The case for investing in a healthier future for the European Union

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Abstract

Investment cases for health are critical tools for promoting policies, raising awareness, and securing funding for the prevention, detection, and treatment of noncommunicable diseases (NCDs). They can demonstrate how the right investments can enhance health outcomes and offer significant economic returns, especially through cost-effective disease management.

Slow economic growth and shifting political priorities post-COVID-19 have led to declining health system investments across the European Union despite increased demands from an ageing population and rising burden from NCDs. To address these challenges, the European Federation of Pharmaceutical Industries and Associations commissioned an investment case focusing on innovative, value-based approaches to health spending.

This report analyses the economic and health benefits of investment in five key NCDs – stroke, ischaemic heart disease, type 2 diabetes, chronic obstructive pulmonary disease, and breast cancer – across the 27 European Union Member States. It includes case studies showcasing the substantial returns on investment from targeted health interventions, with specific insights from initiatives in Portugal, Romania, and Sweden. The reports aims to demonstrate how targeted health interventions can deliver significant returns on investment and provide policymakers in financial and health ministries with actionable insights to develop best practices for strengthening health systems in the coming decades.

Contents

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The leadership and guidance of the EFPIA Health Systems Working Group were instrumental in bringing this report to fruition.

The report was developed in multiple stages, beginning with a desk review and collection of economic data. This was followed by key informant interviews and roundtable discussions with national stakeholders to gather qualitative insights.

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Abbreviations

COPD	chronic obstructive pulmonary disease
EFPIA	European Federation of Pharmaceutical Industries and Associations
EU	European Union
GDP	gross domestic product
NCD	noncommunicable disease
NHIH	National Health Insurance House
ROI	return on investment

About this report

This report presents a concise summary of the key findings from an analysis of health investment in the European Union (EU), focusing on noncommunicable diseases (NCDs). It provides an overview of the economic and health benefits of investing in the prevention, early detection and treatment of five major NCDs – stroke, ischaemic heart disease, type 2 diabetes, chronic obstructive pulmonary disease (COPD) and breast cancer – across the 27 EU Member States. The report also highlights specific insights from Sweden, Romania and Portugal, demonstrating how targeted health interventions can yield substantial return on investment (ROI).

For those seeking a more comprehensive analysis, including detailed methodologies and the complete set of findings, Annex 1 provides an in-depth exploration of these topics.

Key messages

01 €

Burden of NCDs

The burden of NCDs in the EU is substantial and growing, affecting both longevity and quality of life across the European population, as well as significant costs for health systems and societies.

02

Prevention and early intervention

Investing in the prevention, early diagnosis and treatment of diseases offers substantial short- and long-term health and societal benefits, which, when translated into financial outcomes, demonstrate significant return on investment for societies.

03 €

Policy environment

Policy change is needed to ensure that these investments can take place and give maximum return to patients, health systems and society.

Background

Investment cases for health are critical tools for driving policy, raising awareness and securing investment towards the prevention, early detection and treatment of noncommunicable diseases (NCDs). They can demonstrate how the right investments can enhance health outcomes and offer significant economic returns, especially through cost-effective disease management.

Slow economic growth and shifting political priorities post-COVID-19 have led to declining health system investments across the European Union (EU) despite increased demands from an ageing population and rising burden from NCDs. While an ageing population is a positive indicator of longer life expectancy, it also brings additional health-care demands.

Countries and governments face the complex challenge of ensuring that people live longer, healthier lives by making strategic investments in both prevention and treatment. In response to this need, the European Federation of Pharmaceutical Industries and Associations (EFPIA) commissioned a forward-looking investment case for health, focusing on innovative solutions and a holistic, value-based approach to health spending. Emphasis is placed on the importance of long-term resource allocation when addressing these issues, noting the significant role that pharmaceutical innovation has played in improving NCD outcomes over the past 30 years.

This report presents a focused analysis of the economic and health benefits of sustained investment in five key NCDs – stroke, ischaemic heart disease, type 2 diabetes, chronic obstructive pulmonary disease (COPD) and breast cancer – across the 27 EU Member States. It also examines the health system responses of Sweden, Romania and Portugal, showcasing the substantial return on investment (ROI) that can be achieved through targeted interventions in these specific case study contexts.

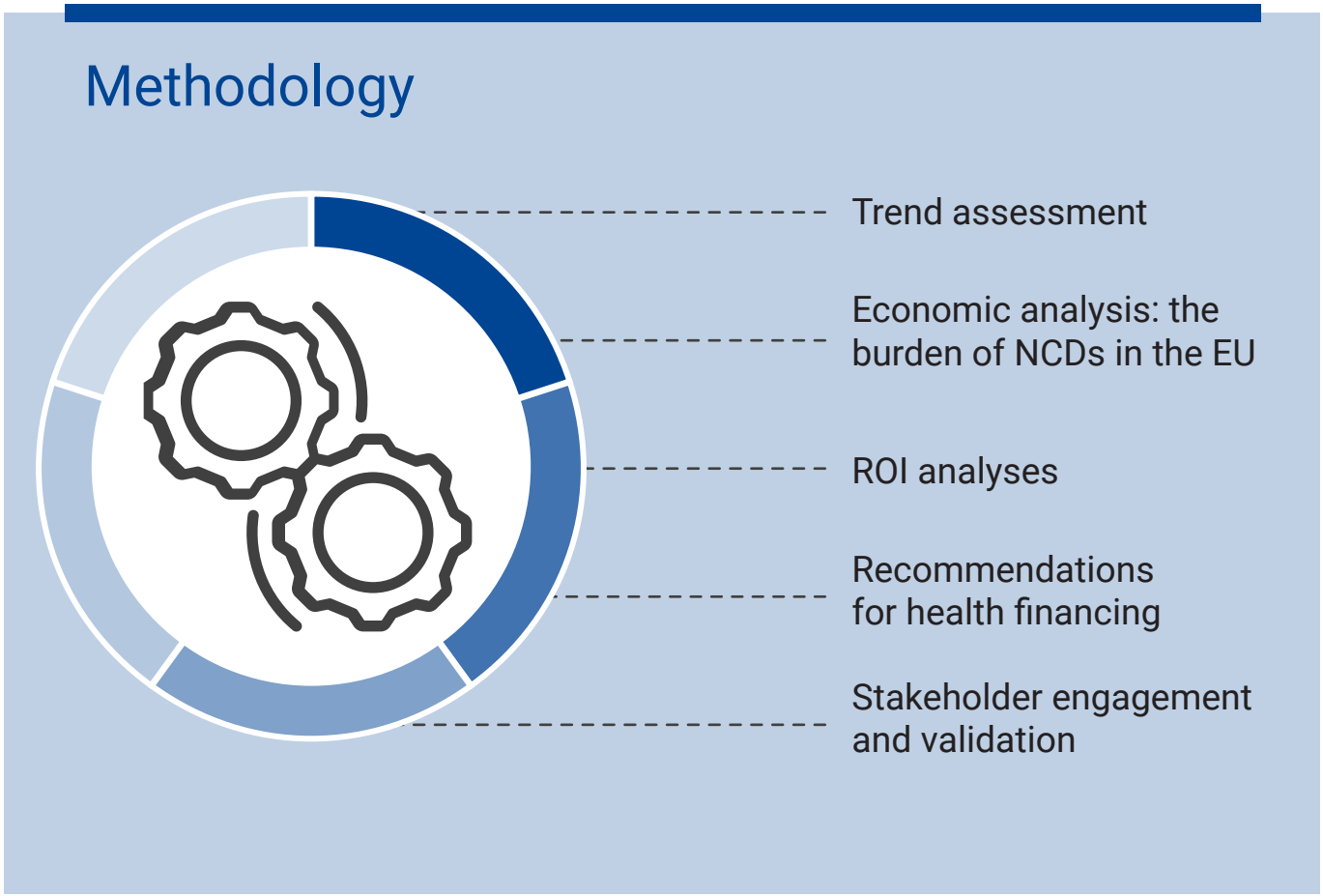
By prioritizing NCD management and scaling up effective interventions, the EU can improve population health and achieve considerable economic benefits in the long term.

Approach

This investment case was developed using a structured approach integrating trend assessment of health-care expenditures, economic analysis, and stakeholder engagement to assess and project the costs and benefits of investing in disease prevention, early diagnosis and treatment across the EU.

Three countries (Portugal, Sweden and Romania), each representing distinct health care approaches, were studied to gain insight into the trends affecting health-care expenditure across the EU. ROI analyses were conducted for diabetes and COPD interventions in Portugal, interventions for cardiovascular diseases in Romania and comprehensive breast cancer interventions in Sweden.

The methodology was designed to provide policy-makers with clear insights and demonstrate the link between sustained investment in health systems and the resultant improvements in health outcomes and economic benefits.



Trend assessment

The initial phase involved analysing health-care expenditure trends and identifying the leading causes of health-care expenses (key cost drivers) across the EU. This was achieved through a comprehensive review of current literature, data, and policy documents, focusing on NCD management and demographic changes, particularly population ageing. Expert insights and case studies from selected countries were incorporated to ensure that the analyses accurately reflected the realities of health systems. Thus, the assessments form a reliable basis to inform strategic health policy development.

Economic analysis: the burden of NCDs in the EU

The three economic analyses examined several cost drivers and factors affecting European health-care systems to draw conclusions for future policy-making.

Health burden

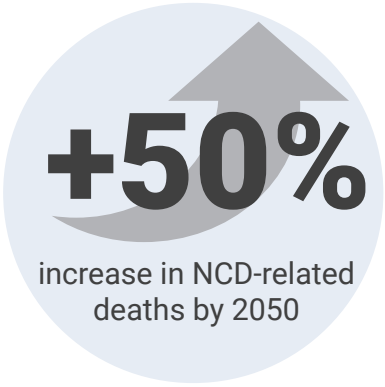
Incidence, prevalence and mortality rates from the Institute of Health Metrics and Evaluation's Global Burden of Disease 2019 study *(1)* were used to estimate the health burden of stroke, ischaemic heart disease, type 2 diabetes mellitus, COPD and breast cancer across the 27 EU Member States. Projections from the United Nations Department of Economic and Social Affairs *(2)* were used to forecast future annual health burdens until 2050. The analysis assumes constant incidence, prevalence and mortality rates, attributing any changes in the yearly number of cases and deaths to demographic rather than epidemiological changes.

Economic burden structure

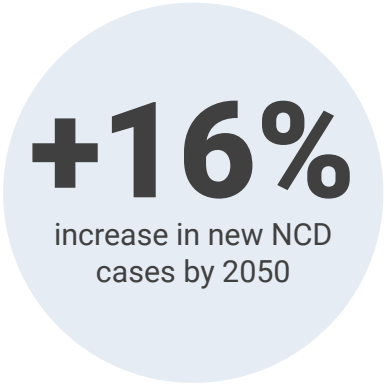
A cost-of-illness approach[a] was used to estimate both direct and indirect economic losses arising from each of the five selected NCDs[b] from 2023 to 2050. Direct costs encompass health-care system expenditures on treatment and management, while indirect costs include premature mortality, absenteeism and presenteeism-related productivity losses. A prevalence-based approach was applied to most diseases, with an incidence-based approach used specifically for breast cancer to avoid overestimating costs and productivity impacts, both of which are most significant in the first year after diagnosis.[c]

[a] Cost of illness is defined as the value of resources expended as a result of a particular health problem.
[b] Stroke, ischaemic heart disease, type 2 diabetes, COPD, and breast cancer.
[c] The prevalence-based approach estimates all health-related losses over the course of a year, whereas the incidence-based approach captures the burden of disease in new diagnostic cases.

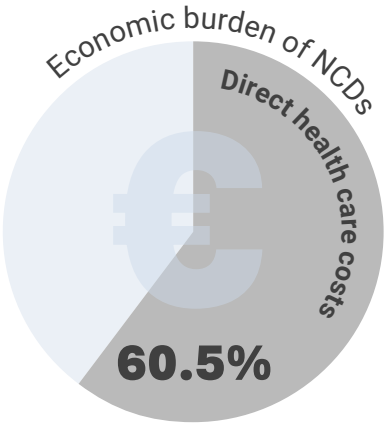
Current economic and health burden of NCDs in the EU



In 2023 alone, five of the major NCDs – stroke, ischaemic heart disease, type 2 diabetes, COPD, and breast cancer – were responsible for **1.5 million deaths** across the EU. If current trends continue, these diseases are projected to cause **2.2 million deaths** annually by 2050, a staggering 50% increase.



By 2050, the annual number of **new NCD cases** is expected to reach **7.4 million** or a 16% increase from current figures.



In 2023, five of the major **NCDs cost the EU about €530 billion** – equivalent to 3.13% of its combined annual GDP.

Direct health-care costs, amounting to **60.5%**, were the most significant contributors.

Direct health-care costs

The direct costs for each NCD were estimated by multiplying the average cost per patient by the number of treated patients. These costs include government and private health spending on drugs, medical staff salaries, supplies, and procedures for treating and managing the five selected diseases. Health-care costs incurred as a result of some of the complications of these diseases are not included due to challenges in quantifying them accurately. As a result, the ROIs are conservative and would be higher if these complications were included. The costs were sourced from published literature and adjusted using utilization rates provided by the Organisation for Economic Co-operation and Development where country-specific data were unavailable.

Cost of absenteeism and presenteeism

Economic losses due to absenteeism (missed workdays) and presenteeism (reduced productivity) were quantified using a multistep approach. This involved determining the number of economically active individuals, applying incidence rates to estimate the affected workforce and using productivity reduction rates (as a result of illness) from the literature. Gross domestic product (GDP) per worker was then used to estimate the losses due to these factors.

Cost of premature mortality

A human capital approach was used to quantify the economic losses resulting from the deaths of economically active individuals. In this approach, foregone productivity due to premature mortality is estimated from the number of working years lost between the age of death and the age at which the deceased employee would have reached the average retirement age.

Economic losses were calculated by multiplying GDP per worker by the working years lost in each age group and considering sex-specific labour force participation and employment rates. As recommended by WHO, future costs were discounted at 3%.

ROI analyses

ROI analyses were conducted for diabetes and COPD interventions in Portugal, cardiovascular disease interventions in Romania, and comprehensive breast cancer interventions in Sweden. All three effectively demonstrate the benefits of health interventions both to population health and financially. They illustrate how early investment in health systems provides ROI and, furthermore, how the benefits increase the earlier such initiatives begin.

Diabetes and COPD interventions in Portugal

The economic and health benefits of scaling up interventions for diabetes and COPD in Portugal over 27 years were evaluated. A six-step methodology was used, encompassing:

- selection of clinical interventions
- determination of coverage rates
- cost estimation
- health benefit assessment
- conversion of health benefits to economic terms; and
- ROI calculation.

The ROI from preventing or delaying mortality was calculated using a human capital approach to ascertain economic benefits through productivity gains (Fig.1).

Interventions for cardiovascular diseases in Romania

The economic and health benefits of scaling up interventions for cardiovascular diseases in Romania over 27 years were evaluated. The above six-step methodology and ROI calculation were followed to ensure consistency in results.

Breast cancer intervention in Sweden

This analysis focused on the benefits of implementing comprehensive breast cancer treatment compared with non-intervention scenarios (Fig.2). A state-transition population model[d] was developed to simulate the impact of breast cancer interventions over a ten-year period, with costs and benefits assessed throughout the cohort's lifetime. ROI was calculated using a human capital approach to ascertain the productivity gains from implementing this intervention.

Precise estimations of intervention costs were obtained by considering current guidelines, practices, and country-specific data; and for the cardiovascular diseases interventions in Romania and the COPD interventions in Portugal, Avenir Health's OneHealth software *(4)* was used to assist in modelling intervention costs and health impacts.

[d] A state-transition population model is used to represent the progression of breast cancer. It predicts the probability of moving from one state to another over a period of time based on the natural history of the disease *(3)*.

Fig. 1. Return on investment

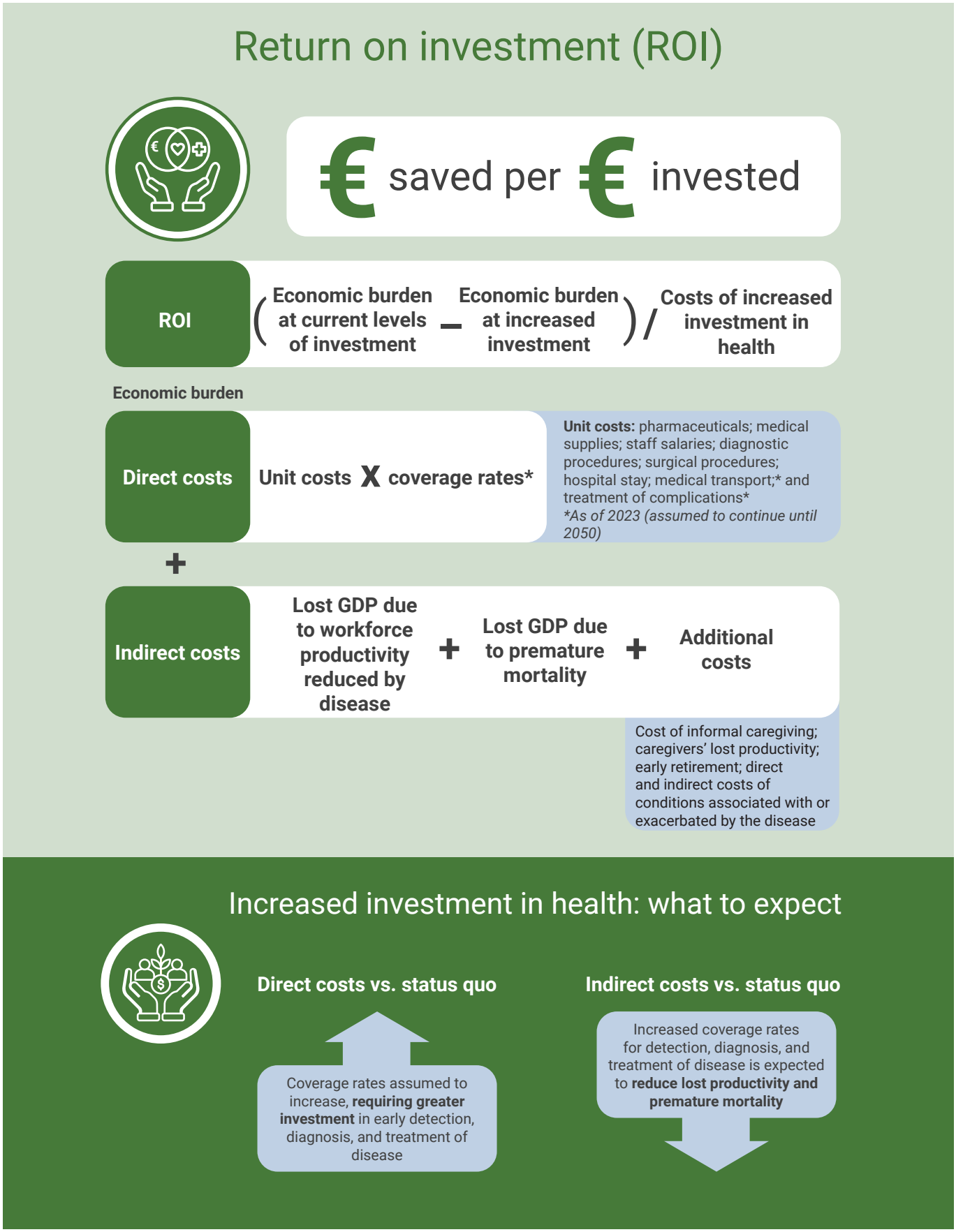
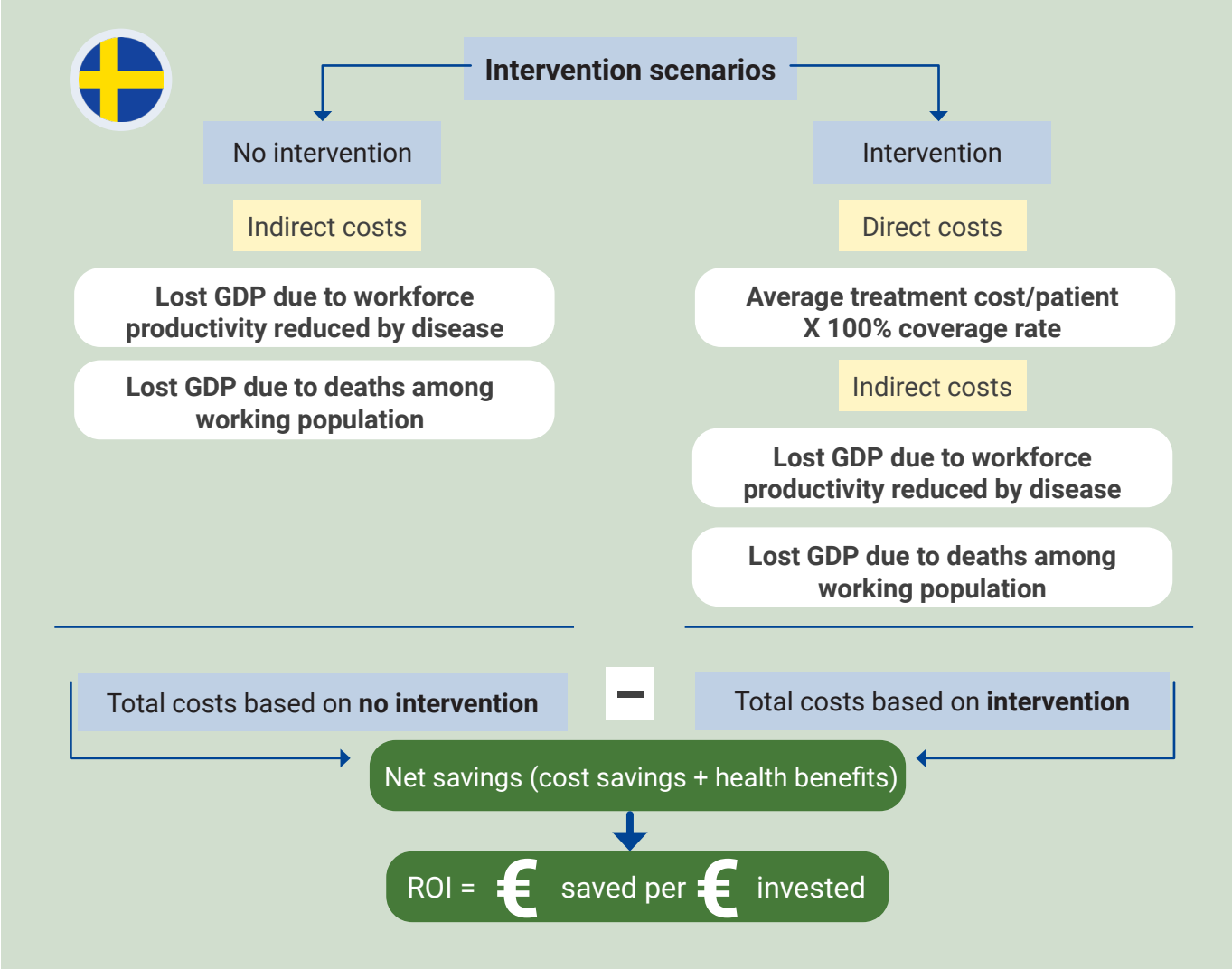


Fig. 2. Sweden case study: investment in breast cancer intervention



Recommendations for health financing

Strategic recommendations for health policy and financing across the EU were developed based on these economic and ROI analyses. The recommendations were refined through an analysis of institutional contexts and a stakeholder engagement process, which assessed the economic, social, and political factors that influence the feasibility of treating health spending as an investment at both the regional and national levels.

Stakeholder engagement and validation

To ensure the findings and recommendations were robust and applicable, a series of key informant interviews and round-table discussions were conducted with stakeholders, including patient associations, clinicians, academics, and national decision-makers. This collaborative process ensured that the investment case is evidence-informed, actionable, and aligned with the priorities and realities of health-care systems across the EU.

Key messages

Key message 1: burden of NCDs

The burden of NCDs in the EU is substantial and growing, affecting both longevity and quality of life across the European population, as well as significant costs for health systems and societies.

Health expenditure in the EU has consistently risen over in the 21st century, often outpacing economic growth. This trend has been driven by a complex mixture of factors, including demographic changes, economic growth, technological advancements, and the growing NCD burden.

In 2023 alone, the five major NCDs – stroke, ischaemic heart disease, type 2 diabetes, COPD, and breast cancer – were responsible for

1.5 million

deaths across the EU. If current trends continue, these diseases are projected to cause

2.2 million

deaths annually by 2050, a staggering 50% increase

This rise underscores the urgent need for sustained investment in preventing and managing NCDs to mitigate their growing impact.

Economic growth and health spending

Economic growth plays a dual role in the context of NCDs and health-care expenditure. As GDP per capita increases, so does public health spending, reflecting a greater capacity and willingness to invest in health-care services, which in turn correlates with an increased valuation of health benefits *(5)*. This relationship underscores the importance of leveraging economic growth for strategic investment in health innovation, which can drive sustainable public health improvements. This can be clearly seen in real-world examples. Between 1999 and 2019, despite a reduction in contribution rates in Romania, expenditure by the Social Health Insurance scheme grew nearly eightfold, showing how economic prosperity can significantly boost public health financing *(6)*. Additionally, research from both high- and low-income countries demonstrates a two-way relationship between health spending and economic growth in the short term and a tendency for economic growth to drive increased public health spending over the long term *(7)*.

Effect on health expenditure and revenues

NCDs are a significant contributor of rising health expenditure in the EU, impacting both length and quality of life across the region. As NCDs become more prevalent, health-care systems face increasing pressures to manage these conditions effectively while maintaining financial sustainability.

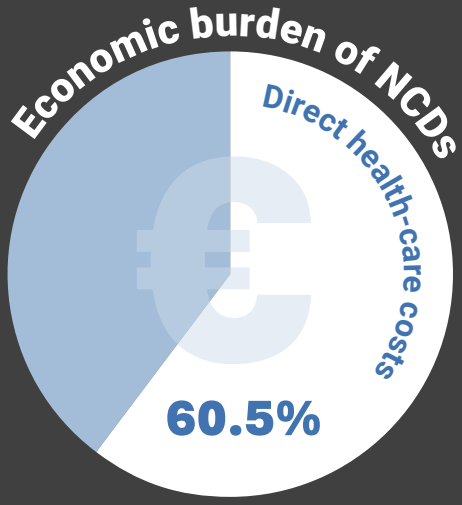
In 2023, the five major NCDs cost the EU about

€530 billion

equivalent to 3.13% of its combined annual GDP.

Direct health care costs were the largest contributor, amounting to

60.5%



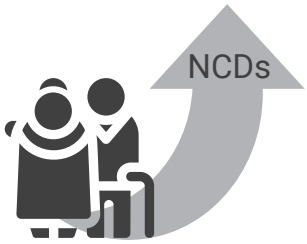
By 2050, the annual number of new NCD cases is expected to reach 7.4 million, a 16% increase from current levels, with deaths increasing by 50% from the 2023 level.

The economic burden of disease stems from a variety of direct and indirect costs, illustrated in Fig. 2. This analysis captured only a portion of these costs, specifically those related to direct health-care expenses, absenteeism, presenteeism, and premature mortality. However, NCDs also impose broader economic impacts through early retirement, informal caregiving, productivity losses, medical transport, and social assistance. Additionally, interactions between NCDs and other conditions, such as mental health disorders and infectious diseases, can exacerbate the overall burden. For example, managing comorbidities such as diabetes-related cardiovascular complications represents a substantial portion of national health-care spending *(8)*. While some complications were considered in this analysis, it was not possible to capture the full range of impacts. Factoring in these additional costs would significantly increase the return on investment. Including these additional costs would likely lead to a higher ROI, underscoring the broader economic impact of NCDs beyond what this analysis could fully capture.

The economic burden of disease

These epidemiological and demographic trends place increasing pressure on health-care financing, affecting expenditure and revenue. As NCDs become more prevalent, the capacity of countries to manage these challenges varies, creating disparities in health system sustainability. This growing strain does not always result in immediate revenue shortfalls but does amplify the financial pressure on health systems, particularly where resources are limited. To maintain viability in the long term, it is essential to explore diversified revenue sources and apply robust economic analyses *(9)*. Without such measures, the financial burden due to rising health-care costs and productivity losses is projected to increase by 6% by 2050. Between 2023 and 2050, direct health-care costs are estimated to cost the EU over €320.8 billion annually at 2030 baseline, while annual indirect costs due to absenteeism and presenteeism are expected to amount to approximately €154.9 billion and €12.5 billion, respectively.

This growing burden underscores the need for strategic investments in health care to manage both the clinical and economic impacts of NCDs by focusing on prevention, early intervention, and effective management of chronic conditions.



At least one chronic condition in

82%

of those 65 years or older

Example 1. Sweden

In Sweden, NCDs such as cardiovascular diseases, diabetes, and cancer are contributing to increasing strain on the health-care system. **As of 2021, 82% of those aged 65 and older in Sweden had at least one chronic condition**, contributing significantly to health-care costs and service demand *(10)*.

In 2023 the cumulative burden of the five main NCDs in Sweden included 136 356 new cases and 28 035 deaths, representing a total of 318 839 years of life lost. Assuming that incidence and mortality rates remain constant between 2023 and 2050, the annual numbers of new cases and deaths are expected to increase by 31% and 58%, respectively, by 2050.

Breast cancer accounted for 7257 new cases and 1456 deaths in 2023. It is projected to reach 8702 new cases (+20%) and 1887 deaths (+30%) annually by 2050. In Sweden, the growing prevalence of these chronic conditions has led to increased health-care expenditures. The country has made progress in reducing hospital admissions for chronic diseases, but the challenge remains to balance these achievements with the increasing demand for long-term management of NCDs. This trend reflects the need to focus on improving health outcomes rather than merely controlling costs.

This trend reflects the need to focus on improving health outcomes rather than merely controlling costs.

CVD accounted for over

55%

of all deaths in 2020

Example 2. Romania

In Romania, the burden of NCDs is particularly severe. The cumulative burden of the five main NCDs in Romania included 275 071 new cases and 116 762 deaths, representing a total of 1.3 million years of life lost in 2023. **Cardiovascular diseases alone accounted for over 55% of all deaths in 2020**, with ischaemic heart disease and stroke as major contributors *(11)*. In 2023 there were 64 664 new cases and 48 401 deaths due to stroke, and 97 239 new cases and over 56 212 deaths due to ischaemic heart disease in Romania.

The ageing population in Romania further exacerbates these challenges, as older individuals are more likely to suffer from multiple chronic conditions, increasing the need for health-care services and driving up costs. By 2050, more than 82 543 new cases of stroke (+28%) and 122 401 new cases of ischaemic heart disease (+26%) are expected annually. Deaths are also projected to rise to 72 007 due to stroke (+49%) and 78 089 due to ischaemic heart disease (+39%). The economic burden of these diseases is substantial, and as the prevalence of NCDs continues to rise, the health-care system faces increasing pressure to provide effective and equitable care.

This highlights the importance of both managing existing chronic conditions and implementing preventive measures to reduce the overall burden.

One of the highest diabetes rate globally at

9.1%

Example 3. Portugal

In Portugal the high prevalence of NCDs – including **one of the highest diabetes rates globally at 9.1%** – is a factor driving up health-care expenditures *(12)*. In 2023 the cumulative burden of the five main NCDs included 143 509 new cases and 34 757 deaths, representing a total of over 393 090 years of life lost. Assuming that incidence and mortality rates remain constant between 2023 and 2050, the annual number of new cases is expected to reach 158 265 in 2050 (+10%), while the annual number of deaths will increase to 51 997 (+50%). Type 2 diabetes mellitus would account for 44 980 of these new cases and 4976 deaths.

While the country has achieved a life expectancy above the EU average, this positive trend brings challenges, as 61% of people over 65 live with health-related limitations. This particularly affects women, who spend only one third of their later years disability-free.

The future of health care in Europe

Across the EU, the rise in NCDs is reshaping health-care priorities. The direct costs of managing these diseases – through treatment, long-term care, and hospital admissions – are substantial, but so too are the indirect costs, including lost productivity and increased demand for social services. As NCDs become more prevalent and populations age, increasing strain will be placed on health-care financing, particularly in countries that rely heavily on employment-related social contributions. This will lead to significant revenue shortfalls, making it crucial to explore diversified revenue sources and implement robust economic analyses to ensure the sustainability of health-care systems *(9)*. Without such measures, the financial pressures resulting from the increased prevalence of NCDs may threaten the viability of health systems in the long term.

Key message 2: prevention and early intervention

Investing in the prevention, early diagnosis and treatment of diseases offers substantial short- and long-term health and societal benefits, which, when translated into financial outcomes, demonstrate significant ROI.

The primary role of any health system is to improve population health. Investing in prevention, early diagnosis, and treatment of NCDs directly supports this mission, helping people live longer, healthier lives. In addition, these investments can alleviate future financial pressures on governments, freeing up resources for other public investment needs.

Economic analyses from the three countries studied illustrate the financial benefits of investing in health. **For every euro invested in early detection and treatment of NCDs, returns range from 30 cents to 4.9 euros.** While high returns are a clear advantage, the fact that these investments yield positive returns even when modest further reinforces their value. This underscores the broader importance of health investments, not just in improving population health but also in supporting governments' abilities to manage competing fiscal demands.

Utilizing such economic analyses to inform future policy is a capacity frequently underutilized in health and finance ministries. Liaison between expert from health ministries and decision-makers within finance ministries is critical to ensure that decisions regarding investment into health care are arrived at using a common language with shared terms, collaborative and productive discussion and clearly understood criteria.

Portugal

In Portugal, targeted interventions to improve diabetes management and increase screening for complications are predicted to save approximately 8700 lives between 2023 and 2050. Moreover, scaling up this intervention package would avert an estimated 239 000 new cases of diabetes-related complications. It could also prevent approximately 183 cases of stroke, 89 cases of ischaemic heart disease, 391 cases of end-stage renal disease, 7981 cases of diabetic retinopathy, and 210 lower extremity amputations annually. Over 27 years, these measures are expected to return €1.4 for every €1 invested in productivity gains.

Additionally, scaling up interventions for COPD in Portugal could save 1328 lives between 2023 and 2050, yielding a return of 30 cents for every €1 invested in productivity gains.

Romania

In Romania, enhancing the prevention and management of cardiovascular diseases could result in 2771 fewer cases of stroke and 2205 fewer cases of ischaemic heart disease yearly. The selected package of interventions would save over 107 000 lives between 2023 and 2050, returning €1.1 for every €1 invested in productivity gains.

Sweden

In Sweden, comprehensive treatment for women with breast cancer not only improves health outcomes but saves lives. More than 270 lives are estimated to be saved between 2023 and 2050 from comprehensive treatment, alongside considerable improvement in the quality of life of affected individuals. These benefits are estimated to result in a weighted average gain of 770 quality-adjusted life years annually. This intervention is estimated to produce a benefit of €4.9 for every €1 invested, primarily through productivity gains from reduced and delayed mortality.

Fig. 3 shows the benefits of these interventions in the three countries analysed to clearly illustrate the lives said and cases prevented.

Fig. 3. Why invest in interventions?

Intervention package	**Portugal** (Diabetes)	**Romania** (Cardiovascular diseases)	**Sweden** (Breast cancer)
Lives saved (2023–2050)	**8749**	**107 177**	**274**
Cases prevented (annually)	**183** fewer cases of stroke **89** fewer cases of ischaemic heart disease **391** fewer cases of end-stage renal disease **7981** fewer cases of diabetic retinopathy **210** fewer cases of lower extremity amputation	**2771** fewer cases of stroke **2205** fewer cases of ischaemic heart disease	**770** QALYs gained on average (weighted) per year*
ROI for every €1 invested in productivity gains (2023–2050)	**€1.4**	**€1.1**	**€4.9**

* As the intervention in Sweden is not preventive in nature, we cannot calculate the cases prevented. Instead, we value the QALYs gained.

Key message 3: policy environment

Policy change is needed to ensure that these investments can take place and give maximum return to patients, health systems and society.

Achieving optimal returns from health investments relies on strategically aligning funding, strengthening the role of economic analysis and enhancing patient pathways. There are several barriers to making evidence-based investment and resource allocation decisions, and policy action is therefore needed.

Challenges to investment in health

01 Short-term budget cycles and competing priorities.

02 Limited use of economic analyses and retrospective research.

03 Barriers to the use of economic analysis for budgeting decisions.

04 Structural challenges in governance.

Recommendations

01 Protect and expand investment in health and innovation.

02 Strengthen the role of economic analyses and retrospective research.

03 Improve patient pathways to maximize the impact of health investments.

04 Position health as a strategic investment.

05 Strengthen collaboration between health and finance ministries.

Challenges to investment in health

Insights from discussions with experts in the three countries studied have emphasized several barriers that hinder the effective allocation of resources towards strategic health investments, as follows.

01 Short-term budget cycles and competing priorities

Budget cycles often focus on short-term operational costs and achieving a balanced budget, neglecting the sustained investment required for managing chronic diseases. This short-term focus, coupled with competition from other spending priorities such as social care, the green transition, and defence, can lead to underinvestment in health-care innovation, negatively impacting patient outcomes and system sustainability.

02 Limited use of economic analyses and retrospective research to inform future plans

The limited scope of economic analyses, which often focus on the cost–effectiveness of specific treatments rather than broader systemic interventions, restricts policy-makers' ability to make informed, long-term decisions aligned with strategic health goals. This challenge is compounded by complex funding mechanisms and a lack of transparency in resource allocation. For example, in systems with multiple payment methods and funding sources, it becomes difficult to track spending and assess value for money. This hinders the ability to evaluate past investments effectively and makes it harder to build a case for future strategic investment based on solid evidence.

03 Barriers to optimal investment and resource allocation

Policy-makers often rely on historical spending patterns for resource allocation, making it difficult to shift resources based on economic evidence, particularly when it favours long-term investments with delayed returns. This challenge is compounded by the tendency of politicians to prioritize short-term local needs to meet voter expectations, which, while essential for maintaining public trust, can undermine long-term health investments, the benefits of which are not immediately realized. Additionally, misaligned incentives between stakeholders can discourage investment in preventive measures. For example, the benefits of a health intervention might be realized by one stakeholder (e.g. municipalities funding disability care), while the related investment is expected from another (e.g. regional health authorities). This misalignment can lead decision-makers to prioritize interventions that offer immediate returns within their own budget silos, further hindering long-term strategic investments.

04 Structural challenges in governance

Balancing centralization and decentralization is key to effective health resource management. While centralization ensures coordination, decentralization allows flexibility, but both present challenges for health investments. Decentralization can lead to fragmented decision-making, leaving local authorities with limited resources and a focus on immediate concerns rather than national strategic goals. In Sweden, simplifying decision-making hierarchies could improve cohesion in health investments. Conversely, Portugal's centralized control has led to inefficiencies, prompting the creation of 39 local health units integrating hospitals and primary care. This approach aims to balance central control with local autonomy, although its effectiveness remains to be seen.

Areas for action to enable investment

A recurring issue is that financial planning in the public sector is often limited to one-year cycles, with little to no multi-annual budgeting. This short-term focus makes it difficult for policy-makers to plan and invest in long-term solutions for chronic diseases such as cancer, obesity, and other NCDs. For example, in Portugal, experts noted that the national health plan was rarely used as a strategic guide for investment. Yearly planning cycles constrain health officials from making long-term investments, even when there is political stability. This lack of multiyear budgeting has contributed to significant delays in large projects, such as the construction of a new hospital in Lisbon, which has faced over two decades of delays due to shifting political, financial, and legal factors.

01 Protect and expand investment in health and innovation, aligning funding with strategic priorities to address the investment gap

Investment in health must be safeguarded and increased to address both current and future demands. While challenging in contexts with fiscal constraints, advocating for health as a priority investment, rather than just an expenditure, is essential. This is particularly relevant in contexts where low health spending contributes to poor health outcomes and inequities.

Financial planning must shift from reactive to proactive, with allocations aligning to both short- and long-term health objectives. Stakeholder discussions across case study countries consistently highlighted that budgetary decisions are often driven by historical patterns, addressing immediate needs rather than strategic, long-term goals. This reactive approach risks undermining sustainable health system improvements. Economic analyses underscore the value of proactive investments, showing that such funding not only leads to healthier populations but also supports economic growth by increasing workforce productivity and reducing health-care costs over time.

National guidelines, supported by centrally allocated resources, were identified by stakeholders as one possible avenue for encouraging investment in health innovations and strategic objectives. These guidelines could help to standardize care across jurisdictions, ensuring more equitable access to innovative treatments and technologies. However, the effectiveness of this approach depends on consistent implementation across diverse governance structures, whether at the regional, municipal or national level. Without stronger enforcement mechanisms, some jurisdictions may delay or fail to implement these guidelines due to budget constraints or competing priorities. In addition, stakeholders noted the financial pressures faced by different jurisdictions, particularly those with fewer resources or greater health-care demands. In light of this, there is a case for exploring national-level funding for certain high-cost innovations, such as advanced medical technologies and precision medicine, to prevent delays in adoption due to local budget limitations.

02 Strengthen the role of economic analysis and retrospective research in health budgeting

To improve health budgeting, economic analysis must expand beyond individual treatments to assess the broader impacts of interventions, such as disease prevention, early detection, and equitable access to care. Across countries, stakeholders have pointed to challenges such as shortages of skilled health economists and limited resources for data collection and analysis. Building capacity to both conduct and interpret these analyses is critical for strategic decision-making. For example, in Romania, during the COVID-19 pandemic, budget decisions were adjusted using modelling to account for disruptions in patient data, providing an ad hoc solution. This illustrates how countries can take incremental steps towards institutionalizing economic analysis—showing that it does not have to be an all-or-nothing approach. These initial steps can help to set the foundation for more comprehensive and effective health budgeting practices over time.

Economic and retrospective analyses are crucial for demonstrating the long-term value of health innovations and informing decision-making, thereby helping to ensure the long-term sustainability of health systems by identifying cost-saving opportunities and preventing wasteful spending. These tools help decision-makers to understand the broader impact of investments, linking past innovations to improvements in morbidity, mortality, and quality of life. By using this evidence, policy-makers can make more strategic budget allocations that align with long-term health goals by considering where the needs are given anticipated demographic and epidemiological changes. For example, economic analysis can highlight the costs of delaying the adoption of novel and innovative treatments, helping to avoid future financial burdens by enabling more proactive decision-making.

Incorporating societal impact analyses into health budgeting is also essential, particularly when policies may delay or limit access to innovative medicines. Evaluating and publishing the impacts and outcomes of initiatives will help health system actors to better understand broader economic costs, ensuring decisions balance short-term constraints with long-term benefits. While some factors – such as caregiving time or social sector support – may be hard to quantify, they remain critical in assessing the true cost of illness and should be considered to make more informed budgeting decisions. Equally, ensuring further study produces data and results that will better inform public and political perception is critical; early data may not show all the factors needed to spur decision-making and adjustment of practices and analyses to strengthen the information and conclusions drawn from the evidence they produce should be an ongoing process.

03 Improve patient pathways to ensure successful uptake of investment in disease prevention

Enhancing patient pathways is critical to making health investments work. Clear, efficient pathways help patients to access care and ensure that innovations reach those who need them, maximizing the impact of these investments by keeping individuals healthy and contributing to society.

Discussions with experts across case study countries highlight the importance of investing in telemedicine and digital health solutions to expand access to preventive services, particularly in rural areas where health-care access is limited. In Sweden, for example, artificial intelligence is enhancing disease prediction and early detection. Digital health tools now allow patients in remote areas to benefit from specialist care, which was previously only accessible to those who could physically visit specialist centres.

Systematic screening and early diagnosis can significantly enhance health care efficiency by detecting diseases at earlier stages, leading to more targeted and less invasive treatments. These less burdensome treatments not only improve patient adherence to treatment regimens, thereby increasing the likelihood of successful outcomes, but also enhance patient quality of life. For example, utilizing gene expression analysis in cancer treatment can reduce the need for chemotherapy, cutting costs and improving patient outcomes. Additionally, if prevention is prioritized before diseases develop or worsen, health systems can save costs and avoid the challenges associated with treating severe health issues. Enhancing resources for primary and outpatient care is a crucial part of strengthening prevention and can reduce reliance on expensive hospital-based services.

Building patient trust is crucial for the success of early detection and intervention initiatives. Trust encourages greater participation in preventive services, leading to earlier detection and better health outcomes. Transparent communication, particularly about the evidence behind new technologies and treatments, is crucial in fostering this trust as is investing in public health literacy. Additionally, improving the availability and quality of health-care services, particularly in underserved areas and ensuring consistent, personalized care can further enhance patient confidence. This includes ensuring that patients receive continuous care across different health-care settings so that when a patient transitions from one level of care to another, there is clear communication and coordination among all the health-care providers involved.

04 Strengthen collaboration between health and finance ministries and address governance challenges to align health investments with national priorities

By aligning health investments with broader economic objectives and demonstrating fiscal responsibility, health ministries can better secure funding for long-term health goals. Insights from stakeholder discussions highlighted Portugal's Family Health Unit programme, which gained the confidence of budget holders by demonstrating controlled spending and presenting clear, evidence-informed financial plans, which drew on economic analysis to bridge the gap between health and finance.

Health and finance ministries must improve joint strategic planning beyond short-term budget cycles. Experts across case study countries highlighted the lack of coordination between these ministries as a critical barrier to long-term health investments. By aligning health objectives with national economic priorities, joint plans can help to ensure investments are sustainable. Strengthening dialogue and developing clear priorities, timelines, and accountability mechanisms can help to ensure that health strategies are fully implemented.

Collaboration must extend beyond ministries. In Romania, the National Health Insurance House (NHIH) plays a central role in implementing health policies, which are made by the Ministry of Health. Funding for health interventions often depends on the NHIH, which must engage with the Ministry of Finance to secure necessary resources. The NHIH and similar institutions in other countries can take a more significant role in demonstrating how immediate investment can mitigate future costs by developing cases for funding that set out the interventions needed, the resources required, and the long-term savings that could result from early action.

The economic returns from investing in health and health innovation must be made clear. While the core mission is to ensure longer and healthier lives for the population, healthy and productive populations are also the foundation of strong, growing economies. By making this connection explicit, health ministries can further justify investments in disease prevention, early detection and treatment, which can improve health, demonstrating that such investments are not only beneficial for public health but also contribute to broader economic growth.

05 There is a need for a paradigm shift to position health as a strategic investment

Securing sustainable health care funding across Europe necessitates a fundamental shift in perspective, particularly in times of fiscal constraint: **health must be recognized not as an expense, but as a strategic investment in human capital**. This report's economic analysis, along with expert discussions and existing literature, underscores how the ingrained view of health care as a mere cost impedes resource allocation towards achieving optimal health outcomes and building system resilience.

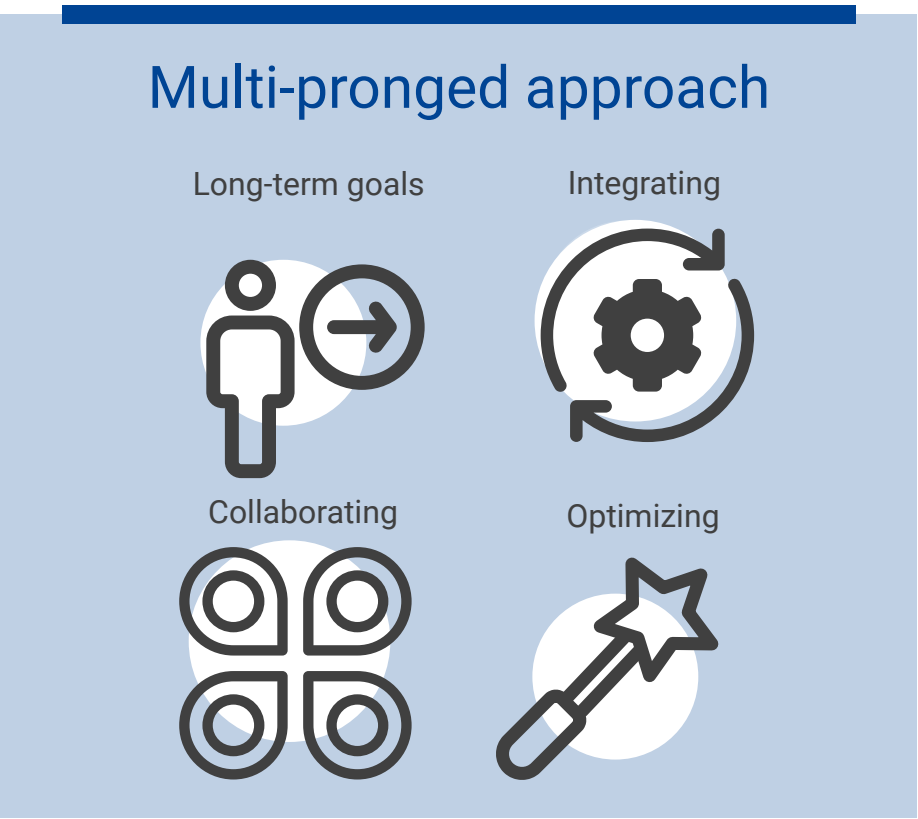
Short-term budget cycles, often prioritizing immediate costs over long-term value, create a significant barrier to strategic investments in areas crucial for a high-performing health system: prevention, early detection, and innovation. This reactive approach, while potentially yielding short-term savings, can result in poorer health outcomes and ultimately higher long-term costs. For example, as the economic analysis shows, detecting and treating disease earlier can avoid negative health consequences as well as financial burdens in the future.

To shift this mindset and unlock the full potential of health as an investment, key stakeholders, particularly finance ministries and policy-makers, require compelling evidence. This report provides that evidence, demonstrating how investing in health drives economic growth by increasing productivity, reducing absenteeism and fostering greater social participation, all of which contribute to a more robust economy. By preventing disease and enabling early intervention, health-care systems can avoid the high costs associated with managing advanced illnesses and yield significant societal returns, including increased well-being and a more resilient health-care system better equipped to address future challenges.

Conclusion

This report underscores the urgent need for a fundamental shift in how health care is perceived and funded across the EU. Rather than an expense, health care should be recognized as a strategic investment in human capital, yielding significant returns in terms of both economic growth and improved quality of life for all citizens. This paradigm shift is particularly critical given the rising burden of NCDs and the demographic trend towards an ageing population, both of which necessitate sustained, long-term investment in health systems.

The analysis presented in this report makes a case for increased investment in health, demonstrating its far-reaching benefits. Investing in health, particularly in the prevention and early management of NCDs, not only reduces future health care costs but also leads to a healthier and more productive workforce. This, in turn, boosts economic growth and strengthens national economies. Prioritizing health investments leads to longer, healthier lives for citizens. This means reducing the incidence and impact of debilitating diseases, enabling individuals to live to their full potential and contributing to a more vibrant and prosperous society. Investing in health can also lead to more resilient health-care systems. By shifting from a reactive to a proactive approach, health-care systems can better manage the challenges posed by ageing populations and the increasing prevalence of chronic illnesses. Early detection and intervention not only improve patient outcomes but also lead to more efficient and cost-effective health-care delivery. Achieving these goals demands a multi-pronged approach:



- **Moving away from short-term budget cycles** and implementing multiannual frameworks that prioritize long-term health goals is crucial.
- **Integrating** robust economic analysis into health budgeting processes is essential for making informed decisions, allocating resources effectively and demonstrating the value of health as an investment.
- **Enhanced collaboration** between health and finance ministries, along with clear communication of the societal and economic benefits of health investments, is vital to securing political will and public support.
- **Optimizing** patient pathways by expanding access to preventive services, promoting early detection and fostering patient trust is key to improving health-care access, uptake, and maximizing the impact of health innovations.

The broader societal benefits of investing in new technologies are significant. Although health-care systems bear the direct financial burden, the positive impact on society – including reduced absenteeism, increased productivity, and fewer premature deaths – yields substantial returns.

Economic analyses, including these case studies, demonstrate that while ROI from new technologies may be comparable to other health-care expenditures, the overall societal benefits are markedly more significant.

Emerging and new medical technology will be integral to achieving the fundamental objectives of health systems – improving health and extending life – thereby delivering significant societal benefits that justify the investment.

The evidence presented in this report strongly suggests that investing in health is not merely a cost but a strategic imperative for a healthier, more prosperous, and sustainable future for the EU.

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