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**THE NORWEGIAN HEALTH CARE SYSTEM**  
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by  
**Paul van den Noord, Terje Hagen and Tor Iversen**

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## ABSTRACT/RÉSUMÉ

This paper examines the Norwegian health care system from an economic perspective. While acknowledging the excellent quality of services delivered by the Norwegian health care system, it identifies a number of problem areas, in particular: *i*) the long waiting lists for hospital admission and lack of medical staff; *ii*) the marked regional variation in per capita health care expenditure (which cannot be fully explained by demographic factors); and *iii*) the risks to cost control associated with soft budget constraints and collective wage bargaining of doctors. A series of recent reforms, most importantly a move from block grant to activity-based funding of hospitals, should provide incentives for raising efficiency in health care provision but also risk leading to “treatment inflation”.

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Cet article examine le système norvégien de soins de santé d'un point de vue économique. La qualité excellente des services fournis par le système norvégien de soins de santé est reconnue, néanmoins l'article identifie un certain nombre de secteurs à problème, en particulier : *i*) les longues listes d'attente pour l'admission en hôpital et le manque de personnel médical ; *ii*) la forte disparité régionale dans les dépenses de soins de santé par habitant (qu'on ne peut pas expliquer totalement par des facteurs démographiques) ; *iii*) les risques liés à la maîtrise des coûts associés à des contraintes budgétaires faibles et les négociations salariales collectives des médecins. Plusieurs réformes récentes, la plus importante étant le remplacement des dotations globales par un système de financement en fonction de l'activité, devraient fournir des incitations pour accroître l'efficacité des services fournis mais risquent aussi de conduire à une “inflation des traitements”.

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## THE NORWEGIAN HEALTH CARE SYSTEM

Paul van den Noord, Terje Hagen and Tor Iversen<sup>1</sup>

### Introduction

1. A key feature of the Norwegian health care system is the predominance of tax-financed public provision, akin to health systems in the rest of the Nordic area and the United Kingdom. This approach contrasts with the dominant model in many OECD countries, whereby privately provided health services are being funded by a mix of social and private insurance. The Norwegian health care system has succeeded in securing universal coverage and high quality service while, at around 8 per cent of GDP, absorbing resources around the international average (Figure 1). Nevertheless, the system faces several challenges, most prominently:

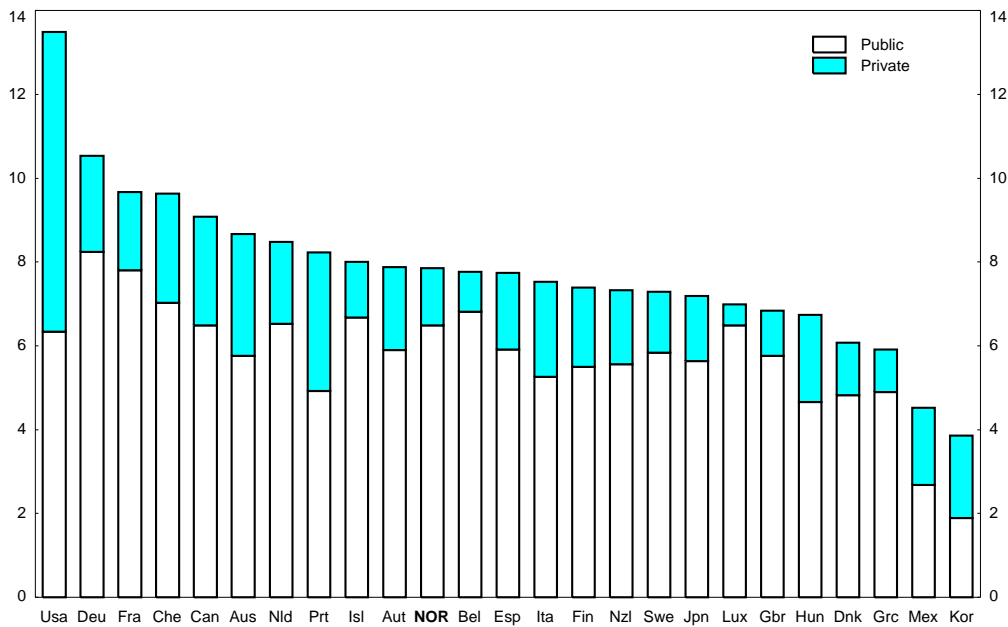
- i)* acute capacity shortages suggested by long waiting lists for hospital admission and the lack of physicians and other medical staff;
- ii)* the need to strike a balance between the requirements of a cost-efficient health care system on the one hand and the ambition to maintain a full-fledged health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

This paper first presents an overview of the system, focusing on the role of the public sector, the funding arrangements and the performance and cost, followed by a discussion of the main problems associated with the system. The paper concludes with a discussion of recent reform initiatives and some suggestions for further change.

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1. Paul van den Noord is head of the Finland/Norway Desk, Terje Hagen and Tor Iversen are external consultants. This paper was included as the special chapter in the OECD *Economic Survey* of Norway published in February 1998. A first draft was discussed by the Economic and Development Review Committee on 12 January 1998 as part of the annual review of Norway and was revised in the light of discussions during the review. The authors are indebted to Stephen Potter, Val Koromzay, Jørgen Elmeskov, Peter Sturm, Howard Oxley, Deborah Roseveare and Jean-Pierre Poullier for stimulating comments and to Desney Erb for technical assistance.

Figure 1. **Health expenditure in OECD countries**  
As a per cent of GDP, 1996<sup>1</sup>



1. Total expenditure. Data for 1995 for Japan, Korea, Luxembourg and Switzerland.  
Source: OECD Health Data 97.

Table 1. **Health care expenditure by government level**  
Per cent of GDP

	1980	1985	1990	1991	1992	1993	1994	1995	1996
<b>Consumption</b>	<b>6.1</b>	<b>6.0</b>	<b>6.9</b>	<b>6.9</b>	<b>7.3</b>	<b>7.3</b>	<b>7.1</b>	<b>7.0</b>	<b>6.9</b>
State	1.4	1.1	1.7	1.8	1.9	2.2	2.0	2.1	2.1
Municipalities	1.3	1.7	2.6	2.8	3.1	3.0	2.9	2.8	2.8
Counties	3.4	3.2	2.6	2.2	2.2	2.2	2.2	2.1	2.0
<b>Investment</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>0.3</b>	<b>0.4</b>	<b>0.5</b>	<b>0.4</b>
<b>Total</b>	<b>6.6</b>	<b>6.3</b>	<b>7.3</b>	<b>7.3</b>	<b>7.6</b>	<b>7.6</b>	<b>7.4</b>	<b>7.5</b>	<b>7.3</b>

Source: Ministry of Health and Social Affairs.

## Main features of the system

### *Service provision*

2. Norway's health care system provides a wide range of services not only in the major urban areas which are concentrated in the southern part of the country, but also in the most thinly settled parts. Apart from socio-cultural and political considerations, this is a reason why, in Norway, the provision of health services has traditionally been in the hands of the public sector. Except for a few specialised private hospitals in the main urban areas, voluntary health agencies such as the Red Cross, or with a regional focus, are fully embedded in the system. By contrast, a significant private provision of ambulatory health care (physicians, dentists and physiotherapists in private practice) has co-existed with the public system.

3. While the planning of the Norwegian health system in principle is relatively centralised, most provision tasks were transferred during the 1970s and early 1980s from the central to the county and municipal administrative levels, and it is the latter two administrative layers that currently account for the bulk of health care expenditure (Table 1). Nevertheless, both the regulation and supervision of health care activities have remained the responsibility of the national authorities (Table 2). Their mandate is to ensure that the plans submitted by the county and municipal authorities are consistent with national objectives and targets, and to achieve a reasonable task sharing between the various administrative levels (national authorities, counties and municipalities) as well as an efficient allocation of resources overall. The central supervisory authority, the Norwegian Board of Health, receives instructions from the Ministry of Health and Social Affairs and is assisted by medical officers (*fylkeslegen*) who are stationed in the counties. The central health authorities have retained some delivery mandates as well, including the control of several national councils, research institutions, the National Hospital of Norway (Rikshospitalet), the National Cancer Hospital (Radiumhospitalet) and a few other highly specialised hospitals.

4. Since the adoption of the 1969 Hospital Act, each of Norway's 19 counties has assumed the responsibility for the planning and operating of the local hospital sector (including both general and psychiatric institutions) as well as other specialised medical services, such as laboratory, radiographic and ambulance services, special care for alcohol and drug addicts and dental care for adults. Each county council, which is directly elected for a four year term, organises the hospital services within its territory according to its own priorities within the overall national objectives. Thus, the counties are legally obliged to submit plans for their health services on a regular basis for approval to the Ministry of Health and Social Affairs. The construction or substantial expansion of hospitals also requires an authorisation by the central authorities. The county councils may ask for assistance by the state-appointed medical officer, who is also a member of the county hospital boards.

5. Since 1974, the 19 counties have been grouped into five so-called health regions, headed by regional health committees which co-ordinate hospital planning on the basis of consensus between county representatives (Figure 2). There are currently 84 general and 14 psychiatric hospitals, whose average size is small by international standards. In each region one regional hospital, which is owned by the county in which it is located (except for one case where the regional hospital is owned by the central government), provides the most specialised services as well as university level teaching facilities, while the other county hospitals offer less specialised services (Table 3). With the improvement of communication and transportation facilities (including ambulance helicopter bases covering the whole country), the structure of the hospital sector is likely to be changed. In particular, the number of general hospitals may be reduced, although it is more likely that the emphasis will be on a re-allocation of hospital functions across existing institutions.

Table 2. **Health care provision by government level**

Government level	Political decision making body	Executive body	Responsibilities
National authorities	Parliament	Ministry of Health and Social Affairs	- Preparing legislation - Approving capacity expansion - Budgeting and planning - Information management - Policy design
Counties (19)	County councils	County Administration Authority	- Hospitals (somatic and psychiatric) - Specialist health services - Institutions for the treatment of drug and alcohol abuse - Dental services
Municipalities (435)	Municipal councils	Local administration	- Municipal health and social services plan
	Municipal executive boards	Municipal executive boards	- Primary health care - Social services/social security administration
	Mayors, Sector committees for health and social affairs	Health and social services	- Nursing homes - Care of mentally handicapped persons

Source: Ministry of Health and Social Affairs.

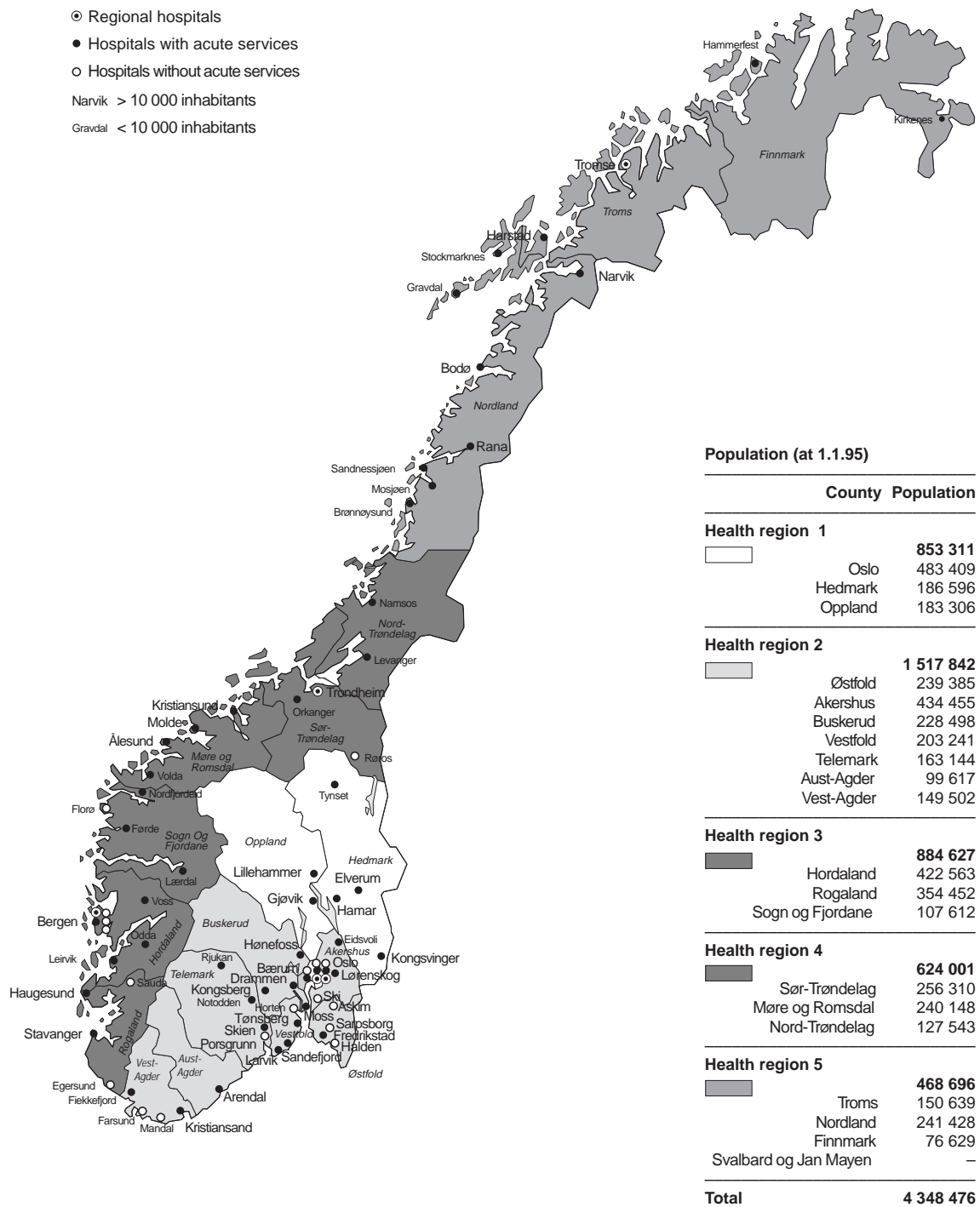
Table 3. **Structure of hospital services**  
1994

	Number of establishments	Inpatient stays		Outpatient consultations	
		Number of patients	Per cent share	Number of patients	Per cent share
<b>Regional hospitals</b>	<b>5</b>	<b>156 500</b>	<b>24.9</b>	<b>848 200</b>	<b>29.1</b>
<b>County hospitals</b>	<b>80</b>	<b>471 200</b>	<b>75.1</b>	<b>2 062 700</b>	<b>70.9</b>
Central county hospitals	12	201 400	32.1	890 500	30.6
County hospitals with central departments	11	106 000	16.9	505 700	17.4
Local hospitals	22	86 000	13.8	363 200	12.5
County hospitals with central departments with reduced services	14	45 500	7.2	203 700	7.0
Specialised hospitals	21	31 800	5.1	99 600	3.4
<b>Total</b>	<b>85</b>	<b>627 800</b>	<b>100.0</b>	<b>2 910 900</b>	<b>100.0</b>

Source: NOU 1997:2.



Figure 2. Hospitals and health regions



Source: St meld nr 24 (1996-97), Tilgjengelighet og faglighet.

6. 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 per cent of the total number of hospital beds and 5 per cent of the outpatient services provided in Norway. These private clinics have specialised in open heart surgery, hip surgery and minor surgery such as arthroscopy, inguinal hernia, cataracts, sterilisation and varicose vein operations, in response to long waiting lists for such care at public hospitals. Norwegian law imposes tight restrictions on establishing such private hospitals. Some medical laboratories and x-ray institutes are also private. Moreover, specialists can engage in private practice (with their fees partly reimbursed by the social insurance system — see below), part-time or full-time, although the hospitals still employ the vast majority of specialists.

7. Since 1984 primary health care has been the responsibility of the municipalities (unlike Sweden, where primary care is the counties' responsibility). Although municipal populations vary widely in Norway, from just over 200 to almost 500 000 inhabitants per municipality, each municipality must (by law) offer services for disease prevention and health promotion, diagnosis and treatment of illness, rehabilitation, and long-term care. Many of such medical services are supplied by municipal "health centres", often including physicians in group practice, although a system of private practice for physicians, physiotherapists, dentists and midwives has co-existed with the public service throughout the post war period. Dental care for children and adolescents up to age 18, as well as for disabled persons and patients in nursing homes or receiving home care, however, is provided free of charge by specialised services owned by the counties. Since 1988 the task of running nursing homes was shifted from the counties to the municipalities and this measure was followed in 1991 with the transfer of the care of mentally retarded from the counties to municipalities.

8. Although there are no legislated minimum requirements for physician-patient ratios, all municipalities must employ a physician who carries out both administrative and clinical functions. Since the adoption of the Municipal Health Act of 1984, the municipality may also contract general practitioners (GPs) in private practice on a fee-for-service basis — a system which, as discussed below, will be reformed. In fact, 50 to 60 per cent of GPs are in private medical practice. Although Norwegians are free to choose their physician, in many municipalities with a small population there is only limited choice. The establishment of new positions for both GPs and hospital specialists is centrally regulated, in order to promote a geographically balanced distribution of doctors. Approval of a municipal request for a new position is the responsibility of a commission whose members include *inter alia* the central government and the Norwegian Medical Association (NMA) — which represents the vast majority of Norwegian physicians.

### ***Funding***

9. As noted, the Norwegian health care system is mostly publicly funded. The central government provides grants to the counties who, in turn, finance the bulk of the hospital sector. The municipalities also receive grants from the central authorities, and largely fund the primary health care system. Finally, the state-run National Insurance Scheme (NIS), created in 1967, offers public insurance against individual medical expenses (fees for service) for ambulatory care provided by hospitals and private practitioners.

### ***Hospital financing***

10. The funding of the county hospital system (including university hospitals and hospitals owned by non-profit organisations) is three-tiered, with:

- the county councils providing the bulk of hospital financing which, in turn, is funded by local tax proceeds and block grants received from the central government;
- contributions from the NIS and the education authorities for, respectively, ambulatory (out-patient) care and teaching services; and
- earmarked grants provided by the central government through the county budgets targeted on specific activities to reflect national policy objectives (for example to reduce waiting lists) or to remove unacceptable differences in service levels between counties.

In addition, hospitals derive some income from patient co-payments for ambulatory care and transfers from other counties to cover the cost of the treatment of non-resident “guest” patients (Table 4). Private commercial hospitals are financed only by patient co-payments, NIS reimbursements and contract-based grants from the counties.

11. Since 1980, the block grants from the central government to the county council for hospital financing have been fixed annually according to a set of criteria such as per capita income in the county, the age composition of its population and its population density (previously funding levels were set according to historical cost of the hospitals). The counties, in turn, provide their hospitals with an annual budget, from which most of the specialist physicians and other staff are paid salaries according to a national pay scale, while major capital spending is budgeted separately on an *ad hoc* basis. As of 1 July 1997 the grant system has been modified, however, with 30 per cent (45 per cent as of 1 January 1998) of the central government grants to the counties henceforth based on the actual number of patients treated, their diagnosed medical conditions and a national standardised cost per treatment. This so-called Diagnostic Related Groups (DRG) approach, which was first introduced in the United States in 1983 and has since been considered or implemented for funding purposes in some other OECD countries, comes closest to being output-based and is hence expected to strengthen providers’ incentives to increase efficiency and productivity (OECD, 1995). It should be noted that the legislated split between DRG-based funding and block grants only applies to the financial flows from the central government to the counties: the counties are not obliged to adopt the same split, as they are free to (re-)allocate hospital resources according to local priorities.

Table 4. **Financing of hospital services**

	1994		1995		Per cent volume change
	Nkr million	Per cent	Nkr million	Per cent	
County councils	14 098	72.9	14 140	68.7	-1.9
NIS refunds for ambulatory care	1 675	8.7	1 804	8.8	5.4
Other state refunds	2 222	11.5	3 347	16.3	47.4
Other	1 335	6.9	1 285	6.2	-5.8
<b>Total</b>	<b>19 330</b>	<b>100.0</b>	<b>20 575</b>	<b>100.0</b>	<b>4.1</b>

Source: Sintef, NIS.

*Financing of primary care*

12. The municipal health service is financed through a combination of grants from the local government, retrospective reimbursement by the NIS for services supplied and out-of-pocket payments by the patients. The municipalities, in turn, receive block grants from the central government based on criteria comparable to those applied for county financing, which complement local revenues from taxes and charges.<sup>2</sup> Patients pay NKr 92 out of pocket per consultation for a GP (and NKr 185 per consultation for a specialist in private practice or in an outpatient department), while additional fees may be charged for x-rays, after hours consultations and home visits. However, total out-of-pocket payments can never exceed NKr 1 290 per patient per year. This upper limit includes the cost of transportation to the site of medical care and the co-payments of “blue tickets” for pharmaceuticals, with the latter also limited to NKr 330 per prescription. Subsequent fees and drug charges are fully reimbursed for the year in which the co-payment ceiling has been reached. No out-of-pocket payments at all are required for children below seven years of age, and the elderly are entitled to a reduction.

13. GPs and other local staff employed by the municipality receive a fixed salary which is centrally negotiated (municipalities employ 40 per cent of the GPs in Norway). Conversely, GPs who run a private practice under contract with the municipality (50 per cent of GPs) receive an annual grant from the municipality which, on aggregate, constitutes around 35 per cent of doctors’ income. The remainder of their income is based on (standardised) fees for service, with full discretion of doctors over the level and mix of services, referrals and other treatment options. Of these fees on average three-quarters is paid directly by the NIS and one-quarter is out of pocket. However, some private practitioners (10 per cent) have no contract with the municipalities and therefore receive no grants, but may be entitled to refunding from the NIS at standard rates. As a result, a much larger share of their income consists of out-of-pocket payments. The funding arrangements for GPs in private practice will change as of 1 January 2000, with the NIS reimbursement of fees for service to GPs becoming conditional on the GP 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.

*The role of the National Insurance Scheme*

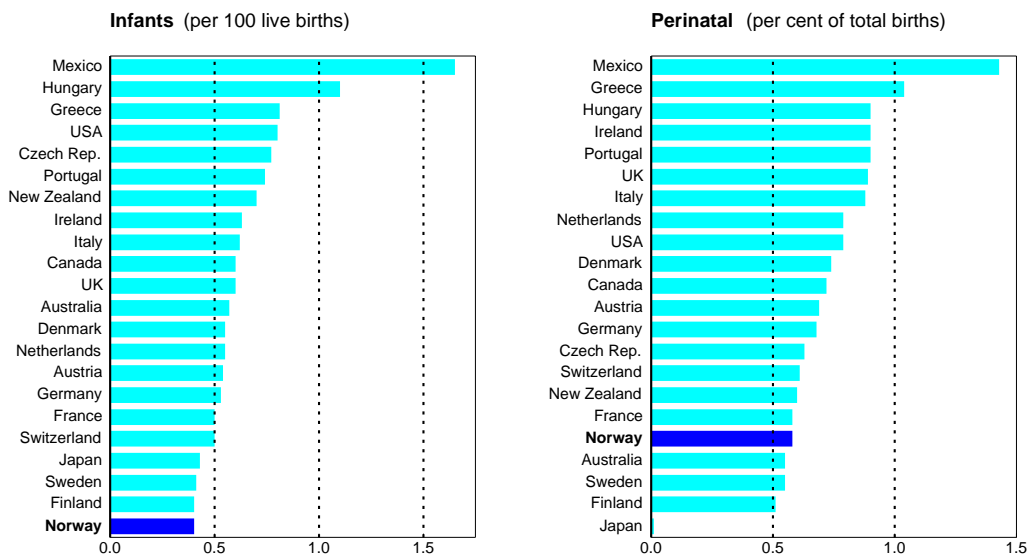
14. The NIS fully reimburses all individual expenses for childbirth, treatment of children under seven years of age and treatment of industrial injury. It partly reimburses patients’ expenses for consultations, prescribed drugs and orthodontic treatment of people below 19 years of age, as well as dental treatment of people above 19 years of age. Membership in the NIS is mandatory and universal, and it is financed by compulsory contributions from employees, employers and self-employed. The NIS, which is managed by the Ministry of Health and Social Affairs, also administers the public pension system and other income transfer programmes, such as sickness, disability, unemployment and rehabilitation benefits. Its health insurance functions are carried out through a network of 445 local offices throughout the country. Private health insurance covering specific categories of individuals or groups, and setting premia on the basis of their risk characteristics, is virtually non-existent in Norway.

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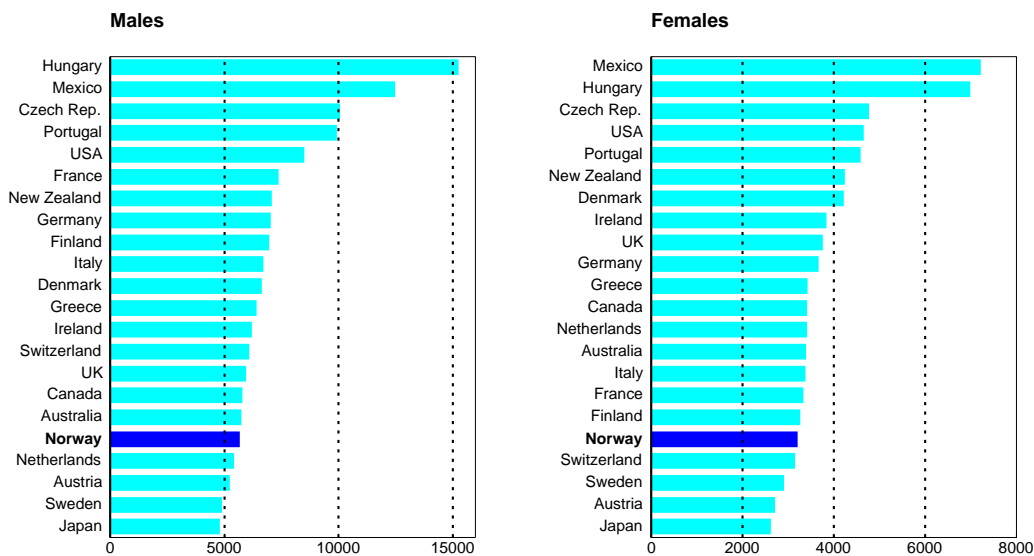
2. With grants, local taxes and charges constituting 45, 40 and 12 per cent, respectively, of total municipal resources.

Figure 3. **International comparison of health outcomes**

**A. Child mortality rates, 1995 or latest year available**

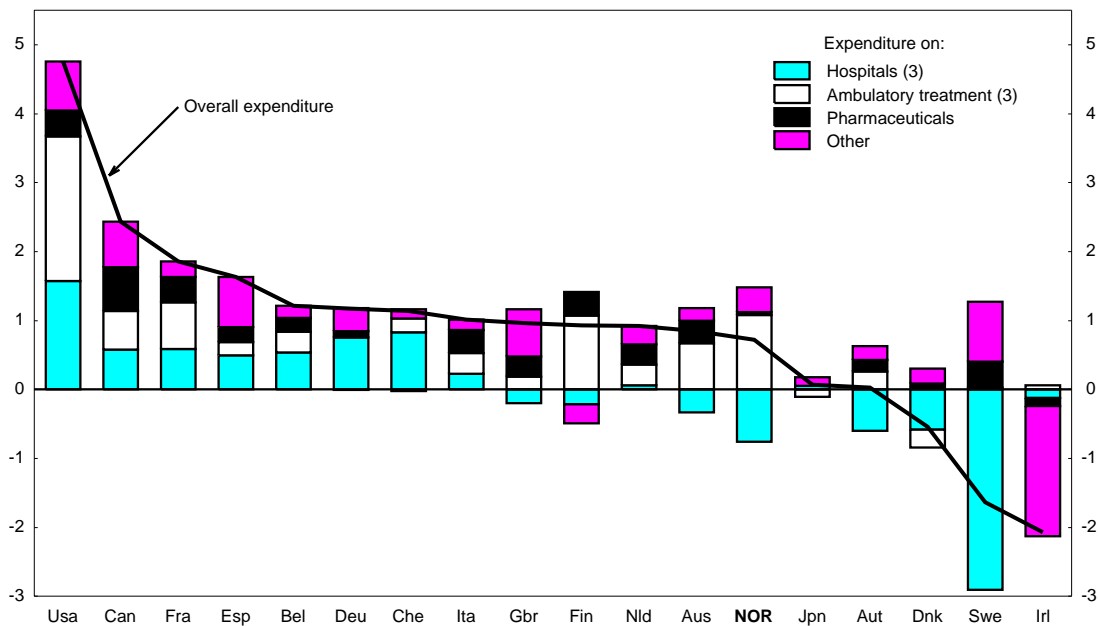


**B. Potential years of lives lost, 1992 (per 100 000 persons aged under 70)**



Source: OECD Health Data 97.

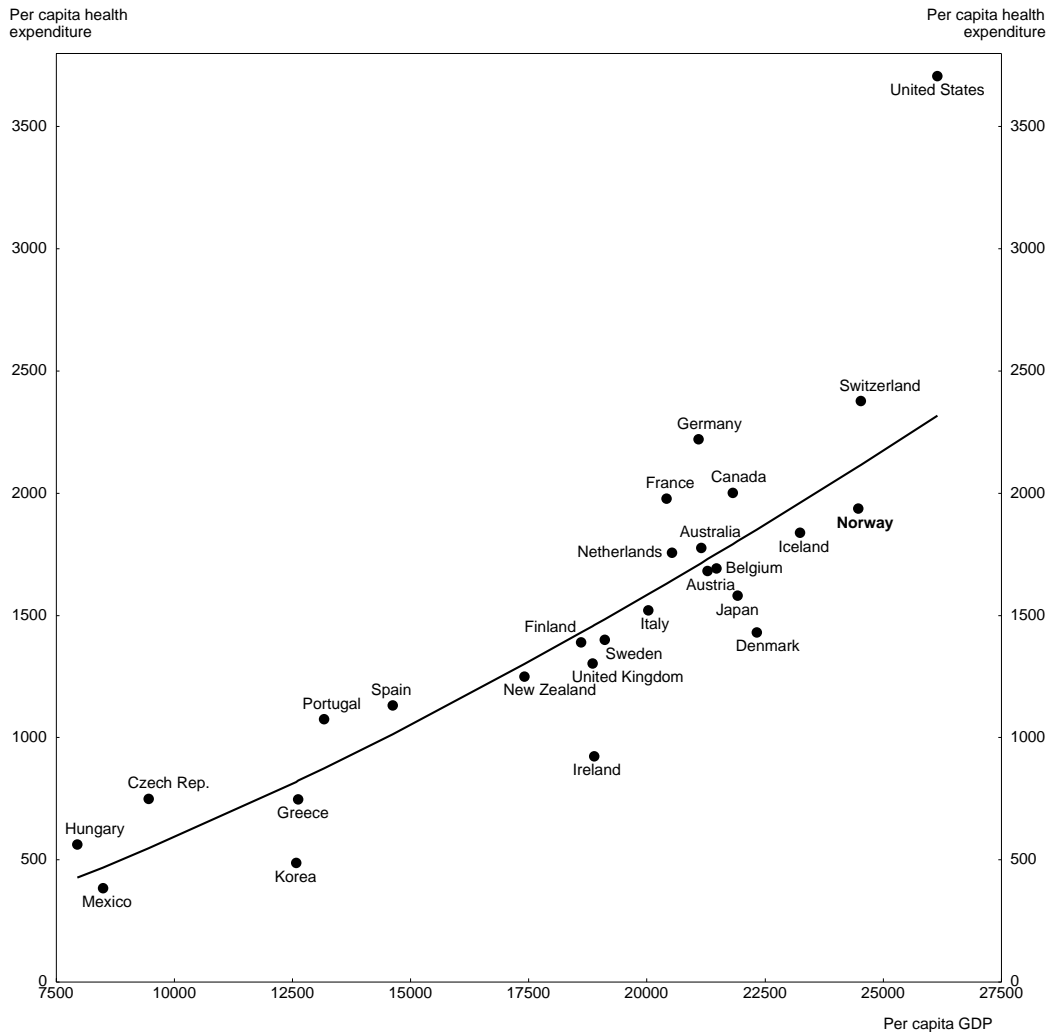
Figure 4. **Growth in health spending by category**<sup>1</sup>  
Change in ratio to trend GDP (percentage points), 1980-95<sup>2</sup>



1. Current expenditure.
  2. Or closest year available.
  3. Public expenditure for Ireland, Sweden and the United Kingdom.
- Source: OECD Health Data 97.

### *Performance and cost*

15. The Norwegian health care system is characterised by extensive coverage, high quality and proven medical competence. In a recent official opinion poll (NOU 1997:2), about 95 per cent of the respondents expressed satisfaction with the professional skills of their physicians and 80 per cent gave a positive appraisal of the results of treatment and the service attitude of medical staff. Not surprisingly, the overall health status of the Norwegian population is excellent. The life expectancy at birth, at 74.2 years for men and 80.3 years for women, ranks among the highest in OECD countries and is still on an increasing trend. Moreover, the differential in life expectancy between males and females has been narrowing since the mid-1980s, due to a reversal of the declining trend in life expectancy of middle-aged men. Infant mortality is the second lowest in the OECD area, after Finland, while perinatal mortality — as in other Nordic countries — is also very low by international standards (Figure 3). The number of avoidable years of life lost under age 70 per 1 000 at around 5 for males and 3 for females, is among the lowest in the OECD area, with a slightly better performance found only in Japan, Austria, Sweden, the Netherlands (for males) and Switzerland (for females).

Figure 5. Health expenditure and GDP per capita<sup>1</sup>

1. In 1995 or 1996. Total expenditure on health care and GDP in purchasing power parity exchange rates.

The equation of the regression line is the following:

$$\text{LN(Health expenditure per capita)} = -6.70 + 1.42 * \text{LN(GDP per capita)}$$

R squared = 0.82

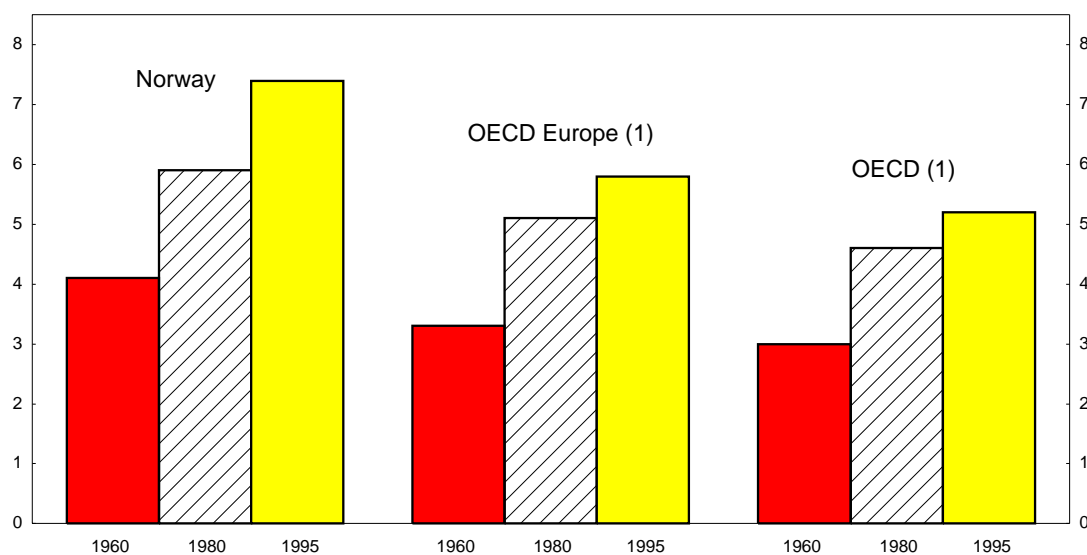
T: (-4.97) (10.32)

Source: OECD Health Data 97.

16. Over the past fifteen years, health care expenditure as a ratio of trend GDP in Norway has grown by a moderate 1 percentage point, which is below the (unweighted) OECD average and considerably less than in the United States, France, Canada, Spain and Switzerland (Figure 4). Moreover, at around US\$2 000 (measured at purchasing power parity) per capita, health expenditure in Norway is close to the (unweighted) OECD average (Figure 5). Such relatively moderate cost levels have been achieved despite an above-average level of real per capita income and a more advanced ageing of the population than in most OECD countries (Figure 6), both factors which are potentially conducive to high levels of health expenditure.<sup>3</sup>

3. As a rule of thumb, people aged over 65 consume, on average in the OECD area, roughly four times as much medical services as those below that age.

Figure 6. **Population aged 75 and over**  
As a per cent of total population



1. Unweighted average.  
Source: OECD Health Data 97.

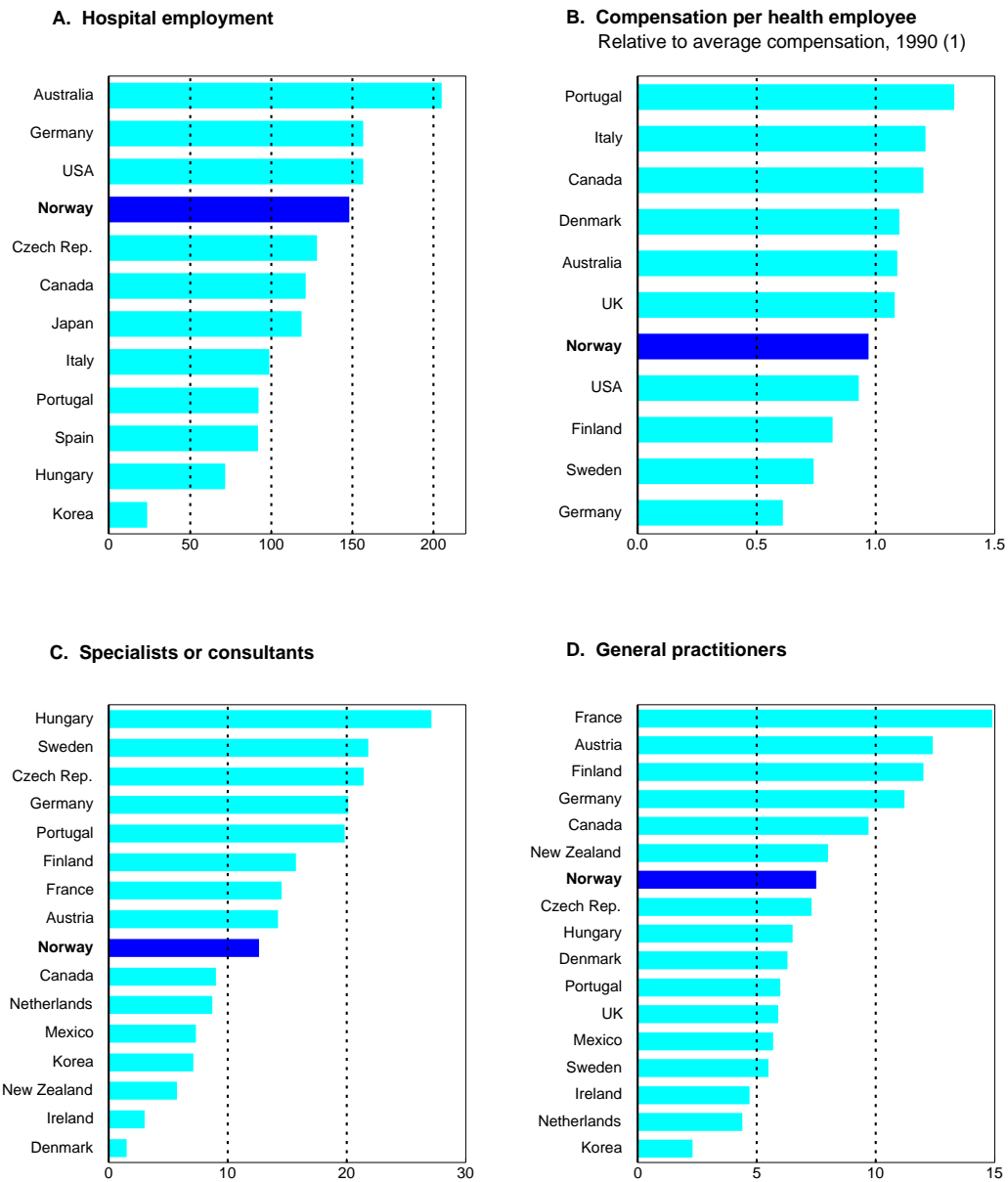
17. As in most OECD countries which have achieved moderate expenditure growth, the expenditure share of hospital care in Norway has been on a declining trend, partly offset by a rising share of ambulatory, pharmaceutical and other components (Figure 4). This suggests a substitution towards these less costly components of health care, possibly in response to spending constraints imposed on hospitals and technological developments. Indeed, in line with tendencies in other OECD countries, average length of stay in hospitals has been reduced (now ranging from 6 days in surgical disciplines to 56 days in psychiatric wards) while there has also been a shift toward more outpatient treatment. As a result, the number of beds in general hospitals and in psychiatric hospital wards is on a declining trend. Nevertheless, total hospital employment in Norway (relative to population size) remains substantial by international standards, even if the number of doctors (specialists and consultants) per inhabitant is not unusually high (Figure 7).

### Problems with the system

18. Overall, the performance of the Norwegian health care system thus appears to be satisfactory by international standards. However, as will be discussed in more detail below, a number of problems need to be addressed. First of all, the health service in Norway appears to be unable to always ensure speedy access to hospital care, and there is also scope for improved efficiency through a better regional co-ordination and planning of health care services. Moreover, there is increasing pressure to raise public health care spending, in part motivated by these shortcomings.

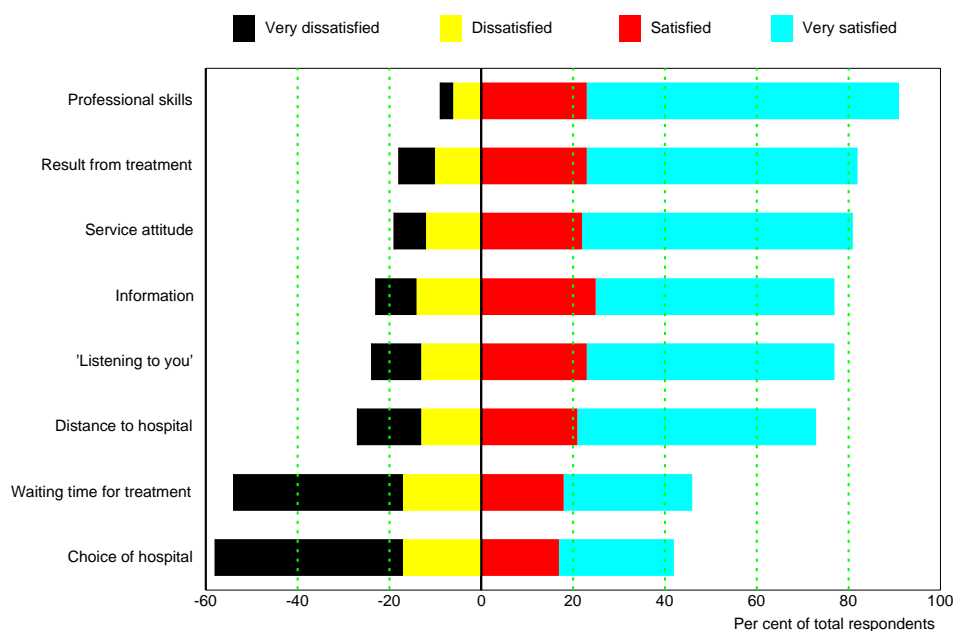


Figure 7. Labour resources in health care  
Per 10 000 population, 1995<sup>1</sup>



1. Or latest year available.  
Source: OECD Health Data 97.

Figure 8. Patients' evaluation of hospital treatment  
1995



Source: NOU 1997:2.

### *Bottlenecks in the hospital sector*

19. The most urgent problem facing the Norwegian health care system is the insufficient ability of both general and psychiatric hospitals to absorb patient inflows. According to recent opinion polls, long waiting lists and reduced freedom of choice of hospitals by patients is widely considered to be unacceptable (Figure 8). As a result, there seems to be a general impression that the hospital system is in a crisis, which is reinforced by official reports suggesting that the reallocation of health care resources from lower to higher priority areas has proved difficult to implement.<sup>4</sup> As this problem is deemed to undermine the popular support for maintaining a fully public health care system, *e.g.* by inducing private insurers to create specialised centres for non-emergency treatment, it figures high on the political agenda.

20. The persistence of long waiting lists already prompted the authorities to introduce national standards for admission priorities in the late 1980s. This measure was supplemented in 1990 with the introduction of a legal "waiting time guarantee", stipulating a maximum waiting period of six months for non-emergency patients who suffer from "damage to health that requires intervention to avoid serious consequences in the long run". According to this legislation, the county council should assume full responsibility for offering treatment to patients, who have been given a waiting-time guarantee, within six months, making use of available capacity in other counties if needed. Moreover, the counties are legally required to report hospital waiting times three times a year.

4. A Norwegian Commission of Inquiry (NOU 1987: 23) concluded that more resources should be allocated to psychiatric patients, rehabilitation, patients with serious chronic diseases and patients with permanent nursing needs. In a follow-up report published recently (NOU 1997:18), the Commission concluded that these goals had not been achieved.

21. Since the introduction of these measures, the number of patients on waiting lists has, however, increased further (with surgical treatment such as orthopaedic surgery, urology and otolaryngology reportedly experiencing most delays). This suggests that the situation has continued to deteriorate, as reflected also in a sharply increasing number of “violations” of waiting-time guarantees.<sup>5</sup> Moreover, several studies show that the proportion of patients granted a waiting-time guarantee varies both between and within counties, pointing to differences in interpretations of the criteria for giving a guarantee. As a result, the current legislation may not have improved the perceived “equity of access” to hospitals from the patients’ perspective. It is also clear that the introduction of waiting-time guarantees is less suitable for psychiatric patients. In fact, many psychiatric institutions completely abandoned the idea of waiting time guarantees.

22. There is reason to believe that the reported increase in waiting time and non-fulfilment of the guarantee in part reflects better registration practices. Moreover, waiting lists are difficult to avoid in any health care system as patient co-payments are typically not used as the key rationing device. In theory, GPs and consultants play a role as “gate keepers”, but in Norway this does not work satisfactorily, possibly due to a lack of pertinent incentives — the more so since patients are allowed, under certain conditions, to contact a specialist without a referral from a GP. There are also reasons to believe that the reported waiting times are used strategically by the health care suppliers to obtain more public resources, whereas there are no financial incentives that would motivate the hospitals to shorten the waiting lists or to meet the waiting-time guarantees.<sup>6</sup> Nevertheless, whatever the cause, the waiting times have become a major issue in the health policy debate in Norway and are widely seen as unacceptable by the public.

### *Scope for better allocation of health care resources*

23. Another problem which has received much attention in the Norwegian health policy debate in recent years is the apparent need for an improved allocation of health care resources across regions, both in order to relieve existing capacity constraints and to enhance the accessibility, quality and cost-efficiency of services. Such issues are most pressing with regard to somatic hospital care, but are relevant for primary care, psychiatric care and pharmaceutical distribution as well.

#### *Somatic hospital care*

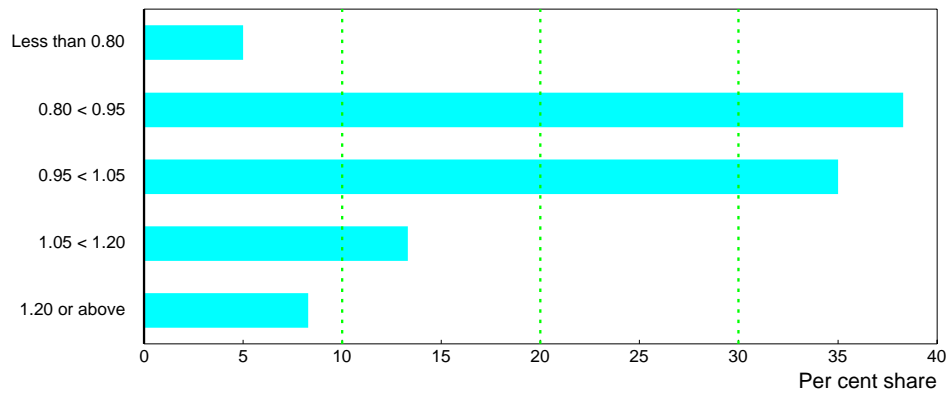
24. There appears to be a significant regional variation in somatic hospital spending per capita, which is difficult to justify by regional differences in health status and demography (Hagen and Sørensen, 1995). This suggests that differences in efficiency levels play a key role. Indeed, as shown in Figure 9, almost one-quarter of hospitals have reported standardised cost levels more than 5 per cent above the national average. The potential gains in efficiency may be considerable, perhaps as large as 10 per cent or more (Hagen, 1997; Magnussen, 1994). There are also large differences across institutions with respect to bed occupation rates, which tend to be highest in the large central hospitals, due to their progressive specialisation and good reputation, while smaller local hospitals in rural areas are liable to have low occupation rates. This is, in part, explained by a lack of specialists in small hospitals, with vacancy rates in the range of 25-40 per cent compared with a national average of around 10 per cent (Figure 10).

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5. From 1993 to 1996 the number of violations increased from 3 000 to 19 500 while the number of patients on waiting lists rose from 227 000 to 301 000.

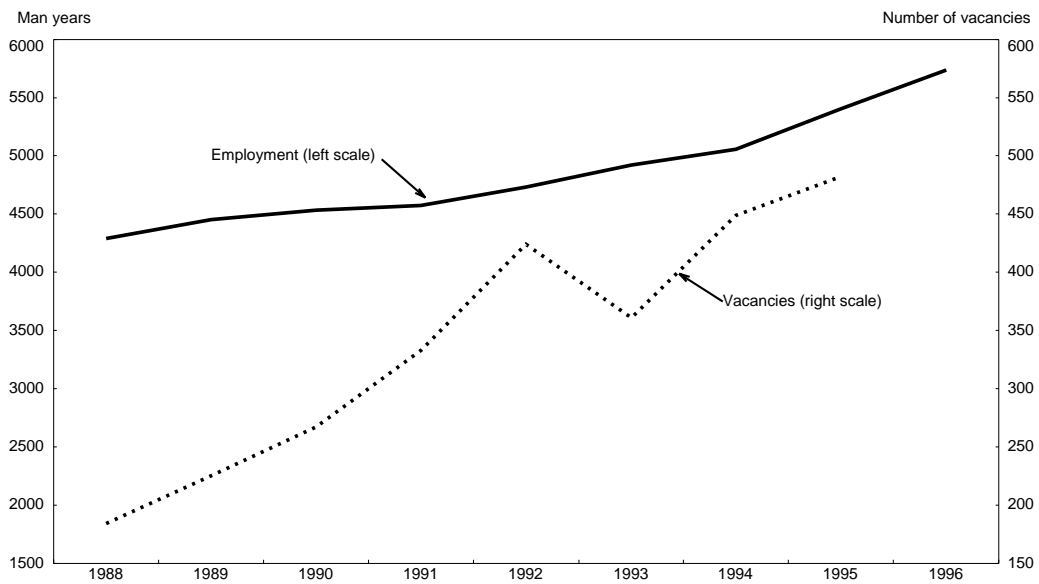
6. A proposal to introduce a penalty for hospitals that break the waiting time regulations was turned down by parliament.

Figure 9. Share of hospitals at different cost-efficiency levels  
1996



Source: SINTEF NIS.

Figure 10. Employment and vacancies of physicians in general hospitals



Source: Statistics Norway and the Norwegian Board of Health.

25. The policy approach employed in the past, whereby hospital funding was occasionally raised through “earmarked grants” in order to encourage productivity increases, does not seem to be achieving the intended goals. Econometric analysis suggests that an increase in block grants by 1 per cent would, in fact, lead on average to a decline in productivity by approximately 0.3-0.4 per cent (Hagen, 1997), as hospitals tend to spend part of these extra funds in ways which raise the cost of treatment per patient (Hagen and Iversen, 1996). This indicates that hospital management may be susceptible to “moral hazard” — *i.e.* easy finance leads to high expenditure. As Figure 11 shows, the regional variation in hospital spending per capita is, indeed, to a high degree explained by variations in county resources. The highest hospital spending levels are found in northern Norway and in the counties of Sogn og Fjordane and Oslo (Figure 2), where per capita county revenues are also the highest. As concerns northern Norway and Sogn og Fjordane, this phenomenon indeed reflects the high level of state grants — motivated by regional policy considerations — whereas in Oslo the substantial local tax proceeds are the main explanatory factor.<sup>7</sup> Other indicators of hospital inputs, such as man-years per capita (Rønningen, 1997) and inpatient stays per capita (Kalseth and Karstensen, 1997), show similar regional discrepancies.

26. A change in the current hospital organisation towards a more efficient division of labour between institutions would probably contribute to reduce cost levels, by exploiting the potential for economies of scale and scope. However, although the need for a better co-ordination between the hospital authorities (within a county and between counties) is widely agreed upon, it is still difficult to achieve. There is great resistance against restructuring the local hospital sector, due to the concerns over the accompanying job loss. Moreover, the proximity of full-fledged hospital services, including emergency and specialised elective functions, is seen as an acquired right by large segments of the population regardless of location. As noted, when the five health regions were established in the mid-1970s, each region appointed a health committee with representatives from the counties. These committees are currently designing plans to improve the distribution of emergency and elective functions among the hospitals, based on reports prepared by groups of medical professionals.

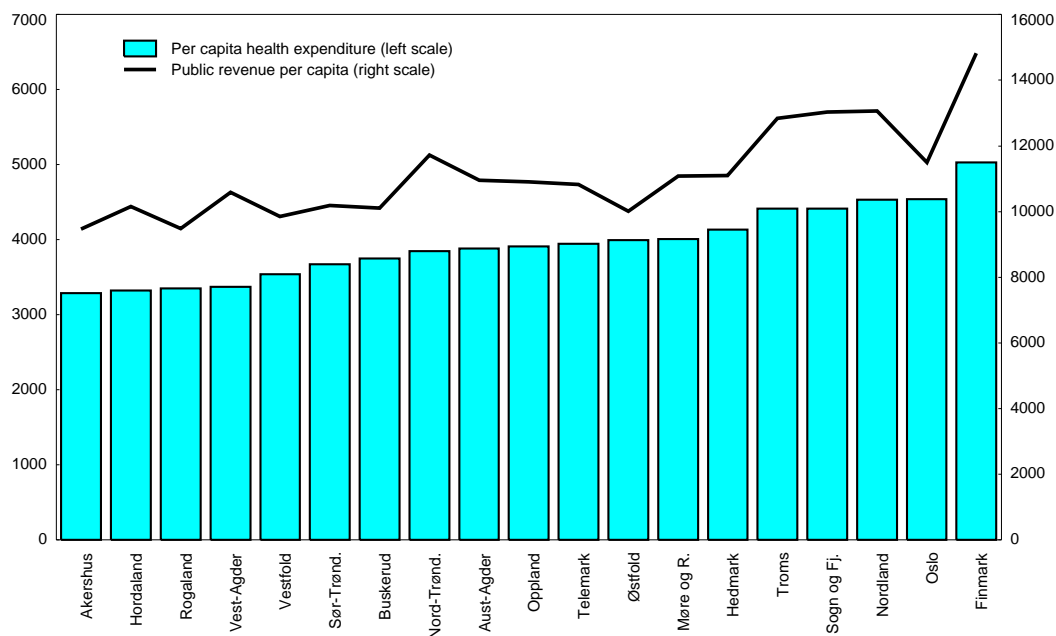
### *Psychiatric inpatient care*

27. In psychiatric inpatient care the regional variation in expenditure per capita is even larger than for somatic hospital care. The Oslo county, in particular, stands out by its high cost level, which reflects the specific circumstances in Norway’s main urban area, with many single person households (a major risk category for psychiatric help) and where supply factors, such as the presence of the various schools in psychiatric medicine, are conducive to higher expenditure levels. In Norway, as in many other Western countries, there is a trend of switching from inpatient psychiatric care in main psychiatric institutions to polyclinic and day care, with the municipal authorities being given responsibility for psychiatric care outside the institutions. However, Norwegian municipalities have had some difficulties to assume fully such responsibility. A recent official report (St meld nr 25, 1996-97) concluded that the supply of preventive care in municipalities is lower than it should be, while the quality of treatment is often poor due to time-consuming disputes among professionals and lack of qualified staff.

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7. The cost of hospital treatment in the Oslo county has been reduced in recent years, however, after the municipal and county administrations of the Oslo metropolitan area decided to encourage a greater amount of deferrals to nursing homes in order to shorten hospital stays. Pay scales of doctors in Oslo have also been brought in line with those in the rest of the country, and a few small hospitals have been closed.

Figure 11. **Public revenues<sup>1</sup> and somatic health care expenditure by county**  
Nkr, 1996



1. Tax and general grants.  
Source: Statistics Norway and SINTEF NIS.

### *Primary care*

28. The number of GPs per inhabitant varies significantly across municipalities, with the per capita supply of GPs in rural areas being the largest due to the legal obligation for even the smallest municipalities to employ a GP. Hence, although the number of consultations per capita does not vary much across regions, including the thinly settled ones where travel time could be a constraining factor (Grytten, Rongen and Sørensen, 1994), the number of consultations per doctor tends to be very low in rural areas. However, while rural areas depend to a large extent on publicly employed GPs, many municipalities in these areas face difficulties attracting GPs in public service due to their weaker earnings perspectives relative to contract GPs in urban areas, who have a possibility of increased earnings from fees for service. As a result, positions for public GPs in remote areas remain vacant for extended periods and the turnover of doctors, who are often foreign and temporarily employed, tends to be high, implying that the continuity of care is not easily guaranteed. Moreover, despite such different conditions facing rural and urban areas, patients uniformly complain about long waiting times and a lack of personal contact with doctors, as reflected in short consultations and long waiting times before the consultation takes place (Johnsen and Holtedahl, 1997).

### *Pharmaceuticals*

29. The main problem concerning the distribution of pharmaceuticals in Norway is the inadequacy of the retail network, the virtual absence of competition on service and opening 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 the implementation of the European Economic Area (EEA) agreement, when the state-owned wholesaler *Norsk Medisinaldepot* lost its legal monopoly (with two competitors entering the market) and pharmacies and hospitals were allowed to import drugs with a European license directly from other EEA countries. In 1995, in order to reap the benefits of increased competition, 17 counties set up a tender system for pharmaceuticals serving 76 hospitals (the *Legemiddel Innkjøp Samarbeid, LIS*) — an initiative which indeed contributed to lower expenditure on pharmaceuticals in the hospitals that participate. However, in 1996, the Norwegian pharmaceuticals branch organisation filed a complaint with the EFTA Surveillance Authority (ESA) for alleged “monopsony”. While the claim has been formally contested by the counties involved, a ruling by the ESA is still awaited.

### *Risks to cost control*

30. Notwithstanding the above shortcomings, the cost of health care in Norway has broadly been kept in check. This outcome has been facilitated by the block grant system for hospital financing which, due to the limited tax discretion of the counties, has forced county politicians to remain within a given budget constraint. Nevertheless, the county authorities and their regional hospitals have occasionally lobbied — with success — for supplementary grants from the central government. Apparently, hospitals and counties have used their advantage over the central authorities in terms of information and have not hesitated to point to the waiting lists and non-respect of waiting-time guarantee as arguments for additional funding.

31. Moreover, for counties whose main hospital is also a university hospital (combining medical care delivery with medical training and research), budget constraints imposed by the grant system are generally weaker than for other counties. The counties with a university hospital usually receive an “earmarked” grant from the state to encourage education and research. However, there are concerns that such grants “leak” into other regular somatic hospital activities (Hagen, 1996). This problem has been acknowledged by the Ministry of Health in a recent White Paper (St meld nr 24, 1996-97), suggesting that such earmarked grants should be transferred directly to the academic hospitals concerned, and administered separately to prevent further “leakages”.

32. Another risk on spending outcomes in hospitals is related to the current upward pressure on pay levels of hospital physicians, motivated by the desire to draw physicians with a part-time private practice into full-time employment in hospitals.<sup>8</sup> The wage scale for hospital physicians is set in national negotiations between the Association of Municipalities (which negotiates on behalf of the counties) and the Norwegian Medical Association.<sup>9</sup> The Association of Municipalities is thus bargaining from a position where it is not fully accountable for the results, these being reflected in cost developments at the county (and state) level rather than the municipal level. With mounting pressure on hospitals to attract physicians, wages for hospital physicians increased sharply in 1996, which has been reflected in a rise of 6 per cent in real terms in the cost per patient (Solstad, 1997). There is a risk that these increases will continue in further wage rounds.

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8. An inquiry made by the Oslo municipal auditor in 1995 showed that 31 per cent of senior physicians (*overordnede leger*) at Ullevål hospital, the country’s largest, had a private practice during 1992 and 1993. On average, these physicians received reimbursements from the state and patients’ fees that added up to NKr 150 000 to their yearly income, which represents about 50 per cent of senior physicians’ income from ordinary hospital work in this period.

9. Except for physicians in national hospitals, whose pay negotiations take place between the Ministry of Labour and Administration and the Norwegian Medical Association.

## Reforming the system

### *Recent initiatives*

33. Several reforms of the health care system have recently been implemented or are being planned. Most of these have been prompted by the problems discussed above, while others have different origins. The main areas where reforms have been introduced or are being considered are:

- the funding system;
- hospital management and co-operation;
- admission priorities for hospitals;
- the formalisation of patients' rights; and
- the liberalisation of the drugs market.

It should be noted that since most reforms are recent, evidence of their impact is limited, and the final effects are largely unknown.

### *Activity-based funding*

34. A major change in the state funding of somatic hospitals was implemented on 1 July 1997: a portion of the block grants from the central government to the counties became related to hospital activity. The activity-related grant corresponds to 30 per cent of the average DRG-based costs per inpatient treated (to be raised to 45 per cent on 1 January 1998). This 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: the counties are expected to achieve a 6.5 per cent rise in inpatient activity in 1998 relative to 1995. Those failing to achieve this goal may have "earmarked" central government grants temporarily withheld. Other activities such as teaching and research activities may decline, however, as hospitals attempt to free up resources for inpatient care. Another concern is that the new system, by weakening the budget constraint facing counties, could lead to an excessive increase in hospital expenditure (Hagen and Iversen, 1996). 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.<sup>10</sup> The remaining six counties continued to finance their hospitals solely through fixed block grants. It should be noted, however, that these dispositions were temporary and that in the future counties will retain full discretion concerning the choice of funding arrangement with their hospitals.

35. In the area of primary health care, the existing system of activity-based funding through fees for services covered by the NIS and out-of-pocket payments will be continued. However, the government is considering the replacement of the fixed block grant per doctor in private practice by a capitation payment based on the number of listed patients and their age composition, aimed to induce private GPs to admit more patients in order to free up GPs for the public service where, as noted, vacancies are difficult to fill.

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10. However, the Oslo county reimburses 60 per cent of the DRG-based cost per treatment through activity-related grants.



According to the current plans, municipalities would have a legal obligation to maintain a system of listed patients, with patients signing up for one (contract) physician of their own choice, both in order to allow the introduction of capitation funding and to strengthen doctors' gate-keepers role by establishing durable contacts with patients. When the reform is implemented, 30 to 40 per cent of private GPs' income would consist of capitation payments from the municipality and the remainder of fees for service.

36. Experience gained from a pilot project, launched in four municipalities with a total of 250 000 inhabitants and 150 GPs in the early-1990s, suggests that the new list-patient system improves the patients' appraisal of general practice.<sup>11</sup> According to an official opinion poll, 84 per cent of the responding patients hoped the list system would be maintained while 21 per cent felt more confident with their GP than before. Hence, even if 69 per cent of the respondents were of the opinion that the change had made no difference, the results look, on balance, positive from the point of view of the patients. The waiting time for ordinary (non acute) consultations had indeed declined, although the result was somewhat less clear when the full spectrum of consultations was considered. The GPs also became more involved in emergency care, resulting in lower demand for hospital emergency care.

#### *Hospital management and co-operation*

37. As regards hospital management and efficiency, an official commission of enquiry unanimously concluded that certified management competence should be a normal requirement for staff leading hospital departments (NOU 1997:2). The commission also stressed that the county councils, as hospital owners, should maintain a transparent relationship with the management of their hospitals, giving clear instructions concerning their objectives, but abstaining from attempts to "micro-manage". Concerning co-operation between hospitals, another official inquiry commission, set up in 1995, did not reach agreement on the question of hospital ownership and, more specifically, on whether hospital ownership should be transferred from the counties to the central government or to a new regional authority. This prompted Parliament to leave the ownership situation unchanged but it, nevertheless, took action to strengthen the regional integration of hospital services by asking the regional health committees to prepare regional health plans.

#### *Principles for setting priority*

38. In 1997 a royal commission of enquiry made proposals to re-define the criteria for priority in hospital admissions to improve the rationing of the available capacity (NOU 1997:18). A main objective of the new criteria is to enhance the fairness and uniformity of decision making and, thereby, to improve the legitimacy and acceptance of the waiting-list system. The commission proposed four priority levels: "fundamental", "complementary", "lower priority" and "not to be provided by the public sector". The ranking of patients according to this priority scale should be based on the seriousness of the conditions to be treated, the expected improvement in health from the treatment, and the costs of treatment relative to the expected improvement. The suggested system seems to be more rational than the current one, with a new feature being the explicit trade-off between the costs and benefits of treatment. However, since the actual decision making will remain in the hands of the individual physician or hospital, the proposed

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11. The experiment was not entirely comparable to the implemented regulation, as the capitation payments in the trial did not take account of a person's need for services because of disease-specific or social factors. For a GP this created an incentive not to attract patients with a high need. Those GPs who care well for chronically ill patients are punished economically compared to their colleagues. It is very difficult to set up an organisation and a payment system that does not introduce perverse incentives with respect to patient selection.

system still leaves much room for discretion and, given the double role of hospitals in providing care and classifying patients, may entail conflicts of interest. It also remains to be seen whether it will be suitable for the sectors the commission wishes to favour, e.g. psychiatric care, rehabilitation, comprehensive nursing and orthopaedic surgery where, in many cases, the outcomes are particularly difficult to evaluate *ex ante*.

39. In anticipation of the adoption of the new rules for priority setting, the waiting list system itself has been modified recently as well. In particular, the maximum waiting time for treatment of patients facing serious illness has been reduced from six to three months from 1 July 1997. Moreover, if such patients have been on a waiting list for three months, the county of residence is obliged to arrange treatment elsewhere — abroad if needed. As of 1 January 1998, finally, patients should receive an assessment of their request for hospital admission within 30 working days.

#### *Legislation of patients' rights*

40. A draft law proposal on patients' rights, circulated for public comments at the end of August 1997, is expected to be submitted to the parliament in June 1998. The draft law is comprehensive by international standards and might be regarded as a significant step towards improving the relationship between patients and the health care system. Two legal rights identified in the draft proposal may affect the system's performance, and therefore deserve to be considered in more detail: the "right to treatment" and the "right to choice of hospital".

41. Concerning the legal "right to treatment", the draft proposes two possible formulations. Alternative 1 distinguishes a right to urgent care, a right to necessary primary care, and a right to secondary care. It also entails that the county authorities should organise and fund hospital treatment abroad if equivalent treatment cannot be provided domestically within a certain time limit (in practice corresponding to the maximum waiting time guarantee, which, as noted, is reduced from six to three months for urgent care). Alternative 2 simply offers a general right to health care if the patient's health status so requires, including diagnostics and rehabilitation. Both alternatives would involve judgements by local hospital doctors of the seriousness of the patient's suffering, the effectiveness of treatment and the costs and benefits of treatment, in line with the priority setting rules discussed above. Moreover, both alternatives include the right to appeal and "second opinion", with the regional medical officer (*fylkeslegen*) who may instruct hospitals and other health institutions to provide treatment. However, unlike the second alternative, the first alternative explicitly allows patients always to exercise their rights in the case of violation of the waiting time guarantee. Alternative 1 may therefore jeopardise cost control and lead to a shift in health care resources from psychiatric care towards somatic hospital activities.

42. The introduction of a "right to choice of hospital" has been proposed both on its own merits and as an additional instrument for raising hospital capacity utilisation and reducing waiting times. According to the draft law, the GPs should offer patients the possibility to choose from a list of public hospitals in the health region and neighbouring counties. However, since specialised central and regional hospitals also serve as local hospitals and therefore will normally figure on the list, patients may be inclined to choose a central or regional hospital even if specialised treatment is not needed. This may therefore exacerbate the existing situation where highly specialised staff in central and regional hospitals treat patients with routine ailments. A careful monitoring of the impact of the reform is hence needed.

*Liberalisation of the drugs market*

43. A number of proposals for reform of the drugs market are currently being considered by the government (NOU 1997:6 and NOU 1997:7). These proposals include a plan to liberalise the retail market, allowing free establishment of new pharmacies and ownership of pharmacies by non-pharmacists in order to increase the number of outlets. Furthermore, reforms are being considered to strengthen the incentives facing doctors to prescribe the cheapest drug available. A central electronic database for pharmaceuticals has been proposed, which would allow doctors/pharmacies to obtain information on cheaper alternatives. Moreover, a better interaction between the pharmaceutical industry and doctors, with more clarity about drugs' test results and expertise for best use practices, will be facilitated by providing physicians with training in interpreting test results. Permitting doctors in remote areas to order medicines electronically could also help to reduce cost, although this would make it more difficult for pharmacies to survive in those areas. According to current official proposals, finally, the pharmacy should provide the cheapest brand or a parallel imported version of the prescribed brand unless prescriptions explicitly mention that "generic substitution is not allowed" or that "parallel imported products of the brand indicated are not allowed". Such a reform could usefully complement the reference price system for reimbursement of drug charges introduced in 1993, which uses the price of the cheapest brand available on the market as the basis for reimbursement. This reference price system will, as of March 1998, be extended to include drugs that are subject to patent protection but which may be parallel imported or manufactured under licence at a lower price.

*Further challenges*

44. The wide-ranging reform proposals discussed above are likely to improve the functioning of the health care system in Norway, as they introduce new incentives for increased and more efficient service provision — which appears to be urgent in view of the current bottlenecks in the system. Nevertheless, a number of potential problems associated with the reforms remain. Concerning primary care, while the proposed list system and the combination of capitation funding and fees for service should raise the quality and quantity of care and encourage GPs to reassert their role as gate keepers, the new system may lead to unexpected changes in the allocation of resources and funding arrangements. First, as the municipal contribution to doctors' incomes is based on the number of patients rather than on the number of doctors, the marginal cost for a municipality of contracting a GP will be practically zero. By prompting municipalities to attract additional GPs, this may imply a decline in the average number of patients and hence income from capitation payments per GP. Incumbent GPs are likely to respond to such a fall in capitation payments by increasing their income from fees for service, which would result in cost shifting from the municipalities to the central government (including the NIS). Second, with expenditure on GPs becoming a function of demographic factors (*i.e.* the number and age composition of listed patients) rather than the number of contracted GPs, municipalities which now have many patients per doctor (*e.g.* in urban areas) and hence low cost per patient are likely to experience an increase in expenditure, while the opposite may occur in (mostly rural) municipalities where there are relatively few. This change, in turn, risks prompting the municipalities in urban regions to demand compensation from the central government — thereby potentially raising the overall expenditure level in primary care. Third, the capitation fee may not take full account of a patient's health profile and service needs, which could induce adverse selection by GPs.

45. While the legislation of individual patient rights aims both to improve access and to make it clearer what patients can expect from the public health care system, the practical application of the legislation — *i.e.* the assignment of priority levels and the associated waiting time guarantees — will be based on judgements by the individual physician. With the introduction of activity-based financing of

hospital treatment, the incentive for the hospital of assigning high priority to a patient is likely to be stronger than under the block-grant system, as it will receive financial compensation per admission. As a result, the number of urgent cases may increase and, while the number of admissions may also increase, this may not lead to a shortening of hospital waiting lists. More generally, the introduction of activity-based financing in hospitals could lead to treatment “inflation” as this will increase revenues. This heightens the risk of expenditure over-runs in the somatic hospital sector, possibly to the detriment of psychiatric and preventive care, rehabilitation and comprehensive nursing, all of which are considered to be national priority areas. Regional integration of the somatic hospital system, as it proceeds, could offset some of the cost pressure, but may also tend to reduce competition between hospitals. This makes it all the more important that the block-grant component of hospital care also be founded on national standards (normalised for scale), rather than on historical costs. Such a refinement of the funding system would further encourage the most efficient hospitals — *i.e.* those whose fixed costs are lower than the national standard — to expand. Growth in such “best-practice” hospitals could be further stimulated by strengthening competition pressure through providing patients with more freedom of choice between hospitals inside and outside their own county or health region.

**GLOSSARY OF ACRONYMS**

DRG	Diagnostic Related Groups
EEA	European Economic Area
EFTA	European Free Trade Association
ESA	EFTA Surveillance Authority
GP	General practitioner
LIS	<i>Legemiddel Innkjøp Samarbeid</i> (a tender system for pharmaceuticals)
NIS	National Insurance Scheme
NMA	Norwegian Medical Association

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