Remunerating General Practitioners in Western Europe

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Preface

Comparative studies of the earnings of health care providers have always attracted the attention of those who are professionally involved in negotiating tariffs and incomes and in containing the costs of health care. But also health care providers themselves, in this case general practitioners, how their colleagues in other countries earn their money and how much they earn.

This was why the editors of the Dutch journal 'Praktijkmanagement' (Practice Management) asked one of the authors of this study to write a series of short monographs on the income position of European general practitioners (Van der Zee, 1985-87).

In this book, the information from the series of monographs will be presented in a systematic way and a first, explorative analysis of the relations between the position of general practitioners within the health care system and their incomes will be made. A few countries have been added; missing information has been supplied and for all countries the same reference year was selected (1985).

We gratefully acknowledge the help of our informants in the countries studied.

PART I
REMUNERATING GENERAL PRACTITIONERS IN WESTERN EUROPE

1 Introduction

The revenues that doctors succeed in earning from their medical services have, for several reasons, attracted attention from investigators in the field of health services research and from health care policy-makers. Since Glaser's famous study of doctors' remuneration and earnings (Glaser,1970) several comparative studies (UEMO, 1986; OECD, 1987; Sandier, 1989) have been published, nurtured by numerous local publications.

International comparative studies usually describe the earnings of all doctors, general practitioners and consultants together. Studies containing comparative information on the earnings of general practitioners are rare. An exception is the study by Sandier (1989) that only has data on five European countries.

In the continuous discussion between those responsible for health care financing and organisation and those who provide health and medical services, financial arguments play an important role. Both parties often refer to relevant reference groups. For general practitioners the relevant reference group is often formed by different medical specialties, but in other cases (as in the Dutch and the Danish situation) high-ranking civil servants form the target group in incomes policy. Increasingly, however, the (income)position of doctors in neighbouring countries is used as an argument to increase claims or by the opposite negotiating party to waive them. Among general practitioners themselves there is a vivid interest in the medical and financial position of their colleagues in neighbouring countries.

Comparative studies of health care systems can be divided into two

main streams. On the one hand there are detailed descriptions of the institutional structure of health care systems. These are mainly edited volumes with chapters on a number of countries by authors writing about their 'own' health care systems (e.g. Raffel, 1984). The comparative analytical element in these studies is usually not very strong. On the other hand there is a growing number of quantitative, analytical studies on health care expenditures, based on OECD data (e.g. Schieber and Poullier, 1990). A weakness of these studies is that they pay relatively little attention to the institutional structure of health care systems as an explanatory variable.

This study tries to combine these approaches, although the quantitative basis is not yet very strong. In the first part of the book an analysis is made of the revenues of general practitioners in eleven Western European countries, taking into account aspects of the institutional structure like the system of remuneration, the activity profile of general practitioners and the access to specialist care. The second part contains the country descriptions of the eleven countries studied. For all countries the same reference year - 1985 - was used.

The result of our efforts should still be considered a pilot study, providing a general impression of the financial position of general practitioners in Western-European countries and to be followed, if necessary, by a more thorough approach. This is not a display of false modesty by the authors but a warning to the reader.

2 Aim and content of the study

From the introduction the aim and content of the study can easily be derived. The aim of the study is to describe and compare the incomes position of general practitioners in Western Europe.

The research questions are:

- What are the revenues of general practitioners in a number of Western European countries after taking into account an estimation of the practice expenses but before taxation?
- What is the relation between these average and global revenues and characteristics of the position of general practitioners in the health care systems studied?

Important aspects of the position of general practitioners are the system of remuneration, the competition between general practitioners as indicated by the general practitioner to population ratios, the profile of services rendered by general practitioners and the access to specialist care.

The basic information to answer the research questions is set out in a set of monographs of position, remuneration and income of general practitioners in a number of European countries. The monographs are divided in a more or less systematic way according to the following headings:

1. General description of the country: form of government, population size and density, age composition.
2. Brief outline of the health care and health insurance system.
3. Description of the position of the general practitioner in particular with the following features:
   a. average list size, geographical distribution of general practitioners (inequalities in distribution).
   b. establishment policy and type of practice (single-handed practice, partnership, group practice).
   c. working hours, availability during evenings and weekends, deputising systems etc.
   d. information on the existence of a numerus clausus.
   e. vocational training (compulsory, voluntary).
   f. a brief and general description of a provision-profile in general practice.
4. The negotiating system of salaries, fees and tariffs.
5. General characteristics of the remuneration system including (for fee-for-service systems) a description of the major tariffs.
6. A calculation (with crude assumptions) of gross revenues.
7. An estimate of practice costs.
8. A brief description of the taxation and social security contributions.
9. Finally, an estimate of the doctor's net income.

The description of the provision profile in general practice in the countries studied, is in our view an important feature of the position of general practitioners. It is tempting to act as if a general practitioner is the same in each of the health care systems studied. However, the scope of the provision profile may differ greatly between general practitioners in different countries. This in its turn may influence the level of remuneration.

The indication of the provision profile used in this study, is based on qualitative information on the services rendered by general practitioners. It starts with a matrix with a list of groups of services in the rows and an indication of the involvement of general practitioners in rendering these services in the collumns. The involvement of general practitioners in rendering the services is categorized in three groups: exclusively or predominantly provided by general practitioners, also provided by general practitioners, and not provided by general practitioners.

The groups of services that form the entries of the matrix, are: general medical care (further subdivided in general medical care for women, children, and elderly people), twenty-four-hours service, minor surgery, rehabilitation, family planning, obstetric care, certification, perinatal care, dispensing of pharmaceutical prescriptives, and first aid.

In the country monographs the provision profile is simply given by crosses in the appropriate cells of the matrix, thus giving a qualitative view of the provision profile. In this analytical part of the study this information has eventually been summarized in a country index (see chapter 4)

3 Method

The general method of data collection has been by studying original documents (lists of tariffs, official announcements of capitation fees and salaries) that were provided by colleagues in other countries. For each country we have tried to find independent sources (either as primary source or as final check and corroboration). In some cases a kind of 'average' or 'modal' doctor had to be composed, for instance in the case that (as in Italy) a capitation fee depends on the age-distribution of the practice-population (in that case the average national age distribution of population was used) and/or depends on the number of years of experience of a doctor. In other cases (France for instance) total expenditures on general practitioner services were distributed over the number of active practitioners.

The selection of countries was more or less pragmatic. The original base of selection is formed by the twenty four member-states of the OECD (the Organisation of Economic Cooperation and Development; the industrial or post-industrial non-communist countries of the world). The first selection is formed by the European members of OECD (this excludes the USA, Canada, Australia, New Zealand and Japan). Of the twenty remaining countries, some were excluded because of quantitative insignificance (Iceland, Luxemburg). This leaves eighteen countries.

The final selection was on a certain equivalence with the general level of affluence of the Dutch economy for two reasons: firstly in order to avoid too great discrepancies in purchasing power between the countries and secondly because there is a strong and almost linear

relationship between the relative affluence of a country and the proportion of the gross domestic product devoted to health and health care (OECD, 1987). Rich countries tend to spend a larger proportion of their gross national product on health (care). Hence the poorest European members of OECD were excluded from the study. These were in 1985 Yugoslavia, Turkey, Greece, Portugal, Spain and Ireland.

Finally, Switzerland had to be excluded from the study because we did not succeed in obtaining sufficiently reliable information about the income of Swiss general practitioners. Data from Switzerland related to all doctors, specialists and general practitioners together.

This leaves the following eleven countries for the final comparison (in alphabetical order) :

- Austria
- Belgium
- Denmark
- Federal Republic of Germany
- Finland
- France
- Italy
- The Netherlands
- Norway
- Sweden
- United Kingdom

Although this selection of countries is relatively homogeneous, still a number of problems remain to be solved in a comparative study of general practitioners' revenues. The following problems are common in comparative income studies.

In the first place the problem of different currencies, especially when comparing time series. The dollar's exchange rate is not very stable. By definition the ECU (European Currency Unit) is much more stable and better suitable for comparison.

Even converted to ECUs, the figures found have to be corrected for differences in purchasing power. One hundred ECU in Stockholm is much smaller capital than in Athens. Fortunately the OECD has Purchasing Power Parities (PPPs), to be used for correcting the figures (Ward, 1985).

Even if one succeeds in obtaining reliable estimates of the gross turnover of a medical practice, it is a long way from gross turnover to net purchasing power. An important problem is the estimation of practice-expenses. A discrepancy can be expected between estimates from doctors themselves or from their association on the one hand and from health care financers or the Inland Revenue on the other. Moreover, these estimates may differ from actual practice-expenses, depending e.g. on whether practice-expenses are paid as a lump sum or reimbursed on the basis of actual costs. Data on actual costs are

almost never available. Therefore, as a second best, we had to use the estimates that turn up in the negotiations. As a consequence the practice-expenses may be overestimated. Wherever possible we used several sources of information and in cases of differing estimates, we used the average.

In an explorative study it is impossible to take into account all the intricacies of social security contributions and taxation. Only with crude simplifications (a married doctor, wife running the household and no job, two children, average mortgage) are estimates possible in a study like this. An indepth study of this problem, however, requires such an effort (it is still hardly possible to produce a sufficient number of variations in general taxation models at national level) that it is worth considering whether the crude information of a pilot study like this would not be sufficient.

Finally, even if one has overcome the former problems, the question will arise whether differences in net reward might not stem from differences in job-intensity. A strictly observed thirty-seven-hours-a-week job in a Finnish health centre cannot be compared with a fifty-hours-a-week job of a German general practitioner. Thus, a financial comparison should coincide with a description of working hours, deputising systems, provision-profile etc.

In this study not all of these problems have been solved adequately; some may only be solved in very large and costly studies that are already very difficult for even one country, let alone in a comparative study. It is, however, important for the reader to be aware of these problems in interpreting the results of this study.

4 Results

This chapter starts with some descriptive data, comparing the position of general practitioners in the countries studied. This provides the reader with the background information to interpret the results, presented in the second section of this chapter, on the system of remuneration and the income of general practitioners. In the third section the data on the position of the general practitioner within the health care system are related to the income situation.

The position of general practitioners in Western Europe

The position of general practitioners will be characterized by the competitive situation, indicated by the density of general practitioners, by the types of practice they work in, whether or not restrictions on the establishment of new practices exists, the usual or average working hours and the organization of out of hours services, the provision-profile, and finally the access to specialist and hospital care.

General practitioner density, type of practice and establishment policy

The first descriptive questions are simple: how many general practitioners are there, what types of practice can be found and how do doctors get established in a practice?

Table 4.1 contains the average number of inhabitants per general practitioner, the percentage of single-handed practitioners, being the

'modal' type of practice over the eleven countries studied, and the presence or absence of an establishment policy.

Table 4.1
Number of inhabitants per general practitioner, presence or absence of an establishment policy, percentage of single-handed practitioners in eleven countries (1985)

	no. of inhabitants per g.p.	Establishment Policy	perc.single handed
Belgium	725	No	95
Italy	880	Yes	99
France	1,150	No	70
Norway	1,500	Yes	60
Finland	1,730	Vac*	<5
Denmark	1,750	Yes	37
Austria	1,800	Yes	90
United Kingdom	1,950	Yes	10
FRG	2,030	No	70
Netherlands	2,400	No	58
Sweden	2,900	Vac*	<5

* Vac. = Vacancies

The average number of inhabitants per general practitioner in the eleven countries is just over 1,700 inhabitants. There are, however, large differences between countries. Belgium and Italy have a very high general practitioner density, whereas in Sweden general practitioners serve a much larger population.

The average list size in the Netherlands is one of the highest; certainly if one realises that Sweden does not completely fit into the picture. In Sweden the general practitioner (employed in health centres) is not a standard feature of the health care system. Sweden has always been hospital-oriented; only recently has a primary health care oriented

policy, directed towards the creation of health centres, emerged. As this policy had not attained its full effect, the number of inhabitants per general practitioner is not comparable with the other countries. After exclusion of Sweden the general practitioner density is lowest in the Netherlands.

A majority of the countries has some kind of establishment policy (or regulates the supply of doctors via vacancies in salaried systems), usually based on certain pre-established general practitioner to population rates, but in Belgium, France, the Netherlands and the Federal Republic of Germany establishment is free in 1985. In the Netherlands a legally based regulation of the establishment of new practices was introduced in 1986. It is tempting to speculate on the effectiveness of establishment policies, if one sees that there are countries with an establishment policy and with a very small number of inhabitants per general practitioner, like Italy, as well as countries without such policy and with a rather large number of inhabitants per general practitioner (like the Federal Republic).

The 'modal' type of practice is in most countries the single-handed practice. For Belgium, Italy and Austria it is virtually the only type of practice; in France, the Federal Republic and the Netherlands a majority of practices is still single-handed.

In the UK and Denmark group practices and health centres are the most common type of practice. In Finland and Sweden single-handed practice is only found in the most remote, sparsely populated parts of the country. Norway has more than half of its general practitioners in single-handed practice, mainly in a function as district medical officer.

Working hours and availability

Without information on (average) working hours and availability during evenings, nights and weekends the meaning of the income data is not perfectly clear. In Table 4.2 (see next page) the information about average working week and availability is presented.

There are four countries with working weeks of fourty hours or less: the three countries with salaried general practitioners (Norway, Sweden and Finland), and Denmark. In Italy and Belgium, comparable with regard to general practitioner density, the number of working hours is much higher. Italian doctors are obliged to be available for their patients from eight to eight (with a two-hour break) from Monday to Friday and from eight to two on Saturdays.

It is rather common for general practitioners to organize their own deputizing services, except in metropolitan areas (Paris, Lyon, Vienna, Copenhagen) and in Italy, where a specific service (the Guarda Medico) provides health and emergency services outside office-hours.

Table 4.2
Usual working hours per week and organization of out of hours availability of general practitioners in eleven countries (1985)

	Working hours per week	Deputy Service arranged among GPs
Austria	50	Yes
- Vienna & other large cities	50	No
Belgium	50	Yes
Denmark	40	Yes
- Copenhagen	40	No
Federal Republic of Germany	50	Yes
Finland *	37	Yes
France	50	Yes
- Paris & other large cities	50	No
Italy	56	No
Netherlands	50	Yes
Norway *	37.5	Yes
Sweden *	40	Yes
United Kingdom	50	Yes

* In these countries special services are arranged by the health centres in which general practitioners participate.

Provision profile

Some indication of the range of services rendered by general practitioners is a necessity for the interpretation of differences in workload. As in the previous section, only a rough qualitative estimate could be obtained. The provision profile consists of the following thirteen elements:

1. general medical care
2. idem for children
3. idem for women
4. idem for the elderly
5. minor surgery
6. rehabilitation
7. family planning
8. obstetric care
9. perinatal care
10. first aid
11. dispensing of pharmaceutical prescritives
12. certification
13. 24-hour availability

There were three possibilities of rating: service **predominantly** provided by general practitioners, service **also** provided by general practitioners but predominantly by others, service **not** provided by general practitioners. To be able to combine the provision profiles into indices, a numerical value was assigned to these ratings of three, one and zero respectively.

Some of the elements in the provision profile turned out to be too general; they did not discriminate between the countries. In the description these are left out. This is the case for general medical care in general and for the elderly (numbers one and four); family planning (seven), minor surgery (five) and perinatal care (nine) were also omitted. Some other categories were either completely absent (rehabilitation) or almost absent (dispensing of medicines and obstetric care). These were excluded from further calculations. The remaining activities showed some variation between the countries; in Table 4.3 the above-mentioned ratings (3,1,0) are shown for the remaining six activities plus some additional activities, separately mentioned in the table under the heading EXT. The summary rate per country gives a rough and general idea about the range of activities of a general practitioner; the countries have been listed by rank order.

Table 4.3
General practitioners' provision-profile in eleven European countries (1985)

	WOM	CHI	24H	CER	FIR	EXT	TOT
Finland	3	3	1	0	1	6	14
Austria	3	3	1	3	1	2	13
Norway	3	3	3	0	1	3	13
NL	3	3	3	0	1	2	12
FRG	1	1	3	3	1	2	11
Denmark	3	3	1	3	1	0	11
UK	3	3	3	0	0	1	10
Belgium	1	1	3	3	1	0	9
Sweden	1	1	1	0	1	3	7
France	1	1	1	3	1	0	7
Italy	3	0	0	3	0	0	6

Legend:

WOM = general medical care of women
CHI = general medical care of children
24H = 24-hour service
PER = perinatal care
CER = certification
FIR = first aid
EXT = extra activities
TOT = total

3 = predominantly provided by general practitioners
1 = also provided by general practitioners
0 = not provided

The extra activities of GPs that give them a broader provision profile are the following. In the Federal Republic of Germany and in Austria

extra diagnostic services, such as X-ray or CT scan, and extra laboratory activities are also provided by GPs. In Finland, Norway and Sweden GPs work as district health officers. In Finland, moreover, health centre GPs have access to health centre beds and provide environmental and rehabilitation services. In the Netherlands GPs also, but not predominantly provide obstetric care and dispense pharmaceutical prescriptives. Finally, in the UK a number of GPs also provide obstetrical care.

Finland and Italy form the largest contrast. The same result was found by Crombie et al. (1990), who observed a north/south gradient in decreasing activities of general practitioners in Europe with the exception of the German-speaking countries. These fall outside this gradient in the sense that they provide a broader range of services than their position on the north/south gradient would predict. In Italy general medical care for children is provided by pediatricians (children up to twelve years of age - in 1985; now it is fourteen years - are on the practice list of a pediatrician) and out of hours services are provided by a separate service, the Guardo Medico.

It is interesting to note that for the Federal Republic of Germany there are no zeros, but also no threes in the matrix. German general practitioners have a broad services-profile, but these services are not exclusively rendered by general practitioners; ambulatory specialists provide the same services. More generally, in health care systems with direct access to specialist or hospital care (Sweden, Belgium, Federal Republic and France) general medical care for women and children is not only rendered by general practitioners, but also by gynecologists and pediatricians respectively. Of the countries in this study, only Austria is an exception to this.

Access to specialist and hospital care

Direct access to specialists and/or to hospitals is a distinct feature of many health care systems. The general practitioner as a gatekeeper for higher specialised care is typical of some other health care systems.

People in Austria, Belgium, the Federal Republic of Germany, France and Sweden can directly consult an ambulatory and/or hospital specialist. In the other six countries - Denmark, Finland, Italy, the Netherlands, Norway and the United Kingdom - people first have to visit their general practitioner who has to refer them before they can consult a specialist. Of course in the first group, the countries with direct access, not everybody directly consults a specialist and in the second group not everybody first visits the general practitioner. Sometimes the referral is only an administrative necessity that takes place after consulting the specialist (e.g. in emergency cases) and there are also official exceptions. In the Danish health care system the small minority of group II insured persons (only five percent of the population) have direct access to specialist care (cf. part II, chapter three). In Finland

medical specialists working in primary health care do not need a referral and likewise, in Italy no referral is needed for gynecologists/obstetricians and pediatricians in primary health care centres (Consultori).

System of remuneration and income of general practitioners

The last link in the chain of reasoning before we can come to the earnings of general practitioners concerns the system of remuneration. The basic forms of payment are salaried service, capitation payment (a fixed amount per patient, sometimes differentiated by age and/or sex), and a fee for each service provided. Combinations are also possible in some cases (Reinhardt, 1985).

In Finland, Sweden and for a large part also in Norway general practitioners are in salaried service. In the Netherlands for the publicly insured part of the patients and in the Danish capital Copenhagen (untill the fall of 1987) general practitioners received a fixed capitation fee for each patient on their list. In Italy the capitation fee is differentiated according to the age of the patients. The payment system in the United Kingdom (in 1985) is a mix of fixed allowances, i.e. irrespective of the number of patients or services, differentiated according to the number of years of experience of the general practitioner (the basic practice allowance), of capitation fees differentiated according to the age of the patients, and of fees for some separate services.

Pure fee for service is found in Belgium, France and the Netherlands (for the privately insured part of the population). Also the German system is best characterized as a fee for service system. Insured persons in the Federal Republic every three months receive a certificate that is valid for medical care during three months with a general practitioner or ambulatory specialist of their choice. The provider gets paid for the services rendered in the period, but in contrast to other fee for service systems the patients are tied up with the same provider for the period of the certificate.

Denmark (untill the fall of 1987 with the exception of Copenhagen) has a mixed system of capitation and fee for service. Approximately half of the income of general practitioners is earned from a capitation payment for each patient on their list; the other half from fees for each consultation and from the services rendered in the consultations. Austria has different systems of payment alongside each other on a regional basis. In some of the provinces (Bundesländer) the system has more characteristies of a capitation system (e.g. in Vienna), while in the neighbouring province of Niederösterreich the system looks more like fee for service. In Table 4.5 a summary is presented.

Table 4.5
Remuneration system of general practitioners
in eleven European countries (1985)

Capitation Fee

a. Flat Fee
   Denmark-Copenhagen (untill fall 1987), the Netherlands (for publicly insured patients)
b. Age-Differentiated Fee
   Italy, United Kingdom (plus fixed allowances and fees for some services)

Mixed system (Capitation Fee / Fee for Services)

Denmark (outside Copenhagen until fall 1987, whole country after 1987)
Austria

Fee for Service

Belgium
France
Federal Republic of Germany
Netherlands (for privately insured patients)
Norway (for privately practising GPs, plus basic allowance)

Salary

Finland
Sweden
Norway

From gross revenue to net income

This section contains the heart of the matter, the answer to the first, descriptive research question: an estimation of the general practitioners gross and net revenue. The steps in the estimation are given in Table 4.6. (page 21)

The first step is the establishment of a kind of gross revenue, including practice costs. For salaried doctors this is rather simple, because they do not have to pay the practice costs themselves and they are not included in their salaries. For doctors paid by capitation fee a 'modal' revenue could be calculated, based on the average list size. The major problem is formed by the countries where doctors receive a fee for each service. Sometimes, as in France, extensive

descriptive information is available. In other cases more complicated calculations were necessary.

The first collumn of Table 4.6 gives the estimated gross revenues (with the exception of the three countries with salaried general practitioners). The highest gross revenues, including practice costs, have been found in the Federal Republic and Austria; the lowest in France, Belgium and Italy.

The next step is to estimate the deductible practice costs. Here a major problem arises: the estimation of the costs depends largely on the origin of the source of information. The doctors' associations estimate these costs consistently higher than their counterparts (health insurance funds, the Ministry of Health, the Inland Revenue). A rule of thumb is that doctors' associations' estimates are closer to fourty-five per cent, while the opposite party is closer to fourty per cent. In our study we have tried to avoid one-sidedness by taking an average if different sources were available. In a study like this independent estimates are practically impossible to obtain.

The practice costs as a percentage of gross revenues are highest in the Federal Republic and in the United Kingdom: fifty and fourty-nine percent respectively. The lowest estimate, found for four countries, is fourty percent. Deduction of the practice costs does not greatly change the rank-order of the countries. Now the countries with salaried general practitioners are included in the table. Norway comes with the top half of the countries on a fifth place. Sweden comes at the lower end, just above Belgium and Italy.

After the deduction of practice costs, the remaining sums had to be corrected by Purchasing Power Parities in order to check for differences in purchasing power between countries. Purchasing Power Parities have been published for 1985 bij the OECD (1990) with the US dollar as standard. Here we have corrected net revenue by the quotient of the dollar exchange rate and the dollar's purchasing power. This mainly affects the Scandinavian countries at the lower end and Italy at the other end. Corrected for purchasing power differences, the lowest incomes are found in Italy, Belgium and Sweden. In Italy and Belgium it is most probably the small number of clients that influences the gross and net revenue; we shall come to that later in the next section.

Something must be said about the extremely low revenues from Italian general practice. The explanation might be that the average number of inhabitants per general practitioner is not a very good approximation of the real list size in Italian general practice, because of an unknown number of part-time general practitioners with a second job elsewhere in the health care system. As there is a maximum number of patients on the general practitioners' list (1,500) a good guess for a realistic list size might be the average between the maximum list (1,500) and the average number of inhabitants per doctor (880).

Table 4.6

Gross revenue, practice expenses, net revenue after deduction of expenses and before taxation, and corrected for purchasing power differences in eleven countries (1985) in ECUs

Country	Gross Revenue	Rank	%Pract Exp.	Net Rev.	Rank	NetRev PP.Corr	Rank
Austria	97,800	2	43	55,750	2	69,500	2
Belgium	53,450	7	41	31,170	10	41,500	9
Denmark	91,035	3	40	54,870	3	59,300	4
FRG	133,405	1	50	66,700	1	79,100	1
Finland	not app.	-	-	41,540	6	43,100	8
France	64,750	6	40	38,850	8	48,000	7
Italy	24,480	8	40	14,160	11	20,800	11
Netherlands	89.600	4	44	51,375	4	66,900	3
Norway	not app.	-	-	49,915	5	49,700	6
Sweden	not app.	-	-	34.500	9	36,400	10
Un. Kingdom	80.650	5	49	41.130	7	56,300	5

When we recalculate the income of Italian general practitioners with this number (1,150), then the income before taxation amounts to 24,500 ECU, still the lowest position on the list, but a less inconceivable figure. The rank-order we have established in Table 4.6 compares the countries in our sample. It does, however, leave unanswered the question of the position of the GPs' income within the countries. The position of GPs' income within the countries can be indicated in different ways. Using the percentile distribution of incomes, one could establish the position of the estimates of GPs' income in the distribution. However, comparable date on the complete income distribution of all the countries in our sample is difficult to collect. Another, equally attractive but equally difficult, possibility is to establish the relation between GPs' income and the average income of a reference group of employees (that must be defined, of course, in the same way in all the countries). Our pragmatic solution is to use the relation between Gross National Product per capita and the GPs' income.

Table 4.7

Per capita Gross National Product and relation between per capita GNP and GPs' net income (after deduction of expenses and before tax) in eleven countries (1985)

Country	Per capita GNP		GPs' income/ per capita GNP
Austria	Ös	177,434	4.9
Belgium	BF	486,004	2.9
Denmark	DK	115,245	3.8
FRG	DM	30,226	4.9
Finland	FIM	67,469	2.9
France	FF	85,193	3.1
Italy	LIT	14.136,530	1.5
Netherlands	HFL	28,927	4.4
Norway	NK	118,238	2.7
Sweden	SK	101,162	2.2
Un. Kingdom	UKL	6,324	3.8

Source: IMF, 1990

In countries with the highest GPs' income when compared between countries, the difference between per capita GNP and GPs' income is also highest. In the Federal Republic and Austria (the numbers one and two of the rank-order of incomes) GPs' income is nearly five times per capita GNP. In Italy and Sweden (the numbers ten and eleven of the rank-order of incomes) the smallest difference between GPs' income

and per capita GNP is found.

In our country reports we have decribed in a very general way the system of taxation to give the reader some idea of what the effects of taxation and social security contributions will be. As a very crude estimate of net incomes we have calculated these amounts and subtracted them from the revenues minus practice costs. Because of the crude nature of these estimates we do not use them in the comparisons; they are only given at the end of the country reports as an indication.

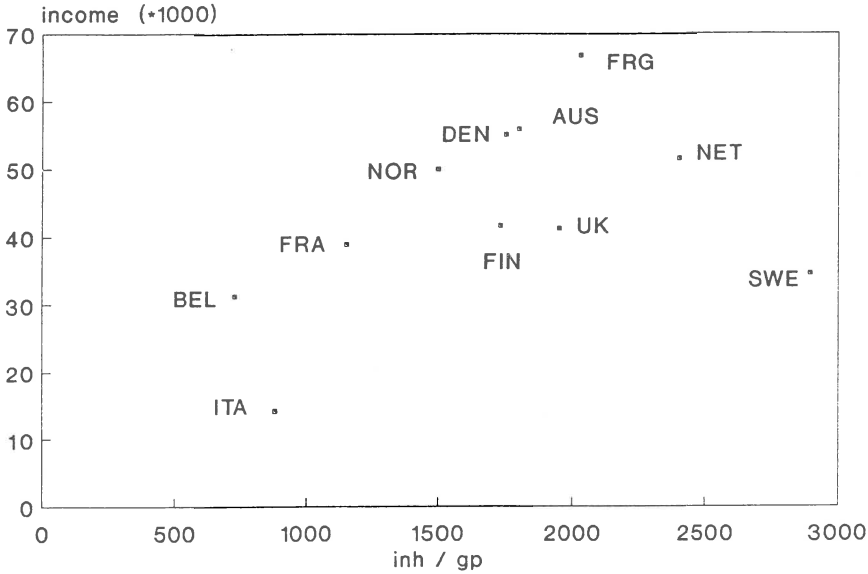
The relation between the position of general practitioners and their income

With eleven observations the possibilities of quantitative analysis are limited indeed. We shall analyse only some of the more obvious relationships.

The first is the relationship between average number of inhabitants per doctor and the revenues from medical practice. Within countries such a relation exists for sure when general practitioners operate under a capitation payment system: income directly varies with list size. Within countries with a fee for service system the same relationship will exist, but general practitioners in areas with a smaller number of inhabitants per general practitioner may be able to compensate by doing more services per patient. This was e.g. found in an analysis of the volume of GPs' services in thirteen Danish counties. Significant negative correlations were found between the number of inhabitants per GP and the number of GPs' services per 1000 patients (Groenewegen, 1990). Within countries with salaried general practitioners there is not necessarily a relationship. What does this relationship look like if we compare health care systems instead of looking within health care systems? In Figure 4.1 a scattergram is shown of these variables.

At first sight there is no strong relation between the average income of general practitioners in a country and the competitive position of general practitioners. The Pearson correlation is 0.45; a non-significant correlation. However, Sweden seems to be an outlier; here the average income of general practitioners is low, while the number of inhabitants per provider is high. Earlier in this chapter we already noted that the Swedish health care system is only just building up its primary care system. Large parts of the country in 1985 still do not have general practitioner services comparable to the other countries. If Sweden, for this reason, is left out the correlation coefficient increases considerably to 0.75. This is a substantial and significant correlation; it implies that doctors earn more in countries where on the average they can serve a larger number of patients.

Figure 4.1
Scattergram of the net revenue of GPs' (after deduction of practice expenses but before tax) and the number of inhabitants per general practitioner in eleven countries (1985)



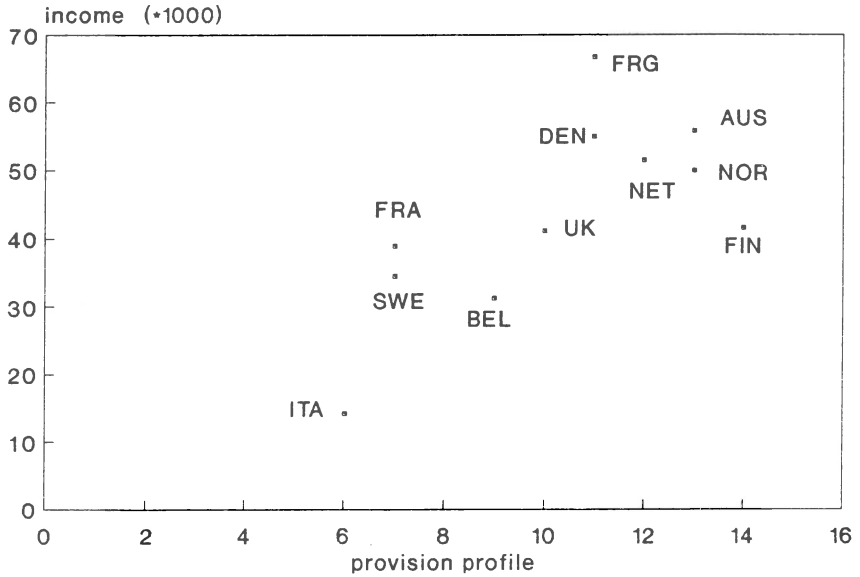
The system of remuneration might also be related to the average income of general practitioners. The second to the fifth countries of the rank-order of average income are all countries with some kind of mixed system of payment, although the number one, the Federal Republic, has fee for service but with a system of tying up patients with a particular GP for a period of time. The two pure fee for service systems, Belgium and France, and the one pure capitation system, Italy, are all in the lower half of the income rank-order. However, these three countries also have the highest density of general practitioners. Here it is quite clear that the number of observations is insufficient to draw any conclusions as to which of the two is more important.

Another question is whether a correlation exists between the range of services of a general practitioner, the provision profile, and his income at national level. The correlation between the overall provision profile index, described earlier in this chapter, and the average income of general practitioners is 0.69 and statistically significant at the conventional probability level. However, there are two outliers, Finland and the Federal Republic. In Finland general practitioners provide the broadest range of services, but they are only eighth in average income. General practitioners in the federal Republic have an average score on

the overall provision-profile index, but the highest average income of the countries studied. As was said earlier, the relatively low score of German general practitioners on the provision profile index is not the result of the fact that they do not provide the services, but of the fact that they do not so exclusively; the same services are also being provided by ambulatory specialists. In Figure 4.2 a scattergram is shown of income and range of services.

The final relationship between the position of general practitioners and their average income that will be explored here, concerns the question whether or not general practitioners earn more in health care systems where access to specialist and hospital care is via a referral of the general practitioner. The five health care systems with direct access to specialist and/or hospital care are scattered over the whole range of incomes (rank numbers 1, 2, 7, 9 and 10). Averaged over the five countries with direct access the average income is ECU 47,400, while in the six countries with access through referral the average is somewhat lower: EC 42,200. Of course this small difference is not significant.

Figure 4.2
Scattergram of net revenue of GPs' (after deduction of practice expenses, but before tax) and index of provision-profile in eleven countries (1985)



5 Discussion

The aim of our study was to describe and compare the incomes of general practitioners in a number of Western European countries. To be able to interpret a comparison of incomes between countries, it is important to include information on the position of general practitioners within the health care systems. Four aspects of the position of general practitioners have been described in the preceeding chapters: the competitive position of general practitioners, the system of remuneration, the access to specialist care and the provision profile of general practitioners. These aspects of the position of general practitioners have also been used in an analytical approach towards differences in income.

It took a number of steps to calculate a more or less comparable figure for the average income of general practitioners in the eleven countries. The first was to calculate the gross returns of the practice; then an estimation of the practice costs had to be deducted from the gross returns; the net returns had to be transformed to European Currency Units and finally these had to be corrected for differences in purchasing power. The result is that general practitioners in the Federal Republic of Germany, Austria and the Netherlands are best off in terms of income before taxation and that their colleagues in Belgium, Sweden and Italy are worst off.

There is a wide variation in the number of inhabitants per general practitioner in the countries studied. It ranges from as high as 2,900 in Sweden (but with a general practitioner based system still under construction) and 2,400 in the Netherlands to as low as 725 in Belgium

and 880 in Italy. In the analytical part of this study the density of general practitioners turned out to be the structural characteristic with the clearest relation to average income: excluding the case of Sweden, the higher the density of general practitioners is, the lower is the average income. This seems to be a rather obvious conclusion; where there are more patients to treat per general practitioner, they make more money. But it is interesting to see that the estimated average working week is neither related to the number of inhabitants per general practitioner, nor to their income. A Danish doctor who is relatively well off in the earnings rank-order, earns his money in fourty hours per week (but organizing deputizing services amongst themselves), while an Italian general practitioner has to work an estimated average of fifty-six hours to end up with the lowest income of the eleven countries compared. It is tempting to speculate about quality of care differences related to these large differences in patient load. However, first of all direct indications for differences in quality of care are very difficult to obtain (although our measure of provision profile has an indirect relation to it), and secondly there are two missing links in the relationship: the average length of consultations and the rates of contacts. Research on workload of general practitoners (cf. Butler and Calnan, 1987; Groenewegen and Hutten, in press) shows that the total number of hours worked has no strong relation with list size, while the number of hours devoted to direct patient care is stronger related to list size, suggesting that general practitioners with smaller list sizes spend relatively more time in other activities. Also there is a negative relation between list size and the length of consultations and the consultation rates (number of times a patient visits the general practitioner). If these relations can be generalized to differences between countries, one might speculate that in the countries with a larger number of inhabitants per general practitioner a larger share of the total working time will be devoted to direct patient care, the average length of consultations will be lower and people will have somewhat lower consultation rates. According to Sandier's data (Sandier, 1989) the Netherlands has the shortest length of consultations, the lowest consultation rate and the largest list size of the European countries in her study (Denmark, France, the Netherlands, FRG and the United Kingdom). France, on the contrary, with the smaller list size, has the longest consultations and a higher (but not the highest) consultation rate.

Each of the common payment systems - salary, capitation and fee for service - is found in our sample of eleven countries. It is worth noting that the 'pure' types have been found in a few cases only: three cases of salaried services, one of which (Norway) also has a considerable number of GP, who receive a basic allowance and fee for service, two cases of 'pure' fee for service and one case of 'pure' capitation. The other five are different mixes of elements of fee for service and capitation (and of salary one could say, if the fixed allowances in the

United Kingdom are seen as comparable to a basic salary). The German system is close to pure fee for service. General practitioners get paid for the separate services they render, but patients are tied to their practice through a certificate, covering a period of three months of care. The Dutch system is mixed according to insurance status of the patient: capitation for publicly insured patients and fee for service for privately insured patients. The Austrian system is mixed in the sense that some regions have an accent on fee for service and some on capitation. The English system is a mix of capitation, fees for some services and the mentioned allowances. Finally, the Danish system is mix of capitation and fees for consultations and for separate services within the consultations. These mixed systems are all in the top of the income rank-order.

Recently there is much interest in mixed systems of remuneration. The experience with the introduction of the new contract for British general practitioners shows that one mix is not the same as the other. There has been much debate about the larger share of fee for service at the expense of the allowances. The intended health care reform in the Netherlands (Ham a.o., 1990) proposes a remuneration system more or less comparable to the Danish one. Mixed systems might combine advantages of fee for service and capitation (Newhouse, 1990) and after all be rather attractive to the general practitioners.

Whether or not specialist care is directly accessible to the patients, does not affect the average earnings of general practitioners. If one sees regulation of access to specialist care through referrals as a form of protection of the general practitioners' share of the market, one would expect to find higher average incomes in the countries with a referral system.

Finally, we have looked at the provision profile of general practitioners. For the interpretation of income differences between general practitioners working in different health care systems, it is very important to have information about the range of services that general practitioners are supposed to render. The provision profile is based on qualitative information. The information was used to fill in a matrix with as entries a number of groups of services on the one hand and an indication of general practitioners' involvement on the other hand. Afterwards a numerical value was attached to the general practitioners' involvement to be able to calculate an overall score. It should be stressed that this overall score is based on the qualitative information from the literature and our informants in the different health care systems; it is not a quantitative assessment based on a survey of what general practitioners are actually doing. The provision profile is broadest in Finland, Austria and Norway, and smallest in Sweden, France and Italy. In countries with direct access to specialist care, like the three last mentioned countries. but also in the Federal Rebublic, the score is necessarily low because there most services are not exclusively rendered by general practitioners. This is not to say that general

practitioners do not render these services. We found a positive relation between the overall provision profile score and the average income of general practitioners.

All in all our conclusion is that average income of GPs is related to the density of general practitioners and their provision profile. Where there are more general practitioners relative to the population of a country and where their range of services is smaller, average income is lower.

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PART II
COUNTRY DESCRIPTIONS

1 Austria

Introduction

Austria is a democratic republic with 7,560,000 inhabitants in 1985. The population density is about ninety people per square kilometre. As in other Alpine countries the population distribution is uneven, being low in the mountainous areas and fairly high in the plains. The population is relatively old, particularly in Vienna, the capital; fifteen per cent of the population is over sixty-five years of age. There are nine independent federal provinces (Länder), each divided into administrative districts.

Health care system

The total share of health care expenditure in GDP in 1985 in Austria was 8.1 per cent (OECD, 1990).

The Federal Ministry of Health and Environmental Protection is the supreme health authority, responsible for central administration, for formulating health policy, for drafting laws and general directives. The federal ministry does not exercise direct power over the local health services, which are exclusively the responsibility of the provinces.

The provincial governments are empowered to issue regulations and to take executive and financial measures. The district authorities at the lowest administrative level come under the provincial governors. They supervise the small municipalities in carrying out federal or provincial measures (WHO, 1981; 1989).

Health insurance system

Health insurance in Austria is part of a comprehensive social insurance system, carried out by twenty-four independent health insurance funds. Under this system 99.1 per cent of the population is insured against the costs of illness. Insurance also covers family members and dependents. Typical of this scheme is that the provision of health services is in kind; providers are being reimbursed by the insurance funds. There are only minor co-payments, e.g. for each pharmaceutical prescription.

The social insurance system is comparable to that of the Federal Republic of Germany and nearly as old as that (Schneider a.o., 1989). It is part of the broader family of 'Bismarck-systems' (Chambers, 1988).

Financing is effected from public sources (the federal state, provinces and municipalities) and contributions, paid equally by employees and employers. These contributions accounted for eighty-seven per cent of the budget of health insurance funds (Hauptverband der Österreichischen Sozialversicherungsträger, 1985).

Supplementary insurance is offered by several private insurance companies covering for example the cost of treatment in special wards in hospitals. Private insurance is particularly important for additional sickness benefits (Schneider a.o., 1989).

Primary health care

The whole population has access to primary health care, which is mainly provided by independent, privately practising general practitioners and specialists. These physicians have contracts with the health insurance scheme. Each insured individual is free to choose a physician, who has a contract with his health insurance fund.

Each district authority has a health officer and centres for maternal and child health, tuberculosis, school dental services and other services. Municipalities are obliged by law to engage a medical officer; in many districts several municipalities collaborate so as to be able to appoint this professional. The municipal medical officers advise the mayors on general health care items.

Urgent treatment is provided by the outpatient departments of hospitals (Ambulanzen). In addition, there are independent ambulatory centres, which are run by the social insurance agencies and which provide ambulatory specialist care. The ambulatory centres also have short-term beds for diagnosis and/or treatment. In large towns, special emergency medical services are used.

When needed, patients are referred by general practitioners and specialists to the independent ambulatory centres or to the outpatient departments of hospitals, except in cases of emergency, when direct access is possible (WHO, 1981; Van der Werff, 1989). The decisions on admittance to hospital and discharge are taken by the responsible hospital physicians.

Position of general practitioners

In 1985 Austria had nearly 5,000 GPs in independent practice. Eighty percent were 'independent contractors' (Vertragsärzte), with a contract with one of the major health insurance funds, each covering one province (Gebietskrankenkassen). They cover seventy-five of the population - nearly all employees in industry and old age pensioners (Österreichische Ärztekammer, 1985).

Health insurance funds are free to offer a contract to a GP and in selecting GPs they may require post-graduate qualifications. By contracting GPs the health insurance funds have an instrument to control the number of GPs in practice. This instrument is used to influence the distribution of GPs over the country.

The distribution of general practitioners varies in Austria from one GP to 1,950 inhabitants in the province of Voralberg to one GP to 1,300 inhabitants in Vienna. The average number of inhabitants per GP with a health insurance contract was 1,800 (Handbuch der Österreichischen Sozialversicherung, 1986).

More than ninety per cent of GPs work as a single-handed practitioner. Cooperation is not stimulated, neither within the profession nor with other health workers.

Population served

Patients are not listed with the practice. However, when consulting a doctor for medical treatment the patient is tied to this doctor for the rest of the quarter by handing in a 'Kassenscheck', which entitles the GP for reimbursement per case, valid for three months of care.

Working hours

General practitioners must be available from 09.00 - 19.00 on week days. There is a special deputising service (Notarztdienste) for service in the weekend, so that there is no twenty-four-hour obligation for GPs. Ordinary out-of-hours services are arranged by local agreements among GPs; in the large cities (like Vienna) these services are provided by a central service.

Containment of students

There is no containment of medical students.

Establishment policy

Formally there is a free choice of practice location for GPs working in ambulatory care. However, doctors need a contract with a health insurance fund in order to be reimbursed for their services. The number

of contracts is negotiated between doctors' associations and health insurance funds ('Stellenpläne').

Vocational training

In 1985, there was no special training to become a GP. After graduation from the university three years' work in hospitals is obligatory. The GP is called 'Praktischer Arzt'. So far GPs have not succeeded in starting vocational training to become specialised in general practice. In this situation health insurance funds may require more specialised additional qualifications before entering a contract.

Provision profile

The provision profile of Austrian GPs is given in Table 1.1. Children up to the age of fifteen have at least one preventive consultation per year and elderly people have the right to a yearly health check. For perinatal care a special 'mother and child - pass' exists (WHO, 1989). GPs in Austria provide a broad range of diagnostic and laboratory facilities.

Table 1.1
General practitioners' provision profile

	I	II	III
* general medical care	X		
- women	X		
- children	X		
- elderly people	X		
* 24-hour service		X	
* minor surgery		X	
* rehabilitation			X
* family planning	X		
* obstetrics			X
* certification	X		
* perinatal care	X		
* dispensing of medicines	X		X
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Negotiating system

In Austria negotiations take place between general practitioners' associations and the autonomous Austrian health schemes. Among these negotiations are the capitation fees and the tariffs of separate services (Einzelleistungen).

The number of places for independent contracting GPs are also negotiated at national level by the health insurance funds and the Österreichische Ärztekammer. In 1978 they signed a ten years' contract on the number of GPs distributed all over the country (Hauptverband der Österreichische Sozialversicherungsträger, 1985).

Remuneration system

In most provinces under the main insurance scheme (including Vienna), GPs are paid partly on a capitation basis and partly on a fee-for-service basis. In the other schemes, there is fee for service only. In both remuneration systems a GP has the possibility of becoming an independent contractor.

Vienna, the province with the largest number of inhabitants (1.5 out of 7.5 million inhabitants), has more or less the same reimbursement system as the Federal Republic of Germany. Every insured person receives a three-month 'Kassenscheck' (in FRG: 'Krankenschein') valid for visiting the general practitioner or an ambulatory specialist. Upon each visit the patient hands this certificate to his GP. Afterwards, the GP returns this certificate to his health insurance fund. Patients who do not visit the GP, have been known to hand in their 'Scheck' by the end of the three-months period. To the extent this is being done the system of 'Kassenschecks' has the character of a general capitation system.

Fees and gross revenue

Each province has more or less its own remuneration system with its own fees. These fees do not differ too much. As an example the rates for Vienna are given here (the Vienna rates are considered to be representative of the whole of Austria).

GPs are partly paid on a 'Scheck' basis. The remuneration of the 'Scheck' in 1985 was ÖS 200 (ECU 13). Other services reimbursed are given in Table 1.2.

Table 1.2
Fees for separate services in Vienna

	ÖS	ECU
- Home visits (untill 20.00 hours)	210	13.4
- Home visits (20.00-07.00 hours)	245	15.7
- Change of bandages	45	2.9
- Suture of fresh wounds	150	9.6

Austrian GPs, taken together, received an average of ÖS 277 (ECU 18) per patient per quarter. The Austrian Chamber of Physicians, 'Österreichische Ärztekammer' has figured an annual gross revenue of ÖS 1,040,000 (ECU 66,500) in 1985 on a capitation basis (that means ÖS 206, ECU 13 per quarter on the average). The average revenue per patient per quarter is another ÖS 71 (ECU 4.5) more. That gives a total average gross revenue of ÖS 1,530,000 (ECU 97,800) a year.

Expenses

Not much is known about expenses of Austrian general practitioners. The Austrian Chamber of Physicians indicates these expenses at fourty-three per cent of this gross revenue. This can be calculated from a recent survey of Austrian GPs' practice expenses (Hayr, 1989). The net revenue of Austrian GPs, after deduction of practice expenses but before taxation, can therefore be estimated to be approximately ÖS 872,000 or ECU 55,750.

As an approximation of the place of GPs in the income distribution of the country, this figure can be compared to the per capita gross national product. The net revenue of GPs after deduction of practice expenses but before taxation is 4.9 times the per capita gross national product. This is, together with the figure for the FRG, the highest among the countries in our sample.

Tax and contributions

To give some tentative indication of net revenue after taxation, we will review in a bird's eye view the main features of the taxation system. The Austrian income tax system has progressive rates up to 62 per cent (see Table 1.3).

Table 1.3
Tax rates on taxable Income in ÖS and ECU

	ÖS	ECU	%
up to	50,000	3,205	21
from	50,100	3,211	27
from	100,100	6,416	33
from	150,100	9,621	39
from	200,100	12,825	45
from	250,100	16,032	51
from	300,100	19,236	55
from	500,100	32,057	58
from	1,000,000	64,102	60
more than	1,500,000	96,150	62

source: International Bureau of Fiscal Documentation, Amsterdam.

Income from capital and shares is taxable above ÖS 7,000 (ECU 447). Interest on savings is tax-free up to ÖS 10,000 (ECU 639).

The following expenses are deductible:
- the purchase of shares up to ÖS 40,000 (ECU 2,560)
- a 'general' deduction of ÖS 5,000 (ECU 320)
- a 'single income' deduction of ÖS 3,200 (ECU 205)
- premiums of life and risk insurance.

Interest on mortgage is not deductible. Wealth tax is one per cent minus a deduction of ÖS 150,000 (ECU 9,590) per member of the family. There is also a high VAT namely ten per cent on basic goods, twenty per cent on normal goods and thirty-two per cent on luxury goods. Social security contributions are low. Finally, GPs have to pay Revenue Tax on their revenue of ten per cent.

Net Revenue

A general rule of the Austrian Chamber of Physicians is that an average Austrian GP has a gross revenue of ÖS 1,530,000 (ECU 97,800), fourty-three per cent expenses and fifty per cent taxes. That gives an estimated net revenue of ÖS 436,000 (ECU 27,870).

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2 Belgium

Introduction

The kingdom of Belgium has been a hereditary, representative, constitutional monarchy since 1830. Belgium is a heterogenous nation, culturally as well as geographically. It is divided between Flemings, a Dutch-speaking people and Walloons, a French-speaking group. There is also a small number of German-speaking Belgians.

With its 9,800,000 inhabitants Belgium is a densely populated country: 323 inhabitants per square kilometre. Almost fourteen percent of the population is aged sixty-five years or older (Nys and Quaethoven, 1984).

Health care system

The total share of health expenditure in GDP in 1985 in Belgium was 7.2 per cent (OECD, 1990).

The responsibility for health care has, in Belgium, been partially decentralised to Flanders and Wallonia (e.g. provision of primary health care, preventive medicine and school health). Central government (mainly the Ministry of Social Affairs) is responsible for setting the insurance premiums, regulation of hospital care and educating health personal. The duplicate structure poses problems of coordination between the state level and the community level.

Health insurance system

The compulsory health care costs and disability insurance covers ninety-nine per cent of the population. There are two insurance schemes: the general scheme for all employees, their dependents and pensioners, and the independent scheme for the self-employed. Insurance coverage of the general scheme is broader. The independent scheme intends to insure only 'heavy risks' (i.c. hospital admissions). Additional private insurance can be bought for the 'minor risks', such as general practitioner' care.

The Belgian health insurance system is based on the principle of reimbursement. The patient pays the doctor and hands in the bill at his local sick funds office (hospital care is usually directly paid by the sick funds to the hospitals).

A second characteristic is the existence of copayments. Not the whole cost of health services' charges is reimbursed. Some groups of the population with low incomes are (almost completely) exempted from copayments: the widows, disabled persons, pensioners and orphans. Moreover, additional insurance for copayments is offered on a voluntary basis by the sick funds.

The main sources of funding of the social insurance system are contributions by employees (no wage limit) and employers (sixty per cent in 1985) and government subsidies (fourty per cent) (de Klein and Collaris, 1987). The level of contributions is fixed by the central government, which is responsible for collecting them.

The local health insurance funds are responsible for administering health care and the insured. At the national level the local health insurance funds are united in six organizations with differing religious, political and trade union affiliations. They are supervised by the National Sickness and Disability Fund (RIZIV).

Primary health care

Although the insurance system has a national and social character, the Belgian health care system may be described as one of the most liberal systems in Europe (Van der Werff, 1989). In some respects 'Belgium resembles America more than it does other countries in Europe', as Roemer and Roemer (1981) once remarked.

Medical specialists and GPs are both directly accessable to patients. No referral is required. The only difference is that the cost of consulting a specialist is higher than that of consulting a general practitioner. As a consequence of parallel access the division of tasks and duties between GPs and specialists is less clear than in heaith care systems with restricted access to hospital and specialist services.

Position of general practitioners

The total number of general practitioners in 1985 was 13,500 (full-time actively practising), which means an average of 725 inhabitants per GP. With that Belgium has the highest density of GPs in our sample of European countries. Regional disparities are only small.

Ninety-five per cent of the GPs work single-handed; partnerships of GPs are rare in Belgium. There are a few health centres where GPs, community nurses and other primary care providers work together, and some GPs are working in multispecialty group practices. Otherwise collaboration between GPs and other health personnel is not common (Van der Werff, 1989) and the system of payment does not stimulate the formation of groups, as it does e.g. in the United Kingdom (UEMO, 1986). GPs work predominantly in their own private office.

Containment of students

There is no numerus clausus for medical students: all medical schools have open enrolments. There is, however, a strict selection of students during the first two years of the programme. This selection cannot prevent Belgium from having an oversupply of doctors.

Establishment policy

There is no establishment policy for general practitioners. GPs are entirely free to choose where and when they practise. There are no restrictions or incentives concerning establishment in certain regions; given the relatively small regional disparities there is no need for that.

Population served

The Belgian patient has a free choice of doctor and no obligation to register with a particular GP. No restrictions exist in the population served. Even more than in health systems with a 'ticket system' that ties people up with a particular GP for a restricted time period, this poses problems of continuity of care.

Home visits

A large portion of general practitioner care in Belgium is given during home visits. This has undoubtedly to do with the strong competition between GPs, due to their large numbers. In 1985 general practitioners had twenty-one million office consultations (fourty-seven per cent) and twenty-three million home visits (fifty-three per cent). This share of home visits has been decreasing in the last decade, since the Belgian health authorities are encouraging office consultations because of quality aspects. In 1970 the share of home visits was still fifty-seven per cent.

Working hours

Belgian GPs usually work long office-hours. Often their practice is open from 08.00 to 22.00 hours. Working weeks of more than fifty hours are rather common (Hull, 1978; Cannoodt, 1985; De Maeseneer, 1989). Information provided by the National Federation of Christian Sick Funds shows that the average number of contacts a day per GP is eleven. Younger, and thus starting GPs, have even fewer consultations, while GPs with some ten years' experience have about twenty-five contacts a day.

Vocational training

Belgium has a post-graduate vocational training for GPs. The training programme consists of a series of traineeship of several weeks. Vocational training is, however, not mandatory for becoming a GP. Every graduate doctor can start a practice. However, after vocational training, acknowledged GPs are allowed to charge higher fees. In practice nearly all GPs have completed this vocational training.

Provision profile

Direct and not heavily restricted access to medical specialists means that some aspects of the provision profile are not the exclusive field of GPs. Especially in regions with a high density of specialists, like the capital Brussels, women and children may visit a gynaecologist or paediatrician respectively, also for general medical care (see Table 2.1).

Negotiating system

Negotiations are held between the medical associations and the health insurance funds. These negotiations about conditions and the amount of money for fees take place in the 'Commission Nationale Medico-Mutualiste'.

The five health insurance funds, have a large number of recommendations and proposals and enter negotiations with a general idea of what they are able to afford. They keep in touch on most issues and agree on most topics. When conformity is reached on certain topics, the Minister of Social Affairs has to give his approval to the agreement. Then this agreement has to be approved by the individual GPs. It has to be ratified by a given percentage of doctors per region. After agreement, it is valid for all GPs in the region who have agreed. The agreed fees are the basis of reimbursement, but individual GPs may charge higher fees. If no agreement is reached, old

tariffs remain.

The negotiating system in Belgium has been extensively described in Glaser (1978).

Table 2.1
General practitioners' provision profile

	I	II	III
* general medical care	X		
- women		X	
- children		X	
- elderly people	X		
* 24-hour service	X		
* minor surgery		X	
* rehabilitation			X
* family planning	X		
* obstetrics			X
* certification	X		
* perinatal care	X		
* dispensing of medicines			X
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Remuneration system

The payment system is by fee for service for both specialists and general practitioners. In 1985, four types of GPs, in relation to their payments, existed.

Class I	Not vocationally trained GP
Class II	Not vocationally trained GP with 'heart specialisation'
Class III	Vocationally trained GP
Class IV	Vocationally trained GP with 'heart specialisation'

The difference in fee levels between class I and II on the one hand and III and IV on the other is about twenty-five per cent. Ninety-five per cent of general practitioners are paid under class III and IV.

GPs receive a fee for every contact they have with patients (by

telephone, or with home visits and office consultations). The other fees they can receive are for medical-technical interventions, like minor surgery or perinatal care.

Fees and gross revenue

Depending on the class in which one is recognised by the Ministery of Health Care, the fees paid differ. In 1985 a GP in class I and II received BF 329 (ECU 7.3) per office consultation. A GP in class III and IV received BF 407 (ECU 9.1) for the same consultation. The same goes for home visits; class I and II received BF 430 (ECU 9.6) and class III and IV BF 485 (ECU 10.8).

The financial compensation for medical-technical interventions is small and their frequency is low; so is therefore the total amount of money they bring in. An interesting example of a fee, although not frequently billed, is assisting to an operation in hospital (up to BF 1,600 (ECU 35.6) depending on the extend of this help).

Since ninety per cent of the total revenue is generated by visits and consultations and only five per cent by medical-technical interventions and another five per cent by other activities, one can figure out what the gross revenue of a general practitioner will be. The average gross revenue of general practitioners in Belgium in 1985 can be estimated to be BF 2,400,000 (ECU 53,435). An alternative estimation, based on a survey in 1981, by Cuypers (1985) comes out BF 70,000 higher, but with the increasing number of GPs there has been a decreasing trend in average incomes.

Expenses

The cost of running the practice for Belgian GPs is estimated by the National Federation of Christian Sick Funds at about 1,000,000 BF (ECU 22,265) including contributions for pensions and social provisions. Table 2.2 details the practice expenses. (see next page).

There are few GPs, who have auxiliary staff or any other assistence. Hence average practice expenses are approximately fourty-one per cent of the gross revenue.

The net revenue of Belgian GPs, after deduction of practice expenses, but before taxation, may consequently be estimated at approximately BF 1,400,000 (ECU 31,170). Leroy (1987) uses income tax data and gives a figure for 1984 after deduction of practice expenses and before taxation which is only slightly lower than this. The estimated income of BF 1,400,000 is only 2.9 times the per capita GNP of Belgium. This position is in the lower half of our sample.

Table 2.2
Estimates of practice expenses

	BF	ECU
Expenses on premises (max. 5 years)	175,000	3,895
Car expenses (max. 5 years per car)	150,000	3,340
Heating and cleaning	100,000	2,225
Telephone	50,000	1,115
Life insurance	75,000	1,670
Retirement contributions	100,000	2,225
Social security	250,000	5,565
Extra expenses	100,000	2,225
Total	1,000,000	22,265

Tax and contributions

Tax scales vary from twenty-four percent at a taxable income of 100,000 BF (ECU 2,225) up to sixty-four per cent with a taxable income of 1,000,000 BF (ECU 22,265). Above 3,000,000 BF (ECU 66,795) an additional solidarity tax of ten per cent is demanded.

Net revenue

Average net revenue before taxes was BF 1,400,000 (ECU 31,170). According to a rule of thumb of the Belgian Medical Association Belgian GPs pay fifty-one per cent tax, so that their net revenue was about BF 700,000 (ECU 15,585). Then nine per cent local tax had to be paid and an extra estate tax and interest tax.

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3 Denmark

Introduction

Denmark is a constitutional monarchy and has just about five million inhabitants. The population density is 119 inhabitants per square kilometre. The population is concentrated around Copenhagen, the capital of Denmark (in 1985 eighty-three per cent of the population was urban). The western part of Denmark, Jutland, is sparsely populated.

Fifteen per cent of the population is aged sixty-five or older.

Health care system

The total health care expenditures of Denmark were 6.2 per cent of GDP (OECD, 1990).

At the national level in 1985 health care was mainly the responsability of the Ministry of the Interior (later a separate Ministry of Health was created). The National Board of Health plays an important role in the coordination of the health care system. The regulation of health care is largely decentralized to the counties (Amt) and municipalities (Kommune). Primary health care is partly organized at the level of the municipalities (e.g. preventive care, community nursing). The independent professionals (like GPs, practising specialists and physiotherapists) are the responsability of the counties. With a few exceptions hospital care is also regulated at this level (Søndergaard

and Krasnik, 1984; Groenewegen and Willemsen, 1987).

Health insurance system

In Denmark the health care system is organised on a national health insurance basis. Since 1976, the whole population has been covered by a compulsory health insurance scheme, paid through taxation, under which people, regardless of income, may choose each year to be placed in one of two categories.

People in group 1 (ninety-five per cent of the population) are entitled to free medical attention from the general practitioner of their choice and to free specialist attention when referred by their general practitioner. One is listed with a particular GP; once a year people are free to choose another GP. People in group 2 (five per cent of the population) have the freedom of choice between consulting a GP and a specialist at any time, without limits, but are required to make a considerable (fifty per cent) contribution towards the cost of ambulatory treatment received. Hospital treatment is provided free of charge to both groups and all patients are reimbursed part of the cost of medicaments included in a list issued by the Minister of Social Affairs. The reimbursement rate for both groups of insured is up to seventy-five per cent (Crombie a.o., 1990).

Primary health care

Primary health care in Denmark embraces the services of a wide variety of health personnel: GPs, community nurses, mother and baby care, preventive services, school health services etc. The general practitioner is the first point of contact with the health care system. He is the first to see and treat the patient and to advise and refer the patient for any other contact with the remainder of the system if this is appropriate. This can take the form of a referral to a practising specialist or to the hospital system (UEMO, 1986).

Position of general practitioners

In 1985 there were 3,430 general practitioners in Denmark, which meant a rate of one GP to 1,750 patients (Sygesikrings statistik, 1987).

Fourty-seven per cent of Danish GPs work in collaboration with one or more GPs, sharing the same patient list (Kompagniskapspriaksis), and sixteen per cent work single-handed but share premises, auxiliary staff etcetera in a group (Samarbeidspraksis). Only thirty-seven per cent of all GPs work single-handed.

The general practitioner is established in independent private practice. Premises are owned or rented by the doctor. When operating in a group practice, the usual arrangement is to establish practice in

medical centres built and financed by the doctors themselves. Multidisciplinary health centres do not exist (Crombie a.o., 1990).

Establishment policy

Since 1976 there has been an establishment policy administered by the county authorities. Each county has its 'practice plan' indicating which parts of the region are open or closed for the entry of general practitioner. When a certain number of patients in a given practice area is reached, the freedom to set up a new practice is restricted by general agreement between the social security system and the Danish Organisation of General Practitioners (Praktiserende Laege Organisation). Under the terms of this agreement, an area where the overall ratio of group 1 patients to GPs is less than 1,306 will normally be declared closed to any new practices (UEMO, 1986).

Population served

Listing to one GP within a specific region is compulsory for the group 1 insured. Patient contracts' with GPs are renewed each year allowing them to change doctors. In Denmark GPs do home visits. For every five consultations in the practice they do one home visit (Sygesikringsstatistik, 1987).

Working hours

A Danish GP works approximately fourty hours a week (Crombie a.o., 1990). In most urban areas (like in Copenhagen) deputising services have been set up to cover out-of-hours, mostly by 'young doctors' or 'Yngre Laege', physicians who are not yet specialised. Others share a deputy service with a number of local physicians.

Containment of students

Until 1987 there were no formal restrictions on the number of students entering medical school other than high school grades.

Vocational training

Vocational training is obligatory. Training conditions have become increasingly severe in the last two decades. Since 1983, after basic medical training, a post-graduate course lasting one and a half years has been compulsory. To become a GP, one has to do traineeships for another five years. The compulsory training for five years qualifies the general practitioner to work under the health insurance scheme.

Provision profile

Danish GPs have a rather broad provision profile. This is caused on the one hand by the restricted access to hospital and specialist services and on the other hand by the system of remuneration (see below) that has separate fees for a number of diagnostic and therapeutic services. The provision profile is given in Table 3.1.

Table 3.1
General practitioners' provision profile

	I	II	III
* general medical care	X		
- women	X		
- children	X		
- elderly people	X		
* 24-hour service		X	
* minor surgery		X	
* rehabilitation			X
* family planning	X		
* obstetrics			X
* certification	X		
* perinatal care	X		
* dispensing of medicines			X
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Negotiating system

In the largest part of the country GPs are paid according to a mix of capitation and fees for separate services. Fees are negotiated between the Sickness Insurance Negotiating Committee for the health authorities and the Danish Organisation of General Practitioners (PLO).

e agreement between these parties is enforced by county authorities together with the PLO in a socalled Cooperation Committee. A fixed point in the negotiations is that the expected income from capitation and from fees are each half of the total income of GPs. The frequency

of services plays an important role in negotiations, which are held every two years. It is possible that certain standards are no longer current and need adaptation. This may lead to a change in reimbursement of individual services. The level of the fees is adapted every six months to the current price level.

The frequency of services and the costs, generated by GPs, are being monitored by the cooperation committees. They compare the average cost level per patient on the one hand and the costs of an individual GP on the other. If GPs exceed the average cost level by a certain percentage, an investigation is held in order to find the reason why. If this investigation is not satisfactory, the GP is given a serious warning. If this does not work the GP gets a penalty discount.

Remuneration system

In 1985 there were two systems of remuneration in two parts of Denmark, a capitation fee and a mixed system. In Copenhagen a capitation system existed (until the fall of 1987); in the remainder of Denmark a mixed system of capitation and fee for service exists.

The design of this mixed remuneration system is such that half of the income of general practitioners is from capitation fees and half stems from fees for separate services. Only for insured people older than sixteen years GPs receive a capitation fee. There are two categories of services: basic services and additional services. The category of basic services comprises consultations at the general practitioner's office, telephone consultations, renewal of prescriptions and consultation in the patient's home. There are separate fees for out-of-hours consultations.

The additional services are divided into the following groups:

. diagnostic services
. perinatal services
. curative services
. family planning services
. certification

Some fees are mentioned in the next section on gross revenue and fees.

In the city of Copenhagen general practitioners, until the change in October 1987, received a fixed capitation fee for each patient on their list. They received no extra fees for basic services and most of the additional services. The only exceptions were perinatal services, the services in the field of family planning and certification.

Fees and gross revenue

In this section we will describe some of the fees of the mixed system. In 1985 the capitation fee was DK 167 (ECU 21) per group 1 insured

person (i.e. older than sixteen years) per year. In table 3.2. examples of fees are given. The fee for home visits is that for home visits to patients who live close to the practice. There are higher fees for visits further away.

Table 3.2
Fees for selected basic services,
diagnostic services and therapeutic services

	DK	ECU
Basic services:		
Consultation	33.40	4.2
Telephone consultation	18.72	2.3
Prescription renewal	15.20	1.9
Home visit	58.65	7.3
Diagnostic services:		
Urine tests with sticks	7.41	0.9
Taking a blood sample	29.22	3.7
Haemoglobin measurement	14.82	1.9
Urine microscopy	22.23	2.8
Cervical smears	29.22	3.7
Therapeutic services:		
Removal of warts	87.67	11.0
Removal of ear wax	58.45	7.3
Dressing of immobilizing bandage	58.45	7.3
First treatment of large wound	116.89	14.6
Removal of corpora aliena	58.45	7.3

Source: PLO (1987)

In 1985 the average gross revenue of GPs under the mixed system was DK 730,000 (ECU 91,035). (Flierman & Groenewegen, 1989). There was a difference between Copenhagen and the rest of Denmark. The average gross revenue of GPs in Copenhagen was lower, because the capitation system had fewer possibilities of generating revenue.

Expenses

The average share of practice expenses is twenty-five per cent, according to the negotiations between PLO and the counties (Flierman & Groenewegen, 1989). This percentage does not include auxiliary staff and it is because of these extra costs that practice expenses are generally estimated at approximately fourty per cent. General practice expenses seldom become more than fourty-five per cent. Practice expenses can consequently be estimated at DK 290,000 (ECU 36,165).

Net revenue, after deduction of practice expenses but before income tax, is estimated at DK 440,000 or ECU 54,870. This is 3.8 times the per capita GNP, the same as in the United Kingdom.

Tax and contributions

Important taxes are income tax and local tax. These local taxes are quite high compared to other countries (twenty-one to thirty per cent on taxable income after paying national tax).

The Danish national income tax starts with a low scale of 14.5 per cent over the first DK 110,000, then twenty-nine per cent over the next DK 75,000 and fourty per cent over the rest. Each taxpayer has a tax-free sum of DK 22,000. Interest on the mortgage is totally deductible (International bureau of fiscal Documentation, Amsterdam).

The Danish Organisation of General Practitioners has estimated that a Danish GP pays about fourty-five per cent tax over his revenue after expenses are deducted (local and national taxes). That means that he has to pay tax of DK 200,000 (ECU 24,940).

Net revenue

The Danish GP has an estimated average net revenue of DK 240,000 (ECU 29,930) after taxation.

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4 Federal Republic of Germany

Introduction

The Federal Republic of Germany is, as its official name states, a federated state. Its total population in 1985 was 61 million inhabitants, with a population density of 246 per square kilometre. The western and southern parts of the country are densely populated, the northern and eastern parts are less densely populated.

Fifteen per cent of the population is aged sixty-five or older.

Health care system

The total health care expenditures of the Federal Republic of Germany in 1985 were 8.2 per cent of GDP (OECD, 1990).

At the federal level the Ministry for Youth, Family and Health and the Ministry of Labour and Social Affairs are responsible for health care. Their main responsability is in the field of health care legislation. Considerable power has been delegated to the eleven federal states, e.g. in the field of hospital planning. The sick funds (Krankenkassen) and the associations of sick funds physicians (Kassenärztliche Vereinigungen) play an important role in primary health care. The German health care system is a good example of a pluralistic health care system. In pluralistic systems there is no single centre of power; private initiatives, semi-public organizations and governmental

organizations have divided power among themselves in an intricate system of cooperation and negotiation.

Health insurance system

In 1883 Bismarck introduced, for the first time in any country, a compulsory health insurance for workers up to a given income limit, with provision of free medical treatment, free medication and cash allowances.

Approximately ninety-three per cent of the German population nowadays is covered against the cost of illness through the public health insurance schemes, either on a compulsory or on a voluntary basis; the remaining seven per cent are largely covered by other legal schemes. A small percentage has only private insurance. Furthermore, approximately eight per cent of the population uses private insurance on a supplementary basis.

The legal schemes are carried out by a network of health insurance funds, receiving their money mainly from contributions (and to a minor extent out-of-pocket payments) by consumers (De Klein & Collaris, 1987). The level of contributions is set by the individual health insurance funds. Medical benefits are determined by the government, although it gives no financial support to the health insurance funds. Benefits under the public health insurance schemes include medical and dental treatment, pharmaceuticals and appliances, hospital care and in certain cases home care. Financial and medical assistance is given during pregnancy and delivery. In 1985 there were personal charges for pharmaceuticals prescribed, for in-patient hospital care and for dental treatment. There are no co-payments for doctors' fees (Crombie a.o., 1990). Services are in kind, i.e. patients do not have to pay the doctor's bills. Payments to the GPs are made by the associations of sick funds doctors which in their turn are paid by the patients' insurance carriers.

Primary health care

In the Federal Republic of Germany a strong division is made between institutional care and non-institutional (mostly private) care, provided by the socalled 'Niedergelassene Ärzte', independent GPs and specialists. This division is of more importance than between medical specialists and general practitioners, who both give ambulatory care as independent professionals (Eichhorn, 1984). Hospital doctors are mainly in salaried service.

Position of general practitioners

In 1985 there were over 155,000 physicians, of whom 30,000 were working as general practitioners (12,500 'Allgemeinärzte', specialists general medicine and 17,500 'Praktischer Ärzte', not specialised at all). That means about an average of 2,030 inhabitants per general practitioner.

In Germany single-handed practice dominates (Eichhorn, 1984). In 1984 it was estimated that thirty per cent of all medical doctors (GP and ambulatory specialists) were working in group practice. In Germany it is profitable to manage one's own laboratory, although a German GP needs a certain scale to work efficiently, hence, apart from group practice, a growing number of doctors participate in laboratory partnerships to profit from 'economies of scale'. Economies of scale are often seen with German GPs, many of them having highly advanced equipment.

Home visits made by the general practitioner are universal (approximately twenty per cent) and hospital visits of the GP are rare.

Population served

Patients are not formally listed with a GP, although in practice many GPs keep a list of their patients. Through the system of 'Krankenscheine', certificates which are valid for three months of care by the primary care physician (either GP or specialist) of one's choice, people are tied up with a particular physician for a period of time.

Working hours

A GP has regular working hours from Monday to Friday. This means fifty hours a week. Besides these regular hours, he has to take charge of the emergency service over the weekend and beyond regular working hours.

Establishment policy

Neither the associations of sick funds physicians nor the health insurance funds can limit or restrict the number of general practitioners in the Federal Republic of Germany. In 1984 legal measures were announced however, restricting establishment in 'over-doctored areas' (Crombie a.o., 1990). Until now these restrictions have not been implemented.

Containment of students

There is no containment of the number of students entering medical school. There is a strong selection during medical training. Although the

number of physicians has increased considerably in the last decade, a numerus clausus has not been introduced (Crombie a.o., 1990).

Vocational training

Vocational training for GPs is not compulsory in the Federal Republic of Germany. Having finished medical school, a doctor is allowed to practice family medicine without restrictions. The title "Allgemeinarzt" (specialist in general medicine), however, is restricted to those doctors having finished a four-year vocational training. In 1985, thirty per cent of all GPs had followed this vocational training.

Provision profile

In the Federal Republic of Germany people can freely choose between visiting a GP or an ambulatory specialist. This means that part of the work that is done by GPs in health systems with obligatory referrals, is done by specialists, e.g. gynecologists and pediatricians. As has already been mentioned, German general practice is well provided with diagnostic and laboratory facilities. The provision profile is given in Table 4.1.

Table 4.1
General practitioners' provision profile

	I	II	III
* general medical care	X		
- women		X	
- children		X	
- elderly people	X		
* 24-hour service	X		
* minor surgery		X	
* rehabilitation			X
* family planning	X		
* obstetrics			X
* certification	X		
* perinatal care		X	
* dispensing of medicines			X
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Negotiating system

The health insurance funds and medical profession are organised into units at the level of the federal states that manage the details of health insurance. General guidelines are negotiated between national associations of the health insurance funds and the doctors, and the regional variations are negotiated on the state level.

Two subjects are negotiated: the fee schedule and the monetary valuation of each service. The fee schedule is negotiated at national level and the amount of money is negotiated within each state, although financial guidelines have been worked out nationally. The result is national uniformity combined with provincial flexibility (Glaser, 1978). The very complicated negotiating system in the Federal Republic has been described in detail by Glaser (1978), Stone (1980) and Kirkman-Liff (1990). The latter gives also an update on the system of monitoring of individual doctors' costs profiles.

Remuneration system

All general practitioners working in private practice are remunerated on a fee for service basis. However, the bond between patient and GP is not as loose as e.g. in Belgium.

There is a formal direct accessibility to all specialists providing ambulatory care. For ambulatory care, the health insurance funds provide their members with quarterly valid health insurance certificates ("Krankenscheine") that entitle the patient to consult any doctor who is working as an independent contractor with the health insurance funds. Handing in the certificate ties the patient up with a particular ambulatory care provider.

This certificate proves to the doctor that the patient is currently covered by health insurance. The doctor notes all treatments on the certificate which he later bills to the association of sick funds doctors (Glaser, 1970). The associations pay their member doctors the negotiated fee for each service. Physicians are not allowed to charge higher fees to their patients than the ones negotiated (with the exception of 'medically unnecessary' consultations which can be charged to the patients, but cannot be billed to the associations).The bills are paid by the physicians' organisations, which receive the amount from health insurance funds. This amount is calculated on the basis of the total services rendered by individual doctors, this total sum being divided afterwards.

Fees and gross revenue

The fee schedules cover a large number of therapeutic and diagnostic services. Here only a few examples of fees for doctors' services in 1985 are given.

Table 4.2
Fees for selected services in 1985

	DM	ECU
Home visits and consultation	44	19.8
Emergency home visit and consultation	60	27.0
Evening visits	60	27.0
Night visits (22.00-06.00 hrs)	85	38.2
Work disability certificate	4	1.8
First examination in pregnancy	35	15.7
Basic examination of the newborn	40	18.0

Examination during pregnancy does not happen too often, for often women go directly to their gynecologist.

The Central Institute of Sick Funds Care ('Zentralinstitut für die Kassenärztliche Versorgung in der BRD') arrived at an average gross revenue of DM 297,000 (ECU 133,405) per general practitioner in 1985. This figure was confirmed by the Association of Ambulatory Care Physicians ('Verband der Niedergelassenen Ärzte').

Expenses

As usual there are different estimates of the practice expenses of GPs. They range from fourty-seven per cent of gross revenue (estimated by the insurance carriers) to approximately fifty-two per cent (estimated by the Central Institute of Sick Funds Care) (see also Brenner, 1987). As truth may very well lay somewhere inbetween, we use fifty per cent of gross revenue as our estimate of practice expenses.

Revenue after deduction of practice expenses, but before income tax, is hence approximately DM 148,500 or ECU 66,700. Comparing this figure with the per capita GNP, it turns out that German GPs earn 4.9 times the per capita GNP. Together with Austria this is the highest figure in our sample of countries. GPs in the Federal Republic are not only the highest paid in our sample of countries, but they are also highly paid in relation to the income distribution within their country.

Tax and contributions

The maximum income tax rate of fifty-six per cent is applied to a taxable income of more than DM 260,000 (ECU 116,785). On a taxable income of DM 148,500 (ECU 66,700), a German general practitioner pays about DM 55,000 (ECU 24,705) tax. This amounts to a thirty-seven per cent rate. There are few possibilities for deducting tax, e.g. pension contributions are not deductible.

Besides national tax local tax has to be paid as well, of which the 'Kirchensteuer' (church tax) with a rate of nine per cent is worth mentioning (International Bureau of Fiscal Documentation, Amsterdam).

One has to bear in mind that negotiations about practice expenses have no fiscal significance. The inland revenue regards them as income and allows deduction of real costs only.

Net revenue

Average net revenue of German general practitioners can be estimated at approximately DM 93,500 (ECU 42,000).

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5 Finland

Introduction

Finland is a relatively young state; national independence was declared in 1917 and in 1919 a republican constitution was adopted.

In 1985 Finland had 4.9 million inhabitants, which means fifteen people per square kilometre; one of the most sparsely populated countries in Western Europe. Most of the population lives in urbanised areas (sixty per cent) in the south and west. The north is very sparsely inhabited. The population growth has been slow for the past five years. Thirteen per cent of the population is aged sixty-five or older.

Health care system

In 1985 the total expenditures of health care amounted to 7.2 per cent of GDP (OECD, 1990).

The administrative organization of the country has three layers, approximately 460 municipalities, twelve provinces and the national government. In health care matters the municipalities (forming federations in case of smaller municipalities) and the national government are important. At the national level health care is administrated by the Ministry of Social Affairs and Health, with two central agencies, the National Board of Health and the National Board of Social Welfare.

The current state of health care in Finland has been shaped by the

1972 Community Health Care Act. The background of this act was concern about rising health care costs, a one-sided emphasis on hospital and specialist care, and a lack of integration of financing and planning at appropriate regional levels. The 1972 Act integrates earlier regulations and builds on the organizational principles of the existing system of maternity and child care (free and universal access, local organization) (Kekki, 1986; Groenewegen and Willemsen, 1987). At the local level five-year plans are made, according to national guidelines and subject to national approval.

State-subsidies for the municipalities, amounting to half of the investments and running costs on average, depend on agreement between local plans and national guidelines. Subsidies are graded according to the prosperity of the municipality: thirty-one per cent for the most prosperous, rising to sixty-four per cent for the poorest municipalities (Ministry of Social Affairs and Health, 1987a).

Insurance system

In 1964 the universal health insurance scheme was adopted in Finland. It was funded by employers, employees and the State and operates on a reimbursement basis, including compensation for lost earnings and treatment costs. The insurance scheme covers the whole population (compulsory membership) (Kekki, 1986). This national scheme is administered by the Health Insurance Institution, a central government body operating a network of twenty-two local insurance offices, each responsible for defined geographical districts. Contributions of the insured persons are paid together with central and local government taxes. Individuals and families can buy into additional voluntary health insurance schemes, which have become more and more popular since the early 1980s, since they cover the full costs of the use of private specialist services.

The private health care sector, although based on free enterprise, is supervised by the authorities and subsidised by public funds through reimbursements by the health insurance system (Ministry of Social Affairs and Health, 1987b). In the Finnish cities a very significant percentage of the patients, up to fifty per cent in Helsinki, seek the services of private practitioners, to whom no referral is necessary.

Primary health care

After long years of reliance on hospital and specialist care Finnish Health Service has made a definite move towards strengthening primary care. Since the passing of the Community Health Care Act, the basic organizational unit of primary care is the health centre. These are local, functional units, employing primary health care personnel. In contrast to e.g. British and Dutch health centres, they are not necessarily one practice in one central building. The health centres ideally cater for

between 10,000 and 15,000 inhabitants, although in urban areas they can cover substantially more inhabitants, as in Helsinki. A patient must apply first to his local health centre or private practitioner for examination and treatment. If the patient cannot be treated there, he is referred to a general hospital or university hospital.

Position of general practitioners

In 1985 there were 2,832 GPs in Finland. This amounts to one GP per 1,730 persons. The place of work for the vast majority of all GPs is one of the 216 health centres, functional units providing all primary health care services in a certain administrative area (health centre or health district). Of these centres seventy-five per cent have a population base of 20,000 or less.

GPs are often called Health Centre Physicians and incorporate the functions of both GP and public health officer. Health centres employ a minimum of two doctors, and a number of additional health workers. Cooperation within primary care is therefore common. In their spare time GPs are allowed to work in the private sector. A small and declining proportion of all GPs work exclusively in private practice (four per cent). All private GPs work single-handed.

Population served

Health centre practitioners serve geographically defined communities. Usually no personal registration or list system is kept. Finnish primary care has often been criticized for being too depersonalised and offering too little personal and continuous care, especially in the largest cities.

Working hours

All Health Centre Doctors work thirty-seven hours a week. In addition, they do deputising services (hours depend on the number of doctors in the specific health centre). As a result of the strict working hours of Finnish GPs, long waiting lists exist. This creates a chance for private practice, a black spot in this planning society.

Establishment policy

Ninety-six per cent of all GPs are salaried medical officers, employed by the local authorities. It follows that the entry of new GPs is under direct control by filling up vacancies or opening new entries (Crombie a.o., 1990).

Containment of students

There is a containment of the number of students entering medical school. The annual intake of new medical students has been reduced from 600 in 1979 to 490 in 1985.

Vocational training

There is further specialised training in family medicine, which lasts six years. For GPs working in health centres this vocational training is not required. It is estimated that approximately one quarter of GPs have followed vocational training.

Provision profile

Finnish health centres dispose of their own beds, where GPs can admit patients and do minor surgery. In the more remote areas of the country these 'GP hospitals' are more important, because of greater distances and fewer general hospital beds.

The Finnish GPs make home visits only to those elderly or chronically ill people who have been accepted into 'home care'. Otherwise, home visits are done by the health centres' community nurses. Particularly in the newer buildings of health centres good laboratory and diagnostic facilities are available. Table 5.1a (opposite page) give the provision profile.

Negotiating system

Negotiations are held between the Finnish Medical Association and the Municipal Institute of Labour Relations, the representatives of the 460 municipalities. The general working conditions of GPs are discussed and a basic salary is agreed. The result of these negotiations is valid for two years.

Remuneration system

For the basic thirty-seven hours' work in the health centre, health centre physicians, the vast majority of GPs, receive a salary. Additional fees exist for night duties and on-call work. Private GPs charge fees for services rendered. Hospital doctors are salaried; part-time work in the private sector is paid on a fee for service basis (mainly in towns). Patients are free to make use of the private sector whenever they want, and receive a partial reimbursement (sixty per cent) from the public insurance scheme for private services. It follows that doctors working in private practice directly benefit from the compulsory state insurance.

Table 5.1
General practitioners' provision profile

	I	II	III
* general medical careX	X		
- women	X		
- children	X		
- elderly people	X		
* 24-hour service		X	
* minor surgery		X	
* rehabilitation		X	
* family planning	X		
* obstetrics		X	
* certification			X
* perinatal care	X		
* dispensing of medicines			X
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Fees and gross revenue

The average income of a Finnish GP in 1985 was FIM 16,000 (ECU 3,410) per month. This is equal to or a little more than the salary of medical specialists. On a yearly basis the total salary is estimated at FIM 195,000 (ECU 41,540) a year. This includes on-call and night service payments, which are an uncertain and presumably unevenly distributed part of the GPs income.

For work outside the thirty-seven hours a week included in the basic salary, GPs are paid separately. For on-call hours the GP earns FIM 40 (ECU 8,5), and if a patient needs treatment, the GP receives another FIM 40. This may increase his income outside office hours to FIM 240 (ECU 51), which is the set maximum per hour. The sum earned for work outside office hours can be as large as FIM 5,000 - 10,000 (ECU 1,065 - 2,130), depending on the number of GPs and their individual willingness to work outside office hours.

The health centre practitioners' salary is age- and experience-related. A young doctor starts at around FM 10,500 (ECU 2,240) a month and this may grow to FIM 13,500 (ECU 2,875) after ten service years. If the doctor is chosen for or appointed to positions involving administrative duties, the basic salary may be as high as FIM 18,000 to 20,000 (ECU 3,835 - 4,260) a month, including payment for on call services and

night services.

For private consultations the fee is FIM 115 (ECU 24,5); GPs specialised in family medicine are allowed to charge higher fees.

Expenses

The easy thing about salaried service in general practice is that there is no need to estimate the practice expenses. Expenses incurred by the Finnish GP are paid for by the Health Centres, as are the costs of post-graduate training. The net revenue after expenses and before taxation is consequently the same as the yearly salary, indicated above: FIM 195,000 or ECU 41,540. This amounts to 2.9 times the per capita GNP in Finland; the same as in Belguim. With this Finland belongs to the lower half of the sample of countries.

Tax and contributions

Finns pay two types of tax and social security contributions: municipal or local tax and national income tax. Municipal tax varied in 1985 from 14 to 18.5 per cent of taxable income. Everyone has to pay this tax after certain basic tax-free allowances (FIM 14,100, ECU 3,000).

In 1985 from higher levels of income national individual income tax was collected, starting with a taxable income of FIM 14,100 (ECU 3,000). The lowest tax rate is six percent. This rises to fifty-one per cent at a taxable income of FIM 440,000 (ECU 93,730). As the average GP earned FIM 195,000 local tax was 14 to 18.5 per cent over this amount, which makes approx. FIM 35,000 (ECU 7,455).

National tax was twenty-eight per cent over the first FIM 142,000 (ECU 30,250) and fourty-five per cent over the remaining FIM 50,000 (ECU 10,650). That makes FIM 64,000 (ECU 13,635). Social security contributions amounted to 3.5 per cent. That makes the total amount of taxes paid just over FIM 100,000 (ECU 21,300) a year. Hence a doctor whose annual salary is approximately FIM 195,000 (ECU 42,540) has to pay fourty-five to fifty-five per cent tax, depending on individual and family-based deductions (number of children, home mortgage interest, etc.)
(International Bureau of Fiscal Documentation, Amsterdam).

Net Revenue

Net revenue after taxation will therefore amount approximately FIM 95,000 (ECU 20,240).

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6 France

Introduction

France is a democratic republic and the largest country in Western Europe. It has 51 million inhabitants. The average population density is 101 inhabitants per square kilometre. In France the centre (around Paris) and the urban parts of the south of the country are densely populated.

Thirteen per cent of the population is aged sixty-five or older.

Health care system

The total health expenditure share in GDP in 1985 was 8.6 per cent (OECD, 1990).

France has a highly centralized government. Health care is the responsibility of the Secretary of State for Health, who is in turn answerable to the Minister of Health and Social Affairs. The minister controls the entire social security system, including health insurance.

Health insurance system

There are three major health insurance schemes. The largest of these covers the costs of medical care of employees, pensioners and unemployed, and their dependents. Eighty per cent of the population belong to this group, which is known as the General Scheme (Régime

Générale). The two other important schemes are those for agricultural workers and for the self-employed (who receive lower benefits and have higher rates of copayment). Apart from these a number of smaller schemes exist for specific groups, such as miners. All in all ninety-nine per cent of the population is covered by the health insurance system (de Klein and Collaris, 1987).

The centralized structure of French government is also reflected in the hierarchical structure of the health insurance organizations with a single national office for each scheme, regional coordinating offices and local offices (Glaser, 1978).

Health insurance in the General Scheme is financed mainly by contributions of employees and employers. The insurance system is based on direct payment of the physician by the patients and reimbursement of part of the charges by the health insurance system. Some groups of the population, such as the unemployed, have a maximum on co-payments during a given time period. Co-payment rates vary according to the kind of service:

- 75 % of the agreed fees for general practitioners and dentists;
- 65 % of the costs of paramedical care;
- 100 %, 70 % or 40 % of the costs of pharmaceutical prescriptives, depending on the drugs prescribed;
- 80 % of the costs of hospital treatment during the first thirty days of hospital stay;
- 65 % of the costs of diagnostic tests.

Additional insurance by private companies or mutual societies may cover the co-payments (de Klein and Collaris, 1987).

Primary health care

Primary health care in France is provided by independent practitioners and a small number of health centres established and managed by municipalities, voluntary societies and other organisations (UEMO, 1986). These health centres are generally officially recognised to operate as part of the social security system (van der Werff, 1989). Both general practitioners and specialists in independent practice are directly accessible. A referral to specialist care by a GP is not required. In principle every patient is free to choose the physician he or she wants. There are no fixed lists of patients.

Position of general practitioners

As stated above, primary health care is provided by both specialists and general practitioners. The latter account for some 48,000 out of over 85,000 physicians practising primary health care, i.e. about fifty-five per cent.

It is estimated that consultations with general practitioners average

approximately four per person per year. General practitioners accounted for sixty-nine per cent of consultations and ninety-eight per cent of home visits in 1984 (Sandier, 1984). Specialists account for the minor share of this type of work. However, there are certain services performed in primary health care in which specialist treatment is the norm, e.g. French women tend to visit a gynaecologist instead of their GP.

In France there is an average of 1150 inhabitants per GP, but also a large variation in distribution of GPs in various parts of the country (Tonnelier, 1990). More doctors practice in the south of the country, and there is a higher concentration of doctors in the urban areas.

The system of payment in France does not encourage the formation of group practices with shared premises and staff. Around seventy per cent of GPs work in single-handed practice (CNAMTS, 1987). There appears to be a trend of increasing numbers of GP working in group practices. Only one per cent of general practitioners work in a health centre on a salaried basis. Salaried general practitioners employed in hospitals do not practise outside the hospital setting.

About one third of all contacts with private physicians is made during home visits.

Containment of students

There is no restriction on the number of students entering medical school. The number of places in the second academic year is restricted; severe selections take place at the end of the first year (Crombie a.o., 1990).

Establishment policy

There is no establishment policy for general practitioners, and the competition between GPs is fierce, especially in southern France and in the cities (Sandier, 1983). One has tried to influence the distribution of GPs by providing entering physicians with information about regional disparities in GP density, without much result, however.

Working hours

The average French GP works just above fifty hours per week. Sandier (1989) gives the figure of fifty-four hours for 1979. The length of consultations is approximately a quarter of an hour (Sandier, 1989).

Population served

There are no restrictions on the population served. General practitioners are paid according to fee for service and there is no system to tie up patients with a particular GP, as e.g. in the Federal Republic of

Germany. Consequently, GPs do not have a fixed list of patients.

Vocational training

After basic medical training, vocational training is obligatory. This varies from four to six years, depending on the specialisation. There is no special educational programme for becoming a GP (Crombie a.o., 1990).

Provision profile

Due to the parallel access to general practitioners and independent specialists, parts of general medical care are done by specialists, e.g. in gynecology and pediatrics. Table 6.1. gives an overview of the provision profile.

Table 6.1
General practitioners' provision profile

	I	II	III
* general medical care	X		
- women		X	
- children		X	
- elderly people	X		
* 24-hour service		X	
* minor surgery		X	
* rehabilitation			X
* family planning	X		
* obstetrics			X
* certification	X		
* perinatal care		X	
* dispensing of medicines			X
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Negotiating system

In the French health care system three kinds of negotiations are relevant here in the context of the remuneration of GPs (Glaser, 1978). Firstly, the negotiations for a national agreement ('convention nationale') which lays down the relationship between the medical profession and

the insurance system. These negotiations aim either at a new national agreement or at an update of the existing agreement. They are held between representatives of the health insurance organizations and of the organization(s) of the medical profession. Agreement is - formally - an advise to the government that has to approve of the agreement. Individual doctors have the freedom either to subscribe to the convention (to be 'conventionné') or not; ninety-eight per cent chooses to subscribe to the convention.

Secondly, the list of services that are separately remunerated (the 'nomenclature') and their value relative to each other, are discussed in a separate committee with representatives of the insurance system, the medical profession and government.

Finally, the financial value of the services is negotiated every autumn between the parties involved in the agreement.

Remuneration system

General practitioners are paid fee for service. The main categories are fees for consultations and for home visits. Additional fees exist for a large number of services, but the main source of income for GPs is from consultations and home visits. The additional fees are on a separate list ('nomenclature') with a key letter. Each service within a letter has a certain number of points, ideally, but in practice not always, related to the time involved. Payment follows with a standard unit price per point per letter. The income of GPs, therefore, depends on the combination of the number of services rendered and the level of fees for these services.

GPs who subscribe to the 'convention' can be divided into two groups. The largest one (eighty-six per cent) applies the fee schedule and their patients get reimbursement of the full charge minus the co-payment rate. The second group (twelve per cent) can, within certain limits, charge higher fees, but the additional charge compared to the fee schedule has to be paid by the patients. What remains is the very small group - two per cent - who choose to stay outside the 'convention'. They are free to charge what they want and their patients are reimbursed at a very low rate.

Fees and gross revenue

As has been said, office consultations and home visits are the main source of income for GPs. Emergency visits outside regular hours can be charged higher. The fees for 1985 are given in the next table.

Table 6.2
Fees for consultations and home visits in 1985

	FF	ECU
Consultation	75	11.0
Home visit	85	12.5
Emergency visit:		
- Saturday from 12.00 and Sunday	105	15.5
- Night	142	20.9

source: Journal Officiel de la République Française, 1985

Separate services, rendered by GPs, are under the key letter K (e.g. minor surgery). The average number of points for this key letter was 7.0 in 1985 and payment per point was FF 12.35 (ECU 1.8) (CNAMTS, 1987).

In 1985 gross revenue was based on sixty per cent consultations, thirty-four per cent home visits (GPs provide ninety-eight per cent of all home visits) and six per cent of the services mentioned above (Kleinmann and Sandier, 1990). The average total revenue of GPs was estimated at FF 440,000 (ECU 64,750).

The variation of GPs' revenue is large: twenty per cent had less revenue than FF 250,000 (ECU 36,800) and seventeen per cent had more revenue than FF 500,000 (ECU 73,600) (CNAMTS, 1987).

Expenses

There is no detailed information on practice expenses. As the average revenues are not so high that many GPs can afford staff to assist them, practice expenses are not as high as in countries where they do have auxiliary staff. Expenses are incurred for practice housing, transport and pension contributions. Estimates vary around fourty per cent of gross revenue. With an average revenue of FF 440,000 the practice expenses vary around FF 176,000 (ECU 25,900).

Net revenue after deduction of practice expenses, but before taxation, is therefore approximately FF 264,000 (ECU 38,850). This is 3.1 times per capita GNP. In this respect France is exactly in the middle of our sample.

Tax and contributions

The French tax system has progressive tax rates with maximum rates of sixty-five per cent. This maximum is reached at a taxable income of FF 342,000 (ECU 50,300). The fifty per cent rate is used for taxable income of between FF 158,000 and FF 187,000 (ECU 23,250-27,500). However, these rates are lower for married people and still lower for married people with children.

Interest on mortgage and debts is not deductible, and income from interest is taxable with an advance tax payment up to fourty-five per cent. As independent professionals, general practitioners pay company tax ('taxe professionel').

Wealth tax is charged only on large amounts starting at 3.7 million francs with tax rates of 0.5 up to 2 per cent (International Bureau of Fiscal Documentation, Amsterdam).

Net revenue

If we estimate the tax rate of an average GP with a taxable income of FF 264,000 after deduction of practice expenses at about fifty percent, net income would be around FF 132,000 (ECU 19,500).

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7 Italy

Introduction

Italy is a republic with 57 million inhabitants in 1985. The country is densely populated and highly industrialised in the north and sparsely populated in southern parts. The population density is 189 per square kilometre. Over seventy per cent of the population lives in urbanised areas. Thirteen per cent of the population is aged sixty-five or older.

Health care system

Total health care expenditures in Italy in 1985 absorbed just over 6.7 per cent of GDP (OECD, 1990).

In 1978 Italy started a large operation to restructure the health care system towards a National Health Service (Servicio Sanitario Nazionale), more or less in line with the organization of the British National Health Service (for a detailed comparison of organizational structures compare Brenna and Mapelli, 1987). The reorganization aims, among other things, at decentralization of planning and operation of the health care system at appropriate regional levels.

At the state level health care is mainly the responsability of the Ministry of Health. It provides the outlines of national health policy and allocates the funds to the lower levels of administration. The next level is that of the twenty regions (which also have other administrative duties apart from health care). They are responsible for regional

planning and administering of health services, for overseeing their operation at the local level and for the effective distribution of resources. The basic unit of the National Health Service is the Unità Sanitaria Locale (USL). These local units are based on the municipalities. A single health unit may cover more than one municipality and conversely a municipality may be covered by more than one health unit; Rome for instance, has twenty and Florence has eight.

The population served by the USL ranges from 50,000 to 200,000, but there are no formal limits. In 1985 there were 673 USLs in Italy (WHO, 1989). The USL is governed by a general assembly, elected by the participating municipal councils. The USLs are responsible for the operation of the primary services (Robb, 1986).

Krause (1989) expresses some of the criticism of the Italian achievement by stating that the Italian National Health Service does not exist. In his evaluation it is merely a funding mechanism and an attempt at cost control that is mainly concerned with payment of health services; national unity does not exist. Others cite the bureaucratic organization of the system (Brenna, 1987).

Health insurance system

Before 1978 the health insurance system was carried out by numerous (semi-)public and private health insurance organizations. They derived their funds from contributions raised by employers and employees and from private insurance contributions.

Legislation to reorganize the system towards a national health service passed in 1978. The reorganization aimed at bringing together the three components of health care, namely prevention, cure and rehabilitation. It was also designed to eliminate differences in access between regions and to increase efficiency. Attention was also devoted to primary health care (UEMO, 1986; WHO, 1989).

Roughly speaking half of the funds of the National Health Services are raised by taxation and half by contributions of employers and employees (Schneider a.o., 1989). The insurance system covers the whole Italian population, although approximately ten per cent of the population has additional private insurance. Benefits are in kind, but there is co-payment for some groups of pharmaceutical prescriptions and for diagnostic tests. Co-payment is exempted for categories of chronically ill people and low income groups (together thirteen per cent of the population).

Primary health care

Primary health care is mainly provided by general practitioners and pediatricians who are, like in the British NHS, independent contractors to the National Health Service. Children up to the age of twelve are

usually on the list of a pediatrician; the rest of the population is on the list of GP. In 1989 the age limit of children on the list of pediatricians has been raised to fourteen years.

Every citizen has the right to consult his own doctor free of charge. This doctor may then refer him to a specialist or hospital. Direct access to independently practising specialists is theoretically possible, but referral is usual. For in-patient care a referral is necessary (Crombie a.o., 1990).

Position of general practitioners

In Italy there were approximately 56,000 GPs working in practice, which makes an average of one GP to every 800 patients older than twelve years. Children up to twelve years are usually on the list of a pediatrician. If we assume that on the average half of the children are on a GP's list, the number of inhabitants per GP becomes approximately 880.

The usual mode of practice is single-handed practice. Because of the small list sizes, it is usually not possible to set up group practice. Few general practitioners have nursing or secretarial staff (UEMO, 1986).

A number of GPs have a part time contract and have for instance a salaried job as a district medical officer (Crombie a.o., 1990). This means that the number of inhabitants per GP may not be an adequate indication of average list size. However, we have not found information on whole time equivalents of GP manpower. There is a large regional variation in GP density. Generally a higher density is found in the mid-south and a lower density in the north (Calcopietro, 1987).

Establishment policy

Influencing the regional disparities in health care was one of the aims of the National Health Service. Establishment in general practice is restricted. If the number of patients per doctor is below one thousand in a given area, new GPs are not allowed to enter (UEMO, 1986; Crombie a.o, 1990).

Population served

The main restriction on the population served has already been mentioned; children are to a large extent on the list of a primary care pediatrician. General practitioners have a maximum list size of 1,500 patients (and in some special cases 1,800).

Working hours

Working hours for general practitioners are from 08.00 hours to 20.00 hours, including noon break. GPs also work on Saturdays from 8.00 hours to 14.00 hours. There is out-of-hours service, provided by the Guardia Medica, a kind of deputising service, organised and financed by the National Health Service and usually staffed by young doctors who are employed otherwise.

Containment of students

There is no containment of students at medical school.

Vocational training

No vocational training is compulsory to become a GP; after basic training at medical school an Italian GP can start practice. Since 1985 an Italian GP is obliged to take eight Saturdays off in one year to follow postgraduate courses.

Provision profile

Because of the fact that children are to a large extent on the list of pediatrician, and because out-of-hours services are covered by a seperate service, the provision profile of Italian GPs is relatively small. The provision people is given in Table 7.1 (opposite page).

Negotiating system

Every three years a central agreement is negotiated between the National Health Service and the Italian Medical Association. The negotiations include working conditions, capitation fees and remuneration, and post graduate courses. Thus they had a compulsory number of free Saturdays to do some post-graduate training. Every half year the fees are being adapted to increases in the costs of living.

Remuneration system

Italian general practitioners who have a contract with local health units are paid a fixed capitation fee for each patient on their list. The capitation fee is differentiated according to the age of the patient and the number of years' experience of the general practitioner.

Apart from capitation fees GPs receive an amount of money per patient to cover their practice expenses, an equal amount to cover the contributions for liability insurance, and an amount equal to

approximately fifteen per cent of the capitation fees to cover their old age and disability pension contributions. For certain items of service, e.g. for certificates issued, separate fees are paid.

GPs with a part time contract who also work as a district medical officer, receive a salary for that part of their work. Private practice outside the national health service is allowed to GPs with a part time contract, as long as the patients they treat on a private basis are not their own national health service patients.

Table 7.1
General practitioners' provision profile

	I	II	III
* general medical care	X		
- women	X		
- children			X
- elderly people	X		
* 24-hour cover			X
* minor surgery		X	
* rehabilitation			X
* family planning	X		
* obstetrics			X
* certification	X		
* perinatal care	X		
* dispensing of medicines			X
* first aid			X

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Fees and gross revenue

The capitation fee for GPs is differentiated according to three age categories of the patients: children under the age of thirteen, patients between thirteen and sixty years of age, and older patients. Compared to the middle group, the capitation fee for children is twelve per cent higher and for the elderly twenty per cent higher.

Furthermore, fees are differentiated according to the GP's experience in four categories. Compared to GPs with 0 - 6 years of experience, those with 6 - 13 years of experience have ten per cent higher fees, those with 13 - 20 years twenty per cent higher fees, and those with more than twenty years of experience have thirty per cent higher fees.

Table 7.2
Capitation fees by age of patients
and years of experience of GPs

Years of experience	<13 LIT	<13 ECU	12-60 LIT	12-60 ECU	>60 LIT	>60 ECU
0-6 years	18,431	12.7	16,502	11.4	19,721	13.6
6-13 years	20,282	14.0	18,112	12.5	21,682	15.0
13-20 years	22,102	15.3	19,792	13.7	23,642	16.3
> 20 years	23,922	16.5	21,472	14.8	25,602	17.7

source: Gazetta Ufficiale #355 12-28-1984

The age distribution of the Italian population is sixteen per cent under thirteen years of age, sixty-five per cent in the middle group and nineteen per cent over sisty years of age. We have found no information on the distribution of the number of years of experience of GPs.

A GP with between six and thirteen years of experience and 880 patients on his list (including 80 children) would have approximately LIT 17,000,000 (ECU 11,740) from capitation fees. The average gross revenue (including reimbursement of practice expenses and contributions) for all Italian GPs was LIT 35,450,000 (ECU 24,480).

Expenses

Practice expenses are reimbursed in cash, depending on the number of patients. For the first 500 patients on a GP's list an amount of LIT 8,500 (ECU 5,9) is paid; for the next patients upto 1,500 the amount is LIT 6,500 (ECU 4,5). For a practice with 880 patients this totals LIT 6,720,000 (ECU 4,640).

The same amount of money is reimbursed for liability insurance. Furthermore approximately fifteen per cent of the capitation part of gross revenue is reimbursed to cover old age and disability pension contributions. Finally some ten percent has to be added for adaptations to the rising costs of living. Together the reimbursed expenses and liability contribution just over fourty per cent of gross revenue.

Net revenue before taxation and contributions, but after deduction of practice expenses and liability insurance premium, is therefore approximately LIT 20,500,000 (ECU 14,160). This is 1.5 times per capita GNP, the lowest value in our sample. Italian GPs do not only have low

incomes compared to their colleagues in other European countries, but they are also relatively low within the income distribution in Italy.

Tax and contributions

Italian tax payers pay a withholding tax on income of eighteen per cent. The income tax system has progressive rates. In 1985 the basic rate was twelve per cent over the first 6 mil. lire (ECU 4,145). Maximum rate is sixty-two per cent with 600 mil. lire (ECU 414,370). Interest on mortgage is deductible up to 4 mil. lire (ECU 2,760) (International Bureau of Fiscal Documentation, Amsterdam).
GPs have to pay contributions to invalidity and old age insurance, in all seventeen per cent of the capitation fee. Also fourteen per cent of the capitation fees has to be paid as health insurance premium.

Net revenue

The average tax rate is estimated to be approximately thirty per cent over LIT 20,500,000. This gives an estimated net income of LIT 14,500,000 or ECU 10,000.

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8 The Netherlands

Introduction

The Netherlands is a constitutional monarchy with 14.5 million inhabitants. The Netherlands is a densely populated country. It has the highest population density in Europe, with 350 inhabitants per square kilometer. Most of the population is concentrated in the cities west and south of the country. Twelve per cent of the Dutch population is aged sixty-five or older.

Health care system

The total expenditures on health in 1985 were 8.3 per cent of GDP (OECD, 1990).

The Netherlands has three levels of administration: the State, the eleven provinces, and 702 municipalities. At the State level health care is the responsibility of the Minister of Welfare, Health and Cultural Affairs, with a Secretary of State for Health. The levels of public health insurance premiums are set by the Ministry of Health and the Ministry of Social Affairs together. The Ministry of Health is responsible for the global plans and national policy and for setting the financial boundaries. The main responsability of the provinces in the field of health care is in hospital planning. The main responsability of the municipalities is in public health. Smaller municipalities work together in district services for public health.

Insurance system

In the Netherlands, the health care system is organised on an insurance basis, but most striking in comparison with other Western European countries is the fact that only seventy percent of the population were insured against costs of medical care on a compulsary basis (since 1987 this percentage decreased to sixty-two) (Rutten and Freens, 1986; De Klein and Collaris, 1987; Van der Zee a.o., 1990).

The health insurance system can be divided into two schemes:

- A compulsory health insurance scheme applies to all employees below a fixed wage level (the proportion of the population with an income below DFL 48,000, ECU 19,115 in 1985), old age pensioners who were publicly insured prior to retirement, and persons in receipt of social benefits. In 1985 this insurance covered seventy per cent of the population. The scheme is administered by approximately fourty autonomous health insurance funds operating on a regional basis under supervision of the Health Insurance Fund Council (Ziekenfondsraad), an independent body that also advises on the contribution and premium levels. Contributions from the insured and their employers account for approximately eighty-six per cent of the health insurance funds' income; deficits are subsidised by the state (De Klein and Collaris, 1987).
- Approximately thirty per cent of the population have to insure themselves against the cost of illness by private insurance (about one hundred private insurance companies). Privately insured persons have a range of options with varying coverage and with co-payments, deductibles and so on. Approximately seventy per cent of all privately insured have GP services covered. Approximately thirty per cent have a deductible of DFL 250 (ECU 100) or more (KISG, 1985).

Insurance for exceptional medical expenses is covered by the Exceptional Medical Expenses Act (Algemene Wet Bijzondere Ziektekosten), which applies to all residents of the Netherlands without any restrictions. This supplementary scheme started as cover for 'heavy risks' not provided for under the health insurance scheme (stay in hospitals for over a year and stay in nursing homes and institutions for the mentally retarded from the first day), but is now gradually being extended to community nursing (1980), ambulatory mental health care (1985), and all mental health care and family assistance (1989). It will be futher extended in the future to cover also GPs' services. Most benefits provided under the public health insurance scheme are free of charge and are supplied in kind. For the insured and their dependents the minimum-package to be provided by every health insurance fund includes medical care, hospital care (up to 1 year), dental care, ambulatory obstetric care and paramedical services. In 1985 there is a co-payment for pharmaceuticals of DFL 2.50 (ECU 1) per prescription (abolished in 1990). Private insurance schemes offer reimbursement of charges according to the insurance policy.

Primary health care

General practitioners function as 'gatekeepers' of the health care system. A patient has to consult a general practitioner before consulting a medical specialist. The general practitioner therefore determines access to other parts of the health care system and is the point of referral. For publicly insured patients the referral is a formal requirement before having access to specialist care. Private insurance carriers usually also require a referral.

In the Netherlands the term 'primary health care' embraces a rather narrower concept than in some of the other European countries, especially the Nordic countries since it does not include public health care which is organized in separate services at the level of the municipalities. It does include community nursing, providing aspects of both home nursing and preventive services (in most systems these services are divided among district nurses and health visitors). In the Netherlands primary health care is predominantly curative and, generally speaking, is directly accessible (without referral or prescription), ambulatory care that is the least specialised of its kind.

Position of general practitioners

In 1985 there were approximately 6,000 GPs working in the Netherlands. This amounts to one GP per 2,400 persons (Hingstman, 1985). The spatial distribution of GPs is rather even. There are no problems of attracting GPs in rural areas, because of the possibility of gaining extra income from a dispensary and from providing obstetric care. In the Netherlands the majority of general practitioners (fifty-eight per cent) work in single-handed practice. Thirty per cent work in partnerships of two; five per cent in groups and seven per cent in multidisciplimary health centres. There has been a trend towards a decreasing number of single-handed GPs and an increasing number who work in teams. In the last decade the number of health centres (consisting of a team of one or more GPs, community nurses and social workers, sharing premises) and its share in GP population have stabilised (Boerma, 1989). Over ninety per cent of the GPs operate from their own or shared, private offices. They work as independent contractors under the health insurance scheme. Seven per cent work in health centres, but only one-third of these GPs (that is two per cent of all GPs) are not self-employed, but employed by health centre foundations (Hamers, 1985).

Approximately fifteen per cent of all patient contacts are home visits or four to five visits out of a total number of twenty-five to thirty contacts a day.

Population served

There are no restrictions on the population served, provided the GP is under contract to the health insurance fund of which the patient is a member. Each health insurance fund patient is listed with a special GP or practice. Privately insured patients may choose any doctor they like; as a rule, however, they are on the list of a specific general practitioner and do not shop around. In 1985 there was no strict maximum on list size, but when the GP's list exceeded 2,700 publicly insured, new patients were advised to join the list of another GP.

Working hours

Dutch GPs have an average working week of just below 50 hours (excluding out-of-hours duties), in 1987/88 when a survey was hold including a diary kept by GP (Van der ZEE, 1990). There is an obligatory twenty-four hour service. Out-of-hours services are arranged amongst doctors themselves, mainly in groups of five to ten GPs.

Establishment policy

In 1985 preparations were made for an establishment policy, which started on 1 January 1986, that is performed by the municipalities. Aims were control over list size of the practice, capacity planning and keeping a balanced geographical distribution. Until 1985 the Dutch Association of General Practitioners (Landelijke Huisartsen Vereniging) had its own rules for establishing new practices. However, these rules only applied to members of the Association.

Containment of students

There is a containment of the number of students entering medical school. The annual intake of new medical students was reduced from 2,300 in 1979 to 1,900 in 1985, of whom eighty per cent completed their educational programme.

Vocational Training

Vocational training is obligatory for entering GPs. After basic medical training, a post-graduate course lasting one year has to be completed. This training mainly consists of training in general practice with an experienced GP (In 1988 vocational training was extended to two years). By 1985 fourty per cent of practising GPs had completed vocational training. (NIVEL, 1986).

Provision profile

Dutch GPs have a broad provision profile. While access to specialist care is only possible after referral, they are not in a competition relation with ambulatory specialists. In rural areas GPs have a role in dispensing pharmaceutical prescriptives and in obstetric care, doing home deliveries and to a smaller extent short stay hospital deliveries.

Table 8.1
General practitioners provision profile

	I	II	III
* general medical care	X		
- women	X		
- children	X		
- elderly people	X		
* 24 hours service	X		
* minor surgery		X	
* rehabilitation			X
* family planning	X		
* obstetrics		X	
* certification			X
* perinatal care		X	
* dispensing of medicines		X	
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Negotiating system

The negotiations of the tariffs for the publicly insured part of the population are between the Association of Public Health Insurance Funds (Vereniging van Nederlandse Ziekenfondsen) and the Association of GPs. The tariffs for privately insured patients are negotiated between the GPs' Association and the Central Office of the Private Insurance Companies. The result of the negotiations has to be approved by Ministry of Health which is advised by the Central Office of Health Care Tariffs.

Since 1966 a central concept in the negotiations is 'normative income'. An average GP's income should be comparable to that of a high civil servant, supplemented with social insurance and old age

pension contributions which private practitioners have to pay themselves (Nuyens and Baaijens, 1988). In 1985 this normative income was appr. DFL 148.000 (ECU 58,950). The negotiations on tariffs for publicly insured patients are about the amount of capitation payment, practice expenses and pension contributions. For privately insured patients they are about the tariffs for consultations and home visits. In the latter negotiations estimates of the number of consultation and visits play an important role, because of the requirement of reaching the normative income. These numbers of consultations and visits have always been a matter of disagreement between parties involved.

Remuneration system

General practitioners receive a capitation fee for each publicly insured patient on their list, a full tariff for the first 1,600 patients and a lower tariff for the rest. The capitation fee for the GP for each subscriber consists of three parts: the net income, the pension contribution and practice costs. Fees are paid periodically to the GP by the health insurance funds. GPs are paid on a fee-for-service basis by privately insured patients. Practically each GP has both publicly and privately insured patients. However, the actual balance differs, e.g. according to the prosperity of the community.

Fees and gross revenue

The capitation fee received by GPs for each publicly insured patient was as is given is Table 8.2 (opposite page).

Gross revenue from capitation fees is easy to compute. An average GP with 2,400 patients, 1680 of whom are publicly insured, receives DFL 169,215 (ECU 67,390) from capitation fees. The total average amount per patient paid by private insurance companies or by patients themselves was approximately DFL 65.00 (ECU 25.9) based on 2.7 visits and consultations a year (Economische Controle Dienst, 1986). The fees that GPs could charge to privately asured patients are given in Table 8.3 (opposite page). Under certain circumstances (evening, night and weekend visits) double tariffs are charged.

With an average practice of 2,400 patients, of whom 720 privately insured, gross revenue from the privately insured is DFL 46,800 (ECU 18,640). Taken together, the average gross revenue of a Dutch GP in 1985 was DFL 216,000 (ECU 86,000).

Table 8.2
Capitation fees

	Number of publicly insured patients			
	<1,600		>1,600	
	DFL	ECU	DFL	ECU
Income Part	50.43	20.1	50.43	20.1
Pension contribution	10.94	4.4	0.00	0
Practice costs	41.71	16.6	2.95	1.2
Total	103.08	41.1	53.58	21.3

source: Contract of Dutch Association of GP's and Association of Dutch Public Health Insurance Funds.

Table 8.3
Fees for privately insured patients

	DFL	ECU
Visit	23.70	9.4
Home visit	35.60	14.2
Obstetric care *	711.00	283.2
Delivery **	355.00	141.4

* including delivery
** obstetric care is also reimbursed on a fee-for-service basis with the publicly insured.

This does not include the extra revenues that GPs in rural areas can gain from running a dispensary and from obstetric care (Estimates of these and others extra income sources are given by Heesters, 1983). This extra income is not evenly distributed over all GPs, as it applies mainly to rural GPs. On an average we estimate it to be less than five per cent. Total average income will therefore be approximately DFL 225,000 (ECU 89,600)

Expenses

The actual expenses of an average GP practice of 2,400 patients differ from practice to practice depending e.g. on auxilliary personnel. They were estimated at DFL 99,000 (ECU 39,425) by the Mutual Life Insurance Association of Physicians (OLMA).
Hence, total practice expenses form approximately fourty-four per cent of gross revenue.
For the publicly insured patients the practice expenses are one of the three components of the capitation fee. They are a lump sum, irrespective of actual costs. For privately insured patients they are included in the fees.

Total practice expenses have been derived from the following budgets:

Table 8.4
Expenses of general practitioners

	DFL	ECU
Transport	7,500	2,987
Practice costs	23,000	9,160
Telephone etc.	7,000	2,788
Auxiliary staff	38,500	15,332
Deputy service	2,000	796
General information	3,500	1,394
Instruments	8,500	3,385
General costs	6,500	2,589
Interest	2,500	996
Total	99,000	39,425

source, OLMA,1986

The Accociation of Public Health Insurance Funds - as usualy in matters of practice expenses, gives lower estimates: approximately DFL 93,000 (ECU 37.040). We therefore used the average of the two estimates: DFL 96,000 (ECU 38,230).
The gross income after expenses is approximately DFL 129,000 (ECU 51,375) before tax. This amounts to 4.4 times the per capita GNP. With this Dutch GPs are in the upper half of our sample.

Tax and contributions

In 1985 the Netherlands had high tax rates at national level on taxable income. The income tax system has progressive rates. The basic rate was in 1985 16 per cent on a taxable income of DFL 9,000 (ECU 3,584), 25 per cent for the next DFL 7,000 (ECU 2,987), 32 per cent for the next DFL 15,000 (ECU 5,975) 42 per cent for the next DFL 13,000 (ECU 5,177), 52 per cent for the next DFL 20,000 (ECU 7,965), 61 per cent for the next DFL 25,000 (ECU 9,955), 67 per cent for the next DFL30,000 (ECU 11,950),and top rates 70 per cent for the next DFL 100,000 (ECU 39,825) and 72 per cent for taxable income over DFL 223,000 (ECU 88,800).

Mortgage interest is deductible without limits. Pension and disability insurance contributions are also deductible. (International Bureau of Fiscal Documentation, Amsterdam).

Net revenue

The average net income of a Dutch GP is about DFL 50,000 (ECU 19,900), depending on personal circumstances and depending on what mortgage is taken on the house, because mortgage interest is deductible from taxable income.

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9 Norway

Introduction

Norway is a constitutional monarchy. In 1985 the Norwegian population was 4,100,000. Of all European countries Norway is the least densely populated, only 13 people per square kilometer. The population is concentrated in the Oslo-Fjord area (fifty per cent of the population). More than fifteen per cent of the population is aged sixty-five or older.

Health care system

In 1985 6.4 per cent GDP was absorbed by health care expenditures (OECD, 1990).

For administrative purposes Norway is divided into nineteen counties or provinces. The basic unit of local government is the municipality, of which there are 454 (1985). At the national level the main responsibility for health care lays with the Ministry of Health and Social Affairs. The financial resources for health care are granted by the central government to the municipalities. Allocation is according to criteria like the size and age-structure of the population. The counties are responsible for hospital services and other specialised services. The municipalities are responsible for the planning and organization of primary care. They can set their own priorities within the boundaries of the financial resources allocated to them.

The current situation of health care in Norway is largely shaped by

the Municipal Health Act (passed in 1982 and implemented in 1984). The Municipal Health Act aims at redirecting the balance towards primary health care, at creating a more even distribution of health facilities, and at local participation in health care. The act obliges the municipalities to provide general practitioners' services, physiotherapy, and public health and home nursing to everyone in the community (Elstad, 1990).

Health insurance system

The national health insurance system has universal coverage. As in other European countries, it has gradually developed from voluntary, mutual benefit societies for working people. First insurance became compulsory for working people below a certain income ceiling with voluntary insurance for other people; then the income ceiling was gradually raised, and finally universal coverage by law was introduced in 1956 (Roemer and Roemer, 1981). The national social insurance system comprises health care and social welfare services.

Benefits from health insurance are in kind, with co-payment for the first two visits of an episode of care in general practice. Further visits within an episode of care are free. Certain low income groups are exempted from co-payments and there is a yearly maximum to the total amount of co-payments. The co-payment is directly paid by the patients to the GPs; the remaining charge is billed by the GPs to the local offices of the national health insurance scheme.

Primary health care

Historically, primary medical care in rural areas was provided by district health officers who were appointed by the Ministery of Health. By law each health district of one or two municipalities should have at least one district doctor, combining the function of a GP and a public health officer (Crombie a.o., 1990). In remote areas the district doctor is often the only physician in the district.

A growing percentage of Norwegian GPs, now fourty per cent, is fully employed by the municipality and work in public health centres. The other GPs - except for a very small group that is completely in private practice - have a contract with the health insurance system. Specialised and hospital care is in principle only accessible after referral by a GP, although some people directly visit an ambulatory specialist (Bentsen, 1984).

Position of general practitioners

In 1985 there were approximately 2,725 general practitioners, including district health officers and privately working GPs. That means that a

general practitioner serves an average of 1,500 patients. The policy of appointing district medical officers garantees almost universal access (Fry and Hasler, 1986; Roemer and Rouemer, 1981).

Approximately fourty per cent of the GPs work in groups of two to five doctors (Bentsen, 1984). For salaried GPs this percentage is higher and for privately working GPs it is lower. It is estimated that GPs make approximately twelve home visits a week in rural areas, but less in urban areas (Crombie a.o., 1990).

Population served

GPs generally serve a regionally defined population within the boundaries of the municipality. The patient has free choice between doctors within the municipality.

Establishment policy

Although general practitioners still have a free choice to practise wherever they want, they have to fit into the municipal plan to become an independent contractor. The 1984 Municipal Health Act requires municipalities to make these plans. The salaried GPs are employed by the municipalities; new entries are consequently directly controlled by the municipalities.

Vocational training

After graduation there is one year of internship in internal medicine and surgery, followed by six months of general practice training with a district physician before full qualification. At that point a five-year vocational training for general practice starts. This programme was established in 1985 and consists of the following (Westin and Ostensen, 1986):

- four years of general practice, two of these years in a structured training programme.
- one year of training in a hospital.
- 400 hours of theoretical education, 300 hours of which have to be taken in special general-practice-related fields.

Containment of students

There is a numerus clausus on the total number of students starting a medical training. Every year some 700 students are allowed to enter medical school.

Working hours

Salaried general practitioners working on a full-time basis in public health centres serve for 37 1/2 hours a week. Independent contractors

have to work the hours they have agreed to in the contract (Crombie a.o., 1990). Norwegian GPs have to arrange their own deputy service.

Provision profile

An interesting aspect of the provision profile of Norwegian GPs is that a large number of them combine general practice with community or public healthe care. The fact that the GP regulates access to more specialised and hospital services, makes the GP the first point of contact for all health and health related problems, except for emergency situations.

Negotiating system

In Norway the negotiations about the general conditions of salaries and fees take place between the Norwegian Medical Association and the Ministry of Health and Social Affairs. This is a central agreement and all municipalities have to respect it. All ground wages (a basic allowance for GPs as independent contractors) and salaries are agreed centrally but there are some differences possible e.g. for less atrractive, remote areas but in general these differences are not large (not more than NK 10,000 (ECU 1535) according to the Norwegian Medical Association).

Table 9.1
General practitioners provision profile

	I	II	III
* general medical care	X		
- women	X		
- children	X		
- elderly people	X		
* 24 hours cover	X		
* minor surgery		X	
* rehabilitation			X
* family planning	X		
* obstetrics			X
* certification			X
* perinatal care	X		
* dispensing of medicines			X
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Remuneration system

The system of payment depends on the status of the GP. There are three groups of GPs. The first group consists of the salaried GPs, employed by the municipalities. They are approximately fourty per cent of all GPs. They receive a fixed salary, supplemented with compensations for overtime work and out-of-hours duties.

The second group is the independent contractors, nearly all the other GPs. Their income stems from three sources. Firstly, a basic allowance from the municipality. This is approximately fourty per cent of total revenue; it is hold to cover practice expenses, including the salary of auxiliary personnel. Secondly, reimbursement by the health insurance scheme for consultations and visits, and thirdly, direct payments by the patients.

Finally, there is very small group of GPs, exclusively in private practice. They may charge whatever they want, but reimbursement by the health insurance scheme is fixed at the same level as for the independent contractors (but of course they receive no basic allowance).

Fees and gross revenue

The GPs in salaried service of the municipalities received on an average a monthly salary of NK 18,385 (ECU 2,824). On a yearly basis this amounts to NK 220,000 (ECU 33,790). Compensation for overtime work and out-of-hours duties is estimated to be just above NK 100,000 (ECU 15,360) per year. Hence total income of the salaried GPs is approximately NK 325,000 (ECU 49,915). For salaried GPs practice expenses are paid by the municipality and thus no expenses have to be deducted from this total income.

The independent contractors receive a basic allowance of NK 195,000 (ECU 29,950) in 1985. The average amount from patients' co-payments and health insurance contributions is NK 330,000 (ECU 50,685), making a total gross revenue of approximately NK 525,000 (ECU 80,60), but in contrast to the income of the salaried GPs, this includes practice expenses.

There is no way of estimating the income of the small group of exclusively private practitioners.

Expenses

Practice expenses are only relevant for the GPs who work as independent contractors. The basic practice allowance is usually seen as covering their expenses. Their gross revenue after deduction of expenses is therefore approximately NK 330,000 (ECU 50,685); about

the same as the total income of the salaried GPs. The total income of Norwegian GPs, before taxation but after deduction of practice expenses is 2.7 times per capita GNP. This figure places Norwegian GPs in the lower half of our sample.

Tax and contributions

In Norway individuals are subject to local and national income tax. In addition to these income taxes, local and national net wealth taxes are levied as well.

Local income tax varies from 7.5 to 21 per cent according to one's place of living. Local taxes are for many people the only tax they pay. There is a high personal deduction of NK 50,000 (ECU 7,680) for single persons and NK 90,000 (ECU 13,820) for persons with dependents. Some other deductibles are:

- Child deductions up to NK 2,300 (ECU 353).
- Deposits in saving accounts (up to certain limits).
- Life insurance (up to certain limits).

As an illustration, national income tax rates for single tax payers are given in Table 9.2; the amount differs slightly for other tax payers.

Table 9.2
National income tax 1985

	NK	ECU	%
on the first	42,000	6,450	3
on the next	17,000	2,610	8
on the next	12,000	1,845	14
on the next	13,000	1,995	20
on the next	24,000	3,685	25
on the next	37,000	5,680	30
on the next	103,000	15,820	35
on the excess over	248,000	38,090	40

Local net wealth tax is levied at a flat rate, applicable to both single taxpayers and taxpayers with dependents. This rate varies from 0.4 to 1 per cent according to the municipality. In most municipalities the maximum rate is levied. There is a deduction of NK 60,000 (ECU 9,215). National net wealth tax is levied at progressive rates with a personal deductible and a deductible for savings etc. differing for single persons and persons with dependents (International Bureau of Fiscal Documentation, Amsterdam).

Net revenue

The total tax rate over gross revenue of general practitioners after deduction of practice expenses is (depending on the place of living and personal situation) estimated at an average of just over fifty per cent. This gives a net revenue of NK 175,000 (ECU 26,875).

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10 Sweden

Introduction

Sweden is a constitutional monarchy with 8,300,000 inhabitants; it has a very low population density for Europe, namely nineteen people per square kilometre. Nearly ninety per cent live in the southern half of the country. Sixteen per cent of the population is aged sixty-five or older.

Health care system

In 1985 the share of health care expenditure in GDP was 9.4 per cent (OECD, 1990).

In Sweden the operation of the health care system is largely decentralised to the twenty-three counties and three large municipalities. Interestingly enough they are not only charged with health care facilities planning and operation, but they are also responsible for the health of the population they serve. Hence, a shift has been made from health care policy to health policy making (WHO, 1989). Health care in a broad sense (including e.g. road safety) uses up to eighty per cent of the counties' budgets. At the national level global policies and priorities are set by the Ministry of Health and Social Affairs and administrated by the National Board of Health and Welfare.

Insurance system

Health insurance became compulsory for the whole population in 1955. At that time also sickness benefits to all workers were introduced (Borgenhammer, 1984). The social insurance system provides coverage for loss of earnings because of illness, injury and disability and for health care costs. Eighty-five per cent of the social insurance system's financial resources are funded by employers' contributions (a fixed sum plus a variable contribution depending on the employees' income). The rest is funded by state and local sources. Nationally the insurance system is administrated by the national Social Insurance Board of Sweden and locally by social insurance offices.

The health insurance system is based on the principle of benefits in kind with co-payments for physician visits, some groups of drugs and dental care. In 1985 the co-payment for general practitioner services was SK 50 (ECU 7.7) for office consultations and SK 75 for home visits (the same amount is for hospital outpatients visits and a slightly higher amount for consultations with a private GP or specialist).

Primary health care

The health system has long been dominated by a large and strong hospital sector. By European standards there is a large supply of hospital beds and most of the fully trained physicians are employed in hospitals as specialists. Traditionally a large part of what in other health care systems is seen as primary or GP care is provided in outpatient consultations in hospitals (Van der Werff, 1989). Since the early seventies, priority has been given to development of primary health care.

General practitioners are mainly employed by the counties, combining their work as GPs with the function of district medical officers like in Norway. They are increasingly operating from district primary health care centres. Primary health care includes health promotion and disease prevention. A smaller group of GPs is self-employed. In Sweden many first contacts with the health care system are the responsibility of health centre nurses. They do the first intake of patients, and if necessary direct them to the health centre's general practitioner or refer them to the hospital. Hospital and specialised medical care are directly accessible without prior referral.

Position of general practitioners

In 1985 in Sweden, there were 2,900 general practitioners, an average of 1 GP per 2,900 inhabitants. The spatial distribution of GPs varies largely across the country. Each county is divided into health districts served by one or more district medical officers ('distriktsläkare'), who

combine the work of a GP and of a public health officer. Most of them work in public health centres together with other physicians, district nurses and other medical personnel. There are 750 health care centres; 100 of these have only one district doctor.

Private practitioners work independently of the county councils, but they are nevertheless reimbursed by the health insurance system. They are a declining and aging group of doctors, working long and irregular hours, mostly centered in large cities. The number of private GPs is estimated at approximately 60; they work in single-handed practice with a very small auxilliary staff. There are some 1,500 medical specialists working part time in private practice, directly accessible to patients.

Home visits are made by the district doctor but not too frequently (Crombie a.o., 1990). It is estimated that less than one in every ten consultations is a home visit.

Population served

District GPs working in health centres are responsible for the health of all inhabitants in a geographical district with an average population of 10,000 inhabitants (WHO, 1989).

Working hours

All salaried GPs work fourty hours a week. Many districts have evening services and twenty-four-hour emergency services, provided in connection with hospitals. Out-of-hours duties (as well as other overwork time) are compensated for in extra days off. Financial compensation is not attractive due to high marginal taxation rates (Borgenhammer, 1984).

Establishment policy

Most of the general practitioners are in salaried service. It follows that the counties have a major influence on the establishment of primary health care doctors.

Containment of students

In Sweden there is a containment of students entering medical school. Some 1,000 are accepted every year (Haglund a.o., 1984; Crombie a.o., 1990).

Vocational training

Medical training in Sweden in 1985 consisted of a 6 year programme including a 21-month period of rotating internships. After this programme there is a post-graduate plan to become a specialist in

general practice lasting four and a half years. Student intake is approximately 400 per year. Vocational training is mandatory (Lindholm, 1986).

Provision profile

Although Swedish health centres are well equipped technically and with personnel, the provision profile of GPs is restricted in two respects. First of all a large portion of consultations is directly with specialists or outpatient departments of hospitals. Secondly, in health centres nurses handle a considerable portion of initial contacts.
Table 10.1 gives the provision profile.

Negotiating system

The negotiations about the salaries of GPs, employed by the counties, have two distinct aspects (Glaser, 1978). The first is the negotiations about the salary scales of academics in general. The second is about the place of GPs within these salary scales. The latter negotiations take place in the autumn of every year and are held between the negotiation secretariates of the Swedish Medical Association and of the Association of County Councils on one national pay-rate.

Table 10.1
General practitioners' provision profile

	I	II	III
* general medical care		X	
- women		X	
- children		X	
- elderly people		X	
* 24-hour service		X	
* minor surgery		X	
* rehabilitation			X
* family planning	X		
* obstetric care			X
* certification			X
* perinatal care	X		
* dispensing of medicines			X
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Remuneration system

Although private practice accounts for some fifteen per cent of all outpatient contacts, only five per cent of all physicians work on a self-employed basis (Crombie a.o., 1990). These doctors are either full time private GPs (approximately 60) or salaried hospital specialists, working part-time in private practice. Salaried service of district medical officers was introduced in 1970. Since 1972 they were no longer allowed part-time practice while on the public pay-roll (Twaddle, 1986). District GPs are employed by the county and paid a fixed salary. Salary scales are the same for GPs and for specialists.

Private physicians are reimbursed for their services on a fee-for-service basis by the national health insurance scheme. The patient's co-payment rate is SK 10 higher than the co-payment rate for salaried GPs and hospital outpatient consultations.

Fees and gross revenue

In 1985 a starting district physician received a salary of SK 196,000 (30,000 ECU) and a more experienced district physician SK 250,000 (38,300 ECU) (van der Zee, 1985). The average salary according to the Swedish Medical Association was SK 225,000 (ECU 34,500).

Expenses

As most of the GPs live on a county salary, they do not have expenses to be paid by themselves. These expenses are incurred and paid by the counties that run the health centre. No information has been found on the level of expenses of privately practising GPs. The average revenue of Swedish GPs has therefore been estimated to be SK 225,000 before taxation. This is only 2.2 times the per capita GNP. In this respect Sweden is in the bottom of our sample.

Tax and contributions

Sweden is known for its welfare state, but also for its huge taxes. Swedish residents are subject to national income tax on their world-wide income, although this is not so important to GPs.

As in other Scandinavian countries, local taxes play a role of importance. In Sweden in 1985 the local income tax was organised with flat rates up to mostly thirty per cent of the taxable income, depending on the municipality.

National income tax rates were as follows.

Table 10.2
National income tax rates

	SK	ECU	%
on the first	7,500	1,150	0
on the next	60,000	9,200	4
on the next	7,500	1,150	15
on the next	60,000	9,200	20
on the next	22,500	3,450	24
on the excess	157.500	24,150	20

National wealth net tax is applied to the total property of individuals after deductions. These rates are progressive and vary from zero per cent under SK 400,000 (ECU 61,350) to three per cent on the part of wealth exceeding SK 1,800,000 (ECU 276,000). Also, the total burden of national income tax may not exceed eighty per cent on any part of income (International Bureau of Fiscal Documentation, Amsterdam).

Net revenue

As an average the Swedish GP had a gross revenue of SK 225.000. Total local and national tax burden is estimated at sixty per cent. The average net revenue was SK 90,000 (ECU 13,800) in 1985.

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11 United Kingdom

Introduction

The United Kingdom is a democratic monarchy of four countries; England, Wales, Scotland and Northern Ireland. The four countries enjoy a considerable degree of autonomy in areas such as education, health, housing and social policy. This chapter covers developments in England only. Developments in Scotland, Wales and Northern Ireland are rather similar.

The UK is populated by almost 56.5 million people, with a population density of 231 people per square kilometre. England 47 million, Wales 3 million, Scotland 5 million and Northern Ireland 1.5 million. Fifteen per cent of the population is aged sixty-five or older.

Health care system

In 1985, the United Kingdom spent 6.0 per cent of GDP on health care (OECD, 1990).

The health care system of the United Kingdom with its National Health Service differs from most other European countries. The NHS was introduced in 1948, replacing the existing National Health Insurance System. It aimed at equal access to a comprehensive service with no direct payments from patients.

In the course of its existence the NHS has been reorganized a few times. The 1974 reorganization replaced the 'tripartite structure' of more

or less independently functioning hospital services, community services and family practitioner services by a comprehensive structure with three administrative layers: the Regional Health Authorities, the Area Health Authorities and the District Health Authorities. In an effort to reduce bureaucracy the middle layer was removed in 1982.

At the national level in 1985 the NHS was the responsability of the secretary of state for social services. At this level policies are formulated with respect to the general health and welfare of the nation, and funds are allocated and their use is monitored. The administration of the NHS is decentralised to the fourteen Regional Health Authorities that are responsible for strategic planning and resource allocation within the region. The operational authority lies with the District Health Authorities who run the hospitals (with salaried physicians).

Although the 1974 reorganization led to a more comprehensive structure, general practice is still administrated separately by the Family Practitioner Committees. GPs are not in salaried service, but are independent contractors with the FPCs (Allen, 1984; Fry and Stephen, 1986).

Health insurance system

The UK's health insurance system evoluated from voluntary and mutual societies. In 1911 a National Health Insurance System was introduced, covering all employees (but not their dependents) below a certain income ceiling. So far the development is much like that in other European countries. The distinctive element was the introduction of the NHS in 1948. From that time on coverage is universal for the whole population. Benefits are in kind with only minor co-payments, e.g. for pharmaceutical prescriptives. Substantial groups of the population (those in receipt of Supplementary Benefits, the aged, chronically ill people and pregnant women and children) are exempted (Fry and Stephen, 1986).

The NHS is mainly financed through taxation (eighty-seven per cent in 1985); ten per cent is financed by employers and employees (as a left-over from the National Health Insurance System) and three per cent is from co-payments (de Klein and Collaris, 1987). Nine per cent of total health care expenditures is financed by private health insurance.

Primary health care

Primary health care consists of the Family Practitioner Services and the Community Health Services. The first refers to the independent contractors to the NHS, of which the general practitioners are the most important here. The second refers among others to the district nurses, health visitors and midwives. There is clear division between primary health care and hospital and specialized care. Secondary care is only accessible after referral by the GP.

Position of general practitioners

In 1985 there were approximately 29,000 general practitioners (restricted and unrestricted principals) working in the NHS (Review Body on Doctors' and Dentists' Remuneration (RBDDR),1986). This amounts to one GP per 1950 persons. There is an annual increase of two percent in number of general practitioners.

The majority of GPs now work in partnerships or groups. Only just above ten per cent are in single-handed practice. Seventy-five per cent are in groups of three or more GPs. The trend towards group practice (in the early nineteen-fifties still more than fourty per cent was in single-handed practice) has been favored by special allowances in the payment system of GPs. Most GPs work in their own rented or owned premises. Twenty-five per cent work in health centres, housing GPs and their auxiliary staff, and (part of) the broader primary care and social services team. These health centres are owned by the local authorities and rented to the GPs.

Approximately fifteen per cent of the GP contacts are during home visits (Crombie a.o., 1990).

Population served

Patients 'register' with a GP (ninety-eight per cent of the population is on the list of GP). There is a free choice of physician by patient and of patient by physician. The maximum list size for GPs working single handed is 3,500. Those participating in partnerships are allowed 4,500 patients on their list, provided that the average list is no more than 3,500.

Working hours

In 1985 a survey was undertaken by the Department of Health and Social Security in cooperation with the General Medical Services Committee of the British Medical Association (DHSS, 1987). The survey revealed that the average GP spends thirty-eight hours a week providing active medical services and is on call for a further thirty hours. It gave details of the extensive on-call cover provided by practice doctors themselves and of the preventive care and advisory services made available, often outside on-call hours. The results of a second survey (Butler and Calnan, 1987) were somewhat higher (just over fourty hours). It is estimated that total hours worked, including hours 'actually worked' during on duty hours, is close to fifty.

Establishment policy

The Family Practitioner Commitee of the NHS regulates the application for contracts, to secure an even regional distribution. The general

increase in the number of GPs together with attempts to influence the location choice of GPs have decreased the number of under-doctored areas (UEMO, 1986).

Containment of students

There is a containment of the number of students entering medical school. Ever since 1970 the government has set a target (Crombie a.o., 1990).

Provision profile

General practice is the first point of contact for health or health related problems. The GP serves as the 'gate keeper' to more specialised care and has therefore a broad provision profile.

Vocational training

Vocational training consists of a three years mandatory programme. At least one year has to be spent as a trainee in general practice; the remaining time is spent in the hospital.

Table 11.1
General practitioners' provision profile

	I	II	III
* general medical care	X		
- women	X		
- children	X		
- elderly people	X		
* 24 hours service	X		
* minor surger		X	
* rehabilitation			X
* family planning		X	
* obstetric care		X	
* certification	X		
* perinatal care	X		
* dispensing of medicines			X
* first aid		X	

I = Exclusively or predominantly provided by GPs
II = Also provided by GPs
III = Not provided by GPs

Negotiating system

Central in the British negotiating system for independent contractors is the Review Body on Doctors' and Dentists' Remuneration. This Body advises the government on the appropriate level of pay of general practitioners and the level of allowances, capitation fees and fees for service to reach the appropriate income. The General Medical Services Committee, the GPs' representation within the British Medical Association, and the representatives of the DHSS submit their views on an appropriate increase of the level of payment to the Review Body.

The Review Body calibrates the increases for different parts of the GPs' income so as to reach a recommended income level. Some parts of income will be increased or lowered a bit to redress the effects of e.g. an increase or decrease of the frequency of particular services. (See also Glaser, 1978.)

Remuneration system

The payment system of GPs is a mix of fixed allowances, capitation fees and fees for a number of separate services. Practice expenses are partly included in these and partly reimbursed to individual GPs on the basis of (a percentage of) actual costs incurred.

First, the capitation fees. For each patient on his list the GP receives an annual capitation fee. The amount depends on the age of the patients in three age groups (under 65 years of age, 65 to 74, and 75 and older). There is a supplementary capitation fee to compensate for out-of-hours duties which is paid for each patient after the first one thousand. Capitation fees account for some fourty-five per cent of the total paid in fees and allowances.

The second element in the payment of GPs is formed by allowances. Basic practice allowance is the most important one. This is a fixed amount of money for GPs with more than one thousand patients on their list (for smaller practices there is a proportionally smaller allowance). Other allowances are the supplementary allowance for providing out-of-hours cover (a fixed amount for the first one thousand patients and per capita for the patients above one thousand, see above under capitation), a seniority allowance depending on the number of years in practice (in three grades), and an allowance for having completed vocational training. Inducement payments are available to doctors setting up in certain sparsely populated areas. On average, allowances account for some thirty-eight per cent of GPs' income from fees and allowances.

Finally, there are fees for a number of separate services. A GP is entitled to a fee each time he provides certain services. For example, a doctor receives a fee for carrying out some vaccinations or immunisations, for carrying out cervical cytology tests and for making a

night visit. Doctors also receive fees for providing contraceptive services and maternity medical services. Fees of this kind account for seventeen per cent of income from fees and allowances (DHSS, 1986; appendix 2).

Fees and gross revenue

A selection of the fees and allowances that GPs receive are given in the next table.

Table 11.2
Selection of GPs' fees and allowances

	UKL	ECU
Capitation fees		
Patients under 65 years of age	6.45	11.0
Each patient aged 65 to 74	8.35	14.2
Each patient aged over 75	10.30	17.5
Allowances		
Basic Practice Allowance full rate (>1,000 pat.)	7,000	11,885
Leave payment	1,352	2,295
Seniority allowance (> 21 yrs experience)	4,560	7,742
Vocational training	1,450	2,462
Item of service fees		
Night visit	15.55	26.4
Cervical cytology	6.40	10.9
Maternity medical services	105	178.3
Contraceptive services	29.90	50.8

source: Review Body, 1986

The gross revenue of GPs consists of the total amount of money they receive from allowances, capitation fees and fees for separate services. In 1985 this totals UKL 35,064 (ECU 59,535). This includes net revenue (UKL 23,767 or ECU 40,355) and indirectly reimbursed costs (UKL 11,297 or ECU 19,180). Indirectly reimbursed costs are those included in the allowances and fees. Apart from this there are directly

reimbursed costs amounting to an estimated UKL 11,320 (ECU 19,220). Although GPs spend most of their time in NHS work, they can gain some additional money for work outside the NHS. On an annual basis and on an average this is estimated at UKL 1,300 (ECU 2210). Altogether the gross revenue of British GPs is approximately UKL 47,500 (ECU 80,650).

Expenses

In estimating GPs expenses the directly reimbursed costs are the easiest part. GPs claim a fixed percentage or the total costs actually incurred. They can e.g. claim back seventy per cent of the salary of certain auxiliary staff, up to a maximum of two staff members per GP. Other expenses, which are directly paid for include the cost of drugs dispensed, e.g. in the case of vaccination, the salary and expenses of trainees in the practice, and the cost of employing a locum in case of illness or on study leave.

The indirectly reimbursed costs is more difficult. They do not necessarily equal actual costs and doctors are able to economise on these costs. The level of indirectly reimbursed costs is reached by annual surveys by the Inland Revenue. Better estimates do not exist.

If we also assume that revenues from outside NHS work are partly expenses and partly net income, we can estimate the average rate of expenses at fourty-nine per cent. Net revenue after deduction of expenses but before taxation may hence be estimated at UKL 24,225 (ECU 41,130). This is 3.8 times per capita GNP. With this British GPs are in the upper half of our sample.

Tax and contributions

All reimbursements are liable to income tax. Only actually incurred expenses are deducible for income tax.

Not only gross payments but taxes as well are of great importance to general practitioners. GPs, like all self-employed people, are taxed under Scedule D on the preceding year basis. The United Kingdom has an income tax system with progressive rates. In 1985 the basic rate was 30 per cent for the first UKL 16,200 (ECU 27,505) (taxable income), then 40 per cent over the next UKL 3,000 (ECU 5,095) 45 per cent over the following UKL 5,200 (ECU 8,830), 50 per cent for the following UKL 7,900 (ECU 13,415), 55 percent for the next UKL 7,900. The highest rate of 60 per cent is reached at £40,200 (ECU 68,255). In 1988 the government reduced the number of rates to two, a basic rate of 25 per cent over the first UKL 19,300 (ECU 32,770) and 40 per cent for income more than this amount. (Sources: International Bureau of

Fiscal Documentation, Amsterdam; Tax leaflet #2; British Medical Association)

Net revenue

Generally it is assumed that GPs pay up to fifty per cent over their taxable income. This implies an approximate net income of UKL 12,125 (ECU 20,590).

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