

HEALTH SYSTEMS FOR PROSPERITY AND SOLIDARITY
Hans Kluge & Josep Figueras (eds.)

POLICY BRIEF

Making the economic case for investing in health systems

What is the evidence that health
systems advance economic and
fiscal objectives?

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Keywords:

Health Systems Plans – economics

Healthcare Financing

Delivery of Health Care
– economics

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Making the economic case for investing in health systems:
What is the evidence that health systems advance economic and fiscal objectives?

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Key messages

- Good health is a fundamental value of all societies and the health system is one of the most important contributors to population health that lies within the direct control of policy-makers
 - Yet, health-policy-makers who seek to make the case for additional financing for their health systems are often met with scepticism within their governments
 - This scepticism may to some extent be explained by a belief among some finance-policy-makers that health systems may not support (or may even undermine) key economic and fiscal objectives
 - To help health-policy-makers secure a 'fair hearing' in governmental debates about public spending, this brief draws on current evidence to understand how health systems can contribute to some of the primary objectives of finance ministries: (1) stewardship of government funds; (2) macroeconomic growth; (3) societal well-being; and (3) fiscal sustainability
 - Laying out this evidence is only the first step towards securing investment and policy-makers should be mindful that success will largely depend on a wide range of political economy factors that are beyond the scope of this brief
- After reading this brief, health-policy-makers should be able to argue that:
 - There is strong evidence that health system spending contributes to better health outcomes
 - While inefficiencies exist in all health systems, health-policy-makers can (and increasingly do) prove that they are serious about achieving value for money by monitoring performance and by showing commitment to policies that explicitly seek to minimize waste and the misuse of public resources
 - Health systems are an important component of the macroeconomy, both as an industry that provides a large number of jobs, and also as a key determinant of a productive labour force
 - Health systems support societal well-being by enhancing social protection and reducing impoverishment associated with ill health, as well as through channels such as happiness and life satisfaction that remain elusive to common metrics
 - Health systems help support fiscal sustainability by keeping older people active and able to contribute to society, while also reducing their demands on pensions, welfare payments, and publicly funded health care services
 - Equipped with the arguments above, health-policy-makers should be emboldened to proactively and convincingly argue the economic case for investing in their health systems

Executive summary

Good health is a fundamental goal of all societies. Although health is determined by a large number of factors throughout the life course, the **health system is one of the most important contributors to population health that lies within the direct control of policy-makers.**

Yet, health-policy-makers who seek to make the case for increased financing for their health systems are often met with scepticism within governments. This scepticism may be explained in part by a belief among some finance-policy-makers that health systems may not support (or may even undermine) key economic and fiscal objectives.

This policy brief contends that, despite these common concerns, strong arguments can be made that health systems can play an important and largely favourable role in the economy. In fact, it finds evidence that the **economic and fiscal objectives of finance-policy-makers** are in many respects **actively promoted by health systems** or that this *could* be achieved if adequate, stable resources were made available.

This brief seeks to support health-policy-makers by framing available evidence and structuring arguments in a way that is likely to resonate with finance-policy-makers to **help health-policy-makers secure a 'fair hearing' in governmental debates about public spending.** To that end, the evidence and arguments presented in this brief are centred around the key objectives of the finance ministries in the WHO European Region as found in their mission statements and reflected in their policies: (1) **stewardship of government funds**; (2) **macroeconomic growth**; (3) **societal well-being**; and (3) **fiscal sustainability.**

(1) Is spending on health systems a good use of government resources and how can health systems demonstrate that they use public resources responsibly?

Yes, there is **strong evidence** that **health system spending contributes to better health outcomes**, especially where spending levels are currently low. There is also evidence that health promoting interventions that target proximal behavioural risk factors such as tobacco, alcohol, unhealthy diet and physical inactivity have important effects on health outcomes. Policies in other sectors that influence more distal socioeconomic factors such as education and income, however, in many instances demonstrate weak or conflicting evidence of health effects, reinforcing the notion that the health care system and other public health interventions directly targeting behavioural risk factors, in particular those at a population level, such as actions on price, availability, and marketing of health damaging products, and those who produce and market them are often best placed to secure health gains.

However, **inefficiencies exist in most health systems**, as they also do in other sectors outside health. While there is no single set of indicators that will give the complete picture of health system efficiency in a country, there are many diagnostic indicators that can shed light on the efficiency of discrete parts of a health system and guide remedial action. Health-policy-makers have indeed made **increasing use of efficiency metrics.** Beyond efficiency measurement, health

systems can **demonstrate their commitment to responsible use of resources** by committing to policies such as those that seek to reduce unjustified treatment variations or improve procurement. However, the **perception that efficiency savings are an 'easy win' may often be misconceived**: many actions to improve efficiency may, in the short term, require targeted investment and many crude actions to reduce budgets may result in cuts to services such as mental health and public health that have strong influences on health and disability, but are relatively weak politically.

(2) Are health systems an important driver of macroeconomic growth?

Showing that additional health spending always directly translates into measurable macroeconomic gains will inevitably be **challenging, especially at the macro level.** Health-policy-makers could therefore draw the attention of their finance counterparts to the direct and indirect **economic benefits of increased health spending at the micro level, where the evidence is more clear-cut.**

The health system, as an industry in its own right, is an **important component of the economy and a major source of employment** in most countries. However, the debate on how the health sector affects economy-wide productivity is unresolved. Besides being a source of jobs, the health system can contribute to the economy through its influence on the scientific 'discovery' industries, notably pharmaceutical and medical devices, but also via cross-border health care and remote provision of services, its association with the educational sector in the form of clinical training and life sciences, and its influence on workforce migration, with an international 'market' in students and trained clinical personnel.

Health systems also affect the economy **indirectly (via better health) through effects on the workforce**, which materialize through multiple pathways **throughout the life-course.** Numerous studies have shown that individuals in better health enjoy improved opportunities for economic participation (including through later retirement) and earnings compared to their less healthy counterparts. There is also some causal evidence of the role of health care interventions specifically in strengthening the labour market, though this is limited. Research looking at the role of chronic diseases and associated proximal behavioural risk factors finds strong evidence that obesity and smoking, in particular, have adverse effects on employment, wages and labour productivity. While some policies to prevent these risk factors lie outside the immediate control of health care service providers, there remains a key role for the health system in its preventative function, and in limiting the progression and impact of chronic diseases once established.

Health systems can also **further economic growth through their influence on the health of those who do not participate in the formal labour market**, such as children, older people or those who are care dependent. For example, children in ill health may be less able to attend school regularly and older adults in ill health may be unwilling or unable to invest in their human capital if they believe that their productive life expectancy is likely to be cut short by illness or death, making the returns not worthwhile.

Further, health systems can play an important role in ‘freeing up’ working-age caregivers whose formal employment opportunities are limited due to their caregiving role, particularly in countries with large informal care sectors. Furthermore, many of those whose health status is improved, even if they do not participate in the formal labour market, will be able to make greater informal economic contributions in the form of, for example, voluntary work and informal care.

(3) Do health systems support societal well-being?

Yes, through a number of direct and indirect channels, but common metrics, such as GDP, do not effectively capture the welfare benefits of good health. Perhaps the most tangible way in which health systems support societal well-being is by **improving health**, a fundamental element of all concepts of well-being. Health systems also improve social protection and reduce impoverishment associated with ill health. This **‘insurance benefit’ afforded by universal health coverage (UHC)** takes at least three forms: ex ante reassurance that future adverse health shocks will not be financially ruinous for an individual’s household; ex post avoidance of catastrophic expenditure when a health shock does occur; and the contribution to solidarity arising from the knowledge that others are similarly protected. This important benefit of the health system was for a long time not properly recognized, and yet it can now be seen as a major reason for the large variations in population’s **satisfaction** with their health systems.

The health system makes an important contribution to concepts such as happiness and life satisfaction, but despite ongoing efforts, these are very difficult to measure. A key challenge is to ensure that improved quality of life (which reflects factors such as disability, pain, anxiety and mobility) – and not just mortality reduction – is accounted for as having societal value. Increasing attention is therefore being paid to the concept of **morbidity compression** – the extent to which it is possible to minimize the period of dependency or disability an individual faces.

(4) How does the health system influence overall fiscal sustainability?

Sustainability addresses whether tax revenues will be sufficient to maintain the level of public expenditure in the long term. Therefore sustainability on its own is not a meaningful objective without a statement of what is to be sustained. In many respects, sustainability transcends the otherwise separate objectives described in this brief. For example, ministries of finance may seek to reduce taxes in order to promote economic growth. They may therefore take the viewpoint that reducing public spending on health – and thus reducing their financial obligations – is an important prerequisite in the short term with a view to promoting longer-term sustainability.

Population ageing is often the source of concerns about fiscal sustainability in many countries related specifically to health services expenditure, as per-person health care spending levels are usually greater for older people than for the working-age. However, health-policy-makers can convincingly argue that **a healthy older population is likely to be less costly for publicly funded programmes than one that is in poor health**. There is research showing that, beginning at a certain age, the older people are when they die, the less is spent in the period before they die. This suggests that as people live longer lives, which is in part a consequence of health system intervention, the costs of death (and therefore the costs of ageing) may fall. Indeed, if health systems can improve health and compress morbidity, it could lead to increased tax revenues, later retirement and deferred pension commitments, fewer claims for disability benefit payments and social care, and deferred ill health. In short, the **health system could make a positive contribution to fiscal sustainability across a wide range of programmes other than health**.

The evidence that health systems will indisputably further all these objectives on all occasions is, of course, not always clear. The goal of this brief is to provide health-policy-makers with a sense of the **current state of knowledge** about the links between health system actions and economic objectives. It recognizes that some areas of research are more developed than others, but seeks to give an idea of the likely relationships between health systems, health and the economy. Equipped with this understanding, it is then up to health-policy-makers to proactively and convincingly argue the economic case for investing in health systems. There is a parallel debate about how evidence-informed arguments can best be promoted in policy debates. However, what might be called the political economy of health and wealth is beyond the scope of this brief.

Introduction

Good health is a fundamental goal of all societies. This was recognized in the United Nations 2030 Agenda for Sustainable Development, which sees good health as a prerequisite for sustainable development, and which has a dedicated goal to “Ensure healthy lives and promote well-being for all at all ages” [1]. Although health is determined by a large number of factors throughout the life-course, the health system is one of the most important contributors to population health that lies within the direct control of policy-makers. WHO defines the health system broadly, as “all the activities whose primary purpose is to promote, restore or maintain health” [2]. It should be noted that this definition unambiguously embraces most public health and health promotion services.

Yet while the beneficial effects of the health system on population health are well established, the effects of health systems on the broader economy, both direct (as a major employer) and indirect (through its impact on population health) have historically been poorly understood. A range of international initiatives have drawn attention to links between the health system and the macroeconomy, including the 2016 ILO/WHO/OECD Commission on Health Employment and Economic Growth [3], which demonstrated that health employment is a key pathway to economic growth, and the 2001 WHO Commission on Macroeconomics and Health [4], which argued that better health outcomes can drive and defend economic growth. However, health-policy-makers who seek to make the case that health system spending is beneficial for the economy are often met with scepticism within governments and find their arguments and empirical evidence are deemed not persuasive enough, at least when compared with other areas or sectors of the economy.

There are a number of possible reasons that governments are hesitant to prioritize spending on health systems. First, there is concern that the nature of health care markets and insurance arrangements leads to excessive uncontrollable spending driven by the demands and expectations of patients, the role of clinical professionals and the interests of pharmaceutical companies. More generally, there is widespread concern that health system spending is not used wisely, with countless anecdotes of inefficient practices, and estimates (including those of WHO) suggesting that at least 20% of spending is wasted in most health systems [5]. At the same time, the scope for productivity gains in health care seems limited due to the sector's high labour-intensity, particularly when compared to the potential productivity gains in many other sectors of the economy. And even where it can be shown that health care contributes to improved longevity and health status, it is argued that many of the health gains may accrue to people after they have retired. Such gains may therefore contribute to a perceived burden of an ageing population, critics argue, rather than improving the productivity of the working-age population.

In this policy brief, we argue that despite these common concerns, there are strong arguments that health systems can play an important and largely favourable role in the economy. In fact, we find the objectives of economic- and finance-policy-makers are in many respects actively promoted by health systems. Our aim in writing this brief is

to help health-policy-makers understand the perspectives of national economic- and finance-policy-makers, and to frame evidence and structure arguments in a way that is likely to resonate with them. The intention is to support the health sector in securing a ‘fair hearing’ in governmental debates about public spending so that decisions regarding resource allocations can be better informed. The brief recognizes that laying out this evidence is only one step towards securing investment. Success will largely depend on a multitude of ‘political economy’ factors. For example, the economic argumentation presented in this brief will have different weights depending on the time frame adopted [6]. However, it is *not* the aim of this brief to discuss these important factors in detail.

The brief begins by revisiting the ‘Health Systems, Health and Wealth’ model developed for the 2008 Tallinn conference to describe the pathways through which the health system and national prosperity are linked, and to summarize counter-arguments that give rise to scepticism about the economic rationale for health spending [7]. We then present a four-part framework that encapsulates many of the principal economic and fiscal goals of a typical finance ministry, as they are a prime driver of macroeconomic policy and the guardian of public finances in most countries. The remainder of the brief uses that framework to summarize the evidence on how health systems directly and indirectly further these key economic goals.

The links between health systems, health, wealth, and societal well-being

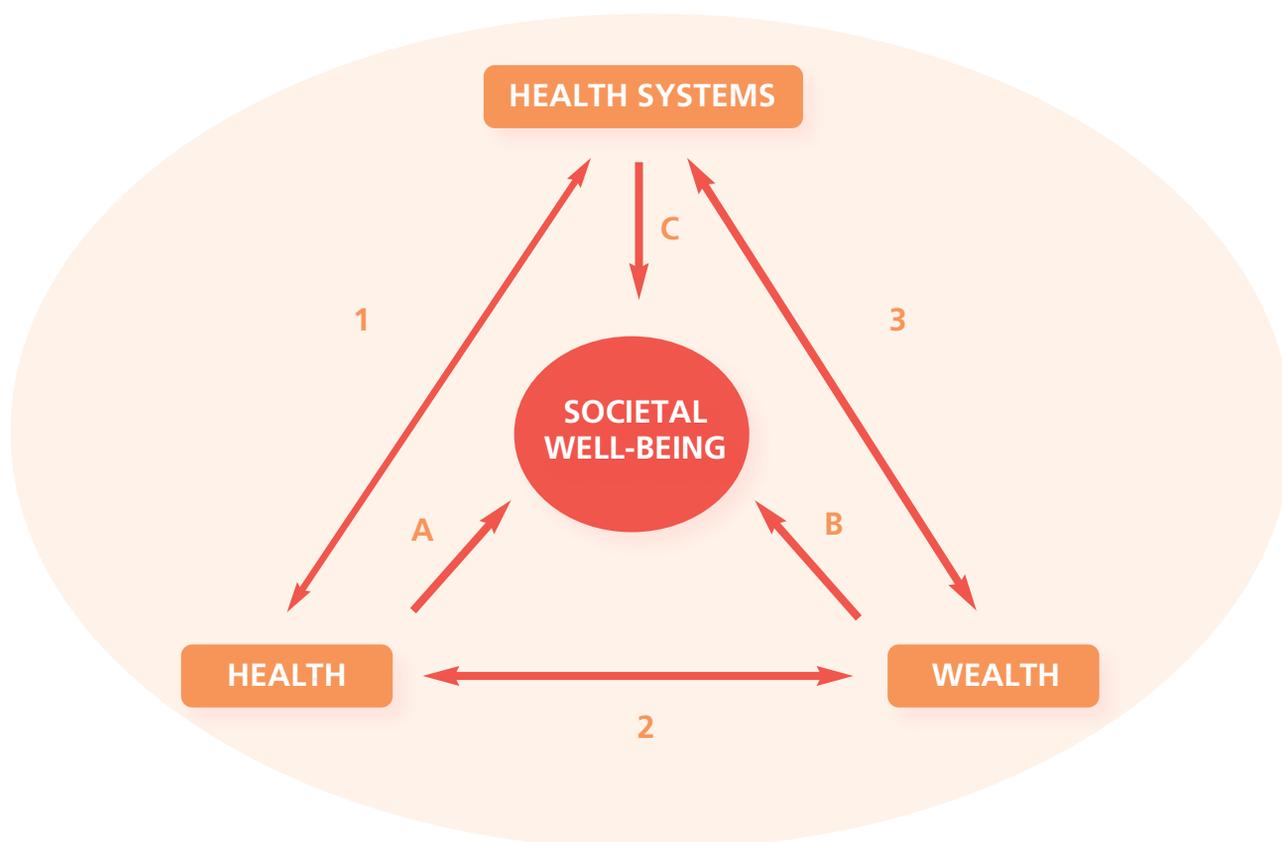
The 2008 Tallinn Charter noted the following [8]:

Beyond its intrinsic value, improved health contributes to social well-being through its impact on economic development, competitiveness and productivity. High-performing health systems contribute to economic development and health.

This assertion should not be controversial. Scholars such as Nobel laureate Robert Fogel have established that improvements in health over time have made a major contribution to long-term productivity gains [9]. He argued that reduction of malnutrition, especially at younger ages, was the principal driver of this result. From a policy perspective, a key research question is therefore whether these findings can be extrapolated to modern economies in which health services have made an increasingly important contribution to health improvements.

The European Observatory on Health Systems and Policies’ book to accompany the Tallinn conference assessed the links between health, health systems, wealth and societal well-being [10]. This sought to place the health system, and its contribution to well-being, within the broader context of the economy as a whole. The book introduced a conceptual framework in which three fundamental and interlinked factors contribute to the promotion of societal well-being, perhaps the most fundamental role of governments: health (see **(A)** in Figure 1), wealth **(B)**, and the health system **(C)**. These are not the only factors influencing well-being. However, the framework, illustrated in Figure 1, is intended to help policy-makers make sense of the many causal pathways that link the health system to the broader well-being and welfare of the population.

Figure 1: Health systems, health, wealth and societal well-being: a triangular relationship



Source: [10]

The outside of the triangle tracks the direct influences of the health system on two fundamental pillars of well-being: health and wealth. Although somewhat tautological, it is important to recognize explicitly the contribution of the health system to improved health. There are increasingly secure quantitative estimates of the improved health created by health systems at the margin, showing the direct impact of changes in health care expenditure on population health [11, 12].

The health system affects wealth directly (see **(3)** in Figure 1), for example through its employment of a large workforce, stimulating clinical education, medical research and development, and other influences on the economy. The health system also influences wealth indirectly through the improved health it creates **(1)**, which in turn influences factors such as labour productivity, educational attainment and savings **(2)**. The increased longevity and reduction in disability secured by the health system can feed through to the macroeconomy via a multitude of unexpected routes, such as reduced absence from work due to ill health, increased retirement age, increased investment in human capital caused by expectations of a longer working life, and increased demand for savings which in the long run may give rise to greater capital investment. Finally, all three elements of the outside triangle in Figure 1 contribute to the fundamental goal of societal well-being through a combination of pathways: improved health as a benefit in its own right **(A)**, the improved wealth it creates directly and

indirectly **(B)**, and the security and social protection offered by the health system **(C)**.

While the evidence base offers an increasingly secure foundation on which to base arguments regarding the nature and strength of the relationships illustrated in Figure 1, it nevertheless remains inconclusive in many respects. The relationships being modelled are often extremely complex, and many effects operate with a considerable lag, adding to the analytic complexity. However, both theoretical and empirical research are moving towards an increasingly rich understanding of the role of the health system in creating economic prosperity and more general well-being.

Why is there resistance in some countries to spending more on health systems?

There are wide variations in health system spending between countries with apparently similar circumstances. This is illustrated not least by the financial crisis which put additional fiscal pressures on many countries in the European Region and in some led to reductions in health spending growth [13]. The diversity in spending may to some extent be explained by variations in political choices, variations in epidemiology and medical needs, variations in social preferences, or variations in efficiency. However, differences in spending choices across countries may also arise due to a belief among some economists and other financial advisers that health spending is to a large extent an

unproductive 'drain' on the economy. According to this view, the health sector consumes an increasingly high proportion of national income with few measurable returns compared to investment in other sectors. Specific concerns might include the following.

- A. Because of widespread market failures, health systems consume more of the nation's income than is socially optimal. In particular, systems that provide generous health care coverage encourage excess expenditure because patients have little financial incentive to moderate their demands on the health system.
- B. At a certain point, extra spending on health systems does not contribute markedly towards improved health. Many of the most important determinants of health lie outside the health system, so improvements in health might be better achieved through other programmes.
- C. All health systems have numerous examples of misallocated resources and waste, and in some cases elements of corruption. It is argued that such inefficiency and misuse of finances should be eliminated, or that greater proof of efficient spending is provided, before considering increased spending.
- D. The scope for productivity growth in health services is low relative to other sectors of the economy. While wage growth in the health sector keeps pace with other sectors, its level of output per worker does not. Over time it thus has a natural tendency to attract a higher proportion of national expenditure at the expense of other potentially more productive industries.
- E. Much of the spending on health services contributes to longer lives that are not necessarily spent in good health. This creates a societal burden in the form of not only health services but also long-term care, pensions and other social programmes, sometimes for people who have minimal quality of life.

All of these statements refer to legitimate areas of concern and uncertainty, and contain elements of truth. However, each of them is highly contestable, especially when the benefits of health services are properly taken into account. The next section presents a framework for considering these assertions, as a basis for assessing their validity, for producing evidence to address them, and for devising policies that may allay the concerns raised by sceptical commentators and analysts. We then return to address them below.

Organizing framework: what are the primary economic, fiscal and social objectives of a finance ministry?

Finance or economy ministries are in most countries the single most powerful influence on public expenditure decisions and overall macroeconomic policy. While there are variations across countries in the responsibilities, priorities and objectives of such ministries, the four themes depicted in Figure 2 can be found in mission statements of many ministries of finance in the European Region.¹ We will use them as an organizing framework to position the discussion in the remainder of the policy brief by discussing how health systems help further each of these objectives.

The four goals described in Figure 2 are not independent of each other. In particular, maintaining fiscal sustainability (goal (4)) is dependent on both spending policies (goal (1)) and on macroeconomic conditions, such as employment and GDP (goal (2)).

Using the example of tobacco policy, Box 1 illustrates the complexities of the pursuit of the conventional economic objectives in the context of health-related decision-making, and how the broader goal of societal well-being (goal (3)) is increasingly also taken into account in the actions of finance ministries. Box 1 also shows that the goals pursued by the ministries of finance are not static and may change over time when compelling evidence becomes available or public attitudes shift. The tobacco story described in Box 1 is just one example of health sector evidence securing the support of ministries of finance and governments in the face of fierce lobbying from commercial interests by demonstrating links between not only tobacco and health but also health and the economy.

Box 1: Why would ministries of finance support policies that seem at face value to contradict some of their stated objectives? An example of tobacco

To explore this question, we consider the apparently paradoxical example of tobacco [16]. Tobacco taxes have been an important source of revenues for many governments around the world. Some industries such as restaurants and bars have claimed that smoking bans will be bad for their businesses and the macroeconomy overall. Smokers are more likely to die at young ages (and thus not burden pension systems) and are also likely to die relatively quickly (and not burden health or long-term care sectors). Smokers also seem to gain some pleasure from smoking itself. It would thus seem at first that tobacco control programmes would contradict some of the ministries of finance's economic and fiscal core objectives. Indeed, some governments have been cautious about overregulating the tobacco industry in the past due to potential adverse economic implications [17]. And yet across the Region, notwithstanding occasional setbacks, there has emerged a consensus that smoking is detrimental to national well-being, and a series of successful strategies aimed at reducing smoking have been implemented [18, 19]. Why is this? Why would ministries of finance (seemingly) support policies that contradict some of their most important stated objectives?

We posit it is because they have in general accepted the strong evidence that smoking is bad for health, which itself is undesirable from a societal perspective, but which in turn is also bad for the economy due to effects on factors such as productivity and health care costs. A recent study estimating the economic burden of disease and labour force loss among 30-69 year olds in the WHO European Region amounts to 3.2 million years lost to disability, with one quarter of deaths in that age group attributable to smoking [20]. Annually, Europe loses over 430 000 workers, with years of labour lost to disability exceeding 1.8 million, and years lost to mortality exceeding 5.2 million.

This places an enormous economic burden on countries. The total cost of ill health due to smoking in the WHO European Region amounts to more than US\$ 600 billion PPP annually, costing countries over 2.5% of GDP on average. About a quarter of this is the direct cost to health systems, but the majority is the indirect economic costs of disability and mortality. In fact, if one were to add up the excess work absences among smokers (estimated at 7.7 days per year) [21], the reductions in productivity (3-9 days per year) and additional time spent on smoke breaks (4-14 days per year), it can be argued that smokers work between 2 weeks to a month less per year than non-smokers [22].

¹ There are of course other competencies of finance ministries, such as those related to regulation of the banking and finance sectors, but they are somewhat less relevant to the direct actions of a ministry of health.

Figure 2: Organizing framework

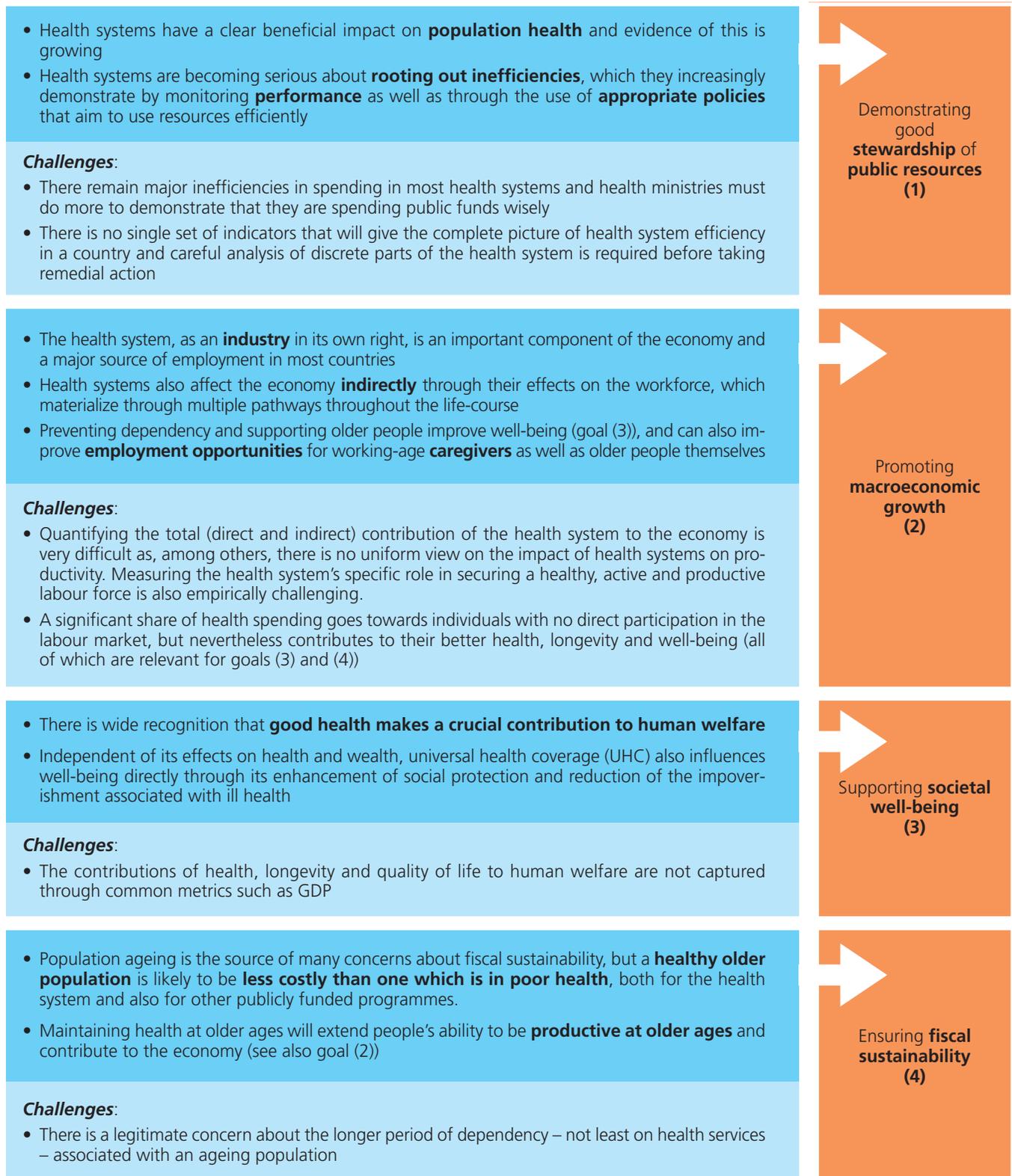
WHAT IS THE GOAL?	WHAT DOES IT INVOLVE?	HOW CAN WE MEASURE IT?
<p>Demonstrating good stewardship of public resources (1)</p>	<ul style="list-style-type: none"> This involves ensuring that tax revenues and other government resources are used in the best possible way, in line with the intentions of the government, and with good budgetary discipline Ensuring the best possible use of resources includes the following assessments: <ul style="list-style-type: none"> Allocative efficiency: is the allocation between different public sector functions as intended (e.g. allocation between the health sector and other public sectors, such as education) and also within each public sector (e.g. between the various areas of the health system, such as primary and inpatient care)? Technical efficiency: are the allocated resources used to best possible effect (within each public sector)? 	<p>Various efficiency metrics (see [14])</p>
<p>Promoting macroeconomic growth (2)</p>	<ul style="list-style-type: none"> This entails balancing concerns such as interest rates, savings and consumption, exchange rates, labour productivity and private sector investment Instruments include direct intervention (such as state subsidy or provision of services) and indirect measures such as exercising oversight of the functioning of markets, and the creation of appropriate incentives for labour market participation and corporate investment 	<p>GDP, employment rates, and other traditional economic indicators</p>
<p>Supporting societal well-being (3)</p>	<ul style="list-style-type: none"> This goal is increasingly being incorporated explicitly into the missions of finance ministries and reflects recognition that economic prosperity is not the only factor affecting well-being There is a growing appreciation that considerations such as health, educational development, environmental degradation and broader concepts such as 'happiness' should be incorporated into any rounded concept of societal development 	<p>Metrics developed though not widely in use (see [15])</p>
<p>Ensuring fiscal sustainability (4)</p>	<ul style="list-style-type: none"> The focus here is on balancing tax revenue generation and public expenditure in the long term, using borrowing to smooth out fluctuations This goal is directly related to goals (1) and (2), and increasingly also to goal (3) 	<p>Estimates of future expenditure and revenues, as frequently monitored by parliamentary and other oversight agencies</p>

How do health systems advance the economic, fiscal and social objectives of finance ministries?

In the following sections, we review some of the empirical evidence on how health systems may further the four classes of economic and fiscal objectives of ministries of finance

discussed above: stewardship of government funds; macroeconomic growth; societal well-being; and fiscal sustainability. First, Figure 3 summarizes our findings. We then consider each objective in turn.

Figure 3: How do health systems further the key goals of finance ministries?



(1) Is spending on health systems a good use of government resources and how can health systems demonstrate that they use public resources responsibly?

As the guardian of public finances, a key concern of a ministry of finance is being able to demonstrate that money spent is put to good use. This means not only ensuring that each government sector is allocated an appropriate level of resources, but also that within each sector – including health sectors – the resources available are used to achieve outputs valued by society and intended by the government.

Health systems have a clear beneficial impact on population health

There is a growing literature establishing the relationship between health system spending and health outcomes [23]. For example, Martin, Rice and Smith [11] show a clear link between increased health care spending and improved health outcomes in the English NHS. Using the same methods, Claxton et al. [12] estimate that an additional spending of approximately GBP 13 000 would secure an extra quality-adjusted life year (QALY) in England. Increases in health care expenditure have also been shown to decrease amenable mortality in 17 European countries between 1980 and 2010 with no significant differences among high and low educated individuals – evidence which may indicate that health systems help to reduce inequalities [24].

A recent review of the literature on the linkages between health spending and health outcomes similarly concludes that increased health spending reduces mortality rates [25]. Health gains associated with increases in health expenditure in lower income countries are likely to be much more profound than in high income countries, given their already lower levels of spending and, in some cases, poorer health. So while some estimates suggest that it costs only USD 150 to add an additional life year in low and middle-income countries (LMICs) [26], for OECD countries, total increases in health spending since 1970 have decreased mortality rates by approximately 8% [25]. In short, additional spending on health systems is on average likely to secure considerable health gains, especially when spending levels are currently low.

Other factors outside of the immediate control of health systems also have important effects on health outcomes. This is particularly true in the case of health promoting interventions which target proximal behavioural risk factors such as tobacco, alcohol, unhealthy diet and physical inactivity, many of which are found to be cost-effective or even cost saving [27]. Such public health interventions, including tax policy, should be included in any consideration of health system effectiveness.

There is also an extensive literature on the important impact on health of broader social determinants beyond the health system [28]. However, notwithstanding the importance for health of many social determinants, there are often considerable political and administrative difficulties in securing cross-sectoral agreement on implementing policies targeted at social determinants, and there are few large-scale instances of health ministries diverting funds from health services to cross-sectoral actions. Furthermore, research on the health effects of policies targeting the more distal factors commonly linked to health outcomes, such as education or income, in many instances finds conflicting or inconsistent effects of the policies themselves on health (Box 2). This lack of a solid evidence base and “know-how” of how to best design these

types of policies for the sake of improving health outcomes reinforces the notion that the health system, as opposed to many other sectors, is often one of, if not the best placed sector to design and implement policies whose main goal is to secure health gains.

It is important to emphasize, however, that this statement does not contradict many countries’ commitment to a Health in All Policies approach, since many non-health system policies do have spillover effects for health in addition to their intended effects on income, education or otherwise. Indeed, there remains great scope for intersectoral efforts, and the advocacy role of the health ministry is extremely important in this regard.

Box 2: Challenges in improving health outcomes through policy interventions outside of the health sector that target distal social determinants

Extensive literature on the social determinants of health has documented numerous drivers outside the health sector, including poverty, unemployment, housing conditions and education [28]. These determinants shape behavioural risk factors, such as smoking, poor diet and alcohol use that may, to a large extent, be beyond the immediate control of health care service providers. Some have therefore argued that governments should give priority to public spending in other areas, such as education or employment policy, in an effort to improve health outcomes and reduce health expenditure growth. That is, the social determinants argument should be taken into account when governments consider the optimal balance of public spending between health and other public services.

Naturally, there are trade-offs when deciding between allocating resources to health versus other public sectors, and it is difficult to compare the marginal effectiveness of the health system compared to some of these other sectors in improving health. Empirical analysis by the OECD, for example, shows that between 1991 and 2003, increases in health spending explained 46% of male and 39% of female gains in life expectancy at birth. No other factor – GDP, education, pollution, or lifestyle characteristics – was shown to play a larger role in lengthening lives than health expenditure [29]. More recent evidence from the OECD also finds that a 10% increase in health spending is associated with 3.5 additional months of life expectancy on average. The size of this effect is larger than for comparable increases in income or education coverage, or for comparable decreases in smoking or alcohol consumption [30].

There is research evaluating the extent to which policy interventions targeting some of the aforementioned socioeconomic factors affect health. However much of the experimental and quasi-experimental research finds inconsistent causal evidence of sizeable positive impacts on health outcomes [31]. As an example of this paradox, while it is still the case that people with more years of education are typically in better health on average than those with fewer years of education, research on policy interventions which increased the length of mandatory schooling, for example, have not always found strong evidence of improvements in health outcomes [32, 33]. This and other research suggest that understanding of how to design policies outside of the traditional health sector that also improve health is still limited.

Nevertheless, with regards to the economic gains that can be derived from good health more generally, there is a need for complementary preconditions to be in place, for example in the form of good education capacity and properly functioning labour markets [34].

Inefficiencies exist in most health systems and health ministries need to make use of metrics to identify the extent and nature of any resource misallocation

While there is increasing evidence that health systems make important contributions to health improvement, there also

exist major inefficiencies in spending in most health systems, with estimates of between 20-40% of resources being wasted according to the World Health Report 2010 [35, 36]. This can take the form of both allocative inefficiencies (i.e. suboptimal mix of inputs in the health system or mix of outputs of the health system) and technical inefficiencies (i.e. suboptimal level of outputs given the level of inputs).

Allocative inefficiency is perhaps of particular concern as it suggests that irrespective of the level of resources in the health system, the health system is poorly designed to best meet population health needs. For example, an excessive reliance on secondary care may deny a system in which the health gains could be secured at lower cost, either through prevention or early treatment in primary care. Technical inefficiency has been extensively documented by the OECD [37], and may take many forms, such as unnecessary treatments, adverse events and wasteful procurement.

There are numerous metrics available to measure and monitor efficiency in health systems (see Box 3) and health-policy-makers need to make a better use of them to identify the extent and nature of any resource misallocations in their health systems. However, taken in insolation, many of these indicators can be very misleading. For example, over-zealous efforts to reduce length of hospital stay may shift costs onto community health services or lead to increased rates of emergency readmission. There is therefore no single set of indicators that will give the complete picture of health system efficiency in a country. In order to take remedial action, there is a need for multiple detailed diagnostic indicators of discrete parts of the process transforming resources into health [14]. Furthermore, many actions to improve efficiency (such as retraining the workforce) may in the short term require targeted investment in physical and human resources. Conversely, many crude actions to reduce

Box 3: How to demonstrate effective and responsible use of resources in the health system?

There are many indicators that can be used to provide insights into whether resources are being used efficiently [42]. From a simplistic viewpoint, efficiency represents the ratio of the inputs an organization consumes in relation to the value of the outputs it produces. For health production processes of any complexity, there are usually a number of stages in the transformation of resources into outcomes, all of which can be evaluated to monitor efficiency. The choice of which processes to monitor is very much context specific. Nevertheless, an important consideration is always whether the indicators, when used appropriately, reflect the processes of interest and can provide grounds for intervention.

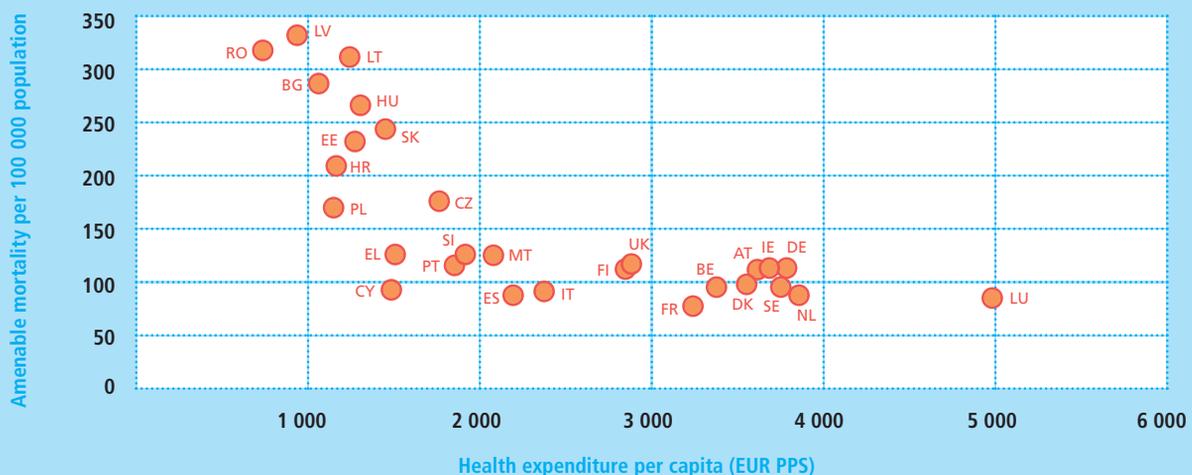
The overarching concern of efficiency analysis is with cost-effectiveness – which summarizes the transformation of costs into valued health outcomes; in practice, this could be measured using the ‘cost per quality-adjusted life year (QALY)’ or ‘cost per disability-adjusted life year (DALY)’ indicators. However, data demands of a full-system cost-effectiveness analysis (CEA) are often prohibitive, and the results may in any event not provide policy-makers with relevant information on either the causes of inefficiency, or where to make improvements.

As a starting point it may be useful to begin at a macro level. For example, in an effort to better understand how the health system itself influences health, the concept of ‘amenable mortality’ has been developed, defined as deaths ‘that are potentially preventable given effective and timely health care’ [23]. Extensive research has been stimulated by the concept of amenable mortality, which is becoming an important indicator of health system performance, at least in relatively high-income countries. The concept is more difficult to apply in lower income settings, where the affordability of health system interventions (and therefore amenability) becomes a major consideration.

To begin to understand the contribution of the health system to health outcomes, a comparison on health spending and amenable deaths could be a useful approach. As shown in Figure 4, we can see how health spending correlates with amenable death rates; a country could also show how the relationship between its health spending and amenable mortality rates changes over time. And while it is apparent that many countries with higher amenable mortality rates also have very low levels of spending (noting that this does not necessarily indicate causality), it would appear that the lowest spenders could make considerable gains at relatively low cost.

Other countries with higher spending levels seem to have fewer amenable deaths but at varying costs of achieving similar levels of amenable mortality; in these countries it is important to assess whether additional spending is achieving other valued outcomes, such as lower morbidity, or whether there is in fact waste in the system. If there is evidence of waste, a careful assessment to identify the sources of the waste would be prudent.

Figure 4: Health spending relative to amenable mortality in the EU countries, 2014



Sources: [43-45]

budgets may result in cuts to services such as mental health and public health that have strong influences on health and disability, but are relatively weak politically. Therefore the perception that efficiency savings are an 'easy win' may often be misconceived.

Beyond measurement, health systems can demonstrate their commitment to policies that seek to use resources efficiently

Even if it is not possible to measure the efficiency of all production pathways within the health system, health systems can demonstrate to ministries of finance that they are seeking to take efficient actions. For example, securing an efficient allocation of resources within the health system has been an important focus of health technology assessment (HTA), particularly in the form of cost-effectiveness analysis (CEA) [38, 39]. In their simplest form, these methods seek to identify whether a specific intervention should be funded when seeking maximum health gain for a limited publicly funded health services budget. In the past, the methods of CEA have been applied mainly to new pharmaceutical products. However, increasing interest is being directed at the cost-effectiveness of more general health services, as well as disease prevention and promotion interventions [27], and how the principles of CEA might be applied in more complex settings. These principles have secured widespread acceptance among policy-makers, and the use of CEA is a signal that health systems are becoming serious about making hard choices and rooting out inefficient practices [40]. This trend in the use of CEA also indicates a willingness to demonstrate good stewardship of health system funds.

Other approaches to signal to ministries of finance that health systems are serious about achieving good value for money may include identifying and reducing unjustified treatment variations, more flexible use of human resources (such as task-shifting), better procurement policies (such as negotiating lower medicines prices), or reorganization of hospitals, to name just a few. Such policies may be politically complex, involving, for example, confrontation with entrenched vested interests. But initiatives such as the BeNeLuxA collaboration and the Valletta Declaration, both of which are cross-country efforts to improve affordable access to new medicines, indicate that progress can be made, in this case through international collaborative efforts [41].

(2) Are health systems an important driver of macroeconomic growth?

In this section we discuss some of the evidence on links between the actions of the health system and economic prosperity, focusing first on the role of the health system as an industry in its own right within the economy, and then on the indirect effects of health systems via improvements in population health, and thereby on factors such as labour productivity and labour market participation.

It is important to note from the outset that quantifying the total contribution of the health system to the broader economy is challenging due to the many direct and indirect ways (often interlinked) in which the two might interact [46, 47], including through the multiple macroeconomic consequences arising over time from increased life expectancy [48]. Therefore, rather than trying to estimate the full contribution of the health system to national prosperity by attempting to model all the dynamic feedback

effects, it makes sense to consider particular ways in which the health system interacts with the broader economy.

The health system, as an industry in its own right, is an important component of the economy and a major source of employment in most countries

The health system is a major sector of most economies, especially in high-income countries, where it is an important source of jobs at all skill levels. According to the International Labour Organization, health and social work jobs have increased from 7.4% of total employment in Europe and central Asia in 2000 to 9% in 2017. In northern, southern and western Europe, health and social work jobs made up over 12% of jobs in 2017 [49]. The size and nature of the health system therefore are likely to have profound direct implications for the performance of the economy as a whole, independent of its impact through its influence on population health (see below).

However, a traditional view among economists is that modern health systems, as an industry, have low capacity for productivity improvement relative to other sectors of the economy. This suggests that although health systems are large employers this is not in itself necessarily beneficial for economic growth (Box 4). Rather, it might be argued, the health sector may divert skilled workforce from other potentially more productive sectors of the economy. However, an alternative view is that health care might be a driving force behind economy-wide technological innovation and growth through its impacts on factors such as increasing longevity (and corresponding savings behaviours, see Box 4) and labour productivity (see next section).

There are many other ways a health system can influence the economy directly (i.e. not via its effects on population health), including through its influence on the scientific 'discovery' industries, notably pharmaceutical and medical devices. In the EU28, for example, exports of goods and services amounted to 43.9% of GDP according to Eurostat [44]. Pharmaceutical products accounted for 137 billion euros in exports from the EU28 in 2016 [44] (i.e. equivalent to around 1% of EU28 GDP); the majority of these exports were to the United States of America, followed by Switzerland, Japan, China and the Russian Federation. These figures do not include the export of health care services, or the export of medical instruments and apparatus, which can also make up a significant amount of expenditure. Cross-border health care and remote provision of services such as diagnostics are two further areas that can potentially influence international trade. Other channels through which a health system directly affects the economy include its influence on the educational sector, in the form of clinical training and life sciences and its influence on workforce migration (both positive and negative), with an international 'market' in students and trained clinical personnel.

Notwithstanding these important macroeconomic forces, quantifying the direct economic impact of the health system has rarely attracted sustained academic attention, although there is increasing interest particularly among low-income countries and development agencies in measuring it [50]. The important policy inference is that both sides of the debate – sceptics and advocates for more health spending – should exercise caution in drawing conclusions about the direct macroeconomic role of the health sector, as it is exceedingly complex to model the multitude of moving pieces in the macroeconomy.

Box 4: How does the health sector affect economy-wide productivity? An unresolved debate

Economic-policy-makers may be hesitant to spend additional resources on health systems because of a concern that the sector is unproductive. Baumol's theory (often referred to as Baumol's cost disease) is based on the observation that labour-intensive industries have limited scope for productivity gains (i.e. they cannot infinitely produce more output per worker) yet their wages typically keep pace with those in the rest of the economy [51]. The concern is that this will cause workers to be pushed out of more 'productive' sectors to work in health care and other labour-intensive industries, causing the economy to fail to maximize its potential productivity growth, and leading to endless growth in health care spending. However, whether the low capacity for productivity gains in health systems will cause inexorable growth in health expenditure is not clear.

Baumol himself (who took issue with the notion that his theory constituted a 'disease') clarified that although health care prices do increase disproportionately as a result of this phenomenon, he argues that productivity gains in the rest of the economy will keep health care affordable in the future because consumers working in more productive sectors will have to work fewer hours to continue to be able to afford health care [52]. Recent research even questions whether Baumol's cost disease is a valid concern in health systems of OECD countries given that evidence of its existence is sensitive to model specification [53]. However, a core issue remaining for economic-policy-makers is whether, by employing a large proportion of the skilled workforce, health care 'crowds out' more productive use of a country's assets, which is difficult to assess [54].

Other efforts have explored how health systems influence technological innovation in the economy more broadly. Kuhn and Prettnr assess the implications of labour intensive health care for the growth of the research and development (R&D) sector of the economy [55]. The model they develop includes demographic effects of health care, such as increasing longevity and improvements in labour productivity. Two key questions on which the model rests are: (a) does a labour-intensive health care sector attract workers that would otherwise be available for R&D and production and (b) does increased longevity lead people to accumulate more savings to support themselves during additional years of retirement? If the latter is the case, then health care may inadvertently lead to greater investment, stimulating long-term R&D activity and ultimately higher levels of productivity in the economy.

Health systems affect the economy indirectly (via better health) through effects on the workforce, which materialize through multiple pathways throughout the life-course

Jack [34] summarizes the evidence examining the causal effects of good health on the economy in general. At a micro level, the evidence is unambiguous. Numerous studies have shown that individuals in better health enjoy improved opportunities for economic participation and earnings compared to their less healthy counterparts. Better health leads to higher rates of labour market participation and later retirement [56]. In contrast, ill health can affect an individual and his or her household directly (through the costs of health services and caregivers) and indirectly (through reduced opportunities for labour market participation) [57].

There is also considerable research looking at the role of chronic diseases and associated lifestyle factors, on employment, productivity and earnings [58]. The evidence strongly indicates that obesity and smoking, in particular, have adverse effects on employment, wages and labour productivity. While some policies to prevent these risk factors

lie outside the immediate control of health care service providers [27], there remains a key role for the health system in its preventative public health function, and in limiting the progression and impact of chronic diseases once established. There is some interesting causal evidence of the role of health care interventions in strengthening the labour market; for example, researchers have shown that a medication used to treat chronic pain and inflammation, upon being removed from the market (due to concerns of adverse side-effects), resulted in reductions in labour market participation, increases in absenteeism and lost wages [59, 60].

Furthermore, the effects of health systems on human capital development occur throughout the life-course. For example, children in ill health may be less able to attend school regularly or to develop the cognitive skills needed for many jobs. Ill health might reduce an individual's ability or incentive to invest in education and training [61]. Older adults in ill health may be unwilling or unable to invest in their human capital if they believe that their productive life expectancy is likely to be truncated by illness or death, making the returns not worthwhile. Conversely, as health and life expectancy improves, it becomes increasingly valuable for individuals and their families to invest in the skills that will yield greater returns over a longer productive lifetime.

A narrow view, focusing only on the immediate link between health and worker productivity, ignores the impact on the economy of improved health among those not participating in the formal labour market, such as children, older people or those who are care dependent. However, by improving the health status of these groups, health systems can play an important role in 'freeing up' working-age caregivers whose formal employment opportunities are limited due to the need to look after those requiring care, particularly in countries with large informal care sectors (see Box 5). Furthermore, many of those whose health status is improved, even if they do not participate in the formal labour market, will be able to make greater informal economic contributions, in the form of, for example, voluntary work and informal care.

At a macro level, evidence on the relationship between improved population health and economic prosperity is less clear-cut than that adopting the micro perspective. Using econometric methods, some authors find a strong link between lagged changes in population health and national income growth [62]. However, when others model the impact of potential 'shocks' to health status on future economic performance, they find more ambiguous results [63]. A particular challenge is to distinguish short-run from long-run effects. For example, in the short run the consequences of an epidemic among those who are economically active may be to make labour more valuable, and increase per capita earnings. In the longer run, adaptation in the form of immigration, increased fertility rates or investment in physical capital might alter this relationship.

Box 5: How to demonstrate a link between investing in the health of older people and the labour force?

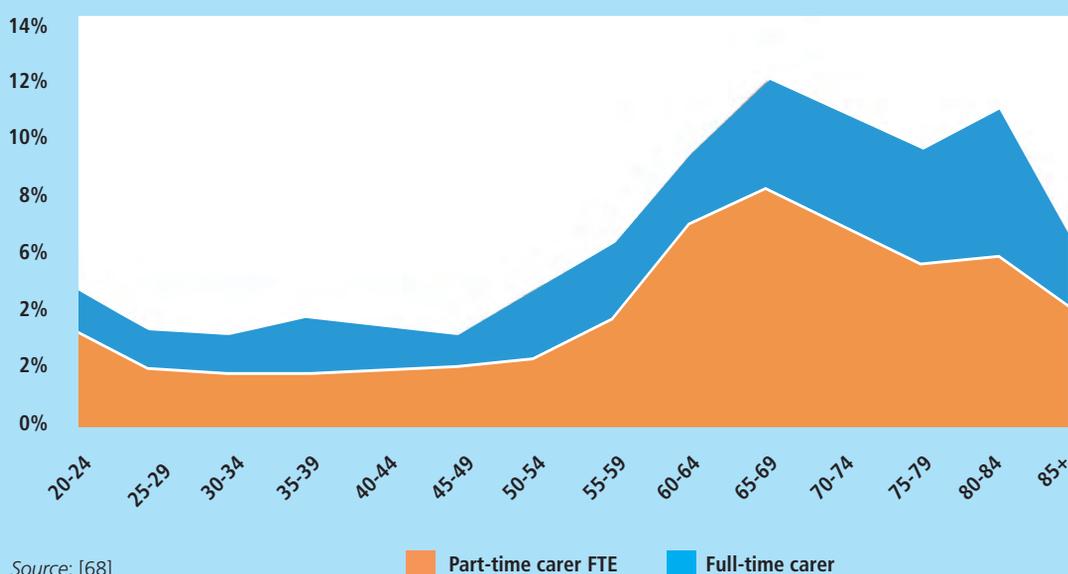
It is important to acknowledge the important effects of health systems on human capital through improvements in health; however, it is difficult to measure due to the two-way effects of health on labour market participation and the effects of work on health. At the same time, some may perceive that the health system wastes considerable resources by spending on the health of older people who are less likely to contribute directly to the formal labour market. Even setting aside the personal benefits of a longer, healthier life, this is an excessively narrow viewpoint, as illustrated below.

Health systems could make their economic case for investing in the health of older people, in part for the sake of raising wages and improving labour market attachment for adults who otherwise act as caregivers. For example, in southern European countries there is evidence that daily informal caregiving has a negative effect on employment opportunities [64]. Other research suggests informal caregiving reduces wages and hours in paid work, mostly for women, although again it is likely there are differences across countries based on cultural norms [65].

Figure 5 looks at size of the caregiver population by age (adjusted for full-time equivalent) to illustrate how many more people could theoretically be involved in paid work if there were (a) greater access to formal long-term care services that fully replaced the need for informal care among those who are dependent and/or (b) there were a compression of morbidity such that people at older ages were in good health and able to themselves either work until older ages, provide care (for example to grandchildren or others who require looking after), or otherwise require less caregiving or none at all. For example, according to data from the European Social Survey, approximately 10% of working age adults 60-64 years of age are involved in caregiving [65]. With pressures to raise pension ages, it is likely that providing formal care services or otherwise investing in the health of older people so that they are less likely to be dependent could 'free up' many of these people to continue to participate in the labour market until pension age or beyond if they so choose, to care for others such as grandchildren, or to otherwise contribute to society in immeasurable other ways.

It should be noted however that the employment effects of instituting formal long-term care services can vary. Research from Norway suggests that expansions of formal care reduce work absences among adult daughters of single older people [66]. At the same time, however, there is some evidence from Scotland suggesting that increased access to formal personal care may increase demands for informal care, as it can make it easier for otherwise dependent people to remain in the community [67].

Figure 5: Share (%) of the population across selected European countries engaged in informal caregiving, adjusted for full time equivalency, 2014



(3) Do health systems support societal well-being?

There is extensive research described throughout this brief documenting the positive direct and indirect impact of health systems on conventional measures of health and economic prosperity. However, health systems also address important societal objectives that are not reflected in traditional metrics such as GDP, but which are increasingly recognized as making a crucial contribution to societal well-being [69]. These include concepts such as happiness and life satisfaction, as well as more tangible factors such as its social protection function, the redistribution inherent in universal health coverage (UHC), and its consequent contribution to social solidarity.

Common metrics, such as GDP, do not effectively capture the welfare benefits of good health

Securing a long and healthy life makes an essential contribution to well-being in itself, and is also a prerequisite for fully realizing an individual's potential, and there is wide recognition that good health makes a crucial contribution to human welfare. This is reflected in countless commentaries and instruments such as the Human Development Index, which rests on three pillars of health, education and wealth. Health is both valued in itself, enabling people to enjoy a long and rewarding life, but also as a prerequisite for maximizing intellectual development and employment opportunities.

The narrow metrics of prosperity traditionally used in many economic debates, such as per capita GDP, are therefore profoundly inadequate as a measure of social well-being. They ignore improvements in well-being not captured by measures of income, most notably the increase in quality of life arising from health improvement. They also ignore the contributions to the economy made outside of paid employment, for example in the form of child care and caring for family members in ill health. The value placed on such factors should in principle be included in any comprehensive measure of national prosperity [69].

Examples of how this might be addressed include the 2009 report of the Sarkozy Commission, which explicitly states the need to shift emphasis from measuring economic production to measuring people's well-being [69], the ongoing 'Better Life Initiative' of the Organisation for Economic Co-operation and Development (OECD) which includes 'measuring well-being and progress', and more localized approaches, such as the guidance on measuring social enterprises' impact on well-being from the United Kingdom's New Economics Foundation think tank [70].

Greater health leads to improved consumption opportunities, and also greater opportunity to pass on the benefits of education and other endowments to future generations. Better health intrinsically enhances quality of life, reduces expenditure on health services, and also improves the capacity to contribute to society. There is a growing evidence base related to the 'value of a statistical life', which is a metric used to estimate how much

individuals are willing to pay to reduce their risk of dying and is used for the design of policies to reduce health risk (e.g. road safety measures), indicating the high values attached to improvements in mortality rates [71]. Nonetheless, there are concerns about the validity of such a measure given that individuals' risk assessment may not be accurate, or the values attached may be undervalued, and authorities may have an interest in overestimating in order to maximize budgets.

A key challenge is to ensure that improved quality of life – and not just mortality reduction – is accounted for as having societal value

'Saving lives' is not the only or even the most important objective of many health system interventions, which instead address the broader health-related quality of life, comprising factors such as disability, pain, anxiety and mobility. Increasing attention is therefore being paid to the concept of morbidity compression – the extent to which it is possible to minimize the period of dependency or disability suffered by an individual. Extensive research has sought to quantify the relative importance of different disability states, leading to the development of the concepts of the 'quality-adjusted life year' (QALY) and its disability-adjusted life year (DALY) counterpart. These tools have led to the estimates of the burden of disease in different countries, which itself also forms an important resource for assessing health spending priorities [72].

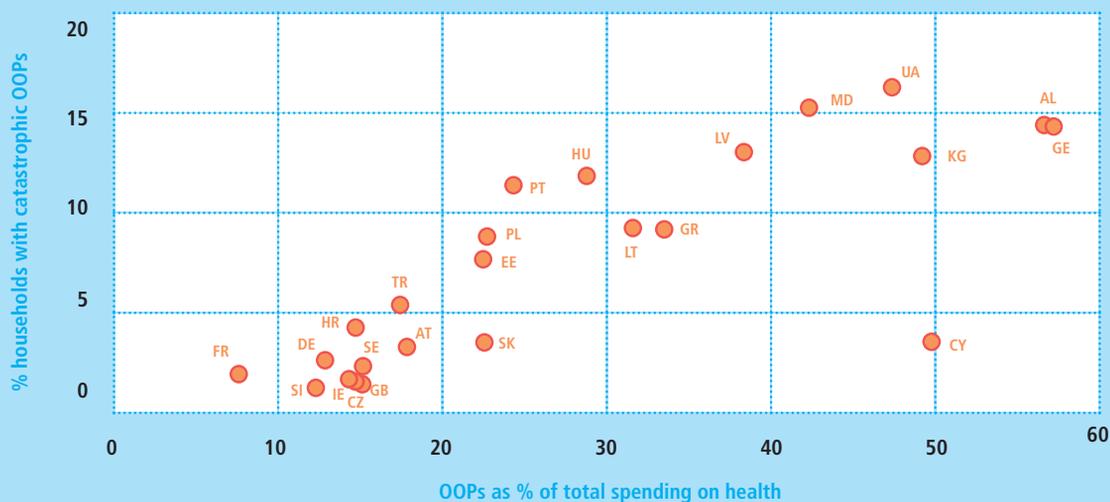
Box 6: How to demonstrate the contribution of the health system to societal well-being?

Good health is a key factor needed to enjoy many aspects of life [74]. More tangibly perhaps, health systems can demonstrate the role they play in protecting households from financial hardship associated with the costs of seeking health care when in poor health.

Recent research from the WHO Regional Office for Europe demonstrates that there are substantial differences across countries in terms of the share of households which experience 'catastrophic health spending'. Figure 6 illustrates that countries which maintain low levels of out-of-pocket (OOP) spending as a share of total health spending have relatively low levels of catastrophic spending, whereas those that rely on households to finance a large share of health spending have much higher catastrophic spending incidence.

This type of data demonstrate how additional funding, which reduces the OOP burden on households of financing health care, can have tangible effects on the level of financial hardship in a country.

Figure 6: Catastrophic health spending incidence by country compared to out-of-pocket payments as a share of total health expenditure, selected countries, 2015 or latest available year



Source: [75]

Notes: 2009 data for Cyprus, 2010 for Portugal, 2011 for France, 2012 for the Czech Republic, Lithuania, Slovakia, Sweden, 2013 for Greece, Germany, Latvia, and Republic of Moldova; 2014 for Austria, Croatia, Kyrgyzstan, Poland, Turkey and the United Kingdom; for 2015 Albania, Estonia, Georgia, Hungary, Ireland, Slovenia and Ukraine.

Independent of its effects on health and wealth, universal health coverage (UHC) also influences well-being by enhancing social protection and reducing impoverishment associated with ill health

The policy interest in UHC is the most obvious manifestation of this potential, underlining the importance of protecting people from the financial consequences of ill health. This important ‘insurance’ benefit of the health system was for a long time not properly recognized, and yet it can now be seen as a major reason for the large variations in popular satisfaction with their health systems. People value the existence of affordable health services, and potential access to those services, even if they are not immediate service users. They may also gain altruistic benefit from knowing that others can secure access to care when needed without major financial barriers. The insurance benefit therefore takes at least three forms: ex ante reassurance that future adverse health shocks will not be financially ruinous for an individual’s household; ex post avoidance of catastrophic expenditure when a health shock does occur (see Box 6); and the contribution to solidarity arising from the knowledge that others are similarly protected.

The inequality and social solidarity objectives that can – to some extent – be addressed by health systems are clearly of widespread importance in many countries [73]. A prime function of UHC is to secure a transfer in kind from rich and healthy people to poor and sick people, as well as protecting the population as a whole against some of the financial consequences of ill health. In effect, UHC addresses equity concerns by giving poorer and sicker people the opportunity to secure a breadth of health insurance that they would otherwise not be able to afford. It can therefore be one of the most important and effective instruments for addressing society’s redistributive objectives, in turn helping to support good living standards.

(4) How does the health system influence overall fiscal sustainability?

The final core objective of a ministry of finance is to achieve sustainability of the public sector commitments and finances. In a sense, this objective is the culmination of much of what has been discussed above. It encapsulates expenditure control, ensuring that money is used wisely, but also that people are kept in good health so that they can remain productive, and avoid the need for costly health care. The concept of sustainability is also linked to promoting economic growth, which is necessary so that adequate revenues can be generated to fulfil public spending objectives.

Sustainability addresses whether tax revenues will be sufficient to maintain the level of public expenditure in the long term. Although there is some interest in taxes that relate directly to health, such as those on sugar, alcohol or tobacco, sustainability of the health system is pre-eminently concerned with ensuring that the level of public expenditure is in line with the level of revenues in the long term. Therefore sustainability on its own is not a meaningful objective without a statement of what is to be sustained.

In many respects, sustainability transcends the otherwise separate objectives described in this brief. For example, ministries of finance may seek to reduce taxes in order to promote economic growth. They may therefore take the viewpoint that reducing public spending on health – and thus reducing their financial obligations – is an important

prerequisite in the short term with a view to promoting longer-term sustainability.

Crudely, sustainability can be secured by arbitrarily cutting health services to match the available funding. This will be sustainable on the budgetary side, but may have far-reaching damaging consequences for the capabilities of the health system and ultimately for population health. It is therefore usually meaningless to talk of sustainability without some statement of the level of services that citizens can expect from the health system. In the extreme, without attaching any societal value to health, it would be perfectly sustainable to consider spending nothing on health systems. Of course, this would not be acceptable to most constituencies and would have profound economic, political and societal repercussions. Yet it is important to note this to illustrate how the objective of sustainability must be framed carefully.

Therefore, from a health system perspective, a key consideration is what it is that policy-makers wish to sustain. In principle, this will require explicit statement of expected entitlements of citizens, and the levels of quality and access to services they can expect to receive. The calculations necessary to assess sustainability will then require projections of future health care needs, based on demographic and morbidity trends. These must be combined with assumptions about trends in future technology, service delivery and efficiency to form the basic inputs for an actuarial analysis of future expenditure commitments.

An example of such calculations is the work of the United Kingdom Office for Budget Responsibility, which investigates the long-term trends in public sector health spending in the United Kingdom over a 50-year time horizon. It found that demographic effects make a modest contribution to expenditure growth, but that larger effects are likely to arise from other factors, such as increases in demand arising from increased national income, technological advances, and the lower productivity growth in the health sector relative to the rest of the economy [76]. Rising levels of morbidity arising from chronic diseases also make a major contribution to projected growth, underlining the importance of effective policies to address the associated behavioural risk factors. The OECD reports similar findings across OECD countries as a whole [77].

Population ageing is the source of many concerns about fiscal sustainability, but a healthy older population is likely to be less costly than one which is in poor health

In most countries, per-person health care spending levels are greater for older people than for the working-age. This has led to concerns that as populations age, health care expenditure will grow unsustainably. However, there is debate about the extent to which chronological age is actually the driver of the positive relationship between age and spending. A large body of research investigates how proximity to death – measured in terms of the few years or even months just before death – influences health care utilization and expenditure [78-80]. The literature shows that the costs associated with dying are substantial. For example, research from the Medicare programme in the United States of America finds that nearly seven times more per person was spent on people in their last year of life, compared to those who survived [81].

There is also research showing that beginning at a certain age, the older people are when they die, the less is spent in the period before they die. For example, evidence from Canada finds that the cost of dying is lower for those over age 80 [79]. Another study from the Netherlands finds the level of spending on curative care (e.g. general practitioners, hospitals, medicines) among those in their last year of life begins to fall notably around age 70 [82]. Taken together, this suggests that as people live longer lives, which is in part a consequence of health system intervention, the costs of death (and therefore the costs of ageing) may fall. The work

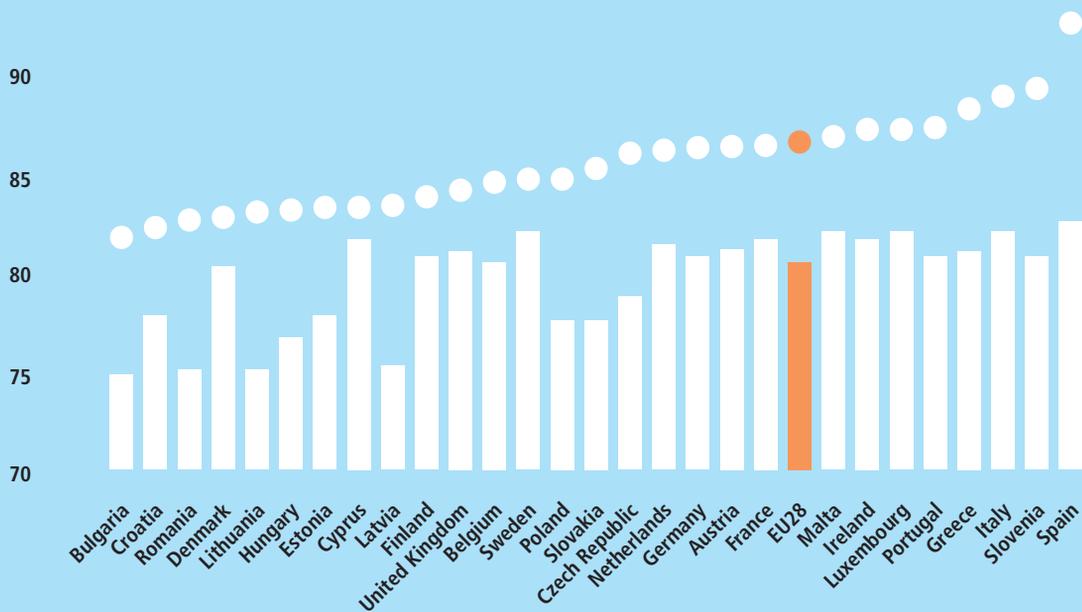
of the OECD confirms that demographic and morbidity pressures are likely to make a relatively modest contribution to projected increases in health expenditure [77].

Indeed, if health systems can improve health and compress morbidity, it could lead to increased tax revenues, later retirement (see Box 7) and deferred pension commitments, fewer claims for disability benefit payments and social care, and deferred ill health. In short, the health system could make a positive contribution to fiscal sustainability across a wide range of programmes other than health.

Box 7: How to demonstrate that health systems play a role in achieving fiscal sustainability by improving the health of older people?

To understand fully whether (and under what conditions) it makes good economic sense to incentivize paid work at older ages, it is necessary to understand how work and retirement affect health. It is clear, however, that to support an older workforce, investments in health are needed. As an illustration, Figure 7 contains estimates of the increase in life expectancy that would be needed if retirement ages were raised such that the share of the population in the workforce in 2015 remains the same in 2050. To afford older people the same number of years of life spent in retirement in 2050 as is afforded to older people in 2015, life expectancy would need to increase to approximately 93 years in Spain and 87 years in EU28 by 2050. While this does not reflect the level of health needed to work, it speaks to the gap between current health status and the health status that is needed so as to remain at work at older ages.

Figure 7: Increases in life expectancy needed to keep the number of years of life spent in retirement unchanged if pension ages were raised to commensurately maintain a constant population share in paid work



Sources: [41, 83, 84]

■ Life expectancy (2015) ● Life expectancy needed in 2050

Conclusions

This policy brief has sought to help health-policy-makers understand the perspectives of national economic-policy-makers, and to frame some of the key evidence and structure arguments in a way that is likely to resonate with them, and thereby secure a fair hearing for health systems. We have used a simple organizing framework based on four commonly held objectives of economic policy which health-policy-makers should bear in mind – the need to (1) demonstrate good stewardship of public resources; (2) promote macroeconomic growth; (3) support societal well-being; and (4) ensure fiscal sustainability.

If they are to engage successfully with economic- and finance-policy-makers, health-policy-makers must be proactive in demonstrating that – in addition to their core objectives of improving population health – health systems also have direct and indirect favourable effects which are aligned with such economic objectives. Doing this requires better measurement and analysis, but also a change in the way health systems make their case for investment. Health-policy-makers should work to demonstrate to their own ministries of finance and their constituencies more broadly that either the health system is providing unrecognized value that furthers a country's economic and fiscal objectives, or that it could be doing so if it was provided adequate, stable resources. While the brief marshals the evidence to support such arguments, it does not discuss the 'political economy' of how relations between health and economic policy-makers can be improved.

The evidence that health systems will incontrovertibly further all of the aforementioned economic and fiscal objectives on all occasions is, of course, not always clear. The most obvious contribution of the health system is to improve health (and thereby contribute both to well-being and to the productivity of the workforce). The role of UHC in promoting social protection, solidarity and equity is also fundamental. However, such arguments require a move away from traditional narrow GDP metrics of well-being, and health-policy-makers should therefore be active in promoting broader metrics of social well-being. Furthermore, health systems have great capacity to demonstrate to ministries of finance that they use resources efficiently, or can implement policies that are likely to deliver value for money. It will always be challenging for health systems to show that additional health spending directly translates into measurable macroeconomic gains. It may nevertheless be feasible to demonstrate that health policies are being targeted at workforce productivity (for example through mental health or musculoskeletal services), or at services designed to compress morbidity, and therefore contribute to the nation's fiscal sustainability. Our objective here has been to provide health-policy-makers with a sense of the current state of knowledge – recognizing that some areas of research are more developed than others – which gives an idea of the likely relationships between health systems, health and the economy.

Returning to the five reasons countries may be hesitant to prioritize health systems spending described above, we offer rebuttals based on the evidence as discussed in this policy brief.

- A. Because of widespread market failures, health systems consume more of the nation's income than is socially optimal. In particular, systems that provide generous health care coverage encourage excess expenditure because patients have little financial incentive to moderate their demands on the health system.

In principle, rapid growth of health care expenditure is not necessarily a policy problem if the growth reflects a growth in the availability of effective treatments, the availability of fiscal capacity, and the demands and preferences of the population. Rather than reduce unnecessary demand for care, high out-of-pocket payments may give rise to a greater incidence of financial hardship associated with using health services (or increases in unmet need for necessary health care). Health systems can reduce or eliminate the financial hardship associated with seeking health care when ill, which itself improves societal well-being and reduces the incidence of impoverishment. If needed, it is likely that supply side measures will be more effective at moderating excessive use of health services than demand side policies [85].

- B. At a certain point, extra spending on health systems does not contribute markedly towards improved health. Many of the most important determinants of health lie outside the health system, so improvements in health might be better achieved through other programmes.

Health systems (including public health services) incontrovertibly make a major contribution to improvements in population health, though there is also an important role for interventions outside the health system (such as taxation) that specifically target behavioural risk factors. However, it is extremely difficult, both politically and administratively, to design and implement policy interventions for the sake of health improvement in other sectors – such as education – that are more distal to health. While there is a role for experimentation with non-health system policies, there is currently a dearth of evidence on the optimal design and cost-effectiveness of many of these types of interventions.

- C. All health systems have numerous examples of misallocated resources and waste, and in some cases elements of corruption. It is argued that such inefficiency should be eliminated, or that greater proof of efficient spending is provided, before considering increased spending.

All sectors of the economy have inefficiencies and waste. However unlike many other sectors, many health systems are increasingly monitoring and identifying their sources of inefficiencies and taking remedial action. From HTA to task-shifting, it is evident that health systems are taking steps with the aim of efficiency improvement in mind. It is nevertheless likely that the pace of such reforms needs to increase in many systems.

- D. The scope for productivity growth in health services is low relative to other sectors of the economy. While wage growth in the health sector keeps pace with other sectors, its level of output per worker does not, so over time it has a natural tendency to attract a higher proportion of national expenditure at the expense of other potentially more productive industries.

This may be true in all labour-intensive sectors of the economy. However it is unlikely to lead to uncontrollable spending that is unaffordable for societies, since the ability to pay for these services should grow in tandem. Baumol himself, who identified the phenomenon, takes issue with the inference that labour-intensive service sectors are necessarily a problem for the economy. As noted, the health system may in fact stimulate technological innovation.

- E. Much of the spending on health services contributes to longer lives that are not necessarily spent in good health. This creates a societal burden in the form of not only health services, but also long-term care, pensions, and other social programmes, sometimes for people who have minimal quality of life.

Health systems contribute to human capital at all ages, supporting children so they can invest in their education and working-age people so they can be productive in the labour market. Investing in the health of older people, in addition to providing value in the form of good quality of life, can 'free up' other adults to take part in the paid workforce who may otherwise act as unpaid caregivers. It also allows older people to remain in paid work until older ages or otherwise contribute to society.

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Health Systems for Prosperity and Solidarity Series

This policy brief was written for the WHO European high-level meeting on Health systems for prosperity and solidarity: leaving no one behind, held in Tallinn, Estonia on 13-14 June 2018, specifically as a support to the related sessions on making the case for investing in health systems.

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Hans Kluge (Division of Health Systems and Public Health at WHO Regional Office for Europe) and **Josep Figueras** (European Observatory on Health Systems and Policies) acted as series editors for these policy briefs commissioned and published in time for the Tallinn 2018 conference on “Health Systems for Prosperity and Solidarity”.

The European Observatory on Health Systems and Policies is a partnership that supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of health systems in the European Region. It brings together a wide range of policy-makers, academics and practitioners to analyse trends in health reform, drawing on experience from across Europe to illuminate policy issues. The Observatory’s products are available on its web site (<http://www.healthobservatory.eu>).

The Division of Health Systems and Public Health supports the Member States of the WHO Regional Office for Europe in revitalising their public health systems and transforming the delivery of care to better respond to the health challenges of the 21st century by: addressing human resource challenges, improving access to and quality of medicines, creating sustainable health financing arrangements and implementing effective governance tools for increased accountability.