

What can Americans learn from Europeans?

by Bengt Jönsson

In this article, the opportunities for Americans to learn from Europeans regarding the pros and cons of a comprehensive health care system, the role of regionalization in achieving cost control, efficiency, and equity, and the management of new expensive technologies are discussed. One conclusion is that there is a convergence of health care systems, at least in terms of means to achieve cost containment and efficiency. European health care systems will increasingly provide interesting information on how different health policies—many of them devised in the United States—work under different economic and regulatory conditions.

Introduction

The United States, with its great plurality of organizational, ownership, and financing forms in health care, has been described as a laboratory for experimentation in health service organization and financing. The variety of institutions and financing mechanisms is enormous, and it has, over time, produced many interesting experiments that have been of great interest to European countries looking for models to reform their health care systems. During the last decade, concepts such as HMOs (health maintenance organizations), DRGs (diagnosis-related groups), and MTA (medical technology assessment) have become part of the standard vocabulary in most European countries.

It is therefore a somewhat strange situation, for an economist who has devoted a significant amount of time and effort to looking for opportunities to learn from the U.S. health care scene, to reverse his perspective and look for lessons that Americans can learn from European systems. Because there is so much variety in U.S. health care, it is also difficult to find new ideas and approaches that have not already been tried somewhere at some time in the United States. There is also the risk of being irrelevant. Means cannot be judged without reference to the goals. It is obvious that the moral bases or values on which health care systems are based differ between the United States and European countries. In the United States, personal responsibility, freedom of choice, and pluralism are the major moral commitments. In European countries, goals related to population health and equality of access to health services have been relatively more important. Centralized health planning and a large governmental

role in health care financing have therefore been more generally accepted in Europe.

As has been pointed out by others (e.g., Culyer, Maynard, and Williams, 1981), it is unhelpful to seek to learn from a system that is seeking to accomplish different aims. However, this should not be overstated: After all, a means may serve more than one end or may be adopted more appropriately to serve another end. Therefore, even though the ideological bases may vary between countries, it does not follow that neither has anything to learn from the other. So without appearing presumptuous, I hope to identify some areas or issues in which I think the experience of European countries can be of value in the development of U.S. health policy. I concentrate on issues that I can substantiate with data from the Organization for Economic Cooperation and Development (OECD) data base on international differences in health care (Organization for Economic Cooperation and Development, 1989).

Common aspects of European systems

Europe, as well as the United States, shows a great variety in health care systems and consequently also in health care policies. In addition to learning from its own diversity, the United States can learn from the specifics of different European systems at different points in time. There are also many studies in which U.S. researchers have looked at particular types of policies, such as physician reimbursement and cost containment (Reinhardt, 1981) or have focused on individual countries. For Sweden alone, it is easy to find more than a dozen publications in which U.S. researchers have looked at various aspects of the Swedish health care system and made comparisons with the United States (e.g., Lembcke, 1959; Anderson, 1972; Navarro, 1974; and Rosenthal, 1986 and 1987).

In this article, I concentrate on a number of aspects that are common to most, if not all, European health care systems. There are many from which to choose. The most obvious to start with is the financing and delivery of health care to the elderly. The populations of Europe are significantly older than that of the United States; therefore, Europe can give interesting evidence of what is to come in the United States. As shown in Table 1, the proportion of the population 65 years of age or over is 13.8 percent in Europe, compared with 12.2 percent in the United States. In some countries, such as Sweden, it is more than 17 percent.

An increasing share of health care resources spent on the elderly dramatically alters the conditions for health care financing and delivery. The insurance function becomes more of an intertemporal allocation

Table 1

Percent of the population in each of three age groups: Selected countries, 1987

Country	Years of age		
	65 or over	75 or over	80 or over
	Percent		
United States	12.2	5.0	2.6
Europe ¹	13.8	6.0	3.0
Austria	14.7	6.9	3.4
Belgium	14.3	6.4	3.3
Denmark	15.4	6.7	3.4
Finland	12.9	5.3	2.5
France	13.5	6.5	3.5
Germany	15.9	7.3	² 3.4
Greece	13.5	5.7	² 2.8
Iceland	10.3	4.4	² 2.5
Ireland	11.0	4.2	2.0
Italy	12.9	5.4	³ 2.5
Luxembourg	13.3	5.7	² 2.7
Netherlands	12.4	5.2	2.7
Norway	16.1	6.8	3.5
Portugal	12.5	4.9	2.2
Spain	12.4	5.1	2.5
Sweden	17.7	7.7	3.9
Switzerland	14.4	6.5	3.4
United Kingdom	15.5	6.6	3.4

¹Unweighted average.

²Data from 1986.

³Data from 1985.

SOURCE: (Organization for Economic Cooperation and Development, 1989).

problem, similar to the pension system, than a traditional health insurance. In the Federal Republic of Germany (hereafter called Germany), the public pension funds transfer money to the sickness funds to subsidize health care expenses for retired members. In 1975, these transfers accounted for 27 percent of total revenues for sick funds (Henke, 1980.) An increasing amount of total health expenditures is spent on the last years of life, and almost everyone reaches the average life expectancy (Le Grand and Rabin, 1986).¹ For the provision of health care, this means that nursing home care becomes relatively more important, as does the integration of social and medical services. In order to study health care for the elderly in different countries, age-specific cost and utilization data are needed. These data are not yet available, so this topic will have to wait for further refinements of the international comparative health statistics.

Another aspect of great interest is the quality of care. Systems of quality control are different in Europe from those in the United States. The use of litigation to deal with medical malpractice is considerably more common in the United States than in Europe. This affects health care costs directly, through insurance premiums paid by doctors, and indirectly, through its effect on physician behavior—

¹The results shown by Le Grand and Rabin (1986), a decline during the past 50 years in the Gini coefficient for variation in the age of death, can be described as a "rectangularization" of mortality. For a discussion of rectangularization of morbidity, see Fries (1980). Please note that rectangularization is not caused by changes in demography but by changes in the epidemiology of disease, partly caused by medical interventions.

the practice of defensive medicine. It would be of great interest to know more about the consequences for quality of care of the different ways of practicing medicine. In addition, it would be helpful to look at measures of quality assurance in the United States and Europe. However, international comparative statistics provide only scant information for such exercises.

Instead, I concentrate on three general aspects of European systems for which there are existing international statistics: the comprehensiveness of these systems; the role of regionalization in achieving cost control, efficiency, and equity; and the management of new expensive medical technologies.

A comprehensive health care system

The most striking difference between European systems, taken as a whole, and that in the United States is the comprehensiveness of the European systems. In most European countries, everyone is eligible for coverage of medical expenses through a public plan—usually public both in the sense of finance and in the sense of provision. This is the case for hospital care, ambulatory care, and medical goods, though the element of copayment is usually higher for the latter two categories. Even in countries with a significant amount of private insurance, such as Switzerland and the Netherlands, the share of the population eligible for coverage through public plans is close to 100 percent for hospital care (Table 2). Those not covered are mainly the more affluent members of the population, who may choose not to participate in the public plans.

Table 2

Percent of population eligible for public health insurance, by type of coverage: Selected countries, 1987

Country	Hospital care	Ambulatory care	Medical goods
	Percent		
Austria	99	99	90
Belgium	98	93	68
Denmark	100	100	100
Finland	100	100	90
France	99	98	92
Germany	92	92	97
Greece	100	100	90
Iceland	100	100	—
Ireland	100	37	95
Italy	100	100	99
Luxembourg	100	100	95
Netherlands	77	72	80
Norway	100	100	100
Portugal	100	100	100
Spain	98	97	84
Sweden	100	100	100
Switzerland	98	98	100
United Kingdom	100	100	99
United States	40	25	—

NOTES: Most countries do not publish data on the number of people covered by, or benefits received under, public health insurance plans. These are crude Organization for Economic Cooperation and Development Secretariat estimates based on descriptive evidence.

SOURCE: (Organization for Economic Cooperation and Development, 1989).

In Switzerland, three partners share the expenditures for the health care system. In 1984, public funds accounted for 6.2 billion Swiss francs, sickness funds and social insurances for 5.1 billion francs, and privately insured and uninsured persons for 5.2 billion francs (Gygi and Frei, 1986). In the Netherlands, about 70 percent of the population is insured with the sickness funds, which operate the social insurance system of the Sickness Funds Insurance Act. Individuals with an income of more than a certain amount (approximately 43,000 Dutch guilders in 1982) have to acquire private health insurance, but employees with an annual income under that level are mandatorily insured by sickness fund insurance. Private financing accounted for about 25 percent of total health expenditures in 1980. Insurance for greater risks, i.e., exceptional expenses, is governed by the General Special Sickness Expenses Act. This is a national insurance plan applying in principal to all residents of the Netherlands (Rutten, 1982). At present, the health care system in the Netherlands is in a period of transition. In October of 1988, the Dutch parliament approved the implementation of the first steps in the new direction. Two major issues are the introduction of national health insurance ("basic insurance") and regulated competition among insurers and among providers. For a review of the recent developments, see van de Ven (1989).

In the United States, the coverage rate of public plans is estimated to be only 40 percent of the population for hospital care and 25 percent for ambulatory care. Even if a higher degree of private

insurance, subsidized through tax exemptions for employers or individuals, partly compensates for this, a significant part of the population lacks coverage or is inadequately covered for health care. It has been estimated (Davis, 1989) that as many as 37 million people, 15 percent of the population, lack adequate insurance coverage; many lack coverage of any kind and are dependent on private charity. However, other sources show that 14.5 percent of the poor, 15.6 percent of the near-poor, 11.9 percent of other-low-income people, and 4.5 percent of all others lack insurance coverage (Kasper, 1986). This is a total of 17 million people, or 7 percent of the population, who are uninsured.

The coverage rate is only one aspect of the comprehensiveness of a system. We also have to look at what benefits are provided. In Table 3, the average or typical percent of a bill paid by public insurance is shown for several European countries and the United States. It can also be seen that the copayment rate is lower in European countries than in the United States.

The advantages as well as the problems associated with a system that provides insurance coverage for everyone probably provide the most significant lessons for the United States.

Differences in total health expenditures

A higher coverage rate and a greater share of public financing in Europe may be thought to imply significantly higher total expenditures. However, this is not the case. On the contrary, the health expenditures share of the gross domestic product (GDP) is significantly higher for the United States than it is for any European country (Table 4). (Gross domestic product is the gross market value of the goods and services attributable to labor and property located in a given nation.)

In 1986, total health expenditures, as a percent of GDP, were 10.9 percent in the United States, compared with a European average of 7.2 percent. Sweden, the European country with the highest share, had 9.1 percent. Also in absolute terms, using exchange rates or purchasing power parities (PPPs) for conversion of national currencies, the expenditures in the United States are significantly higher than in any European country.

Does this mean that the level of expenditures in the United States is totally inconsistent with the experiences of the European countries? To answer this question, we must look more closely at the determinants of health care expenditures. The major determinant of such differences is GDP per capita. (See Gerdtham et al., 1988, for a review and some new estimates.) Taking into account that GDP per capita is higher in the United States than in Europe, are the expenditures still higher than would be expected?

In Table 5, the actual and predicted 1986 health expenditures for 18 European countries and the

Table 3
Average percent of bill paid for by public insurance, by type of benefit received: Selected countries, 1987

Country	Hospital care	Ambulatory care	Medical goods
	Percent paid		
Austria	90	80	50
Belgium	68	50	52
Denmark	100	76	45
Finland	90	70	61
France	92	62	58
Germany	97	85	56
Greece	90	85	75
Iceland	—	—	—
Ireland	95	47	48
Italy	99	65	63
Luxembourg	95	98	83
Netherlands	80	67	58
Norway	100	—	—
Portugal	100	100	67
Spain	84	—	77
Sweden	100	90	75
Switzerland	100	86	90
United Kingdom	99	88	93
United States	55	56	—

NOTES: Most countries do not publish data on the number of people covered by, or benefits received under, public health insurance plans. These are crude Organization for Economic Cooperation and Development Secretariat estimates based on descriptive evidence.

SOURCE: (Organization for Economic Cooperation and Development, 1989).

Table 4

Total health expenditures expressed as a percent of gross domestic product (GDP) and as expenditures per capita: Selected countries, 1986

Country	Real GDP index ²	Percent of GDP	Expenditures per capita ¹	
			Converted using purchasing power parities	Converted using exchange rate
Austria	64	8.3	\$ 929	\$1,023
Belgium	66	7.2	825	883
Denmark	75	6.0	777	962
Finland	70	7.4	900	1,069
France	71	8.7	1,068	1,142
Germany	73	8.1	1,031	1,183
Greece	36	5.3	331	212
Iceland	82	7.5	1,063	1,192
Ireland	41	7.8	550	553
Italy	66	6.6	764	702
Luxembourg	80	7.0	962	928
Netherlands	68	8.3	983	1,002
Norway	86	6.8	1,021	1,144
Portugal	33	5.5	310	158
Spain	46	6.1	486	358
Sweden	75	9.1	1,193	1,429
Switzerland	88	7.6	1,162	1,573
United Kingdom	57	6.1	706	594
United States	100	10.9	1,886	1,886

¹In U.S. dollars.

²United States = 100.

SOURCE: (Organization for Economic Cooperation and Development, 1989).

Table 5

Actual and predicted health expenditures¹ per capita, differences, and upper and lower bounds of a 95-percent confidence interval: Selected countries, 1986

Country	Actual	Predicted	Difference	Lower bound	Upper bound
Austria	929	810	+ 119	644	1,018
Belgium	825	844	- 19	671	1,061
Denmark	777	997	- 220	791	1,258
Finland	900	909	- 9	722	1,143
France	1,068	918	+ 150	730	1,156
Germany	1,031	963	+ 68	765	1,213
Greece	331	363	- 32	277	477
Iceland	1,063	1,122	- 59	886	1,421
Ireland	550	431	+ 119	334	557
Italy	764	842	- 78	670	1,059
Luxembourg	962	1,081	- 119	856	1,367
Netherlands	983	873	+ 120	694	1,098
Norway	1,021	1,198	- 177	943	1,521
Portugal	310	321	- 11	241	426
Spain	486	516	- 30	405	659
Sweden	1,193	1,003	+ 190	795	1,265
Switzerland	1,162	1,230	- 68	967	1,563
United Kingdom	706	850	- 144	676	1,069
United States	1,886	1,472	+ 414	1,145	1,894

¹Expenditures converted from national currency units to U.S. dollars using purchasing power parities.

SOURCE: Jönsson, B.: Linköping University, Linköping, Sweden, 1989.

United States are shown. A logarithmic function has been used (Gerdtham et al., 1988). The regression equation is:

$$HEXP = -5.99 + 1.36 \text{ GDP} \quad (R^2 = 0.89)$$

t-ratio (-5.6) (11.9)

The constant elasticity is 1.36, which means that a 1-percent increase in GDP will give a 1.36-percent increase in total health expenditures. Both the elasticity and the constant are strongly significant. As

can be seen in Table 5, the actual health expenditures for the United States are 28 percent higher than predicted. This is close to the upper bound of a 95-percent confidence interval. (The comparability of health care expenditures data among countries is, despite significant improvements, still not exact. The lower-than-predicted levels of expenditures for Denmark, Luxembourg, and Norway can be explained partly by underreporting of certain types of expenditures, mainly nursing home care.)

Table 6

Actual and predicted health care expenditures¹ for the United States in 1986, based on data for 18 European countries

Log function: $HEXP = -5.30 + 1.29 GDP R^2 = 0.89$				
Actual	Predicted	Difference	Lower bound	Upper bound
1,886	1,466	+ 420	1,041	2,064

Linear function: $HEXP = -139 + 0.0853 GDP R^2 = 0.83$				
Actual	Predicted	Difference	Lower bound	Upper bound
1,886	1,341	+ 545	1,064	1,617

¹With 95-percent confidence interval.

NOTE: HEXP is health expenditures. GDP is gross domestic product.

SOURCE: Jönsson, B.: Linköping University, Linköping, Sweden, 1989.

The expenditure levels of 18 European countries were used as a basis to predict health expenditures for the United States (Table 6). The result is very similar for the logarithmic specification of the regression function, although the elasticity is slightly reduced. For the linear specification, the prediction is lower and the level of actual expenditures is significantly outside the 95-percent confidence interval.

We can conclude that the higher share of public financing in European countries does not result in higher expenditures than in the United States. In fact, there is evidence to the contrary.² Details on the cost-containment policies used in Europe are covered in the article by Culyer in this issue; therefore, they are not discussed here. Instead, let us look at other

²This does not necessarily mean that the United States is "overspending." This is a normative concept, which cannot be judged with reference to international comparisons only. Studies indicate that a significant part of the higher expenditures in the United States are the result of higher relative prices for health care, rather than greater volume of services (Parkin, 1989).

aspects of health policy that relate to the comprehensive nature of European systems. However, it is necessary to relate these aspects to expenditure restraint, because this is the major mechanism by which resources are allocated in European systems.

Preventive versus curative services

The most important question for any health care system is how well it is achieving the basic health objectives of the population. The difficulties in comparing the objectives of health care systems are well known. Health is difficult to measure and is determined to a major extent by factors outside the control of the health care system. However, one area in which health care can make a directly measurable difference is in the reduction of infant mortality, although it is difficult to document exactly the relative contribution of various factors.

The World Health Organization (1981) states that the infant mortality rate "is a useful indicator of the health status not only of infants but also of whole populations and of the socioeconomic conditions under which they live. In addition, the infant mortality rate is a sensitive indicator of the availability, utilization, and effectiveness of health care, particularly perinatal care." Waaler and Sterky (1984), examining trends in infant mortality, perinatal mortality, and gross national product in four Scandinavian countries, suggest that perinatal mortality (late fetal and neonatal deaths per 100 live and still births) is preferable to infant mortality (death rates of infants under 1 year of age per 100 live births) as an indicator of the quality of health care. However, examining the relationship between infant mortality and perinatal mortality in 1986 and changes from 1960 through 1986 in European countries and the United States gives no support for this hypothesis.

Table 7
Infant and perinatal mortality rates: Selected countries, selected years 1960-86

Country	1960		1970		1980		1986	
	Infant	Perinatal	Infant	Perinatal	Infant	Perinatal	Infant	Perinatal
	Rate per 100 live births							
Austria	3.75	3.5	2.59	2.7	1.43	1.4	1.03	0.9
Belgium	3.12	3.2	2.11	2.3	1.21	1.4	0.97	—
Denmark	2.15	2.6	1.42	1.8	0.84	0.9	0.82	0.8
Finland	2.10	2.8	1.32	1.7	0.76	0.8	0.58	0.6
France	2.74	3.1	1.82	2.3	1.01	1.3	0.80	—
Germany	3.38	3.6	2.34	2.6	1.27	1.2	0.87	—
Greece	4.01	2.6	2.96	2.7	1.79	2.0	1.22	1.5
Iceland	2.17	2.0	1.33	1.9	0.77	0.9	0.54	0.8
Ireland	2.93	3.8	1.95	2.4	1.11	1.5	0.87	—
Italy	4.39	4.2	2.96	3.1	1.43	1.8	1.01	—
Luxembourg	3.15	3.2	2.49	2.5	1.15	1.0	0.80	0.7
Netherlands	1.79	2.7	1.27	1.9	0.86	1.1	0.64	1.0
Norway	1.89	2.4	1.27	1.9	0.81	1.1	0.78	0.8
Portugal	7.75	4.1	5.51	3.7	2.43	2.4	1.59	1.8
Spain	4.37	—	2.81	—	1.23	1.4	0.87	—
Sweden	1.66	2.6	1.10	1.6	0.69	0.9	0.59	0.7
Switzerland	2.11	—	1.44	1.8	0.91	1.0	0.68	0.8
United Kingdom	2.25	3.4	1.85	2.4	1.21	1.3	0.95	—
United States	2.60	2.9	2.00	2.3	1.26	1.3	1.04	1.0

SOURCE: (Organization for Economic Cooperation and Development, 1989).

The differences between countries and over time are very similar with both measures (Table 7). As can be seen in Table 7, several European countries have an infant mortality rate that is 30-40 percent lower than that of the United States. Smaller countries can be expected to have lower rates because of greater cultural homogeneity, but it may be observed that the rates are also lower for the big European countries. Taking into account the high GDP per capita and the high rate of health expenditures, one would expect the United States to have significantly lower infant and perinatal mortality rates than the Federal Republic of Germany, France, and the United Kingdom. To the extent that the differences between Europe and the United States can be attributed to medical action, the lower mortality rates must have been achieved mainly by preventive measures. The resources for neonatal intensive care and the frequency of cesarian delivery are higher in the United States, but this obviously does not result in a lower infant mortality rate.

My hypothesis is that it is easier to allocate resources to programs like prenatal care and vaccination for children in a more comprehensive system. Considering the relative efficiency of health care services, it is difficult to allocate resources to interventions with dubious value, when even basic services with proven or obvious cost effectiveness are not being provided. The underprovision of such inexpensive but cost-effective services is a serious inefficiency in a health care system.

The commitment to primary health care and prevention in many European countries must be considered in the shaping of the future U.S. health care system. But this policy has not been without its problems, and, in many instances, it has been only a verbal commitment. In other instances, it has resulted in overoptimistic expectations about its ability to solve health problems or even to control escalating health care costs. But there is much to be learned from the mistakes as well as the successes. Focusing on health problems from a population perspective, rather than an individual perspective, gives new insights into the relative efficiency of different interventions. It also indicates that more health services are not always a solution to social problems; rather the solutions to social problems can have a significant impact on health. A comprehensive system enforces this broader perspective.

Regionalization, global budgets, and planning

One important common aspect of European health care systems is regionalization. Typically, regions, rather than the country as a whole, are the basis for the allocation of health resources. However, regionalization is achieved in different ways in each country. In Sweden, for example, the regions (counties) have total responsibility for both the health of the population and the provision of health care. The average population of a region is 350,000 inhabitants, and the decisions about health services

provision are made by elected representatives (community councils) in the region. The financing of services comes from a local proportional income tax.

Similar systems can be found in the other Scandinavian countries of Denmark, Norway, and Finland. However, in Finland, the local communities are the basic regional unit, and in Norway, the regions (fylke) are responsible for hospital care and the local communities for primary care. In Denmark, the responsibility for hospital services, general practitioners, and practicing specialists is decentralized to 16 regions (counties or "amt"), the typical population being 250,000-300,000 inhabitants. Local health and social services, including home care, are run by communities of varying size. The Copenhagen and Frederiksberg communities, in the Copenhagen metropolitan area, have community as well as county obligations.

In contrast, in the United Kingdom, regional authorities are not elected, nor do they have tax powers, nor do the districts beneath them, which are responsible for the provision of hospital care to the locality. Instead, their finances are directly controlled by cash-limited budgets allocated from the center. Since 1977, the allocation of resources among regions has been based on the Resource Allocation Working Party (RAWP) formula, with the objective of securing geographical equity in the availability of resources (Department of Health and Social Security, 1976). Different indicators of need determine the per capita-based funding for the regions. RAWP has been controversial, and there is an extensive literature of criticism and comment (Mays and Bevan, 1987). But after 10 years, the gap has narrowed substantially between the regions receiving the most and the least funds.

Regionalization is also strong in insurance-based systems such as those in Germany, the Netherlands, and Switzerland. In the last country, health care is by law a responsibility for the regions (cantons), some of them very small. Although the majority of financing comes from private and public insurance (Krankenkassen), it is the canton that has the overall responsibility for the provision of health care resources. The cantons also have to underwrite the deficit in public hospitals operated by them. This gives them a strong influence over the allocation of resources.

In the Netherlands, hospitals, whether owned by local communities or lay boards of trustees, operate on a fixed predetermined budget since 1984. The budget is negotiated with the third-party payers. The central government has a strong influence on construction of facilities and acquisition of major medical equipment through licenses, which are issued on the basis of regional and national health sector planning.

The strict planning systems for hospital care in Switzerland and the Netherlands, the two European systems most similar to those of the United States, are the major reason why expenditures are constrained in these countries, and the share of GDP that goes to

Figure 1
Worksheet used to develop a classification system for regionalized health care systems

Aspects of regionalization in European health care systems		
Federal country	Yes	No
Typical size of region (millions of inhabitants)	_____	
Region governed by elected representatives	Yes	No
Regional tax power	Yes	No
Region is both purchaser and provider	Yes	No
Percent of hospital beds provided by the region	_____	
Global budget for total health expenditures	Yes	No
Global budget for hospital expenditures	Yes	No
Percent of total expenditures within global budget	_____	
Percent of expenditures on health	_____	
Region regulates number and activities of other (private) providers:		
Doctors	Yes	No
Hospitals	Yes	No
Nursing homes	Yes	No
Regional fee negotiations	Yes	No
Central approval of fees	Yes	No
Central wage negotiations	Yes	No
Central regulation of capital investments	Yes	No
Integration with social services	Yes	No

SOURCE: Jönsson, B.: Linköping University, Linköping, Sweden, 1989.

health care is kept below that of the United States. In practice, these countries have global budgets for the most expensive part of health care, hospital services.

In Germany, the hospitals are financed through prospective, hospital-specific, all-inclusive per diems negotiated between the hospital and regional associations of sickness funds. These rates are subject to approval by the State governments, which also must approve and finance capital investments, based on statewide hospital planning. The State governments therefore control the capacity of the hospital system.

In Figure 1, a first attempt to develop a way to classify regionalized health care systems is shown. The first question to be asked is whether regionalization is based on a federal structure of the country as in Canada, Switzerland, and Germany. This aspect is of particular relevance for the United States, being a federal country. In federal countries, the constitution usually states the division of responsibilities in health care between the federation and the individual States. The constitution determines the possibilities and limitations for regionalization. In Switzerland, the constitution clearly states that the cantons forming the federation are responsible for health care within their borders.

The second aspect of regionalization concerns the size of the population in the region, because this determines how regionalization works in practice. Very large regions must be divided into smaller regions in order to find a suitable size to manage health care institutions. An example of this is the Regional Health Authorities in the United Kingdom,

which are divided into districts that provide health services. Very small regions (such as some cantons in Switzerland) must rely heavily on cooperation with other regions for provision of specialized services.

If the region is governed by elected representatives, there is a political process behind the allocation of resources. This is, of course, the case in the federal countries, but also in the Scandinavian countries. However, in the United Kingdom, the members of the RHAs and District Health Authorities (DHAs) are appointed by the government. A system with elected representatives is usually combined with the right to levy regional taxes. But elected representatives and the power to tax do not always go together. In Norway, the regions (fylke) receive 50 percent of their budgets from the central government; once they reach the cap on their own tax power, they cannot spend more than the amount set by the government. In Sweden and Denmark, the regions (landsting and amt, respectively), can finance health care through a proportional income tax.

A region can be both a purchaser and a provider of care. Usually the two functions go together. However, in Germany, the states finance capital costs, but do not themselves provide any services. In Sweden, Denmark, and Switzerland, the regions are also the main providers of hospital services, but there is also a "market" for services, mainly tertiary care, between regions. In the United Kingdom, there is discussion about separating the regions' roles of purchaser and provider. Similar discussion is found in Denmark and Sweden.

In most regionalized systems, the region operates a global budget for health services. Although this is not the case in, for example, Germany, there have been attempts to form a voluntary agreement, negotiated between the different interest groups, to contain costs through a global budget. For a description of the German Health Care Cost Containment Act of 1977, see Stone (1979). In Sweden, the global budget includes all health expenditures except drugs and dental care, but in other countries, such as Switzerland and the Netherlands, it includes only hospital expenditures.

For many regions, health care is their main responsibility. In other instances, they have a wider responsibility for public services and transfer payments. This obviously has implications for the tradeoff between health care and other public expenditures. The percentage of the total budget that comes from central funds can also have significant implications for the relationship between central and regional governments and for total spending on health care, as well as for the allocation of resources to different services. Even in countries in which regions have the power to tax, the central government exercises influence through different types of government grants. In Sweden, the tax equalization plan and transfers from the social insurance system to the counties are of great financial importance for the regional budget.

Another significant aspect of regionalization is the distribution of regulatory power between the central government and the regions. This is done very differently in different countries. Usually the central government regulates fees and capital investments. However, regions can also have important regulatory power. In Sweden, the county councils regulate how many private practitioners are allowed to practice under the health insurance plan and how many patient visits they can have during a year. In Germany, there are regional negotiations of reimbursement rates.

Regionalization is one way of controlling total health care expenditures as well as guaranteeing everyone access to basic and effective health services. Public choice theory tells us that, the larger the population served by a given budget, the more difficult it is to manage that budget. Rent-seeking from different interest groups becomes impossible to handle when the budget serves a country as large as the United States. It is impossible to make rational decisions about allocation of resources based on knowledge of local health needs.

In Europe, it is only the United Kingdom that has for a long time operated a global budget for the whole country. But there the total budget is allocated to the Regional Health Authorities, according to a weighted population formula, and it is the RHAs that determine the allocations within these geographical areas. This global cost containment has obviously been successful, if we look at total health care expenditures and value for money. However, we must not forget that a major reason behind the lower share of GDP allocated to health care in the

United Kingdom, compared with the United States, is the significantly lower GDP per capita.

The major advantage of regionalization is that it provides a forum for discussion about priorities in health care and value for money for different services. It also gives an opportunity to identify the total resources for health care spent on a population and to assess the appropriateness of these expenditures in relation to population needs. Because the need (defined as services with a positive marginal product on health) is for all practical purposes unlimited, a tradeoff between health care and other goods and services has to be made. Regionalization is a way to make this tradeoff more transparent and responsive to local needs. The region also forms the basic unit for planning of facilities and mobilization of resources. It is also an important mechanism for ensuring geographical equity in the availability of services.

Regionalization, freedom of choice, and competition

I have introduced concepts such as regions, priorities, value for money, planning, and global budgets in relation to population needs. Does this not amount to socialized medicine? Without very precisely defining what "socialized medicine" is, I will argue that this is not the case. My main argument is that regionalization can take many different forms and is consistent with different degrees of freedom of choice and competition among providers. The wide variety of European health care systems, all more or less based on the concept of regionalization, shows that regionalization can be combined with different financing systems, different reimbursement systems, different mixes of private and public providers, and different regulatory mechanisms.

A comparison between Sweden and Switzerland can illustrate the different forms that regionalization can take. In Switzerland, ambulatory health care is provided by private practitioners working on a fee-for-service basis. The costs are reimbursed by private or public insurers. The copayment is very small and almost everyone is covered. Physicians can locate where they wish, but there is an incentive plan to stimulate location in remote (mountain) areas. The majority of the hospitals are owned and operated by the cantons. There are also private and community-owned hospitals. The hospitals are reimbursed from the insurance plans on a per diem basis. The public hospitals, which constitute the majority, run deficits that are covered by regional taxes. This provides the *raison d'être* for a strict planning and budgeting system for hospital services. Doctors in hospitals are salaried but can take private patients both as inpatients and outpatients, and share the revenue for these patients with the hospital. Patients can choose their doctors as well as the hospitals where they are treated.

In Sweden, the county councils are responsible for all health care for a defined population—a county or region. Ambulatory care is delivered in public health

centers as well as in outpatient clinics at the hospitals. The number of private practitioners is small, and their activities are highly regulated, both in terms of the number of patients they can treat and the reimbursement their patients can receive from health insurance. There is a small market for private care outside the public reimbursement system. The choices are limited for the patients, who are assigned a specific health center and a hospital and seldom have any influence over which doctor treats them.

The Swiss experience tells us that an insurance-based system with both private and public insurance and total coverage of the population can be combined with a strict planning system for hospital care at the regional level. The strict planning system is a prerequisite for controlling the health care budget funded by the canton. In terms of cost containment, it has been very successful. In dollars (PPP), Sweden and Switzerland spend almost exactly the same amount on health care (Table 3), which is far less than the United States spends, both in absolute terms and in relation to GDP.

The Swedish experience shows that a regional monopoly can be successful in creating access for everyone to health services and in containing costs. The quality of care is also judged to be high. However, there are problems with that type of organization that should not be overlooked and from which we can learn. First, among the people, there is dissatisfaction with not being able to make any choices in health care. But this lack of choice is not inherent in either regionalization or regulation. It can be changed in different ways within the system. Saltman and von Otter (1987) have suggested that opportunities for consumers to choose which health care center to use, which doctor to see, and which hospital to use should be increased. This will, however, have very little impact on efficiency unless the choices have financial consequences for the providers. We still do not know if the budget system can be made flexible enough to accommodate such choices. However, the experiences in the United Kingdom show that strict regulation can be combined with freedom for patients to choose a doctor and hospital. In the United Kingdom, the patient is free to select any general practitioner (GP) and the GP is likewise free to accept the patient or not. GPs are also free to refer patients to consultants of their choice, including those in hospitals outside the region. The GP's income comes partly from capitation and partly from fee for service. In contrast to Sweden, the global regional budget does not include ambulatory care; therefore, the Swedish system can be seen as financially more tightly controlled than the system of the United Kingdom.

Second, there is a problem with incentives for providers working on a fixed budget without competition. One way to improve productivity and efficiency among providers is to separate financing from provision of services in order to create competition. In Sweden, it has been suggested that the purchase of health care should be transferred from

the county councils to the local communities (Jönsson and Rehnberg, 1987). The county councils should continue to be primarily providers of hospital services to the local communities. The ideas behind such a division of health care services relate closely to the discussion and research on HMOs and managed competition in the United States during this decade (Enthoven, 1980). In this issue, Culyer's article presents similar ideas for improving internal efficiency in the National Health Service (NHS). The advantage of separating financing from delivery is mainly that public providers must compete with each other and with private providers. One can, of course, question whether local communities can efficiently carry out the two roles as sponsors (Enthoven, 1988) and financers of health care, but it is a first step in creating managed competition in a regionalized system such as those in the United Kingdom and Sweden.

Today, in both Sweden and Switzerland, there is a well-functioning market for specialized (tertiary) care, in which one region buys services from providers in other regions. This gives smaller regions access to high-quality specialized care. For some services, they are buyers, and for others, they are sellers. This division of tasks is created with planning and competition, the latter increasing in importance over time. To an increasing extent, the payments are based on (prospective) prices that have been negotiated using a DRG-type framework. There is no reason why this market could not also be extended to referrals, not only between hospitals, but also between primary care centers and hospitals. Discussion about competition as a way to improve health services has taken place primarily in the United States. However, the reforms being implemented in Europe will provide not only interesting information about the problems of and opportunities for managed competition, but also examples for decentralized experiments in the United States.

Introduction of new medical technology

One important aspect of a health care system is its ability to control the introduction and diffusion of new, and often expensive, medical technologies. The European countries provide good examples of how new medical technology is managed in a comprehensive health care system based on regionalization. Because systems differ, the pattern of introduction and diffusion differs among technologies and countries, providing an interesting variety for study and analysis. Because information about new medical technology is more or less simultaneously available in all industrialized countries, the same opportunities for adoption and diffusion exist in all countries. Differences in rates of adoption and levels of diffusion can be explained primarily by characteristics of the national health care systems, including availability of resources and cultural patterns. The European countries therefore provide a

laboratory in which the United States can observe the management of new medical technology.

The introduction of dialysis and transplantation for treatment of end stage renal disease (ESRD) in the 1960s can serve as an example of how the introduction and diffusion of a new technology is managed in European countries compared with the United States. In 1970, the number of treated patients per 1 million of population was about 25 in the United States, which was only one-half the number treated in Denmark, Sweden, and Switzerland, and about the same as in the United Kingdom. Two years later, when the Social Security Act was amended to authorize funding for the treatment of ESRD under Medicare, the rate of treatment was also significantly higher in countries such as Belgium, Finland, France, and the Netherlands than in the United States.

When treatment of ESRD became available, it was obvious that many Americans could not afford it and people were dying, for lack of adequate insurance coverage. There was no way that the new technology could be accommodated within the existing system. A separate reimbursement program had to be enacted to provide equity of access to these costly new technologies. When reimbursement became available, the number of persons treated increased rapidly. By 1975, the treatment rates in the United States were higher than in all but two European countries, and, in 1980, the treatment rate in the United States was the highest in the world (Table 8). In the 1980s, the treatment rate has continued to increase and is now far higher than in most European countries, although Belgium and Switzerland seem to be catching up.

The European countries experienced the same emotional debate about equity, access, and costs, but the situation was different in that the new technology could be accommodated within the existing systems of resource allocation. However, tradeoffs had to be

made between this new technology and treatment for other conditions. The need to establish priorities had a significant impact on the choice of technology for treatment of ESRD. Thus, in the United Kingdom, a high proportion of patients was treated with home dialysis. Before the establishment of the Medicare ESRD program, 40 percent of treatment in the United States was home based. Because home dialysis support services furnished by nonphysicians were not covered in the original legislation, physicians had no incentive to steer patients toward this treatment.

Therefore, the proportion of patients treated by home dialysis in the United States declined to 12 percent by 1978 (Drucker, Parsons, and Maher, 1986). Also the age distribution of patients shifted, so that the proportion of patients 55 years of age or over increased from 7 percent in 1967 to 45 percent in 1978 (Drucker, Parsons, and Maher, 1986). In 1981-82, the rate of treatment was 82.4 per 1 million of population in the United States, compared with 25.8 on average for the 32 countries in the European Registry (Marine and Simmons, 1986). High-rate countries, such as Belgium and Switzerland, had 44.1 and 44.9, respectively. The share of patients 60 years of age or over at the start of treatment was 26 percent in the 32 countries, compared with 38 percent for the United States. The introduction of reimbursement has obviously shifted the indications for treatment, without any assessment of the marginal costs and benefits.

Another important difference between the United States and Europe is the share of patients treated with transplants. It is well documented that this treatment is the cost-effective alternative when possible. It also gives the patient a better quality of life. The proportion of patients with functional transplants in the United States is difficult to document, but best estimates give a figure of about

Table 8
Number of patients receiving treatment for end stage renal disease: Selected countries, selected years 1970-86

Country	1970	1975	1980	1984	1985	1986
	Rate per 1 million people					
Austria	13	56	134	210	256	294
Belgium ¹	30	103	233	394	333	392
Denmark ¹	56	132	202	252	190	262
Finland	25	71	135	232	253	262
France	26	102	229	286	291	303
Germany	18	88	208	301	305	333
Greece	5	48	119	142	154	225
Iceland ¹	20	42	75	105	67	158
Ireland	20	45	99	161	179	193
Italy	6	81	197	238	263	305
Luxembourg	7	91	178	225	277	383
Netherlands	36	90	186	293	289	318
Norway	9	67	134	201	227	234
Portugal	2	4	28	158	197	269
Spain ¹	4	27	145	284	232	337
Sweden	54	85	178	198	319	283
Switzerland	49	136	260	357	383	405
United Kingdom	23	62	128	200	216	242
United States	25	106	272	393	—	—

¹Because of changes in reporting and incomplete surveys, some entries do not correctly portray trends.

SOURCE: (Organization for Economic Cooperation and Development, 1989).

Table 9
Patients under treatment for end stage renal disease with functional transplants:
Selected countries, selected years 1970-86

Country	1970	1975	1980	1984	1985	1986
	Percent of patients					
Austria	19	33	19	23	24	30
Belgium ¹	34	27	28	36	24	33
Denmark ¹	62	53	47	49	45	48
Finland	42	60	65	65	63	58
France	15	13	13	17	19	31
Germany	7	6	8	14	16	17
Greece	39	16	13	13	9	14
Iceland ¹	25	44	53	—	24	47
Ireland	18	27	43	54	52	47
Italy	2	6	7	5	9	12
Luxembourg	—	10	3	8	13	16
Netherlands	18	25	30	42	41	44
Norway	51	74	66	70	75	78
Portugal	1	3	3	7	9	8
Spain ¹	10	4	8	17	19	23
Sweden	50	48	47	47	57	55
Switzerland	31	35	34	40	42	33
United Kingdom	27	36	44	50	48	50
United States	—	—	—	—	22	—

¹Because of changes in reporting and incomplete surveys, some entries do not correctly portray trends.

SOURCE: (Organization for Economic Cooperation and Development, 1989).

20 percent of all patients treated for ESRD (Bonair, 1988; Eggers, 1988), which is less than one-half the rate of the Scandinavian countries, the United Kingdom, the Netherlands, and Switzerland (Table 9). Efforts have also been made to provide incentives for more transplants in the United States (Eggers, 1988).

The effect on cost per case is difficult to assess for each system. However, there is reason to believe that the incentives in the United States have had an impact on not only the number of treated cases but also the cost per case. Many European health care systems seem to have performed well, compared with the United States, when we look at both cost and cost effectiveness of treatment for ESRD—that is, they have achieved a lower treatment rate and a higher share of transplants. (Also, for many years during the introduction of the technologies, the rate of treatment was higher in many European countries than it was in the United States.) The higher incidence of treated renal failure in the United States is, of course, not necessarily a bad thing. One could argue that the United States is providing better access to a life-saving technology than are the European countries. But the marginal costs and benefits of the extended indications for intervention are largely unknown, and a comparison with European countries is one way to answer the question. The comparative studies that have been undertaken between the United States and the United Kingdom (Aaron and Schwartz, 1984; Marine and Simmons, 1986), do not give a full account of how new technology is managed in Europe. By looking at a greater number of European countries, a better perspective on the U.S. allocation of resources to new technologies can be achieved.

Extracorporeal shock wave lithotripsy

A more recent example of a new medical technology is extracorporeal shock wave lithotripsy (ESWL) for treatment of kidney stones and lately also gallstones. This technology disintegrates stones through the use of shock waves and does not require an incision. It is an equipment-embodied technology and the equipment cost is several million United States dollars. A single ESWL unit can serve a large population, analogous to the specialized services of a heart surgery center or a burn unit. The cost per treated patient is dependent on the number of patients treated per year. ESWL was developed in Germany,

Table 10
Number of extracorporeal shock wave lithotripsy units in operation: Selected countries, May 1989

Country	Total	Per 1 million inhabitants
		Number of units
Belgium	11	1.10
Germany	57	0.93
Spain	34	0.88
Italy	48	0.84
Sweden	5	0.60
Ireland	2	0.56
Netherlands	8	0.55
France	29	0.53
Greece	5	0.50
Denmark	2	0.39
Portugal	3	0.30
United Kingdom	12	0.21
United States	225	0.88

SOURCE: Jönsson, B.: Linköping University, Linköping, Sweden, 1989.

and the first patients were treated there in 1980. The lithotripter was approved for widespread clinical use in the United States by the Food and Drug Administration in December 1984, at which time six experimental sites had lithotriptors (Bloom et al., 1989). By July 1, 1986, there were 84 ESWL units in operation in the United States. At that time, 31 States had at least one unit; there were 11 in California, 6 each in Illinois and Texas, and 5 in North Carolina (Bloom, et al., 1989). In the spring of 1989, the number of lithotriptors had increased to about 225. In relation to the size of the population, it is about the same as in countries such as Belgium, Italy, Germany, Spain, and Switzerland (Table 10). However, there are wide variations among European countries; the United Kingdom has by far the lowest number in relation to the population.

The introduction of ESWL has brought up a number of policy issues relating to the introduction of new medical technology in both the United States and Europe. In the United States, the discussion has centered around the problems of adapting the Medicare payment system to this new technology (Office of Technology Assessment, 1986). Because it is neither "medical" nor "surgical" technology, there is no appropriate DRG to which the treatment can be assigned. If the surgical DRG is used, it will grossly overpay the procedure. If the most appropriate medical DRG is used (324-urinary stones, patient age under 70 years, without complications or comorbidities), it only covers about 60 percent of costs (Cotter et al., 1986). The compromise seems to have been to assign all patients treated with ESWL to DRG 323 (urinary stones, patient age over 69 years, with complications or comorbidities), which comes closer to the estimated costs for the procedure (Cotter et al., 1986). However, it has also been suggested that a special DRG should be established for ESWL.

Unlike the situation for many other technologies, the European countries can provide comparative information on both costs and charges for ESWL. In Table 11, a detailed account of the costs for treating the average patient with ESWL in Sweden in 1985 is

shown. These costs (U.S. \$3,900) include physician salaries and can be compared with an average of \$5,700 in the United States (Bloom et al., 1989). The difference in costs can be studied in detail and can give important lessons about the way this technology is used and managed in the different countries. Even more interesting is to look at how costs vary among different types of patients. In Table 12, the cost per patient for treatment of different sizes of kidney stones is shown. Costs increase with the size of the stone, especially for stones larger than 30 millimeters.

Table 11
Distribution of costs for extracorporeal shock wave lithotripsy (ESWL) treatment, by item: Sweden, 1985

Item	Cost per patient ¹	Percent of total
Total costs	24,826	100
Equipment	5,150	21
Building	283	1
Physician salaries	1,360	6
Other salaries	654	3
Anesthesia	1,972	8
Materials, drugs	3,736	15
Other services	1,039	4
	14,194	57
Adjuvant procedures	515	2
Laboratories:		
Radiology	2,122	9
Chemistry	1,593	6
Intensive care	1,057	4
	4,772	19
Ward:		
Building	449	2
Physician salaries	768	3
Other salaries	1,917	8
Materials, drugs	516	2
Services (excluding laboratory)	1,695	7
	5,345	22

¹In Swedish kronor.

NOTE: Percents may not add to totals shown because of rounding.

SOURCE: (Carlsson, Jönsson, and Tiselius, 1987).

Table 12
Costs¹ per patient for extracorporeal shock wave lithotripsy (ESWL) for different types of stones, by cost item: Sweden, 1985

Cost item	Size of stone				Ureter stone	Bilateral treatment
	5 mm or less	6-20 mm	21-30 mm	30 mm or more		
Total cost per patient	17,880	20,437	26,689	49,416	17,618	32,707
ESWL treatment	8,879	11,680	14,892	22,766	8,768	17,474
Intensive care unit	900	987	1,074	1,800	900	1,800
Radiology	2,561	2,017	2,365	5,000	2,427	3,658
Clinical chemistry laboratory	1,448	1,466	1,706	2,516	1,458	1,761
Adjuvant procedures	220	230	198	3,045	100	1,100
Recovery	3,872	4,057	6,454	14,568	3,965	7,014
Number of cases	4	84	31	13	15	14

¹In Swedish kronor.

SOURCE: (Carlsson, Jönsson, and Tiselius, 1987).

Detailed comparisons of costs and charges can give interesting information of relevance in assessing the consequences of the reimbursement system in the United States and can suggest ideas for reform. However, there are also other aspects of health systems that must not be overlooked. The regionalized systems in Europe can provide population-based data on utilization of medical technology that can be used to study the proper indications for as well as the consequences of new medical technology. The role of medical technology assessment in the management of new technology can also be an interesting area for comparison. The European countries do not have a formal approval system for medical devices. Nevertheless, many countries in Europe have performed more comprehensive evaluations, including not only safety and efficacy, but also cost effectiveness and quality of life, of ESWL than have been undertaken in the United States. Such comprehensive evaluations of ESWL for the treatment of gallstones are now under way in both Sweden and the United Kingdom. These assessments form part of the policy for controlling the diffusion of medical technology. In addition, the wide diversity of policies used in the European countries can yield interesting lessons for the management of the same technologies in the United States.

Are health care systems converging?

European health care systems obviously differ from the U.S. system in important aspects. There are also important differences among European systems. One important difference is the open-endedness (that is, the lack of budget restrictions) of the systems. However, the need to contain costs has forced open-ended systems to find different ways to restrict total expenditures for health care. It seems clear that a "free" market cannot solve the basic resource allocation problems in health care: efficiency and equity in health care production and consumption. Public insurance systems, tax subsidies to private insurance, asymmetric information between producers and consumers, and provider monopolies through licensing (doctors) are inherent factors in a health care system that make free competition an ineffective policy; competition has to be "managed."

In the United States, the discussion of managed competition has centered on HMOs and their ability to provide total coverage for health care at a lower cost than traditional fee-for-service arrangements. The jury is still out (see the article by Culyer in this issue), but the discussion has already changed the perception of what is needed to contain costs and increase efficiency in health care. The idea of prospective payment lies behind the development of DRGs to classify patients. This system, developed at Yale University, is as close as one can come to what Oscar Lange (1938) called "market socialism." Hospitals compete against a set of predetermined administrative prices. So far, this payment method has been used only for Medicare-covered inpatient

acute hospital care, but work is under way to extend it to ambulatory care. Another example of how the health care market has changed in the United States is the introduction of medical technology assessment (MTA) as a tool for health policy. The role of MTA in U.S. health policy has been controversial, but it was invented as a response to a need for more information for policymakers—this information will be needed even more in the future. Today, when the era of rapidly expanding health care resources has come to an end, new medical technology is the major dynamic factor in health care. Clearly, future policy will be aimed at control of introduction and diffusion of new medical technology. Medical technology assessment, based on explicit cost-effectiveness and cost-benefit studies, will certainly have a major role in the development of those policies.

The convergence theory implies that planning will play an increasing role in market economies. Developments in the United States during the 1980s cannot accurately be described as increased health care planning. But they certainly represent an increase in public control over the health care system. This can best be understood by looking at the great attraction HMOs, DRGs, and MTA have had for health researchers and policymakers in Europe. These ideas have fit in well with the more comprehensive and planned systems in Europe. They have been seen as a way to increase the role of markets and competition within systems in which traditional planning has proven impotent to adapt to a situation of slower resource growth with continued introduction of new medical technology. In this way we can talk about a convergence of systems.

This convergence creates interesting opportunities for the future. When new ideas, such as HMOs, DRGs, and MTA, are transferred to European countries, it is possible for the United States to learn how they work under different regulatory conditions. How will HMOs work when based on regional, rather than voluntary, participation? How will HMOs that include the elderly work? It has been suggested that the evidence for cost savings from HMOs in the United States is not relevant for Europe, because the majority of HMO members are under 65 years of age. This may be the case, but one hypothesis could be that HMOs will yield even greater savings for the elderly, who have higher consumption rates of care and for whom there are more alternatives for intervention. These questions can be answered, if experimentation on a broad basis can be started in Europe. Changes in the health care systems of the Netherlands and the United Kingdom, based on Enthoven's ideas, are already under way. The first HMO is also about to be started in Switzerland.

The DRG system has been introduced, at least on the research agenda, in most European countries from Sweden in the north to Portugal in the south. There is also a very interesting experiment under way with financial incentives for hospital efficiency in Leningrad, U.S.S.R. (Hakansson et al., 1988). The research and the experiments in Europe will give not

only interesting comparative data on DRG groupings, but also information about how, for example, physician costs can be integrated in the DRG payment and how this will change the weights.

Medical technology assessment, including consensus conferences, has also been imported into Europe from the United States. The Netherlands and Sweden have been in the forefront of this movement and have established special government committees for MTA. The European Regional Office for the World Health Organization has a special program for MTA, and introduction of MTA is one of the targets for "Health for All" by the year 2000. Within the European Common Market, a special committee for MTA has been set up within the health service research committee. It seems that today, MTA is more vital and growing in Europe than in the United States. This will, in the longer term, produce important information on medical technologies that are also used in the United States and will give lessons on how MTA can be implemented as part of health policymaking.

Conclusion

The single most important lesson from the European health care systems during the 1980s concerns the role of central government. The European systems have been able to reduce the total costs of health care not so much through central planning and regulation as through global budgets at the regional level. In fact, the role of the central government in health care policy has never been as strong in Europe as is perhaps thought in the United States, and during the 1980s there has been a strong trend toward decentralization. The reason for this is the obvious difficulty in managing such a huge and complicated system from the center. Compared with Europe, the U.S. Federal Government seems to have less control over the totality of the system, at the same time that it is more directly involved in detailed regulation of efficacy, safety, and price setting. Leadership and control of global expenditures and decisions regarding the comprehensiveness of the system must come from the center, but planning and management should be left to the regional level. Decentralization can be combined with internal markets and competition among providers. Planning and markets are not necessarily antithetical; they can work together to create better health services.

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Respondents:

Klaus-Dirk Henke

The Federal Republic of Germany (hereafter called Germany) proves that one can achieve universal enrollment and comprehensive insurance coverage without having a form of socialized medicine. In addition—and this is a European challenge to the United States—medical care is provided to everyone, regardless of income, social status, or residence. This is accepted as a major goal of national health insurance in Germany and other European countries.

The sickness fund system, which covers approximately 90 percent of the population, is decentralized and self-governed by autonomous administrations. There are no government agencies; the funds are almost completely independent of the

Federal Government and the States (Länder). Federal law merely requires that persons with incomes below a certain level receive mandatory health insurance coverage and that health care be sufficient and effective according to the standards of medical practice. This means that the organization of the sickness funds and the medical associations make their negotiations in the fields of hospital and ambulatory care, dental care, medical appliances, etc., in principal without government interference. This mixture of Federal control and decentralized administration is typical of the European countries, as Jönsson has written.

The statutory insurance plan, with the underlying principle of self-government, is administered by some 1,150 different funds (local sickness funds, industrial funds, crafts funds, rural funds, sailors' fund, miners' fund, blue-collar-workers' funds, and white-collar-workers' funds). The different types of sickness funds vary as to the number of individual member funds. In 1988, almost 24 percent of all funds were local sickness funds, with 46 percent of the mandatorily insured. At the same time, the industrial funds, comprising more than 60 percent of all funds, covered

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only approximately 11.5 percent of the population insured with the sickness fund system.

The funds are governed by a board of directors and an assembly of representatives from both the insured employees and their employers. The payroll tax that finances the system is split equally between the employees and employers. The payroll tax base consists mainly of wages, salaries, and lately also pensions. Thus the payroll taxes are totally independent of individual, medical, and social risks of the insured and provide coverage for the insured and (nonworking) family dependents. In case of unemployment, old age, disability, or poverty, special provisions are made for paying contributions. Either other branches of the social security system (old age fund, unemployment fund, etc.) or the Federal/regional government pays the contribution fees. In Germany, the old age fund provides a transfer to the statutory insurance fund system, and the unemployment fund pays the fees in case of unemployment. The unemployed, disabled, or aged are covered within their fund, and the fund is compensated for the fees.

The tax base for the payroll tax is defined by the Health Insurance Law and does not correspond to the broader concept of income used for taxing personal income. Copayments (user charges) under statutory health insurance are limited to a few items, such as dentures, eyeglasses, and prescription drugs. There is also a small daily charge for the first 14 days in a hospital, and a daily charge for inpatient rehabilitation treatment. Experts estimate the total of copayments to be only about 5 percent of total health care expenditures of the statutory sickness funds. This percentage will rise in the near future as a consequence of the 1989 health reform law, one of the major objectives of which is the stability of the payroll tax rate, which is presently at a level of almost 13 percent. The philosophy behind payroll tax stability is to steer the health care sector according to the revenue available and thus hold down labor costs. The current payroll tax rate, which may (from an American perspective) seem incredibly high, finances all the benefits under the plan that are centrally defined, with only little freedom for the funds to add certain services.

The sickness fund plan

The insured population is limited by residence and occupation in its freedom to choose a sickness fund. Approximately 50 percent of the individuals may choose their own health insurance, but this choice does not mean that the benefit packages differ much. The benefits (services) under statutory health insurance in Germany are almost the same for all covered persons and include:

- Free ambulatory care and free (unlimited) hospital care.
- Freedom to choose any general practitioner or specialist (including dentists) registered with the sickness fund.

- Preventive care.
- Family planning.
- Medical services when needed for rehabilitation.
- Maternity benefits (free pregnancy tests, free ambulatory and hospital treatment, midwife care, cash benefits, and household help if the pregnant woman has children under 8 years of age or a disabled child).

Legal maternity leave extends from 6 weeks prior to 8 weeks after confinement. Moreover, the mother can choose to stay at home for 6 months after confinement, with a small monthly salary paid by the employer.

Upon expiration of the continued payment period (generally 6 weeks, during which the employer continues to pay one's salary), an employed person insured by statutory health insurance receives, when he or she is unfit for work, sick benefits (80 percent of the normal wage or salary) for a period of up to 78 weeks (within any 3-year period). When this period expires, the beneficiary is entitled to a pension based on disability or to social assistance (welfare payments). With the new health insurance law, benefits for people who care for the elderly, new services in prevention, and quality assurance are included under the sickness fund plan. At the same time, certain services are reduced (e.g., burial allowances, cash subsidies for dentures).

The range of benefits is extended by a certain degree of competition among the various sickness funds, which may provide extended medical services. The Health Insurance Law requires that medical care be "sufficient and effective according to the standards of medical practice." With only the qualification that it be "necessary," the built-in tendency for expansion of benefits is further strengthened in the system. Furthermore, adjudication of insurance claims is handled by a system of special courts (Sozialgerichte), which are generally inclined toward a generous interpretation of the claimants' rights.

At present there is a lively political and academic debate about the various risk structures of the different funds. With regard to age, sex, number of family dependents, and payroll tax base, there are significant differences that cause unfair competition among the funds. Various solutions for balancing these risk structures are in the center of the discussion and are considered a major subject for further health care reforms. A balanced risk structure would offer a basis for persons to choose not to participate in the system and to choose from a variety of health plans with a minimum level of protection. At present, only persons with incomes above a certain income level (54,900 Deutsch marks in 1989, which is roughly equal to the average annual employee compensation) may join a private health insurance plan. If one's income again falls below the (dynamic) income level, he or she may stay in the private plan or go back to the statutory health insurance plan.

In addition to the statutory health insurance system, there is a small public health service, administered and financed on a local basis, and a factory-based

physician service, organized and paid for by the employers, in large companies.

Health care for the mentally ill is considered to be poor. Care for the elderly in nursing homes is not included under public or private health insurance plans and is financed by local welfare funds, if individual incomes are insufficient to cover the nursing home bill.

Redistributive effects

Benefits from private health insurance are, to a certain degree, equivalent to those already described, except that private insurers offer a variety of plans with copayments. But one must keep in mind the different redistributive effects of an income-related financing system and a risk-oriented premium system. According to the provision of benefits and income-related financing, there are not only risk-related redistributive effects between age and sex groups but also between:

- Single-person households or couples without children, and families.
- Persons with differing incomes.
- Retired persons and employed persons.

These and other processes of income redistribution through the statutory sickness fund system are known on a qualitative level but are largely unknown quantitatively. This is particularly true when considered from a life-cycle perspective, rather than a cross-sectional-analysis view. In private health insurance plans, these effects are restricted to distributive effects within the age cohort in question. These effects play a significant role in the European context and are not particularly dealt with in Jönsson's article. The sickness fund system is a significant instrument of income redistribution. Politicians must decide whether they want this redistribution restricted to the population involved or to the total population through the tax transfer system. Many experts already consider the social security system in Europe to be part of the overall transfer system.

Lack of cost-consciousness

A negative feature of German national health insurance is the absence of cost consciousness among physicians and patients. A major cause could be that there is no direct economic relationship between the two. The basis of demand for health services is the sickness voucher that each insured person receives on request from the sickness fund for each calendar quarter. Providers keep a record of the services rendered on the sickness voucher, which is normally not signed by the patient. The patients insured by the statutory health insurance fund are not given an invoice for their medical treatment either. Office-based physicians receive their reimbursement quarterly from the various statutory health insurance funds to which their patients belong and by way of the regional physicians' association (Figure 1). Because of

this institutional setting and because copayments still play a minor role, cost consciousness on the part of patients and physicians is severely underdeveloped. This may lead to both fiscal illusions and an abuse of the system by both parties. Patients may insist on overtreatment or certain types of services. Doctors, in turn, are stimulated to provide these services by the fee-for-service system, which induces them to see as many patients as possible and to provide as many services as possible in a given time span. A better understanding of costs and benefits could be achieved in Germany if health insurance were changed from a system of benefits in kind to a cost-reimbursement system, in which the patient pays the medical bill first, then is reimbursed by the sickness fund. This system, although difficult to introduce completely, would then facilitate the introduction of certain types of coinsurance. At present, expenditure targets and other cost-control mechanisms are being installed or intensively discussed for the different sectors (pharmaceutical, inpatient, or outpatient care, etc.).

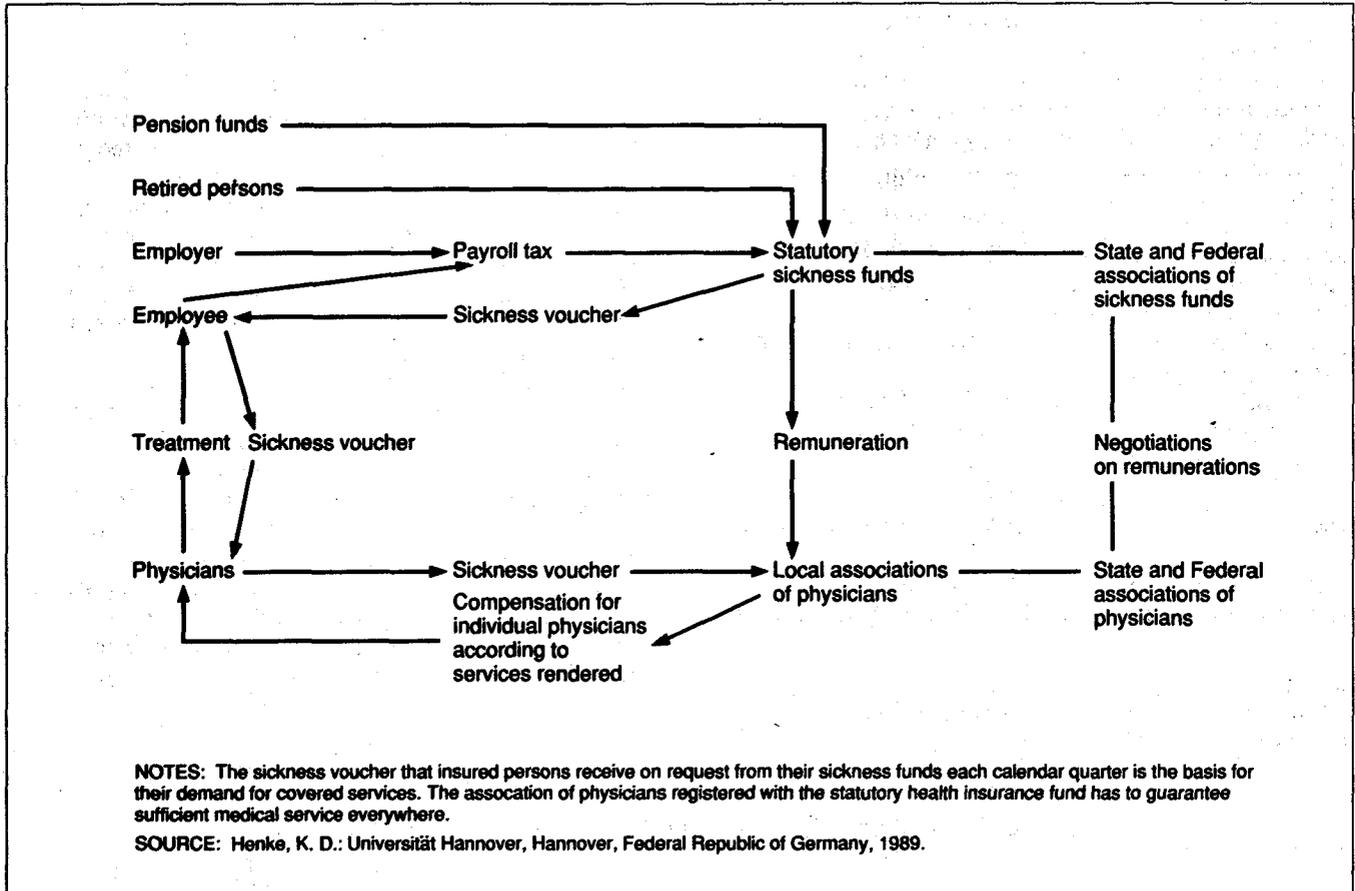
Cost containment

Health care expenditures could be reduced in many ways. For example, many routine physician activities could be handled by paraprofessionals, thus saving money. Such activities include renewing prescriptions and issuing certificates of illness, which are needed by patients to receive their sickness allowances. More and better medical knowledge, healthier life styles, risk rating, and more concern for medical costs must not be ignored. Programs to better inform and educate patients are still in their infancy and call for further debate and vision. Furthermore, the power of the sickness funds must be increased to make them more effective when negotiating with the physician associations.

In 1977, a new instrument of health policy was established, called Concerted Action in Health Care, bringing together the main participants in the health care system, i.e., representatives of health services providers, health insurance funds, employers, trade unions, and State and Federal governments. Concerted Action deals primarily with managing the expenditures of the statutory health insurance funds. Its participants will develop recommendations to improve efficacy and efficiency in health care. On the basis of the findings of Concerted Action, the providers and funds make their negotiations and contracts.

Since 1986, a board of (medical and economic) advisers to Concerted Action in Health Care provides in its annual reports medical and economic guidelines on which Concerted Action can base its various recommendations. Concerted Action is the major forum in which the various health care participants meet publicly to decide upon the further development of the health care system. In particular, the group discusses the allocation of financial resources of the statutory health insurance funds for the various types of services.

Figure 1
Flow of funds and sickness vouchers in ambulatory care: Federal Republic of Germany



To realize a constant payroll tax rate, expenditures for the various types of health services may, on average, increase only by the rate of growth of the payroll tax base. This economic guideline should, in fact, leave enough room for the expenditure categories to increase by different rates, according to necessary changes in the treatment mix. But there is still the question of who will establish health care priorities and by what means these priorities will be set. With payroll tax rate stability being a major objective, a permanent change of emphasis from unnecessary to indispensable health services is called for. In making this change, the right incentives are important, if one does not want the government or parliament to define health care priorities. In addition, it is necessary to discuss in more detail the development of and the differing pricing mechanisms in the various health care fields (e.g., dental, inpatient, outpatient, pharmaceutical). Otherwise, it is impossible to find ways to equalize—as the economists would say—the

marginal utility of health care expenditures by the statutory health insurance system. So far, there are no evaluative studies concerning the effectiveness of these cost-containment efforts.

Summary

In case the majority of Americans want more universal and comprehensive insurance coverage, while avoiding socialized medicine (in either provision or financing of care), the German, Dutch, French, and other European health care systems offer valuable lessons. Their experiences prove that federally mandated systems need not include federal administration of the system. At the same time, federal leadership is required to encourage competition. International health services research is needed to provide the necessary data, including better and more up-to-date information on current health care reforms in Europe.

Uwe E. Reinhardt

In this commentary, I should like to summarize my understanding of Jönsson's article and complement his remarks with some additional perspectives. To provide a backdrop for my remarks, I begin with a bird's-eye view of the fiscal relationships in modern health care. Next, I employ a compact menu of alternative cost-control policies to highlight the differences between the European and the American approaches to that task, relying on both Jönsson's and my own insights into European health systems. Finally, I comment on the "convergence theory" proposed by Jönsson and add another convergence theory of my own.

I should mention at the outset that I have enjoyed reading Jönsson's instructive paper and that I have gained valuable new insights from it.

Economic relationships in health care

At the highest level of abstraction, the economic relationships embedded in the delivery of health care

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can be distilled into three distinct nexuses, as shown in Figure 1.

In nexus A, a third-party payer—either a private insurance carrier or a government—shoulders the financial risks of illness the patient would otherwise face, in exchange for a transfer of money. At one extreme, this transfer takes the form of "actuarially fair" insurance premiums that reflect the insured's own health status as best as it can be determined by the insurer, as would be the case for an individually purchased health insurance policy bought from a commercial carrier. At the other extreme, the transfer takes the form of taxes or premiums that are totally divorced from the insured's health status and based strictly on ability to pay.

All of the European health insurance systems are based on the latter extreme for the great bulk of their populations, because Europeans tend to view actuarially fair health insurance premiums as manifestly unfair and believe that contributions to health insurance should be based on ability to pay. Most Americans probably abhor actuarially fair health insurance premiums as well. Indeed, the bulk of Americans are covered either by tax-financed government programs or by private group policies that socialize health insurance, at least within the community of a single business firm.

Figure 1
Economic relationships embedded in the delivery of health care

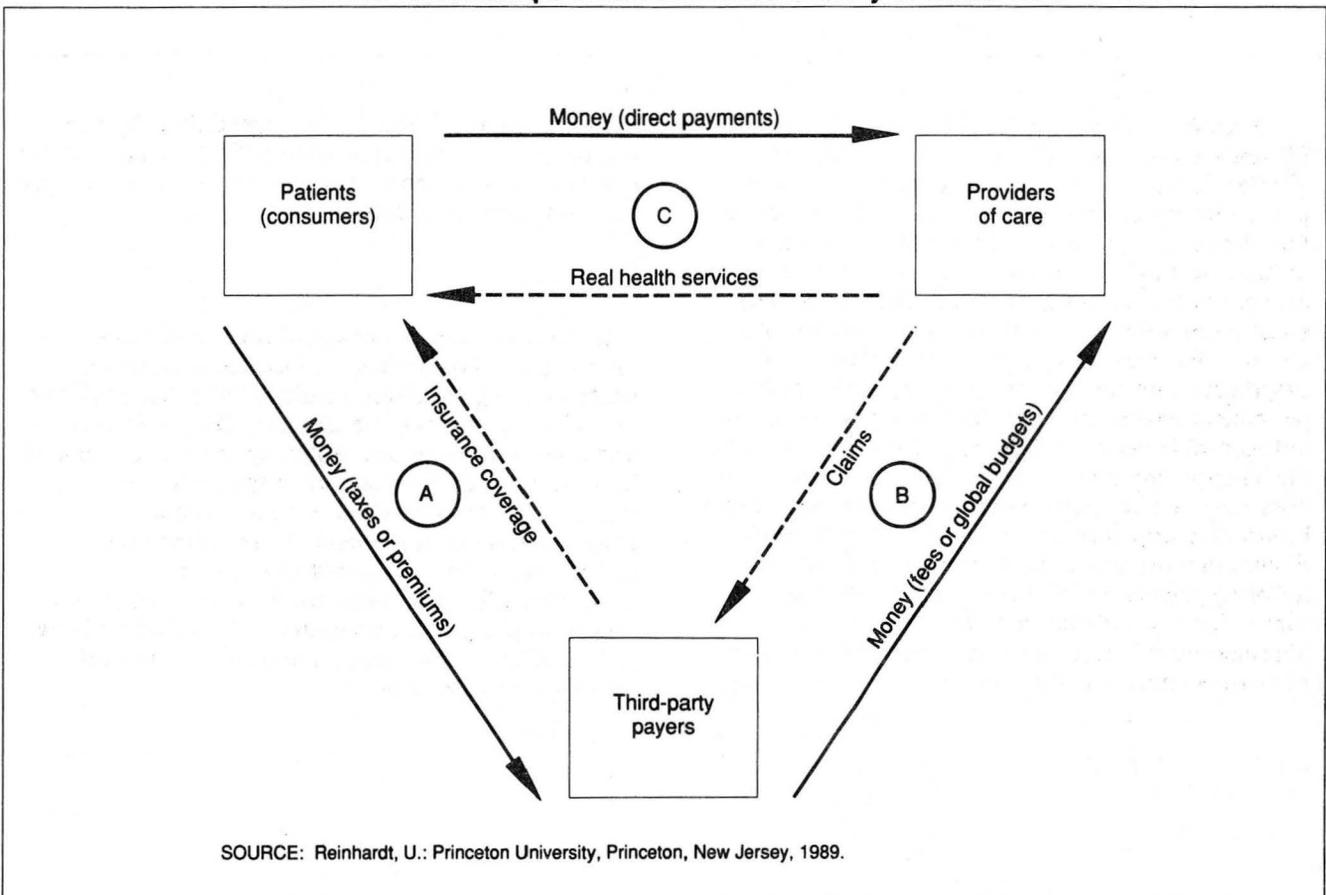


Table 1
Distribution of health expenditures, by
magnitude of expenditures: United States,
selected years, 1970-80

Percent of population ranked by expenditures	1970	1977	1980
Top 1 percent	26	27	29
Top 2 percent	35	38	39
Top 5 percent	50	55	55
Top 10 percent	66	70	70
Top 30 percent	88	90	90
Top 50 percent	96	97	96
Bottom 50 percent	4	3	4

SOURCE: (Berk, Monheit, and Hagan, 1988).

In nexus B of Figure 1, the third-party payer transfers money to providers under a variety of distinct compensation methods. These methods may range all the way from piece-rate compensation (triggering a money flow for each distinct service or supply a provider reports to have delivered to a patient) to prepaid compensation in the form of capitation or salaries for physicians or global budgets for inpatient facilities. One finds all of these methods used in the European health systems.

Finally, in nexus C of Figure 1, health services and supplies are transferred from individual providers of health care to individual patients. Nexus C represents what economists call the "market" for health care (services and supplies). In fact, however, that nexus does not constitute the genuine market of textbook fame, for at least two reasons. First, depending on the patient's insurance status, nexus C may or may not trigger a money flow in the opposite direction at the time services are received. Absent that money flow at the time services are received, the recipient is spared the benefit-cost calculation that is the sine qua non of a well-functioning market. Second, as is suggested in Table 1, in any given year, the bulk of the transactions in nexus C is accounted for by only a few individuals who can be assumed to be quite sick and usually frightened when they enter this market. These sick and frightened individuals, or their relatives, probably could not offer providers the vigorous countervailing power one observes in markets for regular commodities, even if they were forced to bear the full cost of health care at point of service.

The best one can hope for under these circumstances is that the patient's physician will act in all cases as the patient's financially disinterested agent. That assumption becomes strained under fee-for-service compensation, especially when it is coupled with third-party payment.

Controlling health care expenditure

The much-discussed percentage of the gross national product (GNP) that a nation is said to devote to health care actually measures only the money transfers made to providers in nexuses B and C; it

does not reveal what real resources actually flowed to patients in return for this money transfer. Strictly speaking, that percentage also includes whatever funds the third-party payers retained as income or to cover administrative expenses. Furthermore, it includes certain expenditures (e.g., the construction of certain types of facilities or spending on basic medical research) not factored into the payments made directly to the providers of health care. Even within an American city, one finds vast differences in the money transfers made to doctors and hospitals for well-defined standard medical procedures, and one observes similar variation across national borders.

There is, then, considerable leeway in the amount of GNP that providers can extract from the rest of society per unit of health service and overall. American readers, for example, should be intrigued by Jönsson's suggestion that the amount of GNP transferred to American providers per patient treated with extracorporeal shock wave lithotripsy (ESWL) appears to be about 50 percent higher than the amount of GNP per patient that Swedes transfer to their providers of ESWL. To be sure, Jönsson's is a very rough estimate. Even so, he is correct in asserting that much could be learned by Americans from Europe in the use and pricing of new medical technologies.

To control the allocation of GNP to providers, the rest of society must somehow control not only the amount of money providers may extract from society per unit of real resource transferred to patients, but also the flow of real resources applied to given medical conditions. In other words, some limits will always have to be set on the providers' clinical decisions. This cost-control process is inherently rancorous, because providers will generally seek to maximize the allocation of GNP to themselves, and the rest of society will seek to minimize it.

Conflict over the proper size of this allocation is thus a fundamental state of human nature in health care everywhere, and at all times. It is all the more so because sick individuals can easily feel exploited by providers, while providers can easily feel underpaid for the magnificent services they believe they are rendering their fellow human beings. As early as the 18th century, for example, the Babylonian King Hammurabi felt moved to settle this inherent conflict by including in his famous code a binding fee schedule for physicians (Lyons and Petrucelli, 1978). Modern governments in Europe and Canada typically have felt compelled to do likewise, and a stirring in this direction can be discerned now even in the United States.

In Figure 2, a compact summary of the various approaches used in modern economies to control the allocation of GNP to health care providers is shown. This control may be sought on either the supply side or the demand side of the health care process, and it may be sought with either macro- or micromanagement of that process.

Figure 2
Alternative cost-containment strategies in health care

Target	Micromanagement	Macromanagement
Supply-side strategies	<ul style="list-style-type: none"> ● Encouragement of efficiency in the production of medical treatments through economic incentives, for example, diagnosis-related groups or capitation. ● Legal constraints on the ownership of health care facilities. 	<ul style="list-style-type: none"> ● Regional planning designed to limit the physical capacity of the health system and to ensure its desired distribution among regions and social classes.
Demand-side strategies	<ul style="list-style-type: none"> ● Conversion of patients to consumers through cost sharing. ● Hands-on supervision of decisions of doctors and their patients (managed care). 	<ul style="list-style-type: none"> ● Predetermined global budgets for hospitals and expenditure caps for physicians.
Strategies aimed at the market as a whole		<ul style="list-style-type: none"> ● Price controls.

SOURCE: Reinhardt, U.: Princeton University, Princeton, New Jersey, 1989.

European macromanagement

As Jönsson shows, most European nations tend to emphasize macromanagement in the control of their health systems. They seek to guide their health systems not primarily through the use of fine-tuned financial incentives aimed at providers and patients but instead through direct, regulatory edict.

The supply side of European health systems is typically managed with explicit regional planning, designed to distribute health care equitably among regions and social classes. In addition, there are usually strict limits on the overall physical capacity of at least the hospital sector, designed to control the flow of real resources into health care.

Because the supply-side regulations favored in Europe inevitably create provider monopolies, these regulations are accompanied on the demand side by strong controls on the compensation of providers. The European nations achieve these demand-side controls by concentrating the flow of money from third-party payers to providers (nexus B in Figure 1) into one or more large pipes, the monetary throughput of which can easily be controlled with the turn of one or more powerful valves. These valves are operated either by a government (e.g., in the United Kingdom and the Scandinavian countries) or by regional associations of private health insurers endowed by statute with quasi-governmental powers to operate all-payer systems that negotiate binding contracts with regional associations of providers as in, for example, the system of the Federal Republic of Germany (hereafter called Germany).

Usually, the individual European patient is not viewed as a potent agent of cost control—certainly

not in the case of serious illness. Indeed, in many European countries (the Scandinavian countries, the United Kingdom, Germany, and Italy), nexus C, between patients and providers, does not involve a money flow at all.

Where European providers are compensated on a fee-for-service basis, their prices are typically subject to binding price ceilings. In such cases, the utilization of services is usually monitored by third-party payers through retrospective statistical profiles of individual providers, who may face financial penalties if they deviate significantly from the average. Because it is so difficult to effectively control the volume of health services through retrospective utilization review, however, the demand side in European health care is frequently subject also to fixed overall budget constraints. This approach is natural where the public sector actually owns the bulk of health care facilities (e.g., in the United Kingdom and the Scandinavian countries). But such overall budget caps are now being used also in countries dominated by private providers. In Germany, for example, the individual physician in ambulatory practice is compensated on a fee-for-service basis, but subject to a global expenditure cap for all physicians in a region (the state). If total billings by physicians exceed the global budget, fees are later reduced commensurately. (Inpatient physician services are rendered by salaried physicians employed by the hospital and thus are not affected by this cap.)

Americans who look to European health systems as potential models for the United States learn from Jönsson's article that many Europeans are now actually somewhat disillusioned with the heavy-handed fiscal and physical controls on their health systems.

To be sure, they have been successful in stemming the flow of money to providers. Throughout the 1980s, most of these systems have succeeded in maintaining the percentage of GNP going to health care at a relatively constant level, ranging between 6 and 9 percent across Europe. At the same time, health spending in the United States rose from 9.1 percent of the GNP in 1980 to 11.4 percent in 1987. On the other hand, the regulatory strictures in Europe often limit the freedom of choice available to patients and, in particular, the amenities accompanying the delivery of care.

For many years now, European health policy analysts have scouted the American landscape to learn which of the many new economic arrangements developed and practiced here might be grafted onto the European systems. As Jönsson notes, attempts are under way now to insert such American inventions as diagnosis-related groups (DRGs) and health maintenance organizations into the regulatory European systems. How these American inventions perform within the more highly regulated European structures, suggests Jönsson, will furnish a valuable object lesson for Americans, who are beginning to question their entrepreneurial, market-driven health system and to reexamine their traditional aversion to regulation.

American micromanagement

Throughout their history, Americans have been fearful of concentrating economic power in the hands of a few who might be either corrupt, or inept, or both. Consequently, Americans have traditionally looked askance at regulatory macromanagement of their health care system. Instead of concentrating the flow of money to providers into one or a few major pipes, the American health system lets these funds flow through a myriad of small, uncoordinated conduits coming directly from patients (nexus C in Figure 1) and from literally thousands of third-party payers, including governments at all levels, business firms, insurance companies, labor unions, and countless private, voluntary agencies (nexus B).

The global health care budgets imposed in Europe can easily be kept too tight, thereby withholding from the citizenry health services that they might wish to procure and to finance. Such mistakes are unlikely in the pluralistic American system, where any attempt on the part of one third-party payer to tighten the valve under that payer's control would quickly result in loss of access to health care for patients insured by the payer. An individual payer—even one as large as a nationwide commercial insurer or General Motors—will therefore always think twice before attempting rigorous cost-control over providers, even if the payers believe they are paying too much for too many services and supporting vast excess capacity in the system.

And therein, of course, lies one reason for this Nation's extraordinarily high health care expenditures. For better or for worse, our health system is designed

to render patients and third-party payers relatively impotent in the market for health services. This then vastly enhances the GNP share that providers can receive, not only per year but also per unit of health care delivered. Where European (and Canadian) providers have for years chafed under the yoke of a monopsonistic health care market—leaving the rest of society luxuriating in relatively low health care expenditures—their American counterparts have been able to luxuriate in a system over whose financial flows they have wielded substantial control through the principle of “divide and rule”—leaving the rest of American society to chafe under the yoke of seemingly uncontrollable health expenditures.

In seeking control over their ever-rising health care costs, Americans have meandered back and forth between advocacy of government regulation and espousal of free-market principles (Altman and Rodwin, 1988). During the 1960s and 1970s, for example, American health policy tended to move toward more regulation, which went so far as to embrace, during the mid-1970s, some feeble and therefore unsuccessful attempts at regional planning. During the early 1980s, Americans had tired of regulation—without really having tried it—and embraced with enthusiasm the so-called pro-competitive market approach. At this time, the Nation appears to be tiring of that approach as well—once again, without really having tried it—and the 1990s are likely to witness a reversion to various forms of regulation.

The so-called pro-competitive strategy of the 1980s was based on the thesis that a set of carefully crafted financial incentives could efficiently and optimally allocate real health care resources among patients and could also determine the proper allocation of GNP to providers. These incentives were to be aimed at both the supply side and the demand side of the health care market. The effectiveness of that approach, in terms of its stated objectives, remains a matter of controversy.

Micromanagement of the supply side

Global constraints on the supply side, so common in Europe and briefly espoused during the 1970s even in the United States, are anathema to the new American “market strategy.” On the contrary, that strategy openly invites the Nation's profit-seeking entrepreneurs to find in health care a new economic frontier. In that respect, the strategy certainly has been successful. It has drawn into health care not only vigorous entrepreneurship in the development of new health care products and delivery systems but also new legions of management, marketing, and financial consultants needed to help both payers and providers cope with the turmoil and complexity of the new market environment.

The market strategy did call, on the supply side, for paying providers in a manner that would induce them to minimize the real-resource flow to patients per episode of illness. Thus, prepaid capitation for

Table 2
Percent of family health expenditures paid for out of pocket, by type of service: United States, 1977

Type of service	Percent paid out of pocket
Outpatient physician services	49
Inpatient physician services	22
Outpatient hospital care	21
Inpatient hospital care	9
Dental care	72
Prescribed medicine	73
Other	60

SOURCE: Kasper, J. A., Rossiter, L. F., and Wilson, R.: A summary of expenditures and sources of payment for personal health services from the National Medical Expenditure Survey. Data Preview No. 24. National Center for Health Services Research and Health Care Technology Assessment. Public Health Service. Rockville, Md. May 19, 1987.

comprehensive health care, in place of fee-for-service compensation, became the ideal among both private and public payers. For its part, the Medicare program switched from paying hospitals retrospectively for reported actual costs to paying them predetermined global fees per medical case, based on the assigned DRG. One may think of it as prepaid capitation per inpatient medical case.

Micromanagement on the demand side

Initially, the market strategy envisaged that the search for health care mammon on the part of the newly invigorated health care entrepreneurs (doctors and hospitals now exuberantly among them) could readily be controlled by a resuscitated demand side. Fundamental to this demand-side strategy was the conversion of the American patient into the genuine consumer of textbook fame. This conversion was to be achieved by rolling back the patient's insurance coverage, which, however, had never been nearly as complete in the United States as it has long been elsewhere, even in the mid-1970s, the heyday of America's Great Society programs (Table 2).

Furthermore, as was shown in Table 1, in any given year, the bulk of all health expenditures are made in the names of a relative few, probably fairly sick, individuals. The belief that overall health care expenditures can be effectively controlled by these sick human beings at the nexus between patients and providers (nexus C in Figure 1) seems to be uniquely American and, even within the United States, uniquely incident upon the economics profession, whence the idea originated (e.g., Baumol, 1988¹).

¹In his testimony, commissioned by the American Medical Association and presented before the Physician Payment Review Commission (which advises Congress on payments of physicians by the Federal Medicare program), noted economist William Baumol warned the commission against the imposition of ceilings on the fees physicians may charge the aged over and above those approved by Medicare. He recommended instead that they increase cost sharing borne by the aged at the point of service, although the aged already pay for the first hospital day in a stay, 20 percent of approved physician fees (and whatever extra charges the physician may bill the patient), and virtually all prescription drugs. For the

To bolster patients in their role as consumers of health care, they (and third-party payers paying on their behalf) were to be equipped with reliable information on the cost and quality of services produced by individual, competing providers in a given market area. In practice, of course, that tactic represents a monumental analytic task, for the typical provider represents a multiproduct firm whose quality and cost are not easily captured in readable, one-dimensional index numbers that can be meaningfully compared across providers.

Remarkably, it was not deemed necessary under the market strategy to gather patients and third-party payers into organized huddles to coordinate their defensive tactics—for example, to form all-payer systems in which all payers in a market jointly negotiate single compensation rates with providers (on, say, the German mode). On the contrary, it was thought that the strategy would work best if each payer, large or small, were left to fend for him- or herself in a genuine market free-for-all. Furthermore, it was believed that, singly and uncoordinated, payers (individual patients among them) could at long last turn the tables on providers, by dividing and ruling them with genuine price competition.

The convergence of health systems

Oddly, just as many Europeans apparently have begun looking longingly at this novel American market approach, the American public itself appears to have become rather disillusioned with that very strategy. For, whatever that strategy may have achieved so far, it has not reduced the money flow to providers; it has increased that flow, even after adjustment for general price inflation (Fuchs, 1988). Furthermore, by commercializing the entire process of health care more fully than ever before, the strategy has served to worsen the plight of the estimated 31 to 37 million Americans with no health insurance coverage altogether, who find it ever more difficult to secure charity care from providers increasingly focused on their bottom line.

A problem with assessing the new market strategy has been that so little of it has actually found its way from the blueprint to actual practice, which speaks volumes on the practicality of the entire notion. It is truly remarkable, for example, that the Reagan Administration, always the most vocal champion of deregulation and markets, actually operated the health programs under its purview with the most regulatory

poor aged, these out-of-pocket expenses amount to an average of 20 percent of disposable income. "Such enhanced user sharing arrangements," Baumol suggested, "would provide a greater incentive for patients to shop around, to provide demand-side pressures that impede excessive charges, and would also help to curb unnecessary use of medical facilities." Baumol's testimony, endorsed in writing by 10 prominent economists—several Nobel Laureates among them—suggests a remarkable faith in the ability of frail, elderly persons struck by illness to function as vigilant, rational health care shoppers, capable of disciplining wayward doctors and hospitals.

regimen ever in American health care. In principle, the DRG system for hospitals is but a relative value scale for inpatient care, the monetary point value of which could have been determined either by negotiation with hospitals or even by competitive bid. Instead, however, the Medicare program has so far implemented the DRGs in a manner more reminiscent of price controls imposed by central governments behind the Iron Curtain: Year after year, the DRG rates have been set unilaterally by the Federal Government on a take-it-or-leave-it basis. Payments by Medicare to physicians have also been subject to unilaterally set price ceilings throughout much of the 1980s.

Nor has the supply side of the American health care market ultimately remained as free of direct regulation as certainly the providers of health care once hoped it would be. To control the flow of health services from providers to patients—a flow that the new health care consumers seem either unwilling or unable to control—both public and private third-party payers increasingly intervene directly in the individual physician-patient encounter. This is done by means of what is called “managed care,” that is, by prospective, concurrent, and retrospective reviews by outside monitors of individual medical treatments. (I consider the peer review organizations to be a form of managed care.) Although European health systems relying on fee-for-service compensation do employ retrospective statistical profiles of individual providers (notably physicians), the direct outside interventions into individual medical treatments now increasingly common in the United States are as yet unknown in Europe. The proponents of the American market strategy may well conceive of these interventions as normal features of a market. American physicians and hospitals, however, decry them as nettlesome private and public regulation of their professional domain, which, of course, they are.

In the meantime, American patients, providers, and third-party payers alike are beginning to appreciate that the American style of micromanagement visits upon all of them a vexatious and costly paper war that can be handled only with the help of specialized paper-war consultants. The cost of this paper war alone, relative to the much simpler Canadian and European health systems, has been estimated to amount to some 8 percent of total national health expenditures, which would be about \$48 billion in 1988 (Himmelstein and Woolhandler, 1986). That figure, however, does not even include an imputed value for the time patients spend choosing among competing insurers and claiming reimbursement from insurers.

In a recent nationwide survey, about 90 percent of those surveyed felt that the American health system requires “fundamental change or a complete rebuilding,” and, remarkably, more than 60 percent professed an outright preference for the Canadian health system (Blendon, 1989). Although it is never quite clear just what one such survey really portends, it is, as noted, a safe bet that the United States will

embrace a more regulatory approach during the decade ahead. Indeed, the Government is likely to be encouraged in this direction by American businesses, which now finance, through employer-paid health insurance coverage, more than one-third of the national health bill and which now find themselves at a loss over how to control that ever-growing drain on their treasuries.

It is therefore quite possible, as Jönsson implies, that the American and European health systems may eventually converge onto a common middle ground. If so, these systems might learn from one another as they stumble along the path toward convergence.

Just what that common ground might ultimately look like remains anyone's guess. Perhaps it will closely resemble the type of arrangement first envisaged by Alain Enthoven in his *Health Plan* (Enthoven, 1980 and 1989). That approach abandons the peculiar idea that health care costs can be effectively controlled by the sick and anxious individuals facing providers in nexus C of Figure 1. Instead, Enthoven envisages a two-stage process. In nexus A of Figure 1, well-informed, healthy individuals choose among competing, managed-health-care plans, offered to them by so-called sponsors, which may be either a government or a private business entity. In nexus B, these sponsors procure health care from the competing, managed-care systems, typically health maintenance organizations or other delivery systems that control both prices and utilization. Were such a system introduced in Europe, it would in effect replace the current system of highly centralized regulation with a more decentralized set of smaller, private regulators, among which prospective patients choose when they are still healthy. After all, managed care, even if administered by private plans, is nevertheless direct regulation of doctors and hospitals.

If the American and European health systems did converge toward this form of pluralistic, private regulation of health care providers, one must wonder what would happen to their respective class structures. Would the private regulators specialize by income class? That is, would the quality and amenities of the care offered by the competing managed-care plans vary by income class? Would plans offering few amenities and harsh regulation of providers be reserved mainly for low-income subscribers and plans approximating the more open-ended style of traditional fee-for-service medicine attract mainly high-income groups?

Convergence toward two-tier health care

American critics of European health care frequently decry it as two-class medicine—so-called socialized medicine for the poor and private medicine for the rich. Conversely, European critics of American health care frequently depict it as leaning toward Social Darwinism.

Both visions contain kernels of truth.

Broadly speaking, in the current European health systems, about 90 percent or so of the population share a one-tier health system. That system may couple privately owned production of health care with socialized insurance (for example, France and Germany), or it may couple socialized insurance with public ownership of substantially all production of care (e.g., the Scandinavian countries and the United Kingdom). Typically, an affluent and highly mobile 5 to 10 percent of families in these countries are permitted to opt out of the public plan in favor of private health insurance. They procure health care on what they believe to be superior terms either in their own country or abroad. In this sense, the typical European health care system does represent two-class medicine.

By contrast, Americans in the top 80-85 percent or so of the Nation's income distribution have access to what is called mainstream American medicine. But, as Rosemary Stevens demonstrates in her fascinating recent book, *In Sickness and in Wealth* (1989), even this mainstream system has always reserved special treatment and accommodations for the high upper income groups. Millions of low-income uninsured or underinsured Americans, however, are left merely to nibble at the fringes of this mainstream system. When illness strikes, they approach that system in the role of health care beggars in search of charity care. They may receive such care from kindly providers within the mainstream system. Alternatively, they may be relegated to sorely underfunded and overcrowded government hospitals, sometimes in the perilous process of "dumping," in which barely stabilized patients are transferred from mainstream facilities to government-owned hospitals. In some instances, such individuals are left out of the health system altogether, as countless disturbing vignettes in the daily media and some more formal surveys (Robert Wood Johnson Foundation, 1987; Blendon, 1989) suggest. At its worst, then, the American health system does seem to slouch toward Social Darwinism.

It is well known that, even after all transfer programs, America's poor have become poorer during the 1980s and the rich have become richer. It therefore can be doubted that, in the face of this dispersion of the income distribution, the United States will ever move all of its citizens into the one-class health care system the Nation has long espoused as the ideal, but has never attained so far. America's growing number of well-to-do individuals are unlikely to finance for the Nation's poor quite the quality of health care they demand for themselves. Thus, even after the convergence postulated by Jönsson, the American health system is likely to remain tiered by income class. However, with some vision and effort, the bottom tier of a future American health system could be made vastly superior to today's much-neglected bottom tier.

The question is whether the European nations can avoid a similar trend toward multiclass health care for the bottom 90 percent of their populations, who now

do share a genuine one-class health system. It may be hypothesized that the continued development of the global economy will disperse the income distributions in Europe as it has in the United States. In this newly emerging global economy, individuals endowed with either financial or human capital (i.e., education) are likely to see their relative income position improve. At the same time, the elimination of national boundaries in international trade is likely to rob low-skilled European workers of the protection they have hitherto enjoyed. They may see their real income erode, as they are forced to compete with more abundant, cheaper, unskilled labor elsewhere on the globe.

If European income distributions were to drift apart in this way, the upper-middle income classes in these nations, too, might become unwilling to finance for low-income families quite the health care they seek for themselves—health care with the technical sophistication and often luxurious settings they can witness on their visits to the United States. In fact, the yearning among some European health policy analysts for "more market" on the American model may well betray a yearning for just such tiering by income class. (I should mention that Jönsson's article does not lead one to count him among this group.)

It remains to be seen whether the *Principle of Solidarity* that has for so long now driven European health policy for all but a small, upper-income elite can survive these yearnings for more systematic tiering by income class. At the very least, one would expect the still-tiny private health insurance markets in these countries to grow in size. Perhaps the future evolution of the European health systems will teach Americans that the lack of social solidarity typically ascribed to American health care—and most assuredly typical of American education and jurisprudence—is actually the more natural long-run state of nature.

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Karen Davis

Introduction

Jönsson makes a compelling case for the importance of international comparisons of health care systems. Increasingly, health systems in industrialized nations around the world are facing similar problems. The diversity of solutions attempted by different countries yields fertile ground for learning from the ideas and experience of others. Worldwide improvements in communication, information technology, and transportation are converting the world into a global village. Increasingly, nations are realizing that health problems do not recognize national boundaries, regardless of whether the problem is acquired immunodeficiency syndrome (AIDS), drug addiction, or the aging of the population.

In the United States, there is a new interest in learning from the experience of health systems in other countries. In part, this interest is stimulated by new information and data bases that make investigation of other experiences possible. In part, it is a reflection of growing discontent with rapidly rising health expenditures in the United States, coupled with the persistent gaps in health insurance coverage and barriers to access to health care. More fundamentally, it is linked to growing uneasiness about the future of the U.S. economy, and its ability to maintain international competitiveness and a standard of living that has been the highest in the world.

This new interest in international experience does not mean that the United States is likely to adopt the health system of any other country in total. Instead, the United States is likely to continue to shape its health system based on the historical, political, cultural, and economic forces that have shaped it in the past. Research and analysis of the merits of other systems, however, can identify features that show promise of being incorporated in the U.S. health system.

Considerable barriers to capitalizing on the experience of other nations, however, exist. Funding for cross-national studies is extremely limited. Exchange programs to help scholars learn about other systems through indepth exposure are rare. Some of

the aspects of European health system performance that show the greatest promise for adaptation to the American health system are highlighted in this article, and I offer suggestions for some steps that could be taken to facilitate building on this experience.

Comparative performance of health systems

Jönsson joins others (Schieber and Poullier, 1988) in questioning the performance of the U.S. health system. He notes that the United States has higher health expenditures as a percent of gross domestic product (GDP) than do all European countries. Further, he finds that this higher share of economic resources devoted to the health sector cannot be totally explained by the greater prosperity of the United States and the tendency of countries to devote disproportionately more resources to health as per capita income grows.

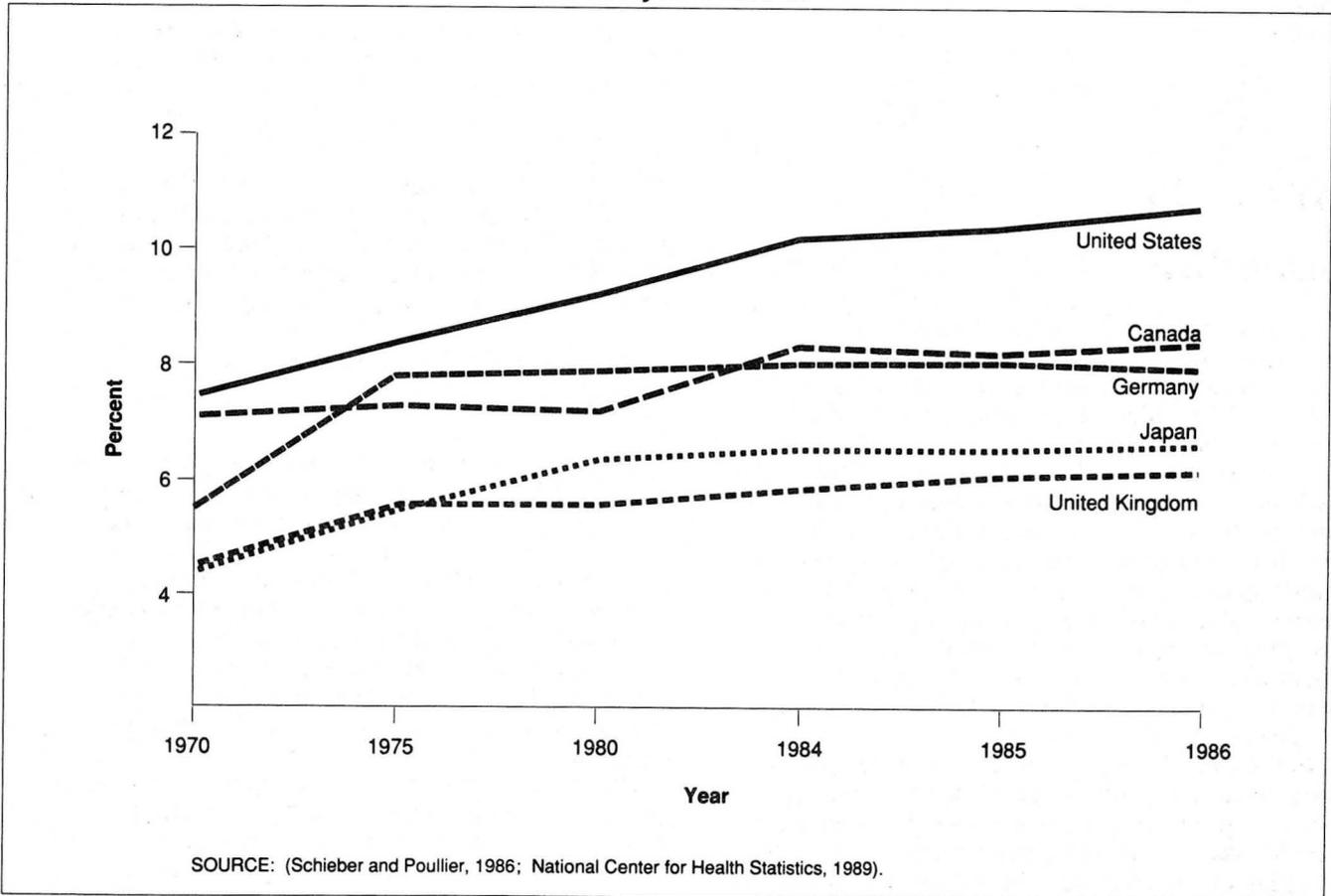
The growing evidence on the comparative costliness of the U.S. system in the face of inferior health performance shatters many myths that have long been held by policy officials and health professionals. Recent polls have shown that the U.S. public is also more highly critical of its system than are citizens of other countries (Blendon, 1989).

The evidence on the high cost and inferior performance of the U.S. health system strikes at a number of widely held beliefs. It has been argued in the United States that universal health insurance coverage, although desirable on humane grounds, is too costly and would be inherently inflationary. The ability of nearly all other industrialized nations to cover their entire populations with very little patient cost sharing, while devoting a smaller fraction of GDP to health, counters this view rather forcefully.

Perhaps even more disturbing is the fact that health spending continues to increase as a share of GDP in the United States but stabilized during the 1980s in other industrialized nations (Figure 1). In 1970, the United States and Canada each spent 8 percent of their respective GDPs on health care. In 1986, the U.S. share had risen to 11 percent, but Canada's remains at 8.5 percent (Evans, 1989).

This experience argues convincingly that greater reliance on market forces and competition among health systems in the 1980's have not improved U.S. health system performance. Instead, it appears to have worsened relative to other nations that have instituted a stronger governmental role in the

Figure 1
Total health expenditures as a percent of gross domestic product: Selected countries, selected years 1970-86



establishment of hospital budgets and physician payment rates.

The better health performance of European countries also strikes at the widely held view in the United States that the U.S. health system is the best in the world. Americans are increasingly troubled by the failure of the United States to insure 15-20 percent of the population, by the inadequate care provided to many disadvantaged groups of the population, and by the serious financial burdens inflicted on those with inadequate health insurance coverage who are unfortunate enough to have a serious illness (Davis, 1989; Blendon, 1989).

Health performance

Jönsson points to the high rate of infant mortality in the United States as "proof" that the U.S. health system is not obtaining value for its money. He argues that this health indicator is an especially sensitive indicator of the adequacy of the medical care system.

Other indicators of health performance are equally troubling. The U.S. lags behind other industrialized nations in life expectancy at birth and in mortality rates from chronic conditions (National Center for Health Statistics, 1989; World Health Organization, 1984).

One difficulty in learning from European countries how to improve health performance in the United States is the absence of sophisticated studies that sort out the multiple determinants of health outcomes. Some portion of the inferior U.S. performance, particularly infant mortality rates, would appear to be linked to social and economic factors, as well as to those that are specific to the health system. For example, the United States has a higher poverty rate among children than do European countries (Sawhill, 1988). About one-fourth of all infants and one-half of all black babies are born to unwed mothers (National Center for Health Statistics, 1989). Drug addiction and alcohol abuse are epidemic in some communities. HIV (human immunodeficiency virus) infection is a growing problem in infants born to minority women.

Another difficulty in making cross-national comparisons is the difference in populations. The U.S. population, often referred to as a "melting pot," cannot be readily compared with those of Iceland or Japan, with their much more homogeneous populations. Poor birth outcomes are particularly high among minority populations, including black Americans, Hispanic Americans, and native American Indians. The United States has a large immigrant population, both legal and undocumented, which

contributes to unusually high rates of health problems in some communities. The degree to which poor health outcomes reflect social causes versus the inadequacy of the health system or insurance coverage is hard to quantify.

One useful step would be to conduct more sophisticated cross-national multivariate analyses of health outcomes, holding constant for the many factors that influence outcomes, such as poverty and other sociodemographic factors. For such analysis to take place, greater efforts must be made to ensure the comparability of health statistics across countries.

Two types of information that would be especially valuable are research disaggregated at the diagnostic level and studies of the effectiveness of specific medical procedures and patterns of care for various diagnoses. Jönsson notes, for example, the much greater use of kidney transplants for people with end stage renal disease in other countries—a technology that offers much better quality of life than does dialysis. But he also notes that a higher proportion of Americans receive treatment for end stage renal disease. Does greater use of technology buy some types of health improvements, even at considerable cost? Where could the United States reduce health expenditures without sacrificing health gains, and where should it devote more resources to achieve greater health benefits? What is the payoff for preventive health activities?

Clearly, U.S. policy officials and health experts will want to know a great deal more before identifying actions to improve health performance in the United States. The value of the analysis that Jönsson sets forth is to generate an interest in the conduct of such studies.

Cost performance

Perhaps the most convincing argument that the United States needs to examine more carefully the experience of other industrialized nations is the fact that the U.S. health system is the most expensive in the world—and that this disparity is growing greater, not smaller.

Jönsson argues that many European countries have achieved their superior cost performance through regionalization and establishment of global health budgets by government at either the central or local level. The share of the health system financed by the public sector is much higher in European countries. Many countries rely on public provision of services through government-owned hospitals and salaried physicians. Even those countries with private hospitals and private physicians impose strict controls on budgets, fees, and capital expansion.

Although this evidence is compelling, there is little likelihood that the United States will embrace such an extensive role for the public sector. Resistance to higher taxes makes it unlikely that the United States will markedly increase the share of health expenditures financed publicly. Any massive switch to a public system of providing health services would

also be strongly resisted by health care providers.

The aspects of the European health experience of greatest interest to U.S. policy officials and experts are the methods used to pay hospitals and physicians and to assess the effectiveness of services provided. Approaches such as negotiation of physician fees, establishment of expenditure targets for physician services, determination of global budgets for hospitals, medical technology assessment, and effectiveness research on medical practice patterns and protocols are all subjects of keen interest on the American scene.

It would also be extremely helpful to know more about the nature of cost differences between the United States and other countries. How much of the cost difference comes from differences in administrative costs, compensation levels of physicians, physician supply and specialty mix, medical education, medical malpractice, staffing of hospitals, hospital bed capacity, hospital admissions or length of stay, or provision of long-term care to the elderly and disabled? How different are medical practice patterns, use of technology, rates of surgery? How much of the difference in costs is related to differences in health risks, including industrialization and environmental and occupational health risks? How much of the difference is related to poverty, immigration, minority populations, or to such problems as adolescent pregnancy, homelessness, drug addiction, AIDS, and alcohol abuse? How much of the difference is inefficiency per se, versus provision of different levels and intensity of care?

Learning from each other's experiences

Although the United States could learn a great deal from the experience of other countries, a number of barriers stand in the way of this cross-national transfer. First, comparable data on health expenditures, health statistics, and other aspects of the health systems of industrialized nations are still in a quite formative stage. Much more needs to be done to standardize definitions and reporting practices to establish comparable, timely, cross-national data bases. Recently, the Organization for Economic Cooperation and Development (OECD) has begun to compile comparable health expenditure data, and the World Health Organization Regional Office for Europe (WHO-EURO) is compiling comparable health statistics on a wide variety of health outcome measures. These efforts should be continued and strengthened. Timely publication and extensive dissemination of such data are essential.

But much of the requisite research requires more disaggregated data than are available from these sources. Greater efforts should be made to conduct studies at the individual patient level, with cross-national comparison of treatment patterns, health outcomes, and costs. The very nature of financing health systems in European countries often makes it difficult to estimate the costs of caring for an

individual patient. Methodologies and data systems for making comparative cost comparisons at the individual patient level need to be developed.

A second barrier to the conduct of this research relates to the nature of funding research. European universities are predominantly public. Research is carried out by publicly funded research institutions, universities, or government agencies. This creates pressure to focus on controlled, nationally oriented research agendas. In the United States, health services researchers are frequently based at private universities or organizations, competing for limited research dollars from governmental agencies and private foundations to conduct investigations. Research funding for international comparisons has been severely limited—both by private foundations and by governmental agencies—leading to greater concentration on research within the U.S. system.

Third, the exchange of information across geographic boundaries remains a significant barrier to useful cross-national comparisons. International conferences to share research findings and learn about policy developments are limited. International professional associations are not well developed. Language can be a barrier to learning about significant developments in other countries. Professional journals reporting on cross-national research are not numerous.

Finally, there are few collaborative relationships among research groups in different countries. Developing data bases and research on comparable patient populations in different countries have not been pursued on any significant scale. Exchange programs for scholars to learn about other systems are also extremely limited.

Although these barriers are significant, they are amenable to change. The growing recognition that health services research is essential to improving performance of the U.S. health system is leading to greater support for research funding. The growing concern about U.S. competitiveness generally and the inferior performance of the U.S. health system specifically should continue to lend support to interest in learning from experiences around the world. Developments in data and research sophistication open up new avenues for investigation that should be of tremendous appeal to a growing number of researchers.

One of the most important steps that could be

taken is the institution of funding by governmental agencies and private foundations in the United States focused specifically on helping the United States learn from the experiences of other nations. Quite recently, there has been more interest in the United States in learning from the Canadian health system experience (Moloney and Paul, 1989). However, much more extensive efforts are required to draw effectively on the experience of Canada as well as of other nations.

The opportunity to learn from "natural experiments" taking place around the world has great promise. As each country grapples with ensuring good health for its people in the face of economic constraints, the demand for cross-national information is heightened. Fortunately, a growing body of trained researchers with the tools and data to facilitate such research provides a unique opportunity to capitalize on this development. The end result should be growing international cooperation and collaboration dedicated to achieving the World Health Organization goal of health for all people.

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Jack A. Meyer

Introduction

The article by Bengt Jönsson is a useful reminder that different health care systems can learn a great

deal from each other. Jönsson properly reminds us that our stereotypes of different systems, corresponding to purely market or purely regulatory regimes, are overdrawn. The U.S. system has many regulatory features, and various models of national health insurance incorporate certain marketlike incentives.

I also agree with what Jönsson calls "the convergence theory," in which planning will play an increasing role in market systems, and market-based

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incentives will play an increasing role in planned systems.

I have a somewhat different view than Jönsson has about the importance of the distinction between central planning and planning conducted at the regional or local level. He is correct in pointing out that many observers in the United States do not understand how localized the decisionmaking is in many European health care systems. But I believe his heavy emphasis on clarifying the locus of decisionmaking obscures more important distinctions.

I also have a different perspective on the apparent gaps between the United States and Sweden (or other Organization for Economic Cooperation and Development [OECD] nations) with regard to health care costs and access. I would like to point out these differences, without detracting from my general agreement with many of the specific points made in Jönsson's article.

Most papers that compare the U.S. health system with other developed countries' systems contain a familiar litany of aggregate facts that are, admittedly, rather embarrassing to the United States. For example, in 1987, U.S. health care spending as a share of gross domestic product (GDP) was 11.2 percent, compared with 9.0 percent in Sweden and 7.3 percent for the OECD countries as a group (Schieber and Poullier, 1989). This gap is probably a little wider now, as U.S. health care costs may approach 12 percent of GNP in 1990.

The United States also has more than 30 million people without health insurance, and life expectancy is about 2 years less in the United States than in Sweden. Meanwhile, the infant mortality rate among white babies in the United States is about twice as high as Sweden's infant mortality rate, and the rate among black infants in the United States is more than three times as high as the Swedish aggregate rate. Jönsson mentions some of these facts.

Most analyses of international differences that involve the United States either stop here or go on to point out that the U.S. public share of health spending (about 40 percent) is well below the OECD average of 76 percent, with the implication that this is the reason that we are the "outlier" with respect to cost and access.

This type of analysis is superficial and misleading. We must dig deeper and explore some tough tradeoffs to get a feeling for intercountry differences. And when we do, we will come face to face with major gaps in our knowledge.

The source of the difference

What makes the U.S. health care system more expensive than those of other countries? Some surprising facts are beginning to emerge. First, the cause is not excessive utilization of services. It is sometimes said (though not by Jönsson) that Americans are hypochondriacs and that this partially explains our cost escalation. If Americans are hypochondriacs, the citizens of most other countries

are worse. Cross-country comparisons of utilization make it clear that virtually every measure of utilization is lower in the United States than in other industrialized countries. As Schieber and Poullier (1988), referring to data on international differences in length of hospital stays, note in a recent article, ". . . the U.S. average lengths-of-stay for most DRGs are shorter and those for Switzerland are longer than those of other countries."

For example, in each of 12 DRG categories presented by Schieber and Poullier, length of stay is longer in Sweden than it is in the United States, and it is longer (often by a wide margin) in Switzerland than it is in Sweden. For example, in the case of cerebrovascular disorders, mean length of stay is 12.0 days in the United States, 18.8 days in Sweden, and 29.9 days in Switzerland. Jönsson describes "a strict planning and budgeting system for hospital services" in Swiss cantons. Whatever successes these planners are having, they are not reflected in hospital length of stay.

Moreover, the international differences cannot be explained by the demographics of aging. About 12 percent of the U.S. population is 65 years of age or over today, and about 17 percent of the Swedish population is in this age group. Yet, per capita health spending in the United States was \$2,051 in 1987, 66 percent higher than Sweden's figure of \$1,233 (Schieber and Poullier, 1988).

What is it then? The major factor that seems to explain the intercountry cost differences is that the United States employs many more people in the health care system and, generally speaking, pays them more. This well-paid army of workers includes not only doctors and nurses but also thousands more people in the United States than in other countries who sell insurance and administer claims. These are the U.S. "health care workers" who are not employed in the business of actually delivering health care.

About 22 percent of U.S. health spending involves administrative costs, and it has been estimated that the United States could achieve an 8- to 10-percent reduction in total health spending just from administrative cost savings if it were to adopt a national health insurance plan (Himmelstein and Woolhandler, 1986).

Thus, the explanation of U.S. "extra costs" lies largely in a combination of greater resource intensity per unit of service delivered, higher salaries for health care workers, and higher administrative costs. The greater resource intensity is not just people; it is also technology.

One more factor is worth mentioning. The U.S. malpractice system is probably adding more to costs than corresponding systems in other countries. Although reliable data are hard to find on this point, the U.S. system seems much more plaintiff- or consumer-oriented than other systems. In part, this may reflect the more fully developed social insurance systems in other OECD countries. But it also reflects the tendency in those countries not to pile huge awards from the judicial system on top of social

insurance compensation, as often occurs in the United States.

Indeed, the U.S. malpractice system has both compensation and deterrence objectives. "Collateral source offsets," or the reduction of jury awards to reflect compensation received from other sources such as workers' compensation or disability insurance, are generally disallowed. If the United States is overcompensating some people in an effort to deter dangerous behavior, other countries, in their effort to focus on adequate compensation alone, may be leaving consumers vulnerable to risky behavior. This demonstrates the value of Jönsson's call for different types of systems learning from each other and possibly converging.

Is this all waste?

The really important question is this: What, if anything, does the United States receive for this extra spending? In answering this question, many observers are too quick to assume that the United States receives nothing for it. By contrast, some who are defensive (or naive) about the U.S. system assume that, if Americans are paying more, they must be getting proportionately more in quality.

We know that Americans are not receiving longer lives from the extra 4 percentage points of GDP relative to the OECD average. But is this the end of the story? I think not.

The troubling but honest answer to my question is that we really do not know what we are receiving. In my view, the "premium" we are paying is not pure fat, and it is not pure lean—it is some of each. But it is hard to tell which is which.

My hypothesis is that highly skilled people, and more of them, along with highly sophisticated technology, and more of it, do make some difference in health care outcomes, even though it is not reflected in the life expectancy of the population. The additional human and physical capital per health care encounter that is built into the U.S. system may lead to more comfortable lives, even though not to longer lives.

The real problem is that we lack good health status and health outcome measures. There is a lot that we still do not know about the medical efficacy, much less the cost effectiveness, of many procedures. Vigorous debates—usually uninformed by reliable data from controlled trials—rage on about the effectiveness of hysterectomies, prostatectomies, coronary artery bypass surgery, and other surgeries, along with uncertainty about the number of tests and prescription drugs given to the population.

Picking up on one of Jönsson's themes involving the sharing and testing of ideas across nations, this may be an area in which other OECD nations have something to learn from the United States. Work is well under way in the United States, even though still in embryonic form, to measure and quantify health care outcomes and to profile and rank providers according to their relative effectiveness.

This knowledge is developing rapidly in both the public and private sectors. It may help us move away from the tendency to judge performance of health care systems on the basis of inputs. Judging by the amount of input, the United States clearly appears wasteful. It uses more inputs and pays a higher price for them. What it will look like as we begin to measure value—output or outcome received for any given input—remains unclear. Cross-country comparisons such as Jönsson's would be improved by taking this distinction into account.

The most interesting development in the U.S. health system today is that buyers of care—public and private—are beginning to question outcome for the first time. What most observers of international trends neglect to consider is that it is not the share of the U.S. health care system that is public or private that matters with respect to costs being out of control. Costs have been out of control in both sectors in the United States and for the same reason: Both public and private buyers did not know what they were buying and failed to confront the power of organized medicine with respect to both the price and quantity of services rendered.

Buyers in the United States are now beginning to move beyond the question of "How much does it cost?" to the question of "What happened when you did it?" and "Was it necessary in the first place?" Undoubtedly, these questions are being asked elsewhere. But the technology for answering the questions is developing rapidly in the United States and could be of use around the world, under the kind of cross-fertilization patterns that Jönsson envisions.

In my view, Jönsson's article is a bit too optimistic about the importance of decentralization of decisionmaking in Sweden and other countries. All those decentralized decisions are still playing out against centrally imposed rules and, in many cases, centrally determined overall budget constraints.

The important challenge that all countries now face in health care is not so much how to organize or reorganize the decisionmaking between central and local bodies or even how authority is allocated between public and private sectors within the buyer side. In my view, these are yesterday's debates. The critical challenge today is how to strengthen the buyer side of the market—irrespective of its organization—so that it has both the information it needs and the political will to confront organized medicine on behalf of consumers.

We spend too much time arguing about the relative merits of consumers giving money to private insurance companies in the form of premiums as opposed to giving the money to government (local or national) in the form of taxes. This is not the critical distinction. The most important factor is what the recipient of the money, the third-party payer (public or private), does with it and what pressure that third-party payer brings to bear on the provider community.

It is not being public rather than private that makes a difference in getting better value for the money. It is the knowledge of performance, value, and

effectiveness, and the willingness to use it, that matter. We must learn how to pick and choose among providers on the basis of their demonstrated performance as well as their cost. This becomes the preferable alternative to what too often masquerades as cost control—picking and choosing among consumers on the basis of income or health risk.

The most dangerous trend in health care today is the tendency to avoid developing carefully researched and carefully adjusted mechanisms for measuring value and outcome, with the attendant result that costs are “controlled” by controlling consumers—usually on some basis that bears no resemblance to ethically supportable criteria.

I do not count myself among those who believe that the United States is the only country that has fallen into the trap of trying to control costs by placing limits on consumers. Nor is it the only country to postpone developing the alternative to restricting consumers: finding out what is good medicine and bad medicine and steering business to those who practice the former and away from those who practice the latter.

The sad fact is that the United States limits consumers in one way and other countries limit them in another. The United States has a long and indefensible history of limiting access by permitting large numbers of people to be uninsured, which forces them to underconsume, or actually forego, helpful primary and preventive care. To this old story is now being added a new, equally troubling one. People are now being jettisoned from the U.S. health care system because they are high-risk patients—they have preexisting health conditions that make them more likely candidates for large outlays.

Providers and insurers are competing on the basis of good health risks in the United States because they are not yet being forced to compete on the basis of good performance. But this is beginning to change.

The United States will move—in its own pluralistic, fragmented way—toward broader coverage and tougher cost controls that bear down on providers. Thus, we see one piece of Jönsson’s convergence theory.

Other countries would never dare deny insurance coverage to large numbers of people. But in most of those countries, health care is rationed on another basis: waiting times and influence. Everyone is covered all right, but not everyone is served on a timely basis. And it is not always medical considerations that determine who moves to the head of the queue. This is the central embarrassment of the national health plans, one that is every bit as indefensible as the source of embarrassment to the United States.

Thus, I reject Jönsson’s contention that “It is obvious that the moral bases or values on which health care systems are based differ between the United States and European countries.”

The national health plans, as Jönsson points out, are moving to correct their problems, often using a mix of market and regulatory approaches, just as a blend of the two is also found in the United States. This is the other arm of his convergence theory.

In this author’s view, if both systems share their successes and learning—as Jönsson calls for—and go to work on their respective embarrassments, both access to health care and cost control would be improved.

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