborations, which provide an integrated fund and award framework to validate exciting academic projects in collaborations with biopharmaceutical companies and funders, potentially leading to the formation of jointly owned new companies. Since 2016. Evotec has established several BRIDGE collaborations with a variety of academic, pharma, and venture capital partners across Europe and North America. This collaboration is the first BRIDGE in Germany.
- BMS has long believed that the future of cancer research breakthroughs is dependent on investments in external innovation. The II-ON (International Immuno-Oncology *Network*) is a global peer-to-peer collaboration between BMS and academia that aims to advance cancer research and translational medicine to improve patient outcomes. Launched in 2012, the II-ON was one of the first networks to bring academia and industry together to further oncology research. Its focus is on understanding the mechanisms of resistance in cancer, identifying patient populations likely to benefit from therapies, and exploring novel combination therapies. The II-ON has generated cutting-edge data that have informed the development of new agents and produced some of the earliest findings on a variety of biomarkers and target identification and validation. The collaboration includes 16 member organizations with over 350 investigators in total, and has produced over 75 publications with over 250 research projects.27
- Many cancer patients across the globe are still in need of improved therapeutic options. This remains true despite another year of remarkable progress for BMS' pipeline with earlier use of immuno-oncology as adjuvant cancer therapy and novel combinations with tyrosine kinase inhibitors or chemotherapy. The Global Experts Centers Initiative (GECI) is a research platform launched by BMS in 2016 to accelerate oncology drug development and advance the company's strategy through bilateral engagement with leading European and Brazilian academic centers. In 2021,28 more than 180 engagements took place with clinicians, researchers and other experts. GECI centers have been involved in over 200 BMS-sponsored trials and more than 150 Investigatorsponsored studies across all phases, in over 20 tumor types. Thus far, more than 20 projects led by GECI sites have been published in high impact factor journals, which helped to advance our understanding of oncology. In addition, five annual "GECI Summits" have been held

bringing BMS leaders and teams together with 60-70 thought leaders per year, representing all 23 GECI member institutions from eight countries to discuss research projects, share medical insights, and shape strategy. After having successfully established itself in oncology, the program is set to expand to new geographies and therapeutic areas, in alignment with BMS' strategy.

• The Biocon Bristol Myers Squibb Research & Development Center (BBRC) is a collaboration between BMS and Syngene International, a Biocon-group company, and is based in Bangalore, India. Fully operational since 2009, the site is involved in Target Identification, Lead Discovery and Lead Optimization all the way through to early-stage Pharmaceutical Development and Clinical Biomarkers R&D.²⁹

As part of our response to the COVID-19 pandemic, we are participating in several cross-industry groups and public-private partnerships designed to foster collaboration and coordinate industry response efforts, and thereby accelerate the development, manufacturing, and delivery of diagnostics and treatments for COVID-19. For example, we are one of 15 companies who participated in the *Bill & Melinda Gates Foundation's COVID-19 Therapeutics Accelerator* to identify concrete actions to accelerate treatments, vaccines, and diagnostics. As part of this effort, we have identified over 1,000 proprietary compounds to be made available to collaborators with high-quality assays, to screen for possible molecules to treat COVID-19. BMS also joined the broader commitment signed by several companies and the Bill & Melinda Gates Foundation to fight COVID-19.

Clinical Trial Diversity & Patient Perspective

Bristol Myers Squibb can most effectively advance access to medicines by promoting health equity and addressing the root causes behind inequities. In its approach to scientific innovation, BMS incorporates access considerations with a view to ensuring that our medicines can benefit diverse patient populations in a variety of contexts. This includes our long-term work to advancing *diversity in clinical trials*. The gender, age, race, and ethnic origin of a patient can sometimes play a role in how a potential treatment may work in a patient, so it is important to include diverse populations in clinical trials to ensure that they are more reflective of the real-world population and/or epidemiology of the disease.

BMS aims to ensure that the patient perspective is heard and considered at every step of the drug discovery and development process. Weaving the patient perspective into the development and commercialization of medicines has become increasingly important industry-wide, particularly at BMS

 The company has, for example, implemented an innovative new process spanning all markets and therapeutic areas, the *Patient Expert Engagement Resource (PEER)*. In 2020, BMS has worked closely with expert patient advocates to define and implement

Global Experts Centers Initiative (GECI)

>20

Tumor types investigated by GECI

23

GECI member institutions

8

Countries represented

2016

Year GECI launched by Bristol Myers Squibb to accelerate oncology drug development

4

GECI annual summits, convening 60-70 thought leaders each, held to date

>150

GECI-sponsored expert engagements during 2020

Launched by BMS and GRYT Health in 2020, Advocacy Exchange is a first-of-its-kind platform created to unite advocacy organizations, patients, and industry leaders in the exchange of information.

an innovative new process spanning all markets and therapeutic areas. PEER fills a need for more systematic and seamless engagement of expert patient advocates. This formalized approach builds on and integrates efforts already underway across the organization to bring patient perspectives into the company's work. PEER ensures that the patient perspective is heard and considered along the drug discovery and development process—one of the first times this kind of all-encompassing approach has been implemented at this scale within a biopharmaceutical company. A major action already implemented through PEER requires that all pivotal trial protocols include expert patient advocate engagement prior to internal sign-off.

 Another example is the Advocacy Exchange. Launched by BMS and GRYT Health in 2020, the virtual platform was created to unite advocacy organizations, patients, and industry leaders in the exchange of information. It is a global collaboration, co-created and co-led, and 'always on' to foster meaningful growth and partnership across disease areas to improve outcomes for patients. The Advocacy Exchange has evolved to become the largest cross-disease, cross-cultural advocacy initiative of its kind with 300 participating advocacy organizations. The platform is offering live, interactive discussions through which patient voices are heard, and a virtual exhibit hall where participating organizations can share resources and learn from one another. In 2021, The Advocacy Exchange established four unique working groups to address key areas of interest in the advocacy community – identified via direct advocate feedback – focused on racial and ethnic health and healthcare disparities, access to care, patient voice/patient-focused drug development, and the future of advocacy. Boasting exclusive content from 85 speakers, more than 31,000 people from 148 countries have visited the Exchange.

We Partner to Advance Healthcare Capacity & Infrastructure Solutions

At Bristol Myers Squibb, we work in partnership with other stakeholders to advance healthcare solutions that support health systems strengthening, infrastructure and capacity building more broadly to tackle access challenges. This includes patient and provider solutions that advance health equity and address SDOH, broad capacity building for specific diseases, and demonstration projects to understand and validate feasibility in specific countries and contexts to enable the safe, effective, and sustainable use of innovative medicines.

Addressing Social Determinants of Health (SDOH) & Advancing Health Equity

The conditions where people live heavily influence their ability to access and afford life-saving clinical care and therapies, to avoid risk factors and engage in healthy behaviors. The disproportionate impact of COVID-19 on communities of color and low-income communities globally has highlighted the deeper structural factors at play. BMS takes an intentional approach to understanding the underlying structural conditions influencing disparities and addressing the SDOH to improve the way people access care and how providers treat patients in different contexts.

BMS aims to improve the quality of clinical care received for patients experiencing the greatest health and healthcare inequities. These efforts begin with an improved understanding of the patient experience for communities facing the greatest disparities in each disease and geographic context. For example, in the U.S., BMS is investing in targeted studies to understand and address disparities in Rheumatoid Arthritis clinical quality and care for African Americans in partnership with minority-serving institutions, as well as advancing immuno-oncology patient monitoring and remote healthcare for rural communities.

Health Equity Case Study: "Standing in the Gaap"

In 2015, Bristol Myers Squibb launched the "Standing in the Gaap" initiative to help bridge the gaps in care and address disparities for African Americans living with

Multiple Myeloma (MM) in the U.S. The program increases awareness about how MM affects African Americans differently than other races, supports patient education on standards of care and support services, and provides healthcare professionals with educational programs to improve the overall care that African American patients receive. For example, in 2017, the team created a clinical trial brochure that explains the disparities faced by African Americans with MM, addresses issues and myths around clinical trials, and brings awareness for African American patients to participate in clinical research and encourage open dialogue with their healthcare team. These brochures have been presented to over 60 clinical trial sites in the U.S.

- Experts estimate that this year, more than 32,000 Americans will be diagnosed with new cases of MM, and more than 12,000 people will die from this devastating disease. Nonetheless, the prognosis for a Multiple Myeloma patient today is far better than it was just a few years ago. The advances in Multiple Myeloma treatments are especially noteworthy when compared to other cancers: the five-year survival rate for MM increased four times faster than for other cancers.
- MM is the most common form of blood cancer among African Americans.³¹ Data suggests that African Americans are more than twice as likely to develop MM compared to White Americans,³² and one in five people living with MM in the U.S. is African American.^{33,34} MM is one of the malignancies with the greatest disparity in the incidence and prevalence between African Americans and White Americans.
- Over the last decade, treatment has come a long way and survival in MM patients has improved,³⁵ but African Americans have had a smaller improvement in survival compared with White patients.³⁶ This disparity in the improvement of survival for African Americans may be due to the lack of access to the same therapies as White patients.³⁷ For example, African Americans are less likely to undergo stem cell transplant and to receive triplet therapies for Multiple Myeloma.^{38,39,40}
- The "Standing in the Gaap" initiative:
 - Provides healthcare professional and patient educational programs.
 - Maintains an annual presence and support of the National Medical Association, National Black Nurses Association, The Balm in Gilead's HealthyChurches 2030, the CIAA basketball tournament, and an active Facebook community.
 - Partners with key MM advocacy organizations to accelerate this program from awareness to action.

- As of 2020, the program has:
 - Created over 20 educational materials.
 - Supported over 40 speaker programs with nearly 2,000 healthcare professional attendees.
 - Launched the first Facebook page dedicated to African Americans affected by MM (now with more than 61,000 followers).
 - Maintained a consistent presence at professional congresses.
 - Partnered with healthcare professionals to provide targeted patient education.
 - Developed relationships with government and advocacy organizations (including Leukemia & Lymphoma Society, International Myeloma Foundation, Multiple Myeloma Research Foundation).
 - Engaged the community and connected with patients.
 - Raised awareness with the public through ongoing media coverage (e.g., magazines, presence at premiere sporting events).
- Awareness of the disparities faced by African
 American patients with MM is increasing in the
 scientific community. More importantly, based on the
 latest data, MM is getting detected at a faster rate.

 Data also suggests that treatment gaps are closing.⁴¹
- Continued efforts will further reduce differences in treatment access and ultimately achieve equitable healthcare utilization and clinical benefit regardless of race.

With an improved understanding of the disparities faced by different demographic groups in different contexts, BMS also recognizes the range of social and structural factors that impact the patient's journey and ability to access care. BMS is increasingly addressing social needs to support patient care before and beyond diagnosis and treatment. These efforts include providing unbranded patient education to support the patient journey pre-screening and diagnosis, as well as providing unbranded education for specialists, payers, and health systems on patient engagement, SDOH, screening, and diagnostic coding.

BMS' "No Time To Wait" campaign was designed to better reach and engage diverse populations in the U.S. that are historically underrepresented, have less access to healthcare, and experience worse health outcomes. The campaign included radio and TV ads in English and Spanish, and targeted symptomatic, undiagnosed patients at-risk of Atrial Fibrillation (AFib) and Deep Vein Thrombosis (DVT)/Pulmonary Embolism (PE). It aims to raise symptom awareness for AFib and DVT/PE, educates patients about the potentially serious outcomes associated with these conditions, and encourages them to visit a healthcare provider instead of postponing their visit or waiting for their symptoms to go away. The program was launched with the endorsement of 14 cardiovascular

- and patient advocacy organizations, and in collaboration with diverse healthcare professionals whose personal and lived experience more directly relates to the target patient populations.
- The BMS-Pfizer Alliance and Fitbit collaboration aims to support earlier detection of AFib, including through the development of educational content and guidance to support patients at increased risk for AFib. Upon FDA clearance of the AFib detection software on Fitbit devices, the parties will aim to provide users with appropriate information to help encourage and inform discussions with their physicians.

BMS builds trusted relationships and supports efforts to drive value-based care by providing solutions that improve clinical and cost outcomes, enhance quality of care and the patient experience, and engage patients in their own care for improvement in population health. These actions address health inequities through population health tools and programs on awareness and the call to action to support increased patient engagement and social risk stratification through an understanding of SDOH. Our U.S. Customer Portfolio and Value Generation team (part of the U.S. Value, Access, and Payment group) developed a resource that introduces the topic of health (e.g., SDOH). This resource is distributed by BMS account teams to their customers and intended for use by population health staff, case management, social work staff, clinical pharmacists, and other care team members. The resource includes a 10-question screening tool, developed by Health Leads, that assesses food insecurity, transportation challenges, housing instability, utility needs, financial resource strain, and socio-demographic

Multiple myeloma in the United States

32,000

People who will be diagnosed with new cases each year

12,000

People who will die each year from MM

13%

African American share of total US population

20%

African American share of total MM patient population

61,000

Number of followers on BMS Facebook page dedicated to African Americans affected by MM (the first such page on Facebook)

2,000

Number of healthcare professionals who attended BMS "Standing in the Gaap" programs in 2020 information. Early feedback on the tool is encouraging and, through SDOH screening, healthcare organizations can link patients to the community services they need. Importantly, this resource can help initiate further conversations with BMS about population health, health equity, and SDOH.

In partnership with the patient advocacy community, BMS aims to shape the policy/legislation environment to optimize access to novel treatments (i.e., oral parity, out-of-pocket cost share) through:

- Advocacy disease awareness and education programs that are tailored toward diverse and medically underserved communities – e.g., partnership with Triage Cancer to provide actionable and relevant resources on the practical and legal issues that impact access to quality cancer care for over 2,000 patients.
- Research aimed at increasing diversity in clinical trials and improving diverse patient outcomes, including incorporating cultural competency in clinical trial protocol design, recruitment, and patient education.
- The development of collaborations that address issues affecting diverse populations to ensure the equitable delivery of quality healthcare.

Partnering to Strengthen Health Systems

Wide-reaching local stakeholder engagement and health systems strengthening are necessary to facilitate access to medicines, especially in countries with health systems that have been historically oriented towards fighting communicable and acute diseases and lack critical capacity and infrastructure. A core tenet of Bristol Myers Squibb's approach to access is healthcare capacity building through various mechanisms such as healthcare professional training and patient/community education—a necessary prerequisite to delivering an improved healthcare system that understands patient access and outcomes require support beyond just the medicines themselves.

Healthcare Capacity Building & Optimization

Bristol Myers Squibb is continually engaging in numerous capacity building initiatives and our support stretches along the value chain, starting with R&D. BMS trains healthcare professionals in Good Clinical Practices (GCP) through national and regional hubs operated by BMS' *R&D Global Centers of Excellence*. BMS' R&D organization has trained local healthcare professionals in GCP in India and Brazil to strengthen the local healthcare infrastructure and clinical trial activities. There are 17 such national and regional hubs worldwide. BMS has partnered with the Duke Translational Medicine Institute for some of these efforts, and similar efforts are also underway in Turkey, Latin America, and the United Arab Emirates.

Across these capacity building initiatives, BMS collaborates with relevant stakeholders who share the commitment to strengthen health systems and enable greater patient access to care:

BMS is a leading member of Access
Accelerated. With 24 member
companies, Access Accelerated is
the largest global collective industry
effort to address inequities in noncommunicable disease care in lowand middle-income countries.

- BMS is a leading member of Access Accelerated. With 24 member companies, Access Accelerated is the largest global collective industry effort to address inequities in NCD care in LMICs. By uniting biopharmaceutical companies and significant partners including the World Bank, City Cancer Challenge Foundation, PATH, NCD Alliance and World Heart Federation, Access Accelerated is implementing important scalable and sustainable NCD solutions by helping the public and private sectors work effectively together. BMS joined Access Accelerated at its inception in 2017 and today has a leadership role in the initiative. The vision for Access Accelerated is a future where no one dies prematurely from treatable, preventable diseases, and where all people living with or at risk of NCDs have access to appropriate, quality and affordable prevention, treatment and care. As part of that initiative, not only do BMS and member companies provide funding and resources, but with partners they also mobilize the technical expertise and on-the-ground partners to design and implement solutions to supply chain, primary care and digital health needs. This collective effort is resulting in government prioritization of NCDs, policy change and mobilization of funding to scale up proven solutions.
 - For example, Access Accelerated is supporting the World Bank to accelerate sustainable and scalable NCD solutions by ensuring the inclusion of NCDs in Universal Health Coverage policies, increasing country NCD investments through sustainable health financing solutions, and developing effective interventions that empower communities and people living with NCDs. From 2017-2021, evidence generated from China, Colombia, El Salvador, Ghana, Kenya and Vietnam has helped secure \$355 million in new investments in NCDs, supporting national policy change in 14 countries. The 2020-2022 collaboration between Access Accelerated and the World Bank extends to 36 countries across 5 continents.
- We also collaborate with City Cancer Challenge (C/Can).
 C/Can is a global foundation with the ambitious vision of creating a world with quality and equitable cancer care for all. It is supporting cities around the world as they

work to improve access to equitable, quality cancer care. Since its launch in 2017 by the Union for International Cancer Control (UICC), C/Can has developed a new model of addressing access to cancer care that, for the first time, leverages the city as a key enabler in a health systems response to cancer.

Thanks to their experience working with Cali (Colombia), Asuncion (Paraguay), Yangon (Myanmar), Kumasi (Ghana), Kigali (Rwanda), Tbilisi (Georgia), Porto Alegre (Brazil), Greater Petaling (Malaysia), and Leon (Mexico), C/Can is now ready to support more cities in closing the cancer gap and taking the first steps towards a future with quality cancer care for all.

- Our Worldwide Medical Department's Global Health Equity Platform (GHEP) was established to leverage strategic partnerships with key academic institutions, global health societies and nongovernmental organizations to develop and implement strategies and solutions that optimize healthcare systems in LMICs. GHEP has prioritized the following initiatives:
 - Telehealth & Educational Support initiatives which support programs that introduce or optimize telecom technology to promote long-distance professional health/disease education in LMICs. In fact, through Corporate Giving, GHEP launched BMS' first Request for Proposals that called for the development and delivery of region-appropriate oncology training and educational resources to support healthcare professionals in LMICs. Through GHEP, BMS is supporting the following initiatives:
 - King Baudouin Foundation will be creating and delivering an oncology knowledge repository for specialists and non-specialists cadres of healthcare professionals (HCPs). Looking ahead, this program is expected to reach nearly 14,000 participants across Africa and India.
 - Rutgers, The State University of New Jersey will be developing a fit-for-purpose telehealth platform that reskills and upskills HCPs across public health facilities. This initiative will offer a certified education experience to nearly 400 physicians, nurses, pharmacists and allied health professionals in Botswana, Lesotho, Kenya and Tanzania.
 - World Child Cancer UK aims to help fill gaps in pediatric oncology by focusing on training frontline healthcare workers to recognize early warning signs of childhood cancer; training oncology nurses in

- pediatric oncology and training HCPs in palliative care for children with cancer. This program will reach 1,315 HCPs in Ghana and Cameroon—including 260 doctors, 540 nurses and 500 community health workers.
- Ecancer Global Foundation is planning oncology educational events in multiple languages which will be live and recorded. In addition, they are developing state-of-the-art e-learning courses, publishing a comprehensive library of educational videos and conducting interviews with oncology experts that will focus on clinical decision when managing patients with cancer. This collective effort is estimated to reach nearly 100,000 HCPs in Africa, Asia and Latin America.
- Capacity building is imperative to strengthening healthcare systems and enhancing the skill set of clinicians and staff in resource-limited settings. Through the American Society for Clinical Pathology (ASCP), GHEP has supported nearly 15 capacitybuilding grants to eliminate structural barriers to fight the cancer crisis in resource-limited countries in Africa. We also recognize the importance of partnership and have contributed to a publication highlighting the importance of multi-sector partnerships in the development of cancer programs in LMICs.⁴²
- Global Health Knowledge Expansion initiatives which provide societies/organizations with funding to support fellows and students who are pursuing projects focused on infrastructural improvement and digital health optimization in resource-limited settings. To support the global health leaders of tomorrow, GHEP co-funded the Global Challenge Lab 2021, an initiative that brought together over 600 students and alumni from 11 international universities across 6 continents to generate ideas and solutions focused on good health and wellbeing.
- Since 2018, 25 grants have been awarded to world-leading cancer centers and societies through the Cancer Care Links program, which addressed cancer care capacity building in resource-constrained countries. Since Q4 2019, GHEP has been managing the **Cancer Care Links grants**. As of November 2021, the program has delivered over 19 publications, more than 150 healthcare professionals have been trained, greater than 200 patient education outreach programs have been conducted, and over 4,000 patients have received care.



Countries reached with All.Can interventions

350

Multidisciplinary stakeholder groups involved in All.can

30

Partnerships with other lifescience companies via All.can BMS is a founding member and lead partner of *All.Can*. Established in 2016, today the international not-for-profit organization is working to improve the efficiency of cancer care by making best use of existing human, financial, infrastructural and technological resources available, to deliver the best possible health outcomes to patients and society. All.Can's members represent stakeholders across the entire cancer pathway from patient organizations, healthcare professionals, academics and industry. Through research and collaboration, All.Can highlights best practices and develops policy recommendations to improve cancer care for all. It engages with OECD, WHO and European Commission and at country level to create a constructive dialogue about efficiency and resource allocation in Cancer Care. Key achievements of All.Can to date include: 18 All.Can National initiatives established on 5 continents addressing local cancer policy priorities, with 4 new initiatives being prepared to launch; 350 multidisciplinary stakeholder organizations; 30 partnerships with other life-science companies; 40 best practice case studies; and a survey of 4,000 patients in 11 countries from over 12 cancer indications uncovering inefficiencies throughout the cancer pathway and opportunities to improve, currently informing national policy dialogue on cancer care.

Demonstration Pilots to Prepare for the Safe, Effective and Sustainable Use of Our Medicines

Another core component of BMS' approach to access in LMICs are pilot programs to supply medicines and/or test various hypotheses such as health systems capacity, feasibility, and safe and effective use of BMS medicines. Working closely with global partners and local in-country stakeholders, BMS supports such demonstration and scaling projects through medicine donation, funding, and technical expertise. Current efforts are building upon decades of experience and learnings, such as:

BMS is in the fourth year of a collaboration with the Max Foundation to increase access to dasatinib for people living with Chronic Myeloid Leukemia (CML) and Philadelphia chromosome-positive Acute Lymphoblastic Leukemia (Ph+ ALL) in more than 20 LMICs. This access pathway is specifically designed to help patients who are uninsured or underinsured, where product is not available commercially, where significant access hurdles exist and where local market initiatives cannot enable access to the therapy. This product donation initiative has assisted over 800 patients.

- Approximately 90% of β -thalassemia (b-thal) patients live in low- and middle-income countries, where there are shortages of safe transfusions and availability of multidisciplinary expertise and support facilities, creating a globally significant unmet need for treatment. BMS is developing a strategy for luspatercept in order to address unmet medical needs for patients who need treatment for b-thal in LMICs. As part of this initiative, BMS has partnered with the Thalassemia International Federation's (TIF) Access Initiative to develop a "Readiness Assessment Framework" that will inform stakeholders of the infrastructure readiness of specific clinics within a pilot country to ensure sustainability in the long-term through political and institutional support, physician and patient education, and dedicated centers and personnel. Utilizing the Readiness Assessment Framework, TIF has identified six select LMICs for a pilot. BMS has now identified Project ECHO as a partner to develop a capability building program in 2022 to enhance the care management of b-thal patients in pilot countries. Project ECHO uses teleECHO clinics to connect healthcare professionals in order to share "best practices," present patient cases, evaluate and monitor outcomes, and discuss other aspects of the disease and treatment landscape.
- BMS is also participating in the "Innovative Cancer **Medicines**" partnership along with the Parker Institute for Cancer Immunotherapy, the Clinton Health Access Initiative, and another pharmaceutical company. The goal of the initiative is to develop an approach that explores sustainable and effective administration of innovative therapies for the treatment of cancer in LMICs. Through the initiative, demonstration projects are being planned in sub-Saharan Africa that focus on operational excellence. The initial pilots are planned for Uganda and Nigeria where patients will be enrolled in the demonstration projects. Local stakeholders in each country will select the respective indications based on local population needs. In addition, the indications that are finalized will be those with approvals in the United States and/or Europe. BMS has committed to: providing funding, Abraxane and/or Opdivo free of charge as needed per indication, and other assistance such as safety training. The pilots are projected to start in 2022 and BMS will continue to actively engage with partners to ensure that the demonstration projects progress as planned.

BMS is also participating in the "Innovative Cancer Medicines" partnership along with the Parker Institute for Cancer Immunotherapy, the Clinton Health Access Initiative, and another pharmaceutical company. Through the initiative, demonstration projects are being planned in sub-Saharan Africa that focus on operational excellence.

Bristol Myers Squibb continues to pursue additional opportunities for demonstration projects with external partners in select LMICs.

We Strive to Enable Access to Our Medicines for Patients Who Need Them

Healthcare capacity and infrastructure is a critical enabler for the delivery and use of our medicines, requiring sustained, long-term efforts that involve a range of actors across sectors. As with other dimensions of access, the delivery of innovative medicines is impacted by a multitude of often interrelated factors that vary by context. This includes a country's healthcare system/infrastructure, financial capacity, regulatory and reimbursement processes, as well as the degree of universal health coverage and magnitude of out-of-pocket expenditures. At Bristol Myers Squibb, we are committed to doing our part in delivering medicines for patients who need them, recognizing the shared responsibility with other ecosystem actors. This means considering a range of interventions to facilitate timely access and tailoring our approach to each geographic context and health system specificities, meeting health systems where they are.

Facilitating Timely Access

In high-income countries (HICs), the time before patients have access to medicines is largely dependent on national and regional marketing authorization and reimbursement mechanisms, including the value frameworks used such as Health Technology Assessments (HTAs). Within the EU, for example, the average time to reimbursement for innovative treatments across countries is 504 days from marketing authorization and it ranges from 120 days in Germany to over 883 days in Romania. In fact, EU Patients diagnosed with cancer face longer waiting times to potentially life-extending treatments. The average time to reimbursement for cancer therapies across EU countries is 561 days and

it ranges from 121 days in Germany to over 1,015 days in Estonia. 42 Root causes for unavailability and delays span from a slow regulatory process to late initiation of market access assessment, duplicative evidence requirements, reimbursement delays, and local formulary decisions. These can only be solved by working in collaboration with different stakeholders. 43

Bristol Myers Squibb aims to make its new innovative medicines available in the shortest possible time by submitting robust regulatory filings at the individual country level where possible and deploying **product-specific strategies** that facilitate rapid speed-to-patient where appropriate. These include early access programs, registries, use of interim data analysis, surrogate endpoints, Patient Reported Outcomes as well as pursuing temporary authorization, as appropriate, to enable patients to access medicines prior to marketing authorization in cases where there is a clear unmet need. To ensure that the appropriate level of value is recognized by HTA bodies and payers, BMS develops a comprehensive value demonstration package. That includes clinical, pharmaco-economic, and humanistic data that demonstrate the differential value of BMS' innovative medicines and their value to patients, the healthcare system, and the payer.

At Bristol Myers Squibb, we are committed to doing our part in delivering medicines for patients who need them, recognizing the shared responsibility with other ecosystem actors.

BMS is committed to providing access to its prescription medicines. As an example, BMS commercializes Abraxane, Baraclude, Opdivo, Pomalyst, Revlimid, Sprycel, Vidaza, and Yervoy in more than 60 countries. This represents countries around the world including HICs and LMICs. We leverage a range of access pathways (e.g., reimbursement in public sector, tendering, patient access programs, risk sharing programs), and work collaboratively with governments and other stakeholders in a joint effort to provide patient access.

We take a **thoughtful approach to pricing** in alignment with the company's mission to help patients prevail over serious diseases. We take great care to price our medicines based on a number of factors, including the value of scientific innovation for patients and society in the context of overall healthcare spend; economic factors impacting the capacity of healthcare systems to provide appropriate, rapid and sustainable access to patients; and the necessity to sustain our R&D investment in innovative, high-quality medicines that address the unmet medical needs of patients with serious disease and improve

their lives. There are several factors that go into determining the Bristol Myers Squibb pricing strategy for new medicines, including:

- The level of clinical benefit vs. the current standard of care, including current and anticipated clinical data.
- The eligible patient population and expected future patient populations.
- A holistic view of how the new medicine impacts cost to the healthcare system.
- The impact to payer drug budgets.
- How payers and HTA systems are expected to evaluate the medicine at the time of reimbursement.

BMS patient access support

\$692 million

Product donations in US via patient assistance programs

\$1.5 billion

Product donations in US via independent charitable organizations

Marketed products have specific access plans, and we spread a wide net to expand access, recognizing the need to tailor our approach to individual circumstances. In HIC settings, despite national systems and processes being well established to access medicines, certain medicines remain out of reach for some patients. Bristol Myers Squibb supports policies that improve patient affordability while preserving innovation. We deploy a range of patient support and reimbursement support programs where universal coverage is lacking to expand access to such underserved communities. For example, the BMS Access Support® program provides resources to help patients in the U.S. understand their insurance coverage and find information on financial support, including co-pay assistance for eligible commercially insured patients, and referrals to independent charitable foundations for patients who are currently without prescription drug insurance. Recently, BMS expanded the company's existing patient support programs to help eligible unemployed patients in the U.S. who have lost their health insurance due to the COVID-19 pandemic. In other countries, BMS has different mechanisms of patient support programs, rebates and co-pay assistance programs.

Bristol Myers Squibb further supports patient access through **product donations** to company-sponsored patient assistance programs as well as patient assistance programs run by

independent charitable organizations. In the U.S., these donations help to expand access to eligible uninsured or underinsured patients who cannot afford the BMS medicine their doctor has prescribed. In 2020, BMS provided over \$692MM in product donations to serve over 10,000 patients through company patient assistance programs in the United States. In addition, BMS provided over \$1.5B in product donations to independent charitable organizations to help over 116,000 patients in the U.S.

Meeting Health Systems Where They Are

Tailoring our approach to delivery also means meeting country health systems where they are with existing resources, capacity, and infrastructure. Bristol Myers Squibb adopts a differential approach to pricing in LMICs, recognizing disparities in ability to pay. Our pricing approach takes into consideration setting-specific factors, including countries' economic development and ability to pay, aiming to minimize the out-of-pocket burden for patients. We employ multiple approaches, including differential pricing frameworks, to increase access to our medicines in LMICs, with an emphasis on affordability and partnerships with local healthcare stakeholders to ensure effective and appropriate delivery of medicines.

Building on our experience with other medicines including for HIV and Hepatitis C, a BMS crossfunctional team is developing a pricing framework for additional innovative therapies in the BMS portfolio, including a pilot for cancer products in select LMICs.

For example, BMS supports the selective use of tiered pricing between distinct groups of countries to ensure multiple socioeconomic factors including gross domestic product, disease prevalence, patient's ability to pay, and public health system strength and funding are considered in pricing decisions. For instance, for over a decade, BMS has maintained a policy of tiered pricing for our HIV medicines to reduce barriers that delay broad and accelerated access to treatment for HIV patients. Since 2000, BMS has operated a multifaceted program (HIV Global ACCESS Program) to improve access to medicines. This included antiretroviral pricing tailored to LMICs, an HIV medicines patent policy reflecting a commitment to access through generic manufacturer participation in many countries, and partnerships with others committed to fighting HIV/AIDS. To improve access to medicines to treat Hepatitis C, BMS has also employed

Voluntary Licensing

122

BMS agreement with MPP allows for generic manufacturing of the HIV product atazanavir for sale in 122 countries

2.1 million

To date, licensees have sold approximately 26 million packs, which means 2.1 million patient years of treatment supplied

143

BMS agreement with MPP allows for generic manufacturing of the Hepatitis C product daclatasvir for sale in 143 countries

1.2 million

In 2021, daclatasvir reached approximately 1.2 million patients

multiple approaches including tiered pricing in LMICs, supplemented by a direct-import program in countries where BMS did not have plans to commercialize daclatasvir. Building on our experience with other medicines including for HIV and Hepatitis C, a BMS cross-functional team is developing a pricing framework for additional innovative therapies in the BMS portfolio, including a pilot for cancer products in select LMICs.

Bristol Myers Squibb strives to identify downstream solutions that enable the proper delivery and use of sophisticated medicines. In resource-strained contexts where health systems are ready to adopt our medicines, we adapt our supply and distribution approaches in ways which draw on our unique strengths as well as existing local capacity. These include:

Solutions for greater supply capacity such as selective voluntary licensing agreements. In the last two decades, we have implemented different strategies to responsibly share Intellectual Property rights for our then flagship HIV/ AIDS medicines. These included not filing or enforcing patent applications in LMICs, supporting voluntary licensing agreements including non-exclusive voluntary licenses, and entering into complementary technology transfer agreements with generic manufacturers to ensure that our medicines are manufactured with internationally recognized standards of Good Manufacturing Practices (GMP). For example, BMS has entered into voluntary licensing agreements with the Medicines Patent Pool (MPP) for daclatasvir and atazanavir.

- BMS first entered into an agreement with MPP in 2013 to allow for generic manufacturing of the HIV product atazanavir in 110 countries. BMS subsequently signed an extension of the licensing agreement to include 12 additional countries in 2017, allowing generic manufacturing of atazanavir for sale in 122 countries, accounting for 89% of people living with HIV (PLHIV) in LMICs. To date, MPP licensees have sold approximately 26 million packs of generic atazanavir/ritonavir across 90 countries, which means 2.1 million patient years of treatment supplied.
- In 2015, BMS entered into a voluntary licensing agreement with MPP to allow for generic manufacturing of the Hepatitis C product, daclatasvir in 112 countries. To date, an additional 31 countries have been added to the covered territory, bringing the total to 143 countries. In 2021, daclatasvir reached approximately 1.2 million patients.
- Tailored distribution strategies. As a multinational biopharmaceutical company, we operate either directly or through distributor partners in many countries. However, with our portfolio of products, it is not possible or appropriate for BMS to be in all countries. As a patientfocused company, we recognize that there may be a need for some of our products even in countries where we do not have a commercial operation and where these products are not available directly through BMS. To address this need, BMS works with a third-party business partner to make over a dozen of our medicines available to patients via Direct Import. Direct Import provides BMS, and more significantly it provides patients, with a means by which we can make important medicines available in countries where they might not otherwise be. Each year, BMS reaches between 40-120 healthcare providers in around 30-35 countries around the world, predominantly LMICs.



Section 3: The Road Ahead

Bristol Myers Squibb remains committed to advancing access and health equity globally as part of our mission to help patients prevail over serious diseases. We are committed to working with our partners to understand and contribute to addressing the root causes that underpin disparities in access and health outcomes.

Access & Health Equity Are Critical to Our Mission

As a leading biopharmaceutical company with a strong legacy tackling serious diseases such as HIV, Hepatitis C and cancer, Bristol Myers Squibb sits at the nexus of solving the most urgent health problems of our time. Cancer, cardiovascular diseases, immune disorders and emerging pandemic threats represent an ever-increasing burden on mortality and morbidity worldwide, and pose significant challenges to the pursuit of the Sustainable Development Goals by 2030.

Our innovations are only truly transformative if they reach the patients who need them, when they need them. Bristol Myers Squibb is deeply committed to working alongside partners to advance access and health equity in countries around the world.

Our innovations are only truly transformative if they reach patients who need them, when they need them. BMS is deeply committed to working alongside partners to advance access and health equity in countries around the world so that more patients can benefit from the company's breakthrough science, and live longer, healthier lives.

Solving for Access Requires More Recognition & Concerted Action

Advancing health equity and access to medicines and healthcare is a shared responsibility across a broad range of actors. Governments, industry, civil society, and other stakeholders need to work on the enabling conditions that sit within their respective spheres of influence and to coordinate their actions to support a comprehensive health system approach to improving access.

COVID-19 has compounded existing access challenges and disrupted care, exposing the fragility of health systems and the severity of social and health inequalities within and across societies. It has also highlighted the critical role of the biopharmaceutical industry.

We believe that some of the conditions and actions needed from across stakeholders include the following:

Research & Development:

- Creating an environment that encourages risk taking, partnerships and collaborations around R&D.
- Supporting more inclusive, patient-centered and patient-informed biomedical research processes throughout the R&D pipeline, including clinical trial and investigator diversity, site selection and development for healthcare organizations dedicated to serving underrepresented populations in clinical trials.

Health Systems Strengthening / Capacity Building:

- Implementing systems for governance, with shared accountability for access to medicines.
- Integrating cross-sectoral and donor efforts to create synergies from investments for public health, and developing new financing mechanisms, particularly for NCDs.
- Creating an efficient system for procuring and supplying medicines.
- Supporting innovative ways of enabling and delivering care to those in need, for example patient navigation and telehealth solutions that intentionally acknowledge and account for social determinants of health.
- Investing in infrastructure needs (e.g., human resources, financing systems, health literacy, and patient education).
- Investing in partnerships with community-based organizations with strong ties to underserved communities.

Delivery:

- Increasing capacity in and harmonizing regulatory systems to enable timely science-based regulatory and marketing approvals.
- Implementing innovative pricing models that have mutually beneficial clinical and economic outcomes for healthcare systems, patients, and biopharmaceutical companies.
- Developing public health-oriented trade policies, including the protection of intellectual property (IP) rights that acknowledge the contribution that IP protections make to the development of and access to medicines.
- Promoting diverse, global supply chains to prevent interruptions in the manufacturing of medicines. It is essential for manufacturers to maintain autonomy/flexibility in order to better respond to supply issues resulting from pandemics or other emergencies. Trade restrictions experienced during the COVID-19 pandemic have had a detrimental impact on supply availability and should be avoided going forward.

The biopharmaceutical industry will continue to be a critical partner in uncovering, developing, and delivering innovative solutions to localized access challenges. BMS firmly believes that measurement and reporting on access for the industry should be aligned with the complex nature of the issue, recognizing the weight of NCDs in today's global burden of disease as well as the significance of local capacity building contributions, and incentivizing investment in and collaboration towards solutions that can holistically advance access and health equity.

Looking Ahead

Bristol Myers Squibb continues to promote health equity and advance access to life-saving medicines in partnership with other stakeholders. Equity and access are critical to achieving UHC, patient health and well-being, as well as societal health and economic growth.

COVID-19 has compounded existing access challenges and disrupted care, exposing the fragility of health systems and the severity of social and health inequities within and across societies around the globe. It has also highlighted the critical role of the biopharmaceutical industry in inclusively discovering, developing and delivering medicines, as well as of cross-sector collaboration to address the enablers of access to life-saving innovations – namely strong health systems and actions to address the broader, deeply rooted dynamics that influence access and health equity.

Throughout the COVID-19 pandemic, BMS has focused on ensuring the continued supply of our medicines to our patients. We are also participating in partnerships and research efforts to advance diagnostics and treatments for COVID-19, and are supporting relief efforts across the globe.

We are also learning from this unprecedented situation — lessons which can help strengthen health systems, improve pandemic preparedness, and ultimately advance access moving forward. For example, remote check-in options via telemedicine for patients launched in response to the pandemic have streamlined clinical trials while increasing convenience for trial participants. BMS has also started to facilitate direct-to-patient shipping for some medications. In addition, BMS has responded to the crisis through a series of innovative contracting approaches that have increased access to BMS products and decreased the patients' need to travel to, and use, vital healthcare services. These changes, whilst disruptive at first, have accelerated BMS' clinical trial diversity efforts — geography is less of a barrier than it was before the pandemic.

Beyond the COVID-19 pandemic, macro trends that continue to shape the world, such as population aging, urbanization and migration, will further compound the challenges that patients face to access timely, affordable and quality healthcare, including for NCDs. This will require evolving and adapting solutions, including innovative approaches that transform the current paradigm of care and advance healthcare systems themselves. The following are four examples of work we at BMS, in partnership with other stakeholders, are particularly excited to advance:

Continuing our engagement in health equity:
 BMS recognizes the role that structural factors play in generating and broadening health inequities worldwide, within and across countries. BMS is committed to better understand, acknowledge, and contribute to addressing the root causes that underpin disparities in access and

health outcomes. Moving forward, we want to leverage and deepen our access contributions across the globe, learning from our health equity projects in the U.S. These include the "Standing in the Gaap", the "No Time to Wait" campaign, and the SDOH screening tool. Additional sub-population and/or disease specific health equity research is critical to identifying healthcare access disparities as well as their key drivers and is a key focus for BMS.

- Continuing to partner with others to advance, and pursuing additional opportunities for, demonstration projects in select LMICs: We are excited to explore the impact of projects such as the "Innovative Cancer Medicines" partnership and BMS' luspatercept project.
- Refining our innovative pricing approaches: Building on our experience with other medicines including for HIV and Hepatitis C, our pricing pilot for cancer products will be one important step to further inform BMS' overall approach to expanding access to innovative drugs in LMICs.
- Continuing to pursue voluntary licensing opportunities where the health system context is conducive: Drawing from our learnings from past IP-related initiatives, we are continuing to pursue new opportunities for voluntary licensing.

Bristol Myers Squibb is committed to driving positive change through innovation with heart. As we continue to help patients prevail over serious diseases, we will steadfastly uphold our commitment to work with other stakeholders to promote access to healthcare and health equity globally and strive to enable timely access to our medicines for patients who need them.





Spotlight on the Access Work of the BMS Foundation

ll Bristol Myers Squibb™ Foundation

The Bristol Myers Squibb Foundation, an independent charitable organization, focuses on broader healthcare initiatives that unlock critical system components to enable access to medicines including strengthening healthcare worker capacity, integrating medical care and community supportive services, and mobilizing communities in the fight against disease.

The BMS Foundation's mission is to promote health equity and improve the health outcomes of populations disproportionately affected by serious diseases, in the U.S. and in countries around the globe. The BMS Foundation has over 20 years of experience, with a historical focus on HIV, Hepatitis B and C and cardiovascular diseases. Since 1999, it has made a positive and lasting difference in the lives of more than 1 million women and children living with HIV through its support of more than 250 projects in 22 countries in sub-Saharan Africa. The Foundation is now leveraging its experiences in virology and applying related learnings to its current focus areas in cancer, immunology, hematology, and cardiovascular disease, working in regions that are hardest hit.

Health Equity & Social Determinants of Health

The BMS Foundation is working to achieve health equity by funding and supporting projects that: increase awareness and engagement among stakeholders, which leads to improving equitable access to high quality care for serious diseases; explore and demonstrate the effectiveness of innovative models of care that are effective for underserved and high risk communities; produce process and impact data to substantiate continued investment; drive real-world positive outcomes for populations affected by serious diseases; educate regarding policies and other sustainable solutions that effect scaling and long-term positive change.

The BMS Foundation focuses on understanding the social and structural conditions in each geographic context and addressing the social determinants of health (SDOH) to improve the quality of care and build capacity. In the U.S. the Foundation has extensive programs focused on health equity in the areas of cancer, cardiovascular disease and immunology. In Brazil, the Foundation supports healthcare organizations to create and sustain provider education programs informed by SDOH. The aim is to increase the cancer diagnosis rate and to train patient navigators and partners to identify high-risk individuals, implement screening and early detection programs, and increase cancer detection rates.

Broad Capacity Building

The BMS Foundation leverages its considerable HIV experience, infrastructure and existing local partnerships and community relations established over the years to support targeted healthcare capacity building efforts in LMICs to develop and deploy innovative approaches to address specific weak points in the healthcare ecosystem.

The BMS Foundation focuses on geographies where it can draw on strong legacy investments and in therapeutic areas of relevance to BMS, including Breast Cancer and Multiple Myeloma, to best leverage BMS expertise and strengths. For example, through its *Global Cancer Disparities-Africa initiative*, the BMS Foundation is using its experience and infrastructure for innovative clinical and community approaches in HIV/AIDS to address cancer care disparities in Africa:

With philanthropic funding from BMS and the BMS Foundation, the *Secure the Future®* program in 1999 committed approximately \$245 million through to 2016 to address HIV/AIDs and cancer. Initially working with partners in Africa and around the world to provide care and support communities affected by HIV, the initiative evolved to cancer with a focus on Cervical Cancer, Lung Cancer, Multiple Myeloma and pediatric cancer and blood disorders. The program operated in eight countries and has funded more than 250 projects since its inception, supporting the creation of innovative models of patient care that successfully bring together clinical and community approaches centered on patients.

Increasing outreach to underserved populations with cancer in sub-Saharan Africa

>4,000

Pediatric cancer healthcare professionals trained via Foundation projects

>10,000

Pediatric cancer patients treated, with a threeyear survival rate of 64%

>4,000

Heathcare professionals trained on lung screening, diagnosis, and treatment via Foundation projects

- This blueprint also informed the BMS Foundation's *Global HOPE* initiative (Hematology-Oncology Pediatric Excellence). In developed countries, 80% of pediatric cancers and blood disorders are cured, while in LMICs, only an estimated 15-45% are cured.⁴⁴ This is largely due to a significant lack of healthcare workforce and treatment capacity. Launched in 2017 in partnership with the Texas Children's Hospital, Baylor College of Medicine and the governments of Botswana, Malawi and Uganda, Global HOPE focuses on building long-term capacity to treat and dramatically improve the prognosis of children with cancer and blood disorders in southern and eastern Africa. As of today, over 4,000 healthcare professionals have been trained, and over 10,000 patients have been treated, with a one-year survival rate of 60 percent.
- In sub-Saharan Africa, Lung Cancer has been dramatically misdiagnosed due to the symptoms being very similar to Tuberculosis (TB). The BMS Foundation developed the Multi-National Lung Cancer Control Program in partnership with six collaborating countries (Tanzania, Kenya, South Africa, eSwatini, Ethiopia and Lesotho) and the WHO Stop TB Partnership to establish admission protocols for patients presenting with symptoms so Lung Cancer patients could be effectively diagnosed earlier and provided with the appropriate treatment. By December 2020, 3,992 healthcare professionals had been trained on lung screening, diagnosis, treatment and palliation; 656 patients were diagnosed with Lung Cancer and referred for treatment, and 590 received Lung Cancer treatment.

 Capacity building has also been supported through the BMS Foundation's well-established *Technical Assistance* Program (TAP) where currently 14 technical advisors in all areas of health systems strengthening work to support the Foundation grantees in all eight focus countries in Africa.

This experience has also provided important, structural learnings for how to address disparities in NCDs that are relevant for other geographies, and the BMS Foundation has been able to develop a broader portfolio of activities under its *Global Cancer Disparities Initiative*. In all its focus geographies, the BMS Foundation supports healthcare organizations to increase diagnosis rates, for example:

- In China, decades of investment, relationships and learning in hepatitis and liver health have evolved into a cancer model with a primary focus on Gastric and Liver Cancers – the second and fourth most prevalent cancers in the country. The BMS Foundation's work in China now consists of building screening, diagnostic, care, and support capacity for NCDs in lower tier hospitals across the country – as well as enhancing community education and patient navigation services. One such example is the BMS Foundation's support to Beijing iGandan Foundation to run a screening campaign across China targeting patients at high risk of hepatocellular carcinoma (Liver Cancer). The campaign is ongoing in 312 hospitals involving 1,000 hepatologists covering 300,000 patients. This is a direct value-add to China's vision for healthcare by emphasizing the role of both prevention and care.
- In Brazil, Lung Cancer is the leading cause of cancer death, and skin cancers including Melanoma occur at three to four times the rate of the global average. The BMS Foundation has launched a new initiative in the country in 2021, awarding seven grants aimed at improving the delivery of high-quality care for Lung Cancer and Skin Cancer to medically underserved and rural communities in the era of COVID-19. The organizations that have received grants are focused on community outreach and disease education, strengthening collaborations among primary care physicians and oncologists including through telehealth capabilities, and supporting efforts to promote early diagnosis and treatment. Select achievements in the first year include: average number of days for a patient to receive a definitive diagnosis after the first suspicion of a malignant neoplasm shorted to 30; 4 best practices catalyzed into policy to improve access to quality cancer care in the City of Porto Alegre. The grantees in Brazil exemplify the Foundation's strategy to identify organizations that are pioneering innovative health equity solutions, and funding from the Foundation enables them to develop, test, measure and demonstrate the effectiveness of programs to improve access to highquality healthcare.
- The BMS Foundation is also partnering with *Project ECHO* (Extension for Community Healthcare Outcomes) to improve access to quality cancer prevention, screening,



In December 2021, the World Health Organization (WHO) announced Botswana as the first and only "high-burden" country to reach the milestone for elimination of mother-to-child transmission of HIV. The announcement, made at the conclusion of World AIDS Day 2021, signifies that Botswana has reached a mother-tochild HIV transmission rate under 5 percent; provision of antenatal care and antiretroviral treatment to more than 90 percent of pregnant women; and an HIV case rate of fewer than 500 per 100,000 live births. Botswana's remarkable achievement to date on its journey to elimination is the result of a national response strategy spanning two decades, and shows how strong political leadership and the hard work of dedicated health care workers and communities can save lives.

The Bristol Myers Squibb Foundation in partnership with the Baylor College of Medicine International Pediatric AIDS Initiative, Texas Children's Hospital, and the government of Botswana, a country which historically has had one of the highest HIV prevalence rates in the world, established the first pediatric HIV treatment program in the country. To date, the program has enrolled almost 24,000 children, trained hundreds of healthcare practitioners and community workers, and served as a model of care and prevention for many other countries on the continent.

treatment, side-effect management, palliative care, and survivorship for underserved populations in the U.S. and in Africa. Access to specialty care is often unavailable in rural areas meaning patients are sent to urban cancer centers with increasing wait times. Many of these patients return to their own communities and primary care providers for follow-up care and treatment. Using proven adult learning techniques and interactive video technology, the ECHO Model[™] connects groups of community providers with specialists at centers of excellence in regular real-time collaborative sessions. Implementing tools such as the ECHO model™ gives an opportunity for these rural and community healthcare providers to consult specialists and develop the ability to better treat their patients. As of May 2021, there were seven cancer ECHO Hubs in six African countries, running 34 programs reaching 26 countries

with 5,900 participants. In response to the COVID-19 pandemic, the BMS Foundation supported Project ECHO to scale healthcare provider training and deepen the effectiveness of the implementation of COVID-19 clinical care, public health, health service delivery and community outreach and engagement interventions for communities and populations most at risk from the virus. More than 600,000 healthcare and community supportive service workers have participated in ECHO COVID clinics to date.

Looking ahead, the BMS Foundation is excited about expanding and deepening the geographical reach of capacity building for cancer globally by advancing, for example, its collaboration with Project ECHO. Learnings from this collaboration will strengthen the capacity of providers to deliver best-in-practice care to patients in their own communities.



Endnotes

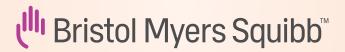
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