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State control and the delivery of health care: a preliminary study in eleven European countries

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ABSTRACT. The author's thesis is; in health systems primarily controlled by the state there is an emphasis on (primary) general care and less on (secondary level) specialised services, both in supply of medical staff and in facilities. The opposite is predicted for health systems with less state control and more room for control by the medical profession. Empirical support is found for this thesis, but it needs to be underlined that this conclusion is preliminary, because much work needs to be done to get more and better data.

INTRODUCTION

Several research teams have described the differences in supply of health care across European countries (Abel-Smith and Mossialos, 1994; Boerma et al, 1993; Groenewegen et al, 1991; Hutten and Kerkstra, 1996; OECD, 1993; 1994; Schieber et al, 1991; 1993; 1994; Schneider et al, 1992). Most of these mainly description-oriented studies concentrate on one specific care component (for example, general practice, home care, hospital services). Investigations of the supply of different care components simultaneously from a cross-country perspective are rare.

Other authors, more theory-oriented and writing from a different segment of the health-care literature, have explored the effect of state control compared with control by the medical profession on various types of health system performance, such as the variation in care-supply patterns across countries (Freddi and Bjorkrnan, 1989; Frenk and Donabedian, 1987; Hollingsworth, 1989; Immergut, 1992; Light, 1995; Moran, 1992; Wilsford, 1991). Hollingsworth (1989) and Light (1995) implicitly predict that the balance of power between the state and the medical profession has a direct effect on care delivery. In this paper I will try to integrate the above-mentioned description-oriented and theory-oriented studies. It is striking to see that the authors from both 'sides' only scarcely cite each other. In this paper the second set of studies will be utilised to formulate a hypothesis about why the countries selected for the study ended up with different care-supply patterns. The description-oriented studies provide data that—extended with self-collected data—measure the differences in care-supply patterns across countries. The aim of the study is to investigate whether or not the balance of power between state control and professional control causes systematic differences in care-supply patterns among countries. The study is limited to a subset of European countries: Norway, Denmark, Sweden, Finland, the United Kingdom, the Netherlands, Belgium, France, Switzerland, Austria, and Germany. These eleven countries enjoy comparable levels of wealth. This is important to minimise the disturbing effect of economic constraints on the level of care supply.

CARE SUPPLY PATTERNS

If one examines the postwar development of health care systems in West European countries, the preoccupation with hospitals as basic resources in health care systems attracts attention (Blanpain et al, 1978). However, supply levels of beds and staff in hospitals vary from country to country (OECD, 1993; 1995). In recent years this hospital-centred model seems to be less popular—first, because hospitals absorb a large part of the health care budget (Ruble and Schneider, 1991) and, second, because of technological innovations (for example, laparoscopy, postoperative pain management), both in cure and care, that enable the treatment of patients in alternative outpatient settings (Abel-Smith and Mossialos, 1994; OECD, 1994). From studies that compare nonhospital care components among countries (Boerma et al, 1993; Groenewegen et al, 1991; Hutten and Kerkstra, 1996) it can be concluded that supply of care by doctors in general practice and the availability of home care also varies greatly from country to country. Does this variation imply that some countries embrace the hospital-oriented model less than do other countries, because they supply more ambulatory services, such as general practitioners (GPs) and community nurses? The answer to this question can only be found if one looks at the supply of general practice, home care, and hospital care simultaneously.

Therefore the following variables will be used to determine each country's care supply pattern: the number of generalist doctors in ambulatory care, the supply of home care facilities, the number of specialist doctors in ambulatory care, and the availability of hospital beds and medical staffing in hospitals.

Data on the early 1990s, the most recent data available, will be used to indicate the result of postwar development of health care supply and delivery in the countries under study. The first two variables measure the supply of services at general care levels in a country. The remaining two indicate the supply of services at the specialised care level. The division into two care levels, general and specialised, theoretically represents a hierarchy of service delivery (Joseph and Phillips, 1984). To some extent there is an overlap in services delivered. In this paper it is assumed that if a country's care-supply pattern is more oriented towards the secondary level (specialised services), primary care types (for example, minor surgery) will consequently more often be delivered in a secondary level setting (and vice versa).

Before I present cross-country data on the care-supply patterns and answer the question about what type of care level countries primarily offer in the early 1990s, I wish to look at theoretical cues that may predict where to expect which pattern of care supply.

STATE AND PROFESSIONAL CONTROL

Following Light (1995), I will assume that the balance of power between the state and the medical profession is important for understanding the development of health delivery systems. In the initial stage of health system development, roughly in the early 1900s, states invested in human and physical capital to improve quality and access to health care (Blanpain et al, 1978). Hollingsworth et al (1990, page 206) conclude that "to invest in some group of professionals does not just provide society with human capital but also creates a powerful interest group that fights to maintain its privileges".

The interests or goals of the state and the medical profession are under many circumstances divergent. Doctors strive for specialised services and technological innovations, but they are less concerned with equal access and cost of care. The state, represented by officials who are responsible for health care delivery, strives for high quality health care and equal access for all citizens at affordable costs. Because states, compared with the medical profession, are more concerned with equal access and costs, they have to put a little water to the wine when it comes to the quality of care. A rational strategy here is

to give less priority to specialised services and to concentrate on general services, such as primary medical care. This idea of divergence of goals by the state and its health officials, and the providers of care—the medical profession—was introduced by Hoi lings worth (1989): state officials want standardisation of services and low costs, and doctors want specialised services and innovation.

In the following I will assume that goal achievement by the medical profession is restricted by the amount of control claimed by the government. The following two indicators are used to assess the amount of state control over a country's health care system:

(1) public funding of health care: the more a country's health system is publicly funded, the more the system is dominated by the state;

(2) funding via tax or social premiums: public funding via state taxes causes more direct state control than does public funding via compulsory health insurance programs through paragonovernmental organisations.

The combination of these two indicators divides the eleven European countries into two groups¹. The first group consists of five countries that can be labelled as having national health services. The main characteristics of a national health service are as follows: it is financed by taxation, providers are in most cases employed by the government and receive *fixed* salaries or capitation fee, and the private sector is small or nonexistent. In the literature this type of health system is known as the Beveridge model. The United Kingdom invented and applied the Beveridge model in 1948. Sweden also adopted this model at an early stage, and Denmark, Norway, and Finland followed later.

The second group consists of six countries. These six implemented the so-called Bismarck model. The three main characteristics of this model are as follows: it is financed predominantly through compulsory social premiums by employers and employees, executive management is by paragonovernmental organisations, and providers are contracted by these organisations. This system was adopted by Austria in 1894, Belgium in 1894, France in 1883, Germany in 1881, the Netherlands in 1941, and Switzerland in 1919².

Freddi (1989) states that on average, and compared with the United States, health systems in Western Europe became centralised monopolistic bureaucracies, but given the above one should refine this statement by hypothesising that health systems in countries with a Bismarck model leave more room for professional control than do the Beveridge-model countries. The latter countries reflect Freddfs statement better than do the former. This brings us to the central hypothesis of this paper.

Hypothesis: in health systems primarily controlled by the state—via financing and management— care delivery is less oriented towards (secondary level) specialised services, both in supply of medical staff and in facilities, compared with health systems with less state control.

The prediction is that this will result in the following effects on care supply in state-controlled systems (the opposite is the case in health systems with less state control):

- (a) the ratio of the number of generalist doctors to specialist doctors is relatively high,
- (b) home care facilities are supplied at a relatively higher level (compared with less state-controlled systems),
- (c) the number of ambulatory medical specialists per capita is relatively low,

¹ The division of countries solely on the first indicator is not sufficient, but the countries that further on in the paper are labelled as 'state controlled' do have on average a higher percentage of public expenditure on health (0.81) than do the countries that are labelled as 'less state controlled' (0.69). The data used here are taken from the OECD health data file (1995).

² Switzerland is a special case because there is diversity in social health insurance among the twenty-six cantons: five cantons have mandatory health insurance for 100% of the population; other cantons have social insurance on a voluntary basis only; and some cantons have mandatory insurance for special groups only.

(d) hospital facilities and medical staffing in hospitals are relatively low.

Last, one must deal with one important theoretical cue that has been brought up by Hollingsworth (1989) and by Moran (1992). Both these authors state that statecontrolled systems and systems that have a higher level of professional control vary in the degree to which they are centralised. Systems may be characterised as either state run (United Kingdom, Sweden) or parastate run (France, Germany) and at the same time have an institutional structure which is centralised (United Kingdom, France) or decentralised (Sweden, Germany). Health care tax in the United Kingdom is raised mainly at the national central level; in Sweden health care tax is raised predominantly at the local, or county council, level. In France the centralised parastate insurance fund [Caisse Nationale d'Assurance Maladie des Travailleurs Salaries (CNAMTS)] dominates the system; in Germany more than a thousand insurance funds raise premiums in different territories and, within certain territories, operate occupation-specific or firm-specific policies. Hollingsworth (1989) predicts the degree of centralisation will have a direct impact on the performance of health systems: centralisation is negatively associated with the development of specialised services and positively with the standardisation of services (and vice versa). Implicitly, he assumes that in state and parastate systems decentralisation leaves more room for professional control than with the centralisation of financing and management. This, to give an example, should separate the United Kingdom from Sweden. However, because the majority of the countries under study cannot be clearly characterised as typically centralised or decentralised, it is not possible to formulate a straightforward crosscountry hypothesis on the impact of centralisation³.

EMPIRICAL RESULTS

In table 1 the availability of general services per country is shown⁴, including the number of GPs working in an ambulatory setting per 1000 inhabitants. Six countries have more than one GP per 2000 inhabitants, reflected by more than 0.5 GPs per 1000 inhabitants (Belgium, Norway, Denmark, France, the United Kingdom, and Austria). Belgium and France rank highest and have more than one GP in ambulatory care per 1000 inhabitants. The remaining five countries have on average one GP per 2250 inhabitants.

Also shown is the number of GPs per specialist doctor, the latter working either in an ambulatory or hospital setting. In general it can be concluded that if a country has more GPs the ratio of generalist to specialist doctors is higher. Denmark and the Netherlands deviate from this trend. Denmark's ratio is a little lower and the ratio in the Netherlands is a little higher.

In the third numerical column of the table the availability of home nursing per country is shown. The main information source used here is the study on *Home Care in Europe* by Hutten and Kerkstra (1996). Data for Norway (1985) were taken from Verheij and Kerkstra (1992), and for Switzerland from the study by Boerma et al (1993). According to Hutten and Kerkstra (1996) it is difficult to make quantitative comparisons about the supply of home care in Europe: data are scarce and mostly incomparable. Hence, instead of quantitative data (community nurses per 1000 inhabitants) a qualitative judgment is used. These must be interpreted as follows: 4, a low level of supply of community nurses, large regional

³ In Finland (tax based) and the Netherlands (premium based), for example, health care funds are raised at the local level (that is, they are decentralised), but at the national level redistribution techniques are applied to adjust for regional dissimilarities. Hence, after I have tested my central hypothesis I will get back to this and will deal with the possible impact of 'centralisation' at the level of single countries.

⁴ The data used here were taken from statistical yearbooks and national reports on health care. A country-specific list of data sources, used for tables 1 and 2, can be obtained from me on request.

variations in supply, shortage of qualified nurses, and poor coordination between hospitals and ambulatory nursing care; 3, moderate supply, but still large regional variations; 2, relatively high level of supply across the country; 1, no problems with supply of home nursing throughout the country. The data of the study by Hutten and Kerkstra, reflecting the situation in the early 1990s, show that countries that score 1 have at least one community nurse (full-time equivalent) per 1000 inhabitants; countries that score 2 have a minimum of one community nurse per 3000 inhabitants. Germany, the only country scoring 3, has fewer than one community nurse per 3000 inhabitants, and Austria and Switzerland, both scoring 4, go far below that level of supply. Because of an incomplete data set and problems with data comparability it is difficult to make a firm statement, but the ranking in four categories gives a *good impression of* the stage of development and availability of home nursing in the eleven countries.

Finally in table 1 a row-wise conclusion is given. This score is the sum of the ranking scores of the preceding columns. It roughly indicates the supply level of primary care services per country: the higher the score, the lower the level of services. The countries are listed in table 1 in ascending order of this score. Belgium ranks highest (the lowest possible score) and has, compared with all other countries, a high supply both of GPs and of home nursing. Norway, Denmark, and the United Kingdom follow Belgium at some distance, but supply levels of GPs and home nursing are still relatively high. France and Austria take a high position concerning their supply of general ambulatory doctors, but the supply of community nurses is below average. The Netherlands, Finland, and Sweden do well when it comes to home nursing, but the availability of GPs is less abundant in these countries. Germany and Switzerland score lowest with respect both to GPs and to home nursing supply.

One may conclude that five countries can quite safely be positioned at the end of the scale measuring the supply of general services. Belgium, Norway, and Denmark occupy a position indicating a high level of supply, and Germany and Switzerland occupy the opposite side of the scale: a low level of supply. The six remaining countries take positions in between. There was some doubt about the position of France, but its supply of community nursing justifies the decision to put it in the 'in between' category.

In table 2 the supply of specialist services in each of the eleven countries is shown as the number of medical specialists per 1000 population. First, the number of specialised non-hospital-based doctors are given followed by the figure for hospital-based doctors.

Switzerland has the greatest number of the former and Sweden has the highest number of hospital-based doctors. In the French-speaking and German-speaking countries there is at least one ambulant working specialist per 2000 inhabitants. In the other countries the supply of these doctors is much lower or even nonexistent. The variation in supply of hospital-based doctors is large: from 0.7 per 1000 to 2.1 per 1000.

In the third column the number of short-term and/or acute care hospital beds are given. The main data source used here is the OECD *Health Data* file (1995). In addition to the OECD data, data from country-specific sources and from BASYS (Huber et al, 1993) and NOMESCO (1994) were used. The German-speaking countries have the highest number of hospital beds per 1000 population: that is, Germany, Switzerland, and Austria. The United Kingdom supplies only 2.8 beds per 1000 inhabitants. Even if the United Kingdom's private sector (10%) were to be taken into account, supply is lowest there. Germany, at the upper end of the scale, supplies 7.5 beds per 1000 population. In summary, the threefold variation in hospital doctors and beds across the eleven countries is quite large. Again, a summary score for the supply of specialist services in each country is given, taking both the supply of medical staff and the availability of beds into account by adding up the ranking scores of the previous columns: the lower the score, the more specialist services available. Three groups can be divided. The first group consists of Germany, Switzerland, and Austria, having a high supply of ambulatory specialists, hospital-based doctors, and hospital beds. The in between group is formed by France, Denmark, and Belgium. These three countries have approximately five short-term hospital beds per 1000 inhabitants and on average 1.6

specialist doctors per capita (compared with 2.2 in the first group). The remaining five countries have fewer than five beds per capita: that is, Finland, Sweden, Norway, the Netherlands, and the United Kingdom. Three of these countries (Finland, the Netherlands, and the United Kingdom) have also a low supply of specialist doctors, but Sweden and Norway score high, especially on numbers of hospital-based doctors, which justifies the conclusion that Sweden and Norway are different from the other three.

From the above one can conclude that Germany, Switzerland, and Austria have an abundant supply of specialised services and that for the United Kingdom, the Netherlands, and Finland the opposite seems to be the case. The remaining five countries take a position in between, with a medium supply of specialist care. In figure 1 I provide a qualitative, and preliminary, test of my hypothesis. The three rows classify the eleven countries on the dimension 'supply of general services', based on the conclusions from table 1. In the three columns the same is done for the level of supply of specialised services (table 2). The combination of rows and columns gives insight into the overall care supply patterns per country.

According to the hypothesis the state-controlled health systems should occupy the lower shaded area of figure 1: in these three cells a country ranks higher in terms of general services compared with specialised services. The health systems with less state control and more room for professional control should be placed in the upper shaded area: these three cells indicate that a country ranks higher on specialised services compared with general services.

The countries printed in *italic* occupy a position that is not in line with the hypothesis. This is the case for four countries. First, France is placed in the heart of the table, which means that its care-supply pattern can be characterised as 'middle of the road'. From a cross-country perspective France supplies both general and specialised services at an average level. It was expected that France would be positioned in a cell in the upper shaded area: ranking higher on specialised services compared with general services.

Second, Sweden—also placed in the centre cell—is more oriented towards specialised services than expected, but from a cross-country perspective not as much as was concluded in other publications (Moran, 1992; Rublee and Schneider, 1991). Sweden is labelled as 'hospital oriented' not by the level of bed supply but by its high numbers of hospital-based doctors. Although Sweden seems to have a satisfactory network for community nursing, the availability of GPs is among the lowest.

Third, the Netherlands scores low with respect to its supply of specialised services; and, in terms of the supply of general services, ranks 'medium'. Last, Belgium, takes an average position when it comes to specialised services, but it is Europe's leader in terms of the supply of general ambulatory health care. The Netherlands and Belgium were both expected to be more oriented towards specialist services.

The United Kingdom, Finland, Denmark, and Norway, in the lower shaded area, and Germany, Switzerland, and Austria, in the upper shaded area, confirm what was expected. The position of Finland is less clear, but this is because of the fact that the data that were used here underestimate the actual availability of general services in this country. Finland has had since 1972 what could be called health centre hospitals, which means that individuals there can be admitted to a primary care facility. The beds in these facilities, approximately 4.4 per 1000 inhabitants in 1990⁵, represent a type of care that is predominantly general care. The Finnish situation is unique in Europe and if one considers this 'incomparable' type of care delivery, it seems safe to conclude that Finland actually occupies the same cell in figure 1 as Denmark and Norway.

Now let us turn to the main question: have countries with predominantly state-controlled health systems got care-supply patterns that deviate from those observed in countries with less public control over health systems? Six countries were classified as oriented mainly

⁵ These beds were excluded from table 2.

towards general services (Denmark, Norway, Finland, Belgium, the United Kingdom, and the Netherlands). Four of them are indeed mainly state controlled. Four countries were labelled as oriented towards specialised services (Germany, Switzerland, Austria, and Sweden). In three of these control by the state is limited by an institutional structure that gives more room for goal achievement by the medical profession.

Seven countries that occupy one of the two shaded areas, Germany, Switzerland and Austria (upper shaded area) versus the United Kingdom, Finland, Denmark, and Norway (lower shaded area) also confirm the theoretical ideas about the impact of (de)centralisation. The first three are countries with relatively less state control and an institutional structure of decentralised health care financing and management. The last four are mainly state controlled, and funding and management are to a large extent centralised. The in between position of France might partly be a result of the fact that health care funding and management in this country are in central hands (Moran, 1992; Wilsford, 1991). Sweden's off-the-road position is a clear example of the effect of decentralisation. The Swedish county councils have for more than a hundred years levied earmarked taxes for hospital care. Although they have been given responsibility for other types of care in recent times, the involvement with the hospital-oriented model is still dominant. Sweden's orientation towards institutional care is now under debate, but it does not appear to be easy to substitute general types of care for specialised services.

The deviant position of the Netherlands, in the lower shaded area of figure 1, is clearly not in line with the hypothesis. Although the medical profession enjoys much economic autonomy in the Netherlands, its relatively strong position in the Dutch health care system has not resulted in a care-supply pattern that is dominated by specialised services. This might be caused by the fact that Dutch governments in the postwar era have put a relatively great amount of effort into (state-)controlled growth, and, later, into limiting the expansion of building related to intramural health care (Boot and Knapen, 1990).

Last, Belgium's position is also out of line with the thesis. Laissez-faire politics in Belgium have resulted in an abundant supply of various care components (GPs, medical specialists, hospital beds, and home care).

[TABLE 1]

[TABLE 2]

[FIGURE 1]

CONCLUSIONS

The main focus of this paper was to explore why care-supply patterns vary among the eleven countries under study. The theoretical basis used here is the assumption that the balance of power or control by the state and the medical profession has a direct effect on health care delivery: state-controlled systems were hypothesised to be more dominated by general services, and the systems with more professional control to be more oriented towards specialised services. In seven cases the hypothesis held. In four cases additional arguments were needed to understanding their deviant position, For two of them (France and Sweden) the concept of centralisation was used to understand their off-the-road position. The deviant position of the Netherlands and Belgium cannot be explained by the theoretical framework used.

A major drawback of this study is that the number of research units is very low, For future research one could either disaggregate the research design to a lower level of analysis (region, county, district, etc, within countries) or enlarge the set of countries used, in which

case one could test the hypothesis on a second, homogeneous, subset of European countries with lower levels of economic prosperity. In all cases much work has to be done on data collection and even more needs to be done to make the data internationally comparable.

Despite the above, the preliminary results presented in this study suggest that health care delivery develops differently in a state-controlled environment than in systems with less public control. For future research and health policy this is important information.

REFERENCES

- Abel-Smith B, Mossialos E, 1994, "Cost containment and health care reform: a study of the European Union" *Health Policy* 28 89- 132
- Blanpain J, Deicsie L, Nys II, 1978 *National Health Insurance and Health Resources: The European Experience* (Harvard University Press, Cambridge, MA)
- Boerma W G W, de Jong FA J M, Mulder P H, 1993 *Health Care and General Practice across Europe* (Netherlands Institute of Primary Health Care, PO Box 1568, NL 3500 BN Utrecht)
- Boot J M, Knapen M H J M, 1990 *De Nederlandse Gezondheidszorg* (Aula, Utrecht)
- Freddi G, 1989, "Problems of organizational rationality in health systems: political controls and policy options", in *Modern Politics Series, Volume 21. Controlling Medical Professionals: The Comparative Politics of Health Governance* Eds G Freddi, J W Bjorkman (Sage, London) pp I - 27
- Freddi G, Bjorkman J W (Eds), 1989 *Modern Politics Series, Volume 21. Controlling Medical Professionals: The Comparative Politics of Health Governance* (Sage, London)
- Frenk J, Donabedian A, 1987, "State intervention in medical care: types, funds and variables" *Health Policy and Planning* 2(1) 17 — 31
- Groenewegen P P, van der Zee J, van Haaften R, 1991 *Remunerating General Practitioners in Western Europe* (Avebury, Aldershot, Hants)
- Hollingsworth J R, 1989, "Structure and performance of the medical care delivery systems of the United Kingdom and the United States", in *Modern Politics Series, Volume 21. Controlling Medical Professionals: The Comparative Politics of Health Governance* Eds G Freddi, J W Bjorkman (Sage, London) pp 210-229
- Hollingsworth J R, Hage J, Hanneman R A, 1990 *State Intervention in Medical Care: Consequences for Britain, France, Sweden and the United States, 1890 -1970* (Cornell University Press, London)
- Huber M, Kose A, Schneider M, 1993 *Wirtschaftlichkeit und Leistungsniveau Deutscher Krankenhäuser im Internationalen Vergleich* [Beratungsgesellschaft für angewandte Systemforschung (BASYS), Reisingingerstraße 25, D-86159 Augsburg]
- Hutten J B F, Kerkstra A (Eds), 1996 *Home Care in Europe* (Arena, Aldershot, Hants)
- Immergut E, 1992 *Health Politics: Interests and Institutions in Western Europe* (Cambridge University Press, Cambridge)
- Joseph A E, Phillips D R, 1984 *Accessibility and Utilization: Geographical Perspectives on Health Care Delivery* (Harper and Row, New York)
- Light D, 1995, "Countervailing powers: a framework for professions in transition", in *Health Professions and the State in Europe* Eds T Johnson, G Larkin, M Saks (Routledge, London) pp 25-41
- Moran M, 1992, "The health-care state in Europe: convergence or divergence?" *Environment and Planning C: Government and Policy* 10 77 – 90
- NOMESCO, 1994 *Health Statistics in the Nordic Countries 1992* (Nordic Medico-Statistical Committee, Sejrøgade 11, DK 2100 Copenhagen 0)
- OECD, 1993 *Health Policy Studies 3. OECD Health Systems: Facts and Trends 1960-1991* (OECD, Paris)
- OECD, 1994 *Health Policy Studies 5. The Reform of Health Care Systems: A Review of Seventeen OECD Countries* (OECD, Paris)
- OECD, 1995 *Health Data. Version 1.5/3.6* (OECD, Paris)
- Rublee D A, Schneider M, 1991, "International health spending: comparison with the OECD" *Health Affairs* 10 187-202

- Schieber G J, Poullier J P, Greenwald L M, 1991, "Health care systems in twenty-four countries" *Health Affairs* 10 22-3S
- Schieber G J, Poullier J P, Greenwald L M, 1993, "Health spending, delivery, and outcomes in OECD countries" *Health Affairs* 12 120-130
- Schieber G J, Poullier J P, Greenwald L M, 1994, "Health system performance in OECD countries, 1980- 1992" *Health Affairs* 13 100-112
- Schneider M, Dennerlein R K H, Kose A, Scholtes L, 1992, "Health care in the EC member states", special issue *Health Policy* 20 1 - 252
- Verheij R A, Kerkstra A, 1992 *International Comparative Study of Community Nursing* (Avebury, Aldershot, Hants)
- Wilsford D, 1991 *Doctors and the State: The Politics of Health Care in France and the United States* (Duke University Press, Durham, NC)

TABLES AND FIGURES

Table 1. The availability of general ambulatory services in eleven European countries, 1992.

Country (year)	GPs per 1000 population		Ratio of GPs to specialist doctors		Home care (qualitative ranking) ^a	Total ranking ^b
	number	rank	number	rank		
Belgium (1991)	1.4	1	1.1	1	1	3
Norway (1992)	0.7	3	0.4	4	1	8
Denmark (1992)	0.7	3	0.4	4	1	8
France (1992)	1.0	2	0.8	2	4	8
United Kingdom (1992)	0.6	4	0.6	3	2	9
Austria (1993)	0.7	3	0.6	3	4	10
The Netherlands (1992)	0.4	6	0.6	3	2	11
Finland (1992)	0.4	6	0.3	5	1	12
Sweden (1992)	0.4	6	0.2	6	1	13
Germany (1992)	0.5	5	0.2	6	3	14
Switzerland (1992)	0.5	5	0.2	6	4	15

^a Key: 4, low level of supply of community nurses (CNs); 3, moderate supply of CNs; 2, relatively high supply of CNs; 1, no problems with supply of CNs.

^b The sum of the ranks in the previous three categories.

Note: GP, general practitioner.

Table 2. The supply of specialist services in eleven European countries in 1992.

Country	Ambulatory specialist doctors ^a		Hospital specialist doctors ^a		Acute somatic hospital beds ^a		Total ranking ^b
	number	rank	number	rank	number	rank	
Germany	0.7	3	1.5	3	7.5	1	7
Switzerland	1.2	1	1.4	4	6.5	2	7
Austria	0.8	2	1.0	5	6.0	3	10
France	0.8	2	0.8	6	5.2	5	13
Denmark	0.2	6	1.7	2	4.7	6	14
Belgium	0.6	4	0.8	6	5.6	4	14
Finland	0.3	5	1.0	5	4.3	7	17
Sweden	0.1	7	2.1	1	3.9	9	17
Norway	0.1	7	1.5	3	4.2	8	18
The Netherlands	0.0	8	0.7	7	4.3	7	22
United Kingdom	0.0	8	1.0	5	2.8	10	23

^a Per 1000 inhabitants.

^b The sum of the ranks in the previous three categories.

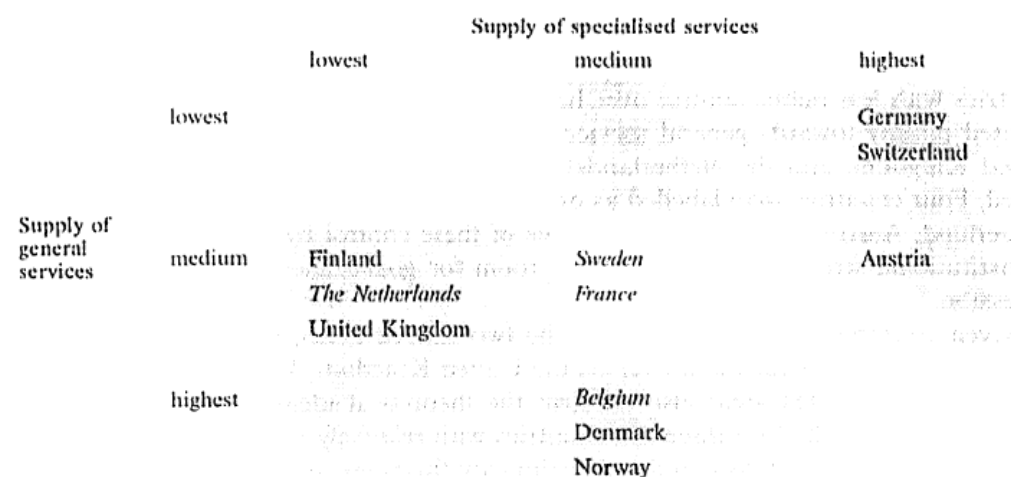


Figure 1. Division of European countries according to supply of general services (rows) and supply of specialised services (columns).