

# Expensive health care is not always the best health care, says OECD's Health at a Glance

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08/12/09 - New internationally comparable indicators on quality of care show progress in treating serious conditions such as cancer. However, despite increasing rates of chronic diseases such as asthma and diabetes, care for these conditions falls short of good practices in too many countries, resulting in deteriorating health and higher medical costs.

The United States and Canada have good cancer care, screening more people than most other countries and saving the lives of a greater number of cancer patients. Japan also has higher survival rates for people with cancer than most countries. The Netherlands, Italy, Switzerland and Germany provide good primary care, reducing costly hospital treatment for chronic conditions such as asthma or diabetes. But no one OECD country provides high quality care in all areas.

“There are opportunities for all countries to improve the performance of their health care system, and making such improvements does not necessarily require higher spending”, OECD Secretary-General Angel Gurría said.

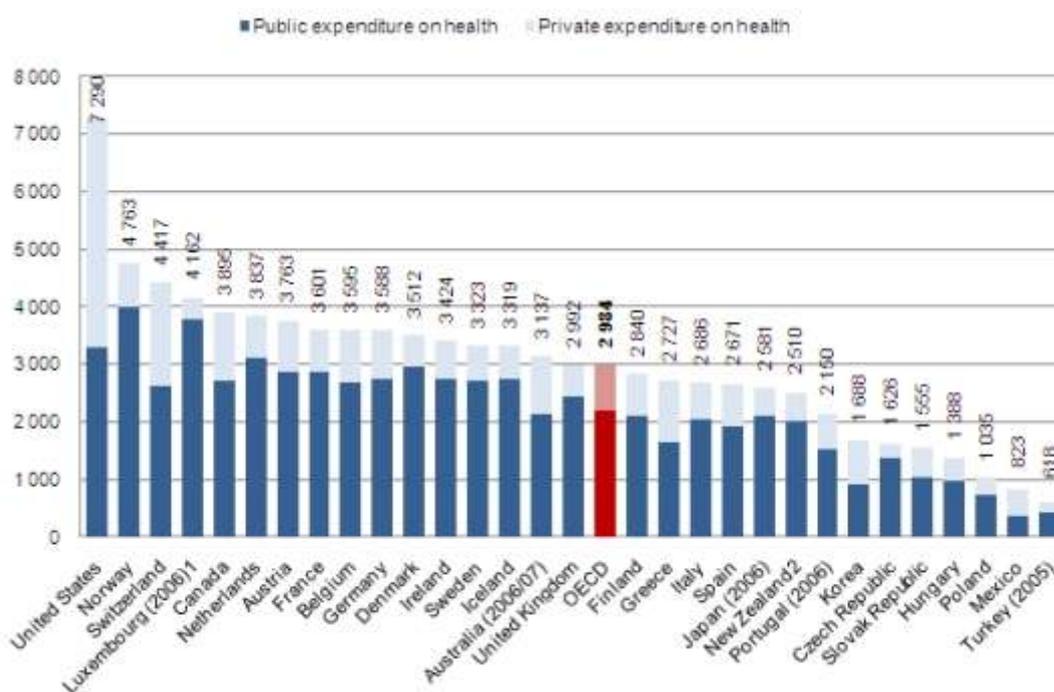
[Health at a Glance 2009](#) also looks at acute care for life-threatening conditions such as heart attack and stroke, showing that less than 5% of people hospitalised after a heart attack die within 30 days of being admitted to hospital. Iceland, Denmark, Sweden and Norway do best, with death rates of only around 3%. Health care is improving at an astonishing speed in some areas: over the past 5 years, for example, many more people are surviving after a stroke.

## Large variations in health spending

*Health at a Glance 2009* shows that the United States spends more on health - 7290 USD per capita in 2007 - than any other country. This is almost two and a half times greater than the OECD average of 2984 USD, adjusted for purchasing power parity. Luxembourg, Norway and Switzerland also spend far more than the OECD average. At the other end of the scale, in Turkey and Mexico health expenditure was less than one-third the OECD average.

Key indicators presented in *Health at a Glance 2009* provide information on health status and the determinants of health, including the growing rates of child and adult obesity, which are likely to drive health spending higher in the coming decades. This edition also has new data on access to care, showing that all OECD countries provide universal or near-universal coverage for a core set of health services, except the United States, Mexico and Turkey.

## 5 - Total health expenditure per capita, public and private, 2007



1. Health expenditure is for the insured population rather than resident population. 2. Current health expenditure (Source: OECD Health Data 2009).

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1. Breast cancer five-year relative survival rate, 1997-2002 and 2002-07 (Chart 5.8.2)
2. Colorectal cancer five-year relative survival rate, 1997-2002 and 2002-07 (Chart 5.9.2)
3. Asthma admission rates, population aged 15 and over, 2007 (Chart 5.1.1)
4. Reduction in in-hospital case-fatality within 30 days after admission for stroke, 2002-2007 (Chart 5.5.4)
5. Health expenditure per capita, public and private, 2007 (Chart 7.1.1)

- [Health at Glance 2009 in 45 slides](#) (ppt presentation)
- [Use the interactive world map featuring the main health indicators](#)

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## Health at a Glance 2009

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**RELEASED DECEMBER 8, 2009**

### Health at a Glance 2009 – OECD Indicators

This fifth edition of **Health at a Glance** provides the latest comparable data on different aspects of the performance of health



systems in OECD countries. It provides striking evidence of large variations across countries in the costs, activities and results of health systems. Key indicators provide information on health status, the determinants of health, health care activities and health expenditure and financing in OECD countries. This edition also contains **new chapters on the health workforce and on access to care**, an important policy objective in all OECD countries. The chapter on **quality of care** has been extended to include a set of indicators on the quality of care for chronic conditions.

ISBN

9789264075566

200 pages,

13 tables

200 graphs

This publication takes as its main basis [OECD Health Data 2009](#), the most comprehensive set of statistics and indicators for comparing health systems across the 30 OECD member countries

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[Hide](#) / [Show](#) Abstract

This fifth edition of Health at a Glance provides the latest comparable data on different aspects of the performance of health systems in OECD countries. It provides striking evidence of large variations across countries in the costs, activities and results of health systems. Key

indicators provide information on health status, the determinants of health, health care activities and health expenditure and financing in OECD countries.

This edition also contains new chapters on the health workforce and on access to care, an important policy objective in all OECD countries. The chapter on quality of care has been extended to include a set of indicators on the quality of care for chronic conditions.

Each indicator in the book is presented in a user-friendly format, consisting of charts illustrating variations across countries and over time, brief descriptive analyses highlighting the major findings conveyed by the data, and a methodological box on the definition of the indicator and any limitations in data comparability. An annex provides additional information on the demographic and economic context within which health systems operate, as well as a concise description of key characteristics in health system financing and delivery of services in OECD countries.

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[Foreword](#)

This latest edition of Health at a Glance illustrates the progress that has been made, both nationally and internationally, in measuring the performance of health systems. At their meeting in May 2004, Health Ministers asked the OECD to work with national administrations to improve the evidence base for comparing health system performance by: 1) ensuring that OECD Health Data would be timely and accurate; 2) continuing the implementation of health accounts to improve the availability and comparability of health expenditure and financing data; and 3) developing indicators of quality of care and health outcomes in collaboration with national experts. Substantial progress has been achieved in all of these areas, and this is reflected by the broader range of indicators of inputs, outputs and outcomes of health systems presented in this publication.

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[Introduction](#)

Health at a Glance 2009 allows readers to compare health systems and their performance across a number of key dimensions, using a core set of indicators of health and health systems selected for their policy relevance and on the basis of the availability and comparability of the data.

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[Life expectancy at birth](#)

Life expectancy at birth has continued to increase remarkably in OECD countries, reflecting sharp reductions in mortality rates at all ages. These gains in longevity can be attributed to a number of factors, including rising living standards, improved lifestyle and better education, as well as greater access to quality health services. Other factors, such as better nutrition, sanitation and housing also play a role, particularly in countries with developing economies (OECD, 2004c).

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[Life expectancy at age 65](#)

Life expectancy at age 65 has increased significantly among both women and men over the past several decades in all OECD countries. Some of the factors explaining the gains in life expectancy at age 65 include advances in medical care combined with greater access to health care, healthier lifestyles and improved living conditions before and after people reach age 65.

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[Premature mortality](#)

Premature mortality, measured in terms of potential years of life lost (PYLL) before the age of 70 years, focuses on deaths among younger age groups of the population. PYLL values are heavily influenced by infant mortality and deaths from diseases and injuries affecting children and younger adults: a death at five years of age represents 65 PYLL; one at 60 years of age only ten. Declines in PYLL can be influenced by advances in medical technology, for example, in relation to infant mortality and deaths due to heart disease, and in prevention and control measures, reducing untimely or avoidable deaths from injuries and communicable diseases. A number of other variables, such as GDP per capita, occupational status, numbers of doctors and alcohol and tobacco consumption, have also been associated with reduced premature mortality (Or, 2000; Joumard et al., 2008).

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#### [Mortality from heart disease and stroke](#)

Cardiovascular diseases are the main cause of mortality in almost all OECD countries, accounting for 36% of all deaths in 2006. They cover a range of diseases related to the circulatory system, including ischemic heart disease (known as IHD, or heart attack) and cerebro-vascular disease (or stroke). Together, IHD and stroke comprise two-thirds of all cardiovascular deaths, and caused one-quarter of all deaths in OECD countries in 2006.

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#### [Mortality from cancer](#)

Cancer is the second leading cause of mortality in OECD countries (after diseases of the circulatory system), accounting for 27% of all deaths on average in 2006. In 2006, cancer mortality rates were the lowest in Mexico, Finland, Switzerland and Japan. They were the highest in central and eastern European countries (Hungary, the Czech and Slovak Republics, Poland) and Denmark (Figure 1.5.1).

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#### [Mortality from road accidents](#)

Worldwide, an estimated 1.2 million people are killed in road traffic accidents each year, and as many as 50 million people are injured or disabled (WHO, 2009c). In OECD countries alone, they were responsible for more than 125 000 deaths in 2006, occurring most often in the United States (46 000), Mexico (17 000) and Japan (9 000). Around 5 000-6 000 road accident deaths occurred in each of Italy, Poland and Germany in 2006.

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#### [Suicide](#)

The intentional killing of oneself is evidence not only of personal breakdown, but also of a deterioration of the social context in which an individual lives. Suicide may be the end-point of a number of different contributing factors. It is more likely to occur

during crisis periods associated with divorce, alcohol and drug abuse, unemployment, clinical depression and other forms of mental illness. Because of this, suicide is often used as a proxy indicator of the mental health status of a population. However, the number of suicides in certain countries may be underestimated because of the stigma that is associated with the act, or because of data issues associated with reporting criteria (see "Definition and deviations").

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#### [Infant mortality](#)

Infant mortality, the rate at which babies of less than one year of age die, reflects the effect of economic and social conditions on the health of mothers and newborns as well as the effectiveness of health systems.

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#### [Infant health: low birth weight](#)

Low birth weight – defined here as newborns weighing less than 2 500 grams – is an important indicator of infant health because of the close relationship between birth weight and infant morbidity and mortality. There are two categories of low birth weight babies: those occurring as a result of restricted foetal growth and those resulting from pre-term birth.

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#### [Dental health among children](#)

Dental problems, mostly in the form of caries (tooth decay) and gum disease, are common in developed countries, affecting 60-90% of school children and the vast majority of adults (WHO, 2003). People with poor oral health may experience pain and discomfort, functional impairment, low self-esteem and dissatisfaction with their appearance. Dental and other oral diseases thus represent a major public health problem. Dental diseases are highly related to lifestyle factors, which include a high sugar diet, while also reflecting whether or not protective measures such as exposure to fluoride and good oral hygiene are present. Much of the burden of dental disease falls on disadvantaged and socially marginalised populations (WHO, 2003), and children are especially vulnerable. Treatment of dental disease in developed countries is often costly, although many countries offer free or subsidised

dental care for children and adolescents (see also Indicator 6.6 "Inequalities in dentist consultations").

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#### [Perceived health status](#)

Most OECD countries conduct regular health surveys which allow respondents to report on different aspects of their health. A commonly-asked question relates to self-perceived health status, of the type: "How is your health in general?". Despite the subjective nature of this question, indicators of perceived general health have been found to be a good predictor of people's future health care use and mortality (for instance, see Miilunpalo et al., 1997). For the purpose of international comparisons however, cross-country differences in perceived health status are difficult to interpret because responses may be affected by differences in the formulation of survey questions and responses, and by cultural factors.

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#### [Diabetes prevalence and incidence](#)

Diabetes is a chronic metabolic disease, characterised by high levels of glucose in the blood. It occurs either because the pancreas stops producing the hormone insulin (type 1 diabetes), or through a combination of the pancreas having reduced ability to produce insulin alongside the body being resistant to its action (type 2 diabetes). People with diabetes are at a greater risk of developing cardiovascular diseases such as heart attack and stroke if the disease is left undiagnosed or poorly controlled. They also have elevated risks for sight loss, foot and leg amputation due to damage to the nerves and blood vessels, and renal failure requiring dialysis or transplantation.

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#### [AIDS incidence](#)

The first cases of Acquired Immunodeficiency Syndrome (AIDS) were diagnosed almost 30 years ago. The onset of AIDS is normally caused as a result of HIV (human immunodeficiency virus) infection and can manifest itself as any number of different diseases, such as pneumonia and tuberculosis, as the immune system is no longer able to defend the body. There is a time lag between HIV infection, AIDS diagnosis

and death due to HIV infection, which can be any number of years depending on the treatment administered. Despite worldwide research, there is no cure currently available.

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[Smoking and alcohol consumption at age 15](#)

Regular smoking or excessive drinking in adolescence has immediate and long-term health consequences. Children who establish smoking habits in early adolescence increase their risk of cardiovascular diseases, respiratory illnesses and cancer. They are also more likely to experiment with alcohol and other drugs. Alcohol misuse is itself associated with a range of social, physical and mental health problems, including depressive and anxiety disorders, obesity and accidental injury (Currie et al., 2008).

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[Nutrition at ages 11, 13 and 15](#)

Nutrition is important for children's development and long-term health. Eating fruit during adolescence, for example, in place of high-fat, sugar and salt products, can protect against health problems such as obesity, diabetes, and heart problems. Moreover, eating fruit when young can be habit forming, promoting healthy eating behaviours for later life.

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[Physical activity at ages 11, 13 and 15](#)

Undertaking physical activity in adolescence is beneficial for health, and can set standards for adult physical activity levels, thereby indirectly influencing health outcomes in later life. Research supports the role that physical activity in adolescence has in the prevention and treatment of a range of youth health issues including asthma, mental health, bone health and obesity. More direct links to adult health are found between physical activity in adolescence and its effect on overweight and obesity and related diseases, breast cancer rates and bone health in

later life. The health effects of adolescent physical activity are largely dependent on the activity type, e.g. water physical activities in adolescence are effective in the treatment of asthma, and exercise is recommended in the treatment of cystic fibrosis (Hallal et al., 2006; Currie et al., 2008).

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#### [Overweight and obesity among children](#)

Children who are overweight or obese are at greater risk of poor health in adolescence and in adulthood. Being overweight in childhood increases the risk of developing cardiovascular disease or diabetes, as well as related social and mental health problems. Excess weight problems in childhood are associated with an increased risk of being an obese adult, where certain forms of cancer, osteoarthritis, a reduced quality of life and premature death can be added to the list of health concerns (Currie et al., 2008; WHO Europe, 2007).

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#### [Tobacco consumption among adults](#)

Tobacco is the second major cause of death in the world, after cardiovascular disease, and is directly responsible for about one in ten adult deaths worldwide, equating to about 6million deaths each year (Shafey et al., 2009). It is a major risk factor for at least two of the leading causes of premature mortality – circulatory diseases and a range of cancers. In addition, it is an important contributory factor for respiratory diseases, while smoking among pregnant women can lead to low birth weight and illnesses among infants. It remains the largest avoidable risk to health in OECD countries.

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#### [Alcohol consumption among adults](#)

The global health burden related to excessive alcohol consumption, both in terms of morbidity and mortality, is considerable in most parts of the world (Rehm et al., 2009; WHO, 2004b). It is associated with numerous harmful health and social consequences, including drunkenness and alcohol dependence. High alcohol intake increases the risk for heart, stroke and vascular diseases, as well as liver cirrhosis and certain cancers. Foetal exposure to alcohol increases the risk of birth defects and

intellectual impairments. Alcohol also contributes to death and disability through accidents and injuries, assault, violence, homicide and suicide, and is estimated to cause more than 2 million deaths annually. It is, however, one of the major avoidable risk factors for disease.

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#### [Overweight and obesity among adults](#)

The growth in overweight and obesity rates among adults is a major public health concern. Obesity is a known risk factor for numerous health problems, including hypertension, high cholesterol, diabetes, cardiovascular diseases, respiratory problems (asthma), musculoskeletal diseases (arthritis) and some forms of cancer.

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### • [Expand / Collapse Hide / Show all Abstracts Health Workforce](#)

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#### [Introduction](#)

The performance of health systems in terms of access and quality depends crucially on the size, composition, distribution and productivity of the health workforce. Health workers are the cornerstone of health systems, and many OECD countries are reviewing their health human resource strategies to ensure a sufficient number of health care providers, with the right skills and in the right settings, to respond to the demand for high-quality health services.

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#### [Employment in the health and social sectors](#)

The health and social sectors employ a large and growing number of people in OECD countries. The data reported in this section include people working in the health sector along with those working in the social sector (including long-term care, child care and other types of social work). The data include professionals providing direct services to people together with administrative and other support staff.

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#### ☐ [Practising physicians](#)

In many OECD countries, there are concerns about current or looming shortages of doctors (OECD, 2008e). This section provides information on the number of doctors per capita in OECD countries, including a disaggregation by gender and by general practitioners and specialists.

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#### ☐ [Medical graduates](#)

Maintaining or increasing the number of doctors requires either investment in training new doctors or recruiting trained physicians from abroad (see Indicator 3.4 "Foreign-trained physicians"). If it takes about ten years to train a doctor, any current shortages can be met only by recruiting qualified doctors from abroad, unless there are unemployed doctors at home. Conversely, any surpluses or sudden fall in demand may mean that new graduates, in particular, struggle to find vacant posts at home.

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#### ☐ [Foreign-trained physicians](#)

The international migration of doctors has raised a lot of attention among policy makers during the past decade. In 2007, the percentage of foreign-trained doctors ranges from a low of 3.1% in France (although this figure is under-estimated; see "Definition and deviations" below) to a high of 33.6% in Ireland (Figure 3.4.1). High percentages are also recorded in New Zealand and the United Kingdom where almost a third of all doctors were trained abroad. In Australia and the United States, this percentage is respectively 22.8% (2006) and 25.9%.

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#### ☐ [Remuneration of doctors \(general practitioners and specialists\)](#)

Remuneration levels are among the factors affecting the attractiveness of different medical professions. They also affect health spending. Gathering comparable data on the remuneration of doctors is difficult, however, because countries collect data

based on different sources covering different categories of physicians, and often not including all income sources (see the box on "Definition and deviations" below). Hence, the data should be interpreted with caution.

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#### [Gynaecologists and obstetricians, and midwives](#)

Gynaecologists are concerned with the functions and diseases specific to women, especially those affecting the reproductive system, while obstetricians specialise in pregnancy and childbirth. A doctor will often specialise in both these areas, and the data reported in this section does not allow a distinction between these two specialties. Midwives provide care and advice to women during pregnancy, labour and childbirth and the post-natal period for cases without complications. They deliver babies working independently or in collaboration with doctors and nurses.

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#### [Psychiatrists](#)

At any point in time, about 10% of the adult population will report having some type of mental or behavioural disorder (WHO, 2001). People with mental health problems may receive help from a variety of professionals, including general practitioners, psychiatrists, psychologists, psychotherapists, social workers, specialist nurses and others. In Europe, a population-based survey carried out in 2005-06 indicated that, on average across EU countries, 13% of the population reported seeking help from a health professional for a psychological or emotional health problem over the past year (Eurobarometer, 2006). Among the people who sought help, two-thirds (67%) had consulted a general practitioner, while 15% sought help from a psychiatrist and another 15% from a psychologist (Figure 3.7.3).

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#### [Practising nurses](#)

Nurses are usually the most numerous health profession, greatly outnumbering physicians in most OECD countries. Nurses play a critical role in providing health care not only in traditional settings such as hospitals and long-term care institutions but increasingly in primary care (especially in offering care to the chronically ill) and in domiciliary settings. However, there are concerns in many countries about shortages

of nurses, and these concerns may well intensify in the future as the demand for nurses continues to increase and the ageing of the "baby boom" generation precipitates a wave of retirements among nurses. These concerns have prompted actions in many countries to increase the training of new nurses combined with efforts to increase the retention of nurses in the profession (OECD, 2008e).

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#### [Nursing graduates](#)

Many OECD countries have taken steps in recent years to expand the number of students in nursing education programmes in response to concerns about current or anticipated shortages of nurses. Increasing investment in nursing education is particularly important as the nursing workforce is ageing in many countries and the baby boom generation of nurses approaches retirement.

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#### [Remuneration of nurses](#)

The remuneration level of nurses is one of the factors affecting job satisfaction and the attractiveness of the profession. It also has a direct impact on costs, as wages represent one of the main spending items in health systems.

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#### [Dentists](#)

Dentists are the main provider of dental care, although some services are also provided by dental hygienists, dental assistants and dental prosthetists. Most dentists in OECD countries work in their own office or in a group practice (dental clinics), although a small proportion also work in hospitals and other health care facilities.

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#### [Pharmacists](#)

Pharmacists assist people in obtaining medication and ensuring that these are used in a safe and proper fashion. In most countries, they have completed studies in pharmacy at university level and have completed an examination administered by the regulatory authority to obtain a license to practice.

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[Introduction](#)

This chapter presents comparisons on the supply and use of different types of health services and goods in OECD countries. The provision of these services and the purchase of goods such as pharmaceuticals account for a large part of the health expenditure described in Chapter 7.

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[Consultations with doctors](#)

Consultations with doctors can take place in doctors' offices or clinics, in hospital outpatient departments or, in some cases, in patients' own homes. In many European countries (e.g. Denmark, Italy, Netherlands, Norway, Portugal, Slovak Republic, Spain and United Kingdom), patients are required, or given incentives, to consult a general practitioner (GP) "gatekeeper" about any new episode of illness. The GP may then refer them to a specialist, if indicated. In other countries (e.g. Austria, Czech Republic, Iceland, Japan, Korea and Sweden), patients may approach specialists directly.

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[Medical technologies \(supply and use\)](#)

The diffusion of modern medical technologies is one main driver of rising health expenditure across OECD countries. This section presents data on the availability and intensity of use of two diagnostic technologies – computed tomography (CT) scanners and magnetic resonance imaging (MRI) units.

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#### [Hospital beds \(supply and use\)](#)

The number of hospital beds provides a measure of the resources available for delivering services to inpatients in hospitals. It does not capture, however, the capacity of hospitals to furnish same-day emergency or elective interventions. Furthermore, this section focuses solely on hospital beds allocated for acute care, not taking into account beds in psychiatric care or long-term care units.

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#### [Hospital discharges](#)

Hospital discharge rates are a measure of the number of people who need to stay overnight in a hospital each year. Together with the average length of stay, they are important measures of hospital activities. However, overall discharge rates do not take into account differences in case-mix (the mix of the conditions leading to hospitalisation).

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#### [Average length of stay in hospitals](#)

The average length of stay in hospitals (ALOS) is often treated as an indicator of efficiency. All other things being equal, a shorter stay will reduce the cost per discharge and shift care from inpatient to less expensive post-acute settings. However, shorter stays tend to be more service intensive and more costly per day. Too short a length of stay could also cause adverse effect on health outcomes, or reduce the comfort and recovery of the patient. If this leads to a rising readmission rate, costs per episode of illness may fall little, or even rise.

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#### [Cardiac procedures \(coronary bypass and angioplasty\)](#)

Heart diseases are a leading cause of hospitalisation and death in OECD countries (see Indicator 1.4). Coronary artery bypass graft and angioplasty are two

revascularisation procedures that have revolutionised the treatment of ischemic heart diseases in recent decades.

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#### ☐ [Treatment of renal failure \(dialysis and kidney transplants\)](#)

End-stage renal failure (ESRF) is a condition in which the kidneys are permanently impaired and can no longer function normally. Some of the main risk factors for end-stage renal failure include diabetes and hypertension, two conditions which are generally becoming more prevalent in OECD countries. In the United States, diabetes and hypertension alone accounted for over 60% of the primary diagnoses for all ESRF patients (37% for diabetes and 24% for hypertension) (USRDS, 2008). When patients reach endstage renal failure, they require treatment either in the form of dialysis or through kidney transplants. Treatment in the form of dialysis tends to be more costly and results in a poorer quality of life for patients than a successful kidney transplant, because of the recurrent nature of dialysis.

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#### ☐ [Caesarean sections](#)

Rates of caesarean delivery (as a percentage of all live births) have increased in all OECD countries in recent decades. Reasons for the increase include reductions in the risk of caesarean delivery, malpractice liability concerns, scheduling convenience for both physicians and patients, and changes in the physician-patient relationship, among others. Nonetheless, caesarean delivery continues to result in increased maternal mortality, maternal and infant morbidity, and increased complications for subsequent deliveries (Minkoff and Chervenak, 2003; Bewley and Cockburn, 2002; Villar et al., 2006). These concerns, combined with the greater financial cost, raise the question of whether the costs of caesarean delivery may exceed the benefits.

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#### ☐ [Cataract surgeries](#)

In the past 20 years, the number of surgical procedures carried out on a day care basis has steadily grown in OECD countries. Advances in medical technologies, particularly the diffusion of less invasive surgical interventions, and better anaesthetics have made this development possible. These innovations have

improved effectiveness and patient safety. They also help to reduce the unit cost of interventions by shortening the length of stay. However, the overall impact on cost depends on the extent to which any greater use of these procedures may be offset by a reduction in unit cost, taking into account the cost of post-acute care and community health services.

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#### [Pharmaceutical consumption](#)

The consumption of pharmaceuticals is increasing across OECD countries not only in terms of expenditure (see Indicator 7.4 "Pharmaceutical expenditure"), but also in terms of volume (or quantity) of drugs consumed. One of the factors contributing to the rise in pharmaceutical consumption is the ageing of the population, which leads to growing demand for drugs to treat or at least control different ageing-related diseases. But the trend rise in pharmaceutical consumption is also observed in countries where the population ageing process is less advanced, indicating that other factors such as physicians' prescription habits or the degree of cost-sharing with patients also play a role.

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#### [Introduction](#)

Which areas of the health care system are providing value-for-money and which show opportunities for performance improvement? While ongoing national and international efforts, such as the Systems of Health Accounts, are providing better information on health care spending, information on the value that health care services create is still limited. Quality of care, or the degree to which care is delivered in accordance with established standards and optimal outcomes, is one of the key dimensions of value.

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#### [Avoidable admissions: respiratory diseases](#)

Asthma, a condition characterised by hyper-reactivity and chronic inflammation of the bronchial system, is the most common chronic disease in childhood, with increasing prevalence in recent decades. Childhood asthma prevalence in the United States has doubled to 9% since the 1980s (Moorman et al., 2007). Asthma persists to adulthood in at least 25% of children (Sears et al., 2003). Approximately 30 million people in the European region are affected by asthma (Masoli et al., 2004).

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#### ☐ [Avoidable admissions: diabetes complications](#)

Driven by the rise in obesity rates, diabetes has become one of the most important public health challenges of the 21st century. Over 150 million adults are affected worldwide, with the number expected to double in the next 25 years (King et al., 1998; IDF, 2006). Across OECD countries, prevalence is estimated to be more than 6% of the population aged 20-79 years in 2010 and ranges from less than 5% in Iceland, Norway and the United Kingdom to more than 10% in Mexico and the United States, (see Indicator 1.12 "Diabetes prevalence and incidence"). Diabetes is the leading cause of blindness in industrialised countries and the most common cause of end-stage renal disease in the United States, Europe, and Japan. Individuals with type II diabetes have a two-to-four times greater risk of cardiovascular disease (Haffner, 2000).

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#### ☐ [Avoidable admissions: congestive heart failure, hypertension](#)

Congestive heart failure (CHF), the inability of the heart to provide adequate circulation, is a severe condition with prevalence estimates of around 5% in Portugal and Denmark, and 3% in England (Ceia et al., 2002; Raymond et al., 2003; Davies et al., 2001). As the risk of developing heart failure increases with age and the presence of cardiovascular disease, prevalence rates for this disease are expected to increase substantially in the future.

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#### ☐ [In-hospital mortality following acute myocardial infarction](#)

Although coronary artery disease (CAD) remains the leading cause of death in most industrialised countries, mortality rates have declined since the 1970s (see Indicator

1.4 "Mortality from heart disease and stroke"). Much of the reduction can be attributed to lower mortality from acute myocardial infarction (AMI), due to better treatment in the acute phase. Care for AMI has changed dramatically in recent decades, with the introduction of coronary care units in the 1960s (Khush et al., 2005) and with the advent of treatment aimed at rapidly restoring coronary blood flow in the 1980s (Gil et al., 1999). This success is all the more remarkable as data suggest that the incidence of AMI has not declined (Goldberg et al., 1999; Parikh et al., 2009). However, numerous studies have shown that a considerable proportion of AMI patients fail to receive evidence-based care (Eagle et al., 2005). AMI accounts for about half of the deaths from CAD, with the cost of care for CAD accounting for as much as 10% of health care expenditures in industrialised countries (OECD, 2003a).

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#### [In-hospital mortality following stroke](#)

Stroke remains the third most common cause of death and disability in industrialised countries (WHO, 2002). Estimates suggest that it accounts for 2-4% of health care expenditure and also for significant costs outside of the health care system due to its impact on disability (OECD, 2003a). In ischemic stroke, representing about 85% of cases, the blood supply to a part of the brain is interrupted, leading to a necrosis of the affected part. In hemorrhagic stroke, rupture of a blood vessel causes bleeding into the brain, usually causing more widespread damage.

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#### [Unplanned hospital re-admissions for mental disorders](#)

The burden of mental illness is substantial. Schizophrenia and bipolar disorder are among the top ten causes of years lost due to disability at the global level (WHO, 2001).

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#### [Screening, survival and mortality for cervical cancer](#)

Cervical cancer is largely preventable. Screening by regular pelvic exam and pap smears can identify premalignant lesions, which can be effectively treated before the occurrence of the cancer. Regular screening also increases the probability of

diagnosing early stages of the cancer and improving survival (Gatta et al., 1998). The Council of the European Union and the European Commission promote population based cancer screening programmes among member States (European Union, 2003; European Commission, 2008c). OECD countries have instituted screening programmes, but the periodicity and target groups vary. In addition, the discovery that cervical cancer is caused by sexual transmission of certain forms of the Human Papilloma Virus has led to the development of promising cancer preventing vaccines (Harper et al., 2006). The efficacy and safety of those vaccines is now well established, but debates about cost-effectiveness and the implications of vaccination programmes for teenagers for a sexually transmitted disease continue in a number of countries (Huang, 2008).

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#### [Screening, survival and mortality for breast cancer](#)

Breast cancer is the most common form of cancer in women, with a lifetime incidence of about 11% and a lifetime mortality rate of about 3% in the United States (Feuer et al., 2003). One in nine women will acquire breast cancer at some point in their life and one in thirty will die from the disease. Overall spending for breast cancer care typically amounts to about 0.5-0.6% of total health care expenditure (OECD, 2003a).

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#### [Survival and mortality for colorectal cancer](#)

Colorectal cancer is the third most common form of cancer in both women (after breast and lung cancer) and men (after prostate and lung cancer). It is estimated that approximately USD 8.4 billion is spent in the United States each year on the treatment of colorectal cancer (Brown et al., 2002). Advances in diagnosis and treatment have increased survival over the last decades.

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#### [Childhood vaccination programmes](#)

Childhood vaccination continues to be one of the most cost-effective health policy interventions. All OECD countries or, in some cases, sub-national jurisdictions have

established vaccination programmes based on their interpretation of the risks and benefits of each vaccine.

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#### [Influenza vaccination for elderly people](#)

Influenza is a common infectious disease worldwide and affects persons of all ages. For example, on average, between 5% and 20% of the population in the United States contracts influenza each year (CDC, 2009b). Most people with the illness recover quickly, but elderly people and those with chronic medical conditions are at higher risk for complications and even death. Between 1979 and 2001, on average, influenza accounted for more than 200 000 hospitalisations and 36 000 deaths per year in the United States (CDC, 2009b). The impact of influenza on the employed population is substantial, even though most influenza morbidity and mortality occurs among the elderly and those with chronic conditions (Keech et al., 1998). In Europe, influenza accounts for around 10% of sickness absence from work, while the cost of lost productivity in France and Germany has been estimated to be in the range of USD 9.3 billion to 14.1 billion per year (Szucs, 2004).

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#### [Introduction](#)

This edition of Health at a Glance introduces a chapter on access to health care, building on recent OECD work in this area (de Loooper and Lafortune, 2009). Ensuring adequate access to essential health care services on the basis of individual need is an important health policy goal in all OECD countries. Monitoring health care access is, therefore, an important dimension in assessing the performance of health care systems.

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#### [Unmet health care needs](#)

Most OECD countries aim to provide equal access to health care for people in equal need. One method of gauging equity of access to services is through assessing reports of unmet needs for health care for some reason. The problems that patients report in getting care when they are ill or injured often reflect significant barriers to care.

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#### [Coverage for health care](#)

Health care coverage promotes access to medical goods and services, providing financial security against unexpected or serious illness, as well as improved accessibility to treatments and services (OECD, 2004c). Total population coverage (both public and private) is, however, an imperfect indicator of accessibility, since this depends on the services included and on the degree of cost-sharing applied to those services.

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#### [Burden of out-of-pocket health expenditure](#)

Financial protection through public or private health insurance substantially reduces the amount that people pay directly for medical care, yet in some countries the burden of out-of-pocket spending can still create barriers to health care access and use. Households that have difficulties paying medical bills may delay or forgo needed health care (Hoffman et al., 2005; May and Cunningham, in Banthin et al., 2008). On average across OECD countries, 18% of health spending is paid directly by patients (see Indicator 7.6 "Financing of health care").

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#### [Geographic distribution of doctors](#)

Access to medical care requires an adequate number and proper distribution of physicians across the country. Shortages of physicians in a geographic region can lead to increased travel times for patients and higher caseloads for doctors, which may result in increased waiting times to receive care. Measuring disparities in the "density" of physicians among regions within the same country gives some indication of the accessibility of doctor services. Regions, however, may contain a mixture of urban and rural populations, so that although a region may have high physician density, persons living in geographically remote areas of that region may still face long travel times to receive medical care. In addition, the services that physicians offer should match need, whether these are for GPs or specialists.

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#### [Inequalities in doctor consultations](#)

Measuring rates of health care utilisation, such as doctor consultations, is one way of identifying whether there are access problems for certain populations. Difficulties in consulting doctors because of excess cost, long waiting periods or travelling time, lack of knowledge or incentive may lead to lower utilisation, and in turn to poorer health status and increased health inequalities.

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#### [Inequalities in dentist consultations](#)

Dental caries, periodontal (gum) disease and tooth loss are common problems in OECD countries, variously affecting almost all adults and 60-90% of school children (see Indicator 1.10 "Dental health among children"). Despite great improvements problems persist, occurring most commonly among disadvantaged and low income groups. In the United States for example, almost 50% of low income persons aged 20-64 years had untreated dental caries in 2001-04, compared with only 20% of high income persons (NCHS, 2009). In Finland, onequarter of adults with lower education were found to have six or more missing teeth, while less than 10% of those with higher education had the same amount of tooth loss (Kaikkonen, 2007).

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#### [Inequalities in cancer screening](#)

Cancer is the second most common cause of death in OECD countries, responsible for 27% of all deaths in 2006. Among women, breast cancer is the most common form, accounting for 30% or more of new cases each year and 16% of cancer deaths in 2006. Cervical cancer accounts for an additional 5% of new cases, and 3% of female cancer deaths (see Indicator 1.5 "Mortality from Cancer").

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#### [Introduction](#)

This chapter presents an overview of the main indicators and characteristics of health spending and financing across OECD countries. The discussion starts with a comparison of overall health spending in terms of per capita expenditure and in relation to other macroeconomic variables, such as GDP. Current levels of spending as well as trends over recent years are presented, taking into account the likely impact of the economic slowdown on future health spending. As well as indicators of total spending, the chapter also provides

an analysis of the different types of health services and goods consumed across OECD countries, with a separate focus on pharmaceuticals as one of the main drivers of health spending growth over recent years.

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#### [Health expenditure per capita](#)

Differences in spending levels per capita reflect a wide array of market and social factors, as well as countries' diverse financing and organisational structures of their health systems.

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#### [Health expenditure in relation to GDP](#)

In 2007, OECD countries devoted 8.9% of their GDP to health spending (Figure 7.2.1). Trends in the health spending to GDP ratio are the result of the combined effect of trends in both GDP and health expenditure. Apart from a few countries (Hungary and the Czech Republic), health spending grew more quickly than GDP over the last ten years (see Figure 7.1.3 under the previous indicator). This has resulted in a higher share of GDP allocated to health (Figure 7.2.3). The share of health expenditure to GDP is likely to increase further, following the recession that started in many countries in 2008 and became widespread in 2009.

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#### [Health expenditure by function](#)

The allocation of health spending across the different types of health services and medical goods is influenced by a range of factors, including the availability of resources such as hospital beds, physicians and access to new technology, the financial and institutional arrangements for health care delivery, as well as by national clinical guidelines and the disease burden within a country.

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#### [Pharmaceutical expenditure](#)

Spending on pharmaceuticals accounts for a significant proportion of total health spending in OECD countries. Increased consumption of pharmaceuticals due to the diffusion of new

drugs and the ageing of populations (see Indicator 4.10 "Pharmaceutical consumption") has been a major factor contributing to increased pharmaceutical expenditure and thus overall health expenditure (OECD, 2008d). However, the relationship between pharmaceutical spending and total health spending is a complex one, in that increased expenditure on pharmaceuticals to tackle diseases may reduce the need for costly hospitalisation and intervention now or in the future.

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#### [Expenditure by disease and age](#)

Attributing health care expenditure by disease and age is important for health policy makers in order to analyse resource allocations in the health care system. The information provided can play an important role in assessing the impact of ageing populations and changing disease patterns on spending. It can also provide input into the modelling of future health care expenditures (Heijink et al., 2006). Furthermore, the linking of health expenditures by disease to appropriate measures of outputs (e.g. hospital discharges by disease) and outcomes (e.g. survival rates after heart attack or cancer) can provide useful input in monitoring the performance of health care systems at a disease-based level (AIHW, 2005).

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#### [Financing of health care](#)

All OECD countries use a mix of public and private financing of health care, but to differing degrees. Public financing is confined to government revenues in countries where central and/or local governments are primarily responsible for financing health services directly (e.g. Spain and Norway). It comprises both general government revenues and social contributions in countries with social insurance based funding (e.g. France and Germany). Private financing, on the other hand, covers households' out-of-pocket payments (either direct or as co-payments), thirdparty payment arrangements effected through various forms of private health insurance, health services such as occupational health care directly provided by employers, and other direct benefits provided by charities and the like.

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#### [Trade in health services \(medical tourism\)](#)

International trade in health services and one of its main components, medical tourism, have been attracting increasing attention from health analysts, the medical profession, public

health policy makers, and trade and tourism promotion agencies. Discussions on the opportunities and threats of such trade have been conducted with relatively little data to inform them.

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[Annex A. Additional Information on Demographic and Economic Context, Health System Characteristics, and Health Expenditure and Financin](#)

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[Annex B. List of Variables in OECD Health Data 2009](#)

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