Summary

The purpose of this report is to describe and discuss problems in the health sectors of the Nordic countries. The discussion emphasizes breadth rather than depth. An overview of institutions combined with theory can provide insight for readers who might be lacking in health care knowledge. Simultaneously, experts will certainly miss elaborations that might be topics for follow-up reports.

Section 2 provides a brief description of the organization and financing of health sectors in the Nordic countries. In all the Nordic countries, the health care system is organized within the public sector, and there are varying degrees of decentralization. In Denmark, the responsibility for specialist health services and most of the primary health care is assigned to five regions. In Finland, municipalities have the main responsibility for health services and are obliged to join one of the 20 hospital districts. Municipalities in a hospital district are responsible for public hospital organization and finances. In Norway, the health sector is divided between two levels of government. While the state is responsible for specialized health services through four regional health authorities, municipalities have responsibility for primary health care. In Sweden, the main responsibility for specialist health services and most of the primary health care is assigned to the county councils (including two regions). Since 2010 law regulates free entry for private providers of primary health care that meet the county council's requirements for establishment. The law also regulates the population's right to choose their preferred private or public health center for their primary health care. There is a high degree of political decentralization, which entails a wider variety of organizational solutions, more so than in the other countries (in particular, Denmark and Norway). Municipalities are entirely responsible for health services up to and including nursing in

community housing, while it is more complex when it comes to nursing services for individuals living in their own homes.

There are two levels of health care financing. First, is the financing of the government level that is responsible for providing access to health care. This task corresponds to funding of the insurance function. Second, is the funding from this government level (and possibly from other sources) to providers of health services. In Denmark, the regions are financed mainly by grants from the central government according to needs criteria. The regions do not collect taxes. In Finland, local government revenues come mainly from municipal taxes with tax rates determined locally. There are also income - and expenditure - equalizing grants from the state to municipalities. The four regional health authorities in Norway are funded by the state through a combination of the need-based grants and activity-based funding. Revenues of the municipalities come partly from local income and property taxes and partly from government transfers. In Sweden, the county councils finance the health services mainly through local taxation, and it is their responsibility to decide local tax rates. In addition, there are transfers from the government to county councils to equalize income - needs - and cost differences between counties outside their control. Both in Denmark and Norway, hospitals are funded by a combination of needs-based and activity-based revenue. The income of private primary care physicians with a contract is a combination of grants per person they have on their lists (per capita grants) and fee-for-service. Both in Finland and Sweden there are variations in the criteria that determine hospitals' revenues. While a local primary health center in Finland has a fixed budget from the municipality, the reform of primary care in Sweden entails that a larger portion of the primary health center's revenue depends on the number and composition of the patients who are listed with them. There is variation between county councils with regard to how the different components are emphasized.

Types and levels of patient co-payment vary between the Nordic countries. Neither Denmark nor Norway has co-payment for hospitalization. In Denmark, physician visits are also exempted from co-payment. However, co-payment for drugs is more extensive than in Norway and Sweden. In all countries there are ceilings on co-payment. The ceiling is lower in Norway and Sweden than in Finland, with Denmark in an intermediate position.

In several European countries the residents can buy private insurance against large co-payments. Considering co-payments and private health insurance together, the OECD Health Data show that in Denmark, Norway, and Sweden co-payments and private health insurance premiums amount to between 15 and 16 percent of total health expenditure, while the corresponding figure for Finland is 21 percent. The average for OECD countries is 23 percent. There are several European countries where the percentage is less than in the Scandinavian countries (for instance, the Netherlands and the UK).

In summary we can say that there are some characteristics that help to define a Nordic model for organizing and financing of health services: Public health insurance that covers the entire population, health insurance financed by general taxes, only a small proportion of health services funded by private health insurance; dominant public ownership and operation of hospitals; and significant decentralization of finance and operations to lower administrative levels. There are also differences between countries in terms of degree of decentralization with Finland and Sweden as the most decentralized.

There are considerable differences in the cost of health services between the Nordic countries. Norway's health care expenditure per capita is 65 percent larger than Finland's and 44 percent greater than Sweden's. The difference is partly due to differences in cost level and partly to differences in resource use. Overall health indicators do not suggest that the difference between Norway and other Nordic countries is reflected in health differences. Sweden scores equally well or better than Norway on all the health indicators. The figures indicate that lifestyle and resources used for other purposes than health care is important for the health of the population.

The discussion of problems in the health sector in the Nordic countries is based on the characteristics of the markets for health insurance and health service production. These characteristics, as described in Section 3 of the report, determine the trade-offs between various objectives and goals overall in the health sector. Risk aversion and uncertainty about future health imply demand for health insurance to cover future costs of health care. The purpose of health insurance is to relieve the citizens of bearing the financial risk for major health expenses. Hence, health services insurance implies that there is a third party that pays for health

services. Such third party financing characterizes all insurance policies, and represents in itself no efficiency problem. The potential efficiency problem arises when information about disease prevention, disease risk, cost, and quality of care is unevenly distributed among the three parties; i.e. the patient, the insurance company, and health service provider. Variation in disease risk and the degree of risk aversion in the population combined with the fact that the insurance company knows less about the individual's disease risk than the individuals themselves, result in market imperfections with not everyone getting the insurance coverage they want. Hence, the unequal distribution of information can entail an argument for mandatory insurance. In Section 3, I also argue that the median voter's interests can justify mandatory insurance with income-dependent premiums. Uncertainty about future risk groups as well as health-related altruism contribute to more robust public financing. Public funding will be harder to maintain the greater variability there is in disease risk, the greater the proportion of the population who are at high risk of disease, and the more costly diagnosis and treatment of disease are. In Section 4, I describe some threats to the collective funding based on this reasoning. The topics being discussed are the increasing proportion of elderly in the population, expensive new treatments, increased incidence of chronic diseases related to lifestyle, and development in health inequalities more generally in the Nordic countries.

Small patient co-payments imply that patients will demand health care even if their valuation of the marginal health improvements from care is less than the marginal cost of providing health care. Hence, the price mechanism will not fulfill its role in the allocation of resources to the health sector and within the health sector. There is a need for direct rationing additional to the limited rationing by means of the price mechanism. In Section 4, I explain how waiting times, implicit prioritizing by service providers, and governments' explicit prioritizing are used as rationing mechanisms in the Nordic countries. I conclude that waiting times as a rationing mechanism seem to have less impact than previously while explicit prioritizing is still not general practice in the Nordic countries, although Sweden is the country that has made the most progress in this area. Limited resources together with uncertainty about what the population as patients can expect from the health care system, create tensions in the

system between the population's expectations and the system's realities. With the exception of pharmaceuticals, there is no mechanism at societal level that weighs the benefits against the costs of introducing new technologies and treatment methods. Decisions are mainly decentralized and uncoordinated.

Perceived rationing and risk of limited access to public health services contribute to growth in the market for private healthcare and private health insurance. Chapter 4 describes the growth in private health insurance policies that has taken place in the Nordic countries. In particular, Denmark has experienced significant growth, which probably reflects that the employer-paid health insurance is not taxed as part of the employee's income. On the other hand, there is no corresponding growth in Sweden despite the fact that tax rules are quite similar.

The relationship between insurer and health service provider is characterized by the fact that the insurer has less access to information about the service provider's operations than the service provider itself has. This applies both to information about the service provider's efforts to reduce costs, information about the patient composition, information of the possible patient selection, and information about the quality of care provided. The conclusion of Section 3 is that the less information the insurer has about the service provider's operations, the less cost responsibility should be imposed on the service provider. Less cost responsibility will certainly entail less effort to maintain low costs, but also less incentive to misinform about patient composition, to engage in selection of patients, and to provide low quality of care, since the monetary benefit of such activities is shared with the insurer.

In Section 4, the knowledge from Section 3 is applied to discuss issues related to the regulation of service providers and patient flows in Denmark, Norway, and Sweden. In particular, the patient flow between primary care and specialist health service is discussed. This is an important issue since much of the resource use of specialist health care is initiated in primary care. In Denmark and Norway there is direct regulation in the sense that patients must have a referral from their general practitioner to have access to specialists except for emergencies. The new forms of governance in Sweden entail some indirect regulation since the primary health centers in some counties face financial incentives to take care of the patients themselves. There is variation between the county councils to what extent this occurs. For example, the primary health center

a patient is registered with may have to pay some of the costs incurred by prescribing medications and the patient's use of other primary doctors or diagnostic healthcare. At present there is not enough systematic knowledge about whether the direct or indirect regulation (or possibly a combination) is more appropriate to achieve a proper coordination between primary and secondary care.

An appropriate division of tasks between primary and secondary care is essential for the treatment of patients with chronic diseases. The number of these patients will likely increase with the proportion of elderly in the population. These patients have diseases they live with for many years and that require effort from many kinds of health service providers. In Section 4, I describe the problems the Nordic countries seem to have in dealing with quality and coordination of services to patients with chronic diseases. This includes coordination between care services and health services for patients with chronic diseases. Improved coordination, could lead to both lower costs and better quality of overall services.

Based on the discussion in Section 4, I describe in Section 5 some ideas for changes that can be further evaluated. My aim in this section is more to provide input to further discussion and study than to submit detailed proposals for change. There are several reasons for this limited ambition. First, the assignment is limited to writing a report on problems in the Nordic health sectors. Second, all types of health care systems have both advantages and disadvantages. Initially in Section 5, I refer to a comparative study from the OECD (Joumard et al.. 2010), which finds that all systems can be improved.

Section 5 contains probably a variety from ideas that can lead to obvious improvements to ideas that are far more controversial. Nordic comparative studies of costs and treatment outcomes belong most likely to the first group. There is little systematic knowledge about what works at what cost in health care. The Nordic countries have registry data at the individual patient level that can be used to examine treatment outcomes and costs of specific diseases. Comparative studies in Finland and in Sweden have already been done on the basis of registry data at the individual patient level. Sweden plans to further develop these studies. To broaden the perspective to the Nordic region can provide a number of interesting possibilities since the variation in treatment outcome, cost, and institutions is larger. The results of such studies may encourage dissemination of knowledge of

improvement opportunities. Perhaps one could also explore opportunities to link reward schemes to results in terms of yardstick competition.

In all the Nordic countries, one is concerned with how to achieve a better coordination of health care services to patients with chronic diseases. Health improvement is a key objective of coordination. Whether or not there is a potential for cost reductions is more open, and an empirical question. Finding the appropriate coordinator for patients with chronic diseases and the budget they should have, is important. I discuss some possibilities a little further in Section 5.2.2. There are different opinions about what kind of organization and payment system are best suited to make decisions that benefit both patients' health and efficient use of the society's resources and what role formal and informal markets can have in this context. Today there are various arrangements in the Nordic countries. There is not the same tradition of controlled trials with types of organization and financing as there is in the clinical research. Hence, there is little general knowledge about the kind of organization and financing that works. This also applies to the coordination of health care services to patients with chronic diseases. One option might be that the primary health center under the management of the patient's primary physician is an appropriate coordinator of care. A systematic theoretical and empirical exploration of the properties of alternative organizations can be considered.

In Section 5, I also discuss the optimal mix of instruments in health care rationing. An important result of recent health economics literature is that rationing by waiting time is dominated by direct rationing (open priorities) and by differentiated waiting times. The effort to develop criteria and procedures for open priorities that have popular support therefore seems important to continue. There are many challenges in this work. Here are two that probably are important. Until now, the conditions and treatments that have been excluded from public funding have been easy to define. If priorities should be more comprehensive and detailed, this becomes more difficult. Many treatment decisions in health care are not verifiable. While treatment thresholds can be measured (for example, thresholds on drug treatment for high blood pressure), many patients have a secondary diagnosis, which can affect the expected health gain from treatment and the cost of not to treat. An important challenge is thus to create general

guidelines that also are complied with in the encounter between patient and doctor. Another challenge is to create systems that allow politicians who aim at being re-elected, to be able to adopt prioritization schemes that might affect their potential voters as patients. Health services by the end of life can illustrate these dilemmas. A significant proportion of health care resources are used in patients' last year of life. It is likely that significant treatment resources are assigned to patients who have few prospects for health improvement. Great dilemmas are involved in open prioritizing in this area both for physicians who are supposed to implement the guidelines and for politicians who aim at being re-elected.

These and other challenges suggest that other mechanisms should complement direct prioritizing in the allocation of resources to and within the health sector. Graded co-payments (value-based insurance) have been promoted as such a supplement. Instead of rejecting treatment altogether, treatment with low expected health benefits relative to costs could be offered with a greater patient co-payment than the more effective treatments. This will encourage patients to be reluctant to ask for such treatments. Again, the challenge is to create a system that has legitimacy in the population, yet is detailed enough to work in practice in the encounter between the individual patient and doctor. As the patient's representative the doctor may overstate the potential health benefit in order to minimize the co-payment. Properties of alternative designs of graded co-payments may be worth further investigation.

Developing mechanisms to ration and prioritize health services to be financed within the public insurance scheme, are important tasks. At the same time, studies show that people's willingness to pay for health care increases relatively more than the income over time. An important challenge is to design mechanisms that allow the potential willingness to pay to be transformed to willingness to pay under a collective funding. A closer link between funding health care and the provision of health care might be called for. A separate health tax might be an alternative worth further consideration. In Sweden, one can argue that there already is a health tax since 90 percent of the county councils' spending goes to health care. Simultaneously, there is no explicit connection between the content of the publicly funded health care and tax revenue. Such a link might be created in parallel with the work of

open priorities and create greater understanding of the relationship between content and cost of the publicly funded health care system. More explicit description of the content and cost of publicly funded health care will also contribute to greater predictability for the population and to informed decisions about whether or not to supplement the public provision with private health insurance.

Finally, Section 5 outlines a far more extensive change in the health systems in the Nordic region. Mandatory health insurance with the equalization of insurance premiums depending on income and health is supposed to be maintained while regulated competition between several insurers is introduced. Such a model would be similar to the health care system in the Netherlands, which is in turn inspired by the American economist Alain Enthoven. There will be compensation arrangements to prevent insurers from selecting low-risk people. Insurance companies may enter into contracts with all or a selection of approved health service providers. Competition for contracts will encourage providers to deliver services of good quality relative to costs. Similarly, competition encourages insurance companies to enter into contracts with health care providers which offer an attractive combination of price and quality. To prevent risk selection, the health ministry determines the content of the compulsory insurance scheme. Since there must be a connection between this content and level of insurance premiums, one might claim that there is a more transparent link between health services and their costs compared with systems that are financed by general taxation. A closer examination of the advantages and disadvantages of a similar system in the Nordic countries may be of interest to gain more knowledge about whether or not such a radical change is the way to go. Even if the answer turns out to be no, the discussion could lead to greater awareness of the arguments for retaining the essential features of the Nordic tax-funded model.