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**DIRECTORATE FOR EMPLOYMENT, LABOUR AND SOCIAL AFFAIRS
HEALTH COMMITTEE**

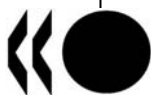
HOW MUCH IS TOO MUCH? VALUE FOR MONEY IN HEALTH SPENDING

**OECD Conference Centre at 2, rue André Pascal, 75016 Paris
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NOTE BY THE SECRETARIAT

1. This is a draft for Chapter 1 of the publication being prepared to support the Ministerial discussion on the topic of 'Health system priorities when money is tight' [see [DELSA/HEA\(2009\)15](#)]. As noted in [DELSA/HEA\(2009\)15](#), this publication will not formally be part of the Ministerial documentation; rather, the short (8 page) summary of the key findings and messages from this publication would be included as formal ministerial documentation ([DELSA/HEA\(2010\)7](#)). However, the intention is to release this publication under the responsibility of the Secretary General around the time of the Ministerial.

2. This introductory chapter sets the scene and provides an overview of the main messages of the publication, namely, that there is scope to get better value for money in health systems by setting appropriate priorities and using the right incentives. Then, drawing extensively on OECD Health Data, the chapter sets out to show that countries vary enormously in how much they spend on health, on what they spend, in the rates of growth in spending, and in health outcomes.

3. The chapter thus considers recent trends in health spending and its components. The analysis attempts to go beyond the OECD average to try and establish some common characteristics among groups of countries. The main drivers behind health expenditure growth are then discussed and, on the basis of this, possible future spending pressure. The chapter then presents a brief assessment of the current macroeconomic situation facing OECD countries, drawing on the latest projections of countries' fiscal positions. The chapter concludes with a discussion of recent evidence on the degree of system inefficiency, suggesting that there is scope for addressing sustainability, financial or economic, by improving the efficiency of resource use to that of the best performers.

4. Delegates to the Health Committee are invited to:

- **COMMENT** on the draft chapter.

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1 Introduction

5. OECD countries have made tremendous strides in improving population health over recent decades. Life expectancy at birth has increased, rising on average by [10] years between 1960 and 2007. Gains at older-ages have been even more dramatic. Today, a woman aged 65 can expect to live a further 20 years, and a man an additional 17 years. Although socio-economic inequalities in health status remain, reductions in child mortality and gains in population health have continued to improve at a steady pace over the past few decades (OECD, 2009, HAG). Levels of morbidity have fallen and infant mortality is now 5 times lower today than it was in 1960. Part of these achievements has come from increased incomes and higher levels of education. But a good portion has originated in the improvements in health care itself. Technological change has brought better treatments and benefitted a wider range of the population. For example, improvements in anaesthesia combined with non-invasive surgery have meant that more older patients can be operated on with less pain and faster recovery than before. Even in the past few years, huge improvements have been made in the treatment of stroke and other heart diseases, reducing mortality rates from these diseases dramatically. Public health has also improved with higher levels of immunisation which has limited the spread of communicable disease. Health systems have also evolved such that almost all countries have some form of public or private insurance covering the risk of ill health and high medical costs and access to quality health care has also improved. Less developed OECD countries have progressed in this area: Mexico and Turkey have increased insurance cover for the poorest groups of the population and the United States stands poised to move towards mandated health insurance for a wider share of the population. Improvements in medical-practice standards have been accompanied by efforts to reduce the provision of inappropriate services and address shortcomings in the quality of care.

6. OECD health systems are more effective, provide higher quality care, and have given access to health care to a larger share of the population than ever before. However, these achievements have not come cheaply. Countries have confronted steady increases in the cost of health care spending over the recent decades. Total health expenditure has now reached 9 per cent of GDP for the average OECD country with seven countries having a ratio of over 10 per cent (the United States, France, Switzerland, Germany, Belgium, Canada and Austria), compared with only three a half-decade before. How much and what they consume in terms of health care, as well as the rate of growth of health spending, varies enormously between countries as do the [resulting] health outcomes. Looking to the future, OECD countries will continue to face upward pressures on health spending from a number of factors including demographic change, advances in medical care technology and growing expectations from patients and from the electorate at large. Since the public purse finances the vast majority of health-related spending in most countries, these increasing demands for health services need to be seen in the current context of increasingly constrained public finances.

7. This, then, is the challenge for health systems. When those who pay for health look at what they get for their money, can they be sure that they are getting value for their money?

8. Talking of 'value for money' in health expenditure is sometimes taken as a coded way of talking about 'cuts' in spending. This is *not* what is meant in this publication. It is rather used in the sense of whether the benefits of spending exceed the costs. Increased value for money can come from reduced spending, it is true, but it can come equally from delivering more of the things that we value in our health systems.

9. There are as many different frameworks for looking at the benefits or objectives of the health system as there are analysts looking at the topic¹, but they are all in reality very similar. The OECD analyses health care systems on the basis of four main pillars or objectives:

- The first is whether health care systems provide widespread *access* to health care services and *adequate* insurance against the cost of care for the population at large in an equitable manner.
- The second relates to whether the care provided is of high *quality* and whether health care providers are *responsive* to patient/consumer needs.
- The third considers whether the cost of the health care system can be sustained over the longer haul given political constraints and choices imposed by the total government financial resources and the other calls on the public purse such as education.
- The final criterion is whether care is provided in an efficient and effective manner.

10. The first two objectives concern how well health care systems are performing in terms of health care supply and whether the provision of care services are of high quality and adapted to patient needs. The third and fourth criteria consider whether resources are adequate and being put to good use.

11. Furthermore, though not included in most listings of the objectives of the health system, it is also true that health is a significant sector of the economy, and is one that is usually under some form of public control. This means that the health system can sometimes be used by governments as an instrument in wider economic policies. For example, in the recent recession, spending on health has acted as an automatic stabiliser to the economy, and has been a source of jobs growth when most other sectors have been in decline.

12. The emphasis placed on health policy goals by individual governments can of course vary in importance both over time and between countries for very good reasons. Countries may legitimately have different priorities, reflecting their own societal preferences and needs. Priorities may also change over time to respond to different economic circumstances, health care needs and population expectations and advances in medicine.

13. Nonetheless, wide differences remain across countries in both the level of resources allocated to health and in the efficiency and effectiveness with which they are used. There are wide differences in health outcomes which appear little related to the level of resources channelled into health care. Some countries probably are getting more 'value for money' from their health spending than others. In theory, spending money more wisely rather than seeking to spend more overall would be the appropriate policy response for those countries with low-performing health systems. But it is extremely hard to identify in just what ways a country is spending inefficiently. Health systems are complex, there are multiple objectives, and often information is inadequate.

14. If reallocating resources from low-performing sectors of the health system is hard, then to meet new demands for health care will require new resources. But how should policymakers decide whether

¹ Several alternative frameworks have been developed to assess the performance of health systems, either by defining the level of achievement of a defined set of goals (effectiveness), or by measuring the link between resources invested in health systems and the attainment of goals (efficiency) (WHO, 2000), WB, 2009. These frameworks propose different sets of goals or objectives, for the health system itself, or for health policies but the all broadly reflect the same range of policy concerns.

such spending is justified? Judging how much public resources should be spent should be spent on health care at a given point in time can depend on two different measures of “sustainability”:²

- On the one hand, so long as the value produced by health care exceeds its opportunity cost, that is the value that would have been gained by spending on other areas, then growth in health spending can be said to be *economically sustainable*. Once this cost becomes too high, and better gains would be achieved by spending elsewhere (either in the private sector or for other components of public spending), then health spending becomes economically unsustainable.
- *Financial sustainability*, on the other hand, becomes a problem when governments are unable to finance the existing level of resources because of an inability or unwillingness to generate sufficient revenues to pay for them, and when they cannot -- or will not -- allow any further “crowding out” of other forms of government spending.

15. It follows that it is possible for health spending growth to be economically sustainable, and yet not financially sustainable. However, it is necessary to acknowledge that in some countries, achieving ‘value for money’ is not enough to ensure the sustainability of the system. When fiscal constraints are binding, health systems either have to find new sources of finance – most of which have their own drawbacks – or else health spending which produces benefits greater than their costs will have to be deferred. Some of the problems currently facing countries are not because the health system is not spending money wisely, but rather that they simply cannot raise enough money because of the economic conditions. Many OECD countries may now find themselves in this situation.

16. This report does *not* attempt to cover all the issues that might be relevant in achieving a high-performing health system. It does not consider the different forms of financing health, or the appropriate role of competition in health system delivery, for example, in detail. Rather, it looks at the most promising policy initiatives that countries are taking in order to increase “value for money”. In other words, it is about which initiatives either deliver the same care with reduced costs, or else produce more access to health care services, of higher quality, in a more responsive way, at reasonable cost. It considers the role of ‘Pay for Performance’, to reward providers who increase value for money by providing better quality care. It assesses the role of systematic, rational decision-making in deciding the benefit package, paying for new technologies and applying evidence-based medicine. It summarises evidence on whether greater investment in health ICTs could increase access, reduce costs and increase quality of health care. Pharmaceuticals are a particular concern to those worried about value for money, especially in lower and middle income OECD countries, and a chapter assesses what policies can be used to ensure that the benefits from pharmaceutical spending exceeds its costs. A final chapter looks at efforts to increase value for money in health spending by reducing the demand for care through better co-ordination by health providers.

17. Hence before considering the various promising policy initiatives, Chapter 2 looks at the range of policy options and policy instruments which might affect health care costs, health care benefits and the/or the relationship between the two, including both those designed to have short run effects and those that aim to change the longer run path of spending through changes in the way health care systems are organised and governed.

18. This introductory chapter sets the scene for this discussion. It starts with a look at recent trends - focusing on the last decade and a half - in health spending and its components. This discussion looks behind the OECD average to try and tease out some common characteristics among groups of countries. The main drivers behind health expenditure growth are then discussed and, on the basis of this, possible

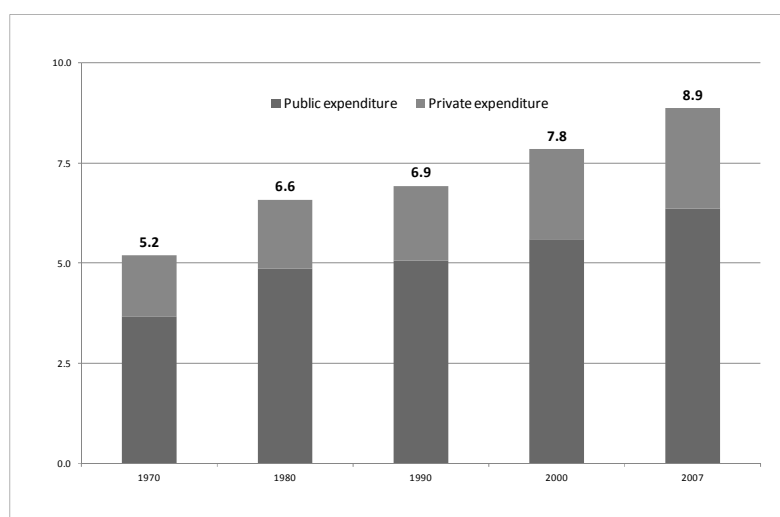
future spending pressure. The chapter then presents a brief assessment of the current macroeconomic situation facing OECD countries, drawing on the latest projections of countries' fiscal positions. This chapter concludes with a discussion of recent evidence on the degree of system inefficiency, suggesting that there is scope for addressing sustainability, financial or economic, by improving the efficiency of resource use to that of the best performers.

2. Health care spending: developments over recent decades

2.1 *The growth of total health care spending*

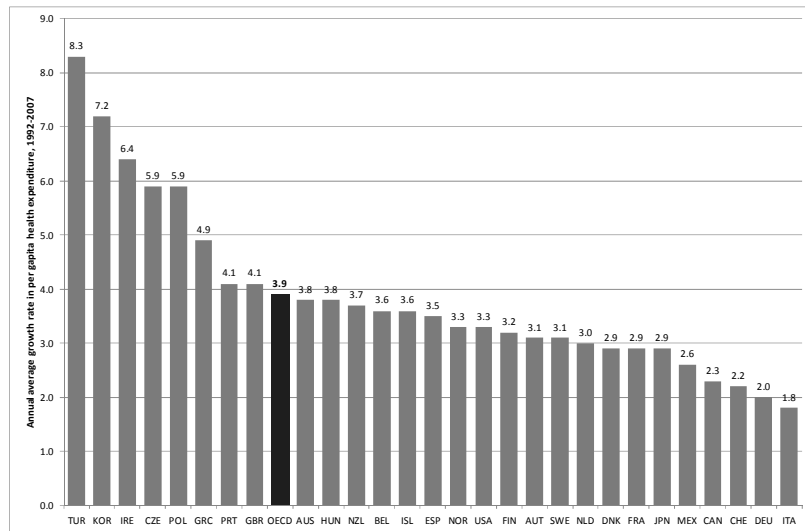
19. As noted in the preceding section, health spending has seen a near relentless rise over recent decades and had reached almost 9 per cent of GDP by 2007 (Figure 1). Looking over the past 15 years, real per capita health spending has grown at an annual growth rate of 3.9% for the OECD average³ (Figure 2). This compares with annual growth in GDP of around 2.5%. While the average rate of economic growth remained relatively stable throughout the period, growth in health spending has been more variable (Figure 3). During the mid-90s, governments in some OECD countries applied cost-containment measures in response to the acceleration in the rate of growth of health spending experienced at the beginning of the decade. This resulted in health spending growth that was broadly comparable to average GDP growth (Huber and Orosz, 2003). However this slowing proved only temporary. Health spending began to rise rapidly again towards the end of the decade, reflecting deliberate policies in a number of OECD countries to relieve the pressures arising from the previous restrictive measures (e.g. in Canada, the United Kingdom and Ireland). The tighter budgetary controls adopted in these countries had constrained both the capacity for care and the level of activity. In the United States, a backlash against some of the more restrictive forms of managed care in the 1990s led to some easing and a rapid increase in costs at the same time (Colombo and Morgan, 2006).

Figure 1. Average health spending as a share of gross domestic product (GDP) across OECD countries



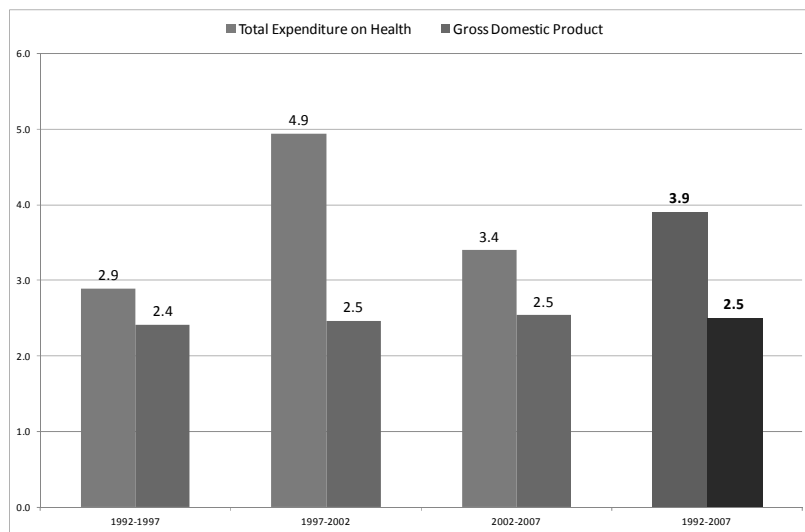
Source: Source OECD Health Data 2009

Figure 2. Annual growth in per capita health expenditure, 1992 to 2007



Source: Source OECD Health Data 2009

Figure 3. Growth in Total Health Expenditure and GDP, 1992-2007



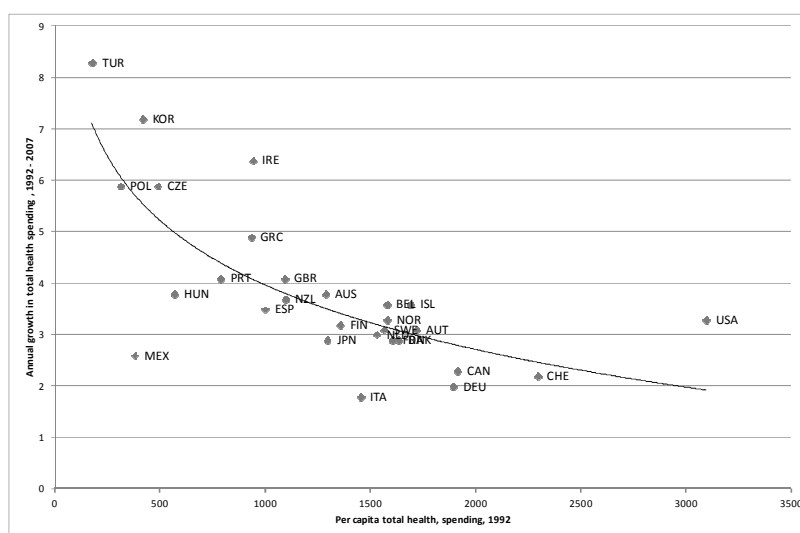
Source: Source OECD Health Data 2009

2.3 Spending over time and catch-up

21. Focussing on growth of per capita health care spending, OECD countries have displayed very different patterns since the early 1990s. Several mainly lower-income OECD countries made deliberate policy choices to finance expansions and improvements in health systems to bring their health systems up to OECD standards of care and access. Korea and Turkey, for example, saw significant reforms to increase the health care coverage of the population. There were also rapid increases in health spending in some of the eastern European countries.

22. Other, mostly higher-income, countries have aimed to – and been successful in - controlling costs. Real annual growth in per capita health spending varied from around 2% in Italy and Germany compared with more than 6% per year in Ireland, Korea and Turkey (Figure 5). This had led to some ‘catching up’ or convergence across countries in the amount now spent on health. The slowest growth in spending was experienced by Italy, Germany, Switzerland, Canada, Mexico, Japan and France.

Figure 5. Per capita total spending on health in 1992 and annual growth in spending



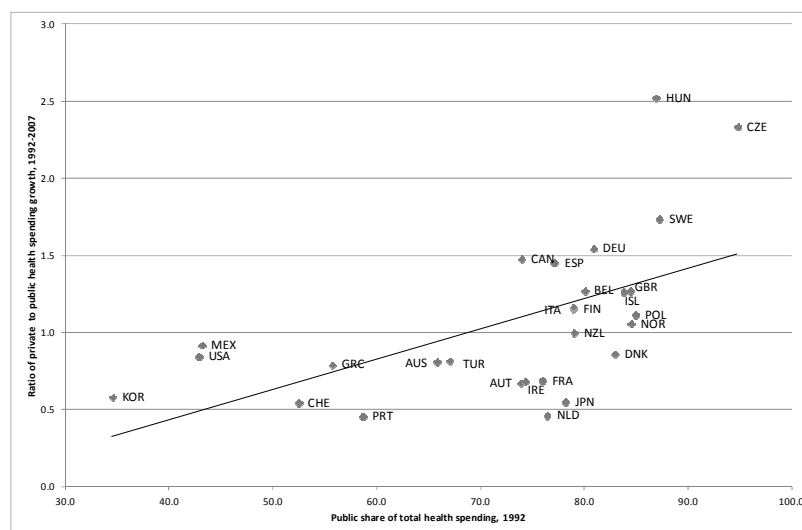
Source: Source OECD Health Data 2009

23. The public share of total health spending has remained relatively stable on average across OECD countries since the early 1990s. Nonetheless, there was also some convergence across countries in the relative importance of public and private financing of health care (Figure 6). Those countries that had a relatively high public share of health expenditure, and often more limited private insurance markets or cost-sharing arrangements (such as in the Czech Republic, Poland and Hungary) at the beginning of the 1990s, saw more rapid growth in private expenditure subsequently. In contrast, countries with a relatively low share of public health expenditure in the early 1990s tended to see public spending on health as the main driver of overall growth in health spending. This, for example, was the case in Korea, Turkey and Ireland, where, as we have seen, there were deliberate policies to widen coverage or to invest heavily in health systems.⁷

7

In practice, public and private spending are closely linked. For example, in countries with cost sharing arrangements, an increase in public spending on health care will lead, *pari passu* to a rise in private spending as well. To properly understand health spending trends over time and patterns between countries, it may be necessary to consider private and public components of expenditure together. In other words, it can be misleading to treat “private” expenditure as somehow fundamentally different from public expenditure for purposes of broad cross country analysis.

Figure 6. The ratio of private to public health spending growth, 1992 to 2007



Source: Source OECD Health Data 2009

3 The development of spending by type of health care services or spending components

24. The allocation of health spending across the different types of health services and goods can be influenced by a wide range of factors, from the supply of resources and access to new or high-cost technology, to the financial and institutional arrangements for healthcare delivery, as well as clinical guidelines and the disease burden within a country. OECD data are able to break down spending into components of individual healthcare (in-patient, out-patient, pharmaceuticals, etc) as well as those services benefiting the all or parts of the community, such as public health and administration of health care.

25. In-patient care (i.e. predominantly provided in hospitals) and ambulatory care together account for around 60% of health spending⁸. With in-patient care highly labour-intensive and, therefore, expensive, high income countries with developed health systems have sought to reduce the share of spending in hospitals by shifting to more day surgery, out-patient or home-based care. Such services are an important innovation in health care delivery, often being preferred, when possible, by patients to staying overnight in a hospital. In the United States, elective interventions on a same day basis accounted for a quarter of the growth in US health spending between 2003 and 2006, compared with just 4% of the growth in Canadian spending.⁹ Estimates of spending on same-day surgery performed by independent physicians for 2003 and 2006 suggest that this has been the fastest growing area of health care over this period (McKinsey Global Institute, 2008). In France, spending on day care now accounts for around 11% of curative care spending. By contrast, Germany, where day surgery in public hospitals was prohibited until the late 1990s (Castoro *et al.*, 2007), reported only 2% of curative care expenditure as services of day care.¹⁰ More generally, lower income countries seeking to invest in and expand their health systems have

⁸ It is worth noting that the average shares of spending going to ambulatory and in-patient hospital care respectively have remained broadly unchanged over the past decade, despite the abovementioned rise in ambulatory spending in some countries and the need to improve ambulatory care for the growing numbers of the chronically ill (Hofmarcher *et al.*, 2007).

⁹ However, this shift appears to reflect regulatory issues. Public spending in the United States is largely Medicare related and prices are tightly controlled. Thus it is in the interests of hospitals to shift patients to ambulatory care where there are no controls of the price of interventions and increases in prices in to private insurers appear to explain a significant part of this increase.

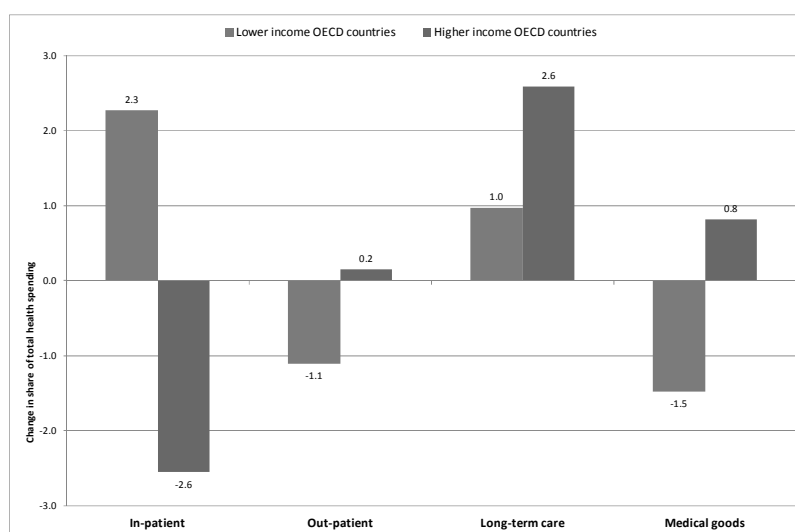
¹⁰ The relations between growth in health care costs and the structure of spending can be complex. While the shift from inpatient care to outpatient is expected to reduce average costs of treatment there is no clear relationship between the change in the share of health care spending on hospital care in total spending across countries between 1992 and 2007 and the real per capita growth in total (and public) health care spending over the same period.

generally seen the growth in hospital in-patient care outpace other areas of spending such that it has been the main contributor to overall health expenditure growth (Figure 7).

26. Spending on long-term care has increased significantly across OECD countries, as the demand for care from ageing societies rises. Expenditure on long-term care, either in institutions or in a home-based setting now accounts for more than 12% of total health spending on average, and considerably more in countries where there is already a sizeable elderly population. Both Germany and Japan, with more than 20% of the population over 65 by 2007, extended their range of social insurance schemes to cover the costs of long-term care, in 1995/1996 and 2000 respectively.

27. In conclusion, OECD policymakers in the area of health continue to be faced with unrelenting upward pressures in health care spending and population ageing, income growth and technological change will contribute to a continuation over coming decades. Nonetheless, large public sector deficits and rapidly rising public debt burdens suggest that governments may be less willing in the future to finance further increases in the supply of health care services. Health care may face cuts in financing in the same way as other areas of government responsibility. Looking beyond the economic cycle, recent OECD research suggests that there remain significant productivity reserves that most, if not many, countries can draw on to mitigate future pressures. This raises the broader question of policies to slow the growth of health care spending, issues that are addressed in Chapter 2.

Figure 7. Change in share of total health spending on main functions of health care, 1992 to 2007



Source: Source: OECD Health Data, 2009

28. Medical good expenditure, in particular on pharmaceuticals, has also been rising rapidly across most OECD countries, consuming an increasing share of overall health expenditure. Since 1992, growth in pharmaceutical spending has averaged close to 4.5%, compared with the 4.0% annual rise in total health spending. By 2006, pharmaceuticals accounted for around 15% of total health spending or 1.5% of GDP. Since medical goods consume a smaller share of health spending, compared with in-patient and ambulatory care, its contribution to overall growth in health care spending has been smaller, typically accounting for about one fifth of overall health spending growth.

29. Again, there is much variation across countries. Although the growth in pharmaceutical spending tends to be relatively high in the lower income countries, the growth tends to be below that of in-patient and ambulatory care and therefore the share of pharmaceuticals in overall health spending has declined. In some high spending countries such as Canada, for example, medical goods have been the main driver of

increasing health expenditure, contributing almost one-third of overall growth. The United States, Austria and France have also seen relatively high growth in pharmaceutical spending. This contrasts to Japan and Germany, where tighter price regulation and moves to promote more generic prescribing took greater effect.

4 The drivers of health-care spending

30. A number of studies have attempted to identify the drivers of health spending growth and quantify their respective impact (Newhouse, 1992; OECD, 2006; Dormont et al. 2006; Smith et al., 2009).¹¹ Among these determinants, ageing of the population, rising national income, relative medical prices and technological progress have been given particular attention. The roles of medical supply and “defensive medicine” were also considered, especially in the United States, but found to be negligible. Most studies have used a growth accounting framework (see Dennison, 1962). Within this broad framework, Newhouse (1992) estimates the contribution of known factors to health spending growth (1940-1990) and assumes that most of the unexplained residual is attributable to changes in health technology. A more recent review of the earlier estimates using more recent data by Newhouse and colleagues (Smith, 2009) indicates that between one quarter and one half of the increase in health care spending could be attributed to technology.

31. According to the literature, the contribution of ageing to past health spending growth appears modest. It ranges from 6.5% to 9% of the increase in total health care spending over the period 1960 to 1990 but the results depend on estimation strategy, type of data, country and period considered (OECD, 2006, Dormont et al., Smith *et al.* 2009)¹². Income changes are credited with having a higher contribution to health spending growth in all studies, ranging from 28% to 58%, depending on data and hypotheses on income-elasticity of health expenditures (generally assessed as being between 0.6 and 1.0¹³).

32. Medical price inflation is not always included in models because of measurement problems. But Smith *et al.* (2009) estimate a contribution of medical prices to spending growth to range between 5-18% on the basis of two alternative assumptions about productivity gains in medical care. The contribution of technological progress is often measured as the residual when respective contributions of other factors have been estimated. Initial estimates by Newhouse (1992) attributed 50 to 75% of health expenditure growth to changes in technology. More recent estimates on US data over 1960-2007 range from 27.4 to 48.3% according to alternative working hypotheses (Smith *et al.*, 2009). Dormont *et al.* (2006), working on micro-data, showed that “changes in medical practice” –for a given level of morbidity- explained about a quarter of health spending growth in France between 1992 and 2000.

33. Changing epidemiological patterns has also been put forward as a possible contributor to rising health spending. Prevention of infectious diseases together with the possibilities of long-term treatment of previously untreatable or badly treatable conditions has meant that chronic illnesses account for an increasing share of health spending. However, when controlling for the demographic effects and the quantity of services brought about through technology and treatment practice, the effect overall is thought to be minimal. Indeed, projections of health care spending in Australia between 2003 and 2033 showed

11 Data used are for the United States (Newhouse, 1992 and Smith et al. 2009. The time period of the data underlying the estimates are: 1960 - 1990 for Newhouse (1992); 1960 to 2007 for Smith et al., 2009 and 1992 and 2000 for Dormont et al., 2006. Over these periods there was relatively little population ageing.

12 For the studies focusing on the United States, this may reflect the fact that over much of the earlier period under study, the baby boom generation led to a fall in the average age of the US population.

13 Smith et al. explain that the raw or unadjusted elasticity between real per capita health spending and real per capita GDP is higher at between 1.4 and 1.7. However, this “expenditure elasticity” reflects not only a pure income effect but also other factors affecting health spending which are correlated with real per capita GDP such as technology, insurance and medical prices. A model used to derive an estimate of pure income effect leads to a remaining (partial) expenditure elasticity of 1.0 for 1960-2007. Taking into account medical price inflation (supposed to be higher in rich countries) further lowers the income elasticity to the range of 0.6-0.9 depending on the assumption on medical price inflation.

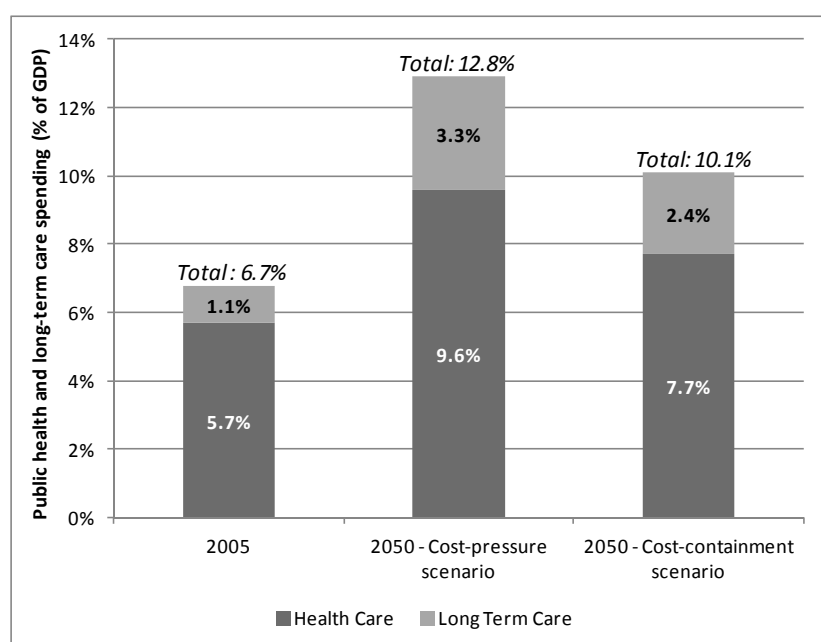
that expected age standardised disease rate change actually had a favourable effect in disease areas such as cardiovascular disease and cancer, offset by dramatic increases in diabetes and dementia (AIHW, 2008).

5 Will financial sustainability be a problem in the future?

34. Public spending on health and long-term care amounted to, on average, some 7% of GDP in 2007. As described above, it is not always enough to show that health spending gives good value for money, by delivering greater benefits than costs. If the fiscal situation is such that it simply is not possible to raise sufficient funds to cover the spending, socially desirable expenditures will have to be reduced. This section considers the long-term projections in public spending, with the subsequent section considering the extent to which current fiscal circumstances are putting more countries in this unfortunate position.

35. Most recent OECD projections provide some indication of likely trends for health and long-term care. Projections are made for both of these components apart since the factors driving the two components are somewhat different. The results suggest that public expenditure on health and long-term care could rise to almost double current levels -- from close to 7% of GDP in 2005 to some 13% by 2050 -- assuming that growth in the *residual*, which are often referred to as technological change¹⁴ -- remains unchanged through-out the period. (Figure 8) Alternatively, if governments were successful in reducing the size of the “residual” by half over the projection period, public health and long-term care spending would still increase by 3½ percentage points of GDP to reach around 10 per cent of GDP. (Table 1).

Figure 8. Projections of public health and long-term care spending 2005 - 2050



Source: Source : OECD Economics Department Working Paper No. 477

36. As discussed above, these increases come from several sources. As regards the changing age structure of the population, a rising share of older age groups in the population will put upward pressure on costs because health costs rise with age. However, the average cost per individual in older age groups should fall over time for two reasons. First, the projections assume lengthening of lifetimes, thereby

putting off the high costs in the period just prior to death into the future; and second, the effect of population ageing is also reduced because it is assumed that the longer life spans will be healthy ones.

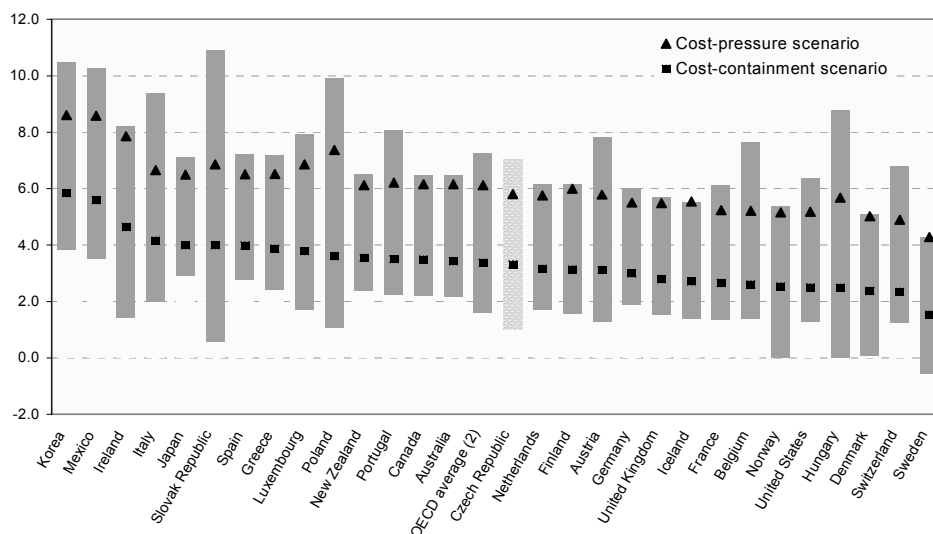
37. Ageing-related effects are stronger for long-term care. Dependency on long-term care will tend to rise as the share of old people in the population increase. This effect is mitigated somewhat by the likelihood that the share of dependents per older age group will fall as longevity increases due to the assumption of “healthy ageing”. Additional effects coming from non demographic factors: expenditures are likely to be pushed up by a possible “cost disease” effect, *i.e.* the relative price of long-term care increasing in line with average productivity growth in the economy because the scope for productivity gains in long-term care is more limited.

Table 1. Projections of public health and long-term care spending 2005-2050

	In % of GDP								
	Health care			Long-term care			Total		
	2005	2050		2005	2050		2005	2050	
	Cost- pressure	Cost- containment		Cost- pressure	Cost- containment		Cost- pressure	Cost- containment	
Australia	5.6	9.7	7.9	0.9	2.9	2.0	6.5	12.6	9.9
Austria	3.8	7.6	5.7	1.3	3.3	2.5	5.1	10.9	8.2
Belgium	5.7	9.0	7.2	1.5	3.4	2.6	7.2	12.4	9.8
Canada	6.2	10.2	8.4	1.2	3.2	2.4	7.3	13.5	10.8
Czech Republic	7.0	11.2	9.4	0.4	2.0	1.3	7.4	13.2	10.7
Denmark	5.3	8.8	7.0	2.6	4.1	3.3	7.9	12.9	10.3
Finland	3.4	7.0	5.2	2.9	5.2	4.2	6.2	12.2	9.3
France	7.0	10.6	8.7	1.1	2.8	2.0	8.1	13.4	10.8
Germany	7.8	11.4	9.6	1.0	2.9	2.2	8.8	14.3	11.8
Greece	4.9	8.7	6.9	0.2	2.8	2.0	5.0	11.6	8.9
Hungary	6.7	10.3	8.5	0.3	2.4	1.0	7.0	12.6	9.5
Iceland	6.8	10.7	8.9	2.9	4.4	3.4	9.6	15.2	12.3
Ireland	5.9	10.0	8.2	0.7	4.6	3.2	6.7	14.5	11.3
Italy	6.0	9.7	7.9	0.6	3.5	2.8	6.6	13.2	10.7
Japan	6.0	10.3	8.5	0.9	3.1	2.4	6.9	13.4	10.9
Korea	3.0	7.8	6.0	0.3	4.1	3.1	3.3	11.9	9.1
Luxembourg	6.1	9.9	8.0	0.7	3.8	2.6	6.8	13.7	10.6
Mexico	3.0	7.5	5.7	0.1	4.2	3.0	3.1	11.7	8.7
Netherlands	5.1	8.9	7.0	1.7	3.7	2.9	6.8	12.5	9.9
New Zealand	6.0	10.1	8.3	0.5	2.4	1.7	6.4	12.6	10.0
Norway	7.3	10.7	8.9	2.6	4.3	3.5	9.9	15.0	12.4
Poland	4.4	8.5	6.7	0.5	3.7	1.8	4.9	12.2	8.5
Portugal	6.7	10.9	9.1	0.2	2.2	1.3	6.9	13.1	10.4
Slovak Republic	5.1	9.7	7.9	0.3	2.6	1.5	5.4	12.3	9.4
Spain	5.5	9.6	7.8	0.2	2.6	1.9	5.6	12.1	9.6
Sweden	5.3	8.5	6.7	3.3	4.3	3.4	8.6	12.9	10.1
Switzerland	6.2	9.6	7.8	1.2	2.6	1.9	7.4	12.3	9.7
Turkey	5.9	9.9	8.1	0.1	1.8	0.8	6.0	11.7	8.9
United Kingdom	6.1	9.7	7.9	1.1	3.0	2.1	7.2	12.7	10.0
United States	6.3	9.7	7.9	0.9	2.7	1.8	7.2	12.4	9.7
Average	5.7	9.6	7.7	1.1	3.3	2.4	6.7	12.8	10.1

Source: Source : OECD Economics Department Working Paper No. 477

38. These average results hide striking differences across countries (Figure 9). In the cost containment scenario, a group of countries stands out with increases of health and long-term care spending at or above four percentage points of GDP, over the period 2005-50. It includes rapidly ageing countries (Italy, Japan, Spain), countries that will experience a dramatic change in their population structure (Korea, Mexico, Slovak Republic), and countries with currently low labour participation, which may face a substantial increase in the demand for *formal* long-term care (Italy, Ireland, Spain). In contrast, Sweden which is in a mature phase of its ageing process and already spends a relatively high share of GDP on health and long-term care is in the lowest range with an increase below two percentage points of GDP.

Figure 9. Total increase in health and long-term care spending, 2005-2050

1. The vertical bars correspond to the range of the alternative scenarios, including sensitivity analysis. Countries are ranked by the increase of expenditures between 2005 and 2050 in the cost-containment scenario. Turkey was not included because it was not possible to calculate one of the scenarios.

2. Excluding Turkey.

Source: Source: OECD Economics Department Working Paper No. 477

39. Despite uncertainties, sensitivity analysis suggests the results are fairly robust in key respects. For example, under the assumption of “healthy ageing” changes in longevity will have only a modest effect on spending. However, the projections for spending on long-term care are sensitive to the future development of participation rates for the working-age population because higher participation reduces the capacity for “informal” care. An alternative scenario, where participation rates in countries where they are currently low converge towards levels in high-participation countries, has spending on long-term care rising by an additional 1-2% of GDP on average, but much more in some countries.¹⁵

6 Is fiscal sustainability a problem now?

40. In determining how future government policy will likely affect public spending on health, it is important to recall the growing share of health in total government spending. In the years leading up to the current downturn, government spending as a share of GDP broadly declined, dropping from around 46% in 1995 to 41% in 2007¹⁶. This can be put down to total GDP rising faster than government spending over the period rather than any contraction in total public expenditures (OECD, *Government at a Glance*, 2009). In only two countries, Portugal and Korea, was there an increase in government spending as a share of GDP. Over the same period, the proportion of public spending allocated to health rose from around 12% to 16% of total government spending on average - only in Hungary did the share remain unchanged.

41. Within this broad context, the current economic slowdown that started in 2008 differs in nature from other recent recessions in that it has been global in both scale and timing. Almost all OECD countries

¹⁵ The 2009 Ageing Report: Economic and budgetary projections for the EU-27 Member States (2008-2060) considered the demand side effects of demographic change, health status and national income in projecting public health expenditures. The consideration of technological change based on assumptions used in the OECD projections has a significant effect on the pure demographic scenario to produce projections not dissimilar from the OECD results.

¹⁶ Overall the variation between countries also decreased, although by 2007 OECD total government outlays were accounting from around 20% of GDP in Mexico and Korea to over 52% in France and Sweden.

have been affected. The most recent *Economic Outlook* records a decline of [-3.5%] in OECD GDP in 2009, with only sluggish growth forecast for most countries through 2010.

42. Much of the recovery from recession through to 2010 is driven by the unprecedented policy stimulus packages put in place by many OECD governments to support the fragile economies rather than any renewed underlying induced consumer demand. The result of such huge government measures together with the automatic effects of a recession – largely on revenues - has meant that the fiscal position of most OECD countries has deteriorated significantly with steep rises in government deficits in 2009. These deficits are estimated to peak in 2010 at more than 8% of GDP on average across the OECD, with no improvement foreseen in 2011. The ratio of gross government debt to GDP is expected to rise above 100% in 2011 for the OECD as a whole, up from just over 70% in 2007 prior to the financial crisis (Table 2).

43. Such levels of government debt raise concerns about the budgetary environment and financial sustainability, meaning that governments will need to carefully review alternative strategies to start reducing the levels of government debt whilst not undermining the stimulus driven recovery. Therefore, in the medium-term, there are likely to be increased pressures on public spending either through a mix of pushing through long-planned reforms, increased efficiency measures or indeed spending cuts.

44. Lessons from past recessions suggest that a prolonged period of ‘belt-tightening’ throughout the economy is likely with debt consolidation lasting some years after the onset of recession, and continuing as the economy starts to grow again (McKinsey, 2010). Thus, the high government debt ratios of the current downturn could delay the start of deleveraging leading to a rapid rise in the share of health in GDP in the first couple of years, followed by a longer period of debt reduction.

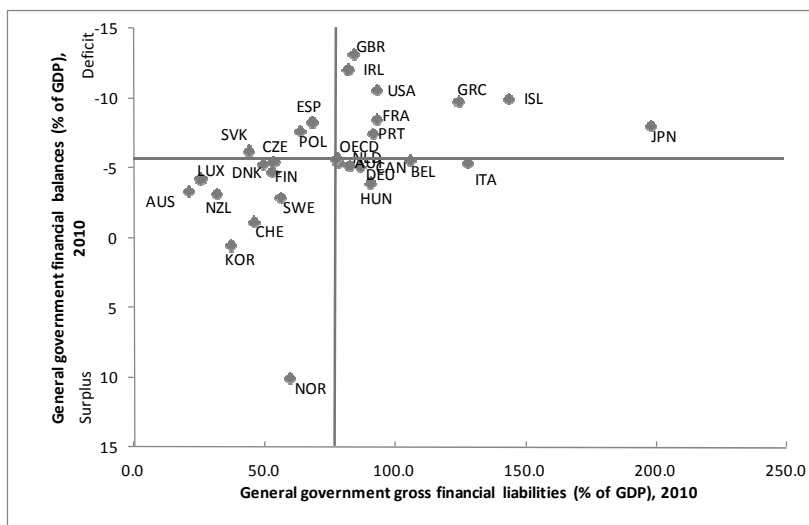
6.1 Where will pressures for restraint in health care spending likely be the strongest?

45. Two sets of criteria can help identify where pressures for restraint of public health-care spending are likely to be the strongest:

- First, countries with high levels of debt and/or large overall public sector deficits are likely to be more concerned about public spending and fiscal sustainability than countries with low deficits and debt-to-GDP ratios.
- Second, countries where spending on health care makes up a large portion of total government spending and/or where general government spending makes up a large share of GDP.

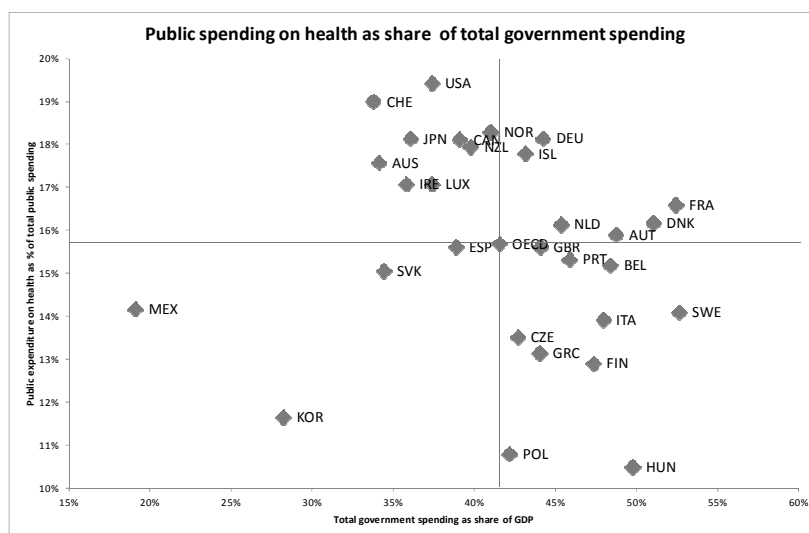
46. Recent events suggest that the first criteria set is probably of more immediate importance as it concerns, as mentioned – problems of fiscal sustainability. Countries with high levels of debt and large deficits (the top right hand quadrant) will face the greatest difficulty in financing increased spending (Figure 10).

Figure 10. Debt-to-GDP and General Government financial balances



Source: Source: OECD Economic Outlook No. 86, November 2009.

Figure 11. Public spending on health as a share of total government spending



Source: Source: OECD Health Data 2009, OECD Government at a Glance 2009.

47. The second set is critical in judging the scope for further increases in public health care spending on the basis of the economic sustainability criteria. Taking into account both the overall level of public spending in the economy and the share allocated to health care (on the assumption that it is harder to raise revenues in countries which already spend a lot and that health is more likely to be affected by public expenditure constraints, the greater the proportion of public expenditure which goes on health), a first approximation may be to say that countries falling in the top right part of Figure 11 are going to be more concerned about health expenditures than countries in the bottom left quadrant. This assertion can be modified by many other factors, including attitudes towards taxation and public spending, and the political priority that health has in public policy.

48. Countries with particularly weak fiscal conditions (i.e. above the OECD average) (see the top right hand panel of Figure 10 and 11) are the United Kingdom, Ireland, the US, Greece, Iceland, France, Japan, Portugal, and to a lesser degree Belgium and Italy. Countries where health care spending makes up a large share of GDP are (above average public spending of GDP and above average of total public spending in GDP) suggest that pressures may be higher in Austria, Denmark, France, Germany, Iceland the Netherlands, and Spain.

7. How can we ensure economic sustainability of health systems?

49. As noted in the introductory paragraphs, the system sustainability and efficiency objectives are closely linked: making health-system more efficient and effective is likely to be one of the few ways of reconciling rising demand for health care and the public financing constraints just mentioned. Recent OECD research (Joumard et al, 2008, 2009 and 2010) has examined the degree of inefficiency in OECD health systems and the scope for productivity gains. Estimates of the degree of health care spending efficiency are based on health care outputs defined as those gains in health status that can be attributed to health care spending. A country is judged to be more efficient than another if it achieves higher life expectancy for a given level of health care spending, once confounding variables have been allowed for.

50. The results suggest that there is considerable scope for efficiency gains across OECD health systems. Indeed, life expectancy at birth could be raised by more than two years on average if countries were to become as efficient as the best performers. By way of comparison, a further increase in health care spending of 10% would increase life expectancy by only three to four months, holding the degree of measured inefficiency unchanged. Despite the limitations inherent in macro-level approaches, results across the two approaches used are rather similar and are robust to changes in specification.

51. Correlations are between overall system (outcome-based) efficiency estimates and (output-based) efficiency indicators often used for hospitals (e.g. average length of stays and occupancy rates for hospital acute care beds) are very low. This suggests that medical outputs can be produced very efficiently in one sub-sector but still have only a limited impact on the health status of the population. Alternatively such results may imply that high performance in the in-patient care sector is offset by inefficiencies in other sub-sectors of the health care system; and/or that co-ordination problems exist across sub-sectors.

52. Further tests relating overall system efficiency for individual countries and quality of care indicators (such as avoidable admission rates in the in-patient care sector), show a strong correlation: those countries with high levels of productive efficiency are also those with high quality of care, even though the quality of care indicators still do not have wide country coverage.

53. Finally, the study examined whether higher measured levels of efficiency were related to selected institutional arrangements. In this facet of the study, recent work by the Secretariat has served to identify institutional characteristics attributable to individual countries and to identify groups of countries with similar institutional arrangements and market or regulatory incentives. Three main country groupings were identified. These displayed similar reliance on markets and/or regulation.¹⁷ In a second step these sub-groups (and the countries in each) were compared with the measured degree of inefficiency across countries.

54. The results suggest that no sub-group appears to have consistently better efficiency outcomes. Indeed, within group differences appeared to be larger than across group differences in a number of cases. It would thus appear that no single type of health care system type performs systematically better than another in improving the health status of the population in a cost effective manner. In practice, OECD countries rely on quite different mixes of market and non-market regulation and need a range of policies to

17. See Joumard et al. (2010) for further details.

correct for the market failures that plague all health care systems. Put another way, the key message for policy makers is that it may be less the type of system that counts but rather how it is managed.

8. Conclusions

55. Health systems are economically sustainable when the benefits of health spending exceed their costs. But this is not necessarily enough to ensure the overall sustainability of the system, as sometimes fiscal constraints can be binding. This chapter has shown that health spending has gone up rapidly in many (but not all) OECD countries in recent years. Does this mean that they have become economically unsustainable? Although the chapter makes no attempt to assess the question in any systematic way, 'probably not', is the most likely answer. Health systems are delivering real improvements in health, in many of the main dimensions in which we judge health spending – access, quality, responsiveness, and so on. As long as they continue to deliver such improvements, it will be economically desirable to meet the future demand for more spending. But in the short term, the sharp deterioration in the public finances means that fiscal sustainability is a problem in some countries. Chapter two assesses the policy options available to countries to achieve value for money in health systems in the future, but also what options are open to those countries that need to control spending for fiscal reasons in the short term.