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AUTHORS: James C*

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Health and Inclusive Growth: Changing the Dialogue

By Chris James (OECD Health Division)

Key messages

Key message 1. Health systems around the world not only treat the sick and prevent future illness, they are also central to the effective functioning of a country’s economy. Adults in good health are more productive; children in good health do better at school. This strengthens economic performance, and also makes economic growth more sustainable and inclusive.

Key message 2. The healthcare sector is also an important source of employment, and is likely to provide more jobs in the future. On average, health and social work activities constituted around 11% of total employment for OECD countries in 2014. Moreover, the percentage of workers employed in health and social work has steadily risen across much of the OECD over time. This growth is likely to continue in the future.

Key message 3. Healthcare should therefore not be viewed solely as a cost driver, but also as an investment that can offer valuable returns to society. This does not mean more spending on health is automatically worthwhile. Rather, it requires critically assessing the investment case for different types of health spending, so that employment in the healthcare sector achieves better health outcomes and increases the overall productivity of the healthcare sector.

Contents

1. Introduction........................................................................................................................................3
2. Good health is crucial to economic growth and development .........................................................3
   2.1 Health and schooling .......................................................................................................................3
   2.2 Health and work .............................................................................................................................3
   2.3 Good health has wider economic benefits that go beyond the individual ....................................4
3. The healthcare sector accounts for a substantial portion of employment and economic activity in many OECD countries..............................................................................................................................................8
   3.1 Health and social care is a large and rapidly growing source of employment ...............................8
   3.2 The labour-intensive nature of health and social care makes productivity gains challenging, but innovative workforce policies can offer solutions .................................................................10
4. Conclusions: reassessing the contribution of healthcare ................................................................12

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1. Introduction

Health systems around the world not only treat the sick and prevent future illness, they are also central to the effective functioning of a country’s economy. People in good health are more productive. This strengthens economic performance, and also makes economic growth more sustainable and inclusive. The healthcare sector is also an important source of employment, particularly for young adults and women, and is likely to provide more jobs in the future.

Health professionals play a fundamental role in delivering the health services that help achieve improvements in health outcomes and population wellbeing. High-quality health services, available for the entire population, also help reduce health inequalities. While there is a growing demand for quality health services across the globe, many countries face significant labour shortages in the health sector, particularly low- and middle-income countries.

Yet the health sector is often viewed in narrow financial terms, as an expenditure that needs to be controlled, rather than with a broader economic perspective which recognises the value of investing in health. This narrow financial view reflects in part the fact that health systems are predominantly publicly funded in most high-income and emerging economies, and in low-income countries often have substantive donor funding. Such expenditures are under closer scrutiny than many private expenditures. It also reflects that the principal outputs of the health sector – better health outcomes – are non-monetary, making the economic returns harder to quantify.

Nevertheless, increased health spending and a growing health workforce should not be seen as an end in itself. This is because not all health spending provides added value in terms of better quality, more accessible care. More employment in the health sector should be focused on achieving better health outcomes and increasing the overall productivity of the healthcare sector.

This paper demonstrates how the healthcare sector and better health outcomes contribute to the economy and encourage more inclusive growth, and how this contribution can be further enhanced. The majority of the paper is based on experiences from OECD countries, although examples from low- and middle-income countries are also included. The following section provides evidence on the importance of health to economic growth and development. Section 3 then discusses the contribution of the healthcare sector to employment and economic activity in OECD countries. Concluding points and overall policy options are provided in section 4.

2. Good health is crucial to economic growth and development

Health outcomes are closely linked with economic growth and development. Good health allows individuals to contribute to society to their maximum potential. That is, health is critical to human capital accumulation and labour productivity. This holds true throughout an individual’s life.

2.1 Health and schooling

*Ill-health in early life can hinder cognitive development*

Infant malnutrition and childhood diseases have lasting impacts on cognitive development. Some of the most important risks include stunting, anaemia, iron, iodine and zinc deficiencies (Nyaradi et al 2013).
Malnourished children tend to score lower on tests of cognitive function, have poorer motor skills and psychomotor development. They also interact less frequently with their environment and are unsuccessful in acquiring skills at normal rates (López-Casasnovas et al., 2005). For example, three meta-analyses found that iodine deficiency in children compromised intelligence quotient (IQ) by 8 to 13.5 IQ points (Bougma et al 2013). Interventions that provide iodine to pregnant women may reduce this gap, but provision to school-aged children does not seem to reverse former damage (Grantham-McGregor et al 2007). Further, anaemia may affect schooling results independently of earlier impaired brain development. Given that more than 40% of children under 4 years old from developing countries are affected by anaemia, addressing this problem becomes particularly important to improve schooling outcomes (Alderman et al 2005).

Consequently, improving nutritional intake of young infants confers substantive productivity benefits over time. For instance, studies estimate that the iron deficiency reduced income by 2% of GDP in Honduras and 7.9% of GDP in Bangladesh (Horton and Ross 2003).

**Ill-health in children and adolescents worsens educational outcomes**

Children and adolescents with poor health have worse educational outcomes, as they are more often absent from school, and more likely to drop out of school altogether. In developing countries, various infectious diseases have particularly adverse effects, with malaria and worm infections two notable examples. For instance, in Kenya randomised evaluations of intermittent preventive treatment of malaria (Clarke et al 2008) and deworming drugs (Miguel and Kremer 2005; Aiken et al 2015) found improved cognitive ability and reduced absenteeism among schoolchildren.

In high-income countries, sleep disorders and mental health problems are common health conditions that impact future developmental outcomes for children and adolescents (Suhrcke and de Paz Nieves 2011). For example, shortened sleep duration, especially amongst young infants, is associated with hyperactivity-impulsivity and poor test results in cognitive performance (Touchette et al. 2007). Studies focusing on mental health problems show that anxiety and depression are significantly and negatively associated with short and long term educational outcomes (Mazzone et al. 2007; Spernak et al. 2006).

### 2.2 Health and work

**People in ill-health are more likely to be unemployed, are less productive when they do work and earn less**

Adults in ill-health are more likely to be unemployed, and when they have a job are more likely to be absent from work and less productive at work. Older adults with chronic diseases and other health conditions are at greater risk of quitting the workforce prematurely.

First, being in ill-health adversely affects one’s employment prospects. For example, unemployed people in Great Britain are almost twice as likely to have a long-standing illness or disability (UK Office for National Statistics, 2012). Moreover, being unemployed is likely to further worsen an individual’s health status, largely because unemployment worsens mental health (James et al 2015). The psycho-social literature suggests this reflects reduced social contact, a less defined social identity and losing an ordered structure to daily living (Clark 2003). Such insights are backed up by data. For example, in Australia, Canada and the United Kingdom, evidence from panel data shows that changing from employment to unemployment significantly increased mental distress (Llena-Nozal 2009).
For those who are employed, absence from work due to illness can also be substantial. Across 15 OECD countries, an average of 11 days were lost per person in 2013. Rates were particularly high in Germany (18) and Norway (16), equivalent to approximately 7.2 million working days lost in Germany and 0.42 million working days lost in Norway (OECD Health Statistics). In addition, many more workers are less productive on the job than they could be – commonly referred to as presenteeism – because of poor health. For example, presenteeism at work was estimated to have cost the US economy $150 billion a year (Hemp 2004).

Individuals with poor health status also have lower wages at all ages, with the wage gap expanding over the life-course. For example, in 21 European countries the gap in hourly earnings reached almost 10 USD PPP for older male workers (Boulhol, Scarpetta et al (2015), Figure 1).

**Figure 1: Individuals in ill-health have lower wages**

For example, presenteeism at work was estimated to have cost the US economy $150 billion a year (Hemp 2004).

**Mental ill-health, chronic diseases and poor lifestyles are key drivers of labour productivity losses in OECD countries**

Mental ill-health is an important cause of absenteeism and presenteeism in OECD countries. This is because the effects of mental illness fall mainly on people during their working lives, as opposed to the burden of most other non-communicable diseases which commonly affect older individuals. There is also the indirect effect of increased presenteeism, absenteeism and unemployment amongst the carers of individuals with mental disorders.

In terms of magnitude, European data suggest that the sickness absence incidence is roughly double for workers with severe mental health problems and 50% higher for those with moderate problems, compared to those with no mental health problem. Absence duration is also longer for those with mental health problems. Strikingly, very high proportions of people with mental health problems who do not take sick leave find themselves in a situation where they accomplish less than they would like, due to their health problems (Figure 2).
Incidence of absenteeism and presenteeism (in %) and average absence duration (in days), by mental health status, average over 21 European OECD countries in 2010

The poor labour productivity outcomes for people with mental health problems are worrying because such problems are highly prevalent: at any moment in time, one in five people suffer from a mental illness which will often be chronic or recurring. This implies massive impact on an aggregate level. Moreover, the incidence of presenteeism has been shown to have increased in the recent past; which might be a contributing factor to the observed productivity slow-down (OECD, 2012).

Chronic diseases and poor lifestyles can also lower productivity, harm employment prospects and wages. For example, in France the overall production losses related to alcohol use and smoking have been estimated at 9 and 8.6 billion Euros respectively (Kopp, 2015). In Germany, sickness absence and enforced early retirement due to smoking cost an estimated 4.9 and 3.5 billion Euros respectively (Welte et al 2000). In the United Kingdom, nearly 11 million working days were lost by alcohol-dependent workers in 2001, and the total cost of absenteeism due to alcohol was estimated to be £1.2 billion (UK Cabinet Office, 2003). In the European Union, alcohol accounted for an estimated €59 billion worth of potential lost production through absenteeism, unemployment and lost working years through premature death in 2003 (Anderson and Baumberg, 2006).

As well as smoking and alcohol, obesity and diabetes also affect labour market outcomes. For instance, diabetes is significantly associated with a 30% increase in the rate of labour-force exit across 16 countries studied (Rumball-Smith et al, 2014). The total cost for sick-leave and disability pension related to obesity in the Swedish female population was estimated at 10.5 billion SEK (USD 1.2 billion) per year (Narbro et al, 1996). For developing countries, in addition to mental ill-health, chronic diseases and poor lifestyles, infectious diseases have had a major impact on labour markets, with the HIV/AIDS epidemic particularly substantial (Box 1).
**Box 1: The labour force impact of HIV/AIDS in low- and middle-income countries**

The HIV/AIDS epidemic has a large impact on labour markets in many low- and middle-income countries, particularly in Sub-Saharan Africa. HIV/AIDS limits African countries’ productive capacity by damaging human capital development and decreasing the possibility to find a job. Studies from South Africa found that being HIV-positive increases the likelihood of unemployment by 6-7%. These constraints become even more relevant for those less educated and who are disadvantaged (World Bank 2014, Health Status, Health Regulations, and Labor Markets).

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**Effective health policies can improve labour productivity and save money**

Preventing and tackling chronic diseases and mental ill-health more effectively is not only beneficial for health outcomes. It also has payoffs in terms of labour force participation and labour productivity. For example, prevention policies to tackle harmful use of alcohol help to reduce the occurrence of alcohol-related diseases in the working-age population. In Germany, policies ranging from the implementation of targeted brief interventions aimed at changing behaviour of drinkers to tax increases on alcoholic beverages can prevent thousands of people in the working-age population from incurring alcohol-related diseases (OECD CDP-Alcohol model, OECD 2015a).

In terms of obesity, potential production gains generated with obesity prevention strategies are estimated at between 224 and 2760 million USD PPPs in Europe (Goetzel et al., 2004). In most cases, the value of potential production gains, in addition to the reductions in health expenditure, were estimated to be large enough to make policy interventions cost-effective.

For mental health problems, the biggest challenge for health systems is the very large treatment gap, related to considerable unawareness of such problems and continued stigma and self-stigma of people living with mental health conditions. Many of those people receive no or only insufficient treatment while treatment compliance is often low. This situation calls for more efforts to scale up evidence-based treatments and to invest in psychological therapies and eMental Health, which will help address the treatment gap for mild-to-moderate mental disorders. More generally, the primary care sector can play a bigger role in securing better mental health. Training for primary care practitioners, promoting collaboration between primary care and specialist services, putting in place appropriate clinical guidelines, and using financial incentives to promote care provision are all key policies.

2.3 **Good health has wider economic benefits that go beyond the individual**

Good health also has wider benefits beyond the individual, particularly in developing country contexts. Better population health can encourage greater domestic savings, foreign investment and improve social stability. In countries with high fertility rates, a reduced likelihood of premature mortality can also positively influence household decisions on family planning. This contributes to a faster demographic transition and its associated economic benefits.

In all countries, poor health affects the ability and motivation to save. However, the impact is larger in low and middle-income countries that are still transitioning to universal health coverage. In such countries, incomplete prepayment systems mean households will often have to pay out-of-pocket for needed health services. This can lead to severe financial hardship and impoverishment (WHO 2010).
Better population health can also raise income per capita by changing decisions about expenditures, savings and investment. With increased longevity and the associated greater prospect of retirement, new generations have more incentive to save. At the same time, companies tend to invest in economies where the workforce is healthy, and move away from environments with high burdens of disease (López-Casasnovas et al., 2005).

The prospect of better health outcomes will also impact family planning and consequently fertility rates. This can create a ‘demographic dividend’ of a lower dependency ratio. That is, as fertility begins to slow, the number of children shrinks and proportion of workers increases. This creates a favourable situation of more workers supporting fewer dependents, which is positive for economic growth. Many Asian and Latin American countries have already achieved this, and there are indications that some African countries (e.g. Rwanda and Ethiopia) are beginning to follow. However, a demographic dividend does not automatically follow from lower fertility rates and requires investment in other areas such as girl’s education and good governance to be achieved (Gribble and Bremner, 2012).

Taken together, better health can have substantial impacts on economic growth and development. For instance, Bloom et al (2004) found that one extra year of life expectancy raised steady-state GDP per capita by about 4 percent.

3. The healthcare sector accounts for a substantial portion of employment and economic activity in many OECD countries

3.1 Health and social care is a large and rapidly growing source of employment

Employment in health and social care represents a large and growing share of the labour force in many OECD countries. On average, health and social work activities constituted around 11% of total employment for OECD countries in 2014 (Figure 3). The employment share is particularly pronounced in the Scandinavian countries, Finland and the Netherlands, where jobs in health and social work represent 15-20% of these countries’ workforces.

Moreover, the percentage of workers employed in health and social work has steadily risen across much of the OECD (31 of 34 countries) over time. For the OECD overall, there was an average percentage point (pp) increase of 1.8pp from 2000 to 2014. Some of the greatest increases have taken place in Ireland (5.3pp), Chile (4.9pp), Korea (4.0pp), Luxembourg (3.8pp), Japan (3.7pp) and Portugal (3.5pp). Three countries though have experienced a decrease in share of employment in health and social work: Iceland (-1.7pp), Sweden (-0.8pp) and Poland (-0.6pp).
Figure 3: Employment in health and social work as a share of total employment, OECD countries, 2000 and 2014 (or latest year available)


The rapid employment growth in health and social care contrasts markedly with the experience in other sectors (Figure 4). Across the OECD, employment in health and social work grew on average by 48% (with a median value of 37%) since 2000. Over the same time period, there has been a decline in the number of jobs in agriculture and industry in most OECD countries. Employment growth in health and social work was also noticeably higher than employment growth in the services sector overall and in total employment.

Looking forward, employment opportunities in health and social work are likely to further increase. This reflects a number of factors. Ageing populations will change the pattern of demand for health and social services. This could include greater demand for long-term care services, which are particularly labour-intensive (OECD, 2011). Over time, rising incomes and new technologies will also increase expectations on the quality and scope of care (OECD 2015b), with consequent impacts on staffing requirements in the health sector.
Figure 4: Employment growth by sector between 2000 and 2014 (or latest year), OECD average

Note: average of 30 OECD countries for which data are available in both time periods (excludes Chile, France, Japan and the United States). Health and Social Work is classified as a sub-component of the services sector.

It is not only the number of jobs provided by the healthcare sector that matters for the economy, but also the range and scope of opportunities these jobs offer. Most evidently, the healthcare sector offers employment across all localities rather than being concentrated in capital cities or commercial centres. Indeed, the health sector can therefore be an important employer in rural and remote locations, where other jobs are scarcer. The healthcare sector also offers jobs for a wide variety of skill sets. This includes work benefitting low-skilled workers, such as care assistants (where much of the training is on the job), drivers and porters, alongside more specialised medical disciplines. It also includes jobs with non-sector specific requirements, from IT and finance positions through to drivers and porters (WHO 2013).

3.2 The labour-intensive nature of health and social care makes productivity gains challenging, but innovative workforce policies can offer solutions

Despite ongoing technological advances, health and social care remain labour-intensive. This characteristic implies that productivity growth may lag. That is, output gains in health and social care are constrained, because labour cannot easily be replaced by capital inputs (commonly referred to as Baumol’s cost disease). Whilst the nature of outputs in healthcare makes productivity hard to measure, some studies have suggested that wage increases over time have been in excess of productivity growth (see, for instance, Erixon and van der Marel 2011; Hartwig 2008). Although evidence on Baumol’s cost disease remains a matter of debate, such studies still point to the need to carefully evaluate whether increased health spending is contributing sufficiently to better health outcomes. They also infer the importance of innovative health workforce policies.

Expanding the scope of practice for non-physicians can boost the productivity of healthcare

In an effort to boost the productivity of health professionals, some countries are re-examining the traditional functions of health professionals. For example, about half of OECD member countries expanded the scope of practice for non-physicians between 2007 and 2012. In particular, many countries have taken steps to introduce or expand the roles of non-physician providers, such as nurse practitioners (NPs) or pharmacists. In the United States, Canada and the Netherlands student intakes in advanced education programmes for NPs are increasing the supply of these “mid-level” providers (OECD 2016). Such policies can be part of broader efforts to enhance primary health care in countries. The introduction or expansion of
such non-physician roles often needs to overcome the initial opposition from medical professionals, and may depend in part on the future supply of physicians. It also requires an enabling funding environment, as well as legislative and regulatory support.

Such changes to the staff mix within health systems can maintain or increase access to services in a cost-efficient way, thereby increasing health workforce productivity. Indeed, evaluations show that advanced practice nurses with proper training can improve access to primary care services, and manage and deliver the same quality of care as GPs for many types of patients, particularly those with chronic conditions requiring routine follow-up (Delamaire and Lafortune, 2010). Effective use of advanced practice nurses can also allow doctors to focus on patients requiring more complex medical diagnoses or treatments. For example, projections for the Netherlands estimate that a re-allocation of tasks from GPs to NPs will reduce the demand for GPs by 0.6% to 1.2% per year (ACMMP, 2010). Similarly, in Switzerland, promoting greater task substitution between GPs and NPs is forecast to reduce the growth rate of GP consultations over time, from 13% in a scenario with no substitution to 2% with task substitution (Seematter-Bagnoud et al., 2007).

**New care models can improve productivity, through better use of data and digital tools**

Digital technology has made the collection, processing and transfer of information much more efficient and powerful, transforming a range of industries in the public and private sector to improve services. Its application in the knowledge- and information-intense endeavour of health care holds great potential. For example, an integrated and interoperable electronic health record allows real-time access to the same clinical information by a team of practitioners involved in a patient’s management. Web-enabled portable devices can enable more accurate diagnosis and monitoring, and trigger timely intervention when this is clinically appropriate (and improve patient self-management). Reliable high-speed internet and modern telecommunications hardware (e.g. the smartphone) have made remote consultations more feasible. Powerful computer processing, analytical techniques and machine-learning algorithms can analyse masses of ‘big’ data to generate information enabling better diagnoses, and improve the timeliness and accuracy of clinical decision making (OECD, 2015c).

Applied sensibly and with due regard for privacy and security of personal information, digital technology can reduce duplication, avoid errors, improve coordination between different parts of the health system, and better align services with patient needs (OECD, 2015d). This can free up time of providers (and patients), thereby boosting productivity.

**Innovative provider payments can also incentivise more efficient service provision**

At the same time, *provider payment reform* (at both the individual and health facility level) can be an important policy lever to driver health system performance. All modes of payment contain financial incentives that affect provider behaviour, and some can stimulate the efficient use of inputs. Within OECD countries, recent payment reforms are being introduced aiming to improve coordination, quality and efficiency of the healthcare system. As well as pay-for-performance add-on payments affecting one provider, these include population-based payments that bundle a wide range of services involving several providers. For example, England recently introduced for cataract surgery a bundled payment based on best-practice tariffs that incentivise a shift from inpatient to day surgery. Similarly, the Netherlands introduced bundled payments for diabetes. Such reforms reward care coordination and better integration of different health services, and consequently have the potential for quality or efficiency gains (OECD, forthcoming). Financial incentives can also be used to redress geographic imbalances in health workers. For example,
basic income guarantees are used in France and Denmark, and in the Canadian province of British Columbia, physicians working in isolated areas receive annual bonuses (OECD 2016).

4. Conclusions: reassessing the contribution of healthcare

Effective health systems can make a substantive contribution to economic performance, enabling economic growth to be more sustainable and inclusive. Good health allows countries’ populations to realise their full potential. This is readily apparent in the labour market, where adults in ill-health are more likely to be unemployed, and when they have a job are more likely to be absent from work and less productive at work. But the effect starts in early life, where good health is essential to cognitive development and subsequent educational outcomes. The healthcare sector is central to maintaining and improving health outcomes. It also provides a steadily increasing source of employment in most OECD countries, jobs that are highly valued by citizens.

Healthcare should therefore not be viewed solely as a cost driver, but also as an investment that can offer valuable returns to society. Reassessing healthcare, then, in terms of its broader economic impacts, is a more useful perspective. This does not mean more spending on health is automatically worthwhile. Rather, it requires critically assessing the investment case for different types of health spending. This allows fiscal discussions to explicitly account for the benefits of investing in health, so that spending is more clearly focused on services that provide value in terms of improved health outcomes.
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