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# **Health Care Systems: Britain and Germany Compared**

**Reinhard Busse**

**2002**

# **Health Care Systems: Towards an Agenda for Policy Learning Between Britain and Germany**

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**Anglo-German Foundation  
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## HEALTH CARE SYSTEMS

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## **Preface**

This report is one of six commissioned by the Anglo-German Foundation in an effort to give added focus to its work in supporting comparative research and discussion of key issues facing policy-makers in both the public and the private sector in Britain and Germany.

Topics were selected for their relevance in both countries, and for their potential to yield policy-learning dividends. Authors were selected for their expertise in the 'state of the art' in Britain and Germany. They were asked to review current knowledge, and to identify gaps in that knowledge, which might form an agenda for future bilateral research and discussion.

The Foundation's Board of Trustees will use the reports, and the reaction and comments they generate, to assess the potential of each topic as an area of focus for future investment by the Foundation.

# Acknowledgements

The chapters describing the financing, structure and organisation of the British and German health care systems, as well as current reform debates, draw on the following documents:

- Busse, R. (2000) *Health Care Systems in Transition – Germany*. Copenhagen: European Observatory on Health Care Systems. ([www.observatory.dk](http://www.observatory.dk))
- European Observatory on Health Care Systems (ed.) (2002) *Health care systems in eight countries – trends and challenges*. London: London School of Economics).
- Robinson, R. and Dixon, A. (1999) *Health Care Systems in Transition – UK*. Copenhagen: European Observatory on Health Care Systems. ([www.observatory.dk](http://www.observatory.dk))

Unless otherwise stated, comparative figures are based on data from the World Health Organization's *Health for All Database* (WHO, 2002).

The author is also grateful to Martin McKee (London School of Hygiene and Tropical Medicine) for providing comments, suggestions and amendments.





# 1 Introduction

## 1.1 Purpose

This paper proposes a framework for analysing health care systems, which it then applies to a comparative review of the British and German systems. The aim is to identify areas where further comparative research will be scientifically rewarding as well as politically relevant for decision-making about future reforms. Examples of best practice are identified.

The paper describes in some detail those areas where current research data exist, while highlighting the many areas where such information is lacking and which are therefore priorities for further research.

## 1.2 Methodological framework

Health systems research has developed considerably in the past few years. While it used to be mostly descriptive, comparing different countries or regions, it has become apparent that for meaningful analysis the objectives of health care systems need to be clear, so that actual performance can be compared against these objectives. Although this may seem obvious, it is still far from usual that explicit objectives are stated. Yet a degree of consensus has emerged around certain objectives, for example:

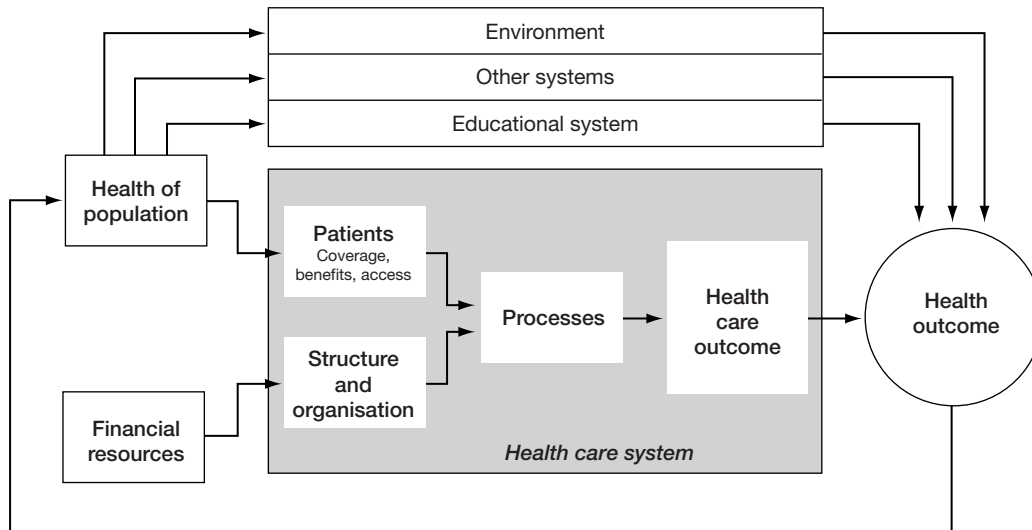
- Access to health care for the whole population
- Effectiveness in terms of producing health gain
- Equitable financing.

Once objectives are set, health system research can assess whether these are met. In the simplest case this will be a longitudinal analysis in a single country, using pre- and post-reform data. Another approach is to take a comparative perspective, analysing two or more countries. Here the focus might be on the relative strengths and weaknesses of the two systems, rather than on the extent to which they meet their objectives.

An analytical framework is required in either case, whether only one or several countries are analysed. For the purposes of this paper – a comparative analysis of the British and the German health care systems and a review of each system against a set of objectives – we have adopted a modified input–output model, originally developed for engineering (see Figure 1).

On the input side of this model are the health of the population and the financial resources for health services. These ‘exogenous’ inputs are transformed into ‘endogenous’

## HEALTH CARE SYSTEMS



**Figure 1**  
**Input-output model for health system research (slightly modified from Busse and Wismar, 2002)**

inputs as soon as the threshold of the health care system is crossed: they become patients and the structure/organisation of health services respectively.

The process of health care brings together these two inputs, for example through physician-patient contact or hospitalisation. The immediate result are 'health care outcomes'. These can be either favourable (for example, a lower cholesterol level following lipid-lowering therapy) or adverse (such as complications following surgery). Adverse health care outcomes can be an indicator of poor health care quality.

These intermediate health care outcomes must not be confused with overall health outcome, which has a longer-term perspective and also depends on factors outside the health care system. The model takes this into account by placing health outcomes as the common end point of all possible areas of intervention. A potentially continuous loop is indicated by the arrow from 'health outcomes' back to the 'health of the population'.

It should be emphasised that the components within the model are based on the health care system's point of view. Taking diabetes as an example, the components of the model would be as follows:

- Health of the population: the incidence of diabetes in a given population
- Patients: availability of diabetes-related benefits as well as actual access to them
- Structure and organisation: number and equipment of diabetes treatment centres
- Processes: contacts of diabetics with specialists as well as their appropriateness
- Health care outcomes: successes and complications of diabetes treatment
- Health outcome: a lengthening of amputation-free survival.

As described above, health outcomes are determined by factors outside the health care system. For the example of diabetes these factors might include environmental issues or education.

Two important considerations cannot be overemphasised:

- Health outcomes – particularly long-term outcomes – are usually the result of several parallel processes, of which health care is only one. For example, a patient who underwent cancer treatment is subject to the influence of many factors. Successful treatment is the major but not the only factor determining long-term survival. In the model, successful treatment would therefore be classified as a 'health care outcome', and as such as an 'intermediate outcome'.
- In health systems and services research, health outcomes can often not be differentiated from health status prior to an intervention (classified as 'health of the population'). This is because patients remain part of the overall population potentially needing care.

The question remains, therefore, whether good population health (high life expectancy or few potential years of life lost) is an indicator of a relatively low need for health care, or whether it is the result of successful health care. In the former case, health care inputs and spending could be reduced without negative consequences, whereas in the latter a reduction would have a negative effect.

If only cross-sectional data is available (as is often the case, including in the much-discussed *World Health Report 2000 – WHO, 2000*), this problem cannot be solved. Even longitudinal approaches need to be carefully designed and analysed. For example, a declining mortality from lung cancer could be the result of better effectiveness of treatment, or of a lower incidence of disease due to less exposure to environmental factors linked with lung disease, or of public health measures aimed to reduce smoking levels in the population.

Table 1 overleaf summarises concepts and indicators for each of the components of the model.

While some objectives of health care systems – for instance, ensuring access or improving health outcomes – are directly located in the model, others are linked to a combinations of factors:

- (Technical) efficiency: the number of interventions per unit of input or financial resource
- Effectiveness: health outcome per unit of input or intervention
- Cost-effectiveness: health outcome per unit of financial resource.

These concepts are dealt with under processes and outcomes respectively.

The remainder of this paper is organised around the major components of the model:

- Chapter 2: Health of the population
- Chapter 3: Financial resources
- Chapter 4: Patients: coverage, benefits and access
- Chapter 5: Structure and organisation
- Chapter 6: Processes
- Chapter 7: Outcomes

**Table 1**  
**Selected concepts and indicators used in health systems/services analysis**  
**(extended from Schwartz and Busse, 1998)**

<b>Component in model</b>	<b>Selected concepts and indicators</b>
Health of population (exogenous risk-related input)	Incidence and prevalence of diseases (morbidity in absolute numbers and per 1,000 population per year) Disease-specific mortality (standardised per 1,000 population per year) Life expectancy at birth, at age 40, 60, 80 etc Consumption of alcohol and tobacco per person per year Death and injury rates resulting from accidents Self-assessed health status
Other conditions with relevance to health (exogenous inputs not shown in the model)	Gross national/domestic product (GNP/GDP) per person Distribution of societal resources (measured by indicators such as Gini Index) Deprivation (unemployment, overcrowded accommodation, single parents etc, quantified by indicators such as Jarman Index) Level of educational achievement: percentage having completed primary, secondary education etc
Financial resources for health care (exogenous financial input)	Health expenditure as percentage of GNP/GDP Types of funds raised for health care (eg taxes, statutory health insurance contributions) Inter- and intra-sectional resource allocation Type of reimbursement (eg budget, fee-for-service, fee per case)
Patients (endogenous patient-side input)	Percentage of population insured (= potential access) Percentage without/with difficulties in actual access (equity?) Unjustified demand for health care (= demand without need)
Structure and organisation of health care (endogenous system-side input)	Degree of centralisation/decentralisation Inter- and intra-professional configuration (distribution of responsibilities between physicians and nurses, grade of physician specialisation) Focus of system, sectors or institution (broad vs. narrow, preventive vs. curative, customer- vs. provider-oriented) Number and regional distribution of workforce (eg physicians, nurses, physiotherapists per 1,000 population or per hospital bed) Number and regional distribution of infrastructure/equipment (eg hospital beds, X-ray/CT/MRI units per 1,000 population)
Process (throughput)	Physician-patient contacts per person per year Average duration of physician-patient contact Hospital admissions per person per year Length of hospital stay per diagnosis Hospital days per person per year (admissions per year factored by length of stay) Type, number and location of diagnostic and therapeutic procedures per person per year Efficacy and (community) effectiveness of technology Appropriateness of technology Appropriateness of setting (eg in- vs. outpatient) Interpersonal and technical quality Comprehensiveness (referral necessary?), continuity (same physician in clinic?), coordination (eg through GP)
Health care outcome (intermediate outcome)	Clinical parameters, physical functioning and quality of life (directly after discharge from health care system/institution) Patient satisfaction with provider Complication rates Re-admission rates Mortality related to surgical and other medical procedure
Environment, educational and other systems	Indicators relating to access, structure and organisation, processes and intermediate outcomes in other areas of society which have a (potential) impact on health
Health outcome	Change in incidence and prevalence of medically amenable morbidity (equity between groups?) Change in medically avoidable mortality (standardised for age and sex per 1,000 population) Medium- to long-term changes of functioning and quality of life (attributable to health care interventions and/or system) Perinatal and infant mortality (possibly adjusted for birth weight) Change in life expectancy at birth, at age 40, 60, 80 etc

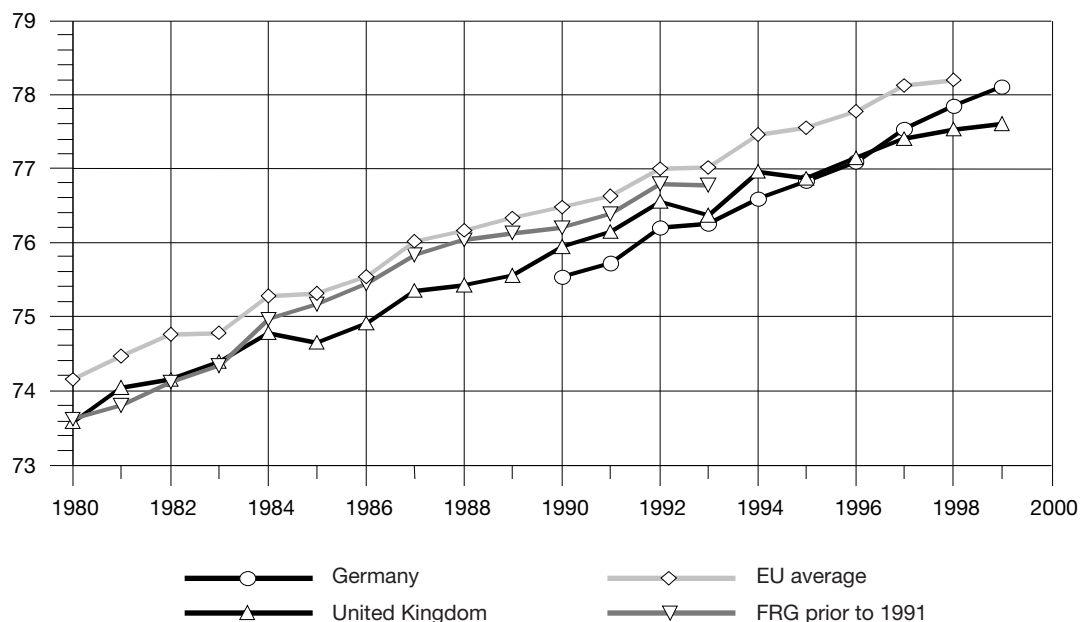
## HEALTH CARE SYSTEMS

Each chapter focuses on a comparison of the situation in the UK and in Germany. For each area under consideration, unanswered research questions for a comparative Anglo-German project are identified. The selection of these questions takes account of methodological possibilities and limitations, as well as the level of interest in the topic among policy-makers in the two countries. The paper ends with a short description of the current reform debates in the two countries and a summary of outstanding research issues.

## 2 Health of the population

### 2.1 Life expectancy

Using life expectancy at birth as an indicator, population health in the UK and Germany is slightly below the European Union (EU) average – see Figure 2. The process of arriving at these points has, however, been different. Starting from the same level in 1980, West German life expectancy improved more rapidly than that in the UK. German reunification led to a drop in average German life expectancy due to the lower values in the east. As a result Germany was behind the UK in the early 1990s but overtook the UK again in the mid-90s (and expected to reach the EU average in 2000/01). In fact, the rate of improvement in Germany has been one of the highest in the EU in the 1990s (second to Finland for males; second to Luxembourg for females) – a fact not widely recognised, let alone discussed.

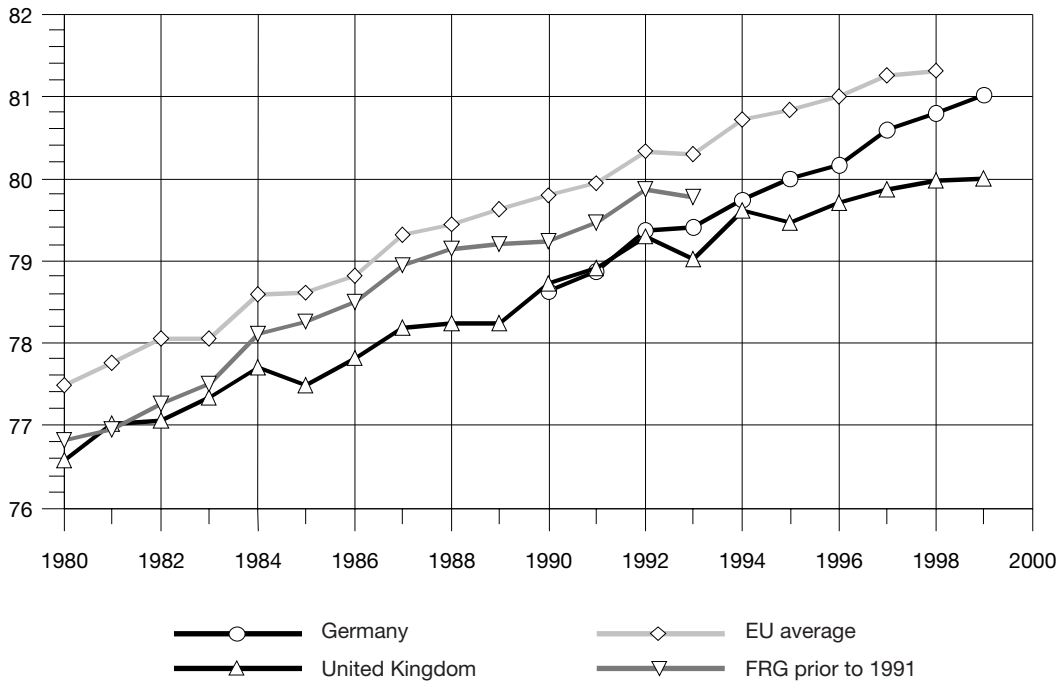


**Figure 2**  
**Life expectancy at birth in years; 1980–99 (WHO, 2002)**

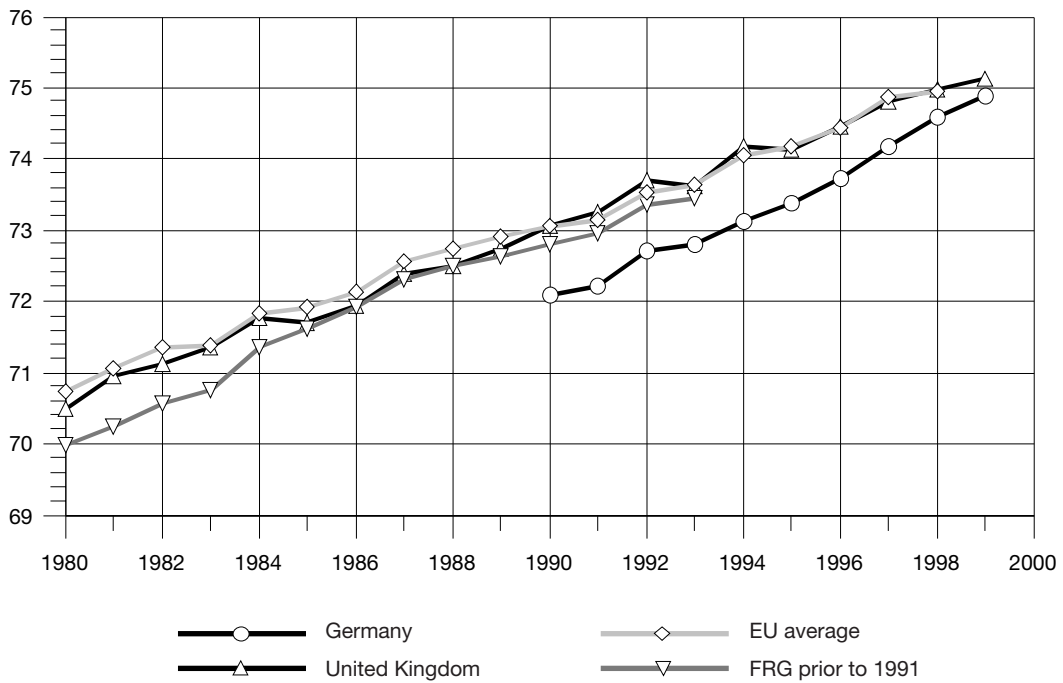
The UK's comparatively worse position is due to lower female life expectancy where the gap with Germany is quite obvious – see Figure 3. However, the advantage British men had over their German counterparts has also vanished – see Figure 4.

Discrepancies in life expectancy are especially visible for the youngest and oldest groups in the population.

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**Figure 3**  
**Life expectancy at birth in years, females; 1980-99 (WHO, 2002)**



**Figure 4**  
**Life expectancy at birth in years, males; 1980-99 (WHO, 2002)**



## 2.2 Perinatal mortality

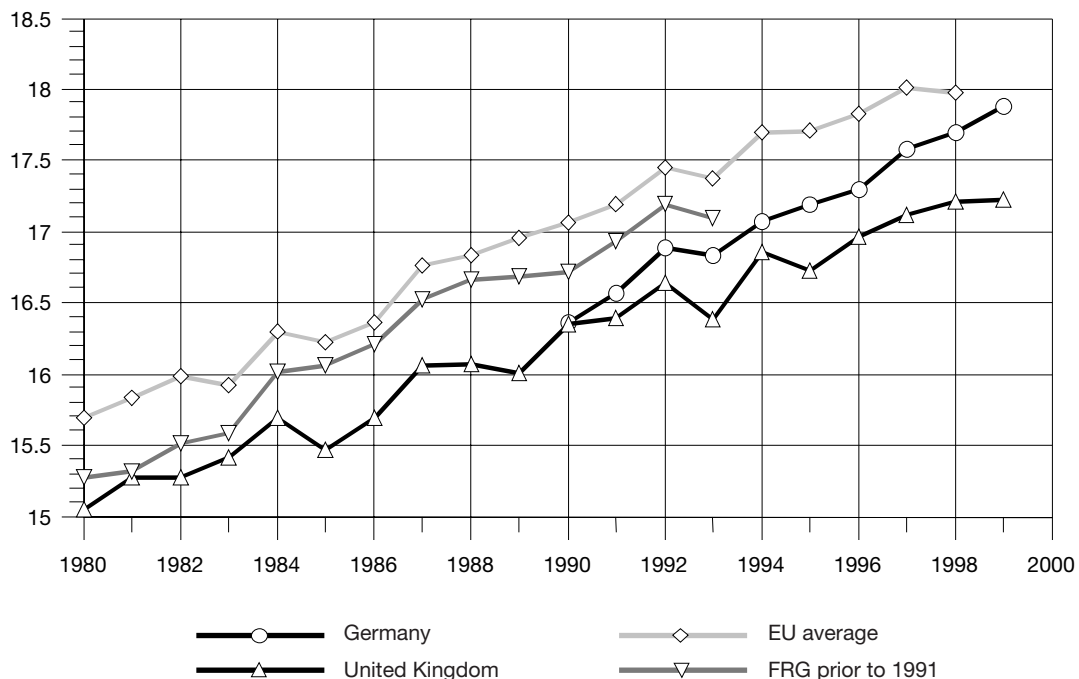
The perinatal mortality rate measures foetal deaths plus early neonatal deaths (until one week of age) per 1,000 births (live and stillbirths). The UK's perinatal mortality rate is 30 per cent higher than the EU average – second worst in the EU, ahead only of Greece. The UK is the only EU country in which this rate increased during the 1990s. Germany's perinatal mortality rate is 40 per cent below the EU average, second best after Finland.

The UK's perinatal mortality is more than twice as high as Germany's (all data for 1999). However, the UK's death rate from external causes (mainly injuries and poisoning) in children under 14 is among the lowest in the EU (around 25 per cent lower than both the EU average and the German figure).

## 2.3 Older people

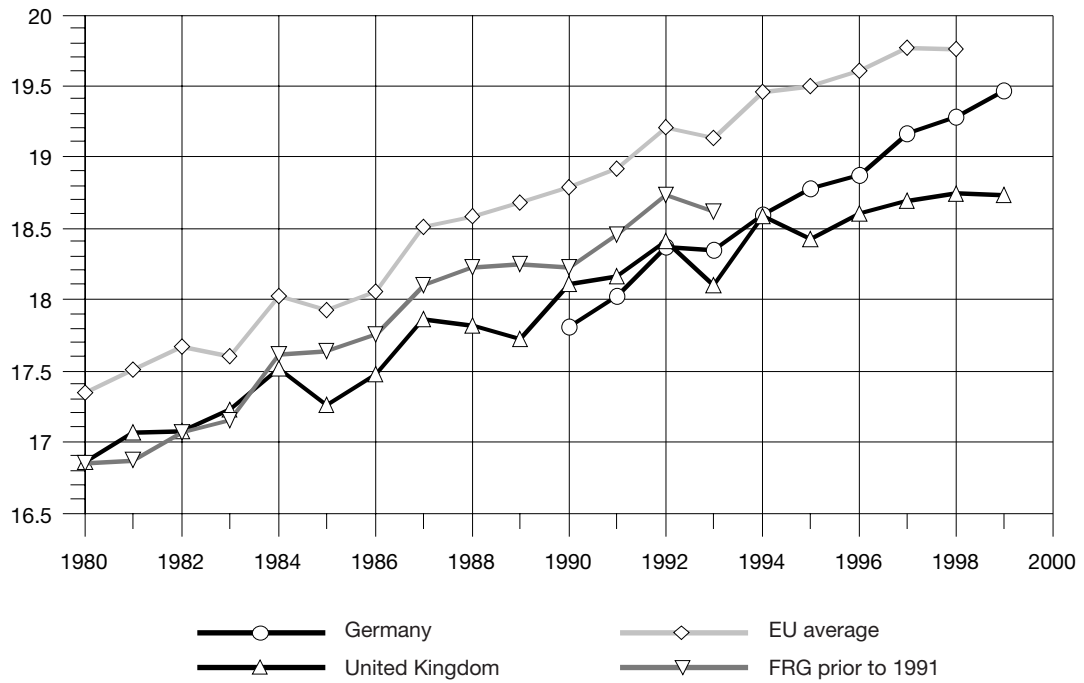
A similar picture emerges for older people. In 1990 further life expectancy having reached age 65 was 16.4 years in both countries. But by 1999 this had improved by 1.5 years in Germany – the greatest improvement of any EU country – but only by 0.8 years in the UK, where it is now the third lowest in the EU (see Figure 5).

Again, this difference is mainly due to the considerably worse situation of British women, but life expectancy of older German men is now also higher than that of their British counterparts – see Figures 6 and 7.

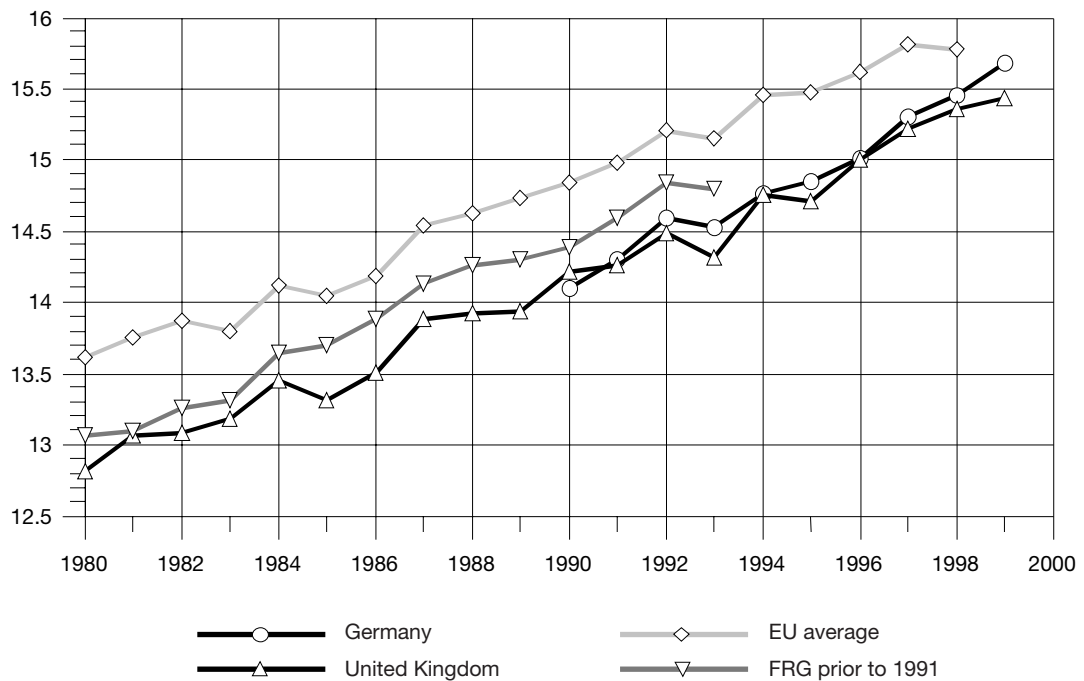


**Figure 5**  
Life expectancy at age 65 in years; 1980–99 (WHO, 2002)

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**Figure 6**  
**Life expectancy at age 65 in years, females; 1980-99 (WHO, 2002)**



**Figure 7**  
**Life expectancy at age 65 in years, males; 1980-99 (WHO, 2002)**

In summary, life expectancy is improving at a faster rate in Germany than in the UK. A health gap between Germany and the UK exists for women and for older people, especially for older women.

How much of this gap can be attributed to differences in the health care systems, in broader health policy, or in long-standing underlying trends remains unclear. This is a question that is amenable to further research using well-established methodologies.

### **2.4 Causes of death**

Ischaemic heart disease and cancer are major causes of death in both countries. For under-65s, mortality from ischaemic heart disease in the UK is 60 per cent above the EU average, second only to Ireland. In Germany the rate is 10 per cent above the EU average. For over-65s, mortality from ischaemic heart disease in the UK is 45 per cent above the EU average, three times as high as in France. In Germany the rate is 35 per cent above the EU average.

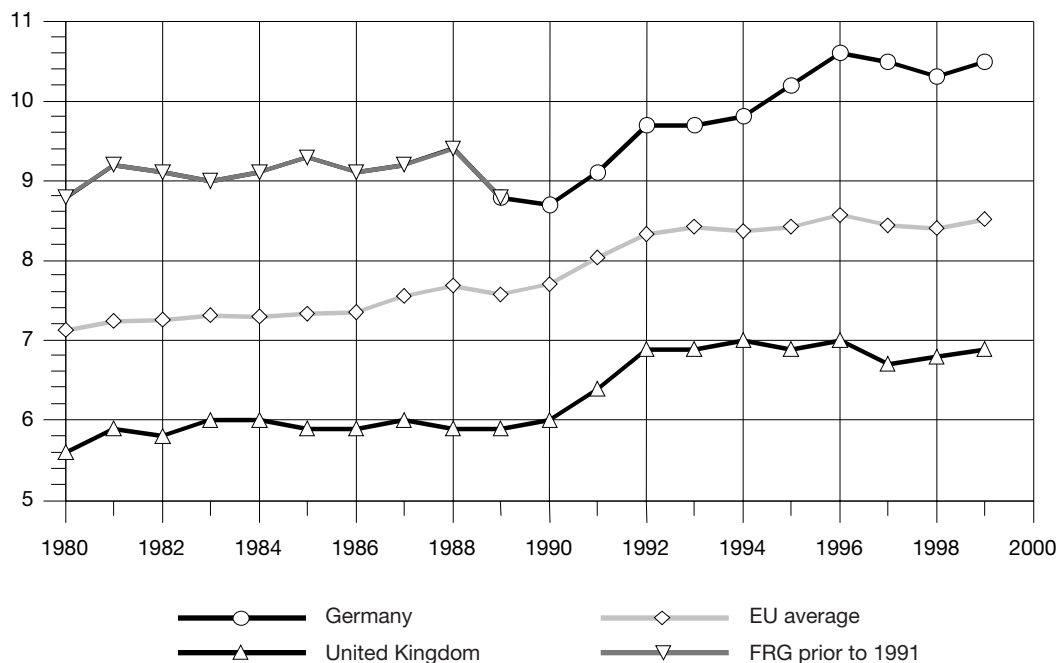
Mortality from cancer is around the EU average in both the UK and Germany, with the exception of older women in the UK, who experience mortality rates from cancer 20 per cent above the EU average.

### 3 Financial resources

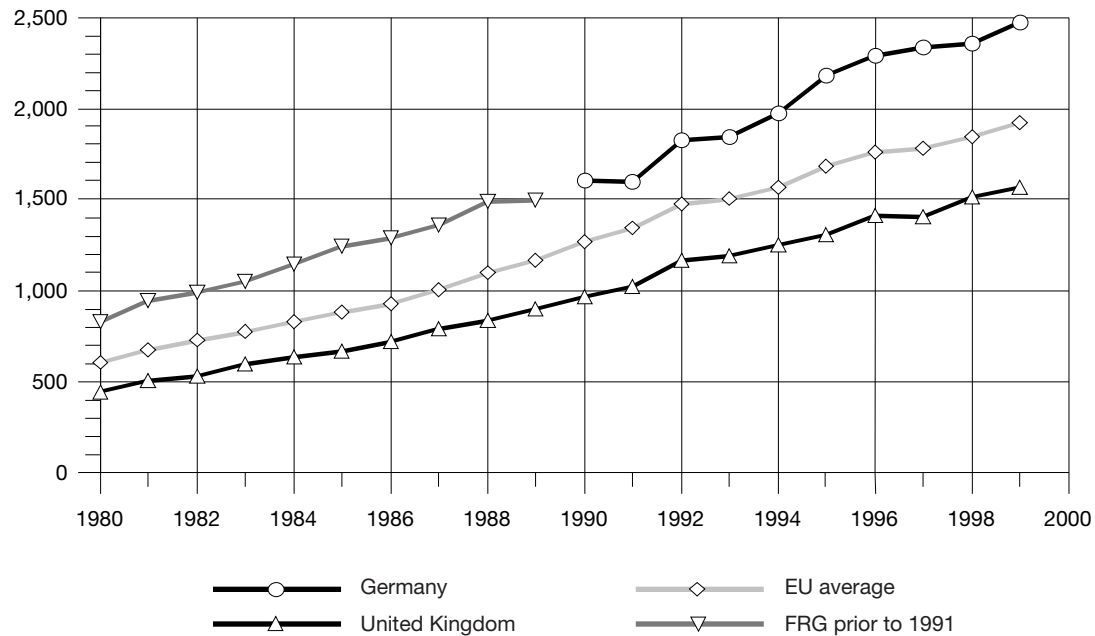
The second 'exogenous input' into the health system model is financial resources and is much more widely discussed by politicians and the media than the health of the population.

#### 3.1 Total health care expenditure

In brief, Germany has spent – and is spending – considerably more than the EU average on health care – see Figure 8. The 1.5 to 2 percentage points of GDP above the average make it the highest spender within the EU. In contrast, the UK's health care expenditure has remained 1 to 1.5 per cent below the EU average – or at around two-thirds of the German share of GDP. In terms of actual spending the difference is even greater: due to the UK's smaller GDP *per capita*, it only spends around 60 per cent of the German level.



**Figure 8**  
Total health expenditure as percentage of GDP; 1980–99 (WHO, 2002)



**Figure 9**  
**Total health expenditure in purchasing power parity US\$ per capita; 1980–99**  
**(WHO, 2002)**

### 3.2 Sources of health care funding

In the UK the financial resources for health care are mainly collected outside the health care system, from general taxation. In Germany health care resources are mainly collected within the system, by sickness funds. For convenience, they are discussed together.

According to OECD data (2001) total UK expenditure on health in 1999 was 6.9 per cent of GDP: 5.8 per cent from public sources and 1.2 per cent from private sources (discrepancy due to rounding).

Of total UK health care expenditure in 1998, 73.5 per cent came from taxation, 9.8 per cent from National Insurance contributions, 11.1 per cent from out-of-pocket spending, 3.5 per cent from private medical insurance and 2.1 per cent from other sources (OECD, 2001). Looking only at the National Health Service (NHS), 80 per cent of income came from taxation, 12 per cent from National Insurance contributions, 4 per cent from charges and miscellaneous inputs, 3 per cent from hospital trust interest receipts and 1 per cent from capital receipts.

### 3.3 Health care funding in the UK

Budgets are currently set every three years as part of the general public expenditure planning process. Budgets for spending departments are set through negotiation

between the Chancellor of the Exchequer and the relevant departmental minister. There is no strict earmarking of revenue or expenditure. Budgets can be adjusted during the three-year cycle.

There is presently a consensus that health care in the UK has been underfunded in comparison with most other Western European countries for at least the last two decades. The current government is committed to rectifying this situation. In his April 2002 budget the Chancellor of the Exchequer announced increased public spending on the NHS of around 6 per cent per year in real terms (ie deflated by the GDP deflator) over the period 2002–06. In fact, the increase in spending on the NHS in England in 2002 is predicted to reach around 9 per cent in real terms.

If achieved, these will represent unprecedented rates of increased spending, although preliminary indications suggest that the Department of Health will have difficulty spending its allocation. This demonstrates the importance of considering not just financial resources but also the human and physical resources that can be purchased.

At the same time a review of expenditure needs on health up to the year 2020 has been carried out for the Chancellor by a review team led by Sir Derek Wanless. The review's final report (Wanless, 2002) sets out the likely resource requirements of the NHS for the next 20 years as well as recommendations for action.

### 3.4 Health care funding in Germany

In Germany contributions to statutory health insurance (SHI) constitute the major system of financing health care (see Table 2). Contributions are dependent on income and not risk, nor on savings or possessions. Contributions are payable from income up to an upper threshold, above which there is the right to opt out or become a voluntary member.

**Table 2**  
**Main sources of finance in Germany, percentage of total, 1992 and 1998**

Source of finance	1992	1998
'Public'		
– Public budgets	13.1	8.4
– Statutory health insurance	60.3	56.1
– Statutory retirement insurance	2.4	1.6
– Statutory accident insurance	1.7	1.7
– Statutory long-term care insurance	–	7.0
'Private'		
– Out-of-pocket	9.0	11.0
– Private health insurance	7.2	7.7
– Employers	4.3	4.1
– Private organisations	2.1	2.4

Source: Federal Statistical Office, 2001. Note: Data based on new health accounting method.

Contributions are shared equally between the insured and their employers, and non-earning spouses and children are included without any surcharges.

In 2001 the average proportional contribution rate was 13.5 per cent, of which the insured pays 6.75 per cent out of their pre-tax income below the threshold. The employer matches this contribution with a further 6.75 per cent, paid in addition to wages/salaries. People with earnings below ?325 per month before tax do not have to pay a contribution, but the employer has to contribute a fixed rate of 10 per cent for all sickness funds. (Prior to 1998 income up to that level was not liable for sickness fund contributions.)

In the case of retired and unemployed people, the retirement and unemployment funds respectively take over the financing role of the employer. Only the farmers' funds receive a tax-subsidy to compensate for the gap between older farmers' contributions and actual expenditure.

The contribution rates differ among funds but not by employment status. Germany has delegated to the individual funds the power to decide contribution rates. Their decision is, however, subject to approval by the *Länder* government in the case of funds operating regionally, and by the *Bundesversicherungsamt* (Federal Insurance Office) in the case of country-wide funds.

In certain cases (see Chapter 3) SHI can be substituted through private insurance (voluntary health insurance – VHI). Premiums vary with age, sex and medical history at the time of underwriting. In contrast with SHI, separate premiums have to be paid for spouses and children – making private health insurance especially attractive for single people or dual-income couples. Policies and premiums vary greatly within the substitutive VHI segment. For example, civil servants only need to be insured for a certain percentage of health costs (co-insurance), physicians get special tariffs, etc.

In 1999 the substitutive insurance segment collected DM 25 billion in premiums for 7.4 million people. The average premium therefore amounts to DM 3,500 annually or DM 300 monthly. This figure must obviously be treated with caution as it includes people who pay reduced premiums (civil servants, children etc). It does, however, indicate that VHI is a worthwhile proposition for single people, given the fact that the average maximum contribution to SHI in 1999 was DM 10,000. Group insurance plays hardly any role in the German VHI market.

Health insurance premiums are deductible from taxable income in the same way as expenditure for other types of insurance, whether statutory or private, and within certain specified limits. However, there are two reasons why this may not constitute a real incentive to purchase VHI products:

- As the limit for tax-deductible expenses decreases with rising income, the higher earners who are most likely to be insured under substitutive VHI will only be able to offset a small proportion of their premiums.
- People interested in purchasing complementary/supplemental products may already have exceeded the limit through their statutory contributions.

One of the most strictly regulated matters in the German system is the provision of an old-age reserve for VHI clients. This was a change introduced in 2000 against a background of disproportionate increases in insurance payouts from VHI (compared to SHI) and – in

some cases considerable – premium increases for VHI policyholders, especially in the older age groups.

Now a portion of the premium is used for covering risk and another to make provision for old age. Thus, the risk which increases commensurate with the insured person's age can be covered by gradually running down this old-age provision. As a result, the premiums payable by the insured remain constant over time, under otherwise unchanged conditions (and assuming that actuarial life tables are now more accurate than before!).

In substitutive health insurance a premium surcharge of 10 per cent, introduced in 2000, will be used to offset higher premiums after the end of the insured's 65th year. Moreover, 90 per cent of the yield in excess of the accrued interest is to be credited to the insured so as to limit premium increases. The latter provision existed before but at a lower level.

### **3.5 Equity in financing**

The progressivity of the funding of health care – as measured by the Kakwani Index (1977) – indicates that, in 1993, direct taxes in the UK were progressive (+0.28) and indirect taxes regressive (-0.15). Overall funding was mildly progressive (+0.05) (Wagstaff et al, 1999).

Data on the distribution of the tax burden between income groups shows that direct taxes account for 24 per cent of gross income of the top quintile compared to 12 per cent of the bottom quintile. Indirect taxes account for 12 per cent of gross income of the top quintile and 28 per cent of the bottom quintile. Overall, the bottom income group pays 40 per cent of income on taxation compared to 36 per cent in the top income group. This measure of progressivity suggests that overall taxation in the UK might be regressive (Commission on Taxation and Citizenship, 2000).

According to rather old data for Germany, the Kakwani Index for SHI was mildly regressive (-0.10), for VHI paradoxically – due to its focus on higher earners – progressive (+0.12) and overall funding slightly regressive (-0.05) (Wagstaff et al, 1999).



## 4 Patients: coverage, benefits and access

Patients' access to health care depends on a number of issues, namely whether they are entitled to health care (population coverage), which benefits are included in this entitlement, whether co-payments or other cost-sharing measures present a financial hurdle, whether the distribution of providers reduces access and whether utilisation is delayed by waiting lists etc. These issues are examined in turn, followed by a brief overview of patients' rights and legal challenges.

### 4.1 Population coverage

All legal residents of the **United Kingdom** are entitled to cover under the NHS. In addition, residents of the European Economic Area (EEA) are entitled to care, as are residents and citizens of other countries with which the UK has reciprocal agreements.

In the UK 11.5 per cent of the population have supplementary private medical insurance (PMI) (Laing & Buisson, 2001). Those most likely to have private medical insurance are in the higher income groups: 40 per cent of adults with PMI are in the highest income decile compared to less than 5 per cent in the lowest (Emmerson et al, 2000). According to data from the 1995 General Household Survey 12 per cent of people aged 45–64 had PMI, compared to only 5 per cent of over-65s (Laing & Buisson, 2001). PMI is also concentrated amongst those in the professional and managerial occupations, of whom around 22 per cent have PMI compared to only 2 per cent of those in semi-skilled manual and personal services. PMI policyholders are concentrated in London and the South East of England, where around 20 per cent of the population have PMI. In Scotland and the North the figure is as low as 5 per cent of the population (Laing & Buisson, 2001).

PMI is provided by for-profit and not-for-profit companies. The main providers of PMI by subscription income are BUPA, PPP, Norwich Union and Standard Life Healthcare. These have a 40 per cent, 27 per cent, 8 per cent and 5 per cent share of the market respectively (Laing & Buisson, 2001). Only BUPA retains its provident status, the other three are commercial companies.

The majority of PMI policies are group insurance policies purchased by employers. The proportion has been rising in recent years, and currently over two-thirds of policies are employer-purchased. PMI premiums are risk-rated for individual policies and group-rated for group insurance. There is no regulation of premiums. Employers may purchase PMI for employees out of pre-tax income. However, employers must pay National Insurance contributions on the value of the PMI benefit and employees must pay income tax on the value of the in-kind benefit. Income tax relief on policies for the over-60s was introduced in 1991 but subsequently abolished in 1997. Recently insurance companies have been required to pay an insurance premium tax of 5 per cent on the value of the premiums.

In **Germany** the dual health insurance system is operated by private and statutory (non-profit, governed by public law) insurance institutions working in parallel. A total of 88 per cent of the population are covered by statutory health insurance (SHI); of this total, 74 per cent are mandatory members or their dependants and 14 per cent are voluntary members or their dependants. Some 9 per cent are covered by private health insurance, 2 per cent by free governmental health care (available to police officers, soldiers and those doing the civil alternative to military service, people on social welfare) while less than 0.2 per cent are not insured.

In principle, the *Sozialgesetzbuch* (Social Code Book) requires that everyone in gainful employment – as well as other defined groups such as the unemployed, pensioners, farmers, students, artists, the disabled – must be insured under the SHI scheme. However, certain groups are exempt from this requirement, namely permanent civil servants (*Beamte* and judges) and soldiers as well as a few others (for example, people working for the EU Commission). Also exempt are, as stated above, employees whose income reaches a certain level. The exemption threshold is usually adjusted annually in accordance with changes in average earnings by the *Bundesministerium für Arbeit* (Federal Labour Ministry). However, in 2001 the threshold in the eastern part of Germany (the *Länder* that formerly made up the German Democratic Republic) was equalised with that in the western part. This meant a huge increase of the threshold in the east.

As a result of this threshold for compulsory insurance, certain employees may choose between statutory and private health insurance:

- Employees whose income exceeds the threshold for compulsory insurance from the start of their first gainful employment – or up to two months after returning from another country – may become voluntary members of the statutory insurance scheme if they apply within three months. After this they no longer qualify.
- Employees whose earnings are initially below the threshold but then exceed the limit as a result of pay increases may remain in SHI as voluntary members if they have been SHI members for the last 12 months, or for 24 months within the last 60 months.
- Employees who have left the SHI scheme but are brought back within the scope of compulsory insurance by an increase in the threshold or a reduction in their weekly working hours may be exempt from compulsory membership of the SHI scheme if they have been outside the SHI for at least five years. Since 2000 this option is only open to people under 55. Older people are required to remain outside the SHI scheme.
- There are certain other groups who can opt out: for example, young physicians (who in the first 18 months earn far below the threshold) can apply to be – irrevocably (!) – exempted from mandatory membership.

As a result, the 7.4 million (1999) with comprehensive private health insurance consist of three main groups:

- People who were formerly insured under the SHI scheme but have opted out once their income reached the threshold
- Most self-employed people, who are excluded from SHI unless they were previously members; (some self-employed people, such as farmers, fall under the mandatory SHI requirement)

- Active and retired permanent public employees such as teachers, university professors, employees in ministries etc, who are excluded from SHI as they are reimbursed by the government for most of their private health care bills; they need private insurance to cover only the remainder.

Everybody else can purchase complementary/supplementary VHI products. However,

'Not even the member companies can accurately determine the number of people who have supplementary private insurance, as they also count those who hold private comprehensive medical insurance with a different company or as part of a group insurance scheme. Consequently, many people are counted twice. In total, the member companies counted 13,775 million people on 31.12.1999'

(PKV, 2000)

Microcensus data puts the number of people with supplementary insurance (excluding private travel insurance) at around 7.5 million, ie 9 per cent of the population. The number increased from 5.3 million in 1991 to 7 million in 1997 and 7.6 in 1998. The figure rose considerably from 1996 due to the introduction of a new insurance segment to cover dental crowns and dentures, which were excluded from the benefits package for people born after 1978.

There are around 4.4 million policies each for optional hospital benefits insurance ('supplementary' VHI) and additional outpatient insurance ('complementary' VHI). These policies are held by people who are otherwise insured under the SHI scheme, so 6 per cent of people covered by SHI have supplementary and complementary cover. Take-up of the latter saw a peak in 1997/98 due to the introduction of restrictions on dental treatment in 1996. However, this change was subsequently reversed with effect from 1999, and between 1998 and 1999 the number of children with complementary VHI dropped from 2.2 million to 1.4 million.

## 4.2 Benefits

In the **United Kingdom** NHS benefits are not explicitly defined. The National Health Service Act 1977 places a general responsibility on the Secretary of State to provide services 'to such extent as he considers necessary to meet all reasonable requirements'.

More recently, with the establishment of the National Institute for Clinical Excellence (NICE), recommendations are being made to the Secretary of State as to whether the NHS should offer certain treatments or services for all of the population, for certain indications, or for defined subgroups of the population. NICE is a special health authority and is accountable to the Secretary of State for Health in England and to the National Assembly for Wales. Its decisions are based on an analysis of the costs and benefits of a particular technology by its Appraisal Committee. NICE guidance is not yet mandatory, though recent government announcements suggest this is likely to change. The equivalent body in Scotland is the Scottish Intercollegiate Guidelines Network (SIGN).

Rationing decisions have generally been made by health authorities, who have had some discretionary powers. With the shift towards Primary Care Trusts (PCTs) it is likely that some rationing decisions will be further devolved.

The *British National Formulary* (BNF) lists all drugs licensed for sale in the UK. Although it is not a positive list of drugs, it does indicate which drugs are not available on NHS prescription. Some products are excluded from NHS cover due to poor therapeutic value or excessive costs (Section 8a of the Drug Tariff). Other drugs are only available on NHS prescription in particular circumstances. There are hospital formularies and local formularies, for example for PCTs, but as the BNF is not a positive list of drugs, there is no national formulary in the UK.

In **Germany** benefits are more clearly defined with processes on two levels: by law and through delegated decision-making. Chapter 3 of *Sozialgesetzbuch V* (SGB V) describes (mostly in generic terms) the following types of benefits that must be included in the benefit package:

- Prevention of disease
- Screening for disease
- Treatment of disease (ambulatory medical care, dental care, drugs, non-physician care, medical devices, inpatient/hospital care, nursing care at home, and certain areas of rehabilitative care)
- Transportation.

In addition to these benefits in kind, sickness funds have to pay cash benefits to members after the first six weeks of sickness. During the first six weeks of sickness employers have to pay 100 per cent of employees' income in sick pay. Thereafter, sickness funds pay 80 per cent for up to 78 weeks per period of illness.

The *Sozialgesetzbuch* regulates preventive services and screening in considerable detail (for instance concerning diseases to be screened for and intervals between screening). Any further regulations are the remit of the *Bundesausschuss der Ärzte und Krankenkassen* (Federal Association of Physicians and Sickness Funds). The committee does, however, have considerable latitude in defining the benefits package for ambulatory, curative, diagnostic and therapeutic procedures. The range of procedures covered is wide, ranging from basic physical examinations in physicians' surgeries, home visits and antenatal care to care for terminally ill patients, surgical procedures, laboratory tests and imaging procedures including magnetic resonance imaging (MRI). While SGB V defines benefits for ambulatory care in generic terms only, it is more detailed in its description of dental, especially prosthetic benefits. One reason for this is the fact that the *Bundesausschuss der Zahnärzte und Krankenkassen* (BZK – Federal Association of Dentists and Sickness Funds) is not fulfilling its role as effectively as its physicians' counterpart.

The non-physician care sector comprises the personal medical services of professionals other than physicians, such as physiotherapists, speech therapists and occupational therapists. Patients are entitled to such services unless any are explicitly excluded by the *Bundesministerium für Gesundheit* (Federal Ministry of Health), which is currently not the case. Non-physician services may be delivered to the insured only if their therapeutic efficacy is recognised by the *Bundesausschuss der Ärzte und Krankenkassen*.

The range of services provided in the hospital sector is determined by two factors: the hospital plan of the *Länder* government, and negotiations between the sickness funds and each individual hospital (a result of the fact that the hospitals do not have a collective corporatist body). A hospital committee with similar competencies to the *Bundesausschuss der Ärzte und Krankenkassen* in relation to ambulatory care is currently being set up, so it is likely that there will be a higher degree of benefit standardisation in the future.

For most pharmaceuticals, free market entry (still) means that they may be prescribed and paid for by statutory health insurance schemes. However, there are a few important exceptions that are gaining increasing attention:

- Since 1983 drugs for certain conditions (common colds, drugs for the oral cavity with the exception of antifungals, laxatives and drugs for motion sickness) are excluded by law from the benefits package for insured people over 18 years old (§ 34(1) SGB V).
- The *Sozialgesetzbuch* allows the Minister of Health to exclude 'inefficient' drugs, ie drugs that are not effective (for the desired purpose) or combine more than three drugs whose effect cannot be evaluated with certainty (§§ 2, 12, 34(3) and 70 SGB V). Included in the evaluation are homeopathic, anthroposophic and phytotherapeutic drugs. A 'blacklist' of drugs based these principles came into effect on 1 October 1991. It was revised in 1993 and contains about 2,200 drugs.
- Additionally, drugs for 'trivial' diseases (such as common colds) which can usually be treated with treatments other than drugs may be excluded (§ 34(2) SGB V). A list of such drugs has not yet been established.

Drug prescribing is also regulated in the pharmaceutical guidelines of the *Bundesausschuss der Ärzte und Krankenkassen* and forms part of the contract between the two sides at the federal level. These guidelines, which are legally binding, attempt to set a framework for the appropriate use of different groups of pharmaceuticals. The Reform Act of SHI 2000 introduced a positive list, which should come into force soon.

As the UK and the German systems differ so greatly in their approach of defining (or not defining) benefits/entitlements, an in-depth comparative study is needed, to address questions such as:

- Who decides on benefits, based on what criteria?
- How explicitly are processes and criteria set?
- To what degree are benefits specified (eg are they limited to certain population groups, indications, providers)?
- What mechanisms exist to challenge decisions?

Aspects justifying special attention are complementary medicine (as a category of services receiving special 'protection' in Germany) and the collective health services which do not sit easily in SHI systems with multiple payers as in Germany. Such a study would provide important insights into the relative merits of the two systems in promoting effective and equitable treatment and promote the exchange of good practice.

### 4.3 Cost-sharing/user charges

In the **United Kingdom** charges are levied on prescription drugs, ophthalmic services and dental services. The prescription charge is a flat rate (£6.20 per item in England and £6.00 in Wales in 2002). However, there are exemptions for the following groups:

- Children under 16 and young people under 19 in full-time education (England), or all young people aged under 25 (Wales)
- People over 60
- People on certain social security benefits including Income Support, Working Families' Tax Credit, income-based Jobseeker's Allowance, Disabled Person's Tax Credit
- War pensioners, for prescriptions relating to their war disability
- Pregnant women and women who have had a child in the past year
- People who are housebound, ie who have a continuing physical disability which means they cannot go out without help from another person
- People with a specific listed medical condition
- NHS inpatients or people attending a clinic for sexually transmitted diseases.

This means that approximately 85 per cent of prescriptions are exempt from the charge. In addition, people who frequently need prescriptions may apply for a prepayment certificate, which costs £32.40 for four months or £89 for a year.

Patients must pay 80 per cent of the cost of NHS dental care up to a maximum of £366 (2002). There is a charge of £5.32 for a dental check up. The following groups receive dental care free (or largely free):

- Children and young people under 18 years old or under 19 and in full-time education
- Pregnant women and women who have had a child in the past year
- People in receipt of (or whose partner is receiving) Income Support, Working Families' Tax Credit, income-based Jobseeker's Allowance or Disabled Person's Tax Credit
- NHS in- or outpatients (if the treatment is carried out at the hospital).

Approximately one in four patients pay privately for dental care (80 per cent out of pocket and only 20 per cent through some form of prepayment scheme). There is a growing market for private dental insurance: about 9 million people had some private cover in 1998.

There are no charges for general practitioner (GP) consultations or inpatient stays. Patients may chose to pay for a bed in a private room (where these are available) in NHS hospitals – so-called 'amenity beds'. There is no tax relief on out-of-pocket medical expenses. No specific policies exist to cover co-payments in the NHS.

In **Germany** cost-sharing has a long tradition, the most traditional sector being pharmaceuticals. In 2002 co-payments range from €4 to €5 per pack, depending on size.



In addition, patients are required to pay any part of the price above the reference price. However, this hardly ever occurs as pharmaceutical companies adapt prices to the reference price. Other benefits which require cost-sharing are the first 14 hospital or rehabilitation days per calendar year (at €9 per day), ambulance transportation (€13 per trip), non-physician care (15 per cent) and dental crowns and dentures (35–50 per cent depending on regularity of dental check-ups). Ambulatory care and conservatory dental care do not require any co-payments.

Cost-sharing by patients is limited by a range of measures:

- People on very low incomes (€938 per month for single people, €1,289.50 for two persons and €234.50 for each additional person), and those on unemployment benefits or on social welfare are exempted from most cost-sharing requirements – with the notable exception of co-payments for hospital treatment.
- Young people up to the age of 18 years are exempted from cost-sharing except for co-insurance payments for crowns/dentures and co-payments for transportation.
- For all other sickness fund members, annual cost-sharing for medication, non-physician care and transportation (but not for hospitals and rehabilitation) is limited to a maximum of 2 per cent of gross income for single people. If two or more people are dependent on this income, the threshold is lowered by €4,221 for one person and €2,814 for each additional person per year. Co-payments for crowns/dentures are also lower for these people.
- Chronically ill patients who have spent at least 1 per cent of their gross income on medication, non-physician care and transportation are exempted from further payments for the duration of that illness. Unlike the above-mentioned limit, this exemption applies only to the person individually.

#### **4.4 Actual access and waiting lists**

Waiting lists and waiting times are an issue in the UK but not in Germany. They are not seen to be a problem in Germany and, due to high system capacity, do not present a problem in reality, with certain exceptions such as transplantations. In the UK an appointment in primary care can normally be arranged within 48 hours for urgent cases and within a week for routine appointments. Among patients interviewed about their last visit to a GP, 81 per cent thought they were seen as soon as was necessary, 15 per cent thought they should have been seen a bit sooner and 4 per cent a lot sooner (<http://www.doh.gov.uk/public/gpnhsurvey.htm>). Where access to primary care is more limited, for example in inner city areas, inappropriate presentations at accident and emergency departments are a problem.

Regarding specialised care, 22 per cent of patients waited more than 13 weeks for their first outpatient appointment in the second quarter of 2001/02 and 27 per cent of patients waited six months or more for an inpatient admission (<http://www.doh.gov.uk/waitingtimes/booklist.htm>). An NHS survey of coronary heart disease patients carried out in 1999 considered patient satisfaction of acute care. One-third of patients (34 per cent) on the waiting list thought that they should have been admitted to hospital sooner than they were. Understandably the proportion holding different views varied according to

the length of time on the waiting list. Nearly all (93 per cent) of those who had been on the waiting list for three months or less considered that they were admitted as soon as necessary. Those who had been on the waiting list longer than this were more critical. Of those who had been on the waiting list for 12 months or more, three-quarters considered that they should have been admitted sooner (<http://www.doh.gov.uk/nhspatients/chdsurvey2b.pdf>).

## 4.5 Rights and legal challenges

In the **UK** patient rights and responsibilities are set out in *Your Guide to the NHS* (DoH, 2001). All NHS trusts, health authorities, GPs, dentists, opticians and pharmacists have a complaints procedure. If a patient is not happy with the local response, they may ask for an independent review. If the patient is still not satisfied with the decision of the independent review panel, they may refer their complaint to the health service commissioner, or ombudsman. Under new legislation Patient Advocacy and Liaison Services (PALS) will be set up in every Trust, and there will be locally based independent complaints advocacy services.

In **Germany**, the *Sozialgesetzbuch* with its various component parts is the principal legislation regarding the rights of members of social protection schemes – in times when they are healthy as well as in times of sickness, unemployment etc. Many decisions taken by sickness funds, providers, provider associations and joint decision committees, as well as governmental regulations, may be challenged in the social courts. These exist at the local, regional, and federal level and constitute a separate court system devoted entirely to issues of social insurance. They rule on disputes between individuals and social insurance institutions or between social insurance institutions. For instance, they may be used by patients to sue their sickness fund for not granting a benefit.



## 5 Structure and organisation

### 5.1 Organisation

The organisation of the NHS in the **UK** is currently in a flux, as purchasing responsibilities are being passed from health authorities (HAs)/health boards (HBs) to primary care trusts (PCTs)/local health groups (LHGs). By 2004 primary care trusts (England and Scotland) and local health groups (Wales) will be the main purchasers of health care services. Most PCTs cover populations of between 50,000 and 250,000 people, although some larger ones are being formed.

PCTs directly provide primary care and community health services (under an integrated model) and commission services from hospital trusts and other secondary and tertiary care providers. PCTs may also commission other primary care services, such as physiotherapy, alternative therapies, counselling and so on.

The period 1991–2000 saw the development of a contracting system in the NHS. Initially based on a market model, the system is now operated through a system of Service and Financial Frameworks (SaFFs). These are designed to be longer-term and based on more collaborative arrangements between purchasers and providers. A system of diagnostic-related groups (DRGs) known as health-related groups has been developed for recording activity and payment.

In the **German** SHI system, introduced in 1883, sickness funds are the purchasers of health care. Except for some physicians employed to deliver ambulatory care in the early days of SHI, these purchasers have been separated from the providers since the inception of SHI – more than 100 years before the ‘invention’ of the split in the UK.

In 2000 the German SHI system consisted of 420 statutory sickness funds, legally differentiated into seven different groups:

- 17 general regional funds (*Allgemeine Ortskrankenkassen*, AOK)
- 12 substitute funds (*Ersatzkassen*) which are further subdivided into seven ‘white-collar’ and five ‘blue-collar’ funds: *Ersatzkassen für Angestellte* (EAN) and *Ersatzkassen für Arbeiter* (EAR) respectively
- 337 company-based funds (*Betriebskrankenkassen*, BKK)
- 32 guild funds (*Innungskrankenkassen*, IKK)
- 20 farmers’ funds (*Landwirtschaftliche Krankenkassen*, LKK)
- 1 miners’ fund (*Bundesknappschaft*)
- 1 sailors’ fund (*See-Krankenkasse*).

Traditionally the majority of members had no choice over their sickness fund and were assigned to the relevant fund based on geographical and/or job characteristics. This mandatory distribution of fund members led to greatly varying contribution rates

reflecting different income and risk profiles. Only voluntary white-collar members – and since 1989 voluntary blue-collar members – could choose among several funds, with the right to cancel their membership with two months' notice. Other white-collar workers (and certain blue-collar workers) were able to choose when becoming a member or changing jobs. Since this group grew substantially over the decades, around 50 per cent of the population had at least a partial choice in the early 1990s.

The *Gesundheitsstrukturgesetz* (Health Care Structure Act) of 1993 gave almost every insured person the right to choose a sickness fund freely (from 1996). From 1 January 1997 people could also change between funds once a year, on 1 January, having given three months' notice on 30 September of the preceding year. All general regional funds and all substitute funds were legally opened up to everyone and have accept every applicant. The company-based funds and the guild funds could choose to remain closed but if they do open up, they too have the obligation to contract with all applicants. Only the farmers' funds, the miners' fund and the sailors' fund still retain the system of assigned membership.

To provide all sickness funds with an equal starting position or a level playing field for competition, a risk compensation mechanism was introduced to equalise differences in contribution rates (due to varying income levels) and expenditure (due to age and sex) – see below.

When negotiating contracts with providers, sickness funds have traditionally acted in groups or jointly. Only recently has selective purchasing become an issue (since the introduction of competition among the funds). As a general rule, sickness fund members receive all services as benefits in kind, ie the sickness funds pay providers for care delivered. One exception to this rule is the option for persons voluntarily insured under SHI to opt for cost-reimbursement.

## 5.2 Allocating funds to payers and types of health care

Since the 1970s a weighted capitation formula has been used in the **UK** to allocate resources from central government to the health authorities/health boards. Health authorities (England) and health boards (Scotland) then allocate resources to primary care trusts (PCTs) and local health groups (LHGs) respectively. From 2003/04 (subject to legislation) allocations will be made directly to PCTs/LHGs following recommendations of the Advisory Committee on Resource Allocation.

In **Germany** a risk compensation mechanism requires all sickness funds to provide or receive transfers in relation to differences in their contributory incomes as well as in average expenditures. For both sexes, average expenditure for benefits included in the uniform comprehensive package is calculated for one-year age brackets using actual expenditure data (ie the actual calculation is always retrospective and only estimated for the current year).

The sum of these average expenditures for all members of a sickness fund determines that fund's need for contributions. The sum of all funds' contribution needs divided by the sum of all contributory incomes determines the compensation scheme's rate, which is used to

compare actual contributions and the need for contributions to calculate the sums that must be transferred. In doing so, the risk compensation mechanism also equalises the effects of different income levels between the members of the funds and differences in the number of their dependants (since they are included on the expenditure side while they enter the calculations of actual contributions as zero).

When free choice and a risk compensation mechanism were introduced, it was generally expected that older people would exercise their right to choose as much as the young, the less rich as much as the rich and the ill as much as the healthy. This expectation did not materialise. Few people moved in the first year or two, but subsequently the numbers increased year by year. Those who moved were, however, mainly young and healthy, thereby necessitating increases in transfer sums, from 8.1 per cent of total expenditure in 1996 to 9.6 per cent in 2000. A better 'mixture' of people moving funds would have reduced the transfers needed.

People moved to funds with lower contribution rates, most often 'open' company-based funds with a service infrastructure relying on a hotline and a website. These can maintain their low contribution rates as long as their members have a below-average expenditure per age/sex group. In 2001 it was decided to abolish the once-a-year date for changing in favour of a continuous right but an obligation to then remain in the new fund for 18 months. In addition, a high-risk pool was introduced to cover 60 per cent of that portion of an insured's expenditure exceeding € 40,000 per year. Extra compensation was brought in for people enrolled in disease management programmes, and it was decided to move to a morbidity-based compensation mechanism from 2007.

While previous research has compared the resource allocation formulae used in SHI countries, there is much to be learnt from a formal comparison of the implications for equity of the similarities and differences between the German system (based on individual data on age, sex and future morbidity) and the British system of community-based indicators. As the UK moves to even smaller population units (PCTs), it may benefit from the German experience. Germany, on the other hand, might learn from the UK experience that some population-based indicators are useful in a system of multiple competing payers.

### 5.3 Resource allocation to different services

The largest financial component in the **UK** health system is current expenditure on hospital and community health services and family health services discretionary spending: this accounts for 85 per cent of total NHS expenditure. The remainder is divided between the following:

- Capital spending – 2 per cent
- Family health services non-discretionary spending (including GP remuneration, dental services, ophthalmic services and charges for dispensing and pharmaceutical services) – 11 per cent

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- Central health and miscellaneous services (including public health functions) – 1 per cent
- Departmental administration – 1 per cent.

(Net expenditure: gross figures minus charges/receipts – [http://www.doh.gov.uk/HPSSS/TBL\\_E1.HTM](http://www.doh.gov.uk/HPSSS/TBL_E1.HTM))

In **Germany** the new system of health accounting differentiates between types of services and providers, and this solves some of the problems of transparency experienced in other countries (eg how outpatient care delivered by hospitals is classified). Due to the strong role of the ambulatory care sector, more resources are spent there than in the inpatient sector – see Table 3.

**Table 3**  
**Expenditure by type of service and provider in Germany, percentage of total, 1992 and 1998**

	1992	1998
<b>Expenditure by type of service</b>		
Prevention and health protection	4.5	4.2
Services by physicians	28.9	25.9
Services by nurses and other health professionals	18.5	21.4
Sickness-related consequences eg non-medical rehabilitation)	2.4	3.2
Accommodation and food	8.3	7.0
Goods (pharmaceuticals, devices etc)	27.0	26.1
Transport	1.2	1.5
Administration	7.2	5.2
Education and research	2.1	1.9
<b>Expenditure by type of provider</b>		
Public health offices/health protection institutions	2.5	2.4
Ambulatory sector	45.9	45.2
– Physicians’ practices	13.4	13.4
– Dentists’ practices	8.7	6.1
– Practices of other health professionals	2.6	2.7
– Pharmacies	14.3	12.7
– Health sector trade/manufacturing	5.6	7.8
– Institutions for ambulatory nursing care	1.1	2.3
In-patient sector	42.5	38.2
– Hospitals	32.5	28.8
– Preventive and rehabilitative institutions	3.5	3.0
– Nursing homes	6.5	6.5
Transportation providers	0.7	1.2
Administration	5.9	5.3
Others	2.5	3.7

Source: Federal Statistical Office, 2001. Note: Data based on new health accounting method. Note: Figures exclude up to 4 per cent undividable expenses.

## 5.4 Human resources

Surprisingly little comparative information is available on human resources in the UK and German health systems. International databases provide extensive statistics, but these are of dubious validity. First, data is often not available, as for instance the number of nurses for the purpose of calculating the EU average. If figures are available, it is often either not clear whether they refer to all qualified personnel (ie including those retired or not working), only those currently working or only those currently working in the public sector, whether they refer to individuals or full-time equivalents (FTEs) and so on. And even if this is clear, one has to be aware that, with the exception of clearly defined professions such as physicians and dentists, very different people may be classified in one category. For example, in some countries the category 'nurse' may include only those who have trained for at least three years and are registered with a professional association (in Germany such an institution does not exist). In other countries it could include people who have had shorter training periods.

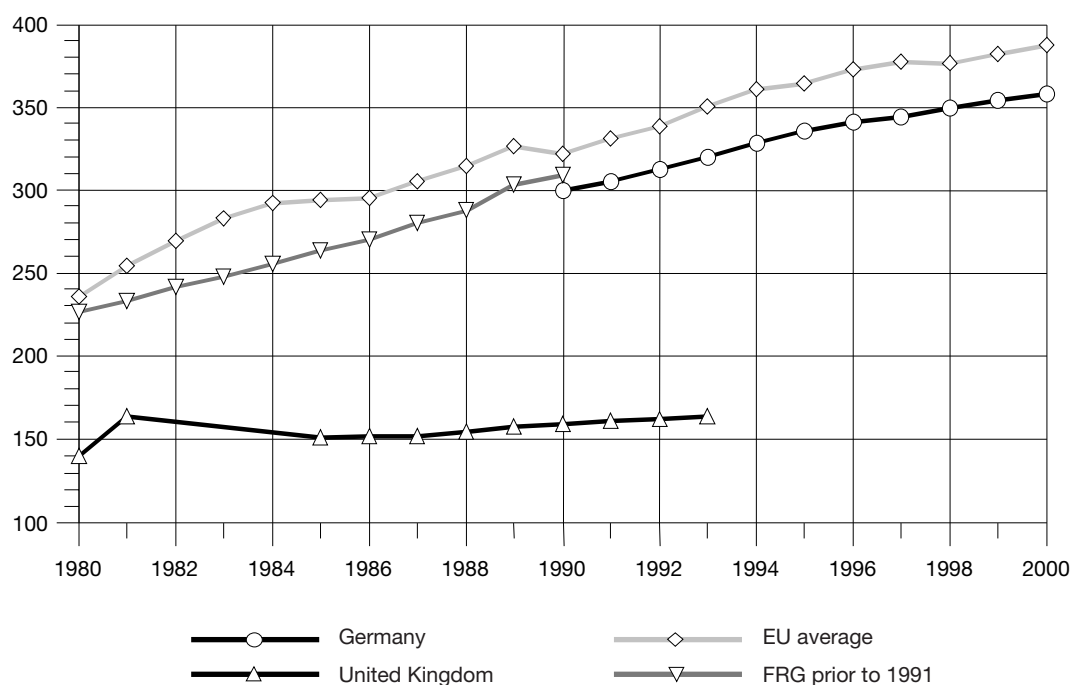
Given these inconsistencies, available data should be interpreted with great caution. According to WHO (2002) there were 60 GPs per 100,000 population in the UK in 1998. According to UK workforce data there were 250,700 qualified FTEs in nursing, midwifery and health visiting in 1999 ([www.doh.gov.uk/hpsss/tbl\\_d1.htm](http://www.doh.gov.uk/hpsss/tbl_d1.htm)). It is not possible to identify how many of these were working exclusively in primary care. There are currently about 36,000 GPs in the NHS. There were 1.5 practising specialists per 1,000 population in 1999 (OECD, 2001) and around 500 FTE nurses per 100,000 population in 1998 – compared to 850 in Germany (WHO, 2002). Approximately 87 per cent of UK nurses work in hospitals – as do the majority of specialists. There were 6,343 consultants in all medical specialties in the UK in 2000 (5,612 FTE – [http://www.rcplondon.ac.uk/college/mwu/mwu\\_headlines2000.htm](http://www.rcplondon.ac.uk/college/mwu/mwu_headlines2000.htm)). *The NHS Plan* (DoH, 2000) set targets for an extra 2,000 GPs, 7,500 specialists and 20,000 nurses in the NHS by 2004. However, even such an increase would bring UK figures nowhere near the EU average, as 10,000 physicians represent only about 16 per 100,000 population – see Figure 10.

Human resources are subject to other peculiarities. Education/training takes a long time (even more so if new educational institutions are needed). So it takes much longer to increase the numbers of qualified personnel than to change numbers of hospital beds. Once qualified, professionals can be lost due to inter-country mobility (which is likely to increase after the enlargement of the EU) or simply to low incentives to stay inside the health care system – a phenomenon that is common among nurses in the UK (see Table 4).

There are important differences between Germany and the UK in many aspects of training, regulation and continuing development of health professionals, reflecting historical structures and institutions. Both models have strengths and weaknesses, although so far there is little evidence of mutual learning.

Human resource planning and development is a key topic for further comparative research. This research should analyse existing data more closely, examining comparability of definitions and contextual variables (in other words, discovering whether terms actually mean the same thing) and should compare systems for forecasting, planning and training. It should also explore the causes and consequences of the changing health care workforce in the two countries, in particular:

## HEALTH CARE SYSTEMS



**Figure 10**  
**Number of physicians per 100,000 population; 1980–2000 (WHO, 2002)**

- The use of family-friendly policies to promote retention
- The implementation of evolving systems for lifelong learning and continuing professional development
- Differences in professional regulation (in particular with regard to increasing European integration)
- How the professions are responding in terms of their roles and relationships to changing health needs, public expectations and new forms of health care intervention, in particular those requiring multi-disciplinary team working.

**Table 4**  
**Burnout, job satisfaction and intentions to leave present job among nurses, 1998/99**

	US	Canada	England	Scotland	Germany
Percentage dissatisfied with present job	41.0	32.9	36.1	37.7	17.4
Percentage with scores in high burnout range according to norms	43.2	36.0	36.2	29.1	15.2
Percentage planning to leave present job in the next year	22.7	16.6	38.9	30.3	16.7
Percentage under age 30 planning to leave present job in the next year	33.0	29.4	53.7	46.0	26.5

Source: adapted from Aiken et al, 2001

## 5.5 Ambulatory care

In the **UK** most ambulatory care is provided by general practitioners (GPs) in group practices. The majority of practices consist of four or more GPs. Patients may choose to register with any GP if they are resident within the designated practice area, though GPs are not obliged to accept everyone who asks to be registered. The average GP list numbers about 1,800 patients. In addition to GPs, practice nurses, community nurses (district nurses, midwives, health visitors) and other health care professionals (including chiropodists, physiotherapists, occupational therapists, speech and language therapists) are common in primary care.

Private general practice is very small. There are only about 200 exclusively private GPs in the United Kingdom, mostly concentrated in London. The NHS contract does not allow GPs to see patients registered on their NHS list privately.

GP remuneration is a mix of fixed allowances, capitation fees and fees for a number of specific services. The GP contract is currently under review and is the subject of negotiation between the General Medical Services Committee of the British Medical Association (BMA) and the National Association of Health Authorities and Trusts (NAHAT) on behalf of the Department of Health.

GPs are able to borrow money for investment in premises from the General Practice Finance Corporation. In 1989 this corporation was privatised, and between 1990 and 1998 loans offered rose from £158.8 million to £983.3 million. Ministerial emphasis on private finance initiatives in primary care were reaffirmed through a £10 million investment programme announced in 2001. This programme – based on Local Improvement Finance Trusts (LIFT) – involves public–private partnerships.

All ambulatory care in **Germany**, including primary care and outpatient secondary care, has been and is organised almost exclusively on the basis of office-based physicians (who have the legal monopoly for providing ambulatory care). The majority of physicians have a solo practice, with only around 30 per cent sharing a practice. Premises, equipment and personnel are financed by the physicians themselves. Ambulatory physicians offer almost all specialties with all technical equipment up to MRI scanners. Besides GPs, the most frequent specialties are as follows:

- Internists (appr. 16 per 100,000 population),
- Gynaecologists (appr. 9/100,000)
- Paediatricians (appr. 6/100,000)
- Ophthalmologists (appr. 5/100,000)
- Orthopaedists and neurologists (each appr. 4/100,000)
- Ear, nose and throat (ENT) physicians, surgeons and dermatologists (each appr. 3/100,000)
- Urologists and radiologists (each ca. 2/100,000).

The vast majority treat both SHI and private patients, with just 3 per cent treating only private patients.



Germany has no gate-keeping system. Instead, patients are free to select a SHI-affiliated doctor of their choice. The *Sozialgesetzbuch* allows sickness fund members to select one physician per quarter as the primary contact with the health care system. Since there is no mechanism to control or reinforce this self-selected gate-keeping, patients frequently consult office-based specialists directly rather than being referred by a family practitioner.

Family practitioners (appr. 47/100,000) are GPs and physicians without specialisation. General internists and paediatricians may choose whether they want to work as family practitioners or as specialists. This is important, since specialists and family practitioners have different reimbursable service profiles.

Despite efforts by the federal government to improve the status of family practice in the ambulatory care sector, the number of office-based specialists has increased more rapidly than those of GPs over the past few decades. As a result the number of GPs, as a proportion of all office-based physicians, dropped to less than 40 per cent.

Waiting times are not reported. Most physicians (except for the highly specialised ones) divide their surgery hours into appointment times and times for walk-in patients. The physicians' associations are legally required to provide around-the-clock services. While in rural areas every physician will take the calls of his/her own patients, in small towns physicians usually have a rota for out-of-hours services. In cities the physicians' associations often provide an emergency service at a central location. Despite this, quite a number of patients do access the hospital directly, for which these are not really prepared and which causes unnecessary costs.

The payment of office-based ambulatory physicians is not straightforward, but subject to a process involving two major steps:

- First, the sickness funds make payments to the physicians' associations for the remuneration of all SHI-affiliated doctors. This releases them from the duty of paying the doctors directly. This payment is usually negotiated as a capitation per member or per insured person. The capitation – which varies between substitute and other funds within a *Land* and between *Länder* – covers all services by all SHI-affiliated physicians of all specialties.
- Second, the physicians' associations have to distribute these total payments among their members according to the *Einheitlicher Bewertungsmaßstab* (EBM – Uniform Value Scale) and additional regulations.

Prior to payment, the physicians' associations have to check, record and total up the data that forms the basis of these calculations.

The EBM contains all approved medical procedures. While the *Bundesausschuss der Ärzte und Krankenkassen* decides which of these are included in the benefits package, a separate joint committee at the federal level, the *Bewertungsausschuss* (Valuation Committee), is responsible for the EBM. Each service or procedure is allocated a point value (hence the name 'value scale') and linked to certain conditions for claiming reimbursement, eg particular indications for use or exclusions of other services during the same visit.

At the end of each quarter, every office-based physician invoices his/her physicians' association for the total number of service points delivered. While physicians receive



monthly payments based on previous figures, their actual reimbursement will depend on a number of factors:

- Since 1997 the number of reimbursable points per patient is limited – with the limit varying between specialties and between Länder.
- The total budget negotiated with the sickness funds is divided by the total number of points delivered and reimbursable for all services within a regional physicians' association. This means that the monetary value of each point cannot be predicted as it depends on the total number of points. The monetary value is then used to calculate the physicians' quarterly remuneration.
- The actual reimbursement may be further modified through the Remuneration Distribution Scale which is different for every physicians' association. This allows regulation of minimum and/or maximum point values for the different specialties and/or different service categories to adjust for large variations between specialties.

Reimbursement is further subject to control mechanisms to prevent over-utilisation or false claims. Physicians may be subject to utilisation reviews at random or if their levels of service provision or hospital referrals *per capita* are higher than those of colleagues in the same specialty and under comparable circumstances. To escape financial penalties, the physician has to justify the higher rates of utilisation and referral, which may be due to a higher number of severely ill patients. Utilisation review committees and utilisation review arbitration committees with an equal number of physicians and sickness fund representatives are responsible for these controls.

Unlike SHI, privately insured people generally have to pay ambulatory providers directly and are reimbursed by their insurer. Although the *Bundesministerium für Gesundheit* issues a price list for privately delivered medical services, physicians usually charge more – by a factor of 1.7 or 2.3 (the maximum levels for reimbursement by the government and by most private health insurers for technical and personal services respectively) or even more. The real fee-for-service reimbursement for privately insured people has led to cost increases which in the period between 1989 and 1999 were on average 40 per cent higher than for people covered by SHI – with increases larger than twofold for dental care, pharmaceuticals and ambulatory care.

In summary, ambulatory care is the 'classical' area of delegated decision-making in Germany (see Box 1). Many of the mechanisms and institutions developed here are currently being extended to the hospital sector and other areas of the health care sector. On the other hand, corporatist decision-making, especially in the area of pharmaceuticals, is being challenged on the grounds of EU cartel regulations.

### **Box 1**

#### **Delegated decision-making/enforced self-regulation in Germany's SHI system**

The *Sozialgesetzbuch*, specifically 'Book V' (SGB V) – amended and supplemented by various reform laws – is the regulatory framework for Germany's statutory health insurance system. Enacted by the parliament, it defines the goals of the health care system and the rules to run the system, ie who has the right and/or obligation to set the actual detailed regulatory framework as well as to monitor compliance.

The stated objectives of the health system are needs-based access and provision, quality of service, and equitable and sustainable financing. The legislation regulates the system by defining roles and responsibilities for bodies within the system, the tasks delegated to them as well as the requirements for co-operation and joint working.

Bodies with delegated regulatory powers include the statutory sickness funds and their federal and regional associations as well as similar associations of providers. Most of these bodies have not only been charged with public tasks but have also been established by law and exert legal powers over their membership; these bodies are called 'corporatist'. They are thus not 'private' in the standard sense of the term, yet they are clearly not 'public' either: they are, rather, a unique hybrid that combines private status with public functions.

The substantial list of tasks legally delegated to self-regulatory bodies includes:

- Defining the detailed ambulatory benefits package (including the definition of the rules for doing so, eg relating to health technology assessment)
- Defining rules for physicians' service delivery
- Setting the reimbursement scales for services provided by outpatient physicians
- Determining the budget for ambulatory care and the spending cap for pharmaceuticals
- Setting the rules for opening new physicians' practices ('needs-based planning') and deciding on the actual opening of new practices
- Defining the rules for, and conducting the evaluation of appropriateness, quality and efficiency of the service delivery of physicians (utilisation review)
- Selecting appropriate groups of pharmaceuticals for reference price-setting and determining the actual reference prices
- Defining the prescription chain for outpatient pharmaceuticals: sickness fund, physician, pharmacy and patient
- Defining benefits, prices and conditions for service delivery in the areas of medical devices, non-physician services, nursing care at home, ambulance transportation and ambulatory rehabilitation.

An important aspect of self-regulation is termed 'joint self-regulation' by (at least) two different bodies. Joint self-regulation takes two different forms: first, negotiations followed by contracts and, second, decisions by joint committees. While some delegated tasks always require decisions by joint committees (eg defining the benefits package), others are only decided by joint committees if no agreement can be found in open negotiations (eg on the budget for ambulatory care). In still others, a joint committee is the first level of appeal against decisions of another joint committee (eg in the case of claims review). Legislation also gives bodies involved in joint self-regulation the right to abolish certain mechanisms introduced by law, a prime example being spending caps for pharmaceuticals [§ 84].

At the federal level, joint self-regulatory institutions in the German system include the *Bundesausschuss der Ärzte und Krankenkassen* (Federal Committee of

Physicians and Sickness Funds), the *Bundesausschuss der Zahnärzte und Krankenkassen* (Federal Committee of Dentists and Sickness Funds), the *Bewertungsausschuss* (Valuation Committee), the *Erweiterter Bewertungsausschuss* (Extended Valuation Committee) and, since 2000, the *Ausschuss Krankenhaus* (Committee for Hospital Care) and *Koordinierungsausschuss* (Coordinating Committee) (for decisions concerning both the ambulatory and the hospital sectors).

At the level of each of the 16 *Länder*, there are committees of physicians and sickness funds, arbitration committees, accreditation committees, accreditation arbitration committees, claims review committees and claims review arbitration committees. Atypical joint self-regulatory institutions include governmental representatives, such as the committees to plan the infrastructure of high-level technologies (abolished in 1997). In addition, the corporatist institutions themselves have some of the 'classical' freedoms of self-regulation. For example, the sickness funds themselves determine the contribution rate necessary to cover their expenditure.

Monitoring and supervision of self-regulatory decisions – whether they are made by an individual corporatist institution, in the form of a contract or a decision by a joint committee – is a multi-layered endeavour involving self-regulatory institutions themselves, the government, independent agencies and the social courts. At the federal level, 'the government' is the *Bundesministerium für Gesundheit*, which oversees the federal associations of sickness funds and providers, joint institutions involving two or more of them, as well as their decisions and contracts. An independent agency, the *Bundesversicherungsamt* (Federal Insurance Office), is charged with monitoring and supervising country-wide sickness funds. For bodies, decisions and contracts on the *Länder* level, 'the government' is the statutory health insurance unit within the *Länder* ministry responsible for health.

Supervision and enforcement take place at several levels:

- Level A: formal governmental approval of decisions taken by self-regulatory bodies
- Level B: the governmental right to change self-regulatory decisions if these are not taken in accordance with the law
- Level C: legal threats to institutions that intentionally or unintentionally do not fulfill their prescribed tasks.

At level A, the responsible governmental unit has to ensure that self-regulatory decisions and contracts fulfil social objectives. In practice, most emphasis is put on the sustainability of financing, ie cost-containment. If the contract violates the 'income-oriented expenditure policy' it will not be approved.

Level B enforcement relates mainly to obligations of joint regulatory bodies. For instance, the *Bundesminister für Gesundheit* may issue guidelines on health technology assessment if the *Bundesausschuss der Ärzte und Krankenkassen* fails to do so or if ministerial complaints relating to draft guidelines are not taken into account (SGB V, § 94). Similar rights were granted in the case of planning the

infrastructure for expensive high technology until the abolition of the responsible committees in 1997 (§ 122).

At level C, while the ultimate threat to sickness funds – being closed by the state government (§§ 146a, 153, 163, 170) – is invoked mainly in cases of financial instability or incompetence, the ultimate threats to physicians' and dentists' associations are more related to their conduct as corporatist institutions. The first threat is the installation of a state commissioner if no board is elected or if an elected board refuses to act in accordance with its legal responsibilities (§ 79a). If 50 per cent or more members of an association refuse to treat sickness fund-insured patients, the association loses its legal monopoly to provide ambulatory care, which is then passed to the sickness funds (§ 72a). Both of these threats were only introduced in 1992 (in force 1993) as a result of announcements made by self-governing associations to disobey certain legal requirements. The instalment of a state commissioner has been used only once (Busse and Howorth, 1999): in 1995 the government of *Niedersachsen* (Lower Saxony) removed the board of the dentists' association because it had refused to sign contracts with the sickness funds. It installed a senior government official as state commissioner who then signed contracts. Only afterwards were board members allowed to return to their offices.

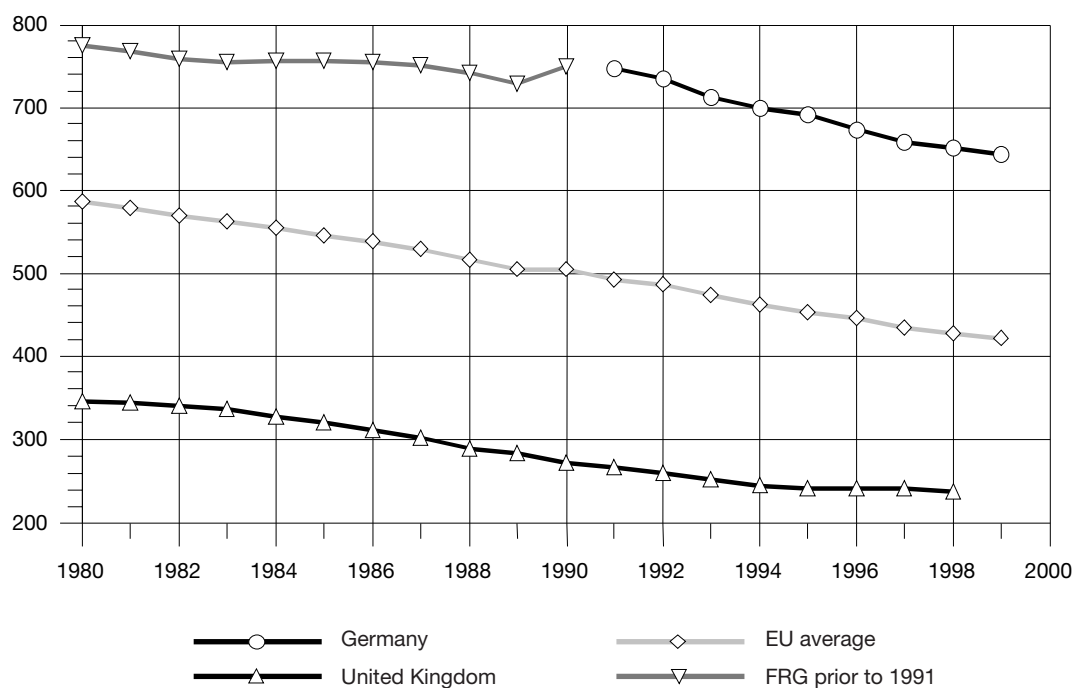
Many self-regulatory decisions as well as governmental regulations may be challenged before the social courts at the local, regional, and federal levels. As already stated, the social court system is separate from civil, administrative and constitutional courts. It decides in cases of dispute between individuals and social insurance institutions or between social insurance institutions. Within health care, examples include patients suing their sickness fund for not granting a benefit, physicians disputing the calculations of the claims review arbitration committee, or medical device companies objecting to the non-inclusion of their product into the benefits package by the *Bundesausschuss der Ärzte und Krankenkassen*.

In the UK the organisation of primary care is moving from primary care groups (PCGs) to primary care trusts (PCTs). In some ways the PCTs mirror the German physicians' associations, for instance in receiving a capitation for providing services and in making membership mandatory for physicians. In other ways they differ from the German model, for instance in that capitation in the UK includes resources to purchase other care – which in Germany is discussed under 'combined budgets'. There is, therefore, considerable scope to compare these two organisational concepts, in particular as regards the scope and nature of regulations on accountability and governance.

## 5.6 Secondary care

In the **UK** 'secondary' care comprises both ambulatory specialist and inpatient care, while in **Germany** it only refers to inpatient care. A meaningful quantitative comparison should therefore focus, where possible, on inpatient care (even though ambulatory/day surgery etc makes this increasingly difficult).

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**Figure 11**  
**Hospital beds in acute care hospitals per 100,000 population; 1980–99**  
**(WHO, 2002)**

Bed numbers in acute care institutions differ widely within the EU, with Germany and the UK marking the two extremes. Germany has downsized its acute care sector, but only in line with the EU. Numbers have remained 50 per cent above the EU average. Despite a much smaller starting figure of less than 60 per cent of the EU average, downsizing in the UK proceeded at the same pace as in the rest of the EU until the mid-90s, when it slowed down somewhat. The UK is currently the only EU country where future expansion of the sector is on the political agenda.

Secondary care in the **UK** is provided in general acute NHS trusts (about 200), small-scale community hospitals (about 400) and highly specialised tertiary level hospitals. In the private sector there are about 230 private hospitals, dominated by five for-profit chains. Independent hospitals or wings are sometimes built on NHS hospital sites as an integrated part of the NHS hospital. In total less than 5 per cent of the total bed stock is in private hospitals.

The rules governing purchasing arrangements by NHS hospitals are centrally set and uniform across the NHS. However, hospitals have autonomy to make purchasing decisions.

NHS patients must have a referral from a GP to access secondary care. Most GP referrals are made to local hospitals and follow contractual arrangements between the HA/HB or PCT/LHG and the hospital. Under the concordat signed between the Secretary of State for Health and the Independent Healthcare Association (<http://www.doh.gov.uk/commissioning/guidance.htm#concordat>), HAs/HBs or PCTs/LHGs are free to commission services from the private and voluntary sector. At present this activity is small-scale and mainly used to meet winter pressure and other peaks in demand.

Hospital staff are salaried. NHS consultants (senior specialists) on full-time contracts are permitted to earn up to 10 per cent of their gross income from private practice (PFI). Consultants working on maximum part-time contracts are permitted to engage in private practice without restriction on their earnings by giving up payment for one NHS session per week. The consultant contract is currently under review. Services provided to privately insured patients are normally charged on a fee-for-service basis. Both the consultant and the hospital will normally issue separate itemised bills. These fees are not fixed.

An increasing proportion of hospital capital expenditure is funded through the private finance initiative. By the end of 2000, 23 major PFI contracts had been signed. These had a combined value of £2.2 billion. In addition, another estimated £2 billion was in the pipeline. PFI currently funds about 85 per cent of major NHS investment projects. By 2003/04 it is expected to account for around 22 per cent of all NHS capital expenditure.

Except in emergency conditions (especially if the transport is by ambulance), access to hospitals in **Germany** also requires a referral from an ambulatory physician (GP or specialist). All hospitals are legally required to accept urgent cases at all times, even if the occupancy rate exceeds 100 per cent. It should be noted that in Germany 'urgent' is defined fairly broadly and includes cases which in other countries would be considered elective.

Patients can choose which hospital they want to be referred to, though in reality the referring physician will have an important say. Admissions are usually carried out the same day as the referral note is issued (except for certain university departments). In urban areas with more than one hospital, individual hospitals can notify the emergency coordination service (where all the emergency 112 calls are taken and ambulances coordinated at the *Länder* level) when all their bed spaces are full, but the emergency service will not allow all hospitals to do this at the same time.

Overall bed reductions are wholly accounted for by bed reductions in public hospitals, while private not-for-profit hospitals maintained their numbers and private for-profit hospitals increased bed spaces by two-thirds – mainly through takeovers, see Table 5. Takeovers of previously public hospitals by private investors were more frequent in eastern Germany, where the share of privately owned beds in the acute sector is now above 10 per cent, ie twice as high as in western Germany. In other cases only the management function is contracted to private companies, who own some hospitals and only manage others.

**Table 5**  
**Ownership of German general hospitals, 1990 and 1999**

	Public		Private, not for profit		Private, for profit		Total
	Beds	Percentage share	Beds	Percentage share	Beds	Percentage share	Beds
1990	387,207	62.8	206,936	33.5	22,779	3.7	616,922
1999	287,127	54.3	204,059	38.6	37,760	7.1	528,946
Change (%)	-26		-1		+66		-14

Source: Own calculations based on Federal Statistical Office.

The German private for-profit segment has, as in other countries, two very different sub-segments:

- Hospitals which are contracted by the sickness funds to provide publicly financed health care services
- Hospitals which deliver services for private payers only.

The latter type of private hospitals have no contractual relationship with health authorities or sickness funds and are exempt from most regulations ensuring equal distribution, access and financial sustainability. However, in Germany, the vast majority of private for-profit hospitals (and all private not-for-profit ones) fall into the contracted group, so the impact of privatisation on access, financing and utilisation is marginal. From the perspective of the insured patient, the status of a hospital does not matter – and is usually not even known.

Hospitals receive their money through the so-called dual financing mechanism, whereby investment costs are financed through the *Länder* and running costs through sickness funds (plus private patients). In order to be eligible for investment costs, hospitals have to be listed in the hospital plans set by the *Länder*.

Running costs include all personnel costs, as hospital physicians are salaried employees of the hospitals. Running costs are reimbursed through prospective case fees and procedure fees as well as *per diem* charges, all under one target budget. Case fees are supposed to cover all costs during a hospital stay while procedure fees are reimbursed on top of the (slightly reduced) *per diem* charges. Case fees are based on a combination of a certain diagnosis (four-digit ICD-9 – international classification of diseases, 9th edition – partly split into elective and emergency) and a specific intervention. For instance, open appendectomy attracts a case fee different from that for laparoscopic appendectomy. Procedure fees are only based on an intervention and more than one procedure fee may be remunerated per case. German case fee definitions include a specified maximum length of stay which will be covered. If the actual length of stay exceeds this maximum, extra days are reimbursed separately. The proportion of cases reimbursed through prospective case fees is less than a quarter, with wide variations both between hospitals and specialties. While no case fees exist for medical, paediatric or psychiatric patients, more than 50 per cent of cases in gynaecology and obstetrics and about two-thirds of ophthalmologic cases are reimbursed in this way. Both the number of different case fees and procedure fees offered and the volume provided are subject to budget negotiations at hospital level.

All other cases are currently reimbursed by a two-tier system of *per diem* charges: a flat hospital-wide rate covering non-medical costs and a department-specific charge covering medical costs including nursing, pharmaceuticals, procedures etc. Case fees, procedure fees and *per diem* charges are all part of the budget for each particular hospital. These German-style budgets are not budgets in the sense that the hospital will get an amount of money independent of actual activity. Instead, the budgets are targets established during the negotiations between the sickness funds and the hospital. The target budget establishes service numbers (for cases to be reimbursed by case and procedure fees as well as for cases reimbursed by *per diems*) as well as the *per diems*.

If the hospital reaches exactly 100 per cent of its target activity, then no financial adjustment has to be made. If actual activity is higher than the target, ie if the hospital

has been reimbursed above the target budget, then it has to pay back a certain part of the extra income – 50 per cent of case fees for transplantations, 75 per cent of other case and procedure fees and 85–90 per cent of *per diems*. In other words, activity above the target is only reimbursed at 50 per cent, 25 per cent and 10–15 per cent respectively. If actual activity is lower than the target, ie if the hospital's total reimbursement has not reached the target budget, then it receives 40 per cent of the difference. This sum is divided according to utilisation between the funds, ie actual case fees, procedure fees and *per diems* are then higher than originally negotiated.

The *GVK-Gesundheitsreform 2000* (Reform Act of SHI 2000) orders the introduction of a new payment system for hospitals based on case fees for all patients (except psychiatry). It will be introduced on a voluntary basis from 2003 and becomes mandatory from 2004.

All hospital staff are salaried. The head physicians of departments (one per department) charge private patients for medical services on top of the hospital charges. How much of that income they may keep depends on their contracts with the hospital. This used to be quite a lot, but the percentage may be quite small for recently appointed department heads.

A recent study by the European Observatory on Health Care Systems highlighted the scarcity of comparative research on hospitals, despite their importance in the health care system (McKee and Healy, 2002).

Several issues arise. The first relates to hospital planning. How is the need for new facilities or closure of old ones identified? To what extent is evidence on changing clinical practice taken into account? What lessons can be learned from the new types of hospital capital financing and operation that each country is implementing (publicly owned but privately financed, publicly owned but privately managed etc – cf Busse et al, 2002)?

The degree of government control varies greatly between Germany and the UK, with the UK having recently strengthened its regulatory systems by setting up bodies such as the National Institute for Clinical Excellence (NICE) and the Commission for Health Improvement (CHIimp).

As a result, how do British and German hospitals now differ in their latitude for decision-making? And what are the implications for the delivery of health care? While sickness funds and health authorities or PCTs have quite different structures, they also have common goals, in particular that of promoting high-quality care. What insights can be gained from the strategies that each has pursued regarding hospital care? Looking at the role of hospitals within the wider health system, what are the implications of the very different relationships between inpatient and ambulatory care in each country and, as the boundaries are shifting in each country, how can each learn from the other?

Turning to the delivery of hospital care, how is each country addressing the challenge of ensuring that the health care that is provided is effective and that the distribution of resources supports rather than impedes high-quality, integrated care (what is referred to in the UK as 'clinical governance')?

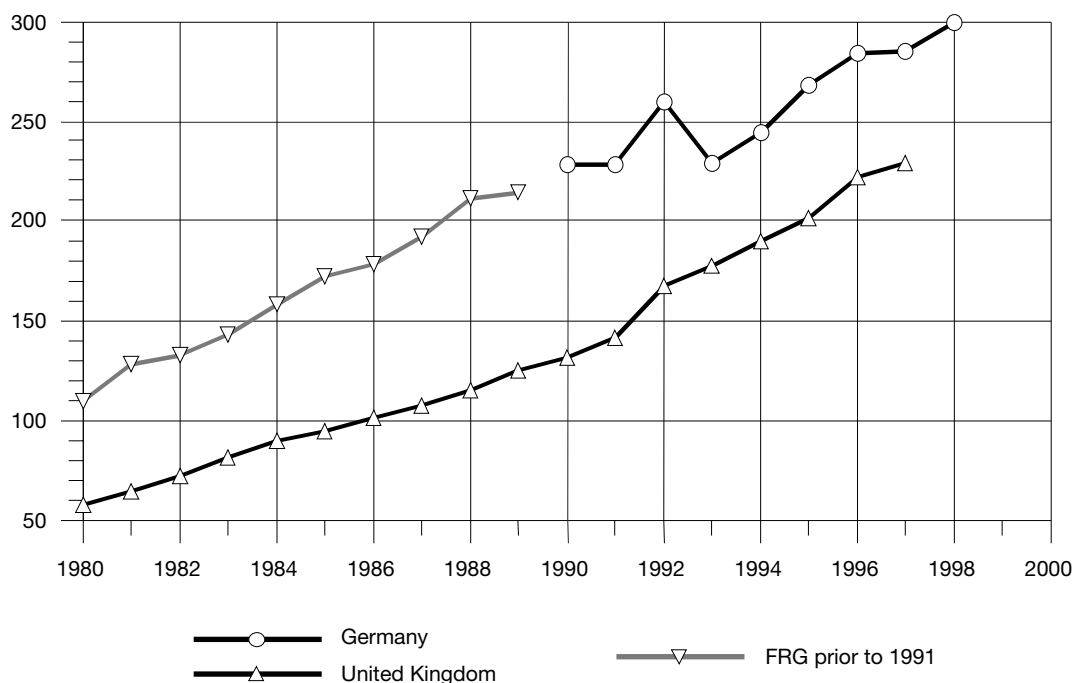


One area of great importance relates to the organisation of physicians within the hospital, in particular the British model of consultants of equal status versus the German model of 'chief physicians'. Shifts in working patterns of junior doctors and consultants (reflecting new European laws) in the UK are considered by some Royal Colleges to be leading inexorably to a German pattern of hospital staffing, the implications of which are likely to be profound, yet poorly understood in the UK.

## 5.7 Pharmaceutical care

Pharmaceutical care in Germany and the UK is in many respects quite similar, especially regarding licensing (which is governed by EU regulations) and distribution of pharmaceuticals. Distribution in both countries is mainly through community pharmacists (in Germany called 'public' pharmacies even though they are privately owned). Differences exist in the way pharmaceutical benefits are defined (see above) and prices are determined. There is a relatively well-developed body of research on reference price setting in Germany and on the rate-of-return regulation in the UK (eg Mossialos and Mrazek, 2002). Less well-known and researched are the German regulations that each pharmacist may only own and operate one pharmacy, ie chains (and internet) pharmacies are illegal.

Pharmaceutical expenditure *per capita* (see Figure 12) differs between the two countries by about 20 per cent – a differential that is only half as large as the gap in total health expenditure.



**Figure 12**  
**Pharmaceutical expenditure, purchasing power parity \$ per capita; 1980–98**  
**(WHO, 2002)**

## 5.8 Rehabilitation/intermediate care

In the **UK** the provision of an increased number of intermediate care beds is currently a government policy priority designed to reduce unnecessary acute hospital admissions and to avoid unnecessarily long lengths of stay. Intermediate care is essentially a short-stay facility – covering up to six weeks – to prepare a patient for a return to home or community settings. *The NHS Plan* (DoH, 2001) makes a commitment for the provision of 5,000 additional intermediate care beds by 2003/04. In 2001/02 the government earmarked £188 million for intermediate care and the provision of community equipment. The concordat between the NHS and the private sector indicates that a large portion of additional intermediate care beds will be provided by the private sector, although publicly funded. A national evaluation programme was launched in 2001 by the NHS Policy Research Division in order to establish the most cost-effective forms of intermediate care.

In **Germany** approximately 1,400 institutions with 190,000 beds (2.32 beds per 1,000 population) are dedicated to preventive and rehabilitative care. Compared with general hospitals, ownership is very different, with 15 per cent, 16 per cent and 69 per cent of beds respectively being public, private not-for-profit and private for-profit. There are also other differences:

- Capacities of these institutions are not publicly planned
- Investments costs are not covered publicly
- Sickness funds, and especially pension funds, own some of these institutions (included in the not-for-profit figure)
- Sickness funds contract with these institutions selectively, not collectively.

The latter two factors limit patient choice for rehabilitative measures.

## 5.9 Social care

Social care in the **UK** is usually defined as long-term domiciliary and residential care for older people, people with mental illness and people with learning difficulties. Responsibility for making sure that these services are provided is shared between local government social services departments and the NHS. Local government has the major responsibility for social care. Funding comes mainly from social security and personal payments, while services are mainly provided by the private and voluntary sector.

The role of the independent sector in social care provision expanded rapidly during the 1980s. Beds in the private (for-profit) sector rose from 31,218 in 1980 to nearly 140,000 in 1994. However, between 1994 and 2001 the trend reversed and there was a slight decline (4 per cent) in private bed numbers. Voluntary sector (not-for-profit) provision has continued to expand and in 2001 provided 31,639 beds. The number of places in local authority residential homes has fallen dramatically, from 100,343 in 1980 to under 39,185 in 2001. Between 1993 and 2000 the proportion of home care contact hours provided by

independent contractors rose from 5 per cent to 56 per cent. (Figures from European Observatory on Health Care Systems, 2002)

In **Germany** the boundary of the health care sector was redefined in the mid-1990s, when statutory long-term care insurance was introduced as the fifth social insurance system in Book XI of the *Sozialgesetzbuch* (SGB XI). All members of statutory sickness funds (including pensioners and the unemployed) as well as all people with full-cover private health insurance were declared mandatory members – making it the first social insurance system with practically population-wide membership. Long-term care insurance is administered by the sickness funds (as an entity separate from the health insurance part but without any separate associations) and by the private health insurers. Professional care in the ambulatory sector is paid on a fee-for-service basis while institutionalised care is financed by *per diem* charges. The prices are negotiated between care funds and provider associations at *Länder* level.

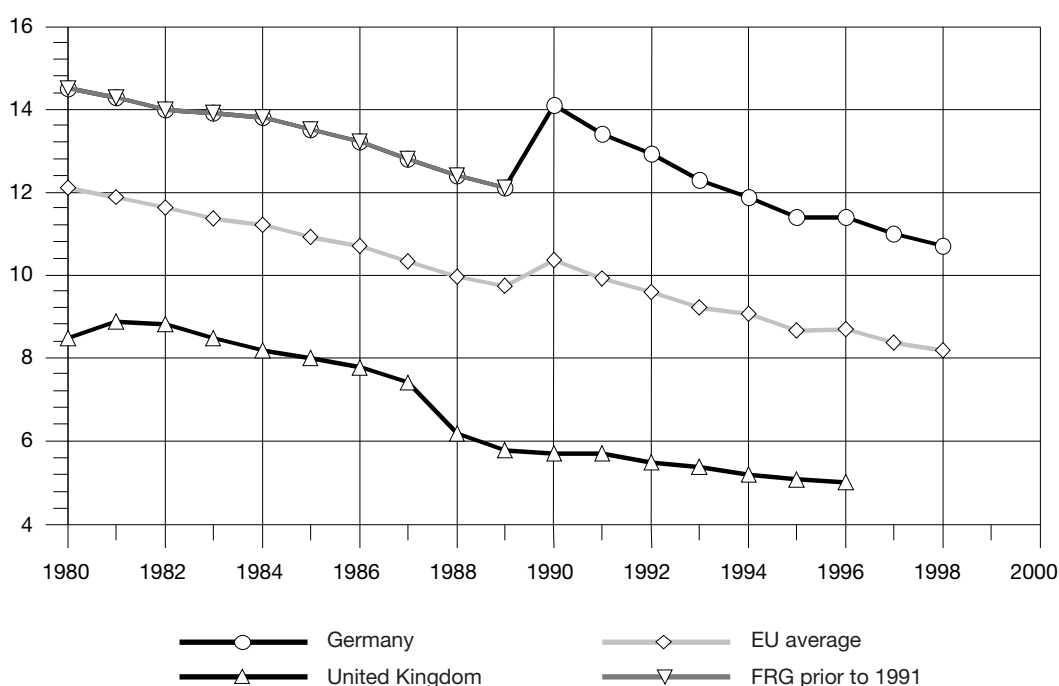
The duty to guarantee access to professional ambulatory care has been legally handed over to statutory long-term care funds, though the *Länder* remain responsible for guaranteeing access to institutional care. For nursing care the principle of ‘dual financing’ (as for hospitals, see above) means that the *Länder* have to cover investment costs for institutions and partly also for ambulatory suppliers. The *Länder* are also responsible for planning but, to ensure competition, are not allowed to limit the number of providers in the ambulatory sector. In order to introduce competition on prices and quality, SGB XI terminated legal precedence of welfare organisations over private for-profit providers. Thus, for-profit providers take part in the annual negotiations with care funds.

Depending on the remit of future research programmes, social care financing, regulation and delivery could provide a suitable topic for comparative research. This is a matter of considerable interest in the UK, given the decision by the Scottish Parliament to provide free long-term care for older people, a path not followed in England. There is considerable scope for learning from the experiences of these two parts of the UK and from that of Germany, which has pioneered the first social insurance scheme for long-term care worldwide.

## 6 Processes

Our knowledge of the actual processes in health care is extremely patchy and limited. Even the number of physician–patient contacts is not counted in a standardised way (in Germany, for example, all contacts with one physician within any quarter are counted as one), let alone their duration, services provided etc. WHO data (2002) shows 5.4 outpatient contacts in the UK (1998) and 6.5 in Germany (1996).

Data on hospital admissions and duration is slightly more detailed but also fraught with pitfalls – for example, whether day admissions are counted as admissions of one day's duration or not included at all. The UK has more admissions than Germany (possibly due to new consultant episodes counted as new admissions), but Figure 13 shows a length of stay less than half that found in Germany.

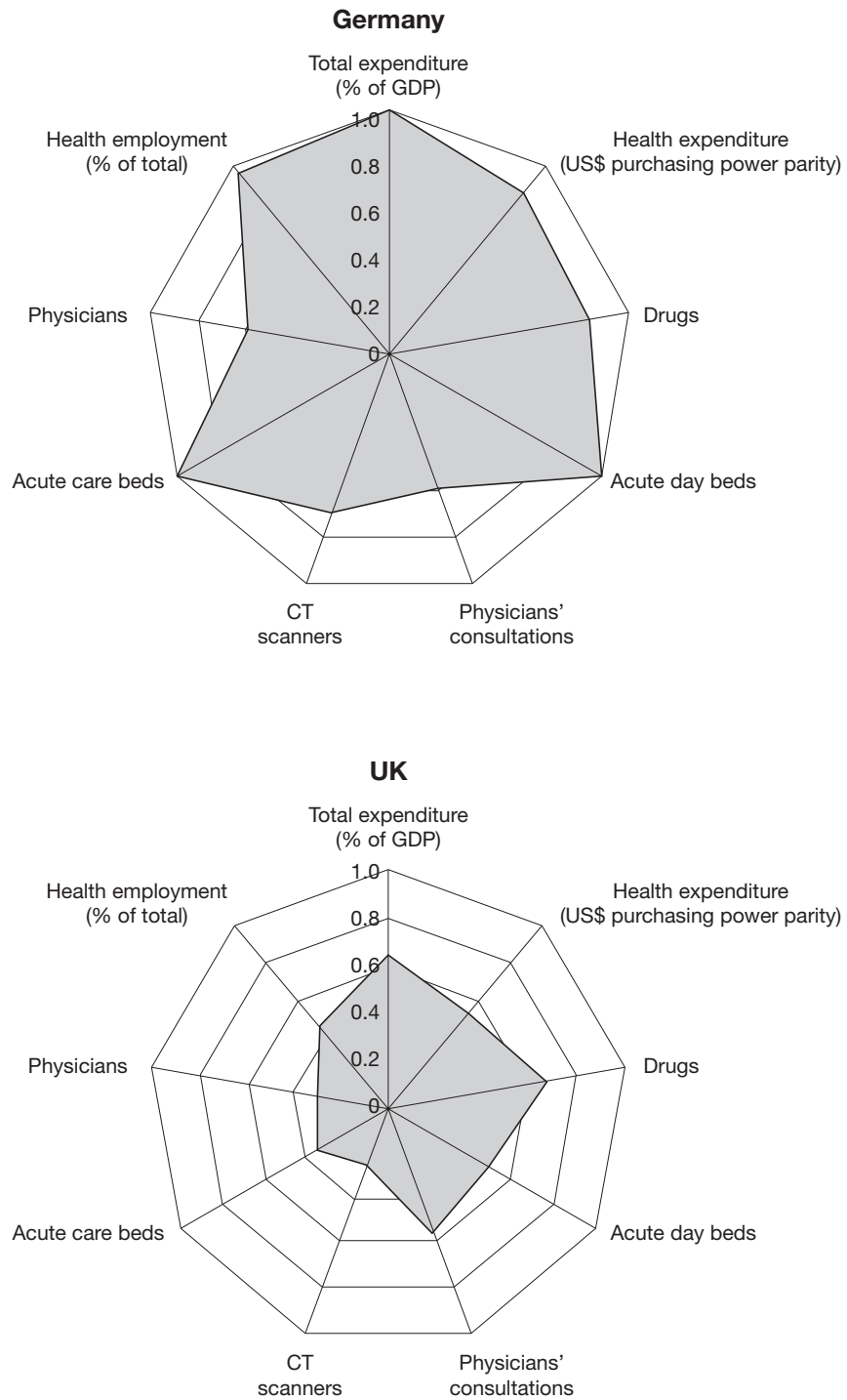


**Figure 13**  
Average length of stay (days), acute care hospitals; 1980–98 (WHO, 2002)

High occupancy rates are felt to prevent NHS hospitals from coping with seasonal fluctuations in demand – but in reality occupancy rates have only recently approached the level found in Germany (1998: UK 80.8 per cent, Germany 81.6 per cent; WHO, 2002). It would appear therefore not to be the scarcity of beds in the UK *per se* which creates waiting lists.

The fact that both inputs and the number of processes are higher in Germany compared with the UK (see Figure 14) raises the question of technical efficiency: how many

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Note: Both countries are measured relative to the EU plus Switzerland, with the outer line set at the maximum of any country, ie Germany has the highest values for health expenditure as a percentage of GDP, acute care beds and acute bed days.

**Figure 14**  
**Selected inputs and processes in the German and British health care systems, ca. 1998**

interventions are produced by a given set of inputs? While this question cannot be answered conclusively at present, the author's own calculation shows inpatient days in the UK to be around 10 per cent more expensive than in Germany (ie production is less efficient) but the much higher numbers of inpatient days in Germany cause the higher expenditure which leads to the question of the cost-effectiveness/ value for money (see Chapter 6).

Apart from quantitative aspects, qualitative aspects relating to health care processes deserve further attention. Our knowledge is currently severely limited regarding care of particular patient groups. A few research consortia are dealing with particular conditions: for instance, the Technological Change in Health Care (TECH) Research Network is looking at care for heart attacks (unfortunately without German involvement). Their comparative research has shown that in the UK changes in (high) technology are adopted rather late and diffuse slowly (TECH, 2001). Whether this is equally true for other indications requiring high-technology care is not clear – but likely. The opposite situation is likely to apply in Germany.

On the other hand, care for indications depending to a greater extent on primary care (such as diabetes) is likely to be 'better' in the UK than in Germany. One of the current health care reform topics in Germany is the introduction of disease management programmes, particularly for such groups.

An Anglo-German research programme offers considerable scope for comparing health care provision for different groups of patients, both those needing relatively high-tech care and those needing mainly integrated primary care. At present there is a dearth of simple descriptive data to give insight into typical patient pathways, how they differ and what are the consequences.

Research questions include:

- What are the specific aspects of care which one group receives in one country but not in the other?
- Is this determined by evidence, with protocols/guidelines?
- What incentives/control mechanisms are in place to ensure that providers adhere to protocols/guidelines?
- Are any specific purchasing arrangements in place? If so, do they achieve their stated aims?
- Do boundaries of health care sectors (eg ambulatory, hospital, long-term care) constitute problems for the patients?
- How are communication and data flows ensured?
- Are specific quality assurance measures in place (as happened in the case of perinatal care in the 1970s)?

## 7 Outcomes

As stated in the Introduction, there are two categories of 'outcomes' in the health system model: those directly related to health care ('health care outcomes') and those relating to health outcomes in a broader sense.

### 7.1 Health care outcomes

Patient satisfaction is one parameter of health care outcomes. However, reliable and comparable data on patients' views is rare. According to a recent survey undertaken in five countries, German patients were generally reporting the second lowest rates of problems after Switzerland (see Table 6). The problem most often mentioned (though not more often as in the UK) was 'continuity and transition'. This is not surprising, given the separation between sectors.

**Table 6**  
**Patients reporting problems with hospital care, 1998 and 2000 (%)**

	Switzerland	Germany	Sweden	US	UK
Overall care not good	3.7	6.6	7.4	8.1	8.5
Problems with ...					
– Information and education	16.7	20.4	23.4	25.2	28.7
– Coordination of care	13.1	17.2	NA	21.7	21.9
– Physical comfort	2.6	6.7	4.0	10.1	8.3
– Emotional support	14.7	21.9	26.0	26.8	27.1
– Respect for patients' preferences	15.6	17.9	21.2	19.9	30.7
– Involvement of family and friends	11.5	16.6	14.6	19.3	27.5
– Continuity and transition	30.0	40.6	40.2	28.4	45.1
Would not recommend this hospital to friends/family	3.6	5.0	2.8	4.8	7.8

Source: adapted from Coulter and Cleary, 2001.

As rare are comparative assessments by professionals on the quality of care given (strictly speaking, a parameter relating to processes and outcomes) and the results achieved. Table 7 shows some results of a recent survey among nurses. According to this survey UK nurses are more likely than their German counterparts to believe that quality of care has deteriorated in the last year – but (still) rated the care on their own unit more often as excellent (which might be due to a German reluctance to use superlatives). The (possible) effects of short lengths of stay are also visible: confidence that patients are able to manage their own care after discharge is, on a country by country level, closely correlated with length of stay.

**Table 7**  
**Nurse-assessed quality of care, 1998 and 1999**

	US	Canada	England	Scotland	Germany
Percentage describing the quality of care on their unit as excellent	35.7	35.6	29.3	35.2	11.7
Percentage confident that their patients are able to manage their own care when discharged	33.8	30.0	59.7	56.1	80.9
Percentage who say the quality of care in their hospital has deteriorated in the last year	44.8	44.6	27.6	21.5	17.2

Source: adapted from Aiken et al, 2001

Not only patients and providers are involved in health care. In a wider sense the population at large is funding the system through taxes or contributions. Members of the populations also have views, influenced by family, friends, media and public discussion, as to whether they get 'value for money'.

Population surveys from 1996 and 1998 (as part of the quarterly Eurobarometer) show an initially higher satisfaction level in Germany compared to the UK. Between 1996 and 1998, however, satisfaction declined in Germany (especially in the east) while it increased in the UK. In 1998 population satisfaction was similar in the two countries (see Table 8). As the interviewees were not asked about the reasons for their (dis)satisfaction, one can only speculate. In Germany the survey was taken at a time of benefit reductions (especially in dental care) and drastically increasing co-payments. The spring 1998 data was collected before parliamentary elections, which the government in office then lost. In the UK, on the other hand, Labour won the general election in between the two surveys. Later data may reflect hopes and confidence more than actual change.

There is scope for further research on the determinants of, and trends in, the public perception of health care. A particular focus could be to disentangle differing national expectations, which are inevitably shaped by previous experiences. There is also scope for work to relate changing perceptions to actual reforms. To do this in a comparative way in both the UK and Germany would be a politically interesting, as well as a methodologically challenging research topic.

## 7.2 Health outcomes

Ultimately, however, health care should produce more than satisfied patients, providers and citizens. *The World Health Report 2000* (WHO, 2000) was the first attempt to provide a comprehensive assessment of the performance of health systems. It used three main indicators for measuring performance:

- Disability-adjusted life expectancy (which, as described in the Introduction, can be either an input or outcome)
- 'Responsiveness' – a mainly process-related indicator
- 'Fair financing'.



**Table 8**  
**Population satisfaction with health care systems in the EU, 1996 and 1998**

	1996		Spring 1998				
	Satisfied (%)	Change in % 1996 to 1998	Satisfied (%)	Neither satisfied nor dissatisfied (%)	Dissatisfied (%)	Don't know (%)	
Denmark	90.0	+0.6	Denmark	90.6	3.5	5.6	0.3
Finland	86.4	-5.1	Finland	81.3	18.5	10.2	0.8
Netherlands	72.8	-3.0	Austria	72.7	18.5	6.7	2.2
Luxembourg	71.1	-4.5	Netherlands	69.8	8.4	20.9	0.7
Belgium	70.1	-7.3	Luxembourg	66.6	18.7	12.0	2.5
Sweden	67.3	-9.8	France	65.0	18.5	15.5	1.0
<b>Germany (West/East)</b>	<b>66.0 (65.8/66.5)</b>	<b>-8.5 (-6.8/-14.6)</b>	Belgium	62.8	21.6	14.7	0.8
France	65.1	-0.1	Ireland	57.9	25.0	24.3	4.5
Austria	63.3	+9.4	<b>Germany (West/East)</b>	<b>57.5 (59.0/51.9)</b>	<b>17.6 (16.6/21.5)</b>	<b>23.5 (23.0/25.4)</b>	<b>1.0 (0.9/1.3)</b>
Ireland	49.9	+8.0	Sweden	57.5	14.3	26.1	2.1
<b>UK</b>	<b>48.1</b>	<b>+8.9</b>	<b>UK</b>	<b>57.0</b>	<b>11.0</b>	<b>31.4</b>	<b>0.6</b>
Spain	35.6	+7.5	Spain	43.1	30.1	26.1	0.5
Portugal	19.9	-3.5	Italy	20.1	25.0	53.3	1.6
Greece	18.4	-2.9	Portugal	16.4	16.0	66.5	1.1
Italy	16.3	+3.8	Greece	15.5	24.6	59.6	0.2
<b>Unweighted average: SHI</b>	<b>68.1</b>	<b>-2.3</b>		<b>65.7</b>	<b>17.2</b>	<b>15.6</b>	<b>1.4</b>
<b>Unweighted average: other</b>	<b>48.0</b>	<b>+0.8</b>		<b>48.8</b>	<b>18.7</b>	<b>36.7</b>	<b>1.3</b>

Note: Figures represent the percentage of the total number of people questioned. Those who gave no answer are excluded from the table. Figures from Eurobarometer surveys.

Countries are ranked in respect to each weighted indicator and to a summary measure. 'Overall goal attainment' is then put in relation to the financial resources spent to give the performance measure. As both the data and the methodology of the assessment (necessarily) had many methodological flaws, its results should be treated with care.

Briefly, according to that exercise, Britain ranked 9th and Germany 14th in respect to goal attainment. In terms of performance, the positions were 18th and 25th respectively (see Table 9). With that position, Germany was third last within the EU, only followed by Finland and Denmark, the two countries ranking highest regarding population satisfaction.

Clearly, more sophisticated and specific methods are needed to determine the specific contribution health care makes to the health of the population. Mortality, life expectancy and potential years of life lost have to be analysed carefully in respect of their longitudinal development, differences between regions and age groups, and the contribution of various diseases/pathologies. A useful approach when assessing the part health care plays is the concept of 'avoidable mortality', which assumes that mortality

**Table 9**  
**Goal attainment and performance of health care systems in the European Union and Switzerland**

	Health		Responsiveness		Fairness in financing (25%)	Overall goal attainment	Health expenditure per capita	Performance	
	Level (25%)	Distribution (25%)	Level (12.5%)	Distribution (12.5%)				Level of health	Overall
Austria	17	8	12–13	3–38	12–15	10	6	15	9
Belgium	16	26	16–17	3–38	3–5	13	15	28	21
France	3	12	16–17	3–38	26–29	6	4	4	1
<b>Germany</b>	<b>22</b>	<b>20</b>	<b>5</b>	<b>3–38</b>	<b>6–7</b>	<b>14</b>	<b>3</b>	<b>41</b>	<b>25</b>
Luxembourg	18	22	3	3–38	2	5	5	31	16
Netherlands	13	15	9	3–38	20–22	8	9	19	17
Switzerland	8	10	2	3–38	38–40	2	2	26	20
Denmark	28	21	4	3–38	3–5	20	8	65	34
Finland	20	27	19	3–38	8–11	22	18	44	31
Greece	7	6	36	3–38	41	23	30	11	14
Ireland	27	13	25	3–38	6–7	25	25	32	19
Italy	6	14	22–23	3–38	45–47	11	11	3	2
Portugal	29	34	38	53–57	58–60	32	28	13	12
Spain	5	11	34	3–38	26–29	19	24	6	7
Sweden	4	28	10	3–38	12–15	4	7	21	23
<b>UK</b>	<b>14</b>	<b>2</b>	<b>26–27</b>	<b>3–38</b>	<b>8–11</b>	<b>9</b>	<b>26</b>	<b>24</b>	<b>18</b>
<b>Unweighted average: SHI</b>	<b>14</b>	<b>16</b>	<b>9</b>	<b>20.5</b>	<b>16</b>	<b>8</b>	<b>6</b>	<b>23</b>	<b>16</b>
<b>Unweighted average: other</b>	<b>16</b>	<b>17</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>20</b>	<b>20</b>	<b>24</b>	<b>18</b>

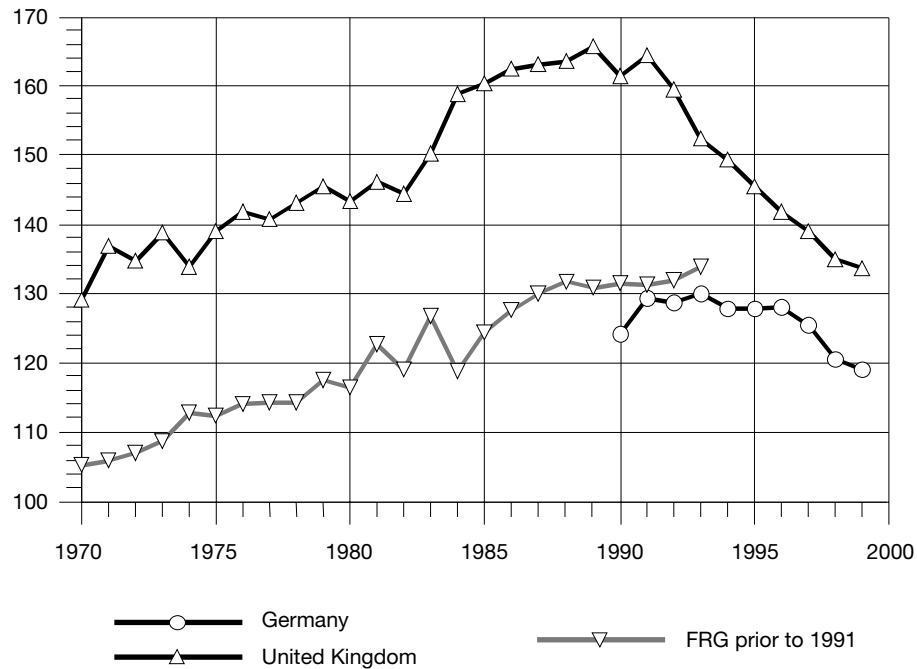
Source: *World Health Report 2000* (WHO, 2000). Note: Numbers indicate ranking in the world: 1 = highest; equally ranked countries are given a range of ranks.

from certain conditions is more amenable to medical intervention than mortality from others.

A second approach is the careful analysis of data on both incidence and mortality to assess whether differences in mortality between countries (or regions, or social groups) are related more to a higher/lower burden of disease in the population or to better/worse health care. The GLOBOCAN 2000 data on cancer incidence and mortality (<http://www-dep.iarc.fr/globocan/globocan.html>) shows, for example, that breast cancer incidence in the UK is as high as in Germany but that mortality is about 10 per cent higher (ie outcomes in the UK are worse). However, Figure 15 shows that breast cancer mortality declined steeply between 1990 and 1998 in the UK, which implemented a comprehensive, population-based screening programme. Germany has an extensive but much less well co-ordinated programme. Incidence of lung cancer is slightly higher in Germany than in the UK but mortality is lower, suggesting possible differences in treatment outcomes.

One of the rare studies trying to disentangle changes in incidence from changes in treatment outcomes and the effect on overall mortality is based on the MONICA project

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**Figure 15**  
**Breast cancer: age-standardised death rate, age 65+ per 100,000 population; 1970–99 (WHO, 2002)**

studying coronary heart disease mortality across 31 regions in 21 countries (Tunstall-Pedoe et al, 2000). The study included two regions in the west of Germany (Augsburg in the south and Bremen in the north) as well as one in the east; the UK was represented by Belfast and Glasgow. According to that major study, the treatment before and during the event improved more in the UK regions than in the German regions and this also led to a larger decline in case fatality (ie a more noticeable treatment outcome).

While there is a wider research programme, led by WHO, to develop methods to compare health systems, this has been heavily criticised as being too removed from the reality of individual systems. There is considerable scope to build on the agenda described earlier in this paper to provide an in-depth comparison of the UK and Germany and to put some flesh on the somewhat bare bones of these otherwise rather simplistic comparisons.

## 8 The current health care reform discussions

Given the quite different situations of the two health care systems, it is also not surprising that current reform debates differ. Financing is one of the most obvious differences.

In **Germany** 2001 saw renewed growth in health care expenditure – mainly due to the abolition of regional spending caps for pharmaceuticals. The corresponding rise in contribution rates from 13.5 per cent to 14 per cent of pre-tax income brought cost containment back onto the agenda in early 2002.

By contrast, there is currently a recognition in the **UK** that health care has been underfunded in comparison with most other western European countries for at least the last two decades. Long waiting lists for hospital appointments and often poor-quality hospital buildings are two manifestations of this situation. The government is committed to rectifying this situation. Increased public spending on the NHS of around 6 per cent per year in real terms (ie deflated by the GDP deflator) over the next four years has been announced by the Chancellor of the Exchequer. If achieved, these will represent unprecedented rates of increased spending.

Health policy is probably the most high-profile item on the current political agenda in the UK. Debate and public policy is focusing on both the finance and provision of health care. As stated in Chapter 2, a review of expenditure needs on health care has been undertaken for the Chancellor of the Exchequer by Sir Derek Wanless. The review's final report (Wanless, 2002) sets out the likely resource requirements of the NHS for the next 20 years as well as recommendations for action.

On the supply side, *The NHS Plan* (DoH, 2000) set out a range of ambitious targets for increasing NHS workforce numbers (consultants, GPs and nurses) as well as targets for service improvements (eg reduced waiting times). A Modernisation Agency has been set up to drive through these changes. A Commission for Health Improvement (CHImp) has been established to monitor and improve performance. Despite these initiatives, many people question whether improvements can be achieved within the timescale the government has set.

In **Germany** discussion is currently focused on a number of issues, all not unrelated to financing, but stressing the topics of solidarity, competition and quality at the same time. One issue is a reform of the risk compensation mechanism by basing it on individual morbidity profiles (rather than average expenditures) to lower opportunities for 'cream-skimming' by sickness funds. As a short-term measure, sickness funds will receive extra compensation for people enrolled in disease management programmes. This, in turn, leads to questions about who decides which indications qualify for disease management programmes, which quality measures programmes need to fulfil, who should 'accredit' programmes and on what basis, and who decides which patients may be enrolled. It is envisaged that some of these decisions will be taken jointly between sickness funds. If

sickness funds are to develop viable disease management programmes, they would require the right to selectively contract providers – another major discussion point.

Another issue of importance is the introduction of diagnostic-related groups (DRGs) from 2003/04 and its effects on quality and hospitals. Related unresolved questions include, in particular, how the system can simultaneously be 'budget neutral' (as promised to the sickness funds) and 'open-ended' (as promised to the hospitals). A third issue is a reform of the pharmaceutical sector, eg ownership of pharmacies and uniform prices for pharmaceuticals.

## 9 Summary of outstanding research issues

This chapter collates the research questions/topics identified throughout this paper and places them within a framework that is based on the input-output model presented in the Introduction – see Table 10. The suggestion is to compare and analyse the UK and the German health care systems along two dimensions/perspectives:

- The **system perspective** (lower half of Table 10), analysing specific aspects of inputs, throughputs and outcomes of the two systems. Specific consideration is given to differences resulting from the two overall system structures, ie centralised vs. decentralised/delegated decision-making.
- The **patient perspective** (upper part of Table 10), analysing the impact of these differences along the whole spectrum from needs via access, actual care processes to outcomes for specific populations or patient groups (such as cancer patients, patients with cardiovascular disease, diabetics or illegal immigrants – all topics listed there should be covered for all of the selected groups).

Based on these two perspectives, a third strand dealing with future challenges and adaptation mechanisms of the two systems could be added.

The relevance of the research topics as well as the most suitable questions for further comparative research from an Anglo-German perspective have been highlighted in the appropriate sections of this paper.

**Table 10**  
**Summary of suggested research topics**

Input	Process	Outcome
<ul style="list-style-type: none"> <li>• Legal benefits/entitlements for that group</li> </ul>	<ul style="list-style-type: none"> <li>• Typical patient pathway</li> </ul>	<ul style="list-style-type: none"> <li>• Intermediate and health outcomes</li> </ul> <i>Eg cancer patients</i>
<ul style="list-style-type: none"> <li>• Number/qualification/geographical distribution of providers</li> </ul>	<ul style="list-style-type: none"> <li>• Disease management/guidelines etc: existing? applied?</li> </ul>	<ul style="list-style-type: none"> <li>• Outcomes in relation to inputs (effectiveness and cost-effectiveness)</li> </ul> <i>Eg patients with myocardial infarction</i>
<ul style="list-style-type: none"> <li>• Waiting lists/actual access for that group</li> </ul>	<ul style="list-style-type: none"> <li>• Particular quality assurance measures</li> </ul>	<i>Eg diabetics</i>
<ul style="list-style-type: none"> <li>• Cost-sharing of that group</li> </ul>		<i>Eg (illegal) immigrants</i>
<p>(Re)allocation of financial resources to payers, including comparison of <i>Risikostruktur-ausgleich</i> and Resource Allocation Working Party</p>	<p>'Hospital governance': division of roles/power between and within professional groups</p>	<p>Population satisfaction with health care: specific areas of dissatisfaction? Any changes due to reform?</p>
<p>Benefits/entitlements: who decides, based on what criteria? how explicit? ways to challenge decisions? [with special attention to complementary medicine and public health services]</p>	<p>'Clinical governance' (guidelines/quality assurance/ utilisation review): who decides on priorities? who develops rules? who implements? who supervises? what results?</p>	<p>Mortality/life expectancy/ potential years of life lost: development; differences between regions and age groups; contribution of various pathologies; degree/ development of avoidable mortality</p>
<p>Human resources planning and development: who? how? what results?</p>	<p>(Dis)continuity of care: referral mechanisms, data flow, incentives etc</p>	
<p>Delegated decision-making in ambulatory care: comparison of PCTs and <i>Kassenärztliche Vereinigungen</i> (KVs – associations of SHI dentists/physicians)</p>		
<p>Hospital sector: mix/regulation/ decision-making latitude/ contracts with payers of public hierarchy/public autonomous/ private not-for-profit/private for-profit hospitals</p>		

# Appendix 1

## Terminology in the German health care system

<b>German name</b>	<b>German abbreviation</b>	<b>English name</b>
1. GKV-Neuordnungsgesetz		1st Statutory Health Insurance (SHI) Restructuring Act
2. GKV-Neuordnungsgesetz		2nd Statutory Health Insurance (SHI) Restructuring Act
Allgemeine Ortskrankenkassen	AOK	general regional funds
Allgemeiner Patienten-Verband		General Patients' Association
Apothekerkammer		(regional) pharmacists' chamber
Arbeiterwohlfahrt		Workers' Welfare Association
Arbeitsgemeinschaft Deutscher Schwesternverbände	ADS	Federation of German Nurses' Associations
Arbeitsgemeinschaft Wissenschaftlich-Medizinischer Fachgesellschaften	AWMF	Association of the Scientific Medical Societies
Arzneimittelgesetz	AMG	Pharmaceutical Act
Ärztekammer		(regional) physicians' chamber
Ausschuss Krankenhaus		Committee for Hospital Care
Berufsverband der Allgemeinärzte Deutschlands – Hausärzterverband		Organization of German Primary Care Physicians – General Practitioners' Union
Berufsverband deutscher Psychologen	bdp	Organization of German Psychologists
Betriebskrankenkassen	BKK	company-based (sickness) funds
Bewertungsausschuss		Valuation Committee
Bundesarbeitsgemeinschaft der Freien Wohlfahrtspflege		Federation of Voluntary Welfare Associations
Bundesaufsichtsamt für das Versicherungswesen		Federal Supervisory Office for the Insurance Sector
Bundesausschuss der Ärzte und Krankenkassen		Federal Committee of Physicians and Sickness Funds
Bundesfachverband der Arzneimittel-Hersteller	BAH	Federal Association of Pharmaceutical Manufacturers
Bundesgesundheitsamt	BGA	(the former) Federal Health Office
Bundesgesundheitsrat		(the former) Federal Health Council
Bundesinstitut für Arzneimittel und Medizinprodukte	BfArM	Federal Institute for Pharmaceuticals and Medical Devices
Bundesinstitut für gesundheitlichen Verbraucherschutz und Veterinärmedizin	BgVV	Federal Institute for Health Protection of Consumers and Veterinary Medicine
Bundesknappschaft		miners' (sickness) fund
Bundesministerium für Gesundheit	BMG	Federal Ministry of Health
Bundespflugesatzverordnung		Federal Hospital Reimbursement Directive
Bundesrat		Federal Council (Upper Chamber of Parliament)



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<b>German name</b>	<b>German abbreviation</b>	<b>English name</b>
<i>Bundestag</i>		Federal Assembly (Lower Chamber of Parliament)
<i>Bundesverband der Pharmazeutischen Industrie</i>	BPI	Federal Association of the Pharmaceutical Industry
<i>Bundesvereinigung Deutscher Apothekerverbände</i>	ABDA	Federation of Pharmacists' Organizations
<i>Bundesversicherungsamt</i>		Federal Insurance Office
<i>Bundeszentrale für gesundheitliche Aufklärung</i>	BZgA	Federal Centre for Health Education
<i>Bundärztekammer</i>	BÄK	Federal Physicians' Chamber
<i>Deutsche Krankenhaus-Gesellschaft</i>	DKG	German Hospital Organization
<i>Deutscher Apothekerverband</i>		German Pharmacists' Organization
<i>Deutscher Berufsverband für Pflegeberufe</i>	DBfK	German Nursing Association
<i>Deutscher Caritasverband</i>		German Caritas (= Catholic Welfare) Association
<i>Deutscher Generikaverband (previously: Verband aktiver Pharmaunternehmen)</i>		German Generics Association (previously: Association of Active Pharmaceutical Companies)
<i>Deutscher Paritätischer Wohlfahrtsverband</i>		Association of Independent Voluntary Welfare Organizations
<i>Deutsches Institut für medizinische Dokumentation und Information</i>	DIMDI	German Institute for Medical Documentation and Information
<i>Deutsches Rotes Kreuz</i>		German Red Cross
<i>Diakonisches Werk</i>		Association of Protestant Welfare Organizations
<i>Einheitlicher Bewertungsmaßstab</i>	EBM	Uniform Value Scale
<i>Ersatzkassen</i>		substitute funds
<i>Ethik-Beirat beim Bundesministerium für Gesundheit</i>		Ethics Council (at the Federal Ministry of Health)
<i>Fallpauschale</i>		case-fee
<i>Gesetz zur Stärkung der Solidarität in der Gesetzlichen Krankenversicherung</i>		Act to Strengthen Solidarity in Statutory Health Insurance (SHI)
<i>Gesetzliche Krankenversicherung</i>	GKV	statutory health insurance (SHI)
<i>Gesundheitsreformgesetz</i>	GRG	Health Care Reform Act 1989
<i>Gesundheitsstrukturgesetz</i>	GSG	Health Care Structure Act 1993
<i>GKV-Arzneimittelindex</i>		list of pharmaceuticals prescribed in SHI
<i>GKV-Gesundheitsreform 2000</i>		Reform Act of SHI 2000
<i>Grundgesetz</i>		Basic Law (= constitution)
<i>Honorarverteilungsmaßstab</i>	HVM	Remuneration Distribution Scale
<i>Innungskrankenkassen</i>	IKK	guild (sickness) funds
<i>Kassenärztliche Bundesvereinigung</i>	KBV	Federal Association of SHI Physicians
<i>Kassenärztliche Vereinigung</i>	KV	(regional) physicians' association
<i>Kassenzahnärztliche Bundesvereinigung</i>	KZBV	Federal Association of SHI Dentists
<i>Kassenzahnärztliche Vereinigung</i>	KZV	(regional) dentists' association
<i>Konzertierte Aktion im Gesundheitswesen</i>	KAiG	Concerted Action in Health Care
<i>Koordinierungsausschuss</i>		Coordinating Committee (between Committee for Hospital Care and Federal Committee of Physicians and Sickness Funds)

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<b>German name</b>	<b>German abbreviation</b>	<b>English name</b>
<i>Krankenhaus- Kostendämpfungsgesetz</i>		Hospital Cost-containment Act
<i>Krankenhausfinanzierungsgesetz</i>	KHG	Hospital Financing Act
<i>Krankenhausneuordnungsgesetz</i>		Hospital Restructuring Act
<i>Krankenversicherungsbeitragsentlastungsgesetz</i>		Health Insurance Contribution Rate Exoneration Act
<i>Krankenversicherungs-Kostendämpfungsergänzungsgesetz</i>		Health Insurance Cost-containment Amendment Act
<i>Krankenversicherungskosten-dämpfungsgesetz</i>	KVKG	Health Insurance Cost-containment Act
<i>Land (plural: Länder)</i>		State(s)
<i>Landwirtschaftliche Krankenkassen</i>	LKK	farmers' (sickness) funds
<i>Marburger Bund - Verband der angestellten und beamteten Ärztinnen und Ärzte</i>		Marburg Union of Employed (Hospital) Physicians
<i>Medizinischer Dienst der Krankenversicherung</i>	MDK	SHI Medical Review Board
<i>Medizinproduktegesetz</i>	MPG	Medical Devices Act
<i>Paul-Ehrlich-Institut (Bundesamt für Sera und Impfstoffe)</i>		Federal Institute for Sera and Vaccines (Paul-Ehrlich-Institute)
<i>Reichsausschuss der Ärzte und Krankenkassen</i>		Imperial Committee of Physicians and Sickness Funds (predecessor of the Federal Committee)
<i>Reichsversicherungsordnung</i>	RVO	Imperial Insurance Regulation
<i>Robert Koch-Institut</i>	RKI	Federal Institute for Communicable and Non-Communicable Diseases (Robert-Koch-Institute)
<i>Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen)</i>	SVR	Advisory Council (of the Concerted Action in Health Care)
<i>Seekrankenkasse</i>		sailors' (sickness) fund
<i>Sonderentgelt</i>		procedure-fee
<i>Sozialgesetzbuch V</i>	SGB V	Social Code Book V (Statutory Health Insurance)
<i>Sozialgesetzbuch XI</i>	SGB XI	Social Code Book XI (Statutory Long-term Care Insurance)
<i>Statistisches Bundesamt</i>		Federal Statistical Office
<i>Stiftung Warentest</i>		Foundation for the Testing of Consumer Goods (and Services)
<i>Verband der Ärzte Deutschlands – Hartmannbund (previously Leipziger Verbund)</i>		Organization of German Doctors – Hartmann Union
<i>Verband der privaten Krankenversicherung</i>	PKV	Association of Private Health Insurance
<i>Verband forschender Arzneimittelhersteller</i>	VfA	Association of Research-based Pharmaceutical Companies
<i>Verein Demokratischer Ärztinnen und Ärzte</i>	VDÄÄ	Organization of Democratic Physicians
<i>Vermittlungsausschuss</i>		Arbitration Committee (between Federal Assembly and Federal Council)
<i>Zahnärztekammer</i>		(regional) dentists' chamber
<i>Zentralwohlfahrtsstelle der Juden in Deutschland</i>		Welfare Organization of the Jews in Germany

## Bibliography

Aiken, L.H., Clarke, S.P., Sloane, D.M., Sochalski, J.A., Busse, R., Clarke, H., Giovannetti, P., Hunt, J., Rafferty, A.M., Shamian, J. (2001), 'Nurses' reports of hospital quality of care and working conditions in five countries', in *Health Affairs*, Vol. 20, Number 3, pp. 43–53.

Busse, R. (2000), *Health Care Systems in Transition – Germany*. Copenhagen: European Observatory on Health Care Systems.

Busse, R., Howorth, C. (1999), 'Cost containment in Germany: Twenty years experience', in Mossialos, E., LeGrand, J. (eds), *Health Care and Cost Containment in the European Union*. Aldershot: Ashgate, pp. 303–339.

Busse, R., van der Grinten, T., Svensson, P.-G. (2002), 'Regulating entrepreneurial behaviour in hospitals: theory and practice', in Saltman, R.B., Busse, R., Mossialos, E. (eds), *Regulating Entrepreneurial Behaviour in European Health Care Systems*. Buckingham: Open University Press, pp. 126–145.

Busse, R., Wismar, M. (2002), 'Health target programmes and health care services – any link? A conceptual and comparative study (part 1)', in *Health Policy*, Issue 59, pp. 209–221.

Commission on Taxation and Citizenship (2000), *Paying for Progress: A New Politics of Tax for Public Spending*. London: Fabian Society.

Coulter, A., Cleary, P.D. (2001), 'Patients' experiences with hospital care in five countries', in *Health Affairs*, Vol. 20, Number 3, pp. 43–53.

Department of Health (2000), *The NHS Plan*. London: The Stationery Office.

Department of Health (2001), *Your Guide to the NHS*. London: The Stationery Office.

Emmerson, C., Frayne, C., Goodman, A. (2000), *Pressures in UK Healthcare: Challenges for the NHS*. London: Institute for Fiscal Studies.

European Observatory on Health Care Systems (ed.) (2002), *Health care systems in eight countries – trends and challenges*. London: London School of Economics.

Laing & Buisson (2001), *Private Medical Insurance: UK market sector report 2001*. London: Laing & Buisson.

McKee, M., Healy, J. (eds) (2002), *Hospitals in a Changing Europe*. Buckingham: Open University Press.

Mossialos, E., Mrazek, M. (2002), 'Entrepreneurial behaviour in pharmaceutical markets and the effect of regulation', in Saltman, R.B., Busse, R., Mossialos, E. (eds), *Regulating Entrepreneurial Behaviour in European Health Care Systems*. Buckingham: Open University Press, pp. 146–162.

OECD (2001), *OECD Health Data 2001: A comparative analysis of 30 countries*, CD-ROM. Paris: OECD and CREDES.

PKV (2000), *Private Health Insurance: Facts and Figures 1999/2000*. Cologne: Verband der privaten Krankenversicherung e.V.

Robinson, R. and Dixon, A. (1999), *Health Care Systems in Transition – UK*. Copenhagen: European Observatory on Health Care Systems.

Schwartz, F.W., Busse, R. (1998), 'Denken in Zusammenhängen: Gesundheitssystemforschung', in Schwartz, F.W., Badura, B., Leidl, R., Raspe, H., Siegrist, J. (eds), *Das Public Health Buch: Gesundheit und Gesundheitswesen*. Munich–Vienna–Baltimore: Urban & Schwarzenberg, pp. 385–411.

TECH – Technological Change in Health Care Research Network (2001) 'Technological change around the world: Evidence from heart attack care', in *Health Affairs*, Vol. 20, Numer 3, pp. 25–42.

Tunstall-Pedoe, H., Vanuzzo, D., Hobbs, M., Mähönen, M., Cepaitis, Z., Kuulasmaa, K., Keil, U. for the WHO MONICA Project (2000), 'Estimation of contribution of changes in coronary care to improving survival, event rates, and coronary heart disease mortality across the WHO Project populations', in *Lancet*, Issue 355, pp. 688–700.

Wagstaff, A., van Doorslaer E.H., van der Burg, H. et al (1999), 'Equity in the finance of health care: some further international comparisons', in *Journal of Health Economics*, Issue 18, pp. 263–290.

Wanless, D. (2002), *Securing our Future Health: Taking a long-term view*. London: The Stationery Office.

World Health Organization (2000), *The World Health Report 2000. Health Systems: Improving Performance*. Geneva: World Health Organization.

World Health Organization Regional Office for Europe (2002), *Health for All Database*. Copenhagen: World Health Organization