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Germany is Europe's largest spender on drugs

German health care: a bit of Bismarck plus more science

Germany's health system provides good access to care for all patients. But, as **Peter Sawicki** and **Hilda Bastian** explain, it is increasingly turning to science to determine what is good value

Germany was the first country to develop a national system to insure people against medical costs. It was in 1883 that one of the most conservative of politicians, Otto von Bismarck, laid down the first foundation slab for the modern European welfare state. Scientific and medical research was a pillar of Germany's economic and industrial development strategy from that time as well. These policies and structures helped develop an advanced, highly medicalised, and technological healthcare system. In recent decades, a combination of wealth and strong social welfare infrastructure has insulated Germany from having to ask too many hard questions about the value of one of the world's most expensive healthcare systems. This article looks at the challenges of maintaining the legacy of access to health care for all, a growing commitment to patient empowerment, and the changing role of evidence in western Europe's most populous country.

Universal access to all necessary health care

The roots of Germany's commitment to universal access to health care are deep. It was clear to Bismarck and his contemporaries that the only way to protect individuals from catastrophic health problems was if the whole community shouldered the risk. They could not have foreseen, though, just how expensive health care was going to become 125 years later. Back then, medical insurance was politically the easiest of the social security planks to achieve.¹

German Institute for Quality and Efficiency in Health Care (www.iqwig.de)

- Evaluates evidence for national decision making on policy and reimbursement and for health information for the general public
- It is established by legislation, but is independent of both government and the health service and funded through statutory health insurance
- Professional, community, and industry representatives are involved in assessments, with public consultation at various stages
- Products or interventions are assessed after they have already been introduced into the healthcare system
- The institute provides recommendations based on evidence but decisions are taken by the federal joint committee and health ministry
- The institute monitors published systematic reviews and health technology to identify developments of potential interest for patients and the general public
- It is also developing methods for evaluating clinical practice guidelines and assessing the relation between costs and benefits
- The institute differs from NICE in three main ways: it evaluates evidence but does not take the ensuing decision (which is usually the role of the federal joint committee); its remit in informing the general public is not limited to the areas of its evidence assessments; and it does not develop clinical practice guidelines

Fast forward to 2008, and the costs of statutory health insurance are now split roughly 50:50 between employers and employees, with the government paying for coverage of welfare recipients. Statutory insurance covers over 90% of the population. The remainder are covered by private insurance. Cost control in health has become one of the country's most heated political issues. In 2007, the latest major reform proposals ignited doctors' strikes and street protests by health insurance employees.² The doctors were concerned about additional bureaucratic requirements eating into their already limited time for patients and perceived threats to clinical freedom. Insurance employees feared job

losses from restructuring and amalgamations. There were negotiations for legislative amendments right to the final hours of parliamentary debate.

It is not the insurance system itself that is so heavily contested. Germans definitely want their social health protection to continue, and with good reason. Comparative analysis has suggested that statutory health insurance systems such as those in Germany, France, and the Netherlands produce better responsiveness, equity, and life expectancy than taxation based systems, although at greater cost.^{3,4} In Germany, most decisions about health policy and many key reimbursement decisions are made by the federal joint committee, which represents the providers (particularly doctors and hospitals), statutory insurers, and recently patients.⁵ The ministry of health has only a legal oversight function. This keeps health policy in the hands of the health system rather than government, although the dispersal of power among competing stakeholders ensures constant dynamic negotiation. The Institute for Quality and Efficiency in Health Care (IQWiG), established in 2004, provides evidence assessments to support decisions (box).

Table 1 | Access to health care reported by sicker patients in three countries, 2005⁷

	Percentage of patients		
	Germany	UK	US
Able to get appointment to see doctor the same day	56	45	30
Waited >4 weeks for specialist appointment	22	60	23
Waited >4 months for elective surgery	6	41	8
Went to emergency room for condition that could have been treated by the regular doctor	6	12	26
>\$1000 out of pocket for medical bills in past year	8	4	34



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German doctors take to the streets to protest against attempts to cut costs**Table 2 | Health expenditure in selected OECD countries, 2005^{8,9}**

	Germany	France	UK	Netherlands	Sweden	Czech Republic	Switzerland	US
% GDP on health	10.7	11.1	8.3	9.2	9.1	7.2	11.6	15.3
% public share	77	80	87	NA	82	89	60	45
Per capita expenditure (\$)	3287	3374	2724	3094	2918	1479	4177	6401
Average earnings hospital doctors (including juniors) in 2002 (\$PPP)*	56 455	116 077	127 285	175 155	56 816	NA	NA	267 993
Average earnings for primary care doctors in 2002 (\$PPP)*	71 443	67 221	102 964	92 964	61 221	NA	NA	151 682

OECD=Organisation for Economic Cooperation and Development, GDP=gross domestic product, PPP=purchasing power parity.

*Highest reported average estimate, OECD data.

Medical care and costs

The law is clear on the expectations for German health care: "The insured are entitled to care when it is necessary to detect an illness, to heal, to protect against worsening of the condition or to relieve symptoms."⁶ The system privileges access: patients have traditionally had direct free choice of doctors and hospitals. Access to care is comparatively good (table 1).⁷ General practitioners do not act as gatekeepers to the system. However, some statutory insurers now offer financial incentives for patients to sign on exclusively with one doctor, including waiver of user charges for the patient and annual per capita payments for the doctor.

Germany has one of the highest per capita expenditures on health in the Organisation for Economic Cooperation and Development (OECD) (table 2).⁸⁻¹⁰ However, incomes for general practitioners and hospital based doctors are low considering that hospital workloads and general practitioners' working hours are higher than in some comparable countries and increasing.^{2,9} Germany has more privately practising specialists than general practitioners, and their average net income was around €160 000 (£124 000; \$217 000) in 2003.¹¹ Reimbursement for

primary care services has recently been increased.

German general medical practices lack practice managers so doctors spend an excessive amount of time on administration.² With some of the highest caseloads in Europe and no payment structure for longer consultations, German general practitioners spend less than eight minutes on average with a patient.¹² A comparison of several European countries found Germany had the shortest consultation times, and it was directly related to the high caseload. The German consultation is almost 30% shorter than the European average, and less than half the length of time available in the countries with the longest consultation times surveyed (Belgium and Switzerland).¹² German patients visit their doctors frequently but do not have enough time for real discussion.¹² The squeeze on time for direct patient care is a major source of frustration for patients and doctors and was a central issue in the recent doctors' strikes.²

Drug use and costs

Germany generally pays the highest prices for drugs in Europe, and it also has the most new drugs available.^{13 14} Together with the size of

the population (over 80 million), this makes Germany Europe's largest spender on drugs. Most drugs are publicly reimbursed immediately after European regulatory approval—and at whatever price industry has set. Germans use more over the counter products than people in other European countries and the United States but fewer prescription drugs than some.¹³ There is also heavy use of publicly reimbursed complementary medicines, including homoeopathy and herbal products.

Several measures have been introduced to try to contain drug costs, although it is too soon to judge the effect. And the bar on what constitutes proof of benefit is also being raised. IQWiG requires evidence of superiority based on outcomes relevant to patients. In 2007, the social legislative code was amended to allow insurance funds to set maximum drug prices and negotiate prices with industry. It also enables IQWiG to assess cost effectiveness. But after decades of almost boundless access to drugs, many people find it difficult to accept limits. A decision to limit the reimbursement of short acting insulin analogues because they were more expensive than regular insulin without evidence of superior benefit led to a protest outside the IQWiG building. And a finding

Table 3 | OECD healthcare quality indicators in selected countries^{8,16}

	Germany	France	UK	Netherlands	Sweden	Czech Republic	Switzerland	US
Life expectancy (2004):								
Female	81.9	83.8	81.0	81.4	82.7	79.2	83.8	80.4
Male	76.5	76.7	76.8	76.9	78.4	72.6	78.7	75.2
Mortality (per 100 000):								
Breast cancer	24.5	23.5	26.0	27.7	19.6	25.5	23.0	22.0
Cervical cancer	2.5	1.8	2.5	1.8	2.4	5.4	1.6	2.2
Colorectal cancer	20.5	17.8	17.9	20.3	17.2	33.9	14.2	16.3
Asthma (5-39 years)	0.16	0.30	0.49	0.11	0.12	0.10	0	0.33
% of smokers	24.3	23.0	24.0	31.0	15.9	24.3	26.8	16.9
Surgery for femoral fracture within 48 hours of admission (%)	82.2*	NA	61.5	79.6	92.6	44.4	NA	NA

*Data from Bundesgeschäftsstelle Qualitätssicherung.¹⁸

that clopidogrel monotherapy for secondary prevention of vascular diseases had superior benefit for only one indication led to major industry pressure at the highest political levels in Germany.¹⁵

Health status and quality of care

According to a European Union survey in 2006, Germans perceive their general health status to be roughly similar to that reported by people in France and the UK: 74% rate their health as good or very good.¹⁶ Germany performs relatively well in the OECD's indicators of quality of health care (table 3).^{17,18}

Patients are relatively satisfied with their choice of surgeon, but they report more problems with discharge planning than in several English speaking countries.¹⁹ This reflects the historically rigid separation of responsibilities between hospitals and the community sector within the German healthcare system.

In 2005, Germans had a life expectancy just over the OECD average.⁸ After the fall of the Berlin wall in 1990, Germany faced the challenges of integrating two large countries with very different healthcare and political systems and different lifestyles. Initially, life expectancy rates in the east worsened but then improved substantially. Although the gap between east and west has narrowed, it has not been eliminated. Addressing regional disparities remains an important priority.

Strengthening patients' rights and knowledge

Germany has comparatively good patient advisory systems, although it has less public involvement at the societal decision making levels and does fewer patient surveys than the UK.²⁰ There are between 70 000 and 100 000 self help groups in Germany.²¹ They attract considerable public funding, although there is concern that industry influence on these groups is increasing.²²

Major self management strategies have developed and flourished. Models for training and support for flexible self management of

diabetes have been copied by other countries, including the UK,²³ and self management of drugs such as oral anticoagulants is also well established. Patient training programmes in several chronic diseases have been supported by the statutory health insurance.

In 2004, a parliamentary post of federal commissioner for patients' issues was established as a critical element in Germany's commitment to strengthening patients' rights and autonomy. In 1999, a survey found that only one in four people were aware of key rights. In 2002, after a national patients' charter was released, almost 43% of people surveyed had heard of it.²¹ Rights at the end of life are one of the features of this charter, and the number of living wills subsequently increased in Germany: around 10% of adults have now deposited living wills.²⁴ The patients' rights charter was further developed in 2005,²⁵ and now the possibility of legislation on patients' rights is being discussed. Important gaps remain in Germany's patients' rights infrastructure, however. For example, there is no nationwide independent complaints mechanism for the health service.

German patients report similar levels of dissatisfaction and concern with communication with their doctors as do patients in English speaking countries, and many would like more information and a more active role in their health care.^{7,21} One of IQWiG's roles is to provide information to support personal evidence based decisions. The goal is to achieve a reasonably comprehensive evidence based health encyclopaedia by 2012. IQWiG's health information is online in both German (www.gesundheitsinformation.de) and English (www.informedhealthonline.org), and it has been incorporated in the NHS Choices and NHS Direct websites. The French health authority also intends to translate some of the institute's health information.

More evidence based system

Central to German reform is encouraging more rational healthcare choices. That

applies both to national funding decisions and to the individual choices made by patients and doctors. At a national level, this means becoming more deliberative about which interventions are truly necessary—and how much they are worth. Inferior treatments can now be rejected and the scope for negotiating prices for both superior and non-superior treatments has been expanded. For individuals, a key focus is providing patients with the knowledge needed to make informed personal choices. For each of these strategies, the science of evaluating health care provides an essential knowledge base and ground rules, and the term “evidence based medicine” is a prominent new feature in the social legislative code. The establishment of IQWiG was pivotal here.^{26,27}

What needs to happen

Ultimately, however, this is unlikely to be enough. The current system does not require all drugs and technologies to be assessed for clinical superiority and value before they enter use. Germany is constantly, in effect, trying to close the stable door after the horse has bolted. The health and social price for that is high. Some industry and other interest groups inevitably put considerable effort into fanning patients' and doctors' fears of cost cutting and causing enough pressure to prevent loss of access to available treatments. In our view this social unease is unnecessary. Given Germany's economic strength, the country can afford high quality universal health care. Artificially capping expenditure is not an urgent necessity.

Germany cannot, however, continue indefinitely paying higher prices for new treatments that do not offer better outcomes. At the same time, there remains too little appreciation of the fact that every new technology does not necessarily represent progress, and interventions of inferior effectiveness expose patients to the risk of inferior outcomes. Two key requirements to change this are more

independent critical evaluation and better public understanding of the realities of what achieves good and poor health outcomes.

Importantly, Germany nurtured a system where public hospitals should serve as centres of excellence where innovations can be carefully shepherd into practice and monitored. This remains an important approach to ensuring continuing innovation. However, it needs to be accompanied by a much greater investment in clinical research and monitoring of outcomes. Rushing high priced products into the market on the basis of surrogate outcomes is commercially profitable but can result in significant harm to patients. More independent evaluation of healthcare interventions is needed that focuses on what patients and clinicians care about and need to know.

For knowledge to translate into better informed decisions, the evidence has to be readily accessible to patients as well as doctors and other health professionals. Just as vitally, they need to have the time to consider it and discuss it with each other. Germany has developed a healthcare system that can provide universal access, but the challenges now are to optimise health outcomes and ensure the system's sustainability. This will mean placing a higher premium on clinicians' time and knowledge. A lot of science and considerable political commitment will be necessary to sustain Bismarck's legacy of social protection for health care.

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- Hennock EP. *The origin of the welfare state in England and Germany, 1850-1914: social policies compared*. Cambridge: Cambridge University Press, 2007.
- Nowak D. Doctors on strike—the crisis in German health care delivery. *N Engl J Med* 2006;355:1520-2.
- Van der Zee J, Kroneman MW. Bismarck or Beveridge: a beauty contest between dinosaurs. *BMC Health Serv Res* 2007;7:94.
- Irvine B, Green DG. Social insurance—the right way forward for health care in the United Kingdom? *BMJ* 2002;325:488-90.
- Gemeinsame Bundesausschuss (Federal Joint Committee). *The German health care system and the Federal Joint Committee*. Bonn: GBA, 2007. www.g-ba.de/institution/sys/English.
- Bundesministerium der Justiz. *Sozialgesetzbuch (SGB) Fünftes Buch (V)—Gesetzliche Krankenversicherung*. [Social law, 5th book, statutory health insurances] 2008. http://bundesrecht.juris.de/sbg_5.
- Schoen C, Osborn R, Huynh PT, Doty M, Zapert K, Peugh J, et al. Taking the pulse of health care systems: experiences of patients with health problems in six countries. *Health Aff (Millwood)* 2005 Jul-Dec (suppl web exclusives):w5-509-25.
- Organisation for Economic Cooperation and Development. *OECD health data 2007*. Paris: OECD, 2007.
- Bramley-Harker E, Barham L. *Comparing physicians' earnings: current knowledge and challenges: a final report for the Department of Health*. London: NERA Economic Consulting, 2004. www.nera.com/image/Report_Physician_Earnings_7.2005.pdf.
- Organisation for Economic Cooperation and Development. *Science and technology scoreboard 2007: health-related R&D*. <http://caliban.sourceoecd.org/vl=10224931/cl=27/nw=1/rpsv/sti2007/a-8.htm>.
- Hauschild W, Klose A. [Cost structures for medical and dental practices 2003.] Berlin: Statistisches Bundesamt, 2006.
- Deveugle M, Derese A, van den Brink-Muinen A, Bensing J, de Maeseneer J. Consultation length in general practice: cross sectional study in six European countries. *BMJ* 2002;325:472.
- Danzon PM, Furukawa MF. International prices and availability of pharmaceuticals in 2005. *Health Aff* 2008;27:221-33.
- Garattini L, Motterlini N, Cornago D. Prices and distribution margins of in-patent drugs in pharmacy: a comparison in seven European countries. *Health Policy* 2008;85:305-13.
- Gemeinsamer Bundesausschuss. [Federal joint committee retains the prescribing restriction for clopidogrel under statutory health insurance.] Press release, 22 February 2008.
- European Commission. *Health in the European Union. Special Eurobarometer 272e/Wave 66.2*. 2007. http://ec.europa.eu/health/ph_publication/eb_health_en.pdf.
- OECD. *Health care quality indicators project 2006: data collection update report*. www.oecd.org/dataoecd/57/22/39447928.pdf.
- Veit C, Bauer J, Döbler K, Eckert O, Fischer B, Woldenga C. [BQS quality report 2006.] Düsseldorf: Bundesgeschäftsstelle Qualitätssicherung, 2007. www.bqs-qualitaetsreport.de/2006/ergebnisse/leistungsbereiche/hueft_femur/ergebnisse/index_html.
- Sawicki PT. [Quality of health care in Germany: a six-country comparison.] *Med Klin* 2005;100:755-68.
- Forster R, Kranich C. [Patient and public involvement in health care—a comparison between recent English and German policies.] *Gesundheitswesen* 2007;69:98-104.
- Dierks M-L, Seidel G, Schwartz FW, Horch K. [Public and patient orientation in the health care system.] Issue 32 Gesundheitsberichterstattung des Bundes. Berlin: Robert Koch Institute, 2006.
- Forum Gesundheitspolitik. [Every fourth self-help group is sponsored by drug companies.] www.forum-gesundheitspolitik.de/artikel/artikel.pl?artikel=0555.
- DAFNE Study Group. Training in flexible, intensive insulin management to enable dietary freedom in people with type 1 diabetes: dose adjustment for normal eating (DAFNE) randomised controlled trial. *BMJ* 2002;325:746.
- Lang FR, Wagner GG. [Patient living wills in Germany: conditions for their increase and reasons for refusal.] *Dtsch Med Wochenschr* 2007;132:2558-62.
- Ministry for Health and Social Insurance, Ministry for Justice. [Patient rights in Germany: Guidelines for patients and doctors.] www.die-gesundheitsreform.de/gesundheitsystem/publikationen/pdf/broschuere_patientenrechte_deutschland.pdf.
- German Institute for Quality and Efficiency in Health Care. *The institute*. www.iqwig.de/about-us.21.en.html.
- Perleth M, Busse R. Health technology assessment in Germany: status, challenges, and development. *Int J Tech Assess in Health Care* 2000;16:412-28.

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A 6 30 pm appointment

What do you currently do at 6 30 pm—finish your paperwork?

I had some annual leave at Easter and needed a haircut—not having had one since the New Year. I asked for the latest available appointment and accepted 6 30 pm. I'd never had a haircut at that time before. Usually it's a race and a juggle to squeeze it in at lunchtime amid all the other hurly burly of daily GP work. It's almost the only time I sit down and do nothing for 30 minutes.

Parking in the town centre car park was easy at 6 25 pm (different from the maelstrom of 2 pm). The salon was just as busy as usual. My hairdresser said she had worked a full day and was extending her working week because she couldn't fit in all her clients (patients). She'd been at the salon (surgery) for about three years, and most, if not all, appointments were repeat cuts (her own list).

After paying, I walked out on to the main street at 7 pm. It felt different. Normally I would now rush to the car to continue the rat race. But I didn't have to tonight. I stood still and looked about. It was dusk.

Most of the other shops (x ray, path lab, medical secretaries, etc) were closed. The pub opposite and a take-away were open, of course (for

emergency food and drink). A cashpoint light flashed (24 hour access to emergency money). I walked back to the car, past the restaurant that usually had untouched white tablecloths at 2 pm, but now was alive.

General practitioners are to work extended hours for routine appointments that may include consultations starting at 6 30 pm. The services offered by GPs and hairdressers are both essential, though there are some differences between the professions: whereas health intervention in men generally increases with age, their hair intervention often decreases.

So routine predictable (hair doesn't talk) activity can occur successfully in the evening, but subjectively feels different to this "service user."

We wait to see whether routine, complex, evening GP consultations are successful, when other necessary health services are closed. Perhaps by the time of my next haircut I will have had a quite different experience as a "service provider."

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