

Germany

Healthcare report

(Forecast closing date: August 26th 2009)

Healthcare spending, international comparison

(% of GDP)

	2004 ^a	2005 ^a	2006 ^a	2007 ^b	2008 ^b	2009 ^c	2010 ^c	2011 ^c	2012 ^c	2013 ^c
Germany	10.6	10.7	10.4	10.5	10.6	10.6	10.6	10.6	10.6	10.6
US	15.2	15.2	15.3	15.8	16.1	16.3	16.0	16.2	16.2	16.2
Japan	6.4	6.5	6.5	6.7	6.8	7.0	7.2	7.3	7.5	7.7
China	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
France	11.0	11.2	11.1	11.1	11.0	11.2	11.3	11.3	11.3	11.3

^a Actual. ^b Economist Intelligence Unit estimates. ^c Economist Intelligence Unit forecasts.

Source: Economist Intelligence Unit.

Overview Germany spent an estimated 10.6% of GDP on healthcare in 2008, a proportion only exceeded by the US, Switzerland and France. Germans had an estimated life expectancy at birth of 79 years in 2007, which was nearly one year lower than in France, Italy or Spain, but higher than in the UK. Life expectancy was an estimated 82.1 years for women and 76 years for men. Infant mortality rates are among the lowest in Europe. The proportion of the population aged 65 or older is likely to exceed one in five by the end of the forecast period. This will push up demand for treatments for conditions related to old age and for old-age care. At the same time, demand is likely to continue to increase for so-called lifestyle drugs and treatments, which are becoming more widely accepted.

Income and demographics

	2004 ^a	2005 ^a	2006 ^b	2007 ^b	2008 ^b	2009 ^c	2010 ^c	2011 ^c	2012 ^c	2013 ^c
Nominal GDP (US\$ bn)	2,748.9	2,791.0	2,919.5 ^a	3,328.2 ^a	3,670.3	3,097.3	3,156.7	3,356.0	3,529.1	3,719.3
Population (m)	82.5	82.5	82.5	82.6	82.7	82.8	83.0	83.0	83.1	83.2
GDP per head (US\$ at PPP)	29,932	30,456	32,383	33,583	34,680	32,991	32,875	33,784	34,584	35,828
Private consumption per head (US\$)	19,638	20,006	20,624	22,765	24,954	23,079	23,889	25,029	26,270	27,603
No. of households ('000)	39,122	39,274	39,515	39,684	39,848	39,958	40,068	40,179	40,290	40,401
No. of households with annual earnings above US\$5,000 ('000)	39,122	39,274	39,515	39,684	39,848	39,958	40,068	40,179	40,290	40,401
No. of households with annual earnings above US\$10,000 ('000)	39,122	39,274	39,515	39,684	39,848	39,958	40,068	40,179	40,290	40,401
No. of households with annual earnings above US\$50,000 ('000)	13,256	13,753	14,358	16,998	19,570	17,639	18,597	19,723	20,969	22,237
No. of households with net wealth over US\$1m ('000)	174 ^b	156 ^b	237	331	268	169	188	226	263	306

^a Actual. ^b Economist Intelligence Unit estimates. ^c Economist Intelligence Unit forecasts.

Source: Economist Intelligence Unit.

Spending. More than three-quarters of German health spending is public, slightly more than the proportion spent by Italy, but less than in France, and considerably less than in the UK. The majority of the German population is covered by the public health insurance system. According to the most recent

figures, just 8.6m people were covered purely by private healthcare insurance in 2007, while the public system covered some 73m people. Pressure on public finances will lead to continued privatisation of publicly owned hospitals, leading to further growth of the major private hospital operators. Incentives to strive for cost-effectiveness have traditionally been weak and have only recently been given greater weight. Specifically, the long duration of hospital visits is a key factor explaining the high expenditure in Germany, although this may gradually change following the introduction of the new diagnosis-related reimbursement system. Even after the most recent reforms, incentives for patients to keep costs at a minimum remain weak. Spending on drugs as a share of total healthcare expenditure stood at 18.8% in 2007, up from 13.4% ten years before.

Germany's public system, which covered some 73m people in 2007, consists of hundreds of competing, not-for-profit insurance funds. The most important of these are local insurance funds, the Allgemeine Ortskrankenkassen (AOK), which count 31% of the population as their members. The *Statistical Yearbook* published by the Federal Statistical Office (Statistisches Bundesamt—Destatis) shows that the number of public insurance funds declined substantially in the 1990s, from 1,135 in 1991 to 248 in 2007, mainly because of the introduction of competition between funds in 1996, which forced consolidation in the sector. There is also continued pressure from the government on the insurance funds to consolidate in order to reduce administrative costs.

The public system is largely financed by contributions deducted from wages, with the remainder—some 5% of total revenue of the public health insurance system in 2006, according to the *Statistical Yearbook*—coming from government subsidies and from patient co-payments. The contributions, which can differ substantially between individual funds, are calculated as a fixed share of gross wages up to a certain level (up to an annual income of €44,100 in 2009). Until July 2005 the contributions were shared equally between employers and employees. Since then insurance members pay 0.9% of wages separately, and the rest of the contribution is shared equally between employees and employers. The *Statistisches Taschenbuch* of the Ministry of Health shows that average contributions as a share of gross wages rose from 13.1% in 1995 to 14.9% in 2008. From 2009 a general rate of 15.5% will be charged.

The governing left-right grand coalition of the Christian Democratic Union/Christian Social Union (CDU/CSU) and the Social Democratic Party (SPD) pushed the most recent major health reform through parliament in 2007. The reforms introduced a health insurance fund in which all public health insurance revenue—both from individual contributions and from the federal government—is pooled. The fund became operational in 2009 and makes payments to the numerous public health insurance organisations, varying according to the number, health status and age of their members. If a public health insurance organisation runs a deficit, it can raise additional fees from its members, whereas a public insurance provider running a surplus can reimburse its members. In theory, the reforms will inject more competition into the healthcare system by allowing individuals to choose a health insurance fund based on these additional membership fees. In practice, however, the

impact of the change is likely to be limited, especially as the additional fee is limited to a maximum of 1% of gross income of the insured household.

In the medium term an increasing share of healthcare expenditure may be financed through regular taxes via the federal government budget. Smaller-scale initiatives to dampen the increase in healthcare spending are also likely to continue. Such changes are more likely to be implemented if, as appears increasingly likely, a centre-right coalition replaces the current coalition at the general election on September 25th.

Recently introduced reforms put in place a number of additional financing sources. Most importantly, the reforms increased co-payments towards the cost of medicines to 10% (up to a threshold of €10 per prescription) and introduced co-payments for medical treatment and hospital visits, of 10% up to certain thresholds, and for consultations with doctors (€10 for the first consultation per quarter, with no additional payments for further visits in the same quarter). In an attempt to make patients more cost-conscious, some of the restrictions on incentive programmes by health insurance funds have been lifted (although such restrictions remain substantial). Funds can now offer their members programmes with lower contributions in exchange for committing themselves to be treated only by specific low-cost providers or to participate in a gatekeeper system, in which patients cannot go directly to expensive specialists, but have to seek a referral from a general practitioner. In addition, government subsidies to the public healthcare insurance system have been increased, financed by a rise in tobacco taxes in 2004 and 2005.

To be allowed to treat patients covered by the public health insurance system, doctors must participate in a regional contract between doctors and health insurance funds. These contract doctors are organised in regional groupings (Kassenärztliche Vereinigung–KV). The KV has the regional monopoly to negotiate fees with the public health insurance funds. There had been plans to allow health insurance funds to negotiate separate contracts with individual providers to increase competition, but these have been shelved. Access for new doctors to the KV system is strictly controlled in order to limit their numbers, a practice designed for the benefit of doctors rather than patients. The funds also negotiate payments for in-patient treatment with hospital organisations.

After a transition period, which ended in early 2004, hospital payment has been shifted from a per-day fee to a diagnosis-related group (DRG) model, as pioneered in Australia. Under the DRG system, the fee per patient no longer depends on the number of days spent in hospital, as before, but on the disease treated. It is hoped that this will reduce the average number of days patients spend in hospital, which is exceptionally high in Germany in an international comparison.

A separate mandatory insurance system for old-age care was introduced in 1995. Although it is possible to take out private insurance for people with higher incomes and the self-employed, the overwhelming majority participate in the public system. In 2007 there were around 2m old-age care recipients. Because initially contributions were paid without immediate access to benefits, a small reserve was built up. However, expenditure has been higher than revenue since

2000, running down the reserves. In response, in July 2008 the government implemented an increase in contribution rates of 0.25 percentage point, to 1.95% of gross wages. Additionally, since the start of 2005 employees without children have had to pay an extra contribution of 0.25% of their gross wages. This strengthened the finances of the old-age care system, which will nevertheless remain precarious in the long term, particularly given demographic changes.

Healthcare: key indicators

	2004 ^a	2005 ^a	2006 ^a	2007 ^b	2008 ^b	2009 ^c	2010 ^c	2011 ^c	2012 ^c	2013 ^c
Life expectancy, average (years)	78.5	78.7	78.8	79.0	79.1	79.3	79.4	79.5	79.7	79.8
Life expectancy, male (years)	75.6	75.7	75.8	76.0	76.1	76.3	76.4	76.5	76.7	76.8
Life expectancy, female (years)	81.7	81.8	82.0	82.1	82.3	82.4	82.6	82.7	82.8	83.0
Infant mortality rate (per 1,000 live births)	4.2	4.2	4.1	4.1	4.0	4.0	4.0	3.9	3.9	3.8
Healthcare spending (€ bn)	234	240	242	255	265	241	241	251	258	268
Healthcare spending (% of GDP)	10.6	10.7	10.4	10.5	10.6	10.6	10.6	10.6	10.6	10.6
Healthcare spending (US\$ bn)	291	299	304	349	389	328	335	356	374	394
Healthcare spending (US\$ per head)	3,533	3,620	3,680	4,225	4,700	3,965	4,034	4,287	4,504	4,741
Healthcare (consumer expenditure; US\$ bn)	77	77	79	88	95	90	93	97	102	107
Doctors (per 1,000 people)	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Hospital beds (per 1,000 people)	8.6	8.5	8.3	8.1	8.0	7.8	7.7	7.5	7.4	7.3

^a Actual. ^b Economist Intelligence Unit estimates. ^c Economist Intelligence Unit forecasts.

Source: Economist Intelligence Unit.

Policy. Most hospitals are not profit-oriented. In 2007, 45.3% of all hospital beds were run by either local, regional or other public authorities (down from 53.6% in 2003). Religious organisations and other charities operate 33.1% of beds, with private companies operating just 13.9%. Overall, there are 587 public, 678 charitable and 526 private-sector (mostly for-profit) hospitals. The share of private hospitals in total beds and their number of beds is rising, while the total number of beds has fallen, from 817,692 in 1991 to 506,954 in 2007. Nevertheless, the number of beds remains high by international standards, and the number of acute-care beds per 1,000 residents, at 6.1 in 2007, was the second-highest in the OECD after Japan, and far above the OECD average of 3.9 (although differences in definition may affect the data). Consequently, capacity is likely to be reduced further. Although tight public finances in the first half of the current decade meant that necessary renovations in public hospitals were delayed, the quality of hospital infrastructure remains high, and patients do not normally have to wait for treatment.

The number of private hospital operators is growing, as a more market-driven dimension is being introduced to the public hospital system. An important step in this direction was the privatisation in 2006 of 95% of the merged university hospitals of Giessen and Marburg—the first privatisation of a university hospital in Germany. The remaining 5% is still in state hands. The Giessen-Marburg university hospital was purchased by the biggest private hospital operator, Rhön-Klinikum, which is the only operator to be listed on the stock exchange and which ran 48 hospitals as of March 2009. However, the expansion of the large German private hospital chains may be halted on competition grounds—in a recent case the Federal Cartel Office in effect blocked the takeover of two regional hospitals by Rhön-Klinikum, arguing that the company already had a market-dominating position in that region.

Restrictions on pharmacy branch networks (at present, ownership of more than three pharmacy outlets is banned) will probably be reduced only slowly. Pressure on the pharmaceutical industry to end its restrictive distribution regime is growing.

The largest public health insurer in Germany in terms of policy-holders is the Allgemeine Ortskrankenkasse (AOK), with several separate regional organisations. Others include Barmer (BEK), Deutsche Angestellten-Krankenkasse (DAK) and Techniker Krankenkasse (TKK). Leading private health insurers include Allianz Private Krankenversicherung, which was known until recently as Vereinte Krankenversicherung and which is part of the Allianz group, Germany's biggest insurance company. Other private health insurance companies include DBV-Winterthur, part of the Credit Suisse Group.

Allianz Private Krankenversicherung: www.vereinte.de

Deutsche Krankenhausgesellschaft (DKG), organisation of all main groups of hospitals: www.dkgev.de

Kassenärztliche Bundesvereinigung (KBV), the federal-level organisation of doctors under contract to the public health insurance system: www.kbv.de

Ministry of Health (BMG): www.bmg.bund.de

OECD: www.oecd.org

World Health Organisation (WHO): www.who.org

Pharma and biotech

In 2007 the revenue of German pharmaceutical companies equalled €31.1bn, with 56% (or €17.6bn) of this coming from exports. In 2008, according to the industry association, Bundesverband der Pharmazeutischen Industrie (BPI), the domestic market for pharmaceuticals was worth an estimated €32bn (US\$47bn). This included nationally made products and imports, and makes it the third-largest in the world. The industry consisted of 1,031 companies in 2007, including 395 biotechnology companies. Most companies are small, with fewer than 100 employees. The domestic pharmaceutical industry employed around 127,036 people in 2007, with just over three-quarters working for research-based companies. Companies benefit from the large population and relatively high income levels. In addition, incentives for keeping costs down remain small.

Pharmaceutical sales

	2004 ^a	2005 ^a	2006 ^a	2007 ^b	2008 ^b	2009 ^c	2010 ^c	2011 ^c	2012 ^c	2013 ^c
Pharmaceutical sales (US\$ m)	40,156	40,904	41,667	42,584	46,971	42,245	43,151	44,573	46,320	48,143

^a Actual. ^b Economist Intelligence Unit estimates. ^c Economist Intelligence Unit forecasts.

Source: Economist Intelligence Unit.

Demand. As is the case in most countries, demand for pharmaceuticals has risen strongly over time, driven by the widening range of products and treatments, some of which are costly. Pharmaceutical expenditure will be boosted by this factor, as well as by the ageing of the German population. In the short term, recessionary effects will dampen expenditure, while US dollar

figures will also be affected by currency shifts, but spending is expected to recover towards the end of the forecast period.

Prices for pharmaceutical products sold to the public healthcare insurance system have been broadly stable in recent years, and have actually declined from their 1994 level, according to the Association of Research-based Pharmaceutical Companies (Verband Forschender Arzneimittelhersteller–VFA), reflecting government measures to reduce pharmaceutical expenditure. These also include measures to encourage parallel imports. According to a study undertaken by the Norwegian Association of Pharmaceutical Companies, German pharmaceutical prices are average by European standards.

Over-the-counter (OTC) drugs will no longer be paid for by the public health insurance system (a provision that may lead to some substitution of OTC products by prescription drugs where this is possible). Past reforms, the implementation of which is still ongoing, will also continue to limit growth in the market. A healthcare reform act in effect since 2004 will continue to reduce the consumption of assorted medicines. The abolition of price controls for OTC drugs has started to lead to downward pressure on prices for these drugs. Experience from the liberalisation of OTC drugs in the UK suggests that lower prices will not lead to a substantial increase in demand. In fact, demand for these goods will suffer from the decision.

Item	Price (US\$)	% of monthly personal disposable income	Affordability rank
Aspirins, 100 tablets (supermarket)	26.14	1.07	25 out of 57
Routine check-up at family doctor (av)	84.62	3.46	8 out of 57
One X-ray at doctor's office or hospital (av)	92.31	3.77	14 out of 58
Visit to dentist, one X-ray and one filling (av)	154	6.29	9 out of 58

Note. Affordability rank: for each country the price of an item as a percentage of monthly personal disposable income is calculated. Countries are ranked according to these percentages. The most affordable country will have the lowest percentage and be ranked first.

Supply. Compared with the US and the UK, the German pharmaceutical industry is fragmented, and 94.1% of the pharmaceutical companies have fewer than 500 employees. Clusters for biotechnology exist in Munich, Heidelberg and Cologne, and companies in this sector have benefited from government support, although government regulations, for example regarding the use of stem cells, remain restrictive. Leading bio-technology companies include Munich-based MorphoSys, which focuses on the development of therapeutic antibodies, and Lion Bioscience.

Parallel imports (imports of domestically manufactured products that can be purchased at cheaper prices in foreign markets), resulting from the attempts by health insurance companies to reduce spending on pharmaceuticals, have become more and more important in Germany. The overall market share of parallel imports in pharmaceutical sales increased from less than 2% in 1998 to more than 9% in 2007.

German drug companies, once a dominant force, have become less and less significant on the world stage in recent years, having failed to take part in the round of consolidation that has characterised the sector. Significant

consolidation occurred in June 2006, however, when Bayer, a chemicals and pharmaceutical group (its healthcare division had turnover of €15.4bn in 2008), acquired a German drug-maker, Schering, for €17bn, after a struggle with Merck. The merger created the largest German drug company, edging out Boehringer Ingelheim (group turnover of €11bn in 2007). The largest pharmaceutical company active in Germany is Sanofi-Aventis, a group formed from the hostile takeover of Franco-German Aventis by a French company, Sanofi-Syntélabo. Aventis itself was the result of a merger in 1999 between Rhône-Poulenc (France) and the pharmaceutical branch of Hoechst (Germany). Sanofi-Aventis reported worldwide sales of €27.6bn in 2008.

In 2007 members of the VFA spent €4.5bn on research and development (R&D). Germany also accounted for 9% of global new patents for pharmaceuticals based on genetic technology in 2007, far less than the US (42%), and also trailing Japan (15%).

The distribution of medicine in Germany is quasi-cartelistic, and pressure for liberalisation is growing. The European Commission said in October 2006 that it would bring Germany before the European Court of Justice to force it to end restrictions determining which pharmacists can supply hospitals with drugs. The decision came two months after the ruling of a German regional court that a Netherlands-based drug supplier could continue operating; the court based its decision on EU rules on freedom of movement by businesses. Still, many OTC drugs can only be sold by pharmacies. In 2006, 77.6% of the value of medicines sold by pharmacies were drugs that had to be prescribed by a doctor, while 22.4% did not need a prescription. At the beginning of 2004 a ban on pharmacies with more than one branch was lifted, but pharmacies still cannot have more than three branches, so major consolidation in the sector is unlikely.

Bundesverband der Pharmazeutischen Industrie (BPI): www.bpi.de

European Federation of Pharmaceutical Industries and Associations (EFPIA): www.efpia.org

Sanofi Aventis: www.sanofi-aventis.com

Verband Forschender Arzneimittelhersteller (VFA): www.vfa.de

Generics The focus of the pharmaceutical industry in Germany is on new patented drugs, rather than on generics. Nevertheless, Germany has a well-developed market for generic drugs, which accounted for over 55% of pharmaceutical sales by volume in 2007, according to the European Generic Medicines Association (EGA). This is largely thanks to competitive pricing and procurement policies as well as a streamlined approval process, although the EGA complains that a more coherent generics strategy is needed to reap fuller cost savings.

Demand. A health reform package, introduced in 2004, gave incentives for pharmacies to offer generic drugs. Pharmacists are now obliged by law to substitute a cheaper generic product approved by the insurer, unless the doctor specifies otherwise. The market for over-the-counter (OTC) drugs was probably weakened by the fact that public health-insurance funds have stopped paying for them. In addition, prices for these products are no longer fixed, which is

likely to lead to increased competition. Meanwhile, patients themselves are becoming more cost-conscious because they have to pay part of the price of their medicine up to a limit of €10 per prescription.

Supply. The market share of generic drugs will also be strengthened from the supply side—the patents on a number of high-selling branded products are due to expire during the forecast period.

Sandoz, a subsidiary of Switzerland's Novartis, is one of the world's biggest generics producers and is based in Holzkirchen, south of Munich. Sandoz, which expanded in 2005 by buying compatriot Hexal and Eon Labs of the US, reported generic sales of US\$7.6bn in 2008 and employs more than 23,000 people in 130 countries.

Merck KGaA, not to be confused with Merck & Co of the US, which had been building a presence in the generics market, sold its generics subsidiary in 2007 and is no longer a market supplier of generics.

Diseases Germany's relatively high spending on healthcare is partly the result of lifestyle factors. For example, alcohol and cigarette consumption is relatively high, leading to a greater incidence of liver problems and lung cancer

Since the emergence of a new, highly contagious strain of influenza, A(H1N1), also known as swine flu, in Mexico in early 2009, the disease has spread quickly throughout the world, resulting in the World Health Organisation declaring it to be a global pandemic. A(H1N1) is becoming increasingly prevalent in Germany and as of the end of July 2009, 5,324 cases had been recorded according to the British Broadcasting Corporation (BBC), although no one had died from the illness. The authorities are bracing for a sharp increase in cases in September, when flu levels normally rise owing to colder weather and the reopening of schools after the summer break.

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