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Good health at a modest price: the fruit of primary care

Particularly in respect of life expectancy, Norway's historical bias towards primary care has produced similar results to those of Sweden, where hospital treatment has traditionally been more prominent. The per capita cost of health care, however, has been significantly lower in Norway than in Sweden.

Norway and Sweden are contiguous European countries between the 56th and 70th parallels. Norway has a population of about 4 200 000, Sweden about double that number. Protestantism is the dominant religious tendency in both countries and the Swedish and Norwegian languages are quite similar. Since the Second World War, the dominant political party in each country has been identified with organized labour and social democratic ideology. Norway and Sweden are among the most affluent countries in the world, their income distributions are similar, and both are divided into counties for administrative purposes.

Health care entitlements are universal and comprehensive in both countries. National health insurance legislation was introduced about 1910; total coverage was achieved in Norway in 1956 and in Sweden in 1962. Small copayments by patients are required for ambulatory care but not for hospital care.

National controls in public affairs are somewhat greater in Norway than in Sweden, while the reverse is true of controls at county level. Until quite recently, for example, primary care doctors in Norway were appointed by the central government; there were 350 of them in 1960 and about 1000 in 1984. Home nursing and physiotherapy services outside hospitals are also widely available in Norway; hospital specialists are appointed by the counties but have to be approved centrally. In Sweden all such medical appointments are made at county level. Hospital physicians in both countries receive full-time salaries, whereas general practitioners are remunerated with a combination of fee-for-service and basic salary.

Resources and services

Physicians in Norway number 200 per 100 000 population, compared to 240 in Sweden; 40% and 25% of these doctors, respectively, work outside hospitals. Only

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9% of Swedish physicians are general practitioners, compared to 23% in Norway. Patients in Norway normally see a specialist on referral from a general practitioner, but in Sweden specialists are consulted directly. As one would expect, given the larger proportion of specialists in Sweden, physicians' incomes there are higher than those in Norway: in 1981 they averaged US$ 35 300 and US$ 28 500 annually, corresponding to 2.1 and 1.7 times the average national wage, respectively.

There are 6.5 hospital beds per 1000 population in Norway and 14.0 per 1000 in Sweden. In Sweden, moreover, hospital beds have been gradually increasing in number since 1950, while in Norway the bed supply has been gradually decreasing. In Norway there are 69 nursing home beds for long-term care per 1000 persons over 70 years of age; the corresponding number in Sweden is 54 per 1000.

Hospital services play a relatively large role in the Swedish health system, while ambulatory care carries more weight in Norway. In Sweden there are 19.2 hospital admissions per 1000 persons per year and the average stay is 23 days. In Norway the corresponding figures are 14.9 per 1000 and 13 days. This means that there are 194 patient-days of hospitalization per 1000 persons per year in Norway and 442 per 1000 in Sweden.

Sweden's hospital beds are 94% occupied, whereas Norway's are only 78% occupied. Between 1960 and 1980 the trend in annual hospital days per 1000 population was clearly upward in Sweden and downward in Norway.

In Norway, ambulatory care contacts by doctors occur at the rate of 4500 per 1000 persons per year, which compares with 2700 per 1000 in Sweden. Of the contacts in Sweden, 60% take place in hospital outpatient departments. Many ambulatory services, of course, cost less than a single day of hospitalization.

Table 1. Percentage allocation of health expenditure in Norway and Sweden, 1984

Purposes	Norway	Sweden
Institutional care	70	73
Ambulatory services	15	10
Other	15	17

Expenditure

In 1984 Norway spent 6.3% of its gross domestic product on its health system, while Sweden spent 9.4%. In Norway, 97.3% of health expenditure was derived from public sources; in Sweden the corresponding figure was 91.1%. Three quarters of Norway's health expenditure came from centrally-collected social insurance and the rest from predominantly county-level general revenues. The reverse was true in Sweden. Thus, central government has had the greater influence on health affairs in Norway, while local government has been more influential in these matters in Sweden.

The broad allocation of health expenditure in the two countries is shown in Table 1. Expenditure went largely to institutional care in both countries, mainly to hospitals but also to nursing homes. The proportion

Table 2. Per capita health expenditure (in US$) in Norway and Sweden, 1982–87

Year	Norway	Sweden	Difference (%)
1982	930	1168	26
1984	1133	1291	14
1987	1149	1233	7

of expenditure on ambulatory services, however, was significantly higher in Norway than in Sweden.

Many social and environmental factors that affect health are similar in Norway and Sweden but there are clear differences between the two national health systems.

In 1982, per capita health expenditure was substantially lower in Norway than in Sweden. As policies changed, the differential became less (see Table 2).

It appears that Norway's early emphasis on primary care was much more economical than Sweden's bias towards hospitals. However, policy differences were less sharp after 1984. Norway's health system became more decentralized (resulting in hospital expansion) and Sweden introduced greater cost controls. The effect of emphasizing primary care is evidently to achieve economies through the prudent use of hospitals. In fact, comparisons between Swedish counties have shown that those where primary care is relatively strong spend less on hospital care than do the others.

Health status outcomes

In 1987 the crude mortality rates in Norway and Sweden were 10.2 and 10.9 per 1000 persons per year, respectively. Norway's age-adjusted rate was 7.9 per 1000 and Sweden's was 7.6 per 1000. The infant mortality rate in Norway in 1987 was 7 per 1000 live births, that in Sweden was 6 per 1000. In the same year, life expectancy at birth in both countries was 77 years. The data suggest a very slightly better health record in Sweden, but the differences seem insignificant. In terms of the 1987 life expectancy at birth, the achievements of both countries are essentially the same.

Comparisons

Many social and environmental factors that affect health are similar in Norway and Sweden but there are clear differences between the two national health systems. It is reasonable to conclude, therefore, that a health system in which special attention is given to primary care, as in Norway, can achieve the same results at significantly lower per capita cost than a system that puts greater emphasis on hospital care, as does Sweden.

The Swedish counties have been responsible for their hospitals since 1860; they assumed responsibility for primary care in 1963 and for mental health services in 1967. Many of the health centres providing primary care are located in hospital grounds; others are on separate sites, but even these are staffed mainly by hospital physicians.

In Norway, central government exercises greater control over the counties. District doctors were formerly appointed by the central health authority. Now appointed locally, they nevertheless retain a certain national esprit de corps.

In Sweden, hospitals have long been the pillars of the health system. Their orientation as almshouses changed to one of high quality service for everyone many years ago. Psychiatric care has been mainly hospital-based for a long time. Policies were made and implemented largely at county level. Swedish hospitals have been financed by prospective global budgetary payments since 1960.

In Norway, hospitals retained their poorhouse character for a longer time and were developed mainly by the state. In 1970 Parliament passed a Hospital Act in which the counties were given responsibility for planning, building and operating hospitals. Central government paid 75% of hospital running costs but in 1980 national block grants to the counties were introduced on the basis of need, as measured by the population's age composition, income level, and geographical distribution. Norwegian hospitals have received prospective global budgetary payments since 1980.

The greater level of autonomy in Swedish hospitals led to their being equipped and staffed at very high levels. The counties were able to increase local taxation to meet rising costs, even though this produced inequalities. Since patients in Sweden were free to seek specialist care without referral by a general practitioner, the number of specialists increased while that of general practitioners declined.

In Norway, hospital growth was relatively constrained. Central government sought to strengthen primary health care as much as possible. The network of district doctors was steadily expanded and the supplementation of basic salaries for official public health work with fees from social insurance for medical care yielded good incomes. As chairmen of local boards of health, district doctors enjoyed social prestige and readily became community leaders. The Norwegian Medical Association has shown a high regard for general practice and has established a specialty in this field. Today there is a chair of general practice in each of the country's four medical schools.

Sweden established a specialty in general practice in 1985, but residency training in this field is still mainly hospital-based. It requires four years of hospital training and one of supervised work as a general practitioner. In Norway, by contrast, there are four years of supervised general practice and one year of hospital training. A separate Norwegian specialty of community medicine requires four years of supervised experience as a local health officer in various municipalities and one year of hospital residency.

It is easy to see why the Swedish health system leads to comparatively costly hospital service, and how the focus on primary care in Norway produces less expensive ambulatory services. As previously indicated, Sweden has more than twice as many hospital beds as Norway per 1000 population and over double Norway's rate of hospital inpatient-days. A large proportion of Sweden's hospital beds are occupied by long-stay patients. Furthermore, 60% of ambulatory services in Sweden are given in hospital outpatient departments, and Swedish health centres are staffed mainly by hospital specialists.

Norway has more than twice as many general practitioners as Sweden per 100 000 population, and over twice as many ambulatory services are given by general practitioners in Norway as in Sweden. Norway's nursing homes, providing less intensive and less expensive care than hospitals, serve a major proportion of the country's long-stay patients.

The differences in policy between the two countries largely explain the lower per capita cost of Norway's health system. Given the approximately equal mortality rates it seems that the Norwegian system, with its emphasis on primary care, is the more effective. □