



The Value of Cancer Medicines Worldwide





Our Vision

To be a leader in oncology by speeding cures and accessible breakthrough medicines to patients, working to redefine life with cancer.

Pfizer Oncology is committed to the discovery, investigation, and development of innovative treatment options to help improve the outlook for cancer patients worldwide.

More than a decade ago, Pfizer's commitment to oncology began with advances in breast and colorectal cancers. Our heritage and expertise in developing and discovering new treatments for serious diseases have enabled us to build a world-class portfolio of treatments for patients with breast cancer, lung cancer, kidney cancer, blood cancer, and in the emerging field of immunoncology. Today, our therapies continue to play an important role in cancer clinics around the world.

A NEW WAVE OF DISCOVERY IN THE CANCER COMMUNITY

The Current State of Innovation

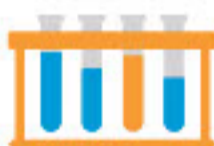
Today, we are experiencing a remarkable period of innovation in cancer therapy.

Discovery of the genomic basis for certain cancers has enabled the identification of new disease subsets and the development of specific therapies that treat those subsets. These insights are leading to new targeted therapies and immunotherapies that are creating hope for patients.



More than
800

drugs are in **development**
to treat cancer¹



Roughly
80%

of cancer drugs in
development are
potential **first-in-class**
medicines¹



73%

are potential
personalized
medicines²

New molecularly targeted drugs have transformed the care of thousands of patients with difficult-to-treat cancers. Today, entire new classes of drugs have begun to emerge.

As our understanding of the underlying biology of cancer evolves, we continue to follow the science and innovate the way we discover and deliver cancer treatments so that patients and physicians can benefit from these advances.

FAST FACT

In 2016, the FDA approved 22 new molecular entities and the EMA approved 27 new active substances. **About a third of these approvals were for new oncology medicines.**^{2,3}





DID YOU KNOW?

Cancer is the second leading cause of death worldwide.

Globally, nearly 1 in 6 deaths are due to cancer.⁵

In 2015 alone, **8.8 million people worldwide died from cancer.**⁵

OVERCOMING THE CHALLENGE

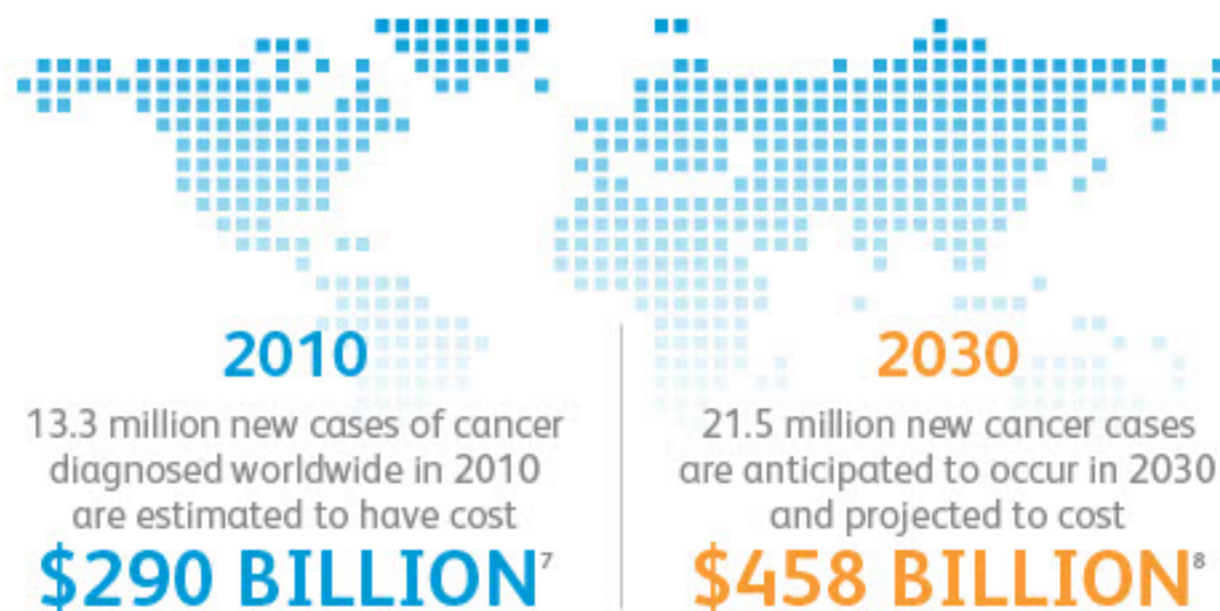
The Burden of Cancer and the Need for New Therapies

Significant progress has been made in the fight against cancer. However, cancer is a complex disease.

With hundreds of signaling pathways with multiple causes that respond differently to various treatments, cancer remains an ongoing challenge with enormous health and financial burdens on patients and society.

A cancer diagnosis is an overwhelming experience for patients, family members, and friends. Cancer not only impacts patients and those close to them but also has a profound economic impact on society, from the direct costs of treating the disease to indirect costs such as loss of productivity.⁴

To help curtail those burdens, a continued commitment to breaking through this complexity and developing more effective, safer, and innovative treatments in cancer care is essential.



Redefining Life With Cancer

Preventive measures and innovative medical advances have contributed to prolonging and improving the quality of life of millions of patients living with cancer.

Discovering and developing cancer treatments requires a commitment and investment of time, effort, and financial resources. Pharmaceutical companies like Pfizer reinvest a significant portion of their revenues—in the billions of dollars—into innovative research efforts to discover and develop the next wave of new medicines, and this commitment is growing. For instance, the amount invested globally in research and development by pharmaceutical companies was USD 157 billion for 2016, and represents a 6 percent increase over 2015 levels.⁶

Advances in cancer research have yielded valuable prevention and treatment options that have increased the quality and length of patients' lives. These positive clinical gains, including advances in surgical and radio-oncological treatments, can generate societal value by offsetting other medical costs and improving productivity gains.

 BETWEEN 1981 AND 2010, **CANCER MORTALITY RATES DECREASED 20% AND 15% FOR MEN AND WOMEN, RESPECTIVELY, IN THE MOST HIGHLY DEVELOPED COUNTRIES.**⁷

 IN THE REST OF THE WORLD, **CANCER MORTALITY DECREASED 4% AND 5% FOR MEN AND WOMEN, RESPECTIVELY.**⁷

 FIVE-YEAR SURVIVAL RATES FOR CHILDHOOD CANCERS RANGE **FROM 80% IN DEVELOPED COUNTRIES TO AN AVERAGE OF 20% IN LOW-RESOURCE COUNTRIES.**⁸

STUDY HIGHLIGHT

The value worldwide of healthy years of productive life that could be saved by implementing strategies for **prevention, early detection, and treatment totals between USD \$331 and USD \$451 billion.**⁹



THE LIFE CYCLE OF MEDICINES

A Delicate Balance of Affordability and Innovation

Because medicines can extend and improve lives, they remain some of the most powerful levers in healthcare to reduce the burdens and costs of disease.

Yet, there remains considerable debate about the costs of medicines and sustainability of continuing to pay for cancer care.

In developed countries, between 8.6% and 15.9% of the total drug bill is spent on oncology and supportive care medicines. Not all cancer drugs are reimbursed under public insurance programs when these drugs become commercially available. National health systems' priorities may result in declining to reimburse some products, which pose barriers to access for new cancer drugs in those countries.¹⁰

The pharmaceutical intellectual property system provides strong incentives to innovate and includes built-in price reductions through generics. Biosimilars are on the horizon. While the cost of treatment declines with patent expiration, the medicines themselves continue to add value in perpetuity.



As have other therapies, we believe that innovative cancer treatments will benefit the healthcare system and reduce the burden on patients, families, and society.

For innovator companies, the current research and development environment represents a delicate balance of innovation and affordability. Pfizer works to be a part of the solution to make our medicines affordable and to help balance the long-term need for innovation with patient, government, and payer concerns.

FOOD FOR THOUGHT

Although therapy treatment costs of cancer medicines have increased 39% over the past ten years, over the same period, **patient response rates have increased 42%—a clear reflection of improved outcomes.**¹¹



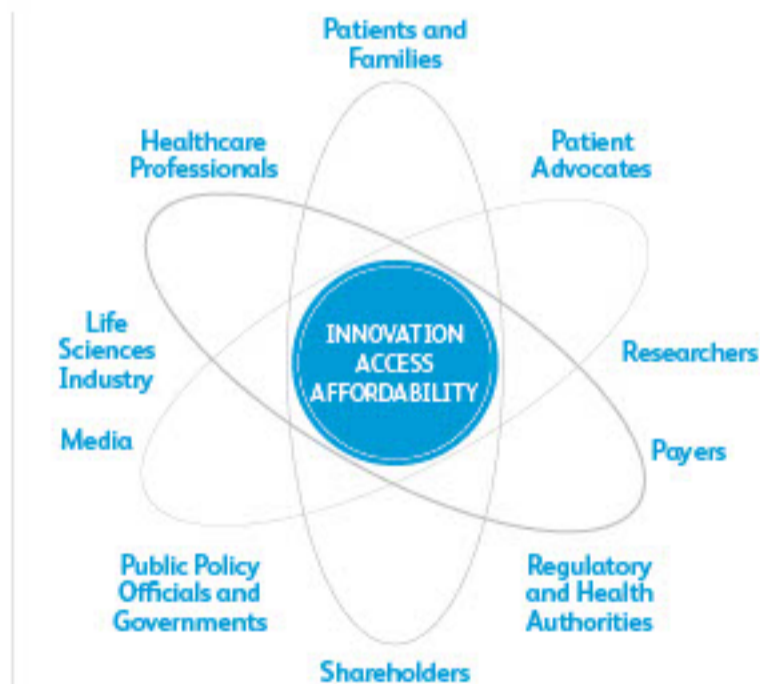


LEADING STAKEHOLDER COLLABORATION

Improving Access Together

Pfizer believes that all individuals deserve access to quality healthcare and the opportunity to lead healthy lives. We combine creative commercial strategies with philanthropic approaches to create a sustainable and meaningful impact on global health.

Pfizer's goal is access to our medicines for all patients who need them. Patients cannot—and should not have to—manage the costs of cancer care alone. Our multiple approaches to social investments apply novel, well-researched and sustainable approaches to meet the health needs of the underserved while investing in the health of our communities and of our business. We strive to make the best use of Pfizer's resources—our people, products, and funding—to help build health care capacity and expand access to medicines and vaccines.



For example, Pfizer is collaborating with the American Cancer Society (ACS) and the Clinton Health Access Initiative (CHAI) on a program designed to expand access to an affordable portfolio of essential oncology treatments in six countries in Sub-Saharan Africa.¹⁵

Pfizer will continue to work with all stakeholders on novel solutions and new models that improve the quality of cancer care, patient access, and the efficiency of healthcare delivery.

ACCESS IN ACTION

Prevention, early detection, and treatment could save between 2.4 and 3.7 million lives each year, 80% of them in low- and middle- income countries.¹²

Non-communicable diseases like cancer and heart disease kill 40 million people every year—threequarters of whom are in low- and middle-income countries. Long committed to turning this around, Pfizer is now boosting our efforts by joining with more than 20 of our industry peers and advocacy partners in a coalition called Access Accelerated, aiming to advance non-communicable disease care globally.^{13,14}



REFERENCES

1. Medicines In Development for Cancer. The Pharmaceutical Researchers and Manufacturers of America (PhRMA) and American Association for Cancer Research (AACR). 2015. <http://phrma.org/sites/default/files/pdf/oncology-report-2015.pdf>. Accessed October 12, 2016.
2. 2016 Novel Drugs Summary. U.S. Food and Drug Administration (FDA) Center of Drug Evaluation and Research. 2016. <https://www.fda.gov/Drugs/DevelopmentApprovalProcess/DrugInnovation/ucm483775.htm>. Accessed October 19, 2017.
3. European Medicines Agency. Human Medicines Highlights 2015. http://www.ema.europa.eu/docs/en_GB/document_library/Leaflet/2016/01/WC500199664.pdf. Accessed June 27, 2017.
4. European Medicines Agency. Annual Report 2016. http://www.ema.europa.eu/docs/en_GB/document_library/Annual_report/2017/05/WC500227334.pdf. Accessed October 16, 2017.
5. Cancer in 2014. American Association for Cancer Research (AACR). 2014. <http://cancerprogressreport.org/2014/pages/cancer2014.aspx?page=0>. Accessed October 12, 2016.
6. World Health Organization. Cancer: Key Facts. 2017. <http://www.who.int/mediacentre/factsheets/fs297/en/>. Accessed June 27, 2017.
7. PAREXEL Biopharmaceutical R&D Statistical Sourcebook 2017/2018. Accessed November 16, 2016.
8. SBMJ. Benchmarking life expectancy and cancer mortality: global comparison with cardiovascular disease 1981-2010. 2017. <http://www.bmj.com/content/357/bmj.j2765>. Accessed July 10, 2017.
9. Costs Include: medical costs, non-medical costs, and income losses. Bloom DE, Cafiero ET, Jané-Llopis E, Abrahams-Gessel S, Bloom LR, Fathima S, et al. The global economic burden of non-communicable diseases. Geneva (Switzerland): World Economic Forum; 2011.
10. Union for International Cancer Control. The Economics of Cancer Prevention and Control Data Digest. 2014. 2014. http://issuu.com/uicc.org/docs/wcls2014_economics_of_cancer_final?e=10430107/10454633. Accessed June 27, 2017.
11. IMS Institute for Healthcare Informatics. Global Oncology Trend Report. 2016. <https://morningconsult.com/wp-content/uploads/2016/06/IMS-Institute-Global-Oncology-Report-05.31.16.pdf>. Accessed June 27, 2016.
12. IMS Health finds global cancer drug spending crossed \$100 billion threshold in 2014. IMS Institute for Healthcare Informatics. 2015. [https://www.imshealth.com/en/thought-leadership/ims-institute/reports/ims-health-finds-global-cancer-drug-spending-crossed-\\$100-billion-threshold-in-2014-article](https://www.imshealth.com/en/thought-leadership/ims-institute/reports/ims-health-finds-global-cancer-drug-spending-crossed-$100-billion-threshold-in-2014-article). Accessed October 12, 2016.
13. Union for International Cancer Control. The Economics of Cancer Prevention and Control Data Digest. 2014. http://www.iccp-portal.org/sites/default/files/resources/WCLS2014_economics_of_cancer_FINAL-2.pdf. Accessed October 19, 2017.
14. World Health Organization. Noncommunicable Diseases: Key Facts. 2017. <http://www.who.int/mediacentre/factsheets/fs355/en/>. Accessed June 27, 2017.
15. Access Accelerated. <http://www.accessaccelerated.org/>. Accessed June 27, 2017.
16. Clinton Health Access Initiative Press Release (June 20, 2017). <https://clintonhealthaccess.org/1734-2/>. Accessed November 10, 2017.