

European

Observatory

on Health Care Systems



Health Care Systems in Transition

Norway



The European Observatory on Health Care Systems is a partnership between the World Health Organization Regional Office for Europe, the Government of Norway, the Government of Spain, the European Investment Bank, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine, in association with the Open Society Institute.

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2000

AMS 5012667 (NOR)

Target 19

2000

Target 19 – RESEARCH AND KNOWLEDGE FOR HEALTH

By the year 2005, all Member States should have health research, information and communication systems that better support the acquisition, effective utilization, and dissemination of knowledge to support health for all.
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Keywords

DELIVERY OF HEALTH CARE
 EVALUATION STUDIES
 FINANCING, HEALTH
 HEALTH CARE REFORM
 HEALTH SYSTEM PLANS – organization and administration
 NORWAY

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Foreword

The Health Care Systems in Transition (HiT) profiles are country-based reports that provide an analytical description of each health care system and of reform initiatives in progress or under development. The HiTs are a key element that underpins the work of the European Observatory on Health Care Systems.

The Observatory is a unique undertaking that brings together WHO Regional Office for Europe, the Governments of Norway and Spain, the European Investment Bank, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine, in association with the Open Society Institute. This partnership supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of the dynamics of health care systems in Europe.

The aim of the HiT initiative is to provide relevant comparative information to support policy-makers and analysts in the development of health care systems and reforms in the countries of Europe and beyond. The HiT profiles are building blocks that can be used to:

- learn in detail about different approaches to the financing, organization and delivery of health care services;
- describe accurately the process and content of health care reform programmes and their implementation;
- highlight common challenges and areas that require more in-depth analysis;
- provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in the different countries of the European Region.

The HiT profiles are produced by country experts in collaboration with the research directors and staff of the European Observatory on Health Care Systems. In order to maximize comparability between countries, a standard template and questionnaire have been used. These provide detailed guidelines

and specific questions, definitions and examples to assist in the process of developing a HiT. Quantitative data on health services are based on a number of different sources in particular the WHO Regional Office for Europe health for all database, Organisation for Economic Cooperation and Development (OECD) health data and the World Bank.

Compiling the HiT profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health care system and the impact of reforms. Most of the information in the HiTs is based on material submitted by individual experts in the respective countries, which is externally reviewed by experts in the field. Nonetheless, some statements and judgements may be coloured by personal interpretation. In addition, the absence of a single agreed terminology to cover the wide diversity of systems in the European Region means that variations in understanding and interpretation may occur. A set of common definitions has been developed in an attempt to overcome this, but some discrepancies may persist. These problems are inherent in any attempt to study health care systems on a comparative basis.

The HiT profiles provide a source of descriptive, up-to-date and comparative information on health care systems, which it is hoped will enable policy-makers to learn from key experiences relevant to their own national situation. They also constitute a comprehensive information source on which to base more in-depth comparative analysis of reforms. This series is an ongoing initiative. It is being extended to cover all the countries of Europe and material will be updated at regular intervals, allowing reforms to be monitored in the longer term. HiTs are also available on the Observatory's website at <http://www.observatory.dk>.

Acknowledgements

The Health Care Systems in Transition profile on Norway was written by Christine Furuholmen, Assistant Director General, Department of Hospital Policy, Ministry of Health and Social Care and Jon Magnussen, Institute of Health Services Research, Sintef Unimed, Trondheim. The authors want to thank Claude Courbat, Adviser in the Ministry, for his work on the statistical material. The report was edited by Ana Rico, in collaboration with Wendy Wisbaum (English editing) and Annouchka Jann (statistical and bibliographic support).

The European Observatory on Health Care Systems is grateful to Terje Hagen (University of Oslo) and Hans Aanstad (Ministry of Health and Social Care) for reviewing the report.

The current series of the Health Care Systems in Transition profiles has been prepared by the research directors and staff of the European Observatory on Health Care Systems. The European Observatory on Health Care Systems is a partnership between the WHO Regional Office for Europe, the Government of Norway, the Government of Spain, the European Investment Bank, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine, in association with the Open Society Institute.

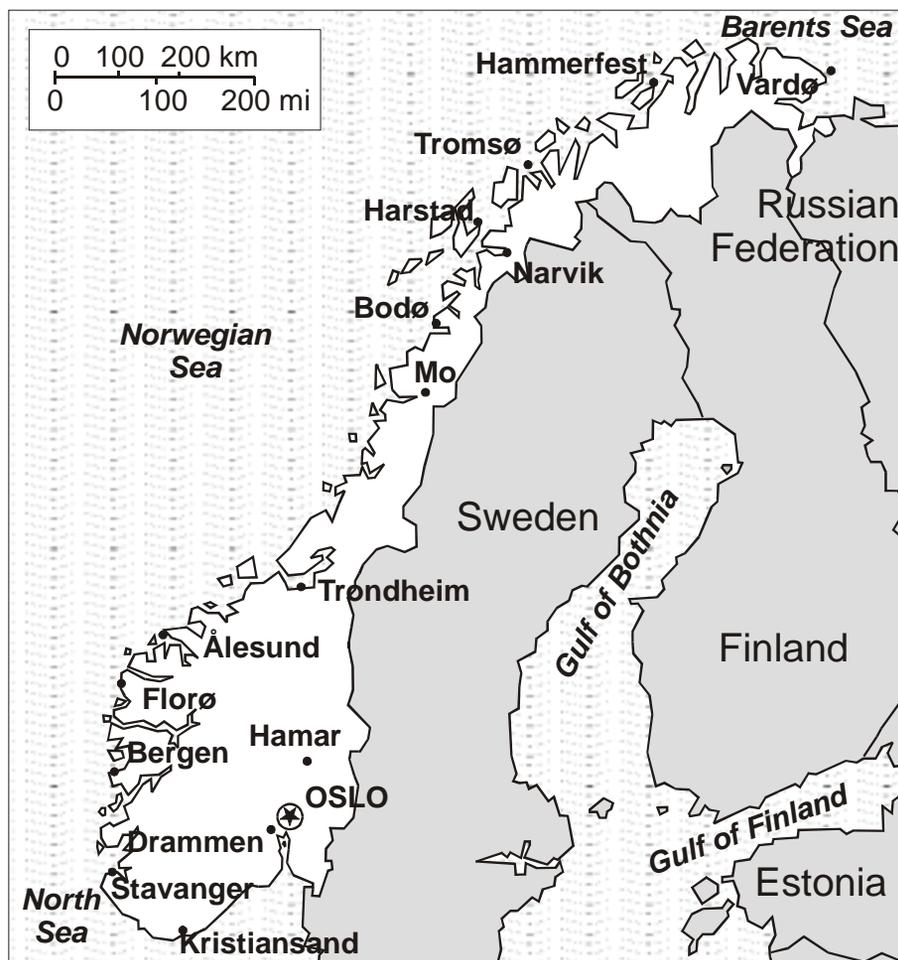
The Observatory team working on the HiT profiles is led by Josep Figueras, Head of the Secretariat and the research directors Martin McKee, Elias Mossialos and Richard Saltman. Technical coordination is by Suszy Lessof. Administrative support, design and production of the HiTs has been undertaken by a team led by Phyllis Dahl and comprising Myriam Andersen, Sue Gammerman and Anna Marezzo. Special thanks are extended to the WHO Regional Office for Europe health for all database from which data on health services were extracted; to the OECD for the data on health services in western Europe, and to the World Bank for the data on health expenditure in central and eastern European (CEE) countries. Thanks are also due to national statistical offices which have provided national data.

Introduction and historical background

Introductory overview

Norway shares borders with Sweden, Finland and Russia, and the country has a very long coastline, with deep fjords. Its 4.4 million inhabitants live in a total land area of 386 958 km², which averages 14 persons per km². This makes Norway one of the most sparsely populated countries in Europe. Large parts of the country cannot be cultivated or even permanently inhabited, mainly because of mountains. When calculated against the proportion of arable land, Norway has 22 persons per km² land available for cultivation, compared with 8 in both France and Denmark.

People tend to live along the coast, which was the first natural area of settlement when the country was inhabited after the ice age some 10 000 years ago. Fisheries have provided the economic basis for these settlements. The southern central plains consist of traditional farmland. It has been a matter of national policy to maintain a decentralized settlement pattern in the country, but in spite of this, 16% of the population lives in and around Oslo, where the population density has reached 1144 per km². An abundance of waterfalls has provided cheap electrical power and, for a long time, this has been an asset to the country's economy. Since the mid-1960s, oil production in the North Sea has been a major source of foreign exchange. In 1997, the Gross National Product (GNP) per person based on current prices was about US \$35 000. Measured by purchasing power parity, Norway is the fourth richest country in western Europe, after Luxembourg, Iceland and Switzerland. Private services constitute the leading economic sector of the country (41% of GDP), followed by government services (16%), manufacturing (12%), and exploitation of oil and gas resources (11%).

Fig. 1 Map of Norway¹

Source: Central Intelligence Agency, The World Factbook, 2000.

Demography and health indicators

In 1980, the population of Norway was 4.08 million. In 1999, the resident population was 4.45 million. A population forecast shows that the total population of Norway will continue to grow and that it is expected to be 4.8 million by the year 2020. The age composition will change, as is shown in Table 1. The proportion of the elderly will increase, and it is expected to continue

¹ The maps presented in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the European Observatory on Health Care Systems or its partners concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitations of its frontiers or boundaries.

growing for the next 20–30 years: age groups over 60 will increase from 20% in the year 2000 to 26% in the year 2020.

Table 1. Age distribution in %

	Age groups									Total	
	0–9	10–19	20–29	30–39	40–49	50–59	60–69	70–79	80–89		90+
Year 2000	14	12	14	15	14	12	8	7	4	1	100
Year 2020	12	12	13	12	13	13	12	9	4	1	100

Source: Ministry of Health and Social Affairs and Statistics.

The proportion of women in the labour force was 41% in 1980 and 46% in 1998. It should be noted that women have a higher degree of part-time work than men, but there is a trend towards more full-time work for women today than there was a decade or two ago.

In 1997, the proportion of the population with a university education was 21%. Among the 30–39 year olds, the percentage was 29%. An additional 50% of the population over 16 years of age had completed secondary education. In total, therefore, the enrolment level in secondary and tertiary education amounts to more than two thirds of Norwegians over 16 years, which makes Norway one of the most highly educated countries in the world.

Table 2. Demographic and health indicators

Indicators	1990	1991	1992	1993	1994	1995	1996	1997
population (million)	4.241	4.262	4.286	4.312	4.337	4.359	4.381	4.405
% over 65 years	16.3	16.3	16.2	16.2	16	15.8	15.6	–
crude birth rate (per 1000 population)	14.4	14.3	14.1	13.8	13.9	13.8	13.9	–
crude death rate (per 1000 population)	10.9	10.5	10.4	10.7	10.2	10.4	10.0	10.1
Total fertility rate – children per woman (aged 15-49)	1.93	1.92	1.88	1.86	1.87	1.85	1.89	1.89
female life expectancy at birth	79.8	80.1	80.3	80.2	80.6	80.8	81.1	81.0
male life expectancy at birth	73.4	74	74.1	74.2	74.8	74.8	75.4	75.5
infant mortality (per 1000 live births)	7.0	6.4	5.9	5.1	5.2	4.0	4.0	4.1
mortality (all causes /100 000 population)	774.1	744.7	734.3	751.2	707.0	724.7	863.3	701.1
External causes (100 000 population)	54.2	50.7	48.2	46.5	42.4	–	41.3	42.4

Source: OECD Health Data Base (1998); Statistics Norway 1996 and 1997.

The population in Norway has grown through the 1990s. The main reasons for this are migration and the rise in average life expectancy. The natural population growth rate, which steadily decreased since the start of the 1970s down to less than 2 per 1000 in the mid-1980s, rebounded from then onwards, reaching 3.4 per 1000 in 1997, a figure well above average EU levels. With a net migration figure of 2.4 per 1000 population in 1997, Norway ranks highest among the Nordic countries, closely followed by Denmark.

Regarding health status, there has been considerable improvement through the century. One manifestation of this is the fact that life expectancy at birth is six to seven years longer than it was 50 years ago. In 1998, the average life expectancy for males was 75.5 years and 81 years for women. It is worth noting that, while life expectancy has increased through the 1990s for both men and women, it has increased more for men than for women. Compared with other countries in western Europe, life expectancy in Norway changed from ranking highest during the period 1950–1970 to average levels at the end of the 1990s. This implies that the increase in life expectancy during the last decades has been far more moderate than the average within the European Union. The total fertility rate in Norway has been stable through the 1990s. Norway has a higher fertility rate than Sweden (1.53), Denmark (1.75) and Finland (1.75). Internationally, Norway and the other Nordic countries are characterized by having a very low perinatal mortality, and a low mortality rate in the first year of life.

Taken together, demographic and basic health indicators demonstrate that Norway compares very favourably with the rest of the world as illustrated by its position in the 1997 United Nations' Human Development Index ranking where Norway was second only to Canada.

Norway has a relatively high rate of teenage pregnancy, ranking third within the European Union after the United Kingdom and Iceland. Most of these pregnancies end up in abortion, as reflected in a rate of almost 1500 abortions per 1000 live births among women under 20 years old in 1997. In general, the rate of registered abortions for all age groups is higher than the average EU level.

Coronary heart disease (45%) and cancer (22%) are the most prevalent causes of death. Lifestyle-related diseases have increased rapidly in the past few decades. In fact, Norway displays a relatively high percentage of smokers among the population aged 15 years and older: the general rate (33.6% in 1997) is the fifth highest within the EU, and the prevalence in the case of women is the second highest (after Denmark) of western Europe. In spite of this, in general, mortality caused by cardiovascular diseases has decreased from the 1970s to the 1990s. Prevention through healthier nutrition and alcohol consumption

control are some of the main explanations for this. The same trends are found in the other Nordic countries.

In comparative terms, most death rates by cause in Norway are similar to or below EU rates. Specific exceptions to this patterns are the following. Mortality rates from ischaemic heart disease are well above the EU average and are especially so for men aged under 64, with the age-specific rate for this group ranking the third highest after Finland and the United Kingdom. Mortality from cancer among females is slightly above EU levels since the mid-1980s and has been increasing since then, in contrast with the declining trend in the EU. As regards external causes of death, several specific problems remain, in spite of the significant general reduction achieved in the latest decades. Mortality from suicide for males aged 15–24 has been sharply increasing from the early 1970s to the mid-1990s, showing a mild drop thereafter. In spite of that, the average rate over the last decade is more than double the EU rates. For those aged 65 and over, external causes of death other than traffic accidents, suicide and homicide (for example, home and leisure accidents, occupational accidents and some others) are also above average the EU levels, and significantly so in the case of males.

During the second half of the century, to a growing extent, the health status of the population has been influenced by illnesses and problems that are more complex, more difficult to define and less visible. These problems are widespread and represent a considerable financial burden for the community. For example, one third of those entering the disability pension scheme suffers from musculo-skeletal disorders, and every fifth from psychiatric disorders. In addition, the incidence rate of hip fractures is one of the highest in Europe. This has led to a greater focus on public health and, accordingly, the stated political priorities of the 1990s are psychiatric disorders, psychosocial problems, musculo-skeletal disorders, accident prevention and allergies.

Economy

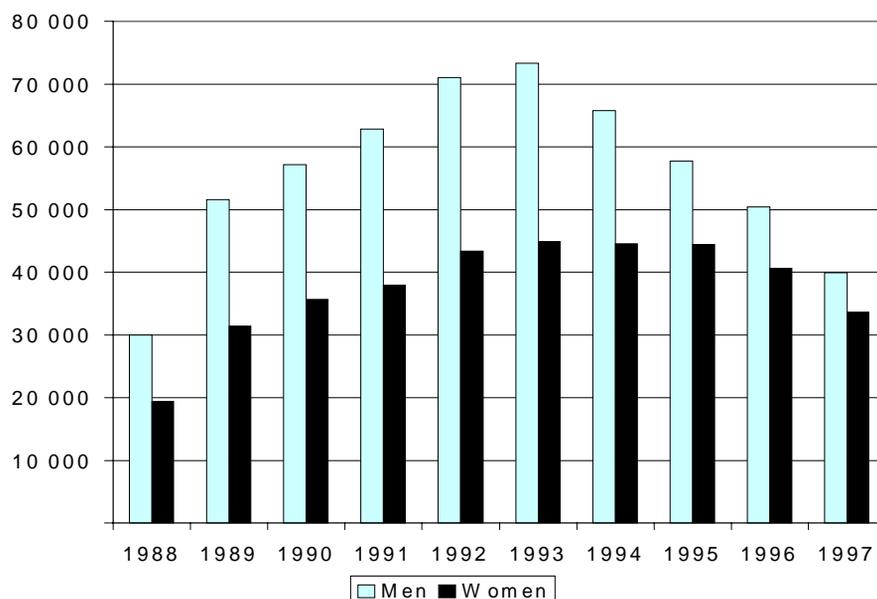
As can be seen in Table 3, GDP per capita PPP increased continually from 1990 to 1998. However, at the same time, the GDP growth rate decreased starting in 1994. It reached 5.5% in 1994, 4.9% in 1996 and only 2.1% in 1998. The annual average rate of inflation reached its lowest level in 1996 at 1.3%, and in 1998, it was 2.3%.

Fig. 2 shows that Norway experienced unusually high unemployment in the early 1990s, but internationally these are low figures. In 1992 and 1993, unemployment as a percentage of the labour force reached a historically high level since the Second World War, amounting to 6%. In 1997, unemployment

Table 3. Macro-economic indicators

Indicators	1990	1991	1992	1993	1994	1995	1996	1997	1998
GDP growth rate (% change)	2.0	3.1	3.3	2.7	5.5	3.8	4.9	4.3	2.1
GDP per capita US \$ PPP	17 514	18 658	20 394	21 391	21 934	22 745	24 532	24 423	24 936
Annual average rate of inflation in %	4.1	3.4	2.3	2.3	1.4	2.4	1.3	2.6	2.3
Total employment, % annual change	-0.8	-0.8	-0.3	0.2	1.3	2.1	2.5	2.9	2.3
Unemployment, % total population	5.3	5.6	6.1	6.1	5.5	5.0	4.9	4.1	3.3

Source: UN-ECE (United Nations, Economic Commission for Europe) Economic Statistics (1999); OECD Health Data Base (1998).

Fig. 2. Number of people registered without a job, 1988–1997

Source: Ministry of Health and Social Affairs and Statistics Norway

was 4.1% of the labour force, and in 1998 it was 3.3%. Rates for men and women are fairly similar. However, higher figures apply in the case of young people (more than 10% within the 16–24 age group), and first-generation immigrants (around 7%). Labour shortages are increasingly felt and have become a major problem in some sectors.

Politics and administration

Norway has been a constitutional monarchy since 1814, after the approval of the first democratic constitution. Almost one century later, in 1905, the country gained independence from Sweden. Contemporary Norway is governed by a three-tiered parliamentary system, with each tier governed by a popularly-elected body: the national parliament (Storting), the county councils and the municipal councils. The Storting has 165 members, and is elected by proportional representation for a four year period. Although formally a one-chamber parliament, it splits up into two chambers after elections, and both of them have to approve legislation. The King is formally the highest executive authority, although in practice the government cabinet (Regjeringen) – comprising the prime minister (chosen by the King) and his/her cabinet (selected by the Prime Minister) – is the head of executive power. Storting members must leave the parliament if they are chosen to serve in the government.

In 1999, there were 19 counties and 435 municipalities. County populations range from 76 000 to the approximately 500 000 inhabitants of Oslo. The capital is formally both a municipality and a county. In fact, the municipal council also covers the functions of the county council. Municipal populations vary widely in Norway, ranging from 218 to 500 000 inhabitants per municipality. There are about 20 municipalities with less than 1000 inhabitants, and one third have between 2000 and 5000 inhabitants.

Broadly speaking, the division of responsibilities and duties among the three tiers is as follows. The counties are responsible for hospitals, specialized outpatient care, pharmacies, cultural matters, secondary education, energy delivery and communication. The municipalities cover the domain of health promotion, primary health care, care of the elderly, care of the handicapped and mentally handicapped, kindergarten and primary school education, social work (child protection and social protection), water, local culture, local planning, and local infrastructure. Central government has the responsibility for a few very specialized hospitals, for university education and research, for health and other registries, and for institutions like the National Institute of Public Health, the National Board of Health and, of course, the Ministry for Health and Social Affairs (with approximately 300 employees).

Politically, the country has been stable, with a dominating Labour Party in office between 1945 and 1965. From 1965 to date, Norway has had 20 additional years of Labour government, intertwined with periods of non-socialist coalition governments. Since 1997, the country has been ruled by a three-party coalition government (Christian Democratic Party, Centre Party and Liberal Party).

Traditionally, close cooperation has been the norm with the other Nordic countries: Denmark, Sweden, Finland and Iceland, and there is a social security convention among the Nordic countries. In 1972 and 1994, a popular referendum was held on whether or not Norway should join the European Community; both times this proposition was turned down. Norway has ratified several bilateral social security agreements with other Nordic countries, as well as the European Economic Agreement (EEA) that came into force beginning in 1994.

Historical Background

The development of a public health care sector

The first professional and official health care system consisted of a network of general practitioners who practised out of their own offices or in the homes of their patients. The first practitioners established themselves during the latter part of the eighteenth century. It was not until the middle of the nineteenth century that the population-to-doctor ratio passed 5000:1. Norway was industrialized comparatively late and doctors and other medical personnel were rare in rural areas. The majority of the first doctors were public officials, and from 1836 onwards, they were called district physicians. From about the middle of the century, some municipalities also hired physicians who had the obligation of caring for the sick poor. Hospitals started to become institutions to cure the sick around the turn of the century.

The fact that the country remained poor and that the majority of the population lived in rural sparsely-populated areas was reflected in the health care system into the twentieth century. Historically, the municipalities and local government had strong traditions, a fact which is currently reflected in an egalitarian and locally-oriented culture.

A decentralized model of provision of welfare goods and services

The years following the Second World War can be described as a continual process of reform in the relationship between state and local government. This process of reform was present in health and social care, as well as in other sectors. The goal has been to find an acceptable balance of power between these two levels of government. There has been an ongoing process of devolution of central powers to local governments, aimed to focus as much as possible on

the municipal level. The philosophy behind this is that decentralization is an expression of applied democracy. It brings decision-making closer to those who are affected and promotes popular participation in local political affairs. Moreover, it is believed that delegation of authority usually leads to simplification of administrative procedures. The central authorities are responsible for national policy, for drawing up general guidelines, for advising, and for ensuring that services offered comply with national goals. Maintaining the principle of equal access to public service is a critical role of the central authorities in a decentralized system.

Regarding decentralization, the 1992 Local Government Act replaced an earlier legislative piece passed in the mid-1950s. The new act did not, in fact, introduce significant changes within the health care sector. Actually, the philosophy which underlies the territorial division of powers has changed little during the second half of the century: the purpose has always been to enable counties and municipalities to take over service provision by defining a clear division of responsibility between the central government and the municipal and county authorities. The administrative level which is responsible for implementing various services has also been made responsible for their financing. In order to cover expenditures, the municipalities and counties draw on local taxes in addition to block grants and earmarked grants from the state for high priority reforms. To a large extent, the central government and the parliament determine counties' and municipalities' fiscal situation and annual transfers.

The responsibility of the municipalities

The Local Authority Health Care Act was passed in 1984 and made local municipalities responsible for all primary health care. This marked the end of the old, central government appointed district medical officer, an institution established in 1860. For a long period, responsibility for health care (at the local level) had been divided among different administration levels: municipalities, counties and the state. Even responsibility for some single services was placed on different levels. Such a division of tasks and responsibility made the organization unclear and difficult to supervise. For example, the public medical service, offered by district medical officers, was the responsibility of the state, but services offered by district midwives were the responsibility of the counties.

Especially in the period after 1975, and as a result of the creation of the health regions, a growing number of actors became involved in the provision

of local health care services. Most importantly, there was a need for collaboration among health services, social services and the National Insurance System (NIS), which was created in 1967. Different schemes were attempted in order to solve problems of collaboration and coordination.

A variety of different acts spelled out the municipalities' responsibility. According to the Act on Local Authority Health Care (1984), the Act on the Protection of Children (1992) and the Act on Social Services (1991), the municipalities are responsible for preventive efforts and for providing and financing most primary health care and social services. The rights in these laws also apply to people with mental problems. The law leaves a large mandate for local health care services to take part in shaping the local social structure. In 1987, the act was extended to include environmentally-oriented health activities. In 1988, the task of managing nursing homes was shifted from counties to municipalities, and the responsibility of local health care authorities was further increased in 1991, when care of the mentally disabled was added to their charge (for more detail, see the section on *Organizational structure and management*).

The responsibility of the counties

Regarding specialized care, there was no general act regulating the hospital sector until 1969, when the Hospital Act was passed. Until this time, during the 1960s, Norwegian health care consisted of piecemeal organization, uneven financing, poor coordination and an unclear delegation of responsibility. The Hospital Act introduced a unified system for all medical institutions, making the counties responsible for planning, building and managing hospitals in order to meet the needs of their respective population. Since the adoption of the Act, each of Norway's 19 counties has assumed responsibility for the financing, planning and provision of specialized health care.

In 1974 the White Paper, *Hospital Development in a Regional Public Health Service*, put an overall fundamental strategy of health services into a regional perspective. The country was divided into five health regions, each with a regional teaching hospital. The purpose was to establish a uniform structure and an organizational framework that, on one hand, ensured equal access to health, and, on the other, allowed for better control over resources and more effective resource allocation. The main characteristics of this organizational structure are described in the next section.

Organizational structure and management

Organizational structure of the health care system

The organizational structure of the Norwegian health care system is built on the principle of equal access to services. All inhabitants of the country shall have the same access to services, independent of social status, location and income. To fulfil this aim, the organizational structure has three levels following the political tiers described in the previous sections: the central state, county and municipalities. While the role of the state is to provide national health policy, to prepare and oversee legislation and to allocate funds, the main responsibility for the provision of health care services lies with the 19 counties and the 435 municipalities.

At the national level, the parliament serves as the political decision-making body. The Ministry of Health and Social Affairs is the executive body with special responsibility for:

- legislation
- capacity expansion
- budgeting and planning
- information management
- policy design.

The Ministry of Local Government and Local Authorities is responsible for the distribution of block grants from the state. These grants are allocated according to a formula including the age/sex composition of the population, demographic indicators and variables related to health needs (e.g., mortality rates).

While responsibility for the provision of services is decentralized, both the regulation and supervision of services are the responsibility of national authorities. In addition, the central government directs the National Institute of

Public Health, some research and prevention councils such as the Council on Smoking and Health and the Council on Nutrition and Health, and several research institutes (e.g. the Cancer Registry of Norway). The central authorities also remain in ownership of some hospitals, such as the Norwegian National Hospital (Rikshospitalet).

There is also The Norwegian Board of Health, an independent professional body which, in collaboration with nineteen county medical officers, is responsible for promoting quality and legal safeguards within the Norwegian health sector. Administratively, the Board of Health is an autonomous agency, and therefore is not hierarchically subordinated to the Ministry for Health and Social Affairs. Its main areas of responsibility are as follows:

- supervision of all health services and all health personnel
- administrative tasks associated with supervision (e.g., dealing with complaints)
- advice and guidance on health matters to the Ministry of Health and Social Affairs, the health sector and the general public.

The operational framework of the Board of Health and the county medical officers is based on four strategic areas: quality improvement; legal clarity and consistency; collection and analysis of data; and dissemination of experience. The Board of Health has a total of 154 posts; the offices of the county medical officers consist of 307 posts.

The next level down in Norway, the counties, are too small for efficient and cost-effective provision of high quality specialized health services. Duplication of services within relatively small geographic areas and the provision of acute care at most local hospitals both reduce patient volume and make for inefficient use of health care resources, including health care personnel. For these reasons, it has been a national aim over the last 25 years to organize and plan specialized health care services within larger geographic areas.

With this objective, in 1974, Norway was divided into five health regions. Each health region consists of three to five counties. To ensure planning and cooperation, regional health committees have been established in each region. Members of the regional committees are politically appointed representatives from each county in the region. So far, the impact of the regional health committees has been limited. Early in the 1990s, the national authorities tried to revitalize the regional health committees by giving them an advisory function regarding cooperation and division of tasks among county and national hospitals (St. meld. nr. 50, 1993–94). By asking the regional health committees to prepare health plans, the parliament hoped to strengthen the regional integration of hospital services. In the first regional health plans which were developed, the need for greater efficiency and for restructuring the hospital sector was

unanimously recommended. Beginning in the year 2000, each region is legally obliged to submit plans for approval to the Ministry of Health and Social Affairs. These plans are strategic documents intended to show how the regions aim to fulfil national health policy goals (see the section on *Health care reforms*).

As mentioned, Norway's 19 counties are responsible for the financing, planning and provision of specialized care. This includes both general and psychiatric institutions, as well as other specialized medical services, such as laboratory, radiology and ambulatory services, special care for alcoholics and drug addicts, and dental care for adults.

The country's 435 municipalities, whose size varies considerably, are responsible for the provision and financing of primary health care and social services. The Local Authority Health Care Act defines the responsibilities of the primary health care services and patient rights. All citizens have the right to satisfactory health care, accessible in their local community. Regarding primary care, municipalities must organize and finance services for disease prevention and health promotion, diagnosis and treatment of illness, and rehabilitation. This includes care for the mentally ill, alcoholics and drug addicts. In addition, each county must provide services for disease prevention and dental care for children under 18 years of age. Municipalities are also responsible for social services, including the provision of care for the elderly and the disabled, continuous care residences (nursing homes, etc.), social support and leisure activities, day-care centres, and social security benefits.

Regarding mental health, the municipalities play a key role in the provision and coordination of services to people with psychiatric problems. However, services provided are still lacking in several respects. There is a scarcity of resources, insufficient knowledge of needs, and a lack of solutions. The central government has actively encouraged local planning, coordination and expansion in this area. In the latter part of the 1990s, special attention has been given to people with serious mental problems, requiring coordination of services over a long period of time. Making individual plans, which coordinate necessary services, has now become a mandatory task for the municipalities and a legal right for patients.

The main political body is the municipal council, which is elected for a period of four years. In addition to primary health care and social services, municipalities are responsible for cultural activities and primary education.

In most municipalities, a political body together with an administrative officer manage both health care and social welfare services. Generally speaking, each municipality usually has three separate administrative departments: for medical care; nursing and home care; and social welfare. Many of the medical services are located in health centres, often including physicians in joint practice.

No minimum requirements for physician-patient ratios or provider mix are given, so the municipalities are free to decide whether to employ family doctors and other health care staff directly, or to contract-out services with private physicians.

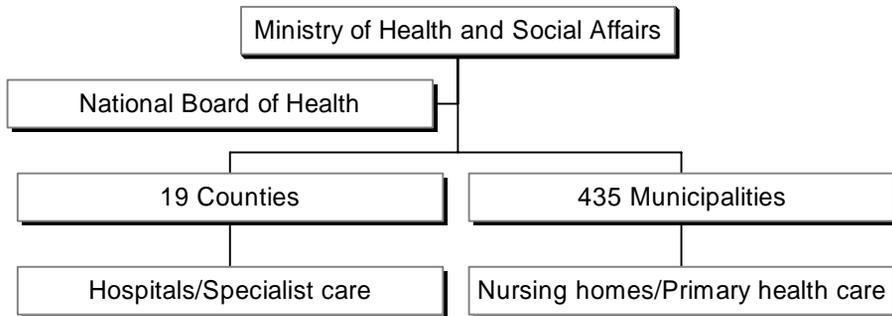
The formal role of the counties and municipalities was strengthened in 1980 with the introduction of a capitated (block grant) financing system. The rationale for the division of tasks between these two levels of government is based on economies of scale and the principle of subsidiarity: services are attributed to municipalities unless it is significantly more efficient for them to be provided at a higher level (e.g., counties) due to economies of scale.

Initially, counties and municipalities received earmarked block grants for each type of service. From 1986 onwards, however, under the block grant scheme, municipalities were allowed to prioritize different types of services. By giving local authorities both the autonomy to set the level of service provision and the economic means to provide the services, the aim was that this decentralized model would provide a more efficient service provision and serve local needs better than a centralized model.

During the 1990s, the role of central government changed. The focus has turned to problems of effectiveness and quality of services, particularly in the hospital sector. This has led to major reforms in the financing system as well as legislation on patient's rights. A hospital financing system that modifies the block grant system and includes prospective, activity-based revenue was introduced in 1997. The Patients Right Act will be implemented in 2000, while The Hospital Act will be modernized and replaced in 2001. A primary care reform introducing a family doctor will come into force in 2001 (see the section on *Health care reforms*).

The grant system was modified by partly reimbursing counties on the basis of a earmarked fee-per-patient scheme. This has led to growth in the share of health care expenditures that are covered by central authorities (see the section on *Health care finance and expenditure*). The intention behind the hospital financing reform was to increase activity and reduce hospital waiting lists. In 1998, the share of hospital expenses (including outpatient activity) financed from the fee-per-patient-scheme was 41% and the share financed by the counties was 43%. The remaining 14% was financed partly by user fees and partly by general grants from the central government. There is also a substantial flow of funds from the central government to the counties to cover investment costs for medical equipment and the cost of the major increase in the capacity for delivering psychiatric health care services initiated in the 1990s.

Fig. 3. Organizational chart



Planning, regulation and management

The Norwegian system of health care delivery is almost a fully integrated system. Most hospitals (somatic as well as psychiatric) are owned and managed by public authorities. Presently, they are organized as public institutions within the general framework of the county level bureaucracy. Thus, hospitals are bound to the legal framework of public services, with their emphasis on stability and accountability. Most hospitals have boards appointed by the counties. Their formal position is often weak and, thus, they are bypassed in communication between hospital directors and the counties. The counties are free to decide whether to appoint a board or not, as there are few regulations concerning the internal organization of hospitals.

In the market for hospital services, there is no purchaser/provider split. However, there is an ongoing debate concerning the formal organizational framework of the public hospitals, including discussion as to whether hospitals should be made into trusts. This will be discussed in the section on *Health care reforms*.

For physician services outside of hospitals, including both specialized and general services, there is a contract-based market. Specialists outside of hospitals are private, but they can enter into a contract with the county. Under this contract, they become part of the county’s health plan and receive a general grant from the county, a fee-for-service payment from the National Insurance System (NIS), and a fee-for-service payment from the patients. Specialists who do not enter into such contracts are not part of the county health plan and must generate all of their income from their patients. General practitioners are either salaried by the municipality or are contracted out by the public system. Contracted-out

general practitioners receive a combination of fee-for-service from the NIS, and a general grant in order to perform their services.

Responsibility for providing services is decentralized to counties and municipalities, but there are large elements of centralized planning. Broad guidelines for priority setting are found in official documents. Regional health plans have to be authorized by the Ministry of Health and Social Affairs. To assist the ministry in the distribution of physicians, there is a National Council for Education of Specialists. This council has representatives from the counties, the universities, the health regions and the Medical Association.

The number of pharmacies is centrally regulated, and licences for operating a pharmacy are issued by the Norwegian Board of Health (NBH). The National Medicines Control Board sets maximum prices on pharmaceuticals. All pharmaceuticals, both prescription and non-prescription, are sold in pharmacies.

Health personnel is licensed by the Chief County Medical Officer in Oslo. Unlicensed personnel cannot practice. Personnel are educated in public colleges or public universities. Personnel with a foreign education may apply for a licence in Norway.

In the past decade, a growing emphasis has been placed on the formal rights of the users and the different involved parties in the decision making process, both when it comes to planning and law making. The involved parties are often represented as members of public commissions or in the planning process itself. All reports made by royal commissions, bills presented to parliament, public health plans, etc. are subjects of a broad hearing by all involved parties. This includes patients' (users') organizations, professionals, other public agencies and administrative levels. The results of the hearing are to be presented to the appropriate decision making body.

Decentralization of the health care system

There has been considerable debate about the merits of Norway's decentralization, in particular with respect to somatic hospitals. There is large variation among counties regarding use of hospital services, as well as in medical practice. Decentralization has led to problems of coordination of services and accountability.

The existence of three administrative and political tiers has sometimes led to a lack of willingness/ability by the local authorities to take financial responsibility. Soft budgeting prevails and there are frequent incidents in which local authorities claim that their financial ability to provide a set of services

demanded by central regulation is limited. Lack of coordination also tends to lead to situations in which patients in need of primary care remain in hospitals (somatic and psychiatric) because there is no capacity in the municipalities. The large number of decision-making units leads to duplication of services, and a simultaneous problem of over-capacity and waiting lists.

Health care finance and expenditure

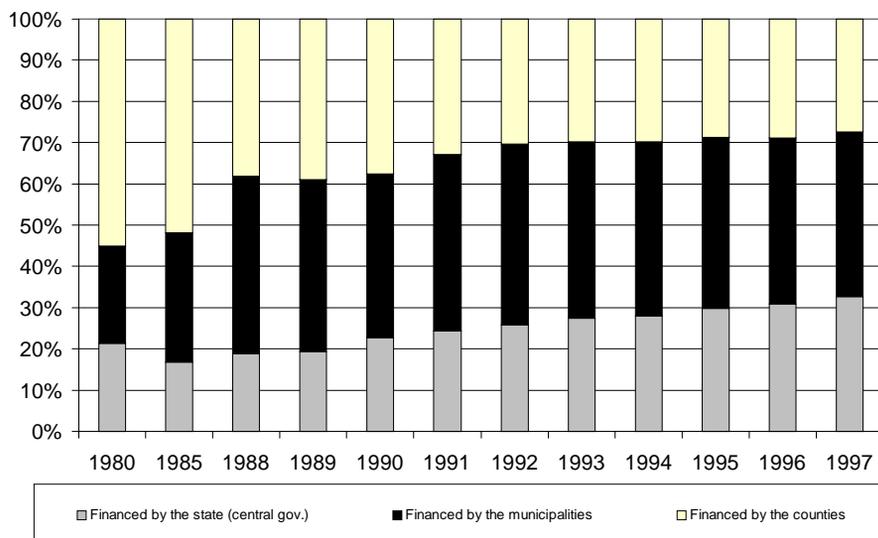
Main system of finance and coverage

The most important feature of the Norwegian health care system is the predominance of tax-financed public provision. The whole resident population of Norway is covered for needs and the financial burden of using health care services. As there is no premium-based financing, there is only a small connection (limited to out-of-pocket payments) between individual health risks and costs. Thus, the health care system is financed through taxation and out-of-pocket payments. In addition, different political actors play a role in the intermediate financing flows: national government, the counties and the municipalities (with the right of taxation, in addition to central state taxation), and the National Insurance Service (mainly fee-for-service financing in health care).

Although Norway is formally a unitary state, the principle of subsidiarity is followed. Central government has overall responsibility for laws and regulations in most policy sectors, including health and social services, as well as for regulating local taxation. Municipalities are responsible for primary care and treatment, along with primary schools, and basic infrastructure, while counties are responsible for specialized medical care and treatment, such as hospitals and outpatient specialized treatment, in addition to college education, roads, and communication, etc. The system of block grants from central to local government (counties and municipalities), introduced in the 1980s, is an important element of subsidiarity.

Fig. 4 illustrates some of these intermediate financing flows in the health care sector. Block grants from the central government to the municipalities and counties are not classified as financing by the state, but by local government. The reason for this is that block grants are meant to be a source of financing for local activities in general (education, local infrastructure, health, etc.). It is in

Fig. 4. Financing the public health care sector: the role of subnational governments, 1990–1997



Source: Ministry of Health and Social Care and Statistics.

the local government's own sphere of authority to prioritize among the different services. The figure shows that the provision of health care is among the most resource-consuming responsibilities of the counties and municipalities. The proportion of public health financed by counties has been reduced from about 40% at the end of the 1980s to less than 30% in 1997. The proportion of state-financed expenditure has increased to more than 50% at the end of the 1990s (see the section on *Financial resource allocation*). There are significant cross-county flows of patients, in particular into the regional teaching hospitals. There is also a price system through which the county where the patient resides compensates the county where the patient is treated.

The role of the local levels – municipalities and counties – in the delivery of health care services is important, and there have been almost no changes in the total proportion of financing allocated through local government in the period from 1980 to 1997. Counties' financing has been reduced in favour of municipalities because of the transfer of care of the elderly in 1988 and of care of the mentally handicapped in 1991 from the former to the latter.

The share of the municipal expenditure (including Oslo) devoted to health and social care is about 43% and almost has not changed between 1991–1997. The share of the counties' expenditures in 1996 devoted to somatic specialist health care was 41%; psychiatric care was 9%.

In addition, some parts of the health care sector – mainly pharmaceuticals, fees of private contracted-out doctors and transportation – are financed through the National Insurance System. Approximately 15% of total public health care expenditure is channeled through the NIS. It acts therefore as a third payer, channeling funding derived mainly from taxation through the health care organization to providers.

Health care benefits and rationing

The Norwegian health care system includes universal access to a wide range of benefits, consisting of most preventive and curative services. However, some services are excluded from the statutory health system, such as adult dental care and spectacles.

Pharmaceuticals are divided into three categories. Non-prescription medicines are fully paid for by the individual; prescriptions are either covered by the NIS (“blue prescriptions”) or paid for in full by the patient (“white prescriptions”). There is a co-payment on blue prescriptions which is limited to 36% of the prescription fee. In 1999, there was a ceiling of NKr 1320 per year, or US \$65 on all co-payments, including co-payments for outpatient care or primary care. Patients in hospitals do not pay anything for medication.

Complementary sources of finance

The National Insurance Scheme

All residents of Norway or people working in the country are insured under the National Insurance Scheme (NIS). The compulsory insurance coverage is also maintained during a temporary stay abroad (for less than one year). If a person accepts paid work abroad, however, the insurance coverage is terminated. The NIS is financed by contributions from employees, the self-employed and other members, employers’ contributions and state funding. Contribution rates and state grants are determined by the Parliament.

Persons insured under the NIS are entitled to the following benefits: elderly, survivors and disability, basic care in case of disablement, rehabilitation, occupational injury, single parents, monetary reimbursement in case of sickness, maternity, adoption and unemployment, health care, and maternity and funeral

expenses. Disability benefits comprise basic benefits, care benefits and disability pensions. Rehabilitation benefits are granted if the person concerned has a permanently reduced work capacity or substantially limited opportunities in choice of occupation or place of work. Benefits are also granted for improvements in general functional capacity if this has been substantially reduced due to illness, injury or defects.

As can be seen, the NIS covers a great deal of risks related to foregone income and expenses. The total expenses of the NIS in 1998 were NKr 145 250 million. The amount represents more than 35% of total public expenditure and approximately 13.2% of GDP. About one third of its 1998 budget (44 703 million NKr) was derived from a specific component of tax revenues paid by employees (called *Membership of Social Security*), while the other two thirds came from employers' payroll contributions (61 696 million NKr, 42% of the total) and general taxation (about 40 000 million NKr, 27%). The major components of NIS expenditure consist of the elderly pension system (58 000 million NKr in 1998) and the pension system for the disabled (28 000 million NKr), while health care expenditure by the NIS represented almost 15 000 million NKr in 1997. About 1.2 million Norwegians are Social Security recipients; specifically, 7% of Norwegian men and 12% of women have social security payments as their main source of income.

Out-of-pocket payments

The entitlements of medical benefits during sickness and maternity are partially covered by the NIS. All insured persons are granted free hospital treatment and coverage, including medicines. This follows from the provisions of the Hospital Act (1969) and the Act on Mental Health Care (1961). There are no out-of-pocket payments in Norwegian hospitals.

In the case of secondary care (specialist care but provided outside of the hospital), the provisions of the Local Health Care Act (1984) and the National Insurance Act (1967) apply. Patients are charged NKr 135 (US \$17) for each visit to a hospital outpatient clinic. There are also co-payments for laboratory tests, X-rays and some pharmaceuticals at the outpatient clinics. The patient has to pay a share of the cost of treatment by a general practitioner or a specialist outside the hospital, for treatment by a psychologist, for prescriptions of important drugs, and for transportation expenses in connection with examination or treatment. The municipality and/or the NIS cover the majority of the expense. For example, the cost-sharing amount for an adult in connection with treatment by a general practitioner is NKr 102 (US \$13) for each consultation, and 36% of the expense of important medicines (maximum NKr 330 (US \$41)

per prescription). For refills on prescriptions, a new cost-sharing amount shall be paid when a supply equal to three months' consumption has been received. There are certain exemptions from cost-sharing for special diseases and specific groups of people.

A ceiling for cost-sharing was introduced in the early 1980s. The ceiling is fixed by the parliament for one year at a time; for 1999, it was fixed to NKr 1320 (US \$165). After the ceiling has been reached, a card is issued giving entitlement to free treatment and benefits, as mentioned, for the rest of the calendar year. Cost-sharing amounts for children under the age of 16 are included in a parent's ceiling. Children under the age of seven are exempted from cost-sharing for treatment given by physician or physiotherapist, certain medicines, and travel expenses. Necessary medical examinations during pregnancy and after recovery from delivery are free. In the case of home delivery, a birth allowance of NKr 1765 (US \$221) is granted. Municipal services, like home care of the elderly and disabled and inpatient care of the elderly, are among the services which are not included in the ceiling for cost-sharing by the NIS.

Dental care and spectacles are mainly financed by out-of-pocket sources by the user.

The out-of-pocket payments in private health care, that is, for services given by physicians without a contract with local authorities (see the section on *Financial resource allocation*) are not subject to price regulation.

Out-of-pocket payments in publicly provided health care are provided in Table 4 below. According to these estimates, made for 1993, about 10% of public health care expenses consist of out-of-pocket payments by patients and

Table 4. Estimation of private out-of-pocket payments in public health care 1993, millions of Nkr.

	Nkr	% of total
General practitioners	900	1.2 %
Specialists	350	0.5 %
Outpatient treatments	350	0.5 %
Psychologist treatment	10	0.0 %
Physiotherapist treatment	350	0.5 %
Chiropractic treatment	60	0.1 %
Pharmaceutical products (blue tickets)	500	0.7 %
Pharmaceutical products (white tickets)	980	1.3 %
Transportation expenditures	500	0.7 %
Dental care	2 300	3.0 %
Home care of elderly and handicapped	260	0.3 %
Inpatient care of elderly and handicapped	1 680	2.2 %
Total	8 240	10.7 %

Source: Ministry of Health and Social Care, NOU 1997:18

users. Dental care and out-of-pocket fees for inpatient care of the elderly and handicapped are the main areas of private financing.

It should be noted that out-of-pocket financing of privately delivered health care services is a substantial part of total health care expenditure. For example, private expenditure for spectacles and orthopaedic equipment was approximately 1900 million Nkr in 1996. In addition, 3500 million Nkr was spent on private dental care in 1993, compared to the 2300 million Nkr in out-of-pocket payments for public dental services, as illustrated in the table. According to the latest available estimates (National Accounts 1996), total private health care expenditure amounted to 14 027 million Nkr, that is, 17% of total health care expenditure. However, as explained below such estimates are subject to considerable methodological problems (see the section on *Health care expenditure*).

Voluntary health insurance

As all inhabitants are covered by the public system, voluntary health insurance did not play any significant role in Norway until very recently. Some attempts have been made to provide complementary health insurance, specifically targeting patients who would like to avoid waiting for hospital treatment. However, thus far, these attempts have not been successful. On the other hand, there is an increasing tendency for the establishment of private health care centres in the urban centres of Norway, with membership applications which can be considered as a type of health insurance. Medical technology has increased possibilities for treating diseases in outpatient care and, as a result, some private health care suppliers benefit from increasing demand both for general and specialized services. Thus far, Norwegian statistics do not provide data on private specialists who do not receive public funding, or on expenditure on voluntary health insurance, although Statistics Norway is currently working on a report on the topic.

Health care expenditure

According to figures from OECD (Table 5), although per capita health care expenditure in constant prices has been growing during the 1990s, the public proportion of total expenditures on health has been rather stable and is more than 80%, while expenditure as a percentage of the GDP has been decreasing since 1992. However, OECD figures as well as WHO estimates displayed in Fig. 5, Fig. 6 and Fig. 7 below, differ from national data.

Table 5. Main trends in health care expenditures, 1990–1997

	1990	1991	1992	1993	1994	1995	1996	1997
Total expenditure on health – million Nkr	56 329	61 885	64 664	66 388	69 044	74 258	80 000	81 500
Total current expenditure on health – per capita, Nkr at 1995 prices	14 828	15 529	15 689	15 563	15 745	16 092	–	–
Total expenditure on health – per capita, Nkr	13 282	14 520	15 084	15 396	15 920	17 079	18 307	18 552
Total expenditure on health – % gross domestic product	7.8	8.1	8.2	8.1	8.0	8.0	7.8	7.5
Public expenditure on health – % total expenditure on health	83.3	83.5	85.1	83.3	83.2	83.3	82.5	82.2

Source: OECD Health Data 1999.

Fig. 5 shows that health care expenditure per capita in Norway is lower than in Denmark. The data included in the figure, are similar to those of the OECD health database. They differ, however, from those of Nordic Health Statistics included in Table 6, which suggest that Norway has the highest per capita health care expenditure in Scandinavia. It should be noted that there are always a number of difficulties in comparing health costs. When the comparison is made in relation to GDP, it is difficult to know where the real difference lies: in GDP, in health costs, or in both. In addition, one must expect fluctuations in the exchange rate which are not always captured by the available standardization techniques such as PPP. Finally, there are structural differences in health services of the individual countries which also affect what is included under health costs.

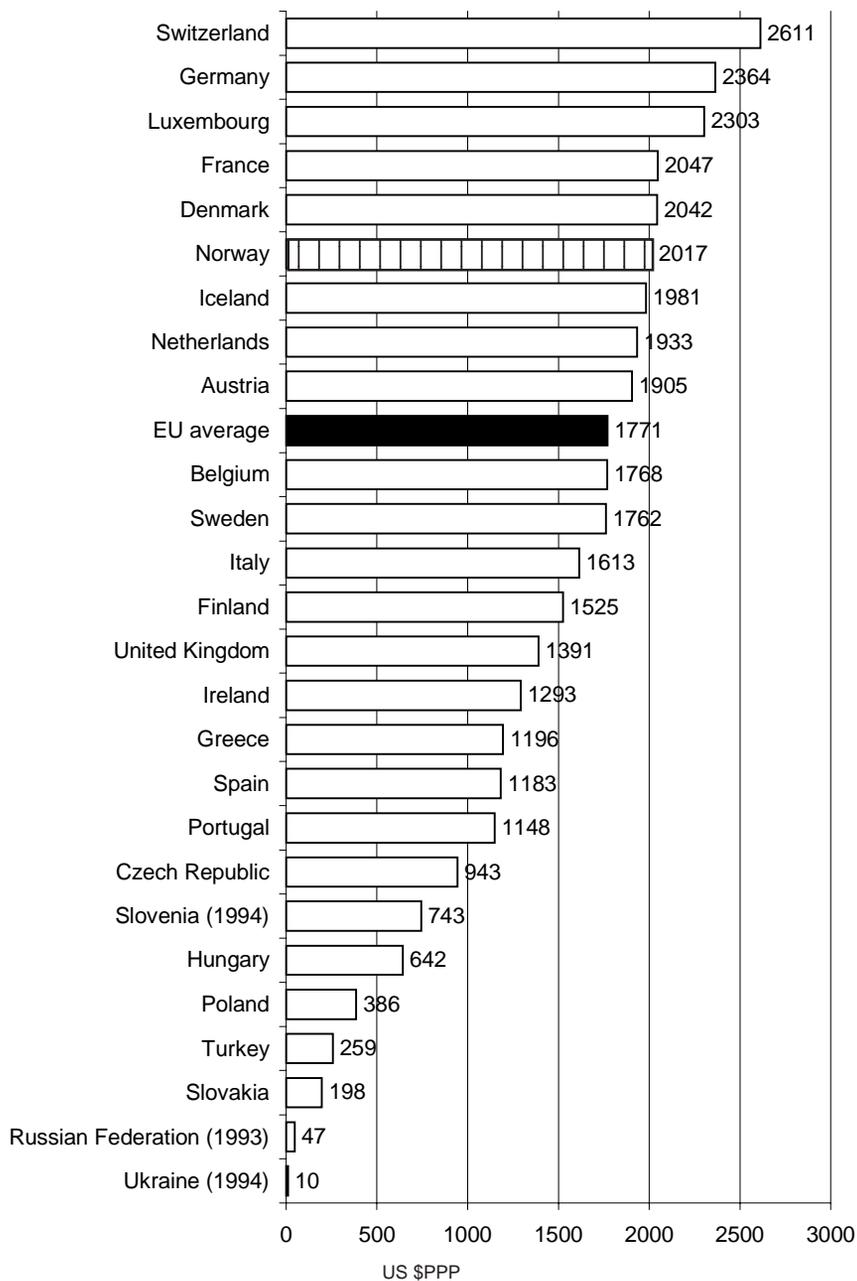
Table 6. Health care expenditure per capita, 1996

	Denmark	Finland	Norway	Sweden
Total expenditure Per capita KR/FIM	13 012	8 848	16 871	14 470
Total expenditure Per capita in PPP-Euro	1 413	1 303	1 521	1 326

Source: Statistics Norway: Health Statistics in the Nordic Countries 1997, OECD: Health Care Systems in Transition.

The OECD gives a figure of 82% for public health care expenditure in 1997 (Table 5), similar to the WHO Regional Office for Europe health for all database (Fig. 6). As mentioned before, statistics on private expenditure, in Norway as elsewhere, suffer from a number of problems, which should be taken into account here. First, official public expenditure data include some out-of-pocket payments, in particular, those derived from copayments to publicly

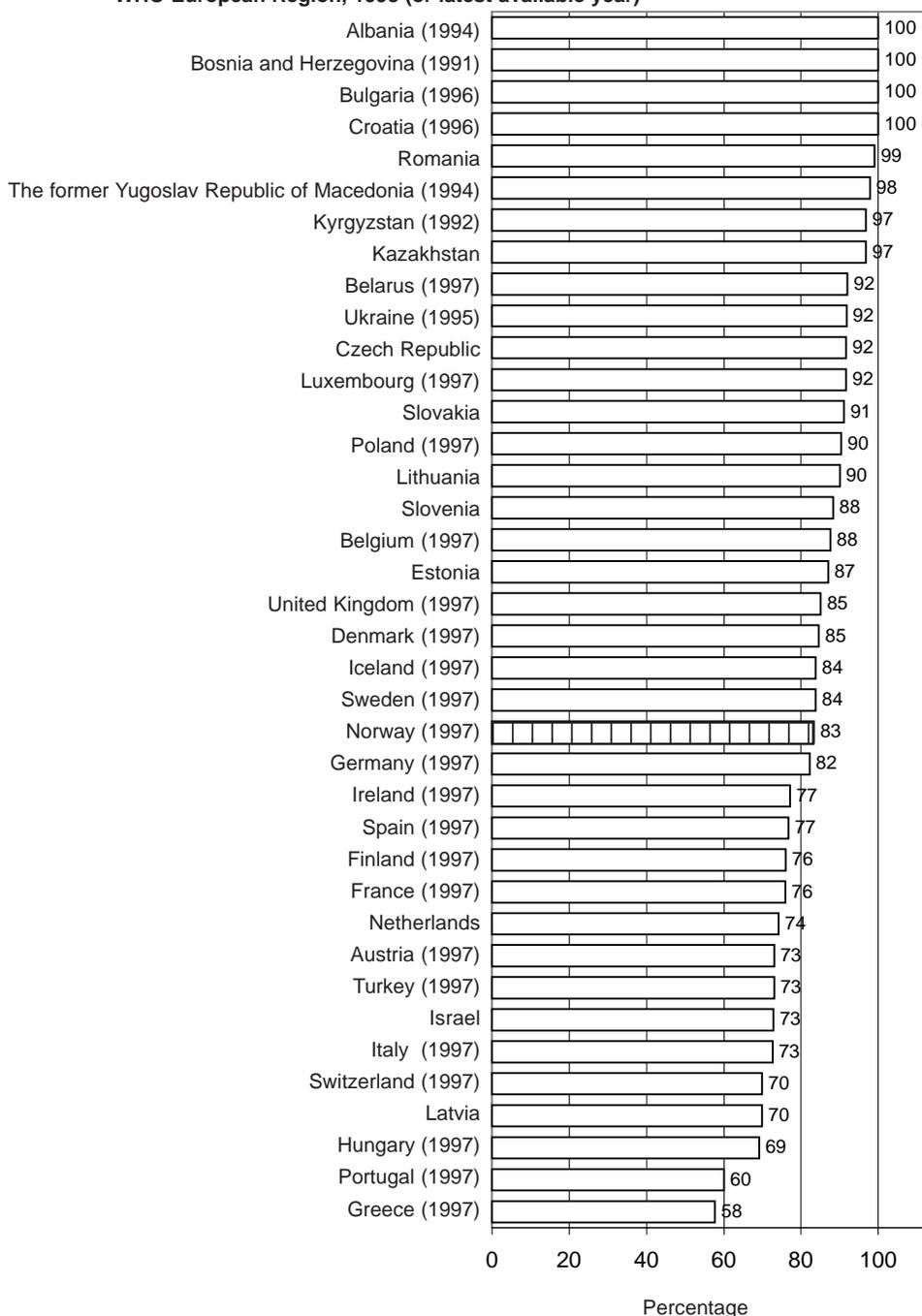
Fig. 5. Health care expenditure in US \$PPP per capita in the WHO European Region, 1998 (or latest available year)



Source: WHO Regional Office for Europe health for all database.

Norway

Fig. 6. Health expenditure from public sources as % of total health expenditure in the WHO European Region, 1998 (or latest available year)



Source: WHO Regional Office for Europe health for all database.

employed general practitioners, which will tend to inflate the estimate of public expenditure. Second, the latest available estimates of out-of-pocket payments in the public system are from 1993. Third, data on out-of-pocket payments in private outpatient care not contracted-out to the public system is only available for dental care, spectacles and orthopaedic equipment. Fourth, there are no data on expenditure on voluntary health insurance. Certainly, the latest available estimates, derived from the 1996 Norwegian National Accounts, point to private expenditure amounting to 17% of total health expenditure, a figure close to both OECD figures and to the WHO Regional Office for Europe health for all estimates.

Fig. 7 shows that, in 1998, total expenditure on health as a percentage of GDP was well below the European Union (EU) average. This is also a lower estimate than the official Norwegian statistics indicate. National figures actually start to diverge from those in the OECD database in 1996. According to Statistics Norway, total health expenditure was 8% of GDP in 1996, increased to 8.3% in 1997 and reached almost 9% in 1998, which would place Norway during this period either at the EU average or a little above it, in contrast to OECD records which suggest that Norway is below average.

It should, therefore, be noted that the proportion of Norway's total GDP for the public health and health care sector has been rather constant between 1992 and 1997 for the following reasons:

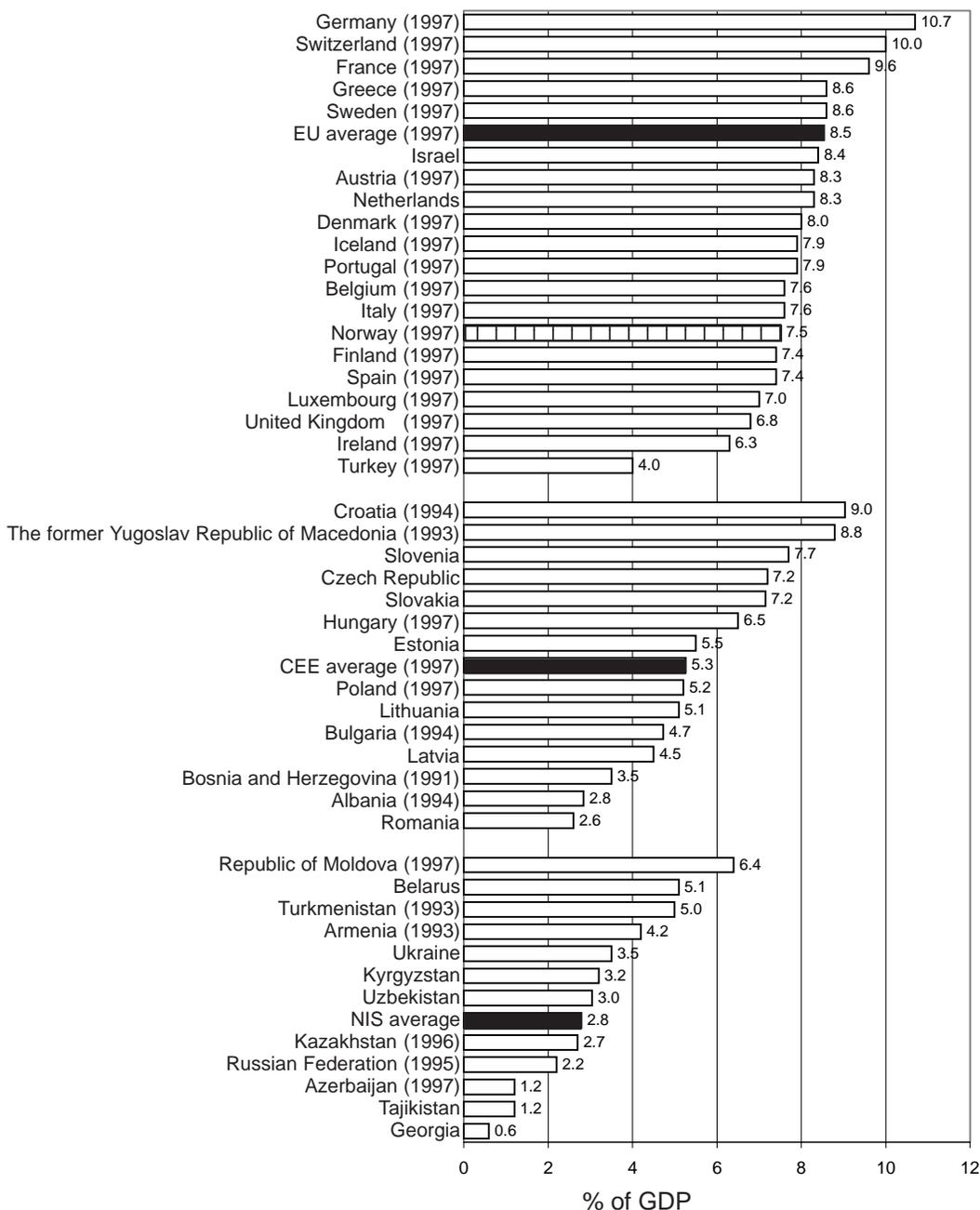
1. Norway is a rapidly growing economy due to petroleum, which accounts for its high GDP growth rate;
2. Norway was among the first countries to use the revised guidelines for national accounts (SNA1993 and ENS1995) and the GDP estimates for Norway increased by about 10% after the national accounts were revised in Norway in 1995;
3. Cost containment in the health sector was perceived as a major concern for public policy mainly in the 1980s and at the beginning of the 1990s, and not very much after that.

Table 7 shows the evolution of different categories of expenditure between 1990 and 1998 at constant 1998 prices. As the figures in the last column indicate, public health prevention, rehabilitation, pharmaceuticals, and elderly and disabled care display over average increases between 1990 and 1998.

The growth in expenditure on elderly and handicapped care (including the mentally handicapped) reflects the reforms in 1988 and 1991 which tend to expand both benefits and coverage for these populations.

Table 7 also emphasizes that throughout the 1990s, in spite of the economic downturn which affected most European countries at the beginning of

Fig. 7. Total expenditure on health as a % of GDP in the WHO European Region, 1998 (or latest year)



Source: WHO Regional Office for Europe health for all database.

Table 7. Public expenditure on health care (incl. care of elderly and disabled) at constant 1998 prices (in millions Nkr), 1990–1998

	1990	1991	1992	1993	1994
Total	70 760	75 544	77 599	78 051	79 719
Administration	2 637	2 498	2 578	2 738	2 698
Public health	430	1 581	1 569	1 581	1 716
Primary care	4 156	4 982	5 298	5 388	5 508
Rehabilitation	353	380	425	462	473
Care of elderly and disabled	24 844	28 158	28 774	28 433	29 126
Somatic specialized care	26 775	26 693	26 858	27 227	27 584
Psychiatric care	5 522	5 464	5 890	5 819	5 852
Dental care	1 388	1 645	1 656	1 582	1 625
Pharmaceuticals	3 137	3 499	3 799	4 034	4 310
Other	518	644	751	789	827
	1995	1996	1997	1998	Growth 1990–1998
Total	83 511	89 645	94 588	102 617	45.0%
Administration	2 787	2 804	2 858	3 107	17.8%
Public health	1 701	1 825	1 968	2 096	46.6%
Primary care	5 647	5 683	5 928	6 392	53.8%
Rehabilitation	510	570	622	628	77.5%
Care of elderly and disabled	30 614	32 320	33 204	37 043	49.1%
Somatic specialized care	29 194	33 143	34 943	37 146	38.7%
Psychiatric care	5 980	5 640	6 974	7 487	35.6%
Dental care	1 648	1 733	1 778	1 792	29.1%
Pharmaceuticals	4 616	5 054	5 401	5 930	89.0%
Other	814	874	911	998	92.7%

Source: The Ministry of Health and Social Affairs.

the decade (which, in fact, was far less noticeable in Norway), there has been a steady increase in health care expenditures in constant prices. To be noted is an annual growth of 8.5% from 1997 to 1998. In comparison, the growth in GDP in constant prices in 1998 was about 2.1%. This explains the increase in public health care expenditures' share of GDP discussed above.

Main factors that contributed to growth in health expenditures in 1998 are: higher expenditure on pharmaceuticals; increased spending by the municipalities for care of the elderly and disabled; and by the counties for specialized non-psychiatric care.

Health care delivery system

Norway's health care system is mainly public and integrated, building on three tiers of government: the central government (state); the nineteen counties; and the 435 municipalities. The state has overall responsibility for providing and financing health care. The state owns a few hospitals and some health promotion agencies but has devolved most technical responsibilities. The counties are responsible for hospitals and specialist services. In addition, the role of the health regions in the hospital sector is increasing. Finally, the municipalities are responsible for primary health care and social care.

The National Board of Health and the National Institute for Public Health are a part of central government, and together with the Ministry of Health and Social Affairs, these institutions share responsibilities in monitoring and controlling the health care system. Also, the regional medical officers located in the counties form part of central government.

Primary health care and public health services

Each of the 435 municipalities is responsible for providing primary health services for its inhabitants. Each municipality must organize services for disease prevention and health promotion, diagnosis and treatment of illness, rehabilitation and long-term care. The municipal board approves a plan for municipal health services according to local needs and demands. No minimum requirement for patient-physician ratios or other services is given. Decentralized decision-making brings about several important challenges. One of these is the question about equal access to health services all over the country, which is a goal of the Norwegian authorities.

Primary care

The local authorities are to promote health and the wellbeing of the population as well as good social and environmental conditions. They are to seek to prevent and give treatment in the case of illness, injury or infirmity. Furthermore, they are to provide information on health and encourage activities for the community to promote public health and individual health and wellbeing.

As mentioned, the decision about the amount of local funds to spend on the health sector is left to the discretion of local politicians. Still, the Local Authority Health Care Act defines a number of services which are obligatory at local level. The responsibilities of the local health services are:

- promotion of health and prevention of illness, injury or infirmity, organized as: environmental health care, mother and child health centres, school health services and health education;
- diagnosis and treatment for illness, injury and infirmity;
- medical rehabilitation;
- nursing care.

Throughout the postwar years, there has been clear public responsibility for the planning and management of both primary care and specialized care. In primary health care, this responsibility has coexisted within a system of private practice for physicians, physiotherapists and dentists. The municipalities have responsibility for the provision of services, but may contract with private practitioners to meet their obligations. In order to obtain a more equal distribution of personnel in different parts of the country, NIS funding has been curtailed gradually (starting in 1992) for physicians who establish a practice without a contract with the municipal or county authorities.

The general practitioners are a central part of the primary health care system. They are organized in single or group practices. The most common model has between two and six general practitioners working in a group practice. Most general practitioners have some diagnostic and minor surgical facilities at their disposal. Regarding auxiliary personnel, General practitioners usually have one or more persons assisting them in their work. There are no formal requirements for being a doctor's assistant. In many practices, there are medical secretaries employed, but the general practitioners' helpers are also enrolled nurses, nurses, medical technologists, or administrators. The amount of auxiliary personnel in a general practitioner's practice depends on the size of the practice allowance provided from the municipality.

After having finished six years of university study followed by eighteen months as interns, there are no further requirements for general practice.

However, most general practitioners specialize in general medicine (for training, see further down). The majority of the general practitioners are either municipal employees or they have a contract with a municipality which entitles them to a basic grant combined with a fee for service from the NIS. Table 8 shows that, in 1990, 40% of the general practitioners were municipal employees on a fixed salary, while 54% had a contract with income from a fee-for-service basis. Over the years, this pattern has changed and today only about 20% of the general practitioners are municipal employees. We also see from the table that there are few private general practitioners without municipal contracts.

Table 8. The structure of primary health care services

(person-labour year)	1990	1996	1998
municipal employees	1150 (41%)	830 (27%)	676 (21%)
private, contracted-out	1530 (54%)	2068(66%)	2294(71%)
private, without contract	154 (5%)	213 (7%)	259 (8%)

Source: The Ministry and Health and Social Care.

The general practitioner service relies on the inhabitants themselves making a contact with a doctor. For the most part, selection of a general practitioner is not limited by geographic or other circumstances. Normally, travelling expenses are partially covered only to see a general practitioner in the home municipality or to the nearest general practitioner in the neighbouring municipality. The general practitioners are not pre-assigned to certain geographic areas.

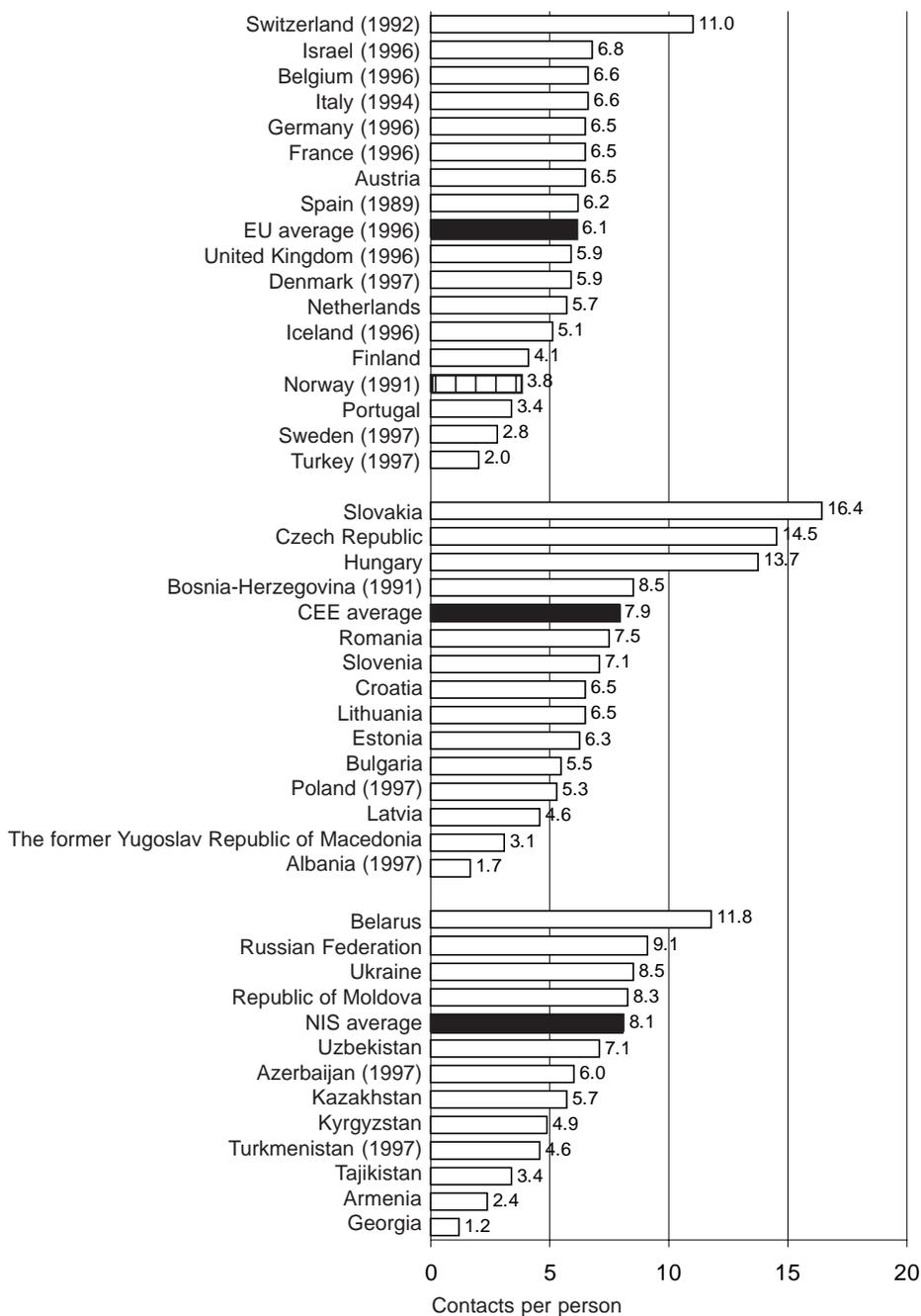
A Norwegian visits a general practitioner approximately three times a year. Out-of-pocket payments are limited and the general practitioners who have a public contract (and receive reimbursement from the municipality and NIS) are not allowed to charge fees other than those determined by the National Assembly. General practitioners without a contract are not a part of this system and, thus, are able to decide how much to charge patients.

The patient can be treated by a physiotherapist (the majority of whom have a contract with a municipality) or a chiropractor directly, without seeing a physician first. However, the physiotherapist or chiropractor only receives refunds from the NIS for treatment referred by a physician. Therefore, it is less expensive for the patient to see their physician first, as the chiropractor charges patients without a referral more in order to reach his/her target income.

The following pilot tests are currently being carried out in some counties:

1. Physiotherapists specialized in manual therapy and chiropractors are receiving NIS reimbursement for treatment which is not referred by a physician;

Fig. 8. Outpatient contacts per person in the WHO European Region, 1998 (or latest available year)



Source: WHO Regional Office for Europe health for all database.

Norway

2. Chiropractors are being given the right to direct patients to medical specialists and to physiotherapists.

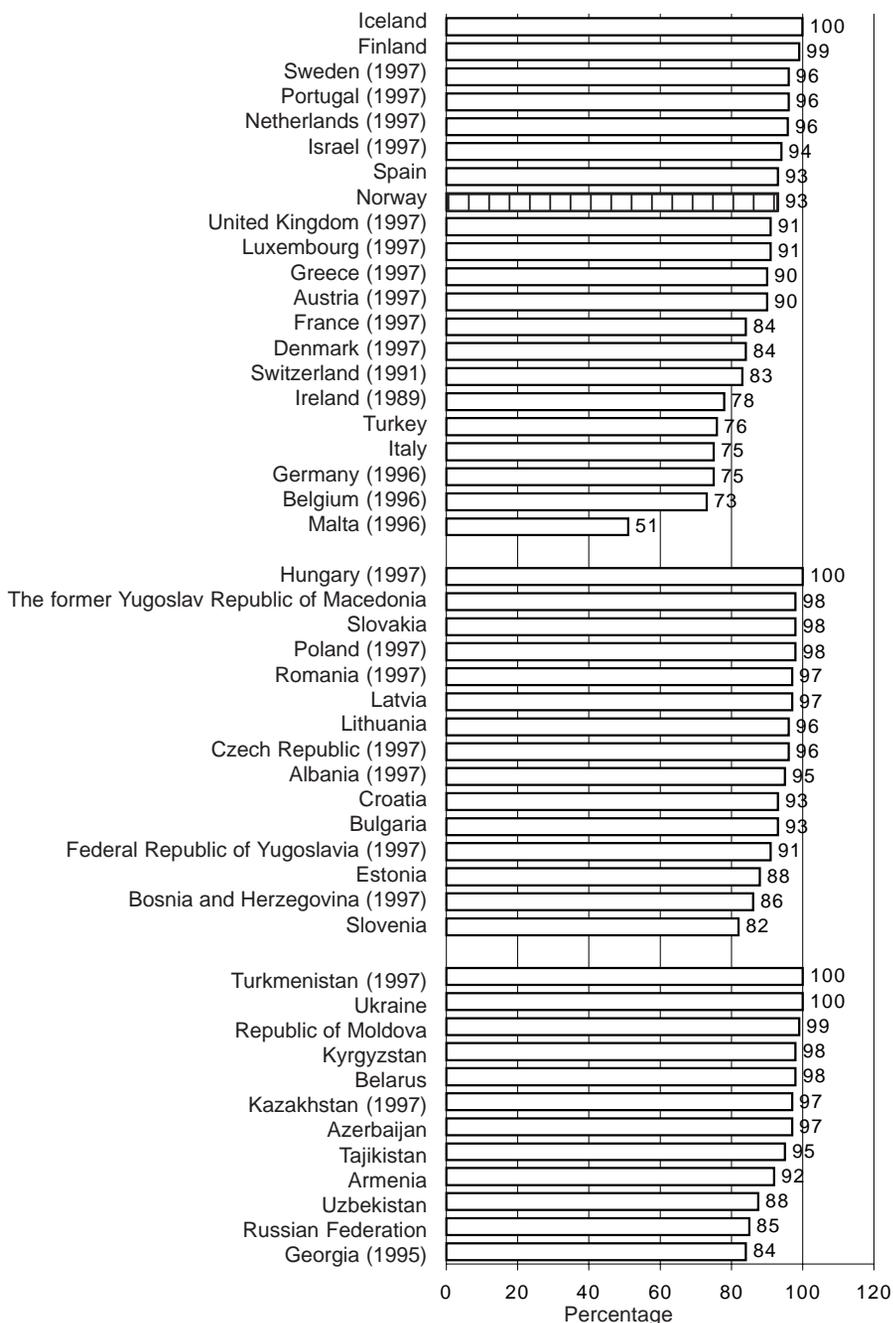
With regards to public dental care, the counties hold certain responsibilities. This consists of providing services to specific high priority groups (children and youth up to 19 years, the elderly and populations with chronic diseases who are in institutions and residential care), according to the Act on Dental Care.

Good health care services at primary level depend on a chain of referral to specialized medical care services and/or to hospital care. In order for specialists to be reimbursed for a consultation from the NIS, the patient needs a referral from a general practitioner. Hospital care has changed: as the average length of stay in hospitals has been shortened, the patient returns home sooner. This has happened for several reasons: there has been a rapid development in medical technology and more focus on the roles of primary and secondary care. At the same time, the focus on waiting-time for non-emergency treatment has put pressure on the hospitals to treat more patients. This places added strain on health care services with regard to follow-up, and contact and collaboration between hospital and primary health care services. Focus has been turned to care centred around the patient. Instead of relying on fixed routines and standard solutions, the opinion of the patient is also sought when the individual course of treatment is planned. This means that the general practitioners need to meet new challenges, as they are expected to act as advisers, coordinators and builders of social support networks.

During the last few years, high priority has been placed on improving general practitioner services. There has been concern that the elderly and groups with chronic diseases are not properly taken care of. Some people do not have a permanent general practitioner at all. On the other hand, there is a concern about doctor-shopping, which implies a transitory contact between a patient and a general practitioner. There are also problems related to an excessive use of specialists. Finally, as shown in Table 8, there are different types of general practitioners who are financed in different ways, which makes the system complex for the patients, the authorities, and the general practitioners themselves.

To improve the situation, in the early 1990s, central government initiated a trial using a list system (an official registration list of patients). The project started in May 1993 and lasted for three years. The trial included four municipalities with a total of 250 000 inhabitants and 150 general practitioners. The evaluation showed that a majority of patients, as well as the general practitioners, were satisfied with the system and wanted it to be permanent. In 1997, on the basis of this project, the Norwegian parliament agreed on a proposition to

Fig. 9. Levels of immunization for measles in the WHO European Region, 1998 (or latest available year)



Source: WHO Regional Office for Europe health for all database.

Norway

introduce the list system for the whole nation. The income of the general practitioners will be based on a combination of capitation funding and fee-for-service. The reform is intended to bring about improved care, better financial control, and increased collaboration within the local medical service (see the *Section on health care reforms*).

Public health services

Public health services are organized in a three-tiered system. The aim is to decentralize as much as possible in order to create the shortest possible distance between provider and patient. The municipalities are responsible for health promotion, the prevention of illness and injuries, and, in relation to that, the organization and management of school health services, health centres and child health care. Municipal health centres offer pregnancy examinations and monitoring, and vaccinations. There is a close follow-up of mothers and newborns that includes a vaccination programme. Fig. 10 shows that the level of immunization for measles in Norway is higher than in Denmark, but lower than the rest of the Nordic countries.

The central government has seven specialized public health institutions, which are professional and administrative bodies under the authority of the Ministry of Health and Social Affairs. Their primary objective is to give expert advice to public authorities and produce evaluations for public officials and for research centres. The government also has regional medical officers in every county who are responsible for overall supervision of the health services.

In 1987, The Local Health Care Act of 1984 was extended to include environmentally-oriented health activities. Hence, the act contains the following elements:

- decentralization and delegation of power
- the duty to inform
- impact assessment
- public information
- penal arrangements.

The responsibilities of the municipalities have been reinforced in the newly-adopted National Environment and Health Action Plan (NEHAP). The Communicable Disease Control Act of August 1994 places responsibility on all three tiers of the Norwegian society. In the municipality, the general practitioners provide these services, whereas the National Board of Health and the National Institute of Public Health have an overall supervising role.

In the 1990s, four areas of special attention have been underlined:

- asthma, allergies and diseases caused by indoor air pollution
- psychosocial disorders
- musculo-skeletal disorders
- injuries after accidents.

Action plans and budget lines have been developed in these areas.

A recent governmental report, NOU 1998:18, highlighted the necessity of further empowerment of local communities. The challenge in the future will be to put in place the necessary technical tools to develop organizational and financial systems, so that this empowerment can be operationalized.

Other prevention services are provided as follows: special cancer-screening programmes on mammography and cervical cancer are implemented through the National Cancer Registry. There is also a screening programme on colorectal cancer. Norway has an action plan to control microbial resistance that places responsibility for surveillance at the National Institute of Public Health. A plan to control pandemic influenza is presently under consideration. In addition, a main focus is to establish a national monitoring system for microbial resistance so that the scientific basis for preventive activities can be identified.

It is a long-term goal to reduce the number of smokers to 20%. About 33% of men and women between 16 and 74 years old are daily smokers, and another 11% smoke, but not daily. The National Council on Tobacco and Health gives expert advice and produces evaluations for public authorities, health and social services, etc. A national strategic plan for prevention of smoking presents the policies for the period 1999–2003 regarding smoking reduction. The government plays an active role in WHO's Tobacco Free Initiative.

The National Council on Nutrition and Physical Activity is responsible for matters regarding nutrition, physical activity and health. The Norwegian population is less active than previously. One result is that average body weight is increasing even though the Norwegians eat less. The situation concerning food safety is generally very good. The incidence of foodborne diseases is low, and the number of registered cases does not indicate any substantial change in recent years.

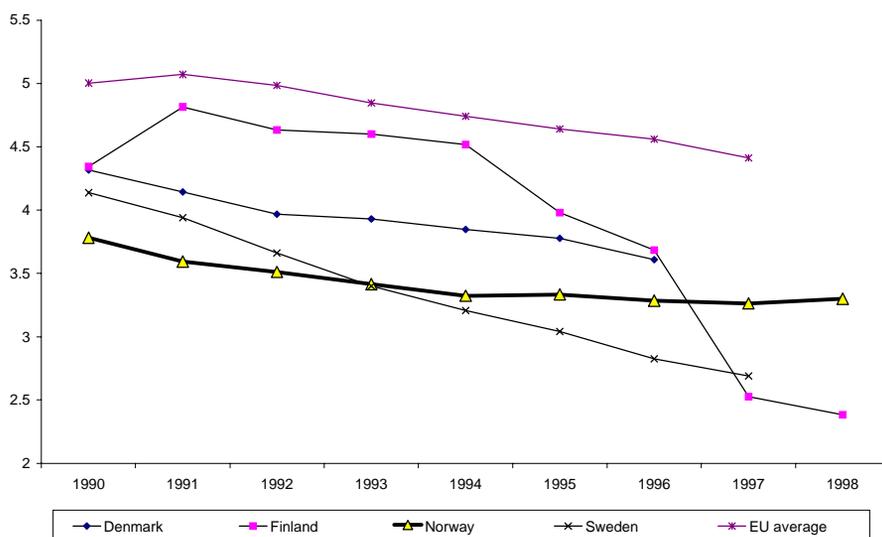
Norway has an action plan to reduce the number of persons with sexually transmitted diseases, especially HIV/AIDS. In Norway, HIV is transmitted mostly among two groups: drug addicts who are sharing syringes; and homosexuals. The government's main strategy is to reduce the number of new cases of HIV-positives, and to increase the quality and duration of life.

Secondary and tertiary care

Since the adoption of the 1969 Hospital Act, each of Norway's 19 counties has assumed responsibility for the financing, planning and provision of specialized health care. This includes both general and psychiatric institutions, as well as other specialized medical services, such as laboratory, radiology and ambulatory care, special care for alcoholics and drug addicts and dental care for adults. Counties enjoy considerable autonomy regarding the structure of hospital care, and as a result, hospital organization and management varies by county. The central health authorities also have some mandates, including the control of research institutions, several national councils, the National Hospital of Norway (Rikshospitalet), the National Cancer Hospital (Radiumhospitalet) and a few other highly specialized hospitals.

The country is divided into five health regions, each with its own regional hospital. Four of these hospitals are owned by the county in which they are located, while the fifth is state-owned (the National Hospital of Norway). All five regional hospitals are also university-level teaching hospitals. The highly complex regional hospitals also have functions as district (local) hospitals, serving the local population. In addition, every county has between two to seven district hospitals. As a result of the increased emphasis given to outpatient and day care treatment, from 1970 to 1990, the number of beds in somatic

Fig. 10. Number of acute hospital beds per 1000 population in Norway and selected countries, 1990–1998



Source: WHO Regional Office for Europe health for all database.

Table 9. Structure of hospital services

	Number of establishments	Inpatient stays		Outpatient consultations	
		Number of patients	% share	Number of patients	% share
Regional hospitals	5	156 551	24.9	848 197	29.1
County hospitals	80	471 200	75.1	2 062 700	70.9
Central county hospitals	12	201 365	32.1	890 522	30.6
County hospitals with central departments	11	105 999	16.9	505 651	17.4
Local hospitals	22	86 562	13.8	363 213	12.5
County hospitals with central departments with reduced services	14	45 491	7.2	203 687	7.0
Specialized hospitals	21	31 805	5.1	99 583	3.4
Total	85	627 773	100,0	2 910 853	100.0

Source: Ministry of Health and Social Affairs, 1997.

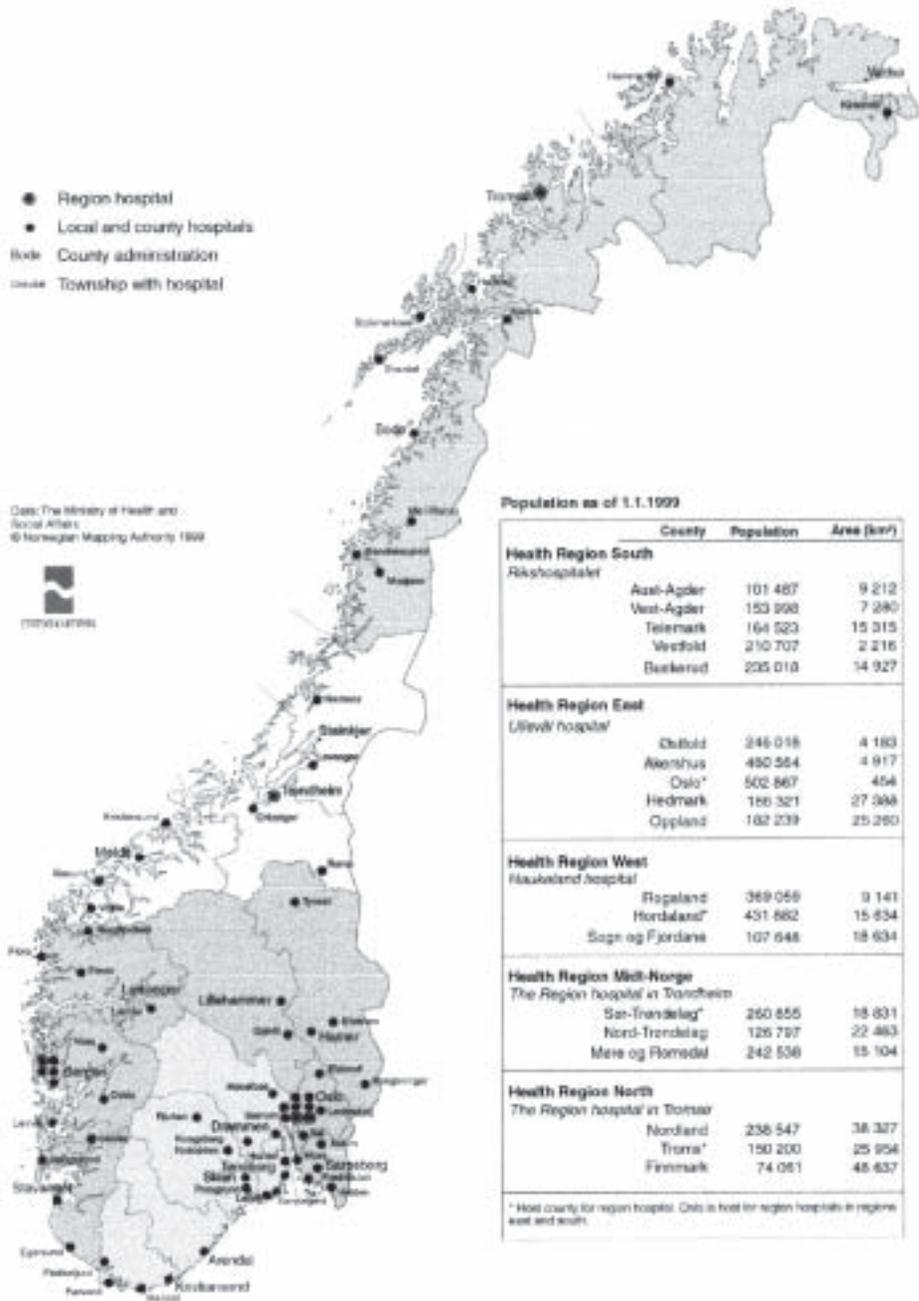
hospitals decreased by 35%, while the reduction in psychiatric hospitals reached 66%. In contrast, since 1990 hospital capacity has been decreasing more moderately (Fig. 10 and Fig. 12), as reflected in the smaller reduction in acute hospital beds rates registered between 1990 and 1998 (ranging between 15% and 22% depending on the estimates used). Many of the somatic hospitals are small due to sparsely population in remote areas.

A few hospitals are owned by voluntary organizations, but these are incorporated into county health plans and receive public support in the same way as county-owned hospitals. They are treated as public hospitals and are included in the map and table below.

In addition to the public hospital sector, there is a small private hospital sector consisting of five very small private hospitals with outpatient clinics in Oslo, representing less than 1% of the total number of hospital beds and 5% of the outpatient services in Norway. These private clinics specialize in open heart surgery, hip surgery and minor surgical procedures such as arthroscopy and sterilization, as well as inguinal hernia, cataracts and varicose vein operations in response to long waiting lists for such care in public hospitals. Norwegian law imposes tight restrictions on establishing private hospitals.

The average occupancy rate in hospitals is higher than in many European countries, while inpatient utilization rates are comparatively low for western European standards (Table 11). According to national data, the number of somatic hospital beds per 1000 population is around 3.1 (1998); if nursing homes and psychiatric beds are included, the number of beds per 1000 population is 13.5. Average length of stay has steadily decreased over the past decade, both due to increased use of outpatient clinics and to shorter lengths of stay by the elderly.

Fig. 11. Regional distribution of hospitals



Source: The Ministry of Health and Social Affairs.

Specialized ambulatory medical services are organized as outpatient departments of the public hospitals. According to existing regulations, patients have to bear part of the cost for outpatient services, such as medical consultation and X-ray examinations. The public sector finances the vast majority of specialists. In addition, some specialists engage in private practice, either part time or full time, and have their fees partly reimbursed by the NIS

The majority of the physicians and other staff engaged in specialized health care are employed at public hospitals and are paid salaries according to a national pay scale. In order to facilitate the recruitment of health personnel to jobs in the outskirts, the county can contract-out specialized care with private physicians in salaried positions where the salary is partly a grant from the county and partly refunds from the NIS on a per-case basis. These contracts are limited to physicians included in the county health plans. However, specialists are not required to enter into a contract with the public sector. The specialists without public contracts, however, are few and they only operate in urban settings.

Services from medical and radiology laboratories are included under the county's responsibility for specialized health care. Most services are delivered by the hospitals. There are, however, approximately 25 private laboratories and institutes which receive refunds from the NIS. The majority also have a contract with, and are partly financed by, the counties. The institute or laboratory is not required to have a contract with the county, but requires an endorsement by the district medical officer. Independent private centres are rare, and concentrate in Oslo and the neighbouring urban areas.

To secure an equal distribution of health services and hospital care facilities, the counties obtain refunds for capital investment in building projects and larger investments in hospital equipment. After approval by the Ministry of Health and Social Affairs, grants are given to the counties. Currently, these grants are loans with a 40-year subsidy. During the 1960s, many hospitals were built or modernized. The central health authorities expect major investments in hospitals in the near future. A report is being developed on the subject to plan this according to future needs.

Waiting lists

The most urgent problem facing the health care system in the past decade has been the insufficient ability of both general and psychiatric hospitals to absorb patient inflows. Long waiting lists for non-emergency treatment are considered unacceptable both by patients and health authorities. Major reforms and different means to handle this problem are being implemented (see the section on *Health care reforms*).

In 1990, a national registration system for patients waiting for non-emergency treatment was introduced. Waiting lists are based on reports from each hospital. An upper limit as to how long a patient should have to wait was introduced at the same time. This guarantee promised treatment within six months for seriously ill patients on the waiting list. It must be noted that the term guarantee might be misleading, because the guarantee provided no legal right. The guarantee has been more of an obligation by the providers of health care. Since 1992, three times a year the counties have been legally required to report the waiting time for treatment.

The system of nationally managed waiting lists was intended as an instrument to measure discrepancies between capacity and demand. This led to the unfortunate situation in which hospitals and hospital departments were encouraged to keep as many patients as possible on the waiting lists, preferably with a waiting-time guarantee, in order to gain the largest possible share of the available economic resources. In 1997, in order to increase the incentives for hospitals to actually treat their patients, a payment to counties partly based on per case payment was introduced (see the section on *Financial resource allocation*), and since then, waiting lists are less important for the allocation of resources. At the same time, the waiting-time guarantee has been changed in two important ways. First, focus was removed from diagnosis to the impact the illness has on a patient's vital functions and, second, the upper time limit was reduced from six to three months.

Since the summer of 1997, the number of patients waiting at any time has been fairly constant at about 280 000 patients, but the number of patients with

Table 10. Waiting-times for patients discharged from the national waiting-list register in 1998

Number of days waited	Patient-category		
	Outpatients	Inpatients	All patients
0-1	61 508	6 176	84 658
2-30	210 329	30 814	258 287
31-90	212 823	27 832	258 336
Over 90 (guarantee patients)	26 699	9 229	38 684
Over 90 (non-guarantee patients)	143 157	25 804	192 095

Source: The Ministry of Health and Social Security.

unfulfilled waiting-time guarantees has fallen sharply from about 25 000 (December 1997) to 5000 (April 1999). There have been four important reasons for this. First, the waiting lists have been adjusted to include patients who are actually waiting for hospital treatment. Thus, the quality of the waiting list

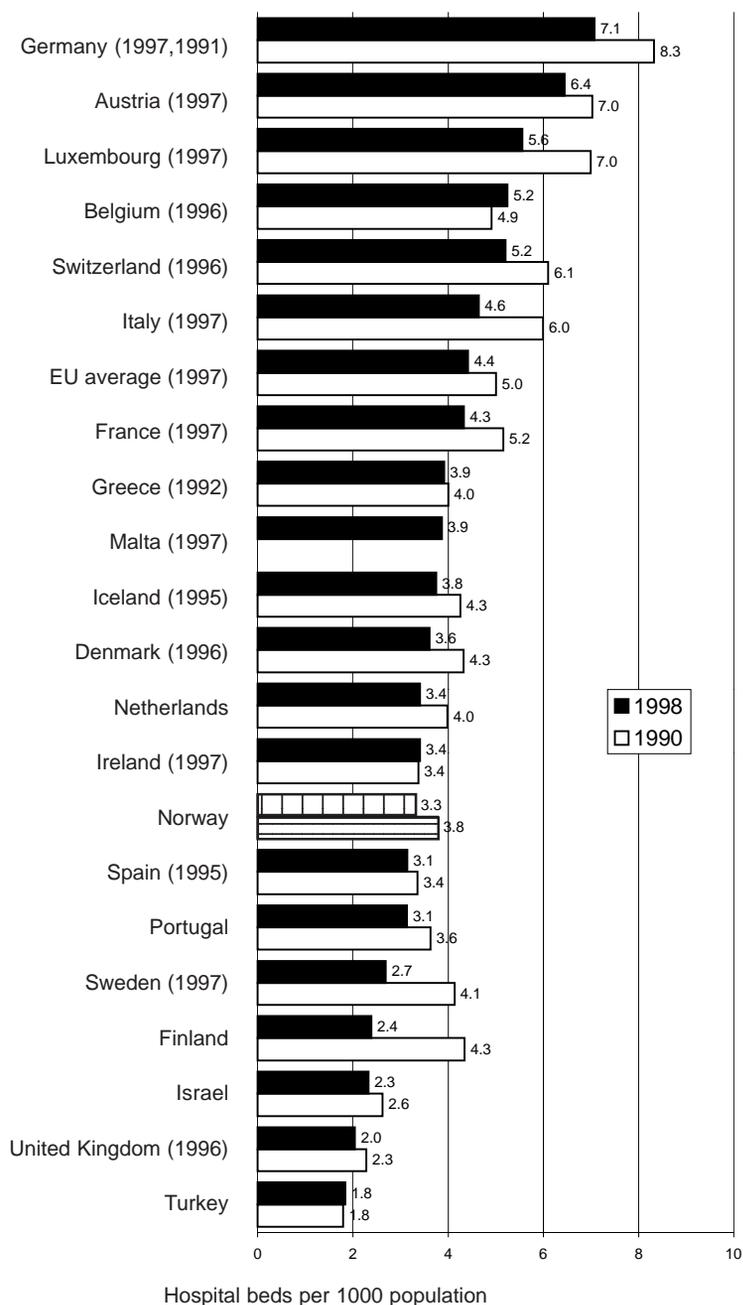
Table 11. Inpatient utilization and performance in acute hospitals in the WHO European Region, 1998 or latest available year

Country	Hospital beds per 1000 population	Admissions per 100 population	Average length of stay in days	Occupancy rate (%)
Western Europe				
Austria	6.4 ^a	24.7 ^a	7.1 ^a	74.0 ^a
Belgium	5.2 ^b	18.0 ^b	7.5 ^b	80.6 ^c
Denmark	3.6 ^b	18.8 ^b	5.6 ^b	81.0 ^b
Finland	2.4	20.5	4.7	74.0 ^c
France	4.3 ^a	20.3 ^c	6.0 ^b	75.7 ^a
Germany	7.1 ^a	19.6 ^a	11.0 ^a	76.6 ^a
Greece	3.9 ^f	—	—	—
Iceland	3.8 ^c	18.1 ^c	6.8 ^c	—
Ireland	3.4 ^a	14.9 ^b	6.7 ^b	82.3 ^b
Israel	2.3	18.4	4.2	94.0
Italy	4.6 ^a	16.5 ^a	7.0 ^a	76.0 ^a
Luxembourg	5.6 ^a	18.4 ^d	9.8 ^b	74.3 ^d
Malta	3.9 ^a	—	4.5	72.2 ^a
Netherlands	3.4	9.2	8.3	61.3
Norway	3.3	14.7 ^b	6.5 ^b	81.1 ^b
Portugal	3.1	11.9	7.3	75.5
Spain	3.1 ^c	10.7 ^c	8.5 ^b	76.4 ^c
Sweden	2.7 ^a	16.0 ^b	5.1 ^b	77.5 ^b
Switzerland	5.2 ^b	14.2 ^e	11.0 ^a	84.0 ^a
Turkey	1.8	7.1	5.5	57.3
United Kingdom	2.0 ^b	21.4 ^b	4.8 ^b	—
CCEE				
Albania	2.8 ^a	—	—	—
Bosnia and Herzegovina	3.4 ^g	7.4 ^g	9.7 ^g	70.9 ^g
Bulgaria	7.6 ^b	14.8 ^b	10.7 ^b	64.1 ^b
Croatia	4.0	13.4	9.6	88.2
Czech Republic	6.5	18.4	8.8	70.8
Estonia	6.0	17.9	8.8	74.6
Hungary	5.8	21.7	8.5	75.8
Latvia	—	—	—	—
Lithuania	—	—	—	—
Poland	—	—	—	—
Romania	—	—	—	—
Slovakia	7.1	19.3	10.3	77.9
Slovenia	4.6	15.9	7.9	75.4
The former Yugoslav Republic of Macedonia	3.5 ^a	8.1	8.9	66.5
NIS				
Armenia	6.0	6.0	10.7	30.2
Azerbaijan	8.0	5.6	—	—
Belarus	—	—	—	88.7 ^d
Georgia	4.6 ^b	4.8 ^b	8.3 ^b	26.8 ^d
Kazakhstan	6.6	14.9	13.0	91.2
Kyrgyzstan	6.7	15.8	12.9	81.7
Republic of Moldova	9.1	16.9	15.4	77.6
Russian Federation	9.0	19.9	14.0	82.5
Tajikistan	6.2	9.7	13.0	59.9 ^b
Turkmenistan	6.0 ^a	12.4 ^a	11.1 ^a	72.1 ^a
Ukraine	7.4	17.9	13.4	88.1
Uzbekistan	—	—	—	—

Source: WHO Regional Office for Europe health for all database.

Note: ^a 1997, ^b 1996, ^c 1995, ^d 1994, ^e 1993, ^f 1992, ^g 1991, ^h 1990.

Fig. 12. Hospital beds in acute hospitals per 1000 population in western Europe, 1990 and 1998 (or latest available year)



Source: WHO Regional Office for Europe health for all database.

information was dramatically improved. Second, incentives are now focused on production, not on waiting lists. Long waiting lists have become an embarrassment, not a prime argument for more resources. Third, the new criteria has reduced the share of the waiting-list patients who receive a guarantee. The guarantee system is used much more actively as a mechanism for prioritizing among patients. Fourth, the new economic incentives and increased public expenditure have led to an increase in capacity.

In spite of these changes, many patients are still waiting for hospital treatment. In addition, as the most seriously ill patients receive treatment faster, the less seriously ill have to wait even more. The main customers who use the very small privately-financed health care industry are most likely those patients who have to endure long waiting-time. Table 10 shows the distribution of waiting-times for the waiting-list patients who were treated in 1998. The waiting-list patients in the table below account for about one third of the total number of patients treated; the other two thirds of patients are emergency-room patients.

When the Act on Patient's Rights is put into force, the patients will have the right to choose a hospital. It is expected that this will lead to an improvement in capacity-utilization, and that waiting-time will be reduced correspondingly.

Principles for setting priority

The individual physician is to decide on a case-by-case basis which treatment the patients should receive, based on a patient's medical condition and the physical and financial resources available. To clarify and unify priority setting, in 1987, a royal commission reported on guidelines with this aim. The commission recommended that the seriousness of the illness should be the main criteria for priority, and it also suggested that more of the available resources should be spent on the elderly, the chronically ill and psychiatric patients. The recommendation was implemented through the criteria and regulation of the waiting-list system.

It was believed, however, that the priority setting was not sufficiently standardized, and that further criteria were needed. Thus, a new royal commission was appointed, which reported their findings in 1997 (NOU 1997:18). The main objective of the commission was to enhance the fairness and uniformity of decision-making, and to improve the functioning of the waiting-list system. The commission proposed four priority levels: 1. fundamental; 2. complementary; 3. lower priority; and 4. not to be provided by the public sector. The criteria for ranking patients within these four categories were suggested to be the seriousness of the patient's condition (and not the actual illness), the expected improvement in health from the treatment, and the cost of treatment

relative to the expected improvement. These criteria were used as a basis for the new regulation on waiting lists that was issued in 1997. The commission also reported that the necessary improvement in psychiatric health care that was recommended in 1987 was not implemented. The government then decided to implement an action plan to improve the capacity both within the primary and secondary health care services for treating psychiatric patients (see the section on *Health care reform*).

The criteria suggested for priority setting seem to be generally supported within the medical community, but it should be noted that they are not very clear. Thus, there is substantial room for discretion both with regard to which patients should be given a waiting time guarantee, and with regard to what type of medical services should be resources allocated. Questions regarding priority setting (who shall be given access to what types of care) are expected to play an increasingly important role in future policy debates in Norway.

Social care

Social care in Norway includes social welfare services, care for the elderly, the disabled and psychiatric patients, and care for alcoholics and drug addicts. During the past ten years, municipalities have had increasing responsibility for providing health and social care services (see the section on *Organizational structure*). This expansion, however, has not reduced the amount of time of care provided by family members.

The state defines national goals and draws up the framework for social care services, and provides government guidelines and advice. There are no taxes or charges that are earmarked for special services in Norway. The allocation of resources to different public goods (like health and social services) is mainly a political matter in the parliament, in the counties and in the municipalities.

The basic principle of care for the elderly and disabled is that services and individualized support should be arranged in ways that enable care in people's home communities. The elderly and persons with disabilities should have the opportunity to live in their own home for as long as possible. Nurses and home care personnel make home visits and provide necessary services, including personal hygiene. Most of the municipalities (80%) now provide services 24 hours a day. Home care services include cleaning, shopping, cooking and washing for those who cannot cope on their own. Care services also include respite care, physiotherapist services, activities-for-daily-living-training and personal assistance. There is also a trend towards greater participation by users. Disabled persons want to have a greater influence on decisions affecting them.

Increasingly, information technology is used to enhance the safety and independence of the users.

About 155 000 people received home care services in 1999. As for the age distribution, in 1997 (the latest year), there were 149 000 home care users among the elderly and disabled, in contrast with 43 000 in institutions. Of the users of home care, 21% were younger than 67, 32% were between 67 and 79 years; 40% were between 80 and 89 years, and 7% were 90 or older. In contrast, the age distribution of those living in public institutions in 1997 was significantly higher: only 4% were less than 67; 23% were between 67 and 79 years; 50% fall between 80 and 89 years; and 23% were 90 years old or more.

It is the responsibility of the municipalities to provide residential care as needed, including nursing homes, service homes and group living for people with senile dementia. There are over 43 000 beds in institutions for the elderly. In the municipalities, 82 500 person-labour years are engaged in the social care sector. Nurses provide 52% of the total workload. The majority of the population in the institutions (74%) are 80 years and older. The day care activities include day centres and rehabilitation. The users pay an out-of-pocket fee for some of these municipal services. For health care, there is an upper limit on the yearly out-of-pocket fees. For home care and inpatient care, the size of the fees varies among the municipalities. It is a national debate as to whether there should be national guidelines as to the size of the fees. The fees, however, are supposed to be so low that services are available for everyone (see the section on *Health care finance and expenditure*). The availability of the care service varies. It is good in the districts and not very good in the larger cities. The quality of the care services also varies.

In general, the municipalities provide the social services, and the personnel working in the sector are directly employed by the municipality. Some nursing homes and day care centres belong to and are managed by voluntary organizations. However, they are staffed by professionals, and are funded by the municipalities. Until now, very few enterprises involve commercial entrepreneurs.

The overall need for nursing and care services is expected to increase. This is due to the age structure of the population, and especially to the expected increase in the number of elderly people over the age of 80 years. The main challenges and tasks facing nursing and care services in the future can be summarized as follows:

- to increase capacity through new residential construction and new nursing and care posts;
- to improve the quality of local and care services;
- to ensure uniform local authority provision of nursing and care services;
- to improve central government policy instruments.

Human resources and training

Level of provision

Approximately one third of Norwegian physicians work in primary care; 25% are women. In addition, more than 95% of doctors are members of the Norwegian Medical Association, which entitles them to specialist training and continuing medical education by the government. Despite the fact that the number of physicians and nurses per population is relatively high in Norway, there is a shortage of these and other groups of health personnel. To a large degree, this can be explained by the scattered population, which requires more personnel in proportion to the size of population than in many other western countries.

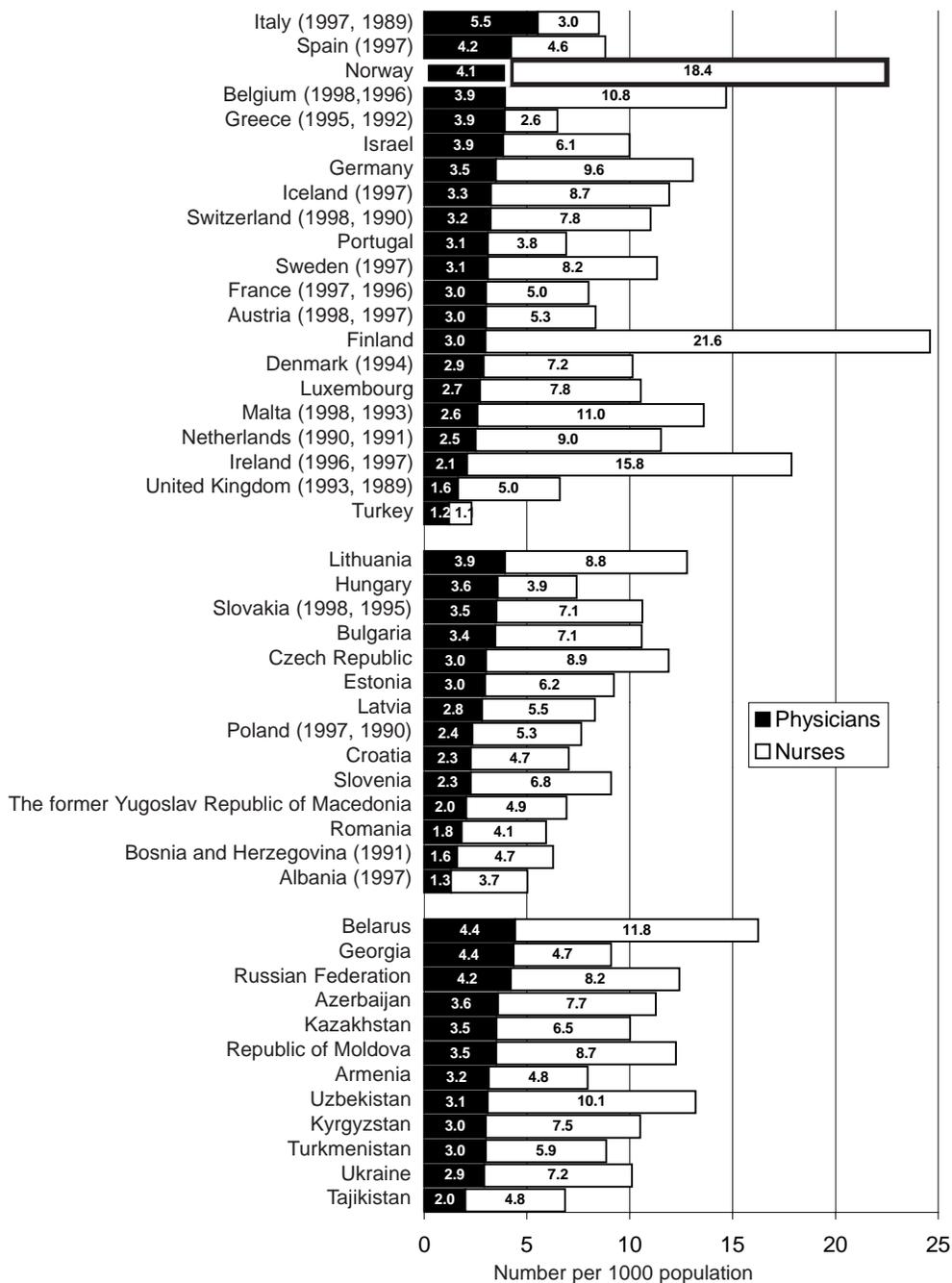
The average number of authorized positions for the total country is about 0.8 general practitioner per 1000 inhabitants, but the rate varies a great deal territorially. Municipalities with few inhabitants generally have a larger number of general practitioners than more densely-populated municipalities. In municipalities with less than 2000 inhabitants, the average number of general practitioners is 1.6 per 1000 compared to municipalities with more than 50 000 inhabitants where the average is 0.7 per 1000. But there are large variations within these categories. The regional distribution is not satisfactory, as there are difficulties in recruiting physicians to certain geographical areas, particularly isolated rural areas.

The number of female physicians is rising. Today more than 50% of the medical students are female. It is apparent that female physicians do not wish to work as much as males traditionally have done. In addition, the average age of retirement for physicians is decreasing. The trends imply that the demand for physicians will increase in the years to come.

Table 12. Number of students admitted each year in the different health care professions

	1990	1998
Physicians	310	594
Nurses	2 520	4 144
Dentists	105	113
Pharmacists	5 593	93
Physiotherapists	185	302
Professional health workers for mentally handicapped	300	925

Fig. 13. Number of physicians and nurses per 1000 population in the WHO European Region, 1998 or (latest available year)



Source: WHO Regional Office for Europe health for all database.

Fig. 14 shows that Norway has 4.1 physicians per 1000 population, which is the highest rate in Nordic countries. These figures differs from those of the health statistics in the Nordic countries 1997 (NOMESCO), where the figures are 2.5 physicians per 1000 inhabitants. In the NOMESCO statistics, all numbers of employees are turned into person-years. The Nordic statistics show that there were 9.15 qualified nurses per 1000 inhabitants, and 8.2 qualified auxiliary nurses. The numbers in Fig. 14 probably include both kinds of nurses, which makes comparison with other countries difficult. There is a shortage of nurses in Norway, especially nurses with specialists' skills. This is partly due to the fact that trained nurses do not always choose to work in the health care sector.

The number of dentists is not satisfactory either, particularly in rural areas. In addition, the average age of dentists working in public health service is high.

During the last decade, the number of health personnel has increased in Norway, due to an increase in the number of new students accepted each year. Some examples are given in Table 12.

The increase in the number of health care personnel has not yet attained its full effect, since education take several years. To meet the demands for health services, Norwegian authorities are taking further action for improving the provision of health personnel. There is an ongoing plan of action concerning personnel (1998–2001) which includes several measures:

- improving the system for assigning new medical positions
- improving management by organizing better use of human resources
- stimulating recruitment to remote areas of the country
- mobilizing labour reserves (recruiting and keeping personnel)
- recruiting personnel from other EEA countries (in particular physicians)
- increasing the number of students as well as the supply of supplementary training.

Norway expects a further increase in the demand for health personnel because of recent and soon-to-come health reforms and plans of action. In particular, these reforms include implementation of a list system (for general practitioners) and action plans directed towards cancer, the elderly, and psychiatry (see the section on *Health care reforms*).

Education and training

Physicians are educated at the universities of Oslo, Bergen, Tromsø and Trondheim. Medical education is financed by the state and is linked to the university hospitals and other parts of the health services. The number of medical

students is limited (594). In addition, a large number of Norwegians are studying medicine abroad (approximately 1000 in 1998/1999). To become a registered physician, a student must successfully complete a programme of study of six years, followed by an 18-month internship (12 months at hospital and 6 months in a municipality). The Chief County Medical Officer in Oslo is the regulatory authority.

In the last few decades, both the professional training and status of family practitioners have undergone significant improvements. In 1985, family medicine became a medical specialty and, accordingly, a five-year training programme was introduced, including one year of hospital-based practice, two years of group-based clinical family medicine practice, and 400 hours of theoretical courses. Every five years, general practitioners have to pass through a re-certification process if they want to continue practising as a family practitioner. As a result of the changing priority given to general medicine, it has become a highly-esteemed specialty, and family physicians have developed an independent professional identity.

Education for nurses is available at about 35 nursing colleges, which are spread throughout the country. They are normally managed by the state (education authorities), although some of them are privately managed. Training of nurses consists of three years of basic education followed by, if desired, specialist training (normally 1½ years of training).

There have been complaints that newly-educated nurses do not have the required qualifications. This is the reason why the curricula will undergo some changes, still within the framework of three years (particularly regarding the clinical parts of study). The new model has not yet been implemented.

Unfortunately, statistics concerning health personnel in Norway are imperfect. As part of the above-mentioned plan of action concerning personnel, the Ministry of Health and Social Affairs has initiated a project to improve statistics concerning positions, vacancies and the situation of medical personnel.

Pharmaceuticals and health care technology assessment

The pharmaceutical market

Measured by total expenditure, by expenditure as a percentage of GDP or by expenditure per capita, drug expenditure in Norway increased in the period from 1990 to 1997. In 1997, total sales on pharmaceuticals were approximately Nkr 8.9 billion. About 54% (approximately 4.8 billion) were reimbursed by the National Insurance Scheme (NIS), 31% consisted of patient fees and the remaining proportion was from hospital sales. In 1990, 46% was reimbursed by the NIS, 36% was from patient fees and 18% was from hospital sales.

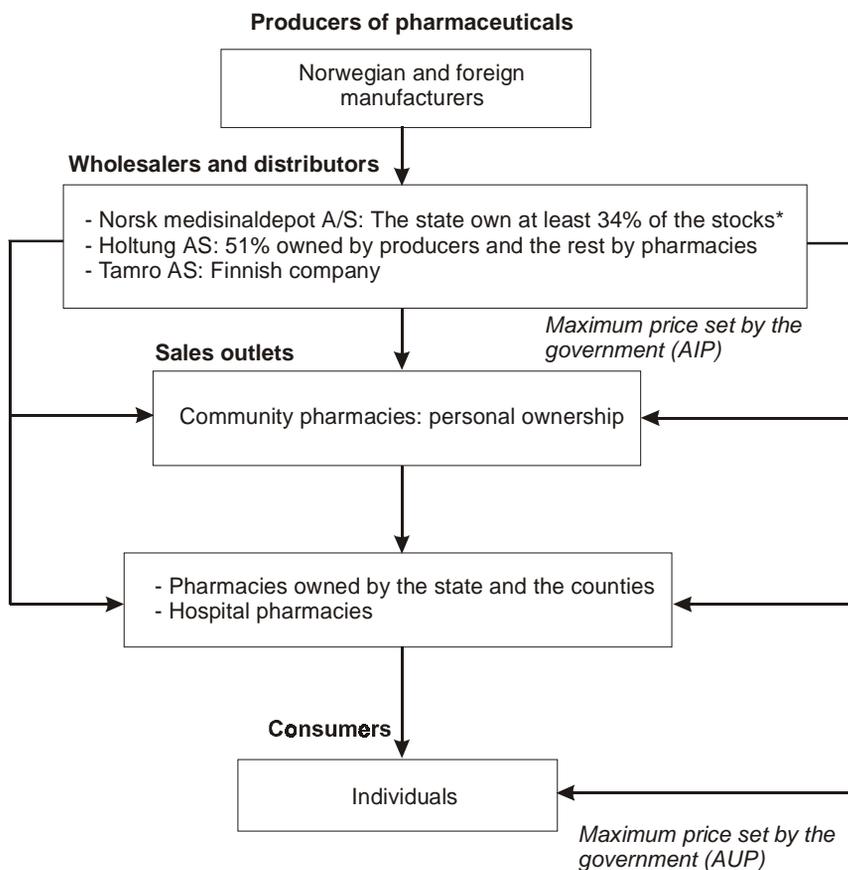
The pharmaceutical sector is one of the most regulated sectors in Norway. The Norwegian Ministry of Health and Social Affairs has overall supervisory responsibility for pharmaceuticals. The Ministry sets the retail margins. The Norwegian Medicines Control Authority, which is a subordinate agency of The Norwegian Ministry of Health and Social Affairs, registers and allows new types of drugs to enter into the drug market in Norway. In 1999, 4500 drugs were registered. This is an increase from 2500 in 1993, but is still lower than most other European countries. The Norwegian Medicines Control Authority sets the prices that the pharmacies pay to the distributors (AIP) and that patients pay for the drugs in the pharmacies (AUP). The Norwegian Board of Health has overall supervision of drugs from the manufacturers to the end

Table 13. Total expenditure on pharmaceuticals in million NKR, as percentage of GDP, as percentage of health care expenditure, and in NKR per capita, 1990–1997

	1990	1991	1992	1993	1994	1995	1996	1997
Sales to hospitals	904	955	1 016	1 079	1 135	1 169	1 156	1 330
Reimburse from NIS	2 287	2 627	2 937	3 198	3 450	3 884	4 298	4 779
Patient fees	1 776	1 902	1 885	2 141	2 144	2 524	2 715	2 756
Total pharmaceutical sales	4 967	5 484	5 838	6 418	6 729	7 577	8 169	8 865
Sale per capita	1 173	1 290	1 366	1 493	1 556	1 742	1 869	2 018
Expenditure % of GDP	0.69	0.72	0.74	0.78	0.78	0.82	0.80	0.81
% of health care expenditure	8.39	8.38	8.49	9.07	9.19	9.64	9.56	9.5

Source: The Norwegian Ministry of Health and Social Affairs; the Norwegian Board of Health and Statistics.

Fig. 14. Flow of pharmaceuticals from manufacturers to end users and price regulation model



* The National Assembly has decided that before 2003 the state has to sell stocks until they own 34 % of the stocks.

users of the pharmaceuticals. The board distributes licences for production and trade with drugs/pharmaceuticals. The National Insurance Administration (*Rikstrygdeverket*) administers the NIS. An important element of the NIS is the blue prescription rule. Based on this rule, the NIS reimburses the patients for the majority of their expenditures on important drugs.

The flow of pharmaceuticals from manufacturers to the end users is illustrated in Fig. 14.

Total reimbursement of drugs has increased each year (Table 13). One reason for this is the inclusion of new and more expensive drugs on the market. More

use of outpatient care and shorter time spent in hospitals are other reasons. To reduce costs, a reference price system was introduced in 1993. The reference price system implies that the price of the cheapest brand available on the market within each group of identical drugs is the basis for reimbursement. In 1998, the system was extended to include drugs that are subject to patient protection but which may be imported or manufactured under licence at a lower price. If the physician prescribes a more expensive drug than the cheapest brand in the reference group, then the patient must pay the difference between the price and the amount that NIS reimburses. Twice a year, producers and importers are invited to submit a tender for the reference price in each group. Based on these tenders, the reference price is changed.

The Norwegian Board of Health is responsible for the location of the pharmacies in order to adequately cover the whole population. Norway has the lowest availability of pharmacies in Europe. In 1998, there were 381 community pharmacies and 27 hospital pharmacies in Norway. In addition to pharmacies, there are also approximately 1300 drug stores, which do not have pharmacists working there. In addition to supplying drugs to the public, the pharmacies are responsible for providing information about drugs to the public and to physicians.

There is strong pressure from the pharmaceutical industry to have new products registered and covered by the NIS. An increasing pressure from patients and their families is also to be expected in the future. This is the case in most countries as expectations and knowledge among patients is growing. It should be noted that the devolution of pharmaceutical budgets to general practitioners which are covered by the NIS is not a practice in Norway and this has not been an issue of discussion.

Technology assessment

Initiated and financed by the Norwegian Ministry of Health and Social Affairs, the Norwegian Centre for Health Technology Assessment (SMM) was established at the end of 1997 and has been in operation since Spring of 1998. SMM is organized as a unit within SINTEF Unimed, a non-profit independent research organization.

The Norwegian Centre for Health Technology Assessment deals with numerous diverse and interrelated health care issues. The main task of the centre is to critically review the scientific basis for methods used in health care and to evaluate their costs, risks and benefits. It is concerned with weeding out ineffective technologies, and ensuring that approved technologies are applied

as efficiently as possible. Both new and established technologies are assessed. These include diagnostic and therapeutic procedures, medical devices, and issues concerning the organization of the health care system.

Finally, the Research Council of Norway arranges conferences of consensus, where the goal is to promote good medical practice and make the right priorities within the health care system.

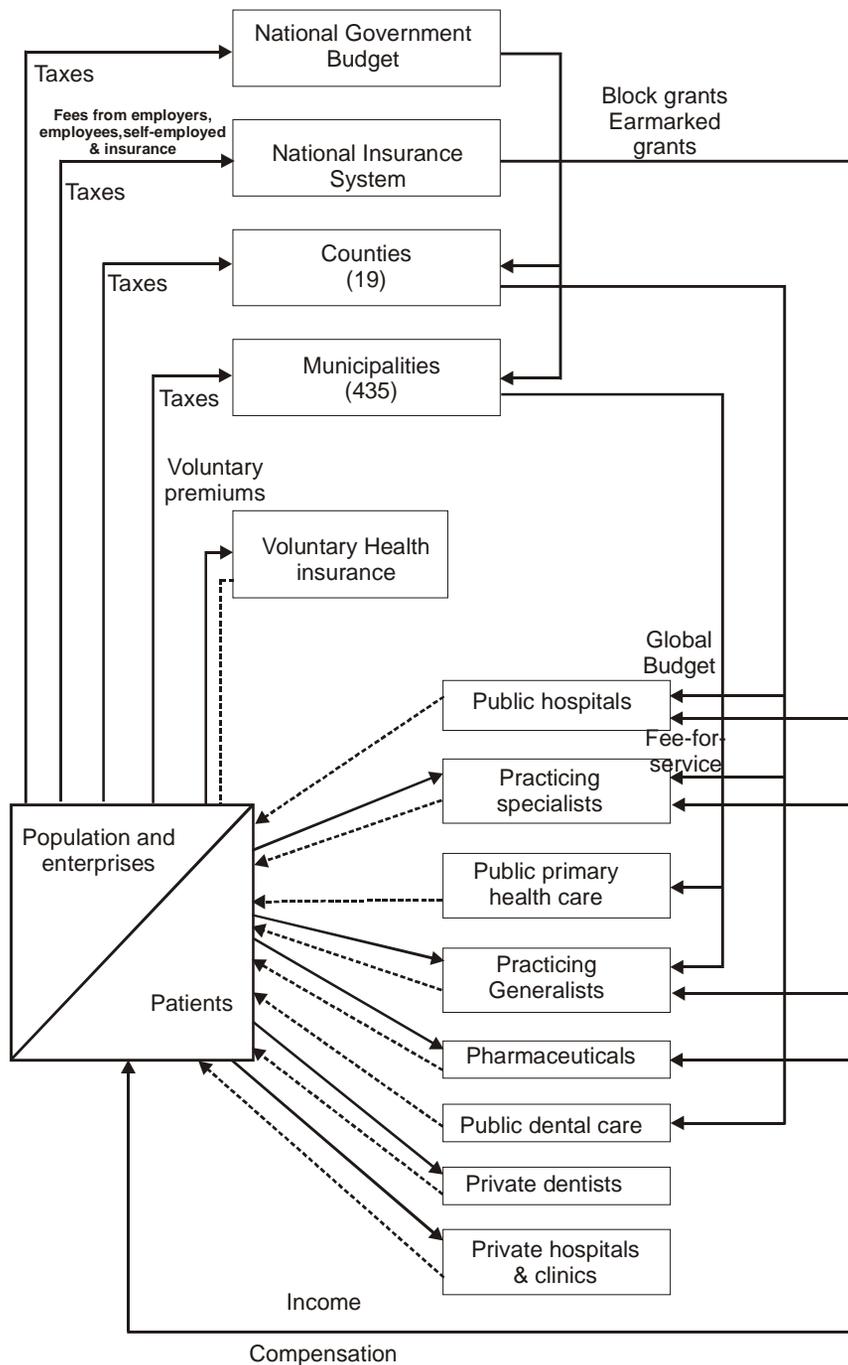
Financial resource allocation

The size of the overall health care budget is the result of decisions made at state, county and local levels. Thus, in principle, this budget may vary from year to year depending, among other variables, on priorities set at the different administrative levels. In practice, however, both county and municipal budgets are very stable.

The size of the public health care budget will generally be the result of a political process from below in which county councils or municipal councils allocate their (stipulated) resources to the different services they provide. In some cases, it has been speculated that local governments tend to allocate less resources to health care in order to obtain extra funds from the central government. There is also scattered evidence that such tactics have been successful. The implementation of a case-based payment system for hospital services has been discussed for a long time as a solution to this problem. In 1997, in fact, a partly activity-based financing system for hospital services was introduced. One of the results of this change is that state financing has increased, amounting to around 50% of total hospital costs in 2000. Regarding the other 50%, counties use their tax incomes and their block grants from the state to finance 43% and the remaining 7% is generated from such income as user fees, rents, etc.

The Norwegian system is a decentralized system where the state level allocates funds to the county and municipal levels without directly interfering with resource allocation. The local health care services are financed through a combination of government revenues, retrospective reimbursement by the NIS, and out-of-pocket payments by the patients. The municipalities and counties receive block grants from the central government which complement local revenues from taxes and charges. Funds are allocated by the central state to local governments on a capitation basis, and demographic variables (age/sex composition etc) are used. While both counties and municipalities formally have considerable discretion in resource allocation, the need to adhere to central

Fig. 15. Financial flow chart



regulations severely reduces this freedom in practice. Thus, it has been argued that central law and regulations make local autonomy less real than it seems to be on paper.

High priority reforms in local government, for example, like investments in nursing homes, abolishment of institutions in psychiatric care, and investments in care facilities for the mentally handicapped, are often partly financed by the central government for an initial period through earmarked funds which supplement the block grants to local government. There has been a great deal of political debate linked to the question of earmarked funding versus block grants. This issue is discussed in greater detail in the next section.

Capital investments are financed from different budgets than operating expenses and on an ad hoc basis. Medical equipment is funded partly by the central government and partly by the counties. Central grants are not available, however, until the county has paid its share. Capital developments for nursing homes and home health care units are subsidized by the state and, in some cases, building such units is virtually free of cost for the municipalities. There is no formula for ensuring equal distribution of investment funds among different geographical areas.

Payment of hospitals

For inpatient stays, hospitals are paid by a combination of cost per case and global budgets. This system has been in use since July 1997. The system of per case funding was originally a payment from the state to the counties. Counties, which traditionally have financed their hospitals by global budgets, are free to change to per case payment for their hospitals or to continue with global budgeting. As of 1999, 18 out of 19 counties had chosen to implement a combination of per case payment and global budgeting on a hospital level. The per case payment is based on the DRG system. Group-specific costs have been calculated based on national data, and these costs form the basis for the price system. In 1999, only 50% of the DRG cost was reimbursed.

The present financing system for hospitals replaces a system of global budgeting. Global budgeting was introduced in 1980, originally as a means for controlling costs and securing equal territorial distribution of health services. Countries introduced global budgets in hospital financing as a result of the previous changes in the system of resource allocation from central government to counties themselves. These, in turn, involved a move from retrospective reimbursement of hospital expenditures to counties, to a block grant system, as explained above.

The history of payment to hospitals is as follows. Until 1980, 50–75% of operating expenditures of the hospitals were reimbursed by the state on a per diem basis, and the remainder was provided by the counties out of their tax revenues. As rates were set close to actual costs, hospitals with high costs were rewarded, and there were no incentives for hospitals to aim for cost-reducing behaviour (e.g. reducing hospital stays). At the same time, more grants were given to counties with more hospital beds. This, again, provided incentives favouring high-cost hospital care. Norway had many hospital beds per capita but capacity for outpatient treatment was low and community care insufficient. By the end of the 1970s, hospital expenditures were very high and greatly exceeded the national targets set by the government.

In order to tackle these problems, the block grant system was introduced with the following two objectives: first, to improve control over the territorial distribution of state grants; and second, to change the incentives for decision-makers at the county level. The block grant system consisted of a total amount of funding, determined and transferred to local authorities by the state, which could then be allocated as per priorities determined by local authorities. Thus, the system provided local authorities with the freedom required to optimally allocate revenues. At the same time, it introduced incentives to control expenditure: if counties were able to lower hospital costs, resources could be allocated for other purposes.

The system of global budgeting worked on two levels. First, each county received a global block grant based on a combination of capitation and sociodemographic variables, calculated through a needs assessment formula. This formula aimed to reflect the relative health care expenditure needs of citizens. Together with local tax income, the grant was to cover the cost of hospital services, as well as some road construction and educational services. Each county then set a prospective, global budget for each of its hospitals, based on their responsibilities and expected activity.

Concern, however, about the potential negative effects of the block grant system started to grow in 1984, when it became evident that the total resources dedicated to hospital care started to decrease in relative terms. This was the combined result of the economic recession, the higher priority given to primary care, and the country's restrictive fiscal policy. Hospital real expenditure increased by 3.5 % annually from 1972 to 1980, but remained constant from 1980 to 1983, while primary care increased by 6% annually in real terms during this latter period.

Due to this situation, as well as to increasing dissatisfaction with the block grant system, which was believed to provide little incentive to increase efficiency, a royal commission (NOU 1987:25) was appointed to examine the

financing of hospital services. It was agreed that the block grant system had achieved its aim of better controlling the territorial distribution of health care expenditure. Nevertheless, it encouraged some hospitals to lower performance to reach their budgetary levels. Thus, this commission recommended a reform combining two features: a patient classification system linking cost and output information, and a per-case financing system like the US Medicare system. The aim of the reform was to allow hospitals to admit more patients and have 20% of hospital revenues dependent on the number of patients discharged according to a DRG formula. It was suggested that the new grant be paid by the state as the counties could not carry the financial risk imposed by the DRG system.

As a result of the commission's recommendations, and as part of a centrally designed pilot project, in 1991 two counties switched to a partly case-based financing system for a period of three years, but this system was not universally adopted. Six years later, the pressure to reduce waiting lists led to the general introduction by the central state of the activity-based financing system in the allocation of hospital resources to counties. This change, introduced on 1 July 1997, was mainly motivated by a belief that efficiency would improve. The reform is expected to strengthen the incentives for counties to stimulate hospital activity, which is hoped to contribute to shorter hospital waiting lists and to raise hospitals' productivity. Indeed, the immediate effect of the reform is likely to be a noticeable increase in the number of hospital inpatient treatments. Other important objectives of the reform were to give counties budgetary guidelines, thus providing incentives to carefully evaluate the costs and benefits of each intervention. The new policy also involved stronger central control of hospitals' acquisition of advanced medical equipment.

The implementation of the new system of hospital financing has been as follows. In 1997, a proportion of the grants (70%) continued to be paid by central authorities to counties on a modified needs-based assessment formula. The other part (30%) was paid on the basis of the previous year's inpatient activity, using national standard DRG costs. In 1998, these proportions changed to 55% and 45%, and in 1999, to 50%–50%. The current needs formula is based on a regression analysis of county expenditure on acute hospitals, with different sociodemographic variables, such as age structure of the population, density, travel distances and mortality.

As mentioned above, although counties are not forced to introduce a parallel shift in hospital financing from pure global budgeting to partly activity-based funding, most of them have incorporated such changes. The timing has been as follows. In 1997, 13 out of 19 counties had provisionally adopted the activity-related grant system to fund their hospitals, which implied that they simply

passed on the received activity-based grants to their hospitals. The remaining six counties continued to finance their hospitals solely through fixed global grants. By 1998, only two counties upheld global budgeting, in 1999 only one, and from year 2000, all counties are expected to adopt the activity-based financing of their hospitals.

Regarding hospital outpatient activity, traditionally it has been financed partly by a fee for service system and partly via global budgets. Since 1999, day care surgery has been financed based on DRGs. Teaching hospitals receive two additional grants: one to cover teaching and research and the other to finance the treatment of particularly costly patients.

Payment of physicians

As explained in the section on *Health care delivery system*, outpatient primary and specialized services are delivered in Norway by both public physicians and private practitioners contracted out with the public health care system. Public hospital services, in contrast, are fully provided by public (or quasi-public) employees. Public general practitioners, hospital physicians and other local staff employed by the local governments receive a fixed salary which is centrally negotiated with the Medical Association of Norway. In general, physicians represent a high-income profession in Norway.

As regards private (generalist and specialists) physicians and physiotherapists contracted-out with the public system, the funding arrangements are as follows. The municipalities or counties use the funds from the National Insurance Scheme (NIS) as an operational subsidy to pay the health personnel with whom they contract. This operational subsidy is estimated to cover around 35–40% of the physicians' and physiotherapists' income. In return for this guaranteed income, these professionals receive additional per-case payments from the NIS and patient out of pocket fees which are regulated by the state and are lower than market fees. Reimbursements from the NIS are determined through negotiation between central authorities and the Medical Association. The parliament determines all medical charges, and there is an upper limit to the total expenses for one consumer during one year.

Until recently, all physicians and physiotherapists were entitled to receive payment from the NIS, whether or not they had a contract with the authorities. Those who did not have a contract could charge the patients a higher fee to compensate for lack of municipal or county operational subsidies. This system

guaranteed all licensed physicians and physiotherapists a secure means of support. However, as these personnel are able to practice wherever they would like (i.e. they can move if they would like a contract), and in order to obtain a more equal distribution of personnel resources in the different parts of the country, this system has recently been subject to reforms which started at the end of the 1990s. Since 1998, NIS funding has been curtailed for physicians and physiotherapists who establish a new practice without a contract with the municipality or county.

However, it is important to clarify that private physicians are not required to enter into a contract with a municipality or county. On the contrary, there are restrictions as to how many physicians and physiotherapists can have a contract in each territorial area. In overstaffed zones, if the municipality is unable to offer more contracts, they may have to forfeit the operational subsidy that they might have received from practising elsewhere.

Unlike general practitioners in many other countries, general practitioners in Norway in the mid-1990s earned a higher average yearly income than physicians in hospitals. This is partly due to the fact that general practice has become a highly esteemed specialty, and partly due to the fact that general practitioners with a private, contracted-out practice on average obtain 35% of their income as an annual grant. The remaining income comes from fees for service depending on the amount of work carried out. Of these fees, on average, three quarters is paid directly by the NIS and one quarter is from out-of-pocket fees. There has not been a major income study on general practitioners since 1995. To make it more attractive to work as a hospital-based consultant, the wages for these physicians have been raised 30% on average from 1995–1998. This measure has been successful, and the aim of recruiting more physicians to hospitals has been fulfilled. Today there is greater concern about recruiting general practitioners to some of the rural parts of the country than to the hospitals. The funding arrangements for general practitioners in private practice will change as of 1 January 2001, and the NIS reimbursement of fees for service to general practitioners will become conditional on the general practitioner having signed a contract with the municipality. The aim of this measure is to discourage private practice without a contract, which is most widespread in the prosperous urban areas, in order to free up human medical resources for the remote areas. A similar measure was introduced for private contracted-out specialist physicians two years earlier. From 1998 onwards, private specialists need to have an agreement with the county in order to obtain reimbursement from the public sector. Private physicians with public refunds now form a part of county health plans.

Health care reforms

Aims and objectives

Norway faces the dilemma of many western European countries: as the standard of living improves and people's life expectancy increases, there are new challenges with an ageing population and a growing number of people with chronic illnesses. To make further progress in the health of the population, it will be necessary to focus on the challenges of health promotion and illness prevention. In the past, treatment and care were limited by the absence of technological and medical solutions to problems. Today's dilemma is rather that medical technology has advanced to a level where its ability to perform exceeds what society in general can afford to pay. This poses a new type of challenge in a society where the basic rule for generations has been that medical costs are a societal responsibility.

Changes in demography will continue towards an increasing number and larger proportion of the elderly in the population. This implies growing and new demands for health services along with higher demands for pensions and social services. The more successful health care is in curing disease and prolonging life, the more people will face the natural process of deterioration of the body. This changes disease patterns towards more chronic and multifaceted illness. Not only will medicine be expensive, new, and high-technology, but it will also require continuous care, rehabilitation and service for the chronically ill and disabled.

Furthermore, medical development and changes in technology will increase life expectancy, together with general improvements in living standards, and enable treatment of more diseases. The result will be an increase in need and demand for health services. New potential areas for treatment will emerge and which will increase the pressure on limited resources. Despite the fact that Norwegian hospitals produce more than ever, the number of people waiting

for treatment will not become shorter. This is a question of both technology and expectations of the general public and the medical staff as to what is possible to achieve.

Finally, expectations come from the general growth in wealth and social development. There has been an increased standard of living and an increase in the general expectations of the population. Also, many of the factors affecting the incidence of disease lie outside the traditional domain of health policy, but need to be addressed by the health care sector through health prevention and promotion practices.

The Norwegian society has enormous wealth in oil resources in the North Sea. The paradox is that it cannot be spent too fast without putting too much pressure on the economy and stimulating inflation. This is coupled with a lack of educated and well-trained health personnel like doctors and nurses. Workers from neighbouring countries have contributed to ease pressures in specific sectors, including health care. While the insufficient number of medical doctors has been a problem in rural areas particularly in the north of the country, there are also too few qualified nurses in the cities in highly specialized hospital functions, as well as in other health institutions. With mounting pressure on hospitals to attract physicians, wages for hospital physicians rose sharply in 1996. However, this has led to a major concern as to how to generate the necessary amount of physicians in primary care, particularly in rural areas.

In its country report on Norwegian economy 1998, OECD presents a special feature on the health care system and the needs for reform. In the evaluation, the challenges are summoned as follows:

The Norwegian health care system has succeeded in securing universal coverage and high quality service while, at around 8% of GDP, absorbing resources around the international average. Nevertheless, the system faces several challenges, most prominently:

- i) acute shortages suggested by long waiting lists for hospital admission and the lack of physicians and other medical staff;*
- ii) the need to strike a balance between the requirements of a cost-efficient health-care system on the one hand and the ambition to maintain a full-fledged health service in even the remotest parts of the country on the other;*
- iii) the risk of major expenditure increases in the future.*

To meet these challenges, several reforms have been introduced since 1997. The reforms range from the introduction of activity-based funding of somatic hospitals, and the establishment of health regions with an enforced system of

planning and cooperation across counties, to the introduction of the patient's rights to treatment at the hospital of their choice. The reforms cover legal, economic and organizational issues.

The diversity of measures adopted reflects the variety of goals in Norwegian health policy and the country-specific characteristics of the health system. It is broadly agreed that a national health care system should be maintained that provides equal access to the whole population, no matter who they are or where they live. The reform initiatives include, simultaneously, both increased competition and reinforced planning. As planning and competition can easily be viewed as conflicting policies, the challenge is to make these two elements work together.

In addition to these areas, central health authorities use different methods for implementing national goals in health policy. This will often include economic support in high priority fields where the counties are not expected to carry the economic burdens alone. Often this will be carried out in so-called action plans.

Reform legislation

During the second half of the 1990s, a broad range of reforms were discussed and approved in Norway. The earliest ones have already been described in other sections of the report, such as the broad structural changes introduced in the hospital financing system or the reform of the conditions for reimbursement to private physicians (see the section on *Financial resource allocation*). In addition, several legislative pieces were discussed and passed by parliament during the period 1998–1999. This included regional planning, specialized care, mental health services, health personnel, patients' rights, and the organization of primary care. These are described within the first section. Finally, the last section focus on two reform proposals which are currently under discussion, which refer to the liberalization of the drug market and the issue of hospital management and ownership, respectively.

Health law reforms of 1999

The legislation on regional planning was passed by parliament in 1998, and came into force beginning in 1999. The acts on specialized services, mental care, health personnel and patients' rights entered the parliament in December 1998, and were passed in the spring of 1999. The new regulation of patients' rights will be put into force during the year 2000, while the other three acts

will be implemented from 2001 onwards. The Act on Specialized Health Care and the Health Care Personnel Act are characterized more as a modernization of existing laws rather than as reforms themselves. To end with, the draft on primary care entered the Parliament in September 1999, and is expected to be passed in the Spring of year 2000. The content of the different legislative pieces is described below in chronological order.

Regional planning of health care services

A 1997 White Paper (St. meld. nr. 24, 1996–1997) formed the basis for the introduction of new legislation to regulate the role and responsibilities of the regional health committees in 1998 (Ot. prp. nr. 48, 1997–1998). The aim of the reform is to improve both national and regional planning and to ensure cooperation and the division of labour among counties.

The regional health care committees are politically-elected organs representing the counties in each region. According to the new regulation, the regional health committees are responsible for the development of regional health plans in accordance with national guidelines. National areas of high priority, determined for each four-year period by the central authorities, have to be included in the regional health plans. For the first planning period (1999–2003), three national areas of priority have been selected: 1. improved cooperation and division of tasks between hospitals; 2. cancer treatment; and 3. mental health.

The regional health plans have to be evaluated and approved by county councils prior to authorization by the Ministry of Health and Social Affairs. If the counties fail to agree on vital issues, or if the plan is not made in accordance with national guidelines, the central authorities are entitled to make changes in the regional health plans. Thus, the regional plans function as a tool for more centralized regulation. The first plans will cover the years 2000–2003. The Ministry of Health has initiated a broad scientific evaluation of the effect of the plans, as well as of the planning process. The evaluation will start in 2000 and will end in 2005.

Implementation of the regional health plans as well as the introduction of market incentives (activity-based financing and free choice of hospitals) and improvements in transportation and technology are likely to change the structure of the Norwegian hospital sector. It is possible that the number of general hospitals will be reduced, although it is more likely that the emphasis will be on a re-allocation of hospital functions across existing institutions. It is widely believed that better coordination between the hospital authorities both within a county and among counties is difficult to achieve. There is great resistance to

restructuring the local hospital sector, due to the concerns over the accompanying job movement or loss. Moreover, regardless of location, the proximity of full-fledged hospital services, including acute and specialized elective care, is seen as an acquired right by large segments of the population.

In summary, the regional health plans can be regarded as tools both for improved national planning and for formulating a local response to national priorities. These plans will also function as tools to determine local priorities of actions within a regional framework. The regional health plans are to be developed on the basis of population needs and are meant to integrate hospital planning in the region. A change towards a more efficient division of services among the hospitals is thought to improve the capacity and efficiency, as well as the quality, of the health care services.

Act on Specialized Health Care

This is mainly a renewal of the current law to make it updated and flexible towards further changes in specialized health. The act contains the regulations on specialized somatic health care and all the regulations on financial and organizational questions in psychiatric health care. The counties are responsible for providing all necessary specialized health care. By integrating two laws (the 1961 Mental Health Act and the 1969 Hospital Act), the government wants to emphasize that mental health should be integrated with and managed according to the same principles as other health services. The counties will still be responsible for providing services to the population. However, this responsibility is defined by type of specialized functions, rather than by a list of types of institutions. As a consequence, responsibility for patients in psychiatric nursing homes and private care will be turned over to the municipalities when proper structures have been put in place. The law makes regional health plans a mandatory task. For people with chronic illnesses, counties must establish an individual plan, coordinating necessary services for each patient.

The specific compulsory psychiatric health care is regulated in the Act on Mental Health Care.

Act on Mental Health Care

The purpose of the act is to ensure that compulsory psychiatric health care is based upon the principles of adequate treatment and the principles of human rights. The act contains regulations on compulsory psychiatric health care and administrative control carried out by the local board of control. The patients are also given the right to demand judicial review of major decisions made by the local board of control.

There is also acknowledgement of the need for supplementary strategies to provide adequate mental health care. This will be discussed below (action plan for psychiatric health services).

Act on Health Care Personnel

The Act on Health Care Personnel will replace several existing acts regulating specific health professions and will ensure a common legal framework for all health professionals. The purpose is to ensure high standards and quality in health care, focusing on the individual obligation of health professionals to provide the best possible care for patients. The act contains minimum standard measures regarding all health professionals. It also contains specific measures concerning authorized groups of personnel, such as the protection of titles and reserved procedures. The act also contains a set of disciplinary measures for health care professionals as a mean of ensuring quality and high standards.

Act on Patients' Rights

The Act on Patients' Rights represents a reform of the health legislation, as it contains new material. In addition to patient's rights to treatment and to choose a hospital, the act concerns information, access to medical journals, and the need for patients' informed consent to treatment.

The legislation on individual patients' rights aims to create a system with a focus on the patient. The patient is to be treated as an equal party in the relationship with care providers. The new act intends to improve access to the public health care system and to make it clearer what the patient can expect from the system. Patients are reliant on the health care system and on health care providers and are therefore potentially vulnerable. Thus, it is important to strengthen the position of the patient in relation to the care providers, and to ensure that health care providers respect the human worth and integrity of the patient. Another purpose is to ensure that trust between patients and health personnel is maintained.

Major elements in the legislation are:

- right to choice of hospital
- right to treatment.

The introduction of the patients' right to choose a hospital has value on its own merit. As consumers, the patient has a choice as to where they would like to be treated, and the hospitals have an incentive to be more consumer-oriented without submitting to a system based only on payment by provision. In addition, patients' choice of hospital is an instrument for raising hospital capacity utilization and reducing waiting time, as it is assumed that patients seek out the hospital with the shortest waiting lists. The patient has a right to choose among

public hospitals at the same level of care. The right to choose also includes patients with need of specialized psychiatric health care. The patient's right to choose a hospital is expected to increase the flow of patients being treated at hospitals other than in the home county. The home county will continue to have the responsibility to pay for treatment, but changes will be made in the financial system to remove incentives that make out-of-county patients either more, or, in some cases, less valuable than in-county patients.

The patient has a right to get an evaluation from a specialist within thirty working days after the referral from the general practitioner is received. The evaluation must contain information on the patient's need for specialized health care. It must also contain the expected time as to when the treatment is to begin. The assessment is based on the referral from the general practitioner. However, the standard of conduct may demand further inquiries. The patient has the right to an earlier evaluation if the specialist suspects a severe or life-threatening disease.

The patients also have the right to a second opinion of their health conditions within the specialized health care services. The home county is responsible for the costs.

In addition, the patient has a right to an individual plan on health care for patients who need long-lasting and coordinated care. The purpose is to ensure that the different providers (primary and secondary providers of health and social care) coordinate the services. The obligation to make individual plans falls on every level of services, but the different levels have to collaborate.

The act also includes the patients' right to become fully informed about their health status. The information must be communicated to the patient in a manner in which the patient can understand. Patients have also a right not to be informed. These rights are also considered to exist in current law, but are stressed and explicitly defined in the new act.

Before any medical intervention can take place, the patients are to provide their informed consent. For patients unable to give their informed consent, the act requires a legal representative to do so on their behalf.

The patients are given a right to confidentiality and privacy. Confidential information can only be disclosed if the patient gives explicit consent to this or if the law expressly provides for this. Patients have the right to access to their own medical files.

The act gives patients the right to complain to the county medical officer if any of their rights are violated. It is also stated in the law that every county should provide for an ombudsman for the patients within the specialized health care system. The purpose of the ombudsman is to speak on behalf of the patients and help patients protect their interests. The ombudsman guides patients, informs them about their rights, and helps them fulfil them.

The act contains the right to obtain necessary health care for patients who are severely ill. The condition is that the treatment in question has a reasonable effect in consideration to the cost. The priorities are still to be determined by the physician. Legal implications are yet to be seen, but it is expected that patients might bring a decision to court if they do not receive the treatment they want.

The patient's right to choose a physician *within* the hospital has not been a major issue in Norway, either by the authorities or the patient's organizations. The patient's right to choose is to be covered by the right to get a second opinion and the right to choose a hospital. Careful monitoring of the impact of the reform is needed. The Ministry of Health and Social Affairs is preparing the regulations under the Act of Patients' Rights. The regulations will be circulated for discussion in various ministries, to the counties, and to a wide range of organizations. Before the Act of Patients' Rights comes into force, the Ministry of Health and Social Affairs will develop informational material for the patients and for health personnel. The ministry also will inform the public by delivering lectures on the new acts, including the Act of Patients' Rights. The act will begin to be implemented during 2000, although the final date has not yet been set.

Introduction of a list system in primary care

In 1997, the parliament agreed to introduce a list system for general practitioners. A bill was presented to the parliament in September 1999 to be approved by spring 2000. Through this reform, the national authorities want a primary health care system where people can turn to their personal doctor when they need medical care. The new system, which will be implemented all over the country beginning in January 2001, will be based on:

- a registration system through which citizens sign up on the list of the physician whom they choose to be their general practitioner;
- the basic principle that everyone can choose whether they want to participate in the system or not;
- citizens' right to choose another physician as their general practitioner (twice a year) and the right to a second opinion by another general practitioner.

The aim of the reform is to improve the quality of the local medical service. Every citizen will be given the opportunity to have his or her regular general practitioner. Through the reform, national authorities aim to improve the accessibility of health care services. The reform will contribute to continuity of care and a more personal patient-physician relationship with the best gain for citizens in need of frequent and/or comprehensive medical service, such as

the elderly. Under the reform, each municipality has to give every inhabitant the opportunity to have a regular general practitioner under the list system. The municipalities will have to meet this obligation and will enter into the sufficient number of contracts with general practitioners. According to contract, each and every general practitioner has to give priority to the persons on their list. The reform formalizes the responsibility of the general practitioners. At the same time, the list system will bring about better planning, organization and understanding of the practice. The system will also contribute to better organization and coordination among different levels of the system. The NIS will manage the list system.

The reform has been designed in cooperation with the Norwegian Association of Local and Regional Authorities, The Norwegian Medical Association and the Municipality of Oslo. The body of cooperation has been a useful and important arena and will be maintained during the period of implementation.

The Ministry of Health and Social Affairs is responsible for the reform and for fulfilling the main goals. The Ministry intends to design an evaluation programme to monitor the reform and ensure compliance with intentions.

Future proposals

Liberalization of the drug market

A number of proposals for reform of the drug market have been presented by two national committees appointed by the government (NOU 1997:6 and NOU 1997:7). These proposals include a plan to liberalize the retail market, allowing free establishment of new pharmacies and ownership of pharmacies by non-pharmacists in order to increase the number of outlets. Based on the committees' reports, the government presented a bill to the parliament in December 1998. The parliament passed the bill in February 2000, and its implementation will start during the year 2001.

The main problems concerning the distribution of pharmaceuticals in Norway today are the inadequacy of the retail network, the virtual absence of competition in areas such as service differentiation and operating hours, and the associated high retail margins. This situation is a reflection of the strict regulation of the retail market, implying high entry barriers for pharmacies, including a requirement that the owner needs to be a pharmacist, and rules concerning the maximum number of outlets per capita and per municipality. At the wholesale level, in contrast, competition increased after implementation of the EEA agreement, when the state-owned wholesaler *Norsk medisinal-depot* lost its legal monopoly (with two competitors entering the market) and

the pharmacies and hospitals were allowed to import drugs with a European license directly from other EEA countries. Furthermore, reforms are being considered to strengthen the incentive facing doctors to prescribe the cheapest drug available. According to current official proposals, the pharmacy should provide the cheapest brand or an imported version of the same prescribed brand unless prescription explicitly mentions that generic substitutions or the same imported products of the brand indicated are not allowed. A national register based on information about prescriptions from all the physicians will be established. The register will help the government control drug flow and will provide information on which type of drugs are prescribed from the physicians. Finally, the government is working on national guidelines on health economic analyses required from the manufacturers when they apply for admission of a new drug on the blue prescription rule (see the sections on *Health care finance* and *Health care delivery system*). These guidelines will be introduced in 2000, although the first two years are trial years.

Hospital management and ownership

To meet the challenges of the new financing system and the right of patient choice, there is a broad political consensus that the hospitals need to act as flexible institutions and be ready to react to changes in public demand and supply. It is necessary to establish management systems that enable the owners to focus on short and long-term objectives. At the same time, and within this framework, the hospital administration itself should be given freedom and responsibility to solve problems and plan future strategies.

A royal commission has evaluated the structure and organization of public hospitals and their connection with the public administration organizational framework, in order to improve their capacity to adapt to a new, changing context (NOU 1999:15). In December 1999, the government presented a bill to regulate ownership of county hospitals. The purpose is to enlarge the range of possible organizational forms for county-owned hospitals. Thus, the central authorities hope to establish a legal framework that grants the counties the means to give the individual hospital the necessary freedom to adapt to change, without having the counties lose the opportunity to control and determine the framework within which the hospitals can adapt.

The decision as to whether hospitals should be organized as independent companies, either as shareholding companies or as county-owned hospital companies, will need approval by the Ministry of Health and Social Affairs.

Specifically, the county of Oslo is considering organizing the county hospitals as independent companies. A majority in the city parliament has voted that the city government has to elaborate a concrete proposal to organize their hospitals

as shareholding companies fully owned by the county. The final decision is not yet clear, but will need approval by both the city parliament and the Ministry of Health and Social Affairs.

The discussion concerning greater hospital autonomy has created a need for clarification between the providing and the purchasing role. So far, Norway has not taken the full step towards a separation between the providing and financing roles, as has been the case in the United Kingdom and, to some extent, in Sweden. The difference in population density can partly explain this.

Action plans

On an ad hoc basis, the national health authorities focus on high priority fields that need to be strengthened, both from an economic perspective and otherwise. To be mentioned at the present time, a particular focus is on psychiatric care and cancer, and on social services, nursing and care for the elderly.

Action plan against cancer

In 1998, the government presented to the National Assembly a five-year national strategy to combat cancer. Norway faces an acute capacity shortage of radiation therapy, lack of linear accelerators, and of physicians and of other medical staff. The strategic plan includes a yearly budgetary increase for prevention, scientific research, and measures to increase hospital capacity. A main goal is to offer sufficient radiation therapy both for treatment and supportive care.

Action plan for psychiatric health services

Psychiatric health is organized on a county-level as a specialized service. Social services like housing and vocational training are the responsibility of the municipality. Thus, this model requires close cooperation among the state, county and municipality levels. There is a broad acknowledgement that Norway has not succeeded in creating comprehensive alternative services to compensate for the closing down of long-term hospitals, and Norway faces challenges to provide adequate care for people with mental health problems.

In 1998, the government presented a six- to eight-year action plan with substantial earmarked financial resources, including plans for better organization between county and municipality, and investment in education and training of personnel. The goal is to improve mental health services in general, strengthen

illness prevention, decentralize mental health care, improve child and adolescent care, and stimulate education and research.

Nursing and care services for the elderly

In 1997, the parliament adopted a four-year action plan for local authority nursing and care services. The plan, which is targeted from 1998 to 2001, sets out objectives for the development of local authority nursing and care services. The plan entails use of central government funds to achieve these objectives. The core aims of the action plan are:

- to provide nursing and care services that ensure the elderly a secure and, to the maximum possible extent, a worthy and independent life;
- to enable elderly persons to live in their own home for as long as possible;
- to provide sufficient capacity to guarantee the availability of services whenever and wherever they are needed.

To help guarantee that the objectives of the action plan are reached, the central administration will help local authorities so that they can provide users with the range of services they need. It will do this through financial and legal policy instruments, as well as by imposing specific planning requirements.

Conclusions

Fundamental principles

The Norwegian health care system is tax-based and is formed around the principles of universal access to health care services, political decentralization to local governments, and free choice of provider. During the last few decades, there has been significant progress regarding the policy instruments used to promote such political commitments. First, as regards universal coverage, significant investment has been made in improving accessibility to the system. Special reforms in the late 1980s and early 1990s have contributed to expand the range of services provided to meet the specific needs of the elderly, the handicapped and the mentally ill. In addition, a new activity-based system of hospital financing, in place since the mid-1990s, has the aim of decreasing waiting lists through the expected expansion of capacity and utilization.

Second, the distribution of powers among levels of government is based on a notion that a decentralized system will be both efficient to manage and well suited to cover the needs of the population. The aim is to achieve health policy goals in an environment where central authorities provide economic and legal boundaries, and local governments are responsible for the provision and distribution of services. Increased emphasis has been given during the 1990s, however, to municipal, county and regional coordination. The aim is to avoid the duplication and fragmentation of services.

Third, with regard to patients' freedom to choose primary and secondary care providers, evolution has been as follows. To begin with, it should be noted that the low population density in most of the territory explains that remote areas are generally understaffed, which sharply restricts freedom of choice. In urban areas, however, the Norwegian population has had wide choice among publicly-employed, contracted-out and private general practitioners and specialists. During the 1990s, significant changes took place. First, the share

of public primary care services provided by private general practitioners contracted-out with public services has increased from 54% in 1990 to 71% in 1998; this meant a parallel decrease of the share of publicly-employed general practitioners from 41% to 21%, with the share of purely private general practitioners remaining relatively constant. Second, reimbursement to private providers without a contract with local authorities has been subjected to tight restrictions, with the aim of guaranteeing a balanced distribution of doctors throughout the territory and avoiding inequalities between rural and urban areas. To further improve the quality of the local medical service, additional reforms of the primary care system will be implemented beginning in 2001.

Cost-containment and evaluation

The Norwegian health care system is a universal, tax-based system and public expenditures consist of more than 80% of total health expenditures. In addition, all residents are insured under the National Insurance Scheme (NIS). Accordingly, voluntary insurance has a markedly residual role, while out-of-pocket payments are small (about 10% of total public expenditure), so as to guarantee equity of access. In addition, a ceiling for cost-sharing protects the rights of the chronically ill and the needy.

Both regulation and supervision of health care activities are the responsibility of national authorities. Since the 1970s, health care provision has been transferred to county and municipal levels, which currently account for the bulk of health care expenditure. Counties and municipalities are financed through block grants. Until 1997, hospitals were financed through block grants from the counties as the major owner of hospitals. This way of funding both counties and hospitals has reduced the potential problem of uncontrollable growth in health care costs. Also, in contrast with many other European countries, health care expenditure has not been subject to general cost containment measures following economic hardship; Norway is a wealthy country with abundant petroleum reserves in the North Sea.

During the 1990s, the role of central government changed. The focus turned to problems of effectiveness and accessibility, and quality of services, particularly in the hospital sector. This led to major reforms in the financing system as well as the legislation of patients' rights. Additional funding, targeted to reduce waiting lists, began to bear fruit at the end of the nineties, with the number of patients with unfulfilled waiting-time guarantees falling from 25 000 to 5000 between 1997 and 1999. A special focus on psychiatric care is reflected in a 33% increase in expenditure on psychiatric care between 1996 and 1998.

One of the main areas for cost-containment policies has been in the pharmaceutical sector, traditionally subjected to detailed state regulations. In fact, expenditure on pharmaceuticals has been increasing at double the rate of total public expenditure during the 1980s and early 1990s, justifying the need for intervention. This led to the introduction of a reference price system in 1993 which was further extended in 1998. Under this scheme, state reimbursement is set at the level of the cheapest brand available in the market, with the patient paying the difference between the actual price of the prescribed drug and the reimbursement fee. In addition, the Norwegian Centre for Health Technology Assessment was created in 1998 in order to evaluate cost-effectiveness of diagnostic, therapeutic and organizational procedures.

Future challenges

The end of the 1990s has been presided over by the launch of a wide package of reforms designed to meet the main challenges that the Norwegian health care system will face in the next century. An overall challenge is to combine a decentralized system with a regulatory environment that ensures equal access. The most important measures adopted are targeted at reducing and prioritizing waiting-list patients, reinforcing regional planning, and overseeing a proposed official list patient system for GPs. In addition, several action plans have been launched to improve accessibility and quality of cancer treatments, and elderly and psychiatric care.

The ability to implement and adjust the wide range of measures introduced by the reforms will be crucial, as several problems associated with the reforms remain. The following main problems are priorities:

- **Structural changes and regional integration**

Historically, it is often difficult for local politicians (county level) to make necessary changes in the hospital services. Through regional health plans, central authorities demand operational plans for structural changes and hope to enforce cooperation between counties and hospitals and a better division of functions among hospitals. This is necessary for cost-containment as well as for the provision of high quality health care.

- **Hospital management and ownership**

Thus far, the hospitals have been bound to the legal framework of public services and accountability within county budgets. A bill providing a new legal framework was presented to the National Assembly in December 1999. The purpose is to give the counties the possibility of choosing organizational

forms that give the hospitals a greater degree of economic autonomy. Current proposals include the constitution of hospitals as independent shareholding companies fully owned by the counties, as well as the modernization of the old managerial system. Norway has not taken the full step towards a separation between the providing and financing roles. The difficulties of attracting highly qualified professionals to the more isolated parts of the country may partly explain this. The recruitment problem is a critical factor to make the general practitioner reform successful. This issue, however, is currently under discussion.

- **Labour supply constraints**

Labour shortages are increasingly felt and have become a major problem in the health care sector. It has traditionally been a problem to recruit physicians to work in rural areas. If the GP reform is successful, the recruitment problem will be solved. There is also a lack of trained nurses in the big cities, and this problem applies to specialized hospital care as well as care for the elderly and psychiatric care. Enough specialists are also a crucial factor to enforce the action plans within psychiatry and cancer treatment. It remains to be seen if these problems can be solved within the coming years.

- **The funding system of hospitals**

Since 1997, a portion of the block grants from the central government to the counties became related to hospital activity. The funding is now divided between the counties (block grant) and the state (per-treatment reimbursement). There has indeed been growth in hospital inpatient activity. There is, however, an increased focus on the role and responsibility of the state in the financing of hospitals. Unpopular cost cuts and priorities at county level lead to demands for more resources from the state. Consensus on the division of responsibility between the state and the counties will be essential for the legitimacy of the funding system in the coming years.

A major challenge in Norway, however, as in many western countries, is to allocate resources to health promotion and illness prevention. To make further progress in the health of the population, it is necessary to improve and develop public health prevention and promotion. As the population's expectations rise, together with medical and technological advancements, an increased demand for health care and conflicts regarding resource allocation are to be expected.

Bibliography

- CARLSEN, F. AND J. GRYTEN (1998). "More physicians: Improved availability or induced demand?", *Health Economics*, 7: 495–508.
- CARLSEN, F. (1994). "Hospital financing in Norway", *Health Policy*, 28(2): 79–88.
- GRYTEN, J., F. CARLSEN AND R. SØRENSEN (1995). "Supplier inducement in a public health care system", *Health Economics*, 14: 207–229.
- GRYTEN, J., G. RONGEN AND R. SØRENSEN (1995). "Can a public health care system achieve equity?", *Medical Care*, 33: 938–951.
- HAGEN, T. P. (1997), "Agenda-setting, power and moral hazard in principal-agent relations: Evidence from hospital budgeting in Norway", *European Journal of Political Research*, 31: 287–314.
- NORDIC MEDICO STATISTICAL COMMITTEE (NOMESCO) (1999). *Health Statistics in the Nordic Countries 1997*. Copenhagen (Denmark), NOMESCO, Report 56.
- IVERSEN, T. AND E. NORD (1992), "Priorities among waiting list patients", in P. Zweifel and H. E. Frech III (ed): *Health Economics Worldwide*. Dordrecht, Kluwer Academic Publishers: 203–216.
- IVERSEN, T. AND H. LURÅS (2000). "Economic motives and professional norms: The case of general medical practice", *Journal of Economic Behavior and Organization*, forthcoming.
- IVERSEN, T. AND H. LURÅS (2000). "The effect of capitation on GPs' referral decisions", *Health Economics*, forthcoming.
- IVERSEN, T. (1993). "A theory of hospital waiting lists", *Journal of Health Economics*, 12: 55–71.
- IVERSEN, T. (1997), "The effect of a private sector on the waiting time in a national health service", *Journal of Health Economics*, 16: 381–396.

- IVERSEN, T. (1998). "Clinical response of salaried consultants to economic incentives", in P. Zweifel (ed.): *Health, the Medical Profession, and Regulation*. Dordrecht, Kluwer Academic Publishers: 137–158.
- IVERSEN, T. (1999). "The interaction between predictive testing and health insurance", in R. M. Scheffler and T. Iversen (eds.), *Impact of new technology on health and health care systems: An international perspective*. Proceedings from Peder Sather Symposium IV (Regents of the University of California).
- IVERSEN, T. (2000). "Potential effect of internal markets on hospitals' waiting time", *European Journal of Operational Research*, 121/3: 33–41.
- MAGNUSSEN, J. (1996). "Efficiency Measurement and the operationalisation of hospital production", *Health Services Research*, 31: 21–37.
- MAGNUSSEN, J. AND K. SOLSTAD (1994). "Case-based hospital financing: the case of Norway", *Health Policy*, 28: 23–36.
- MAGNUSSEN, J. AND L. MOBLEY (1999). "The impact of market environment on excess capacity and the cost of an empty hospital bed", *International Journal of the Economics of Business*, 6 (3): 383–398.
- MAGNUSSEN, J. AND K. SOLSTAD (1994). "Case-based hospital financing: the case of Norway", *Health Policy*, 28 (1): 23–36.
- MINISTRY OF HEALTH AND SOCIAL AFFAIRS (1999). *Benefits in Kind in the case of Sickness and Maternity*. Oslo, Ministry of Health and Social Affairs.
- MINISTRY OF HEALTH AND SOCIAL AFFAIRS (1999). *The Norwegian Social Insurance Scheme*. Oslo, Ministry of Health and Social Affairs.
- MOBLEY, L. AND J. MAGNUSSEN (1998). "An international comparison of hospital efficiency: does institutional environment matter?", *Applied Economics*, 30: 1089–1100.
- NORD, E. (1999): *Cost-value analysis in health care*. Cambridge, Cambridge University Press.
- NORD, E., J. RICHARDSON AND K. MACAROUNAS-KIRCHMAN (1993). "Social evaluation of health care versus personal evaluations of health state: Evidence on the validity of four health scaling instruments using Norwegian and Australian surveys", *International Journal of Technology Assessment in Health Care*, 9: 463–478.
- NORD, E. (1993). "The relevance of health state after treatment in prioritising between patients", *Journal of Medical Ethics*, 19: 37–42.
- NORD, E. (1995). "The person trade-off approach to valuing health care programs", *Medical Decision Making*, 15: 201–208.

- NOU (Royal Commissions) (1987a). *Retningslinjer for prioriteringer innen helsevesenet*. Oslo, Offentlige publikasjoner.
- NOU (1987b). *Sykehustjenester i Norge*. Oslo, Offentlige publikasjoner.
- NOU (1996). *Hvem skal eie sykehusene*. Oslo, Offentlige publikasjoner.
- NOU (1997a). *Pasienten først! Ledelse og organisering i sykehus*. Oslo, Offentlige publikasjoner
- NOU (1997b). *Piller, prioriteringer og politikk*. Oslo, Offentlige publikasjoner.
- NOU (1997c). *Prioritering på ny*. Oslo, Offentlige publikasjoner.
- NOU (1997d). *Rammevilkår for omsetning av legemidler*. Oslo, Offentlige publikasjoner.
- NOU (1999). *Hvor nært skal det være*. Oslo, Offentlige publikasjoner.
- OECD ECONOMIC SURVEYS (1999), *Norway*. Paris, OECD.
- OECD ECONOMIC SURVEYS (1998), *Health care reform*. Paris, OECD.
- OECD HEALTH DATA (1998). *Comparative analysis of 29 countries*. Paris, OECD/CREDES.
- OECD HEALTH DATA (1999). *Comparative analysis of 29 countries*. Paris, OECD/CREDES.
- VAN DEN NOORD, P., T. P. HAGEN AND T. IVERSEN (1998). *The Norwegian health care system*, Working Paper No. 198. Paris, OECD, Economics Department.
- RATTSØ, J. (1998), *Fiscal federalism and state local finance. The Scandinavian perspective*, Aldershot, Edgar Elgar.
- RICE, N. AND P. SMITH (1999). *Approaches to capitation and risk adjustment in health care: an international survey*. York, Centre for Health Economics, University of York.
- SALMELA, R. (1993). "Regional inequalities in health and health care in Finland and Norway". *Health Policy*, 24(1): 83–94.
- SØRENSEN, R., G. RONGEN, AND J. GRYTEN (1997). "Local government decision-making and access to primary physician services in Norway". *International Journal of Health Services*, 27, 4: 697–720.
- SØRENSEN, R.J. AND GRYTEN, J., (1999). "Competition and supplier-induced demand in a health care system with fixed fees", *Health Economics*, 8, 6: 497.
- ST. MELD. NR 9 (1974-75). *Sykehusutbygging m.v. i et regionalt helsevesen* [Hospitals in a region based health care system]. Offentlige publikasjoner, Oslo.
- ST. PRP. NR. 23 (1996-97). *Trygghet og ansvar*. Oslo, Offentlige publikasjoner.
- ST. PRP. NR. 44 (1995-96). *Ventetidsgarantien*. Oslo, Offentlige publikasjoner.

ST. PRP. NR. 24 (1996-97). *Tilgjengelighet og faglighet*. Oslo, Offentlige publikasjoner.

WESING, M., J. MAINZ, P. FERREIRA, H. HEARNshaw, P. HJORTDAHL, F. OLESEN, S. REIS, M. RIBACKE, J. SZÉCSÉNY, AND R. GROL (1998). "General practice care and patients' priorities in Europe: an international comparison". *Health Policy*, 45(3): 175–186.

WHO, Regional Office for Europe (1999). *Highlights on Health in Norway*, Copenhagen, WHO.