

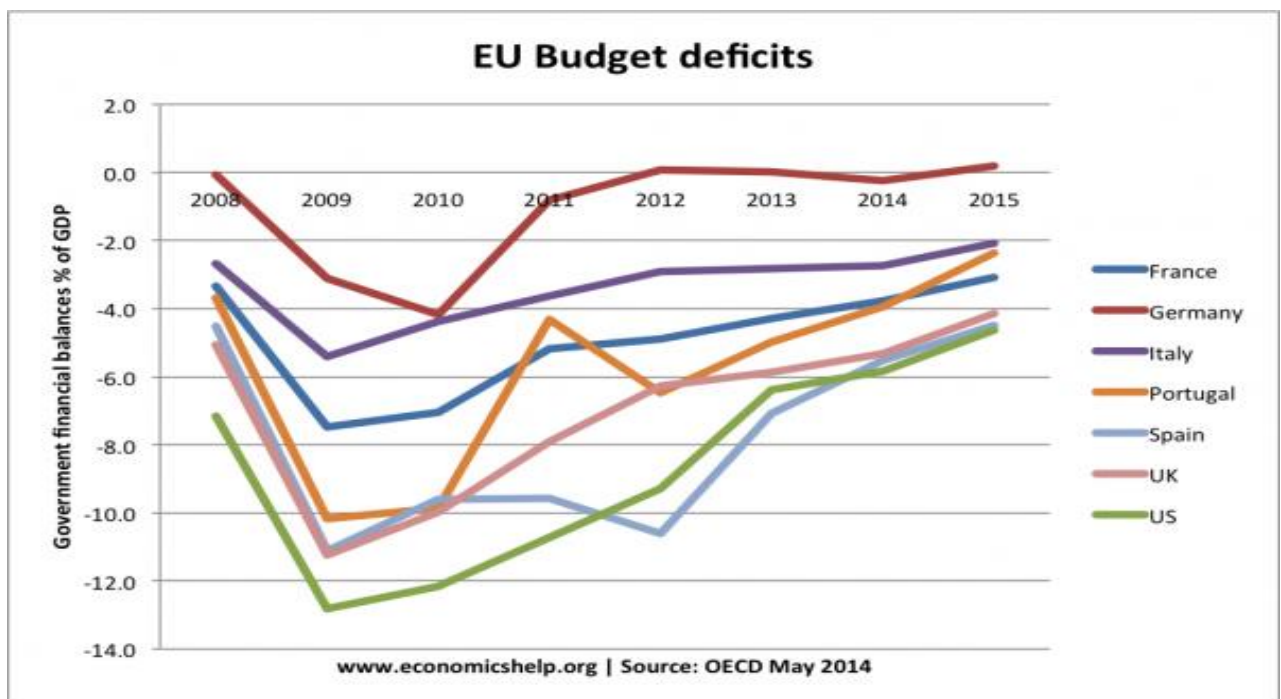
ECONOMIC VALUE AS A GUIDE FOR INVESTING IN HEALTH AND CARE

Policy Framework

Why European policymakers should embrace new thinking on the value of healthcare investment

Background

European health systems are under pressure. Economic growth is low yet demographic trends imply an ageing population and growing rates of chronic illness. To safeguard the European model of healthcare, characterised by universal coverage and equal access for the population, policymakers need better knowledge of how health influences the socioeconomic environment. This will enable them to make the most economically advantageous choices in order to maximise the value of the investments made into health and care. This thinking is reflected in the European Commission's "Investing in Health" staff working document, published as part of the "Social Investment Package"¹; in the EU Commission Communication "Towards Social Investment for Growth and Cohesion"²; and in the EU Public Procurement Directive.

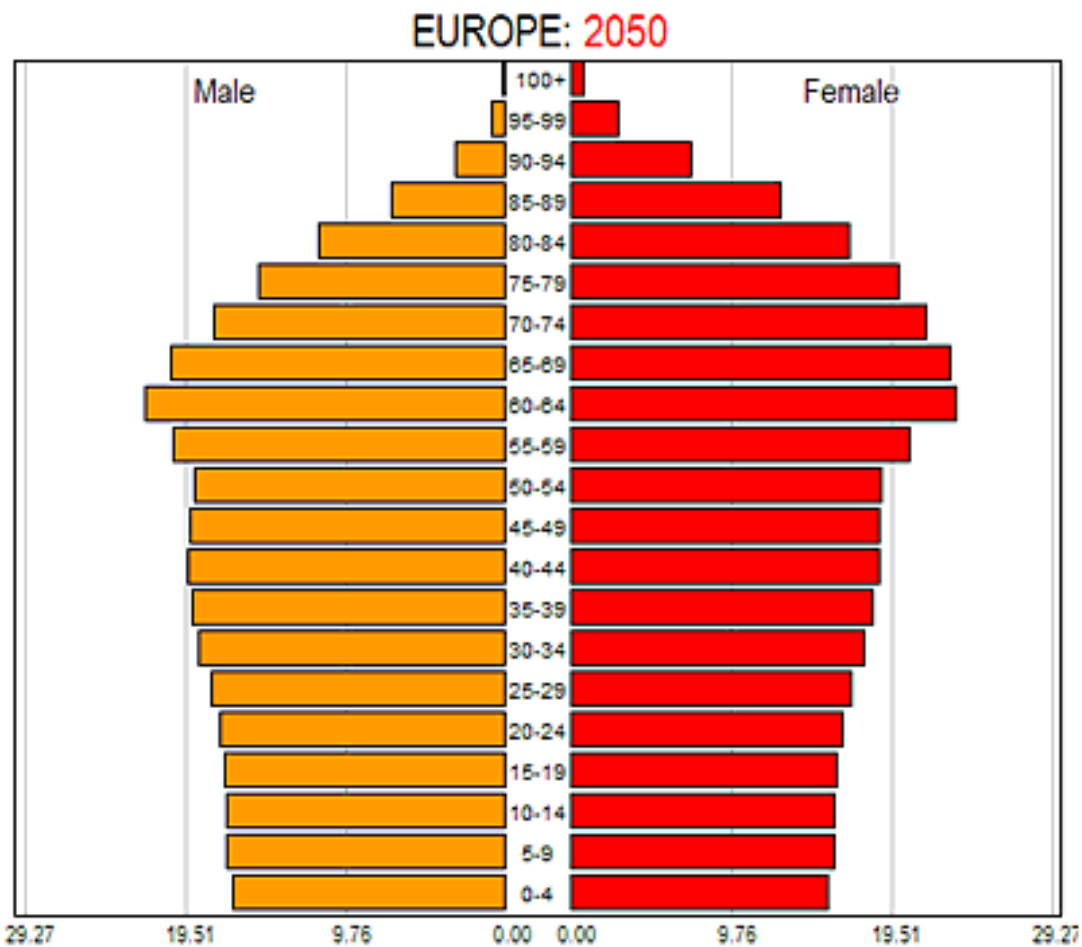


In our previous paper we set out to define the economic value of health and care. Being in good in good health has obvious benefits for individuals. It is also intuitively clear that a healthy population offers clear value to society at large: when EU citizens are in good health they can retain a high socioeconomic status, allowing them to be more socially and

¹ For an overview of the Social Investment Package, see for example <http://ec.europa.eu/social/main.jsp?catId=1044&langId=en&newsId=1807&moreDocuments=yes&tableName=news>

² http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/index_en.htm

economically productive. When we think of the informal carer roles provided, for example, by older people taking care of grandchildren or other family members, the benefits are plain.

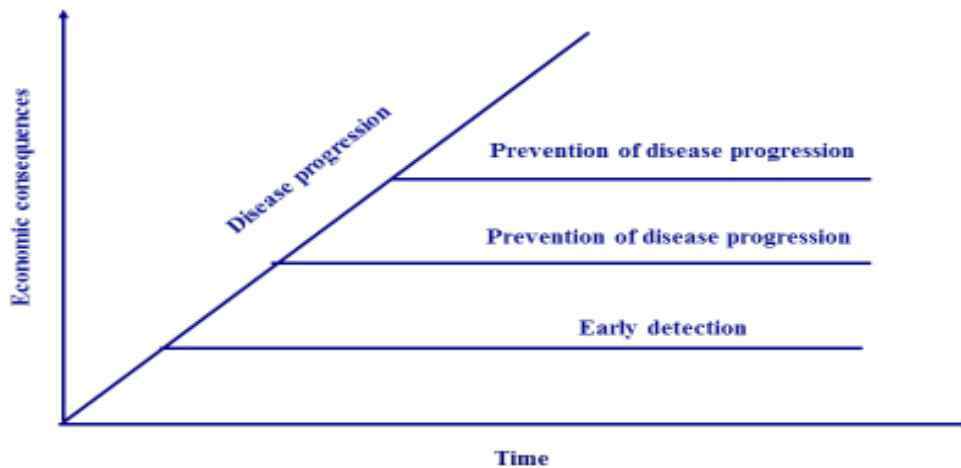


In our earlier paper we also outlined the economic benefits of keeping European citizens in good health. Indeed, we argued that Europe can ill afford to have a population with a low health status. Moreover, we set out to broaden the definition of value to include economic factors which are often overlooked. The following components of economic value should be considered in order to have a more refined view of the full value of investment in health and care: improvement in health outcomes, better socioeconomic outcomes and controlling the operational costs of the healthcare system, along with the savings associated with preventing the onset and progression of disease.

The latter offers perhaps the most profound scope for delivering value by investing in health. Prevention is better than cure. It is also cheaper. While avoiding disease altogether is ideal, there remains huge opportunities for economic gain by keeping patients who have chronic diseases from sliding into the advanced stages of their illness. A citizen with well-controlled diabetes can continue to be socially and economically active. In contrast, complications arising from advanced diabetes – including blindness and stroke – can

dramatically affect productivity and, in most cases, will imply considerable health and social costs.

Reduce Illness and Disease Progression



Health system improvements

In order to contribute to the economy in a positive way, all components of the health system need to perform well and provide as efficient and effective solutions as possible for their respective specialisations. But it is not just about well performing specialisations. It is also about the health system itself and how well it is integrated to enable it to work smoothly with the citizen at the centre. From prevention via primary healthcare to hospitals and health-related care to rehabilitation and home care, the dots must be connected in way that any waste, inefficiencies and duplication is avoided by well-integrated healthcare pathways.³

Obviously, solid information and better intelligence on health status and health risks are crucial for good health promotion efforts which should be optimised as preventing illnesses from occurring and preventing diseases from progressing will bring higher value than curing or managing them.

Due to rapid innovation in medical technology, this can now be done in an increasingly efficient way through medical technologies, including diagnostic information, and

³ See for example discussions and evidence in OECD Health Policy Study: Value for Money in Health Spending, OECD 2010 and the Health policy Study: **Achieving Better Value for Money in Health Care from 2009.**

intelligence on patients' health condition over time, and it can be done in an economically efficient way as figure 2 demonstrates. Furthermore, medical technology enables more efficient health systems by providing more effective solutions at the right time, at the right place, to a patient that can benefit from the treatment and at the optimum location in the health system.

Improving performance of the health system in the longer term may require increased spending (investment) in the short term, which may lead to a reluctance to invest. It is therefore important to provide information on the economic consequences of not investing, because if the investment is done in the most advantageous way, it will be an investment with a promise of future gains rather than a cost. In particular, a broad view of economic results should be taken rather than using the traditional "silo-perspective" on health budgets.

Health investments are traditionally made by the public sector in Europe, accounting for an EU average of 15% of public finances⁴. Considering the strains on public finances, the optimum balance between public and additional private investment, and operation in and of the health system, should be considered both at the health system level as well as case by case. That balance is becoming even more crucial when looking at the future sustainability of Europe's health systems.⁵ Increased inequality arising from socioeconomic deprivation should be avoided, while universal coverage must be preserved in order to ensure optimal health status as widely as possible in the population.

Why better economic tools are needed

It is therefore one of the main purposes of this paper to point to the necessity of providing instruments that can guide decisions on health policies and practices in a robust and well-founded way. These tools must focus on the essential functions of health, but add important additional elements to take into consideration: the economic value at patient level, at health system level, at society level and the broader contribution to our economy.

Focus on such instruments will also provide a methodology for comparing the value provided by health systems including all its components (health care professionals, health technology, administration, institutions, etc.) and make it possible to identify and adopt best practices – a process that has not advanced much until now, where several attempts are being made from the disease level to health systems comparisons.⁶ The cross-border

⁴ http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Total_general_government_expenditure_by_main_function_and_country,_2011_%28as_a_percentage_of_total_spending%29.png

⁵ For an example of efficient solutions provided by private MedTech companies, see http://www.fiercemedicaldevices.com/offer/gc_fmd_hospital

⁶ As an example of health systems comparisons can be mentioned the HSPA – Health Systems Performance Assessment done by the European Union.

comparisons and benchmarking are not at all used to their full potential – probably because of the political focus to address short-term fiscal stability requirements of national health systems. However, this also risks missing a golden opportunity for learning from each other by identifying and emulating best practices, including at system level.

This is particularly important now as all European countries face challenges with low economic growth while at the same time seeing pressures on the resources of the health systems. There are several reasons for this:

- Pressure on public finances due to the financial and economic crises that triggered deficit and debt crises in EU countries – a situation that has proven difficult to get out of. This has created pressure on all parts of public finances, but the health sector, which consumes a substantial proportion public expenditures (between 8% and 12% of GDP in most European countries, and an average 15% of public expenditures)⁷ is considerable and very visible. Health spending is therefore a major target for attempts to balance the public finances, including via the European Semester. The European Semester is based on the EU's Stability and Growth Pact, which clearly recognises the need to invest in health – if such investments can be proven to contribute to economic growth.
- While there is an increased demand for healthcare, EU Member States have chosen different policy measures that are impacting the per capita spending on healthcare – which on average has not been flat in recent years. There is a huge variation across Member States where, for example, countries within bail-out programmes lowered their spending on health care by up to 15% per capita by blunt cost-cutting with little economic value considerations, a consequence of combining short-termism with austerity.
- The forecasts for economic growth in Europe for the years to come are bleak, and this does not give automatic space for continued growth in health expenditures, despite the pressures on health and care systems Europe will face, namely:
 - Ageing population: Life expectancy at birth for males is projected to increase from 77.6 in 2013 to 84.8 in 2060. Life expectancy at birth for females is projected to increase from 83.1 in 2013 to 89.1 in 2060. Ageing in itself adds to increased frailty and increased chronic illness-related incidents – often with co-morbidity.⁸

⁷ European Commission: The 2012 Ageing Report - Economic and budgetary projections for the 27 EU Member States (2010-2060)

⁸ European Commission: The 2015 Ageing Report - Economic and budgetary projections for the 28 EU Member States (2013-2060). European Economy 3, 2015

- An ageing population will require a significant increase in long-term care. The current infrastructure and care provision, provided by the public sector, is insufficient and will cause a significant financial burden for the ageing population and their relatives, therefore limiting economic growth potential.
- Increase in chronic diseases. These include age-related factors outlined above, but are also related to socioeconomic status. Growing numbers of patients will be in advanced (and thus costly) disease stages with a high economic burden. This consumes more and more health system resources, leaving citizens in an economically and socially less active state.
- Growth in health expenditures declined during the crises years and has since been stagnating, but in the years before the crises health spending outpaced GDP growth.^{9,10} The question is what will happen in the coming years. Have the crises years been used to make systems more efficient, cleaning up waste, or has there just been general cost cutting with no lasting effect? And will health expenditures in the future continue to be seen primarily as a cost – or as an investment that can make Europe’s health systems more resilient in view of the challenges they face?
- Ageing is occurring at the same time as low fertility in European countries; creating adverse demographics (a significantly lower ratio between the active work force and the group of retirees) which will further create pressure on public finances – including health – for decades to come.
- Increasing supply and demand for reimbursable health technologies i.e. a growing number of drugs are becoming available for rare diseases, with people increasingly aware of the therapeutic options on the market and demanding access.

Health systems have – just like all kinds of organisations – an input side and an output side. But as the focus is still very much on cost, slowly moving towards outcomes, but not yet

⁹ Health spending grew on average by close to 5% year-on-year from 2000 to 2009, dropped sharply in 2010, and has been rather flat in the years after. <http://www.oecd.org/newsroom/health-spending-continues-to-stagnate-says-oecd.htm>

¹⁰ The literature generally finds that health care expenditure grows 1-2 percent faster than GDP per capita: European Commission: The 2012 Ageing Report - Economic and budgetary projections for the 27 EU Member States (2010-2060, page 165

looking deeply into the economic outcomes, we are in reality unable to give any reasonable evaluation of how efficient and effective the health system is. In other words, we don't know what you get for your money. This lack of knowledge could very well mean that we are managing our health systems blindfolded. This is particularly the case where the focus is only on the costs associated with providing healthcare for a given diagnosis, an average cost for a group of diagnoses, a fee for a service provided as a lump sum or an itemised cost calculation.

There is no shortage of evidence of the cost of health and care systems, but little is still known about the value, especially on the economic value offered by these investments. The way forward should be to focus on outputs/outcomes, including the socio-economic aspects of the outcomes, by identifying ways to measure and to compare indicators for outcomes across national borders. This will also make it possible to make a better judgement of the spending of health in relation to the cost versus investment discussion, because more knowledge about the socioeconomic effects of health will help understand the value created by investing in health.

Obviously, this will require a new way of thinking – changing from the traditional view of healthcare expenditure as a cost to viewing it as an investment – and investment that will provide a return over a certain timespan. If health expenditures that can be justified as “profitable” investments can be isolated, the rest will be cost. Then, in order to maximise efficiencies, focus should be on eliminating the unnecessary cost elements which are basically waste.

Value of health systems: Europe's diversity

Determining the value of health systems in a broad sense will depend on what kind of health system outputs and (infra)structure is desired and which basket of health services should be offered¹¹, which will in turn determine what value the health system aims to offer to the different stakeholders. This value concept will be multidimensional and there will never be universal agreement on what constitutes value. Value will be specific to individual societies and include considerations that may be different for patients, healthcare professionals, health institutions, the health system at large, society in general¹² and for

¹¹ For example, a universal system with equal access – or a more restrictive model.

¹² See for example the discussion in “Health Technology Assessment: Value-Based Decision Making and Innovation in International Journal of Technology Assessment in health Care, 2013, 1-7- Cambridge University Press, 2013. Even if there is agreement on the overall objectives for the health system, variations, for example on how to realise these goals, may differ at the different levels of the health system.

their respective economies. Therefore, care must be taken to develop appropriate methods to assess these components of “value”. This will enable health authorities in Europe to take into consideration those aspects that are relevant for them to the degree they desire and are willing to pay for.

These challenges should not be used as an argument for dismissing the principles of value of health and care but rather sharpen interest in discussing and determining how the measurements of the value of health and of care (i.e. the value of healthcare systems) should be done and how to incentivise these. In Europe this should preferably be done on a cross-border basis to identify best practices, making use of the rich diversity within European health systems. All Member States have the common goal of having healthy citizens. They also share the desire to develop the most effective, efficient and resilient health systems capable of maximising the value of investments in health and care.

Value: A common goal

The output of health care has traditionally been linked to looking at clinical value, understood as clinical outcomes. This approach is not surprising as the aim of the *health profession* has always been to treat acute diseases – and, more recently, provide treatment and care for chronic diseases – and there is absolutely nothing wrong with that focus. However, it is no longer sufficient as we live in a world where pressure on available public resources is rising. We need to rethink our focus in order to sustain our health systems, accelerate the shift towards a patient-centred approach to care, and support economic development.

Important core values exist across stakeholders and systems. Being in good health means to be in the an optimal health state; capable of being socially and economically active; avoiding disability and advanced stages of chronic diseases; and minimising risk factors. Therefore, health should not be considered merely the absence of disease or infirmity, but also include the benefits it offers as were discussed above.

An increased focus on socioeconomic outcomes should not mean forgetting the potential for operational cost efficiency gains and avoidance of unnecessary healthcare costs. Costs must stay in the equation. So, in order to get a fuller picture of the value of health it is worthwhile looking at the basic value definitions by Michael E. Porter, namely that value is the outcomes divided by the costs. “If value improves, patients, payers, providers, and suppliers can all benefit while the economic sustainability of the health care system increases.”¹³

¹³ <http://www.nejm.org/doi/full/10.1056/NEJMp1011024>. A perspective of value for the different stakeholders is well described in the Policy paper on Value Based Decision making and innovation by HTAi policy forum

However, it is necessary to add further dimensions to these considerations when defining the economic value. The economic value of health systems consists not only of the consequences of “clinical” health outcomes, but include the health-related socioeconomic outcomes. The costs side of the equation should consider both the operational costs of the health system and the costs of disease emergence and, in particular, progression.

Combining the socioeconomic outcomes (to be maximised) and the cost considerations (to be minimised) gives a clearer view of the true economic value of a health system. Together with the health outcomes it forms the basis of value of health and care.

Case study: *Diabetes in Denmark*

A study from Denmark (population 5.6 Million) by the Danish diabetes organisation brings the societal economic consequences of the illness into focus. As elsewhere in Europe, the burden of diabetes type II is growing fast and the total cost to Danish society is calculated at DKK 31.8 billion (€ 4.3 billion) annually. Of this, DKK 13.2 billion (€ 1.8 billion) is directly linked to loss of productivity as diabetes patients have higher unemployment rates, more absenteeism and earlier retirement than other parts of the population. In addition, diabetes leaves a bill of DKK 5.5 billion (€ 0.75 billion) to the health system, DKK 6.4 billion (€ 0.85 billion) to the community care sector and DKK 1.1 (€ 0.15 billion) in medicines costs.¹

Given that chronic diseases will be increasingly present in European societies, it is important that special attention is given to this when discussing the value of healthcare. It is a major cost-containment opportunity and offers a chance for increased economic capacity. Investment in modern health technologies, including innovative technologies and big data, can help to increase the quality of early and accurate diagnosis significantly. This will ensure informed decision making, leading to economically beneficial investments in these areas.

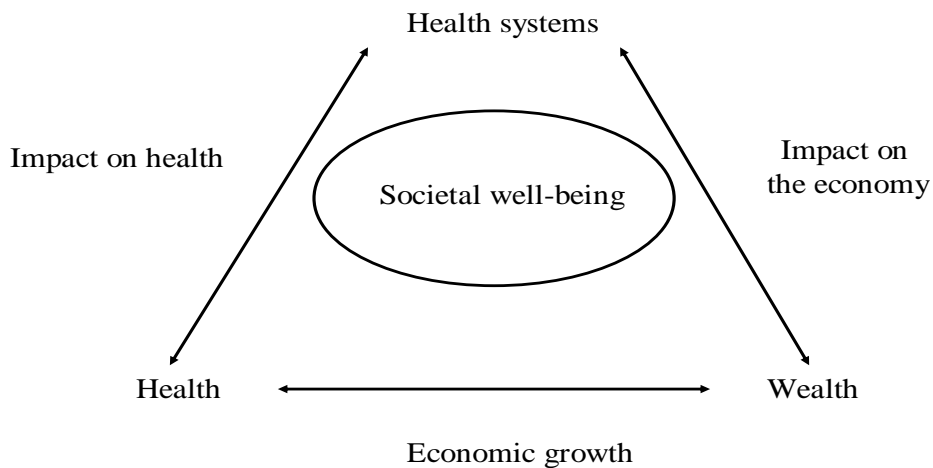
The logic for investing in health is the same as the case for investing in young unemployed people or spending on retired citizens: healthy jobseekers are more likely to find a job and thus demand less long-term social support; healthy retirees are more socially active and require less spending on care. We need to take this mind-set to its logical conclusion and embrace new thinking on the value of investing in health and care.

Case study: *Glaucoma and ocular hypertension*

Ocular hypertension is diagnosed when the pressure in the eye is higher than normal. Left untreated, this pressure can cause glaucoma and permanent vision loss. Globally, 57 million people are affected by Primary Open Angle glaucoma. ¹

However, the cost savings from good disease management are significant. Ocular hypertension in France has a cost of €226/year. Compare that with the €969 cost of treating advanced glaucoma. Ocular hypertension and early glaucoma are generally not associated with deteriorating health, but as the condition progresses to a moderate level, it reduces health status to 0.75 (- 0.06 point compared to the age-adjusted population). In advanced disease state, health status falls to 0.58 (- 0.19 points) or a 25 % reduction compared to being in good health, expressed in a scale from 0 to 1.

These advanced glaucoma disease stages further contribute to falls, one of the major causes



A study¹⁴ looking into the value of investing in health during the recent financial crisis demonstrates the high value of investing in health. It asks the question: Is existing provision of health services in Europe affordable during the recession or could cuts damage economic growth? It tries to find an answer to the question on whether government spending has positive or negative effects on economic growth. The study concludes that while the general fiscal multiplier for government spending was 1.61, the multiplier for spending on health was much higher at 4.3. Thus, the study concludes that government spending on health may have long-term as well as short-term effects that make recovery of the economy more likely.

From theory to practice

When defining financing of healthcare and make decisions about purchasing and procurement services, medicines, equipment, medical technology etc. the criteria outlined above and a multidimensional approach should be considered.

Overall there is a high focus on the price and cost of providing care, mainly linked to the operational cost. While these factors are important, they should be only one of the criteria. Broader economic thinking is required to assess the full value of health and care.

The European Procurement Directive, which promotes most economically advantageous procurement, provides a good basis for all stakeholders to consider broader economic value. It is an opportunity to consider patient health outcomes and the operational cost of care delivery, complemented by further patient, provider, carer, health system benefits and completed by considering broader socioeconomic benefits, including a drive for innovation. Value-based procurement, using the most economically advantageous tendering (MEAT) framework, can ensure the best price-quality ratio i.e. the best value for the investment made.

As mentioned in the introduction, this thinking is in line with the European Commission's view on Social Investment described in the document *Investing in Health*¹⁵. This paper focusses on the value of health in and of itself but also as a prerequisite for economic growth through its focus on investment in support of sustainable health systems, health as human capital and reduced health inequalities. These are all aspects that can help Europe create economic growth.

¹⁴ Reeves et al. Globalization and Health 2013, 9:43.

<http://www.globalizationandhealth.com/content/9/1/43>

¹⁵ European Commission: Investing in health, Commission Staff Working Document, Social Investment Package, February 2013.

Case study: *Heart Failure*

For patients with heart failure, progression is expressed as being in an asymptomatic stage I to highly symptomatic at rest in stage IV. Health status deteriorates from 0.81 in stage I to 0.72 in stage II and significantly declines to 0.59 in stage III and to 0.5 in stage IV.

This decline in health is associated with a 1.2 times increase in hospitalisation for stage II, almost twice as many hospitalisations in stage III, and a five-fold increase in stage IV.

Hospitalisations are the main cost driver for heart failure, with an estimate one million admission. The total costs of heart failure are estimated at €100 billion, of which 40% is attributed to loss of socioeconomic contribution.¹

In order to appreciate the full value, the value of the investment should be considered at different levels i.e. at patient, health system and society level.

Better pathways

The positive impact of digitalisation has been felt more slowly in healthcare than in other sectors. Europe needs much better digitalisation of health systems, including in primary care. We must, without further delay, remove barriers to interoperability between IT systems to enable patients to move seamlessly through the system.

Digitalisation has delivered efficiency in every industry where it has been embraced. Even systems which are complex or where data privacy is highly valued – such as financial services – can provide case studies for the high return on investment in IT systems. The initial cost and effort can be significant but the benefits are large. Urgent attention must be given to overcome our fear of data and accelerate the journey to a connected digital health system.

Learning from one another

Europe has many fine health systems. None is perfect and each has its individual strengths and weaknesses. One of the shared weaknesses is a tendency to take a silo view of health systems and how they operate. This must be overcome without delay if our health systems – and the citizens they serve – are to reach their full potential.

The diversity of Europe's health systems is also a strength. Within our systems are a variety of examples of best practice in terms of efficiency and in offering the best socio-economic value. By benchmarking against the best of our health systems, we can learn from best practices in creating value through health, thus raising standards across the board.

Conclusion

By incorporating all aspects of economics in health care focus can be directed towards instruments that support informed decisions about the future direction of health policies. This will help decision makers to select the best health technologies based on value, thus contributing the creation of efficient, sustainable, valuable health systems in spite of the adverse macroeconomic conditions. It is also clear that there is enormous potential in eliminating waste, improving operations and management of health systems, and in preventing onset of illnesses or preventing illnesses from progressing to advanced and costly stages.

In order to do this successfully it is essential to invest in best practices, including in administration, management, and clinical practices, as well as enhancing access to the improvements in diagnostics, treatment and monitoring offered by medical technologies.

The value of a health and care system that is worthwhile investing in will be characterised by providing good health outcomes and solid economic values. A proposed conceptual framework can be found [here](#).

We call for the necessary policy initiatives and European investments to ensure that the most valuable investments in health and care are made. Health and care policies in Europe must move towards comprehensive Value-Based Healthcare by including economic value in line with the EU's Growth and Stability Pact.

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