

COMPARATOR REPORT CANCER IN EUROPE

The *Comparator Report on Cancer in Europe* provides an overview of the current state of cancer care in Europe. Developed by the Swedish Institute for Health Economics, it reflects on major trends in cancer across Europe, including patient outcomes, disease burden and patient access to care and treatment as well as potential solutions to tackle cancer.

EFPIA is keen to support and work with the cancer community to ensure that everyone facing a cancer diagnosis in Europe is able to benefit from optimal treatment and care.

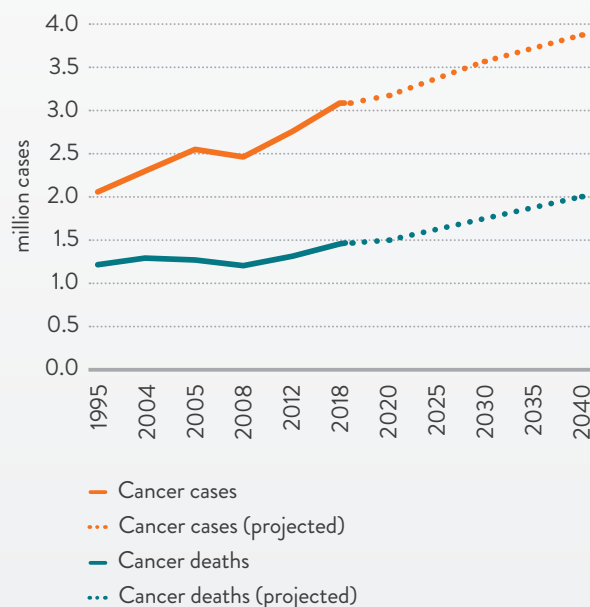
OUTCOMES FOR CANCER PATIENTS ARE IMPROVING THANKS TO ADVANCES IN PREVENTION, DIAGNOSIS AND TREATMENT

The impact of cancer on European healthcare systems is increasing.¹ The number of people diagnosed with cancer across Europe has risen by approximately 50% over the past two decades.¹ Today, cancer is responsible for one in every four deaths in Europe, making it the second leading cause of death and disability after cardiovascular disease.² With an ageing and growing European population, this trend is set to continue. The number of cancer cases is projected to increase to an additional 775,000 diagnoses by 2040.³

Although more people are being diagnosed with cancer, improvements in services and treatments are leading to better outcomes. The number of cancer deaths has increased at a much slower pace (20%) than that of cancer cases (50%).⁴ Once population growth and ageing have been accounted for, the number of cancer deaths has in fact decreased since the mid 1990s.⁵ Thanks to scientific progress, survival is also improving, giving many people the chance to live longer with better quality of life.⁶



THE NUMBER OF CANCER DEATHS IN EUROPE IS INCREASING AT A SLOWER PACE THAN THE NUMBER OF CANCER DIAGNOSES¹

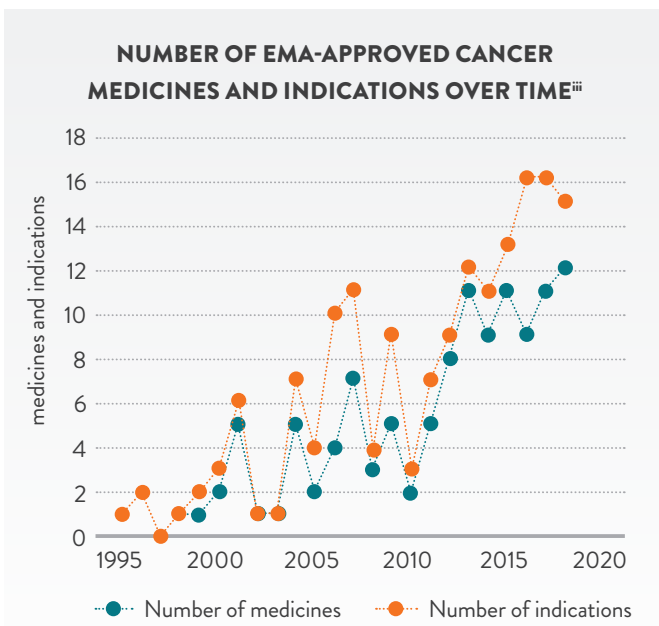


Cancer outcomes are driven by a number of factors, including effective prevention and screening programmes as well as advances in diagnostics. In addition, a recent step-change in treatment has paved the way for further improvements in cancer survival.

TREATMENTS FOR OVER 160 INDICATIONS WERE APPROVED SINCE 1995ⁱⁱ



Advances in cutting-edge research are increasing our understanding of cancer and how it develops. Novel treatments and diagnostics are being explored for countless newly-identified molecular targets.⁷ As a result, there has been a distinct increase in the number of cancer medicines and indications over recent years, helping to stop cancer in its tracks and in some cases even reverse it.⁸

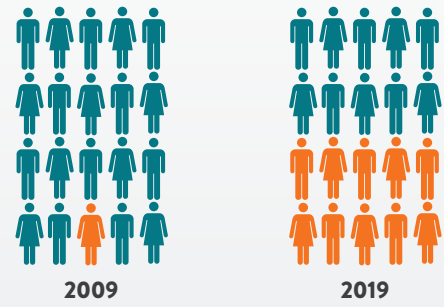


MORE NEEDS TO BE DONE TO ENSURE THAT EVERYONE FACING A CANCER DIAGNOSIS CAN BENEFIT FROM SCIENTIFIC PROGRESS

There is no room for complacency on cancer anywhere in Europe. If current trends continue, cancer is set to overtake cardiovascular disease and become the leading cause of death and disability in Europe.¹³ Yet only 6.2% of the overall health budget is allocated towards cancer care and treatment.¹⁴

Spending on cancer, including medicines, has doubled since the mid 1990s from €52bn to €103bn driven by demographic developments and the increasing number of tumour types we can treat. However, its overall share of the total health budget has remained stable over the past 20 years.¹⁵

FIVE YEAR METASTATIC SKIN CANCER SURVIVAL OVER TIME^{iv}



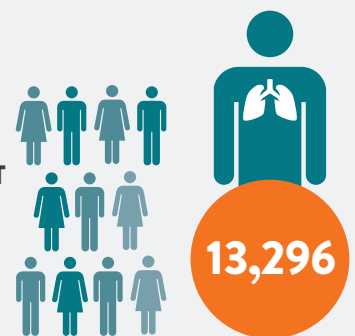
ADVANCES IN CANCER TREATMENTS HAVE HELPED TO IMPROVE 5 YEAR METASTATIC SKIN CANCER SURVIVAL FROM 5% TO OVER 50% OVER THE PAST DECADE – YET THERE IS A LONG WAY TO GO^v

Over the past decade there has been a profound shift in cancer treatment from chemotherapies towards more targeted therapies.⁹ These therapies are tailored to the specific characteristics of the tumour, resulting in more effective treatment with fewer side effects and longer-term consequences of treatment. Over 300 antibodies are currently in clinical development for an increasing number of tumour types.¹⁰

The past five years have also seen the introduction of immunotherapies, which work with the body’s own immune system to target the cancer. This has led to marked improvements in skin and lung cancer survival.¹¹

New gene and cell-based therapies are also being introduced, providing a potential one-off curative treatment for some cancers.¹² As a result of these innovations in treatment, cancer is increasingly transforming from an acute into a chronic disease.

13,296 MORE LUNG CANCER PATIENTS ARE ALIVE FOR AT LEAST FIVE YEARS FOLLOWING A DIAGNOSIS IN 2014, COMPARED TO THOSE DIAGNOSED IN 2004^v



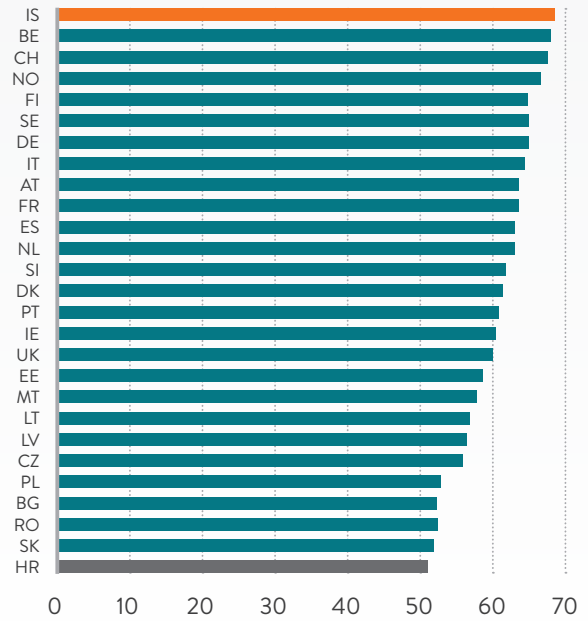
This has been achieved through enabling efficiencies in other parts of the healthcare system. As a result of more effective treatment and advances in treatment administration, patients can increasingly receive care in the community

or at home, allowing those affected to lead more active lives and reducing the burden on hospital wards.¹⁶

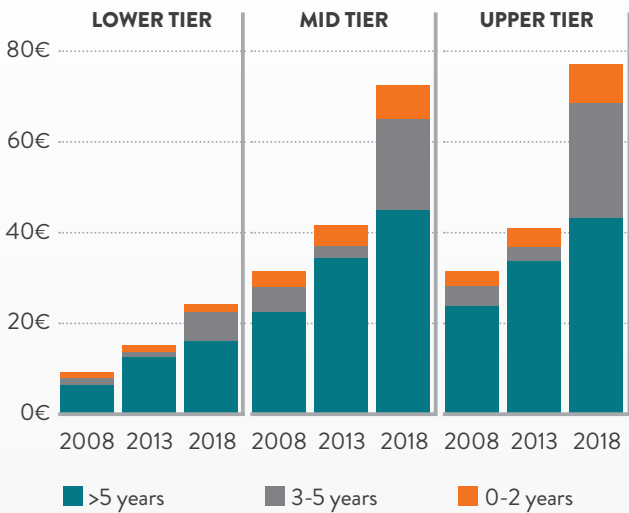
Direct investment in cancer care has resulted in a 9% reduction in costs associated with the wider impact of the disease, such as lost or reduced productivity.¹⁷ Through more effective treatment and management of the condition, those affected are able to return to the workforce earlier, benefiting not only the patient but also their family and society overall.

However, not everyone in Europe is able to benefit from these advances. Variation in cancer medicine uptake across Europe suggests differing levels of patient access to treatment.¹⁸ Given that those countries that invest more in cancer care tend to achieve better patient outcomes, more needs to be done to ensure every patient has access to the latest standard of care and treatment no matter where in Europe they live.

**COLON CANCER
FIVE YEAR SURVIVAL 2010-14 IN %**



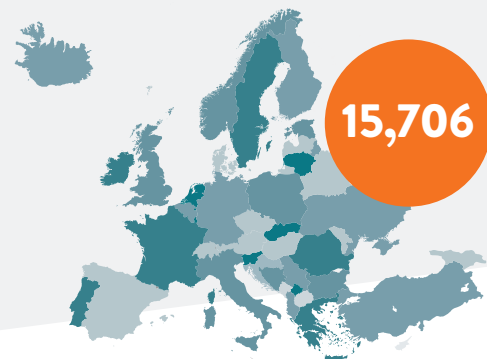
SALES OF CANCER MEDICINES (IN € PER CAPITA) BY TIME SINCE EMA APPROVAL AND GROUP OF COUNTRY^{vi}



LOWER-TIER COUNTRIES DEDICATE APPROX. 1/3 OF THE AMOUNT ON MEDICINES THAN THE COUNTRIES WITH THE HIGHEST GDP PER CAPITA.^{vi}
NEW CANCER MEDICINES ONLY TAKE UP 8% OF OVERALL CANCER MEDICINE SPEND

Cancer is a complex disease. As our understanding of the disease pathology evolves, the number of tumour types we can treat increases, often involving smaller patient populations. Evolving treatments often require new or adapted endpoints to measure efficacy, for instance in early (adjuvant) or slow progressing disease (some blood cancers), where using traditional indicators such as overall survival to assess treatment impact may not be feasible. These factors can contribute to uncertainty over the extent and duration of the clinical benefit. Healthcare systems therefore need to strike a balance between enabling timely patient access to promising treatments and ensuring long-term clinical benefit whilst the data continues to mature.

VARIATION IN CANCER OUTCOMES CONTINUE TO PERSIST WITH ALMOST 70% OF PEOPLE WITH COLON CANCER STILL ALIVE 5 YEARS AFTER DIAGNOSIS IN ICELAND COMPARED TO ONLY 50% IN CROATIA^{vii}



IF EVERY COUNTRY WERE TO ACHIEVE THE COLON CANCER SURVIVAL RATES OF ICELAND, THEN AN ADDITIONAL 15,706 PEOPLE WOULD SURVIVE FOR AT LEAST FIVE YEARS^{vii}

In addition, introducing advanced treatments can pose new challenges for European healthcare systems (e.g. combination, multi-indication or one-off treatment use). We want to ensure that everyone is able to benefit from the fruits of scientific research. Novel and advanced pricing and payment models (e.g. combination/indication based pricing or outcomes based, over-time and subscription payments) are required to prevent delayed or reduced patient access to treatment.¹⁹ Whilst there are examples of these models being used today, the lack of appropriate data infrastructure, legal barriers and reluctance to adapt current systems can prevent their use.

THE WAY FORWARD: WORKING TOGETHER FOR A BRIGHTER TOMORROW FOR PEOPLE WITH CANCER IN EUROPE

The rising burden of cancer affects us all. It is estimated that one in two people will face a cancer diagnosis at some stage of their lives.²⁰ The research-based pharmaceutical industry stands ready to play its part in discovering and developing new cancer medicines and in enabling fair and sustainable access to advances in treatment.

INDUSTRY INVESTED €8.5BN INTO CANCER RESEARCH IN 2015 IN THE EU^{viii}



Scientific research has been the catalyst of the recent improvements in cancer outcomes. Industry continues to invest, pushing the boundaries of our understanding of cancer, how it develops and how it can be effectively treated. The €8.5bn investment by industry into cancer research per year is a reflection of this commitment, which has grown at a considerably faster pace than the research funding from public sources (€1.5bn).²¹

Realising the opportunities of innovation in cancer care and addressing the barriers to effective patient access requires concerted efforts from the entire cancer community. EFPIA's Oncology Platform welcomes the renewed focus on cancer expressed by the EU institutions and Member States. Through our work with the cancer community, we have identified three priority areas for change to ensure we harness the progress achieved to date and promote future advances in cancer care:

PRIORITY 1: IMPROVING THE SUSTAINABILITY AND INTEGRATION OF CANCER CARE

In response to the growing incidence and prevalence of cancer, policy-makers at European and national level need to appropriately prioritise it, including sufficient levels of funding for cancer prevention, screening, treatment and survivorship.

PRIORITY 2: ACCELERATING THE TIME IT TAKES TO GET NEW TREATMENTS TO PATIENTS

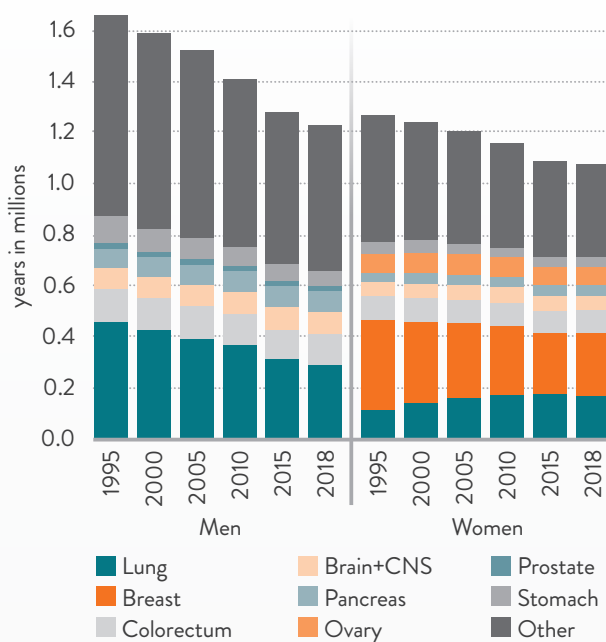
To enable timely patient access to promising new treatments, regulatory, healthcare technology assessment and payer decision-making processes need to evolve, recognising the need for patient-focused assessments of benefit, consideration of novel surrogate endpoints, comprehensive patient approach and appropriate data monitoring to confirm expected benefits over time.

PRIORITY 3: DEVELOPING TAILORED PRICING AND REIMBURSEMENT MODELS FOR CANCER MEDICINES

Novel pricing and payments models have the potential to further accelerate patient access, allowing payers to manage clinical uncertainty, budget impact and sustainability of healthcare systems, whilst providing sufficient incentives for innovation. We stand ready to work with the stakeholder community to encourage the wider and appropriate adoption of these models by healthcare systems across Europe.

We believe that we, as industry partners, have an important role to play. We are working with stakeholders across Europe on initiatives addressing all three priority areas and look forward to future collaborations to ensure patients continue to benefit from scientific progress in cancer care.

THE NUMBER OF POTENTIAL YEARS OF WORKING LIFE LOST DUE TO CANCER IN EUROPE HAS DECREASED SINCE 1995^{ix}



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