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Finland

Health system review

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Health Systems in Transition

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Preface

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each profile is produced by country experts in collaboration with the Observatory's research directors and staff. In order to facilitate comparisons between countries, the profiles are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a profile.

HiT profiles seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe. They are building blocks that can be used:

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

Compiling the profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including the

World Health Organization (WHO) Regional Office for Europe Health for All database, national statistical offices, Eurostat, the Organisation for Economic Co-operation and Development (OECD) Health Data, the International Monetary Fund (IMF), the World Bank, and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.

A standardized profile has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. The HiT profiles can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals.

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to: info@obs.euro.who.int.

HiT profiles and HiT summaries are available on the Observatory's web site at www.euro.who.int/observatory. A glossary of terms used in the profiles can be found at the following web page: www.euro.who.int/observatory/glossary/toppage.

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The current series of HiT profiles has been prepared by the research directors and staff of the European Observatory on Health Systems and Policies. The European Observatory on Health Systems and Policies is a partnership between the World Health Organization (WHO) Regional Office for Europe, the Governments of Belgium, Finland, Greece, Norway, Slovenia, Spain and Sweden, the Veneto Region of Italy, the European Investment Bank, the Open Society Institute, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

The Observatory team working on the HiT profiles is led by Josep Figueras, Director, and Elias Mossialos, Co-director, and by Reinhard Busse, Martin

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The data used in this report are based on information available in February 2008.

List of abbreviations

AIDS	Acquired immunodeficiency syndrome
BMI	Body mass index
CIS	Commonwealth of Independent States
CT	Computed tomography
DEHKO	National Programme for the Prevention of Type 2 Diabetes
DMFT	Decayed, missing or filled teeth
DRG	Diagnosis-related group
EBM	Evidence-based medicine
EEA	European Economic Area
EPR	Electronic patient record
ESPAD	European School Survey Project on Alcohol and Other Drugs
EU	European Union
EU15	EU Member States before May 2004
EUnetHTA	European network for Health Technology Assessment
FCHP	Finnish Centre for Health Promotion
Finohta	Finnish Office for Health Technology Assessment
FIOH	Finnish Institute of Occupational Health
GDP	Gross domestic product
GP	General practitioner
HiT	Health Systems in Transition
HIV	Human immunodeficiency virus
HTA	Health Technology Assessment
HUS	Hospital district of Helsinki and Uusimaa
ICD	International Classification of Diseases
KELA	Social Insurance Institution, SII
KTL	National Public Health Institute
MRI	Magnetic resonance imaging
MSAH	Ministry of Social Affairs and Health
NAM	National Agency of Medicines
NAMLA	National Authority for Medico-legal Affairs
NGO	Nongovernmental organization
NHI	National Health Insurance
OECD	Organisation for Economic Co-operation and Development
OTC	Over the counter
PPB	Pharmaceutical Pricing Board
PPP	Purchasing power parity
PYLL	Potential years of life lost

Rohto	Centre for Pharmacotherapy Development
SII	Social Insurance Institution (KELA)
Sitra	Finnish National Fund for Research and Development
SOTKA	Municipal Database for Social and Health Statistics
STAKES	National Research and Development Centre for Welfare and Health
STD	Sexually transmitted disease
TEKES	National Technology Agency of Finland
TRIPS	Trade-related Aspects of Intellectual Property Rights
VAT	Value-added tax
WHO	World Health Organization

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Abstract

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of policy initiatives in progress or under development. HiTs examine different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems; describe the institutional framework, process, content and implementation of health and health care policies; and highlight challenges and areas that require more in-depth analysis.

According to various indicators, the health of the Finnish population has considerably improved over the last few decades. Average life expectancy has improved throughout the 20th century, especially during the last three decades, reaching 76 years for men and 83 years for women in 2005. Although overall mortality has fallen, the socioeconomic inequality in mortality seems to be increasing. The most significant public health problems are circulatory diseases, malignant tumours, musculoskeletal diseases, diabetes and mental health problems.

In practice in Finland there are three different health care systems which receive public funding: municipal health care, private health care and occupational health care systems. The largest share of health care services is provided by the municipal health care. There are also different public financing mechanisms for health care services in Finland: municipal financing based on taxes and National Health Insurance (NHI) financing based on compulsory insurance fees. The Finnish health care system offers relatively good quality health services for reasonable cost with quite high public satisfaction. The most visible problems are long waiting times and personnel shortages in some municipalities.

The most important state level reforms from the beginning of the 1990s are: the deregulation of state steering of municipal health services and related changes in state administration; the introduction of the 'National Project to Ensure the Future of Health Care'; the extension of public dental health care to all age groups; the introduction of the waiting time guarantee; a project to restructure municipalities and services; and the development of the national electronic patient record system. Future challenges for the decentralized Finnish health care system are: strengthening steering capacity for strategic priorities and resources; revitalizing the gradually weakening primary care system; improving cooperation between municipal primary and secondary care; improving cooperation between health care and personal social services; and addressing dual financing in publicly subsidized health care.

Executive summary

Finland is located to the north-east of the Baltic Sea. Finland became an independent republic with its own constitution in 1917, having first been under Swedish rule for 600 years and then under Russian rule for 100 years. At the start of 2007 the population of Finland was 5.3 million.

The Finnish public administration system consists of three levels: state, province and municipality. The provinces are regional representatives of the central state administration. Finland is divided into five administrative provinces and the Åland Islands, the latter having autonomous status. Finland has a constitution (latest major review in 2000). Power in Finland is vested in the people, who are represented by deputies assembled in a single chamber parliament which is elected every four years. The head of state is the President of the Republic, who is elected for a period of six years by direct popular vote. In practice, the President's power in political areas other than foreign policy is limited. The highest level of Government of the state is the Council of State (the Government) which consists of a Prime Minister and a requisite number of ministers. Judicial power is vested in independent courts of law, at the highest level in the Supreme Court and the Supreme Administrative Court.

Finland is divided into 415 self-governing municipalities (in 2008) with a median number of inhabitants of 5000. Municipalities are autonomous and they are responsible for providing basic services for their residents, including primary education and social and health services. The highest decision-making body in the municipality is the municipal council which is elected by general election every four years. Municipalities levy a municipal income tax, the rate being decided independently by each municipality. Municipalities also receive

some other tax revenues (real estate tax and part of the corporate tax), subsidies paid by the state and other revenues (such as user-fees).

The objectives of Finnish health policy are to reduce premature deaths, to extend people's active and healthy life, to ensure the best possible quality of life for all and to reduce differences in health. The foundation of the health services is laid down in the constitution of Finland (section 19). According to the constitution:

> Everyone shall be guaranteed by an act the right to basic subsistence in the event of unemployment, illness, and disability and during old age as well as at the birth of a child or the loss of a provider. The public authorities shall guarantee for everyone, as provided in more detail by an act, adequate social, health and medical services and promote the health of the population.

According to various indicators, the health of the Finns has considerably improved over the last few decades. Average life expectancy among the Finnish population has improved throughout the 20th century, and especially during the last three decades, reaching 76 years for men and 83 years for women in 2005. The most significant public health problems are currently circulatory diseases, malignant tumours, musculoskeletal diseases and mental health problems. Emerging problems are obesity, chronic lung diseases and diabetes, particularly type 2 diabetes.

Total expenditure on health as a percentage of gross domestic product (GDP) in Finland was 7.5% in 2005. Health care expenditure expressed in US$ purchasing power parity (PPP) per capita was 2331, which was one of the lowest among the Organisation for Economic Co-operation and Development (OECD) countries. The Finnish health system is primarily funded through taxation (61%) and National Health Insurance (NHI). Total public sector funding as a percentage of total expenditure on health is 78%.

In practice in Finland there are three different health care systems which receive public funding: municipal health care, private health care and occupational health care. There are significant differences between the systems, for example in the scope of the services provided, user-fees and waiting times. There are also different public financing mechanisms for health care services in Finland: municipal financing based on taxes and NHI financing based on compulsory insurance fees. Municipalities fund municipal health care services (except outpatient drugs and transport costs) and NHI funds for example private health care, occupational health care, outpatient drugs, transport costs, sickness allowances and maternity leave allowances. This dual public financing creates challenges for the overall efficiency of service production, particularly in pharmaceutical care where dual financing incurs cost-shifting problems.

The largest share of publicly financed health care is provided by the municipal health care system (71% of outpatient physician visits, 59% of outpatient dentists visits and 95% of inpatient care periods). According to legislation, more than 400 municipalities are responsible for providing all necessary health services for their residents. Municipalities have a significant degree of freedom to plan and steer the services as they see best, and state level steering is rather weak. Currently there are many ongoing local development projects and experiments concerning municipal services (for example increasing cooperation between municipalities, between primary and secondary care services and between municipalities and the private sector). However, they are not well coordinated from the national level, probably leading to increasing regional variance in structures. Public responsibility for health care has arguably been decentralized in Finland more than in any other European country, and in recent years, concerns have increasingly been raised that the problems of extreme decentralization outweigh the advantages. However, there are signs that the decentralization trend has slightly reversed and national level steering will increase. For example, the governmental programme for the restructuring of municipalities and services has a goal to decrease the number of municipalities and increase cooperation between municipalities.

According to legislation, every municipality must have a health centre which provides primary health services. Additionally, legislation divides the country into 20 hospital districts (excluding Åland islands) which are responsible for the provision of municipal secondary care services. Each municipality must be a member of one hospital district. Hospital districts are financed and managed by the member municipalities. Often municipalities experience a lack of influence on the volume and costs of the hospital districts, despite the fact that they directly own them, and find that primary health care is in too weak a position relative to secondary health care.

Legislation sets maximum user-fees and an annual ceiling for health care charges for municipal services. These user-fees cover on average 7% of municipal health care expenditure. Outpatient drugs are not covered by the municipal health care system, but by NHI instead. On average, 67% of outpatient drug costs are reimbursed to the patient. There is a (separate) ceiling for out-of-pocket payments for outpatient drugs. Both the municipal health care and outpatient drugs ceilings are high compared with other Nordic countries. In extreme situations social assistance is available (when an individual's or a family's income is not enough to cover the user-fees of municipal health care services or outpatient drugs).

The statutory NHI scheme finances 17% of the total costs of health care. The scheme is run by the Social Insurance Institution (SII), with about 260 local offices all over the country. SII falls under the authority of the Parliament and

covers all Finnish residents. NHI is funded by the insured (38%), employers (33%) and the state (28%). The insured pay income-based insurance fees which are collected alongside taxation.

The use of private health care is partly reimbursed by NHI. It mainly comprises ambulatory care available in the larger cities. The private sector provides about 16% of outpatient visits to physicians, 41% of outpatient visits to dentists and 5% of inpatient care periods. NHI covers about one third of the actual costs of the private health services. Additional voluntary health insurance has a very marginal role in the Finnish health care system and is mainly used to supplement the reimbursement rate of NHI.

Legislation on occupational health care obliges all employers to provide preventive occupational health care services for their employees. As part of compulsory preventive occupational health services, many large- or medium-sized employers also provide curative outpatient services (13% of outpatient physician visits are provided by the occupational health care system). The NHI scheme reimburses about 40% of the occupational health care expenses for the employer. Occupational health care services are free of charge for employees.

The majority of physicians work for municipalities and hospital districts. Physicians in health centres and hospital districts are usually salaried employees of the municipalities. However, during the last 10 years a new trend has emerged to lease the physician workforce to health centres from private firms. Eleven per cent of physicians have a private practice as a full-time job and 30% work full-time in the public sector but hold a private practice outside their regular working hours. Since the late 1990s there has been a significant shortage of physicians in Finland, which has had a significant impact on the developments of the health care system. In order to rectify this situation the yearly intake of medical students has been increased considerably.

The most important state level reforms from the beginning of the 1990s have been:

- the deregulation of state steering of municipal health services and related changes in state administration (1993);
- the National Project to Ensure the Future of Health Care (2002–2007);
- the extension of public dental health care to all age groups (2002);
- introduction of the waiting time guarantee (2005);
- the project to restructure municipalities and services (ongoing since 2005); and

- the development of the national electronic patient record system (ongoing since 2006).

In addition, there have been several reforms concerning pharmaceuticals, with one important goal being to further promote cost containment.

In terms of the distribution of benefits, there are two major challenges in the Finnish health care system: geographical inequities and inequities between socioeconomic groups. There are significant differences between municipalities in service provision (for example in physician visits, dental care, mental health care, elective surgery) and waiting times. There are also significant differences between municipalities in resources invested in municipal health care leading to differences in the quality and scope of municipal services. However, these inequalities can also partly be explained by other differences between municipalities such as age structure, morbidity rates and use of private and occupational health care services.

There are also significant socioeconomic inequalities in the use of health care services. Among OECD countries pro-rich inequity in physician visits was found to be one of the highest in Finland (along with the United States and Portugal) in 2000. Significant pro-rich differences are also evident in screening, dental care, coronary revascularizations and in some elective specialized care operations (hysterectomy, prostatectomy and lumbar disc operations). Although overall mortality has fallen, the socioeconomic inequality in mortality seems to be increasing.

The Finnish health care system offers relatively good quality health services for reasonable cost with quite high public satisfaction. The most visible problems are long waiting times and personnel shortage in some municipalities. An ageing population, new medical technology, drug innovations and increasing population expectations will create challenges for the Finnish health care system in the near future. There are also some structures in the Finnish health care system which are perceived as problematic: the level of decentralization, poor steering capacity in the system, relatively weak position of primary care, a lack of cooperation between primary and secondary care and dual financing.

1. Introduction

1.1 Overview of the health system

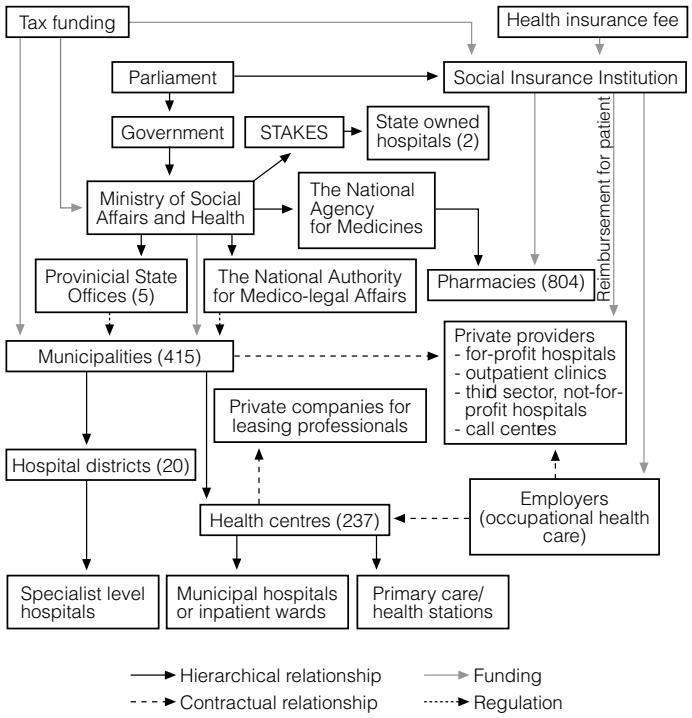
In practice in Finland there are three different health care systems which receive public funding: municipal health care, private health care and occupational health care (Fig. 1.1 and Table 1.1.). Usually, employed persons have the possibility to choose between these. According to a population survey, about 45% of physician visits of employed people were in occupational health care, 35% in municipal health care and 15% in private health care (Perkiö-Mäkelä et al. 2006). For low-income unemployed people the municipal health care system is, in practice, the only choice. There are significant differences between the systems, for example in the scope of services, user-fees and waiting times.

There are also different public financing mechanisms for health care services in Finland: municipal financing based on taxes and National Health Insurance (NHI) financing based on compulsory insurance fees (this is henceforth referred to as "dual financing"). Municipalities fund municipal health care services (except outpatient drugs and transport costs) and NHI funds, for example, private health care, occupational health care, outpatient drugs, transport costs and sickness allowance.

The largest share of health care services is provided by the municipal health care system (71% of outpatient physician visits, 59% of outpatient dentist visits and 95% of inpatient care periods). In 2008 there were 415 municipalities in Finland, with a median number of inhabitants of 5000. Municipal health care services are financed by municipal taxes, state subsidies and user-fees.

All municipalities are, by law (Primary Health Care Act), obliged to maintain health centres for the provision of primary health care services, either on their own or jointly through a local federation of municipalities. There were 237 health centres in Finland in 2007 (excluding Åland Islands). Practically all health

Fig. 1.1 Overview chart on health system



Note: STAKES: National Research and Development Centre for Welfare and Health.

centres have general practitioner (GP)-run inpatient units or an arrangement for using such beds in a nearby health centre. Municipalities with their own health centres usually use prospective budgets. In federation-owned health centres the budgets are built in a similar way but the sharing of costs between member municipalities is usually determined by the volume of services given. Physicians in health centres are usually salaried employees of the municipalities. The payment system of GPs in municipal health centres varies.

Specialist level care in the municipal health care system is provided by 20 hospital districts. Each municipality must belong as a member to one of the hospital districts (Act on Specialized Medical Care). Each hospital district has one or several hospitals, of which one is a central hospital. The hospital district organizes and provides specialist medical services for the population of their member municipalities. Hospital districts are managed and funded by the member municipalities. Hospital districts have varied methods for collecting funding. The majority of funding collected is based on actual clinical services used. The population base of hospital districts varies from 65 000 to 1.4 million.

Table 1.1 Services funded by public sources (municipalities and NHI) in 2005

	Outpatient physician visits[2]	Outpatient dentist visits	Inpatient care periods[3]
Municipal health care	71%	59%	95%
Private health care	16%	41%	5%
Occupational health care[1]	13%		

[1] Occupational curative medical care
[2] Includes primary and secondary care
[3] Inpatient care periods reported by the hospitals

Sources: SII 2007b, SII 2007a, STAKES 2006b, STAKES 2007b.

Note: NHI: National Health Insurance.

Municipalities can also purchase health care services (primary health care services or specialized health care services) from other municipalities, other hospital districts, private providers or from the third sector.

The Åland Islands are an autonomous Swedish-speaking region with 16 municipalities and 26 000 inhabitants. The Åland Government is responsible for providing health care services in the region. Services which are not provided in the region are purchased from Finland or Sweden.

Seventeen per cent of the total cost of health care in Finland is financed by the statutory NHI scheme. The scheme is run by the Social Insurance Institution (SII, Finnish acronym KELA), with about 260 local offices throughout the country. SII falls under the authority of Parliament. The main funding to NHI comes from the state budget (28% in 2006), the insured (33%) and employees (38%). NHI covers part of outpatient drug costs, part of medical costs in the private sector, part of the costs of occupational health care, compensation of travel costs to health care units, sickness allowance and maternity leave allowance. Of services funded by public sources (municipalities and NHI), about 16% of outpatient visits to physicians, 41% of outpatient visits to dentists and 5% of inpatient care periods are provided by the private sector (Table 1.1).

Employers are obliged to provide preventive occupational health care for their employees (under the Occupational Health Care Act). As part of occupational health care, many large- or medium-sized employers also provide curative outpatient services (13% of outpatient physician visits are provided by the occupational health care system). Occupational health services can be provided by the employer itself or the employer can purchase them from another employer (42% of expenses in 2004), or from the municipal health centres (16% of expenses), from private health care providers (29% of expenses) or from other sources (12% of expenses). The NHI scheme covers about 40% of the expenses (SII 2007b).

Pharmacies are mainly privately owned by pharmacists. There were 804 pharmacies in Finland in 2006 (NAM 2007). They are regulated in several ways: their margins and prices are fixed by the Government, they cannot be owned by companies, and the National Agency of Medicines (NAM) decides in which locations pharmacies are placed and who runs them. Outpatient drugs are partly reimbursed by NHI. These reimbursements are paid mainly directly to pharmacies.

The Ministry of Social Affairs and Health (MSAH) directs and guides social and health services at the national level. It defines general social and health policy, prepares major reforms and proposals for legislation, monitors their implementation and assists the Government in decision-making. The Government decides on general national priorities and proposes bills to be discussed by the Parliament. The lower level of state administration comprises five provinces plus the autonomous Åland Islands. The provincial state offices promote national and regional objectives of the central administration, and keep contacts with municipalities in their area. Their social and health departments are responsible for, among other things, guiding and supervising both municipal and private health care providers.

1.2 Geography and sociodemography

Finland is an independent republic located to the north-east of the Baltic Sea. It is bordered by Norway to the north, the Gulf of Finland to the south, Sweden and the Gulf of Botnia to the west and the Russian Federation to the east (Fig. 1.2). Estonia is situated close to the south, across the Gulf of Finland. The Finnish language is closely related to the Estonian language and belongs to the Finno-Ugric language family.

The land area is 338 145 km^2. Some 68% of it is covered by forests, 10% by water, and 6% is under cultivation. The climate is marked by cold winters and warm summers where the Gulf Stream has some influence.

Much of the country is sparsely populated, with an average population density of 16/km^2. The bulk of the population is concentrated in the urban areas of the southern and western parts of the country, while roughly a third lives in rural areas.

In 2005 the population of Finland was 5.26 million (Table 1.2). The majority of the population is Finnish speaking (92% in 2005) and Evangelic Lutheran (83%). Swedish is another official language in Finland (besides Finnish) and 5.5% of the population speaks Swedish as their first language. The Finnish population grew by about a quarter of a million per decade

Fig. 1.2 Map of Finland

Source: CIA 2007.

during the 20th century, growth being rapid in the first half of the century and slowing down towards the end. People under 15 years of age constitute about 17% of the total population and those over 65 years some 16% (in 2005). The number of people aged 65 years or over is expected to grow by about 600 000 (i.e. by over 50%) in the next 15 years. Because of the ageing population, the economic dependency ratio (the number of non-employed relative to the number of employed) will become less favourable, particularly after the year 2015.

Table 1.2 Population/demographic indicators, 1970–2005 (selected years)

	1970	1980	1990	1995	2000	2002	2004	2005
Population (million)	4.60	4.79	5.00	5.12	5.18	5.21	5.24	5.26
Population, female (%)	52	52	52	51	51	51	51	51
Dependency ratio[1] (%)	50.7	47.5	48.7	–	49.4	49.6	50.0	49.8
Swedish speaking population (%)	6.6	6.3	5.9	5.8	5.6	5.6	5.5	5.5
Population aged 0–14 (% of total)	24.0	20.3	19.3	19.0	18.1	17.9	17.5	17.3
Population aged 65 and above (% of total)	9.2	12.0	13.4	14.2	14.9	15.3	15.7	16.0
Population density (people per sq km)	15.1	15.8	16.4	16.8	17.0	17.1	17.2	17.3
Single person households (%)	–	27.1	–	35.2	37.3	38.4	39.3	39.7
Urban population (% of total population)[2]	50	60	60	63	59	61	61	–
Fertility rate, total (births per woman)	1.8	1.6	1.8	1.8	1.7	1.7	1.8	1.8
Live births per 1000 population	14.0	13.2	13.1	12.3	10.9	10.7	11.0	11.0
Death rate, crude (per 1000 people)	9.6	9.3	10.0	9.6	9.5	9.5	9.1	9.1

Sources: Statistics Finland, 2005; [2]WHO Regional Office for Europe, January 2007.

Note: [1]proportion of the under 15 year-olds and over 64 year-olds from other population.

1.3 Economic context

The Finnish economy is based on industry and services. Finland's industry has traditionally been built on harnessing forest resources. Forests are still an important raw material but engineering and high technology, led by information technology, have now become other leading industries. Finland is relatively dependent on foreign trade. The main export products are electro-technological products, pulp and paper and machinery and equipment. The main import products are raw materials and other production necessities, investment goods and consumer goods.

Between 1990 and 1993 Finland suffered a major economic recession. The economy shrank by almost 15% and massive unemployment emerged, the unemployment rate rising from 3.5% to 19% in the same period. The state had to finance many public sector activities by taking up a growing amount of debt. The economies of the municipalities also suffered from the crisis to various degrees. The recession was caused by a number of factors such as the global economic slowdown, the collapse of trade with the former Soviet Union, and sudden liberation of capital flows.

Table 1.3 Macroeconomic indicators, 1996–2005 (selected years)

	1996	1998	2000	2002	2004	2005
GDP (milion euro)	99258	117111	132272	143974	151935	157377
GDP per capita (euro)	19367	22727	25555	27682	29066	30005
GDP growth (annual %)	3.7	5.2	5.0	1.6	3.5	2.9
Unemployment (% of labour force)	14.6	11.4	9.8	9.1	8.8	8.4
Labour force (total, million)	2.49	2.51	2.59	2.61	2.59	2.62
Poverty rate (less than 60% of median income %)	8.3	9.7	10.4	11.0	11.9	12.3
Income inequality (GINI %)	22.1	24.6	26.5	25.5	26.5	26.5

Source: Statistics Finland, 2006b.

Since 1994, Finland has been recovering from the crisis (Table 1.3). By 2003, real GDP per capita (purchasing power adjusted) was close to the European Union (EU) average (members before May 2004, EU15). The state debt has decreased from the worst figures in the mid-1990s: in May 2007 it was 57 billion euros, about 10 800 euros per inhabitant and about 35% of GDP (before the recession in 1991 the state debt was less than 20% of GDP and peak of the debt was in 1998 when it was about 70 billion euros).

The overall economic situation in the municipalities also improved after the mid-1990s but it has recently worsened again. In 2007 municipalities' total debt was almost 9 billion euros, about 5% of GDP (about 4 billion euros in 2000). About 20% of the municipalities ran deficits in 2006.

During the last 10 years unemployment has been reduced following the rapid growth in the national economy and the employment policy of the Government. In January 2008, the unemployment rate fell to 6.8%. Unemployment has become more polarized, however: those who have recently become unemployed usually find a new job rapidly, but the situation of those who have prolonged difficulty in finding work is becoming even worse. Also, the structural features of unemployment have become more obvious: the older long-term unemployed find it more and more difficult to become employed, and regional differences in unemployment have grown.

The growing regional differences in unemployment can be observed in the continuing population drift from rural areas to the large cities in the south and west of Finland. This internal migration is the largest since the 1970s, when the previous large wave of internal migration was seen. There are between five and seven "growth centres" at present. Although there has generally been an increase in the number of available jobs almost everywhere in the country, the majority of new jobs are located in southern Finland. This, together with the changes in working life, such as the dwindling of traditional industries and

unstable employment, are forcing working age people to move to the large cities in the south and west. At the same time, the proportion of old people is growing in the regions that are being abandoned. The financial basis for arranging basic services is likely to weaken as the number of working age people diminishes in these regions. Internal migration is also likely to lead to significant changes in social networks and possibly in the service structure in all regions.

1.4 Political context

Having been under Swedish rule for 600 years and then under Russian rule for 100 years, Finland became an independent republic with its own constitution in 1917. After that, the country's development was influenced by two wars: the civil war and later the Second World War.

The Finnish public administration system consists of three levels: state, province and municipality. The provinces are actually regional representatives of the central state administration. Their administrators are appointed by the state; they do not have any democratically elected organs. Finland is divided into five administrative provinces and the Åland Islands, the latter having autonomous status.

Finland has a Constitution (latest major review in 2000). Power in Finland is vested in the people, who are represented by deputies assembled in Parliament. Legislative power is exercised by Parliament, the President of the Republic having a minor role. The Council of State (the Government) consists of a Prime Minister and a requisite number of ministers. Judicial power is vested in independent courts of law, at the highest level in the Supreme Court and the Supreme Administrative Court.

The head of state is the President of the Republic, who is elected for a period of six years by direct popular vote. In practice, the President's power in political areas other than foreign policy is limited; but the power to accept laws and to appoint senior civil servants does incorporate the potential for acts of political significance. For the first time in Finnish history, a female president, Mrs Tarja Halonen, was elected in March 2000 and re-elected in March 2006.

The Parliament has a single chamber of 200 representatives, elected for a four-year term by direct popular vote. Parliament has three main functions through which it represents the people and makes basic decisions on Finnish policy. It passes laws, it debates and approves the national budget and it supervises the way the country is governed. Passing laws is a complicated process that usually begins with the Government placing a bill before Parliament. To be passed, a bill must have the support of a majority in Parliament and it must

be signed by the President of the Republic. Finland's presidents have refused to sign a law once a year on average. Moreover, Parliament may approve the same law again after it has been rejected by the President. If this happens, the President must then sign it.

After the parliamentary elections in March 2007, the seats were divided among the political parties as follows: the Finnish Centre Party, 51 seats (23% of votes); the National Coalition Party, 50 (22%); the Finnish Social Democratic Party, 45 (21%); the Left Wing Alliance, 17 (9%); the Green Party, 15 (9%); the Swedish People's Party, 9 (5%); the Finnish Christian Union, 7 (5%) and the True Finns Party, 5 (4%).

The Government must enjoy the support of a majority in Parliament. The Parliament elects the Prime Minister (who is then formally appointed by the President). Other ministers are appointed by the President under the proposal of the Prime Minister. The Government is the executive body that produces material for Parliament to consider, for example the bills placed before Parliament. The Government (and different ministries) can enact lower level decrees in certain cases.

Since the voting system is proportional, no single party can form a majority to govern, which leads to coalitions, and relative stability of the political system. The present Government, formed in April 2007, is a coalition of the Finnish Centre Party (eight ministers), the National Coalition Party (eight ministers), the Green Party (two ministers) and Swedish People's Party (two ministers). The Prime Minister is Mr Matti Vanhanen (the Finnish Centre Party). Mr Matti Vanhanen was also the Prime Minister of the previous Government, which was a coalition consisting of the Finnish Centre Party, the Social Democratic Party and the Swedish People's Party.

Closest to the people are the 415 self-governing municipalities, which are all governed according to uniform national legislation. Many responsibilities, including primary education and the social and health services, are devolved to the level of municipalities. The tradition of devolving responsibility to municipalities has a long history in Finland, evolving over several centuries. In the municipalities the municipal councils are the main decision-making bodies. They are elected for a four-year term. Municipalities levy a municipal income tax, the rate being decided independently by each municipality (it varies from 16% to 21% of taxable income, and between 17.5% and 19% in the 10 largest municipalities). Municipalities also receive other tax revenues (real estate tax and part of the corporate tax), subsidies paid by the state and other revenues (such as user-fees). Municipalities and joint municipal organizations account for almost two thirds of all public expenditure in Finland. Most of the

municipalities' expenditure arises from arranging basic services such as social and health services, primary education, cultural services and infrastructure.

Cooperation with the other Nordic countries – Denmark, Iceland, Norway and Sweden – has long existed and covers a large number of issues, ranging from social and cultural to technical matters. Finland became a member of the EU in 1995. This membership gave new duties and roles to the political institutions, and in many instances national legislation has had to be amended to correspond with EU legislation. The impact of EU membership on the Finnish economy is difficult to evaluate, as many other factors such as the preceding economic recession also had an influence. Finland was one of the first countries to enter the third stage of the Economic and Monetary Union in 1999. Finland is also a member of the United Nations, the Council of Europe and the World Trade Organization. Finland is not a member of the North Atlantic Treaty Organization.

The human rights situation in Finland is relatively good. Corruption is rare in Finland and Finland is the least corrupted country in the Corruption Perception Index held by Transparency International (TIN 2007). Although the human rights situation is considered to be good in Finland, some problems have been identified. Human Rights Watch has been worried about Finland's stockpile of landmines which are intended to be used during war. Amnesty International has focused on the problem that Finnish men who refuse to take part in the system of compulsory military service or replacement civilian service because of ethical reasons are sentenced to imprisonment (Amnesty International 2007). Amnesty International has also drawn attention to the practice where in some cases of problematic deportation of refugees, officials in Finland have administered sedating and neuroleptic medication without proper examination by a medical doctor (Amnesty International 2004).

1.5 Health status

According to various indicators, the health of the Finns has considerably improved over the last few decades. Average life expectancy among the Finnish population has improved throughout the 20th century, especially during the last three decades.

In the 1950s and 1960s, mortality among Finnish men was notably high when compared to international standards, mainly due to the high prevalence of coronary heart disease. Life expectancy has grown considerably since then, to 76 years for men and 83 years for women in 2005 (Table 1.4). During the 1980s and 1990s the improvements in life expectancy in Finland were mainly due to

Table 1.4 Mortality and health indicators, 1970–2005 (selected years)

	1970	1980	1990	1995	2000	2003	2004	2005
Life expectancy at birth, total (years)	70.4	73.7	75.1	76.8	77.9	78.7	79.0	79.4
Life expectancy at birth, male (years)	66.2	69.2	71.0	72.9	74.3	75.2	75.4	75.8
Life expectancy at birth, female (years)	74.5	78.0	79.1	80.4	81.3	82.1	82.5	82.7
Crude death rate per 1000 population, female	8.5	8.4	9.8	9.6	9.5	9.4	8.9	8.9
Crude death rate per 1000 population, male	10.7	10.3	10.4	9.8	9.5	9.4	9.3	9.3
Infant deaths per 1000 live births	13.2	7.6	5.6	4.0	3.6	3.2	3.3	3.1

Source: WHO Regional office for Europe, January 2007.

the decline in mortality amenable to health care (avoidable mortality), especially in mortality from ischaemic heart disease, although in the 1990s the contribution of avoidable mortality was somewhat smaller (Nolte and McKee 2004). The potential years of life lost (PYLL) rate has lowered in Finland between 1992 and 2004 by approximately 25% (Vohlonen, Bäckmand, Korhonen 2007). In 2002 healthy life expectancy in Finland was 71.1 years (Table 1.5). In a comparative study by Nolte and McKee (2003) using an aggregate measure of avoidable mortality (not including deaths from ischaemic heart disease) from the year 1998, Finland ranked middle among 19 countries of the OECD, performing worse than for example Sweden and Norway.

Infant mortality has also decreased rapidly over the last 30 to 40 years. At the beginning of the 1970s, almost 15 out of every 1000 newborn infants died; since the mid-1990s the rate has been less than 5 per 1000 newborns, one of the lowest in the world.

There are still significant differences in mortality and health between groups with different socioeconomic status, education, marital status, gender and geographical regions. Differences between socioeconomic groups and marital status groups are increasing while differences between genders are decreasing (Martelin, Koskinen, Lahelma 2006). The average life expectancy of a white collar worker male aged 35 years is six years longer than that of a manual worker of the same age; for women the corresponding difference is smaller (three years). The largest minority in Finland are Swedish speaking people, who comprise 5.5% of the Finnish population. It has been found that Swedish speaking people living on the west coast are healthier than Finnish speaking population living in the same area (Hyyppä and Mäki 1997).

The most significant public health problems are circulatory diseases, malignant tumours, musculoskeletal diseases and mental health problems (Table 1.6). Emerging problems are obesity, chronic lung diseases and diabetes, particularly type 2 diabetes.

Table 1.5 Healthy life expectancy, 2002

Total population	
At birth	71.1
Males	
At birth	68.7
At age of 60	15.7
Females	
At birth	73.5
At age of 60	18.9

Source: World Health Report, 2004.

According to the national health survey (Helakorpi et al. 2008) in 2007 68% of the 15–64 year old population reported having good or reasonably good health status. In the Health 2000 Study 43% of all working age people and 80% of people aged over 64 reported at least one long-term illness in 2000 (Aromaa and Koskinen 2002). According to the survey for school aged children in 2003, about 9% of 12 to 18 year-olds had a long-term illness which had an influence on everyday activities (Rimpelä et al. 2004). In 2006 about 7% of the working age population had a disability pension (ETK and KELA 2007b) and in 2007 19% of the working age population in Finland reported themselves as having restricted capacity to work because of illness or disability (Helakorpi et al. 2008).

Cardiovascular diseases made up 41% of all causes of death in 2005 (compared to 52% in 1983) (Statistics Finland 2006a). The incidence and mortality from coronary heart disease increased at the end of the 1960s, but has significantly dropped since then. Among working age people age-standardized mortality from coronary heart disease dropped more than 50% between 1984 and 2005 (Statistics Finland 2006a). The annual number of myocardial infarctions has decreased during the last 10 years, especially among the working age population. According to the national health survey 16% of 15 to 64 year-olds reported having high blood pressure and 14% having a high blood cholesterol level in 2007 (Helakorpi et al. 2008).

This positive development is due, inter alia, to changes in lifestyle (e.g. reduced smoking rates and nutritional habits) and improved medical treatment. Regional and social group differences in mortality from coronary heart disease still persist. For example, age-standardized coronary heart disease mortality is significantly greater among men in eastern Finland than in western and south-western Finland. Mortality from ischaemic heart disease among working age men was more than six times greater than among working age women in 2005 (Statistics Finland 2006a).

Table 1.6 Main causes of death (underlying cause of death, deaths per 100 000)

	1985	1990	1995	2000	2004	2005
I. Communicable diseases:						
Infectious and parasitic diseases (A00-B99, J65)	7.6	8.6	7.5	7.6	6.5	7.0
Tuberculosis (A15-A19, B90, J65)	3.6	3.6	2.6	2.5	1.3	0.0
II. Noncommunicable conditions:						
Circulatory diseases (I00-I425, I427-I99)	515.3	480.2	443.0	411.2	373.7	373.8
Malignant neoplasms (C00-C97)	193.6	196.4	196.6	197.5	199.7	201.5
Trachea/bronchus/lung cancers (C32-C34)	43.3	39.9	37.4	36.3	36.3	37.6
Respiratory diseases (J00-J64, J65-J99)	77.9	75.0	73.5	82.9	56.5	46.9
Dementia, Alzheimer's disease (F01, F03, G30, R54)	20.4	44.8	56.2	67.2	75.4	78.8
Digestive diseases, excluding alcohol-related diseases	23.2	26.4	27.6	26.8	25.8	26.2
Alcohol-related diseases	15.7	23.2	23.3	28.5	35.4	38.2
III. External causes (V01-X44, X46-Y89)	72.1	87.1	77.3	72.1	73.7	71.4

Source: Statistics Finland, 2004.

Cancer is the second most common cause of death after circulatory diseases. More than one in four Finns suffer from cancer at some stage in life. Age-adjusted incidence rates of cancer increased by 10% among males and 21% among females during the last 20 years (Cancer Society of Finland 2005), while age-standardized cancer mortality somewhat decreased during the same period (Statistics Finland 2006a). Stomach and cervical cancer mortality particularly have experienced significant decreases, while mortality due to melanoma and liver cancers has increased. Mortality from prostate cancer has remained constant and mortality from breast cancer has increased only moderately.

The most common types of cancer among men are prostate cancer (34% of new cancer cases in 2003) (Cancer Society of Finland 2005), lung cancer and colorectal cancer. The most common types of cancer among women are breast cancer (32% of new cancer cases in 2003), colorectal cancer and uterine cancer. The prognosis of cancer patients has continuously improved. During the last 20 years, five-year relative survival rates have improved among males from 34% to 56% and among females from 49% to 65% (Cancer Society of Finland 2005).

The most common reason for claiming sickness allowance – 33% of sickness periods in 2006 – is **musculoskeletal diseases** (SII 2007c). Almost half of sickness periods were due to back disorders and one fourth due to osteoarthritis. According to the national health survey, 11% of the population aged 15 to 64 years had back problems in 2007 (Helakorpi et al. 2008). According to another study conducted in 2000, about 6% of the population over the age of

30 suffered from osteoarthritis of the knee (35% of women and 46% of men over 85 years) (Aromaa and Koskinen 2002). The number of people suffering from musculoskeletal diseases is expected to increase because of the ageing of the population, diminishing physical exercise and increasing overweight. Improved diagnostic and therapeutic methods also reveal an increasing range of musculoskeletal diseases.

According to Helakorpi et al. (2008), 6% of the working age population suffered from depression diagnosed by a physician in 2007. This was more common among women. **Mental health disorders** as a reason for sickness day allowance and disability pension have increased during the last 10 years. In 1992, 32% of all persons claiming disability pensions did so because of a mental health disorder compared to 43% in 2005 (ETK and KELA 2007a). Mental health disorders were the second most common reason for sickness day allowance, comprising 16% of sickness day allowances (SII 2007c).

Allergies and asthma are rapidly growing health problems in Finland. About 5% of the working age population suffered from asthma diagnosed by a physician in 2007 (Helakorpi et al. 2008). Eczema is also a common problem (prevalence is about 17% of the working age population in 2007).

According to the Health 2000 survey, 0.7% of men over the age of 30 and 0.3% of women had **type 1 diabetes** in 2000 (Aromaa and Koskinen 2002). In 2001, the incidence among under 15 year-olds was 56/100 000 (Karvonen 2004). Type 1 diabetes is more common in Finland than in any other country in the world. During the last decades the incidence has increased steadily (from 18/100 000 in 1965 at a rate of 3.5% per year). The reasons for this increase are mainly unknown, but currently under intensive study.

The prevalence of **type 2 diabetes** is also fairly high compared to other western countries. In the Health 2000 survey, 4.4% of males and 3.0% of females over the age of 30 had type 2 diabetes in 2000 (Aromaa and Koskinen 2002). It is estimated that during the years 1969 to 2003 the number of type 2 diabetes patients increased from 50 000 to 190 000 (Reunanen 2004). If people that are unaware of their condition are included, the current figure is estimated to rise to 400 000 which is 12% of the population aged 30 years or older.

With the ageing of the population, **dementia** will gain more importance as a public health problem. It is estimated that there are about 110 000 patients with some form of dementia (Soininen 2005). Mortality from dementia increased from 20.4/100 000 in 1985 to 78.8/100 000 in 2005 (Table 1.6). However, part of this is due to changed practices of classifying dementia as the underlying cause of death.

Suicide mortality in Finland has generally been one of the highest in Europe. Suicide rates were highest towards the end of the 1980s, when the Finnish

economy was booming, being almost 30 per 100 000 population in 1990. The trend has been decreasing since then, being 18 per 100 000 population in 2005 (Statistics Finland 2006a). One reason for this may be the large national suicide prevention project which was carried out between 1986 and 1996.

The number of **abortions** fell from a peak of over 23 000 in 1973 to 10 900 in 2005 (9.3 per 1000 women of childbearing age and 190 per 1000 life births) (STAKES 2006b). The number of abortions among females in the age group 15–19 years was 14.9 per 1000. The abortion rate in Finland is the lowest among Nordic countries. Keeping abortion rates low by employing a variety of measures through school and maternity health services and general arrangements of family planning has been a high priority for decades.

One of the major changes in the lifestyle of Finnish people during the last decades is the change in **dietary habits**. One example of this change is the more frequent use of margarine instead of butter on bread. Twenty years ago more than 60% of people used mainly butter on bread while in 2007 this figure fell to only 4% of men and 3% of women (Helakorpi et al. 2008). Also, use of low fat milk, vegetables and vegetable oil in cooking has significantly increased (Table 1.7). Nevertheless, being overweight remains an increasing problem in Finland. In 2006, 55% of men and 41% of women were overweight (compared to 42% and 31% between 1978 and 1982).

The prevalence of **smoking** among men has fallen since the 1960s, but among women the prevalence has been rather stable. 18% of working age women and 23% of working age men were daily smokers in 2006 (Table 1.7).

During last the 20 years **alcohol consumption** has risen from 7.6 litres (in 1985) to 10.5 litres, 100% alcohol equivalent per capita in 2005 (the figure includes both recorded and estimated unrecorded consumption) (STAKES 2006d). This is an average level for western industrialized countries. Anticipating the EU membership of neighbouring Estonia in 2004, under the EU free market regulations, Finland decided to lower the alcohol tax in 2003, in order to smooth over great price differences and to counteract expected large imports and ensuing loss of alcohol taxes. It seems that partly because of this, alcohol consumption rose by 10% between 2003 and 2004 (STAKES 2006d). According to a survey conducted in 2007, 28% of men and 9% of females consumed six or more doses of alcohol (one dose is equivalent of 4cl of 40% spirit) on one occasion at least once a week (2.9% and 0.6% almost daily) (Helakorpi et al. 2008). The number of heavy drinkers is estimated to be between 250 000 and 500 000 (STAKES 2006d). In 2005, about 2000 people died from alcohol intoxication or due to an illness related to alcohol consumption (29% increase from 2003). Alcohol-related death is the second most common cause of death among working age men and women. Alcohol use among young people

Table 1.7 Factors affecting health status (working age population)

	1978–1982	1983–1987	1988–1992	1993–1997	1998–2001	2002–2005	2006	2007
Males								
Overweight (BMI>25)	42%	43%	46%	50%	52%	55%	55%	57%
Leisure-time physical excercise (at least twice a week)	44%	48%	50%	58%	60%	60%	63%	67%
Daily smokers	35%	33%	33%	29%	28%	27%	24%	26%
Use of skimmed or semi-skimmed milk	4%	6%	18%	30%	36%	39%	43%	46%
Use of mostly vegetable oil in cooking	7%	7%	26%	32%	41%	45%	46%	46%
Daily consumption of fresh vegetables	16%	20%	24%	27%	28%	28%	29%	30%
Females								
Overweight (BMI>25)	31%	31%	31%	35%	36%	38%	41%	43%
Leisure-time physical excercise (at least twice a week)	42%	45%	52%	60%	63%	66%	68%	73%
Daily smokers	17%	18%	20%	19%	20%	19%	19%	17%
Use of skimmed or semi-skimmed milk	6%	11%	27%	37%	42%	47%	53%	52%
Use of mostly vegetable oil in cooking	8%	10%	29%	35%	44%	49%	53%	53%
Daily consumption of fresh vegetables	23%	28%	35%	39%	45%	44%	48%	47%

Source: Helakorpi et al. 2008.

Note: BMI: Body mass index.

is also common. According to the school survey conducted in 2005 among 14 year-olds, 4% of boys and 6% of girls drank at least once a week (among 16 year-olds, 19% of boys and 15% of girls drank at least once a week) (STAKES 2006d). According to statistics, alcohol consumption per capita is highest in the northern part of Finland (Lapland).

Oral health has improved markedly during the last 30 years, especially among children and adolescents. Since the early 1970s when the Primary Health Care Act came into force, children and adolescents have attended oral health check-ups regularly. This policy seems to have been effective. In 1976, only 1% of 12 year-olds had healthy teeth, whereas in 2000 the corresponding figure was 38% (Nordblad et al. 2004). Among the same population the number of decayed, missing or filled teeth decreased from 5.2 to 1.3 between the years 1979 and 2003 (Table 1.8). The number of annual dental fillings halved between the years 1985 and 2000 among children and adolescents under 18 (Nordblad et al. 2004).

Table 1.8 Dental health

	1978–1982	1983–1987	1988–1992	1993–1997	1998–2001	2002–2005	2006	2007
No missing teeth (working age population)[1]	22%	29%	36%	41%	46%	48%	50%	50%
DMFT at age 12 years (mean value)[2]	5.2	2.8	1.2	1.2	1.2	1.2		

Source: [1]Helakorpi et al 2008; [2]OECD, 2007.

Note: DMFT: Decayed, missing or filled teeth (years 1979, 1985, 1991, 1994, 1997, 2000, 2003).

Until the early 1990s, **drug abuse** was not a major problem in Finland, but there has been a rapid rise in the use of drugs since then. However, the increase has slowed during last few years. Also crimes related to illegal drugs have increased during the last 10 years. In 2004, 12% of 15–69 year-olds had used or tried cannabis and 3% of them had used it during the last year (STAKES 2006d). About one fifth of 15–34 year-olds has tried cannabis at least once.

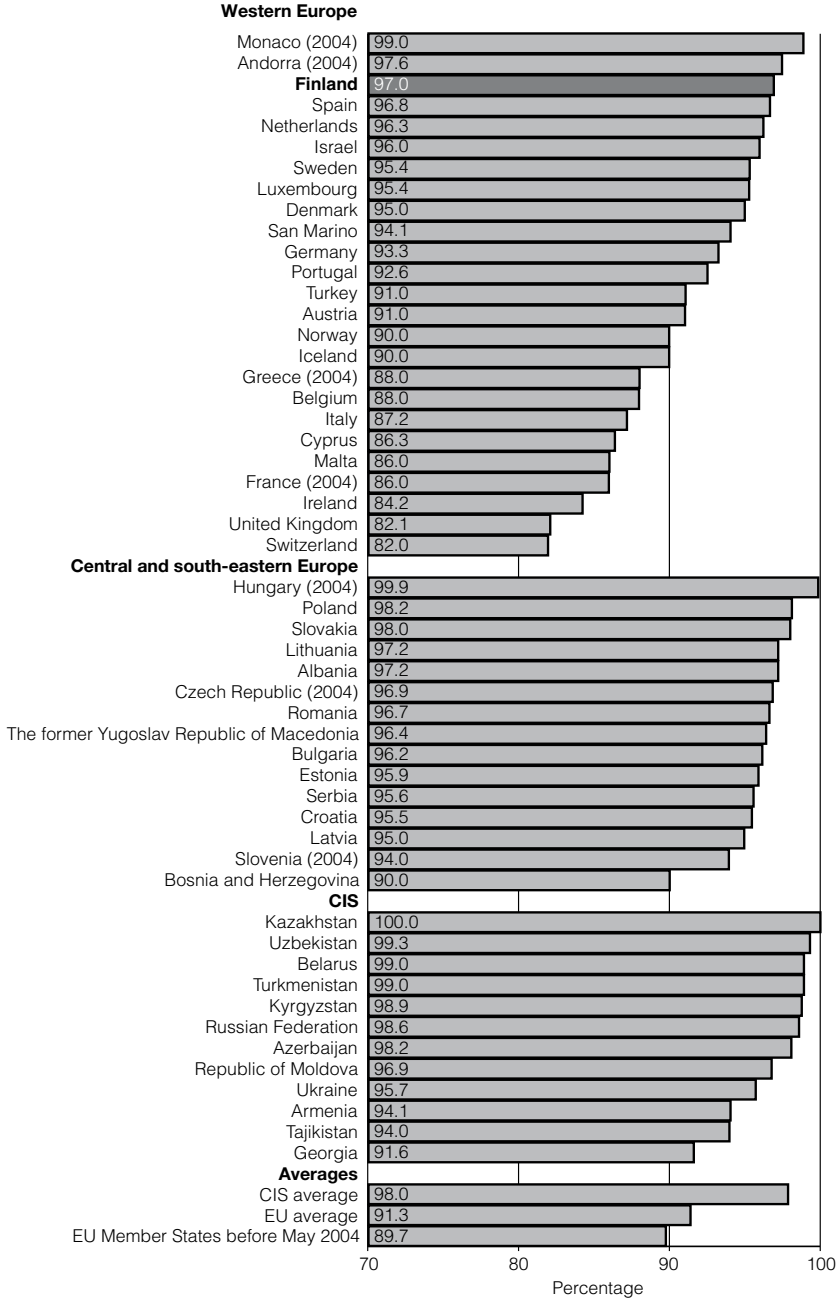
The use of other illegal drugs in Finland is less common. Amphetamine is the second most commonly used illegal drug in Finland. In 2004, about 1–2% of the adult population had tried amphetamine or ecstasy, and 0.5% during the last year (STAKES 2006d). Based on data from several registers (the Hospital Discharge register; a register of the Finnish Police; the National Communicable Disease Register; and the register of people driving a motor vehicle when intoxicated), it is estimated that in 2005 between 0.5% and 0.7% of 15–54 year-olds had a problem with opiate or amphetamine use (Partanen et al. 2007). This figure increased between 1999 and 2005, the problem being most common among men, among 15–34 year-olds and in the metropolitan Helsinki area. According to the ESPAD survey (The European School Survey Project on Alcohol and Other Drugs), 11% of 15–16 year-olds had tried some illicit drugs in Finland in 2003 (STAKES 2006d).

Vaccination coverage is good in Finland (see Fig. 1.3 for measles). Ninety-three per cent of children born in 1999 had all the vaccinations included in the national vaccination programme in 2005 (Joensuu et al. 2005). The national vaccination programme was last revised in 2006, when vaccination against tuberculosis was removed, now being given only to children at risk. In the current national vaccination programme all children are vaccinated against diphtheria, tetanus, pertussis, measles, mumps, rubella, polio and Hib. The measles, mumps and rubella vaccination was included in the programme in 1982 and 12 years later Finland was the first country in the world to have eliminated these diseases. In the late 1990s, only sporadic cases of these diseases were seen in Finland (the infections were acquired from foreign countries). Hib vaccination is a similar success story.

Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) has not been a major problem in Finland. In late 1990s, HIV incidence among intravenous drug users increased dramatically, but after that incidence has been rather stable (130–140 new infections a year). However, in 2006 incidence increased again by 39% (191 new cases of HIV were diagnosed in 2007), this time due to infections from sexual relationships. In February 2008, the total number of HIV positive cases identified in Finland was 2279 (National Public Health Institute).

Road traffic deaths and injuries have significantly decreased in the last 15 years. In 2004, there were 6.5 deaths due to land traffic accidents per 100 000 population, compared to 14.1 in 1990 (Statistics Finland 2006a). Finland has actively, and rather successfully, tried to reduce deaths and injuries from road traffic accidents. For example in the late 1980s, it became law for back seat passengers to wear a seatbealt and in the early 1990s winter time speed limits were expanded to apply to the whole country.

Fig. 1.3 Levels of immunization for measles in the WHO European Region, 2005 or latest available year (in parentheses)



Source: WHO Regional Office for Europe, January 2007.

Note: CIS: Commonwealth of Independent States.

2. Organizational structure

2.1 Historical background

The organization and financing of health care services has long been considered a public responsibility in Finland. Municipalities have been responsible for providing basic medical services since the 1870s (Mattila Y 2006). Taxation developed as the principle method of collective funding from that time, until the introduction of statutory NHI in the 1960s.

Before the Second World War, municipalities concentrated mainly on public health and the treatment of tuberculosis, other communicable diseases and mental health. After the War, a new act was introduced to regulate municipal health care services. According to the act, every municipality had to contract GPs, midwives and public health nurses, usually providing them with facilities and accommodation. Most of a GP's income came from payments from patients, but midwives and public health nurses were salaried. As the overall number of doctors was small, they had to handle a wide variety of health problems. The right to maternal and child health care was fixed in law in 1944, irrespective of residence and financial situation.

The provision of hospital care was fairly modest in the first half of the 20th century. Before the 1950s, the hospital network was rather fragmented and general hospitals, psychiatric hospitals and tuberculosis hospitals were separate. Some of the hospitals were state owned while others were managed by municipalities or a group of municipalities. Hospital physicians' income was based on a monthly salary. In 1950 there were 10 000 beds in general hospitals, 9000 beds in psychiatric hospitals and 6000 beds in tuberculosis hospitals.

The development of the hospital system was given a major push in the 1950s. The responsibility for central hospitals was transferred to municipalities. Municipalities received a state subsidy to run them. During the 1950s and 1960s, the number of hospital beds in general hospitals tripled. Later, in the 1960s, 24

new district hospitals were built (generally smaller than central hospitals) on the initiative of municipalities. These hospitals were by definition small scale specialist hospitals. As tuberculosis became less of a concern, tuberculosis hospitals were either closed down or transformed to become part of general specialist services of the district.

Management of psychiatric hospitals was transferred to federations of municipalities in the 1950s. Hospitals were at that time divided into two categories, acute and long stay hospitals. Between the 1950s and 1970s the number of beds in psychiatric hospitals doubled. The volume of beds per population at that time has been cited to have been the highest in Europe, about 4 beds per 1000 population. At that time psychiatric hospitals catered for large numbers of demented elderly patients, for persons with learning disabilities and for persons with substance abuse problems.

In the 1950s and 1960s, the majority of public expenditure on health care was allocated to hospitals and a significant imbalance between hospital care and outpatient care developed. Almost 90% of total public health care expenditure was spent on hospital care and only 10% on what was then primary care. A network of specialized hospitals with high standards existed, but the supply of outpatient services and primary health care was insufficient. In addition, ambulatory care by municipal doctors was quite expensive for patients compared to hospital care, mainly because the state subsidy to ambulatory health care was small.

In order to rectify the imbalance between inpatient and outpatient care the NHI scheme was introduced in 1963. All inhabitants were covered by this mandatory scheme. Part of the costs of drugs, medical care and some other services were reimbursed through the scheme. It also included sickness day and maternity allowance (see section 3.2.2.3). Before this, only workplace-related voluntary relief funds had provided this type of insurance coverage, covering only a small proportion of the population.

Despite the introduction of NHI there remained striking inequities in the availability of health services, since most of the services were concentrated in urban areas. Furthermore, the scheme excluded funding for health promotion and prophylactic measures, such as family planning and vaccination. The imbalance between primary and secondary health care persisted. Consequently, there was a clear need to improve the situation. There was also political will to develop health care, and the stable growth in the national economy secured the necessary resources.

All these factors led to the introduction of new policies around the beginning of the 1970s. Firstly, a national planning system for primary health care with a rotating five-year plan that was annually updated was introduced.

This system of strong state level steering was reinforced through state subsidies, which covered about 40% to 70% of the operating expenses of tax-funded health services. Besides the state subsidy for operating costs, the state also quite generously funded the building and equipping of facilities. Furthermore, a new system of primary health care was established through the Primary Health Care Act in 1972 (see 10.2 in the appendices for a list of principal legislation relating to health care in Finland). This new legislation introduced municipal health centres as the foundation of primary health care, with the objective of offering primary care services free of charge. At first, the health centres were organizations that assembled the previously dispersed and fragmented services under one administrative roof. Later in the 1970s and 1980s physical roofs materialized, as building of the facilities proceeded.

The tasks of primary health care were then defined by law to be: primary medical care; a variety of preventive services; home nursing; family planning; dental care; and environmental health services. Some years later occupational and student health services and rehabilitation were added to the list. This all now amounts to an internationally unique network of health centres with perhaps the broadest scope of services and also the largest multi-professional teams at their service. Income of physicians in health centres is based mainly on a monthly salary. The number of doctors in primary care tripled during a few years in the 1970s. As a transitory measure a small nominal user charge was kept for about 10 years for non-preventive services for adults. Following an impassioned national debate, user-fees were reintroduced in 1993 during the economic recession (see section 3.3.3).

The building of the first municipal health services was focused especially in the rural areas around local small GP-run hospitals (described henceforth as "inpatient wards") and the GPs' offices. This legacy has led to a very distinctive feature of Finnish health centres: the majority of them still have GP-run inpatient wards. One reason for having, and retaining, these small inpatient wards was the long travelling distance to specialist level hospitals. Many remote municipalities cherished them as sites providing versatile services, which in the 1970s and 1980s provided some basic operative and obstetric care. GPs working in health centres ran these inpatient wards along with outpatient clinics without any special training. Gradually, however, most of the operative care was transferred to specialist level hospitals and the inpatient wards became a fundamental part of chronic nursing home type care (see section 6.3).

In the 1970s and 1980s, increasing attention was also paid to occupational health care, with the aim of extending it to all workers. The introduction of the Occupational Health Care Act in 1979 obliged employers to provide occupational health services to their employees. Special attention was given to preventive measures. Between 1964 and 1995 occupational health care coverage

increased from 20% to 80% of the workforce. Curative services were soon added to the occupational health services through agreements between labour unions and employers and through channelling sickness insurance reimbursement for these services (see section 3.2.2.4).

Hospital care was included in the national planning of public sector health care in 1974, and in 1984 new legislation brought certain social services (for example, children's day care and homes for the elderly) into the same planning and financing system as health care. Since then, the collaboration of social and health care has been emphasized at both local and national levels.

In the 1970s, the main focus of dental care at health centres was on children and adolescents, and strong emphasis was placed on prevention. Dental care in schools also existed before the Primary Health Care Act. Gradually, the scope of dental care widened to, for example, conscripts, pregnant women and students, and finally in 2002 dental services were offered to the whole population (see section 6.10).

Until the end of the 1980s, the development of the Finnish health service was marked by continuous growth and differentiating of services. Regional differences in the supply and availability of services diminished and the quality of services improved. One of the measures undertaken in this period to improve access and continuity of care was the introduction of the "personal doctor" system in 1986 (the direct translation from the Finnish word would actually be "my own doctor"). Municipalities have had the freedom to choose whether to implement the new system. The traditional system is that appointments are made to any physician in the health centre who is available. In the personal doctor system, a person or a family is assigned to one health centre doctor, usually on the grounds of their place of residence, and physicians are paid a combination of a basic salary, capitation payment and fee-for-service payment for visits. Currently, approximately half the physicians working in health centres belong to the personal doctor system (see section 6.3).

In the 1980s, the balance in mental health care started to shift more towards outpatient care and the number of beds in psychiatric hospitals gradually decreased, while resources to outpatient care increased. This trend continued in the 1990s, the number of beds in psychiatric hospitals reducing by 50% between 1990 and 2003. The previously high volume of psychiatric beds was brought to the average European level of about 1 bed per 1000 population. However, the supply of outpatient services did not grow sufficiently and outpatient resources diminished (Lehtinen et al. 2006), partly because of the economic recession in early 1990s (see section 6.9).

Until 1991 general hospitals, psychiatric hospitals and former tuberculosis hospitals each had different organizational structures. In 1991, a new act on

specialist level care and on hospital districts (Act on Specialized Medical Care) resulted in the creation of the current multi-purpose hospital districts, which are owned and operated by federations of municipalities. According to the new law every municipality is required to be a member of one of the hospital districts.

During the late 1980s and 1990s, state regulation gradually decreased. From 1993 onwards, a package of changes in legislation, planning and financial incentives was introduced, which increased decentralization (Häkkinen 2005; Häkkinen and Lehto 2005). The main objective was to create economic incentives for municipalities to improve the efficiency of services. In a nutshell, the reforms brought about three major changes: redesign of the state subsidy system; relaxation of the rules on service provision; and decentralization of detailed planning.

Firstly, the redesign of the state subsidy system meant that the old retrospective and earmarked payments for primary and specialist level care, which were guaranteed to be paid as long as the costs were for services approved in rolling five-year plans, were replaced by a new system in 1993. The new state subsidies are prospective and capitated needs-based (mainly sociodemographic) payments (see section 3.3.1.1). The new state subsidies are now paid to the municipalities instead of municipal service providers, such as health centres or hospitals.

Secondly, related to this, in 1993 a new ruling in the law meant that municipalities were given the possibility of purchasing services from private providers. However, purchasing services from private providers was initially very rare since it was more economical to purchase specialist level services from the hospital district, partly because the municipality was in any case obliged to pay hospital district membership fees. Purchasing from private providers increased only in more recent years (see section 3.5.1).

Thirdly, the reforms led to the decentralization of detailed planning of health services to the municipalities and to municipal federations (see section 4.1.2). In 1993, the state gave up its earlier regulatory power and concentrated on setting general policy objectives and also on what is known as "guidance by information". Guidance by information encompasses policy recommendations based on research and evaluation, through the development of national statistics and registers and other performance indicators (see section 4.1.1). The main agency for the administrative regulation of health care (the National Board of Health) was dismantled.

The dismantling of the National Board of Health was linked to a major reform in the state administration of social welfare and health at the beginning of the 1990s. The rationale was the simplification and streamlining of social and health administration, and the strengthening of social and health policy at

the ministerial level. In 1991, the National Board of Health and the National Board of Social Welfare, which until then had both been important in guiding state administration, were amalgamated into one organization and soon thereafter abolished (in 1992). By this process, several new state agencies and institutions subordinated to the MSAH emerged (see section 2.2.2). They took over some of the tasks that had previously been the responsibility of the two national boards: the NAM was founded to supervise pharmaceutical products; the National Authority for Medico-legal Affairs (NAMLA) to assure the quality of health care services through supervision of health care professionals; and the National Research and Development Centre for Welfare and Health (STAKES) to conduct research and development to promote health and social care planning and development.

The reforms in the Finnish health care system in the 1990s were accompanied by numerous cuts in resources and unforeseen redundancies among health personnel, due to the exceptionally severe economic recession. This was accompanied by a rapid expansion in the demand for medical services in hospitals (related to the reforms described above) and reductions in intake into medical and dental training some years earlier. One result of these changes was a significant shortage of health personnel during the late 1990s, especially among physicians and dentists. The situation was particularly severe in health centres in remote rural municipalities (see section 5.2.1).

During the last 10 years the national economy has been steadily growing, but growth in health expenditure has been slower (see section 3.1). However, in general, the health care system seems to have survived the recession fairly well and no changes in health indicators that could be attributed to it have been observed.

In 2001 the Government initiated "the National Project to Ensure the Future of Health Care" in order to achieve national consensus on the development of health services (see section 7.1.1.2). Concerns related to problems with access, waiting times and waiting lists, availability of human resources in the future and of heterogeneity of service practices and patterns were all addressed in this intense process. This process resulted in a deal being struck between the state and the municipalities and municipal health services: the Government promised a clear rise in the level of state subsidies to the municipalities; the municipal level, in turn, committed to a number of structural changes and to new standards in access to services. Another highly visible outcome of this process was a legislative change where specific time limits were put on waiting times (see section 7.1.1.3). This part of the reform was implemented in 2005.

The main milestones in the history of the Finnish health care system are summarized in Table 2.1 and in appendix 10.2.

Table 2.1 Milestones in the history of the Finnish health care system

Period	Event
1940s	New act introducing GP to every municipality
	Establishment of maternity and child care
	Measures to treat and prevent tuberculosis (tuberculosis districts)
1950s	Development of the hospital system
1960s	Introduction of the NHI scheme
	Strong increase in the number of medical doctors to be trained
1970s	1972 Primary Health Care Act and establishment of health centres
	Introduction of the national planning system
	Developments in occupational health care
1980s	Health care and social services into the same national planning and financing system
	"Personal doctor" system introduced in health centres
	Beginning of deregulation and decentralization
1990s	Increasing deregulation and emphasis on municipal autonomy
	Reforms in the state administration of health care
	1993 state subsidy reform
	Maintaining health care services during and after economic recession
2000s	National Project to Ensure the Future of Health Care
	Specific time limits for waiting times
	Project to restructure municipalities and services

Notes: GP: General practitioner; NHI: National Health Insurance.

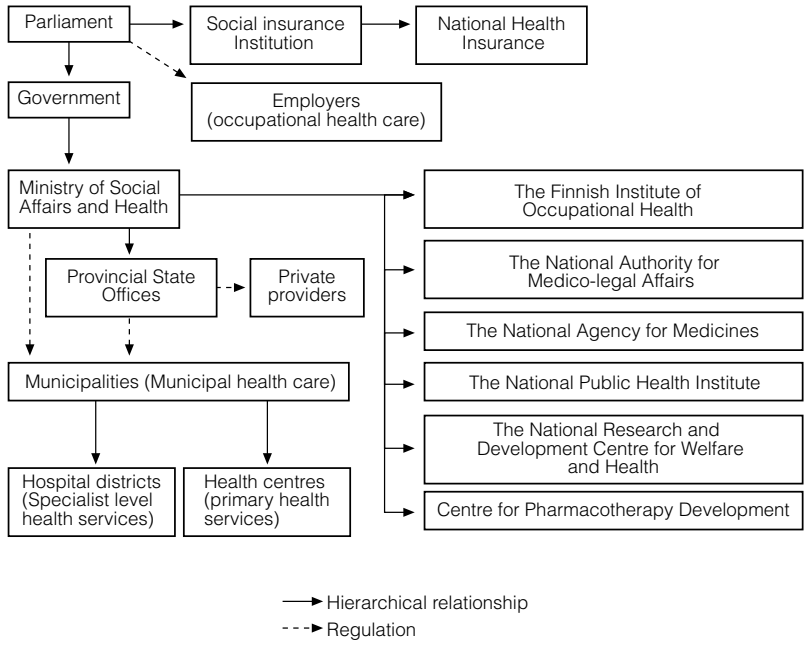
2.2 Organizational overview

In practice, in Finland there are three different health care systems which receive public funding: municipal health care funded by taxes, private health care partly funded by NHI and occupational health care partly funded by NHI (Fig. 2.1). The role of the state is to steer the health care system at a general level mainly by legislation and financing. The provision of private health care is rather weakly regulated by the state.

2.2.1 Municipalities

Municipalities (i.e. the local authorities) have, by law, the main responsibility for ensuring basic services such as education (except university education) and social and health services are provided for their inhabitants (see section 3.2.1.1). Currently there are 415 municipalities (in 2008). The number of municipalities has decreased in the last five years from 448. The population of municipalities (outside of Åland Islands) currently varies from 250 inhabitants to 560 000 (the

Fig. 2.1 Organizational chart of the statutory health system



smallest municipality, Velkua, will merge with neighbouring municipalities on 1 January 2009). The mean size is about 13 000 inhabitants and the median about 5 000 inhabitants. Municipalities have the right to levy income and real estate taxes. They also receive a subsidy from the state to enable them to organize the services they are obliged to provide. In addition to the state subsidy for health care, they receive state subsidies for social services and schooling. The state subsidy to municipal social welfare and health care expenditure is determined by the population, age structure and morbidity in the municipality plus a number of other computational factors. The subsidies constitute about 25% to 30% of municipal spending on health services.

The main decision-making power in municipalities lies with the municipal council, which is elected every four years by the inhabitants of the municipality. The council appoints a municipal executive board, which is accountable to the council. The council also appoints members to the various municipal committees, according to the relative strength of political parties in the municipal council (every political party is granted the same proportion of the seats in a committee as it has in the council). The committees usually comprise those

for health, social services, education, technical infrastructure and a number of others, and are appointed for four years. The municipal council, the municipal executive board and the committees are politically accountable to the inhabitants of the municipality. In addition, the municipal manager and a varying number of officials work in the administration of the municipalities.

There are variations in detail and emphasis in the decision-making process in municipalities. The general trend has been towards delegating power from municipal councils to the various committees and leading officials. Decisions on the planning and organization of health care are made by the health committee, the municipal council and the municipal executive board. Here again there are variations. The leading persons of the municipal health centres are often also included in the planning and organization of health services. To improve the coordination of social and health services, the traditionally separate health boards and social welfare and services boards have been merged into a single board in most municipalities. In principle, the fact that social and health services are both organized and funded by the municipalities holds great potential for good coordination and integration of services, particularly for vulnerable groups (for example older people, people with mental health problems, and people with alcohol or drug abuse problems), but this potential has not always been fully exploited in practice.

Primary health services provided by municipalities are defined in the Primary Health Care Act. The act states that every municipality must have a health centre which provides primary health services (see section 6.3). Municipalities can either provide these services independently or join with neighbouring municipalities in joint municipal boards which set up a joint health centre (a municipal federation-maintained health centre). There were 237 health centres in Finland (excluding Åland Islands), of which 58 were joint health centres in 2007. In larger cities, the services of health centres are provided through several health stations located in different parts of the city (for example Helsinki has 29 health stations around the city). Municipalities can also purchase some primary health services from private providers or hospital districts. Health centres provide occupational health care services for those employers who choose to purchase these services from health centres.

About 86% of health centres also had inpatient wards in 2003 (see section 2.1). In 2006 there were 24.9 million outpatient visits to health centres and 7.3 million care days in inpatient wards (STAKES 2007d). Of all visits, 36% were to physicians and the rest were to other professionals such as nurses, public health nurses, midwives, physiotherapists and psychologists. Of all outpatient visits, 9% were to maternity and child welfare clinics, 15% were home nursing visits and 5% to occupational health care. In oral health care there were 4.9 million visits of which 79% were visits to dentists.

Specialized care funded by municipalities is mainly provided by hospitals maintained by the hospital districts and regulated by the Act on Specialized Medical Care. Currently, the Act divides the country into 20 hospital districts (excluding Åland Islands). Each municipality must be a member of one hospital district (the number of member municipalities varies from 6 to 58). The hospital districts organize and provide specialist medical services for the population of their member municipalities. The hospital districts are federations of municipalities. These federations are separate from federations maintaining health centres. However, recently there have been local reforms to integrate these two organizations (see section 7.1.2.2).

Each hospital district has a central hospital, five of which are university-level teaching hospitals. Hospital districts are managed and funded by the member municipalities. The catchment population of hospital districts varies from 65 000 to 1.4 million inhabitants. A referral from a licensed physician is needed for access to medical care provided at the hospital districts. Life-threatening emergencies are of course exempt from this requirement. The referring physician does not have to work in the municipal health centre and can be, for example, a private physician.

Supreme decision-making power in hospital districts is exercised by the hospital district council, whose term of office is the period between municipal elections, i.e. four years. Each municipality has one to six seats in the council depending on the size of their population. Each municipality's share of votes is the same as its share of total population within the district (but it cannot be more than one fifth of all votes). Practical administration is directed by the executive board elected by the council. Usually members of both the council and the executive board are local politicians and the composition of representatives of political parties reflects the support received by the political parties in municipal elections. The council adopts the annual budget, approves financial statements and makes decisions on major investments. The emphasis of the executive board is on strategic goals, coordination of activities, employer duties and administrative steering.

The council meets twice a year, while the board generally meets monthly. The executive management consists of two to six permanently appointed officials (for example, the hospital district director, a medical director and a nursing director).

There are different contractual or negotiation mechanisms between hospital districts and municipalities for agreeing on target volumes and payments which comprise elements of purchaser and provider separation, although ultimately the relationship is hierarchical and municipalities cover any deficits and retain any savings in their accounts (see section 3.4.1).

2.2.2 National level

The Government decides on general national strategies and priorities and proposes bills to be discussed by Parliament. Health care policy is primarily the field of the MSAH. The MSAH directs and guides the development and policies of social protection, social welfare and health care. It defines the main course of social and health policy, prepares legislation and key reforms and steers their implementation, and handles the necessary links with the political decision-making process. The general aims of social welfare and health care and the measures that will be taken in order to fulfil these aims are adopted in the National Development Programme for Social and Welfare (previously Target and Action Plan for Social Welfare and Health Care) that is drawn up for the whole period of office of each Government, normally for four years.

The ministry's work is led by two ministers: the Minister of Social Affairs and Health and the Minister of Health and Social Services. The ministry is divided into six departments: the Administrative Department, the Insurance Department, the Department for Family and Social Affairs, the Health Department, the Finance and Planning Department and the Department for Occupational Health & Safety. The Health Department is responsible for the development and steering of health promotion and disease prevention, health care services at all levels, occupational health services, pharmaceutical policies (except pricing) and environmental health, as well as for the drafting of legislation and budgeting regarding these areas.

The Insurance Department is responsible for NHI among other things. The Pharmaceutical Pricing Board (PPB), which approves reasonable prices and the reimbursement status of pharmaceuticals, is also in this department. Decision-making is based on the applications of pharmaceutical companies (see section 6.6).

Given the scope and volume of policies and programme, legislation and budgeting handled by the MSAH, its staff is relatively small. The Health Department, for instance, contains little over 70 staff. This is explained by the fact that the ministry relies on the extensive use of a well-functioning system of expert organizations and advisory bodies. The agencies and institutions subordinate to the MSAH are responsible for various issues related to social welfare and health care in Finland:

- The STAKES (about 500 employees) monitors and evaluates activities in social welfare and health care services, and carries out research and development work in these fields.
- The NAMLA (about 70 employees) guides and supervises the provision of health services in Finland. It also undertakes activities related to

the registration of health care professionals, forensic psychiatry and licensing.

- The NAM (about 200 employees) maintains and promotes the safe use of medicines, medical devices and blood products. It grants permissions for the sales of pharmaceutical products and assesses the quality and other documentation related to market authorization of medical products. It also supervises the manufacture, import and distribution of medicines and disseminates information on pharmaceuticals (see section 6.6).
- The National Public Health Institute (KTL) (about 900 employees) carries out research on diseases and their prevention, collects data on communicable diseases, health behaviour and the effects of health promotion, and ensures the availability of vaccines in the country.
- The Radiation and Nuclear Safety Authority (about 340 employees) sets the regulations for the use of radiation and nuclear energy and supervises implementation of the regulations. It is also an expert institute that carries out research on radiation and its effects, determines risks caused by radiation and monitors the radiation safety of the Finnish environment.
- The National Product Control Agency for Welfare and Health (about 90 employees) handles the administration of licensing connected with the import, manufacture and sales of alcoholic beverages and tobacco products. It is also responsible for reports and other tasks as required by the Chemicals and Pesticides Act.
- The Finnish Institute of Occupational Health (FIOH) (about 800 employees) carries out research, offers training for occupational health and safety professionals, provides advisory services and disseminates information on occupational health.
- The Centre for Pharmacotherapy Development (Rohto) (about 10 employees) promotes rational drug use by gathering and distributing information on pharmacotherapy and promoting its use in clinical practice. This agency is still relatively small, having been founded only in 2003.

The state has two psychiatric hospitals (mainly for forensic psychiatry). They are managed through STAKES. In addition the state operates special hospitals for military forces and prisoners.

The Ministry of Employment and the Economy is also quite active in the field of health care, mainly from a commercial and business promotion perspective. For example, it governs the National Technology Agency of Finland (TEKES) which runs the Healthcare Technology Programme (see section 4.2.3), FinnWell (2004–2009). The programme has the objective of improving the quality and profitability of health care related industries, and promoting business activities and export (the value of the programme is 150 million euros). The ministry

also governs the Finnish Competition Authority whose objective it is to protect sound and effective economic competition and to increase economic efficiency in both private and public-sector activity.

The Ministry of Education is responsible for planning and subsidizing the education and training of health personnel as well as research.

There is a further administrative level between the state and municipalities, the province. Since 1997 there have been five provinces (excluding the Åland Islands) in the country. The provincial administration is part of the state administration and promotes national and regional objectives. Each province has its own provincial state office with several departments, including a social and health department. The social and health departments are responsible for guiding and supervising both public and private health care as well as assessing basic services in municipalities. Their responsibilities also include the handling of appeals relating to health service provision. They also support and participate in various training and development activities in their respective provinces.

Finland has eight Occupational Health and Safety Inspectorates. These are supervisory authorities within the state regional administration with responsibility for creating the necessary prerequisites for healthy and safe working conditions that promote working capacity. The Inspectorates report on related development needs to the Department for Occupational Health and Safety within the MSAH.

The organizational structures of state governance in health and social services at a central and provincial level, including the research and development institutions, are currently under review. The Government is expected to decide on proposals during 2008.

2.2.3 National Health Insurance and the private sector

The statutory NHI scheme finances 17% of the total costs of health care. The scheme is run by the SII, with about 260 local offices all over the country. SII falls under the authority of the Parliament. NHI covers all Finnish residents and it includes outpatient drug reimbursement, reimbursement of medical costs in the private sector, compensation of travel costs to health care units, sickness allowance, maternity leave allowance and compensation for some rehabilitation services (for co-payments see sections 3.3.3.2 and 3.3.3.3). In addition, NHI reimburses part of the costs of occupational health care. NHI is funded by employers (33% in 2006), the insured (38%) and the state (28%). The insured pay income-based insurance fees which are collected in connection with taxation (between 1.91% and 2.08% in 2008).

The Private Health Care Act regulates the provision of private health services. The NHI scheme covers part of private health care costs (about one third, depending on the type of care). Private service providers can price services freely, but reimbursements are fixed (see sections 3.2.2.3 and 3.3.3.2). In terms of number of units, the most common private health care providers in Finland are physiotherapy units made up of 2–3 workers (about 1500 units in 2005) and medical doctors' practices (about 1100). The largest provider units, a few hospitals and occupational health care units have several hundred employees. In 2006 there were 16 000 working age physicians in Finland, of which 1700 worked full-time as private physicians and 30% were employed in the public sector but held a private practice outside their regular working hours for an average of four hours per week ("dual practice") (Suomen Lääkäriliitto 2006).

Private health care in Finland mainly comprises ambulatory care, available mostly in the large cities. In 2006 there were 3.5 million outpatient visits to private doctors (compensated by NHI), of which 79% were visits to specialists (SII 2007a). In terms of the number of outpatient visits, the most important fields of specialty in private health care were gynaecology and ophthalmology (together comprising more than one third of visits to specialists). Private services funded by NHI comprised about 16% of total outpatient GP and specialist visits in 2005 (see Table 1.1). Private hospitals produced 71 700 inpatient care periods in 2005 which comprised about 5% of all inpatient care periods in Finland (STAKES 2006b; STAKES 2007b). About 36% of private sector outpatient visits are provided in the region surrounding the capital (SII 2007a).

Nongovernmental organizations (NGOs) and foundations are active in the health care sector. These organizations provide a very broad spectrum of services. Municipalities and hospital districts can purchase services from these providers. These organizations can receive subsidies from the Finnish Slot Machine Association (which has a monopoly on gambling in Finland and is governed by the state) for providing health care services (see section 2.2.5). There is also a special foundation (Finnish Student Health Service) which provides ambulatory health care to university students. This organization is partly funded by the NHI scheme.

2.2.4 Occupational health care

The Occupational Health Care Act enacted in 1979 obliges employers to provide occupational health care for their employees. The Act defines compulsory occupational health care as those health services that are necessary to prevent health risks caused by work (for details of entitlements see section 3.2.2.4). NHI reimburses employers 50% of the necessary and appropriate costs of

occupational health care (maximum reimbursement is about 60 euros per employee per year for compulsory services and about 90 euros for voluntary services). Employers and employees participate in financing the scheme through their NHI payments.

In 2004, about 84% of all employees in Finland were offered occupational health care by their employers (SII 2007b). Some small employers did not organize health care services for employees or did not apply for reimbursement from NHI (Kauppinen et al. 2007). About 13% of outpatient visits to physicians are provided by occupational health care (see Table 1.1). In 2004, employers purchased or provided 409 million euros worth of occupational health services and were subsidized 177 million euros (43%) for this from NHI (SII 2007b).

Employers can supplement compulsory occupational health care by voluntarily organizing further medical services. Employers are free to decide the scope of these voluntary services. About 90% of employees receiving compulsory occupational health care also received voluntary services. Employees are not charged for using these services (but limits to services available are set by the employer). Sixty-one per cent of employers' total expenditure was for voluntary services (these figures only include expenses which employers declared to NHI).

Occupational health services can be provided by the employer itself, jointly with other employers or the employer can purchase them from another employer (in total accounting for 42% of occupational health expenses in 2004), or the employer can purchase services from municipal health centres (16% of expenses), from private health care providers (29% of expenses) or from other sources (12% of expenses).

Because of the occupational health care system, the majority of the working population effectively has "double" coverage for primary care (i.e. care in both municipal health centres and occupational health services). Also, since private primary care is subsidized by the state, some have "triple" coverage.

2.2.5 Other organizations

Pharmacies are privately owned by pharmacists (see section 6.6). There were 804 private pharmacies in Finland in 2006 including subsidiary pharmacies (NAM 2007). In addition to this, the University of Helsinki and the University of Kuopio have a special right to own pharmacies (in total 18 pharmacies).

The Finnish Slot Machine Association has become quite an important financier of non-profit voluntary organizations in the health and social welfare sector. Annually, it gives around 300 million euros to support NGO work promoting health and social well-being. The association is governed by the state

together with major NGOs related to social welfare and health. It operates slot machines, amusement machines and casino games in which it has a monopoly imposed by the state. A government decree regulates the administrative structure of the association and an act regulates the distribution of funds. The final decision on funding is made by the Government. The objective of the funding activities is to promote the health and social welfare of people in Finland. Groups targeted include, for example, older and disabled people, young families, people with chronic diseases and substance abusers. The association only supports third-sector organizations; it does not finance any municipal health services or private profit-making providers.

Finland has a large number of patient organizations. It is estimated that there are about 130–150 national patient organizations with budgets up to 58 million euros. The main functions of these organizations are information dissemination, supporting patients, lobbying, producing services and supporting research. One major source of their funding is the Finnish Slot Machine Association. Other important public funding sources are the MSAH, the SSI and municipalities.

All health care professionals have their own trade unions, for example the Finnish Medical Association for physicians, the Finnish Dental Association for dentists, the Finnish Pharmacists' Association for professionals in the field of pharmacy, and the Union of Health and Social Care Professionals for nurses, midwives, dental assistants, medical laboratory technicians, radiographers, mental health nurses, emergency medical technicians and ambulance staff. In addition to trade unions there are many other active professional organizations. Perhaps the most important of these is a medical scientific organization, the Finnish Medical Society, Duodecim, which produces national Current Care Guidelines (see section 7.1.1.6), organizes consensus meetings about important topics in health care, maintains a comprehensive Evidence-based medicine (EBM) database, maintains widely used Internet health portals (Terveysportti for health care professionals and Terveyskirjasto for the public), and publishes handbooks for health care professionals in Finnish.

2.3 Decentralization and centralization

Since the reforms of 1993, the Finnish health care system has been very decentralized. It has been argued that public responsibility for health care is decentralized in Finland more than in any other country (Häkkinen and Lehto 2005). As described in section 2.2.1, 415 municipalities are responsible for organizing and funding health services for their inhabitants. State level

regulations and steering in health care service provision are not very detailed. Municipalities can set their own municipal income tax rates, and decide how much they invest in health care and how they organize services. Notwithstanding some discordant views, decentralization is widely accepted in Finland. The population is dispersed and local decision-making has always been regarded as important.

One consequence of decentralization is wide differences in per capita expenditure on health care between municipalities (Hujanen, Pekurinen, Häkkinen 2006). These can only partly be explained by differences in determinants of need. Another consequence is variations in clinical practice and in the delivery of health services between municipalities and between hospital districts. For example, the number of inpatient cases and surgical procedures per capita vary markedly from region to region in the treatment of ischaemic heart disease (Häkkinen et al. 2002) and in orthopaedic operations (Mikkola et al. 2005). Significant variations in outpatient care are also observed (Häkkinen and Alha 2006). The differences can only partly be explained by different levels of morbidity or age and sex structure in the population.

Recently this decentralization process has reversed slightly, as the state has become increasingly concerned about geographical inequalities in health. For example, in 2005 the MSAH enacted nationwide guidelines for access to treatment in non-urgent specialized care, based on a change in legislation (see section 7.1.1.3). The reform has significantly reduced waiting times, but there is as yet no formal evaluation on how the guidelines are being followed nationwide.

Another potential mechanism for counteracting the negative consequences of decentralization is reconfiguring municipalities. More than 75% of municipalities have fewer than 10 000 inhabitants and 20% have fewer than 2000 and, as such, many could be considered too small for organizing and funding health services. The smallest municipal health centres are experiencing increasing difficulties with securing sufficient skills for providing services. Although hospital districts have a special funding pool between member municipalities to cover exceptionally high individual patient expenses (typically above 50 000 euros per individual patient or episode), the economic risks of hospital care expenses for a small municipality are commonly acknowledged. However, there has been no consensus on how to eliminate or lower this risk. Currently, a political debate is being prepared to address the issue of shifting to larger units either by reducing the number of municipalities or through creating new regional structures that would be responsible for the funding and provision of all health care services (see sections 7.1.2.1, 7.1.2.2 and 7.2.1).

2.4 Patient empowerment

2.4.1 Patient rights

An act on patients' status and rights, the first such law in Europe, came into force in 1993 (the Act on the Status and Rights of Patients). It applies to every part of the health care system and to health care services provided in social welfare institutions. This act mainly concerns the patients' right to information, informed consent to treatment, the right to see any relevant medical documents, right to complain and the right to autonomy. Specifically, the Act rules that:

- treatment requires the consent of the patient;
- patients must, if they so request, be given information on their state of health, the extent of the proposed treatment, any risk factors and possible alternative forms of treatment;
- patients are entitled to see and correct the information entered in their own patient records;
- those on a waiting list for treatment must be told the reason for the delay and its estimated duration;
- patients dissatisfied with their treatment are entitled to lodge a complaint with the organization concerned;
- organizations providing medical treatment must have a salaried patient ombudsman, whose duty is to inform patients of their rights and assist them, if necessary, in submitting a complaint, appeal or claim for indemnity;
- the opinion of young patients (under the age of 18) must be taken into account if they have reached a stage of development at which they are able to express an opinion. A medical doctor or other professional person assesses the stage of development;
- a child's parent or guardian is not entitled to refuse treatment that would avert a health risk or save the life of an under-age person; and
- the patient has the right to refuse treatment (except some exceptional cases).

2.4.2 Patient choice

In theory, the population has the possibility of choosing between the three health care systems: municipal health care, private health care and occupational health care. However, in private health care substantial user-fees can be a barrier to access and occupational health care is available only to employed people. Furthermore, even if employers do organize health care for their employees,

curative services might not be included (see section 2.2.4). Therefore, in practice, for poor unemployed people the municipal health care system is the only option.

In the municipal health care system, patients have very limited freedom to choose between health care providers or physicians. The patient is treated only in the health centre of his/her own municipality, except in acute cases if the health centre of the home municipality is too far away. In some municipalities patients are permitted to choose a physician in the health centre. A referral from a licensed physician is needed for access to municipal specialist level medical care (i.e. hospital districts), where patients cannot usually choose the hospital or the physician. Patients may be offered the choice of going to a neighbouring hospital district to access health care if there are long queues in their own hospital district, although in many cases patients have been found to be unwilling to do this.

On the contrary, under the NHI scheme patients can choose any private provider they like, but patients are only partly subsidized. In occupational health care, the provider is chosen by the employer. For treatment of injuries resulting from motor accidents under the motor liability insurance scheme and under the occupation accident insurance scheme, the provider is usually chosen by the insurance company.

2.4.3 Information for patients

The most comprehensive source of patient information is the Internet. The majority of municipalities have web pages where patients can find information on the health care system in their municipality. Hospital districts also have their own web pages. State level administration has a portal named "suomi" where there is information on public sector services (see 10.3). These web pages contain, for example, information on services, contact information and information on decision-making. Since 2005, public sector health care providers have been expected to provide information on waiting times on their web pages. However, only half the providers have implemented this. Other quality indicators are not available for patients. Private providers have their own web pages containing information on their services, but there is no central information source relating to private health services in Finland.

There are also many information sources on health in the Finnish language online. In 2006, the Finnish Medical Society, Duodecim, built an Internet portal "Terveyskirjasto" ("Health Library") (see 10.3), containing thousands of patient-centred articles concerning diseases and treatments. Many municipalities and hospital districts have linked this portal to their own web pages. Additionally,

many patient organizations have this type of information on their web pages and also distribute printed material. Direct-to-consumer advertising of prescription pharmaceuticals is forbidden in Finland, but pharmaceutical companies circumvent this ban by hosting disease centred portals targeted at patients.

2.4.4 Complaint procedures

There are several mechanisms in place for patients to complain about health care services:

- The first step is to make a complaint to the provider possibly assisted by a patient ombudsman (see section 2.4.1).
- If the first step does not satisfy the patient, he or she can make a complaint to the provincial administration, which can, in severe cases, forward the complaint to the NAMLA.
- In addition, patients can appeal to administrative courts if they think that they have not received necessary care in public sector health care services.
- There is also a parliamentary ombudsman in Finland to whom people can make complaints about public authorities, including public health services.

In Finland, the annual number of complaints relating to health care is approximately 800–900, most of which are dealt with by provincial offices. During recent years the number of complaints has increased. Complaints where treatment has led to death or severe injury of the patient are normally dealt with by the NAMLA, whereas other complaints are typically dealt with by provincial offices. If necessary, the NAMLA may undertake administrative supervision, precautionary measures, or disciplinary proceedings as a result of a complaint. Administrative supervision can involve instructing a health care professional to pay attention to the inadequacies or inappropriateness of performance evident in his or her professional practice or a health care professional may be given a warning. In the most severe cases, the NAMLA can limit or remove the right of a professional to practise his or her profession. In addition to professionals, the NAMLA can also instruct or warn provider organizations.

2.4.5 Patient safety and compensation

The MSAH launched a project to enhance patient safety in 2005, prompted by the World Health Organization (WHO) World Alliance for Patient Safety programme. The project collects and disseminates information on good practices and coordinates the promotion of patient safety in Finland. It has produced guidelines, for example, on safety in drug therapy. The project has also involved

the development of processes to aid health care provider units to respond to hazardous situations which have occurred in the unit. Several agencies are also involved in patient safety, for example the NAMLA (see section 2.4.4) and the NAM (see section 2.2.2).

There are two insurance systems related to patient safety. According to the 1987 Patient's Injury Act, amended in 1999, the patient has the right to compensation for unforeseeable injuries resulting from treatment or diagnosis. Notable in this act is the fact that health care personnel need not be shown to be legally responsible for the injury. To receive compensation, it is sufficient that an unforeseeable injury as defined by the act has occurred. According to the act, all health care providers must have this liability insurance. In 2005, patients received compensation in about 2300 cases (22.7 million euros). The most common treatments leading to a complaint were hip and knee endoprosthesis and some orthopaedic operations. In addition, hysterectomy, gall bladder and tooth removal operations were among the 10 most common operations leading to a complaint. Applications for compensation are handled by the Finnish Patient Insurance Centre.

Medicines-Related Injuries Insurance indemnifies unexpected adverse effects caused to patients by pharmaceuticals distributed for consumption in Finland. The insurance also covers adverse effects caused by pharmaceuticals in clinical trials. This is voluntary insurance which is taken by the Finnish Pharmaceutical Insurance Pool representing pharmaceutical companies operating in Finland. In 2006 there were 227 claims of which 56% were qualified for compensation.

2.4.6 Patients' participation

Citizens can influence decision-making in the health care system through the right to vote every four years in both municipal and parliamentary elections. The most important channel for the public to participate in decision-making is through municipal councils and municipal health committees which represent the populations of municipalities. Hospital districts also have councils and executive boards, which are politically elected by municipal councils (see section 2.2.1).

There are also various patients' associations which lobby decision-makers on issues concerning the planning and management of health care locally, regionally and nationally (see section 2.2.5). In addition to this, many service provider units collect the opinions and experience of service users.

2.4.7 Patients and cross-border care

Due to language and geographical barriers, cross-border health care is insignificant in Finland (except for tourists needing unforeseen care). Statistics on this are scarce, both in terms of people living in Finland seeking care abroad and foreigners seeking care from Finland.

Finnish residents are entitled to publicly financed unforeseen medical care in other EU/European Economic Area (EEA) Member States if they are entitled to NHI (see section 3.2.1.2). To receive publicly financed planned treatment in another EU/EEA Member State, the patient needs authorization (E112 form) from his/her hospital district or health centre (annually about 10–20 patients in Finland).

The SII handles claims for medical expenses between Finland and other EU/EEA Member States. In 2006, SII reimbursed these claims to other countries at a sum of 3.7 million euros and received claims from other countries of 10.2 million euros. However, these figures do not include Nordic countries, the United Kingdom, Belgium, the Netherlands, Luxembourg and Austria since Finland has agreements with them on a full or partial waiver of reimbursements of medical expenses.

Patients can also claim normal NHI reimbursement (see section 3.2.2.3) for costs of unforeseen medical care when staying temporarily in countries other than EU/EEA Member States. However, as the reimbursement is rather low, people normally opt for private insurance to cover these expenses.

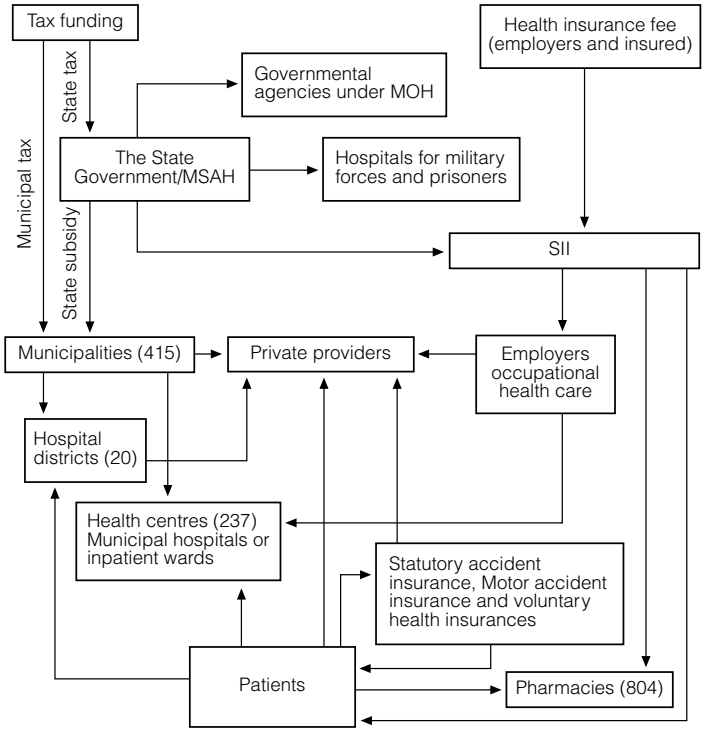
3. Financing

Finland has two sources of public financing for health services (dual financing): municipal financing based on taxes and NHI based on compulsory insurance fees (Fig. 3.1). Municipalities fund municipal health care services (except outpatient drugs and transport costs). NHI funds private health care, occupational health care, outpatient drugs, transport costs and sickness allowance. Dual public financing creates some challenges for overall efficiency of service production which are described in section 8.3.

Municipalities have the responsibility for organizing health services for their residents. For this, municipalities raise funding from municipal taxes, from state subsidies and from user-fees (Fig. 3.1 and Table 3.1). The main source of municipal funding for health care services is taxation. The majority of municipal health services are provided by municipal-owned health centres and hospital districts, but municipalities and hospital districts may also purchase services from the private sector (see section 2.2.1). There is no true purchaser–provider split in the municipal health care system, as municipalities both fund services and own the service provision organizations, although there are exceptions to this (see section 3.4.1).

NHI is divided into two parts: sickness insurance and income insurance. Sickness insurance covers outpatient drug reimbursement (see section 6.6), reimbursement of medical costs for use by the private sector and rehabilitation services, and compensation of travel costs to health care units (including ambulance services). Income insurance covers sickness allowance, maternity leave allowance, rehabilitation allowance and reimbursement for employers for occupational health care services (see section 2.2.4). Sickness insurance is funded by employees and the state. Income insurance is funded by employees and employers (see section 3.3.1.2).

Fig. 3.1 Financial flow chart



Notes: MSAH: Ministry of Social Affairs and Health; SII: Social Insurance Institution.

Table 3.1 Trends in health care expenditure

	1980	1985	1990	1995	2000	2002	2004	2005
Total expenditure on health (TEH)								
TEH at 2005 prices (million euro)	7515	9094	10815	9354	10052	11058	11547	11854
TEH per capita USD PPP	–	–	1419	1430	1716	2012	2235	2331
TEH as a % of GDP	6.4	7.2	7.8	7.4	6.7	7.2	7.5	7.5
Public expenditure as % of TEH	80	79	81	76	75	76	77	78
State	38	34	36	28	18	18	20	21
Municipalities	29	35	35	34	41	42	40	40
NHI	12	10	11	13	15	16	17	17
Private expenditure as % of TEH	20	21	19	24	25	24	23	22
Households	18	18	16	21	20	20	19	18
Private insurance	1	1	2	2	2	2	2	2
Employers and relief funds	2	2	2	2	2	3	3	3

Sources: STAKES, 2007a.

Notes: TEH: Total expenditure on health; PPP: Purchasing power parity; GDP: Gross domestic product; NHI: National Health Insurance.

3.1 Health expenditure

Health care expenditure in Finland developed in parallel with most other EU countries until 1990, rising steadily both in absolute terms and as a share of GDP (statistics used here include mental health care, dental care and public health expenses but exclude social care and long-term care). However, after 1990 health expenditure started following a different trend (Table 3.1), mainly because of the steep economic recession in the early 1990s (Häkkinen 2005).

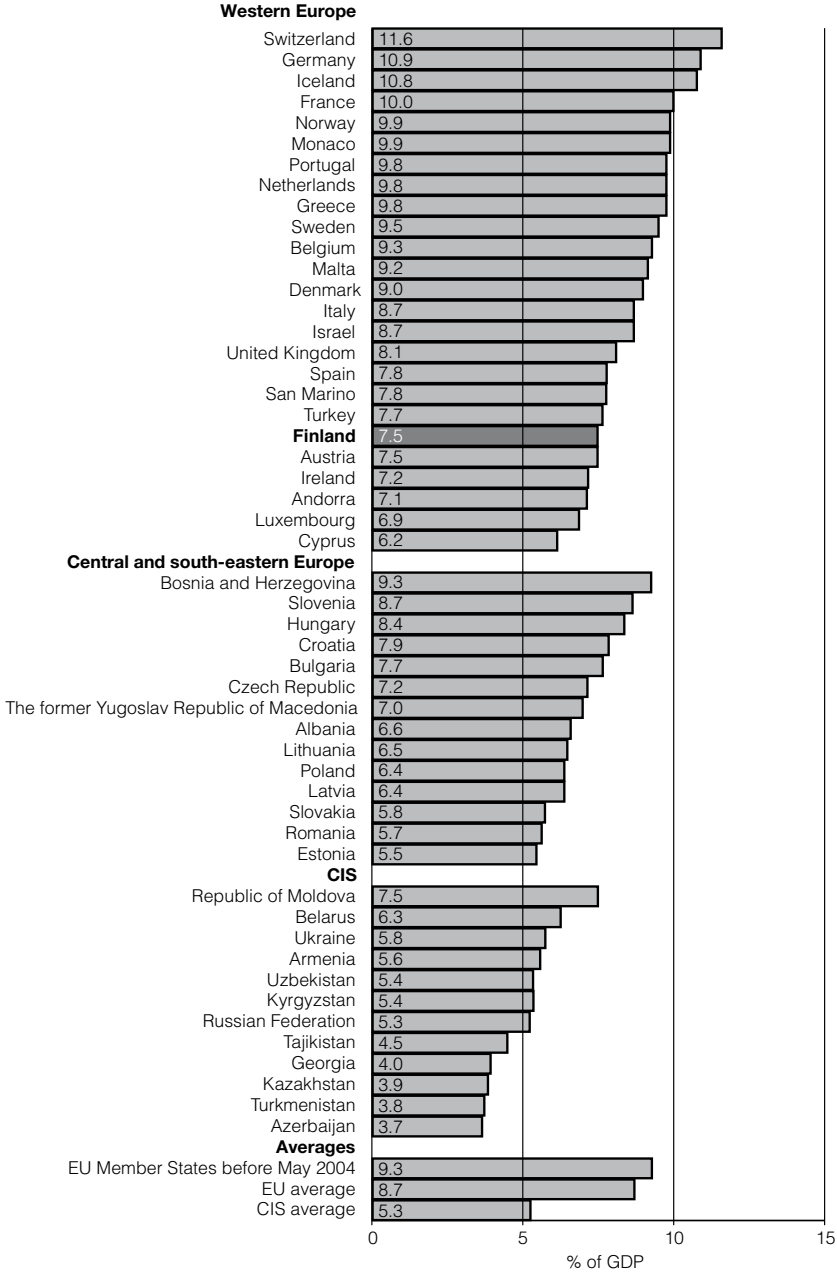
Total health expenditure in real terms dropped between the years 1991 and 1994 but increased after that returning to the 1991 level only after 10 years in 2001. Between the years 2001 and 2005 it has further increased by 12%. The out-of-pocket share of expenditure on health increased between the years 1991 and 1994 due to the abolition of the tax deduction for medical expenses and an increase in user-charges (Häkkinen 2005). During the 1990s, the amount allocated to state subsidies also fell, decreasing the state's share of expenditure.

At the beginning of the economic recession in 1990–1991, GDP declined markedly but health expenditure did not initially decrease at the same pace, meaning that, momentarily, the proportion of GDP spent on health care was one of the highest in the European Region at that time (9% of GDP). However, the proportion decreased sharply after that, reaching its lowest point in 2000 at 6.6%. Since then, the proportion has increased again reaching 7.5% in 2005. In 2003, Finland's expenditure on health as a percentage of GDP placed it at the bottom of the EU15 country ranking, ahead only of Luxembourg in 2003 (Fig. 3.2). Figure 3.3 shows how the economic recession affected health care expenditure as a share of GDP in Finland, compared to other Nordic countries where the share of GDP steadily increased during the 1990s.

In 2003, health care expenditure in Finland in US$ PPP per capita was about 9% below the EU15 average (Fig. 3.4), and was below that of other tax-financed countries such as Italy, Sweden, Norway and the United Kingdom. One of the possible explanations for the low total health care expenditure in Finland is the low salary of health care professionals, especially that of nurses (see section 3.5.2.2). Health care expenditure from public sources as a percentage of total health care expenditure was also lower in Finland than in these and other Nordic countries (78% in 2005 when it was 85% in Sweden, 84% in Norway and 84% in Denmark) (Fig. 3.5). From public expenditure, 4% was spent on private health care and occupational health care.

Total health expenditure in Finland was 11.9 billion euros in 2005, the equivalent of 2255 euros per capita (STAKES 2007a). Table 3.2 shows that in Finland 36% of health care expenditure was spent on inpatient care and 31% on

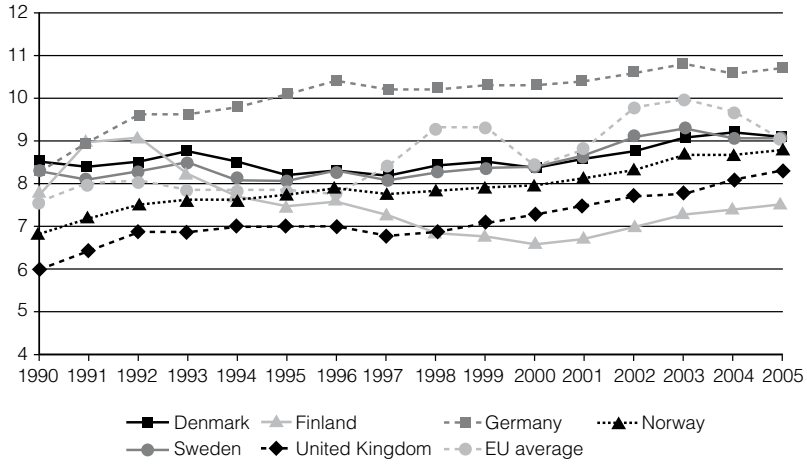
Fig. 3.2 Total expenditure on health as a percentage of GDP in Finland and selected other countries 2003



Source: WHO Regional Office for Europe, January 2007.

Notes: GDP: Gross domestic product; CIS: Commonwealth of Independent States.

Fig. 3.3 Trends in health care expenditure as a share of GDP(%) in Finland and selected other countries

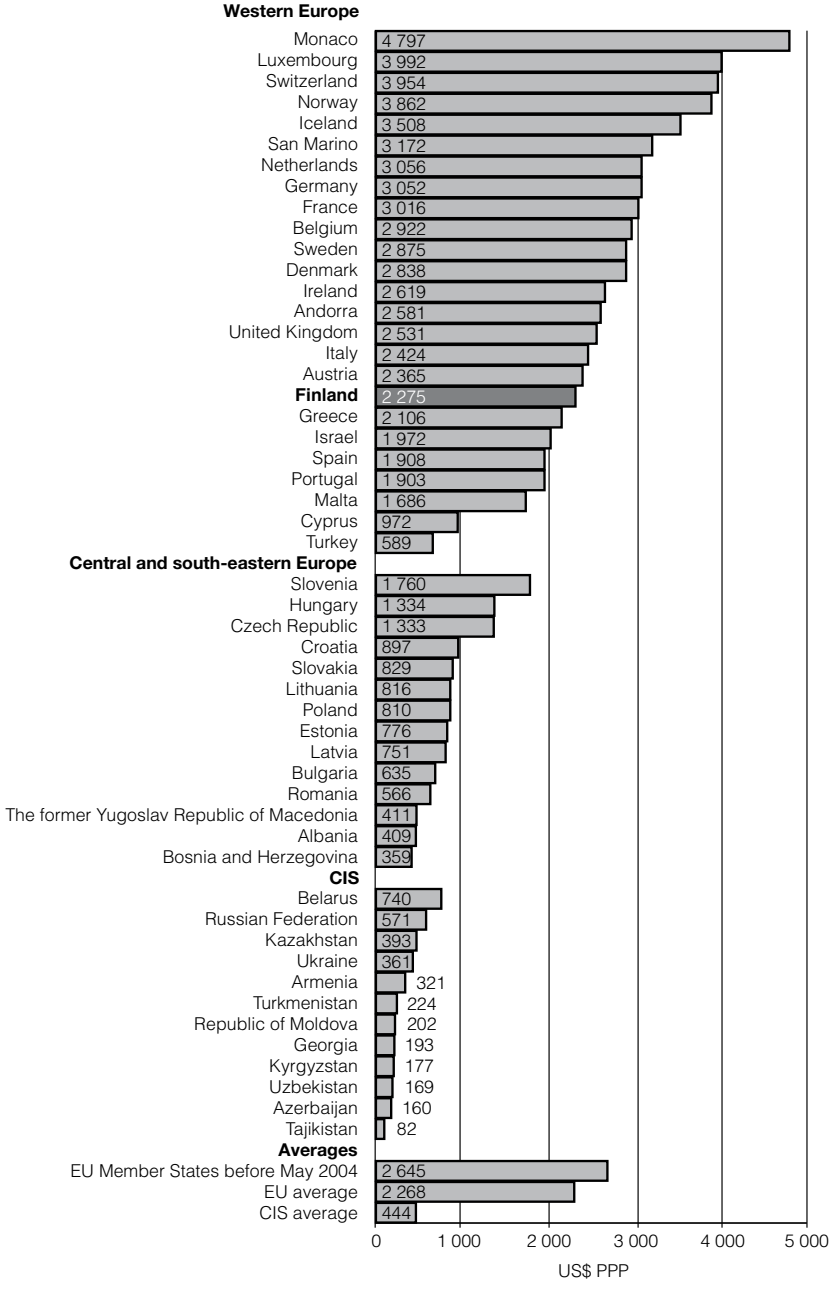


Source: WHO Regional Office for Europe, January 2007.

outpatient care (excluding dental care) in 2005. Expenditure on pharmaceuticals has grown rapidly, both in real terms and as a share of total expenditure, despite many measures taken to contain costs (see section 7.1.1.4). Pharmaceutical expenditure has increased mainly because of the increasing prices of new pharmaceuticals and the increasing use of pharmaceuticals in general. In 2006 total sales (including inpatient and outpatient use) were 2.4 billion euros, about 470 euros per inhabitant (NAM 2007). In 2005 sales of pharmaceuticals accounted for 20.5% of total health care expenditure, compared to 15.4% in 1994. Part of this increase is explained by the fact that during the economic recession municipal health care spending was reduced, but the NHI was unable to exercise similar control on provider expenditure.

Municipalities spent, on average, about 1300 euros per inhabitant on health care in 2005. Health care accounted for, on average, about 25% of the municipal budget. However, the distribution of expenditure levels is broad, with striking variation across municipalities. Part of the variation is due to structural differences, for example there is variance between municipalities on the proportion of expenditure on long-term elderly care which is included in the health care expenditure figure (some municipalities arrange a substantial part of long-term elderly care in inpatient wards of health centres). However, even after reducing this effect (by combining expenditure on long-term elderly care and health care) expenditure varied from 940 to 2310 euros per inhabitant in 2004. After adjusting this expenditure for need, expenditure was still 2.5

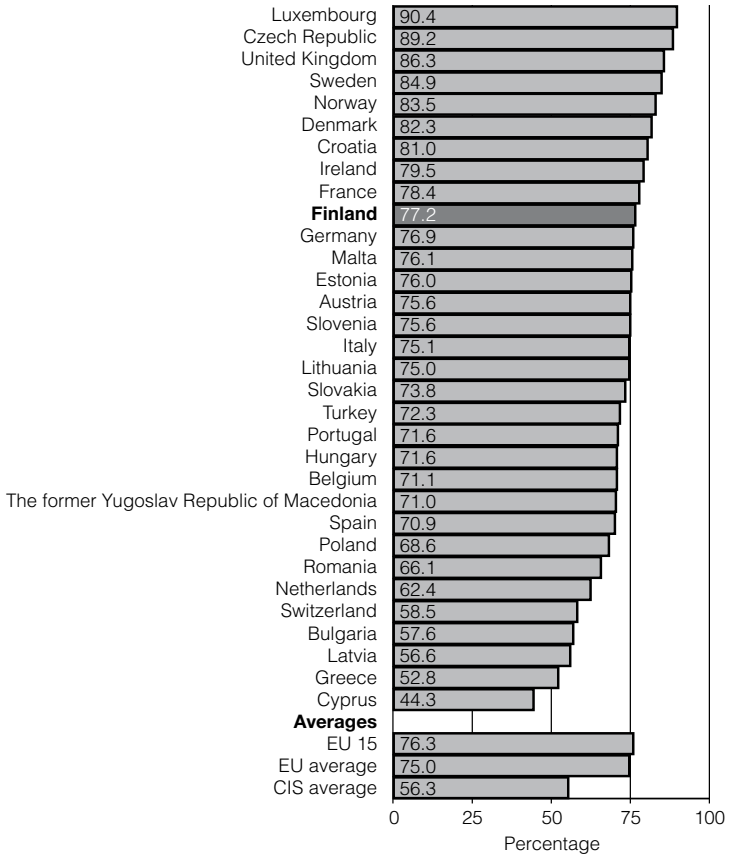
Fig. 3.4 Health care expenditure in US$ PPP per capita in the WHO European Region, 2003



Source: WHO Regional Office for Europe, 2007.

Notes: PPP: Purchasing power parity; CIS: Commonwealth of Independent States.

Fig. 3.5 Health care expenditure from public sources as a percentage of total health care expenditure in countries in the WHO European Region, 2003



Source: WHO Regional Office for Europe, 2007.

Notes: CIS: Commonwealth of Independent States; EU: European Union; EU15: EU Member States before May 2004.

times higher in the most costly municipality when compared to least costly one (Hujanen, Pekurinen, Häkkinen 2006).

The total expenditure of NHI was 3.5 billion euros in 2005 (SII 2006). Under Motor Liability Insurance bodily injuries were compensated for a total of 191 million euros in 2004 and under Statutory Accident Insurance injuries were compensated for a total of 593 million euros.

Table 3.2 Health care expenditure by service category, (%) of total expenditure on health care, 2005

	Million euro	%
Inpatient care	4286	36.2%
Outpatient care	3712	31.3%
Dental care	606	5.1%
Pharmaceuticals (outpatient care)	1930	16.3%
Medical devices	389	3.3%
Environmental health	129	1.1%
Administration	228	1.9%
Public investments	387	3.3%
Transportation	187	1.6%
Total health care expenditure	**11854**	**100%**

Source: STAKES, 2007a.

3.2 Population coverage and basis of entitlement

3.2.1 Population coverage

Every Finnish resident has the right to health services regardless of ability to pay or place of residence. The constitution states that public authorities shall guarantee for everyone, as provided in more detail by an act of the Parliament, adequate social, health and medical services and promotion of the health of the population. Asylum seekers, illegal immigrants, tourists, temporary students and workers (from non-EU countries) are not covered by municipal health care or NHI. However, municipal health care units provide essential emergency care to everyone. According to a specific act (Act on Adaptation of Immigrants and Reception of Asylum Seekers), asylum seekers are entitled to the same health services as permanent residents. These services must be organized by reception centres for refugees.

3.2.1.1 Municipal health care

Municipal health care covers all people registered as permanent residents of the municipality. This also applies to migrants intending to live in Finland permanently who have a residence permit for at least one year (if required) (Act on Municipality of Residence). People who have lived outside of Finland for more than one year do not have an official municipality of residence. Asylum seekers without a residence permit, illegal immigrants and foreign temporary workers are not covered by the municipal health care system. Persons from other EU countries are entitled to the same services as Finnish residents (with

some restrictions), but their care is paid for by their home country. However, essential emergency care is provided to all.

3.2.1.2 National Health Insurance

NHI covers all permanent residents of Finland. NHI is compulsory and insurance fees are collected with taxation. Permanent residents in Finland receive an SII card which proves eligibility for social security (including health insurance) in Finland.

The meaning of residency is defined by the Sickness Insurance Act. In order to be recognized as living in Finland, a person must have primary residence in Finland and must continually spend most of their time in Finland. People are considered to be living in Finland and eligible for benefits during a temporary stay abroad of one year or less.

Immigrants are considered to be residents if they intend to live in Finland on a permanent basis and have a residence permit for one year (if required). Whether residence is considered to be permanent is determined by reference to the purpose of entry to Finland. The move is considered to be permanent if the immigrant is a refugee or full-time student, or if the immigrant comes to Finland for family reasons or has either a permanent work contract or a work contract for at least two years. Persons seeking asylum in Finland are not considered to be living in Finland while their case is under consideration.

Since August 2004, workers and self-employed persons moving to Finland from a Member State of the EU/EEA or from Switzerland have been eligible for social security coverage from SII if they are employed in Finland for a period of at least four consecutive months.

3.2.1.3 Private health insurance

There are three major types of private health insurance in Finland: voluntary health insurance, statutory motor accident insurance (compulsory for every motor vehicle) and statutory occupational accident insurance (compulsory for every employer).

Voluntary health insurance can be divided into the following categories: sickness insurance for children, sickness insurance for adults, leisure time accident insurance, sporting accident insurance (mainly for some specific sports), insurance for medical expenses during travelling and sickness insurance taken by the employer. These types of insurance can be combined or may form part of another type of insurance, for example insurance on private property. Premiums are usually risk rated. Public regulation of these insurance schemes is limited and insurance companies can design their schemes and price premiums

very freely. Voluntary private health insurance is not very common in Finland. In 2005, 375 000 children and 237 000 adults had voluntary private health insurance. By comparison it is estimated that 1.2 million people (about one fifth of the population) had leisure time and sporting accident insurance in the same year.

The main reason for people to take out voluntary health insurance is to reduce out-of-pocket payments for private health care after NHI reimbursement and for outpatient drugs (complementary insurance). Out-of-pocket payment after NHI reimbursement of outpatient prescription drugs is rather high (on average 37% in 2006). The relatively high number of voluntary private health insurance policies bought for children is explained by the fact that children are not covered by occupational health care which is commonly used by the wealthy population as an alternative to municipal health care.

In addition to this, there are voluntary employee relief funds in Finland, which provide additional benefits to NHI. Usually membership of a fund is restricted to employees of a specific company. The relief funds are not private for-profit companies but funds governed and owned by the members. Usually, the insurance premium (membership fee) depends on the salary of the individual. Employers may also fund these organizations. Coverage varies greatly between the funds. There are about 150 relief funds in Finland covering about 165 000 people (in 2004).

Expenditures due to work accidents and occupational diseases are compensated through the statutory accident insurance system (Employment Accident Insurance Act). This insurance is provided by private accident insurance companies. Every employer is obliged to take out insurance for its employees. It covers work accidents, occupational diseases and commuting accidents. A work accident is defined as:

> an accident due to an unexpected, sudden external event which causes injury or illness to an employee while he or she is working, in circumstances related to his or her work or in his or her workplace, when going on errands for his or her employer or while protecting or trying to protect the property of his or her employer or while saving or trying to save human lives in the course of his or her work. An occupational disease refers to a disease which is probably primarily due to physical, chemical or biological factors associated with work done during a period of employment (The Federation of Accident Insurance Institutions, 2008).

According to the Motor Liability Insurance Act, every motor vehicle in Finland is required to have motor accident insurance. Among other things, it covers treatment and rehabilitation from injuries suffered in traffic accidents (bodily injuries compensation). All persons injured in traffic accidents are covered by the insurance. Motor insurance is provided by private insurance companies.

3.2.2 Entitlement and benefits

3.2.2.1 Municipal health care system

There is not any specific package of benefits in services provided by the municipal health care system. According to the constitution, public administration must provide sufficient health care services to everyone and promote the health of the population. The Act on Specialized Medical Care states simply that necessary services should be provided to everyone. The Primary Health Care Act defines types of services which must be provided, but not the specific benefits. Under the act the main functions of the health centre are:

- to organize the provision of medical treatment for local residents and first aid in cases of emergency for anybody in the area;
- to provide preventive services and offer health promotion, education and support;
- to organize medical examinations and screenings;
- to run maternity and child health clinics;
- to arrange school, student and occupational health care services;
- to organize the provision of dental health care;
- to organize home nursing services;
- to provide rehabilitation services;
- to arrange provision of those mental health services which can appropriately be provided in health centres; and
- to provide a local ambulance service.

Municipalities and hospital districts have significant autonomy in defining and shaping the services they provide. There is variation in the basic profile and scope of services provided between municipalities which can be attributed to, for example, differences in financial situation, differences in shortages of professionals and differences in perceived need of services of the population. This variation is of growing concern in the country.

One line of action to eliminate unacceptable differences has been to regulate access to services by law (Primary Health Care Act and Act on Specialized

Medical Care). Since 2005, immediate contact with health centres during working hours by phone or personal visit must be guaranteed. If an appointment at the health centre is required, it should take place within three working days of contacting the centre (non-acute cases). If a patient is referred to hospital, treatment needs have to be assessed within three weeks of the hospital receiving the referral. Assessments can be made either based on referrals or by examining patients at the hospital. If a patient needs non-urgent hospital treatment, this treatment must be made available within six months of the assessment (see section 7.1.1.3).

In connection with this reform, the MSAH has put together national guidelines on access to non-urgent specialized care based on expert proposals and previously developed national evidence-based clinical guidelines. These guidelines define which types of patients should receive the treatment guarantee. Some guidelines also use scoring systems to help determine the need for care. Guidelines have been prepared for about 190 diseases, treatment groups or conditions. This has been estimated to cover about 80% of non-emergency hospital care. One objective of the guidelines is to diminish variations between different municipalities and hospital districts in access to care. However, the guidelines are not binding, and physicians still autonomously decide whether a patient needs treatment or not (see section 7.1.1.3).

If a health centre or hospital is unable to treat patients within the set time frame, the legislation requires the provider to purchase treatment elsewhere (public or private sector) within the stipulated time frame with no extra charge or travel cost to the patient.

Patients can appeal to an administrative court if they feel that they have not received necessary care, although there is no explicit definition of the necessity of the care. These appeals have increased during recent years. Patients can also make complaints to the provincial administration, to the NAMLA or to the Parliamentary Ombudsman (see section 2.4.4).

3.2.2.2 Outpatient drugs

Outpatient drug costs are reimbursed through NHI, administered by SII. In the scheme, there are three levels of reimbursement: 42% (limited or non-limited basic reimbursement category), 72% (limited lower special reimbursement category) and 100% (limited higher special reimbursement category). There is also a maximum annual out-of-pocket payment limit for drugs (about 630 euros in 2007), after which reimbursed drugs are free for the patient for the rest of that year.

Pharmaceutical companies holding market authorization have to apply for a reimbursement and maximum wholesale price from the PPB of the Finnish

MSAH. The PPB is made up of seven civil servants from different state agencies (defined in the National Health Insurance Act). Applicants must specify whether they are applying for limited basic reimbursement, basic reimbursement, or one of the limited special reimbursement categories. Applicants must also propose a reasonable wholesale price for the drug. When basic reimbursement is applied for a new drug substance, the application must contain a pharmacoeconomic evaluation. Reimbursement is granted for a maximum of five years. After that, reimbursement must be applied for again.

According to the Sickness Insurance Act, basic reimbursement can be refused if the drug is used only temporarily or for the treatment of only mild diseases, the drug has insignificant benefits or the drug is not used for the treatment of disease. A drug is included in the reimbursement system if the PPB considers the price of the drug proposed by the pharmaceutical company to be reasonable. When making the decision on price, the cost of the drug is compared to its benefits, and to the costs and benefits of its therapeutic alternatives. In addition, the proposed price is compared to prices in other EU countries.

In the non-limited basic reimbursement category, 42% of the cost of a prescribed drug is covered for all patients, regardless of the diagnosis. If a drug is very expensive or in very wide use and reimbursement would therefore incur expenses that are too great compared to the benefits, basic reimbursement is not granted, but limited basic reimbursement can be considered instead. In this category, drugs are 42% reimbursed only to a restricted group of patients with a certain condition or disease (for example interferon beta, dornase alfa and sildenafil are in this category).

In addition to these basic reimbursement categories, some important drugs for chronic and serious diseases are selected for special reimbursement categories (72% or 100% of the price is reimbursed). This means that the drug has special reimbursement for a limited group of patients, while for the rest of patients the drug is still only 42% reimbursed. Before applying for special reimbursement, the drug must already be in a basic reimbursement category. The special reimbursement categories account for about half of total reimbursement expenses. According to the Sickness Insurance Act, drugs in the 72% reimbursement category must be essential and used in the case of severe and long-term diseases. Drugs in the 100% reimbursement category must have a corrective or supplementary effect, in addition to being essential. The Government specifies by legislative decree the diseases for which drugs can be reimbursed by 72% or 100%. The PPB decides which specific drugs are granted special reimbursement for these diseases.

In order to obtain limited basic reimbursement or limited special reimbursement, patients have to comply with certain criteria which are

decided by SII. For example, to obtain special reimbursement on hypertension, the patient's level of blood pressure must exceed a specified lower limit of hypertension. In order to be eligible for the reimbursement, the patient's physician must submit a medical certificate to SII stating that the patient has a specific disease and that the patient fulfils the criteria defined by SII.

For more information on pharmaceutical care see sections 3.3.3.3 and 6.6.

3.2.2.3 National Health Insurance

In addition to outpatient drug treatment, NHI provides partial reimbursement of all private health care costs (about 30% on average, depending on the type of care) (see section 3.3.3.2) and transport costs to health care units (including part of the ambulance service (see section 6.5)). The NHI scheme also compensates for loss of income during illness, pregnancy and childbirth, and for loss of income of the parents of a sick child during treatment and rehabilitation of the child. NHI also covers, through SII, rehabilitation costs in certain cases specified by an Act on Rehabilitation Benefits of the Social Insurance Institution.

The sickness day allowance provides compensation for loss of earnings caused by incapacity due to an illness lasting less than a full year. It is paid to employed and self-employed persons aged between 16 and 64 years who are prevented from carrying out their regular job or a comparable gainful activity, for a maximum of 300 weekdays (including Saturdays). A waiting period, during which the allowance is not paid, comprises the day on which the illness begins plus the following nine weekdays. If incapacity to work continues for at least 55 calendar days, sickness allowance can be awarded even if the requirement concerning prior employment is not met. The amount of the allowance depends on the taxable income of the recipient.

In terms of private health care reimbursement, NHI does not have any defined benefit package which it would cover (except that orthodontic or prosthodontic dental services are not covered). NHI covers a certain amount of all treatments which a physician has deemed necessary for treating a disease, pregnancy or childbirth. Private health services not treating a disease (for example cosmetic surgery) are not covered. The legislation does not precisely define which conditions are categorized as a disease and which are not.

In terms of rehabilitation, SII is required by law to reimburse: vocational rehabilitation for persons with impaired functional capacity (33.6 million euros in 2005); and medical rehabilitation of persons with severe disabilities (104 million euros). The state budget also includes a special allocation for SII to reimburse other vocational or medical rehabilitation services (82 million euros).

Vocational rehabilitation is covered if a person's capacity to work and financial self-sufficiency significantly decline due to an illness or injury. The person must be given the opportunity to obtain:

- essential vocational training in order to maintain or improve his or her capacity to work (e.g. basic education, further education and training);
- assistance with running a business or self-employment;
- basic training if it is a requirement for starting vocational training; or
- for persons with severe disabilities, expensive and technically advanced aids necessary to help with work and study.

Medical rehabilitation is covered for severely disabled persons, which includes extensive or elaborate out- or inpatient services which go beyond curative treatment and which are necessary in order to maintain or improve the person's functional and work capacity. The person must be non-institutionalized and in receipt of either child disability allowance, disability allowance or pensioners' care allowance (under 65 years of age).

The SII can also reimburse, at its own discretion, vocational and medical rehabilitation services other than those described above, including services such as preventive rehabilitation measures geared to the requirements of a particular occupation, institutional rehabilitation services, training (to adapt to a sickness or disability) and psychotherapy.

3.2.2.4 Occupational health services

Employers are obliged to provide preventive occupational health services for their employees. Specifically, they must provide sufficient information on health risks related to work and to advise their employees on how to avoid those risks. Furthermore, they are obliged to arrange physical examinations and first aid for their employees at the place of work. Employers are also obliged to check an employee's health status when a job might endanger his or her health. In general, occupational health care is seen as preventive rather than curative. However, in addition to compulsory occupational health care, employers can voluntarily arrange additional health care services for their employees, so that now many employers also offer curative generalist level services. There are significant differences in the scope of curative services offered by employers.

In 2004 about 84% of all employees in Finland were offered occupational health care by their employers (SII 2007b). Some small employers did not arrange services or did not apply reimbursement from NHI (Kauppinen et al. 2007). About 90% of employees receiving compulsory occupational health care services also received voluntary services (see section 2.2.4).

3.2.2.5 Other types of insurance

Coverage of voluntary private health insurance (both sickness insurance and accident insurance) is usually limited and there is great variation in this between different schemes. Insurance can include, for example, necessary medical treatment and compensation for permanent disabilities, loss of income or death. The usual restrictions apply, for example diseases diagnosed before the insurance has been taken, accidents related to alcohol use, treatments which are not standard medical practice, treatments of alternative medicine (such as homeopathy), medical treatments which are not a treatment of disease (for example normal child birth), dental care, rehabilitation, preventive drugs, physical therapies, eye glasses and so on. Private health insurance is usually not available for elderly people.

Voluntary private health insurance covers costs to patients after they have received possible reimbursements from NHI, the statutory motor accident insurance and the statutory occupational accident insurance. Usually, voluntary insurance has deductibles and maximum annual limits of reimbursement.

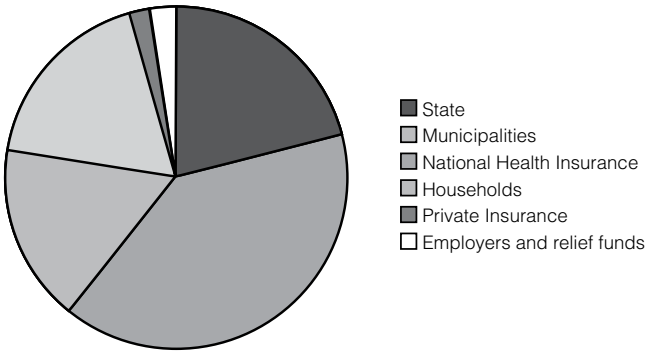
Compensation paid under the statutory motor accident insurance for bodily injuries due to traffic accidents covers, for example, medical treatment, compensation for loss of income, disability pension, compensation for pain and suffering, compensation for a permanent defect or disability, compensation for home care costs and compensation for rehabilitation costs.

Statutory occupation accident insurance covers medical care expenses, daily allowances, an employment accident pension, inconvenience compensation, disability rehabilitation care and funeral costs. The cost of medical examinations necessary to establish the existence of an employment accident or occupational disease are also paid in full. These examination expenses are indemnified even where examinations prove that neither a work accident nor an occupational disease is concerned.

3.3 Revenue collection/sources of funds

Municipalities finance 40% of total health care costs, with a further 21% being financed by the state, 17% by NHI and 22% by private sources (2005) (Fig. 3.6). The most marked change in the financing of health care has been the shift from state to municipalities. In 1990, the state financed about 36% and the municipalities about 35% of total health care expenditure. The state share has decreased radically since then, whereas the share of the municipalities has grown (Table 3.1). There has also been an increase in the amount provided by

Fig. 3.6 Total expenditure on health according to source of revenue, 2005



Source: STAKES, 2007a.

NHI, although this is more moderate. Between the years 1990 and 2005, the share of private financing has increased only moderately (from 19% to 22%).

The decrease in importance of state income tax as compared to municipal income tax in the overall mix of revenue collection has contributed to the decrease in progressivity of health financing over the last 20 years, since state income tax is progressive, whereas municipal income tax is flat rate (see section 3.3.1.1). Due to the recession the state Government decided to reduce public expenditure drastically across the board, which meant that state subsidies for health care were also severely cut. Municipalities, which have first-hand responsibility in arranging public sector health care services, were not able to reduce spending to the same extent as the state.

3.3.1 Compulsory sources of finance

3.3.1.1 Taxation

Tax financing for health care comes from two different taxation systems: state taxation and municipal taxation. More than half of state tax revenue comes from the progressive gross income tax (about 20% of total tax revenue) and value-added tax (VAT) (about 35%). Other major sources of tax revenues are corporate tax, capital income tax, alcohol tax, energy tax and car tax. In 2007, the highest level of state income tax (not including capital income) was 32% (deducted from the proportion of income exceeding 60 800 euros annually). State income tax is not paid on annual salaries below 12 400 euros. Out-of-pocket payments for health care and health insurance premiums are not tax deductible.

State level financing of health care is largely in the form of state subsidies. On average, 16% of municipal revenue came from state subsidies which represented on average 24% of municipal budgets for health and social care in 2005. State subsidies to municipal social and health care services are calculated according to factors such as number of inhabitants, age structure, unemployment rate, remoteness and morbidity in the municipality. The amount transferred in the state subsidy is also in part determined by the potential of the municipality to raise tax revenue. In practice this means that municipalities receive a smaller subsidy if their residents have a higher average income. Because of the subsidy transfer, the total state subsidy varies greatly between municipalities. For example, the city of Espoo actually received no state subsidy in 2005 at all because of high tax revenue, while municipalities receiving the highest level of state subsidy received more than 2500 euros per resident.

Municipalities also receive a general state subsidy and a state subsidy for education and culture. In addition to state subsidies, the state funds health through municipal social and health care development projects (about 40 million euros in 2007) and support to several state agencies (Fig. 2.1). The final decision on the state budget is made by the Parliament following the Government's annual budget proposal.

In 2005, 46% of municipal revenue came from municipal tax. The taxation rate is decided every year by each municipal council. Municipalities levy municipal income tax, real estate tax and they receive a share of the revenues from corporate tax, although income tax is by far the most important (87% of municipal tax income in 2005). Municipal income tax is a fixed proportion of gross wage, which varies between municipalities from 16% to 21% of taxable income (in 2007 the average was 18.5%). This has resulted in considerable variation in the amount of revenue raised from taxation between municipalities.

3.3.1.2 Statutory health insurance

Part of the total cost of health care is financed by the statutory NHI scheme which reimburses, for example, occupational health care and part of the cost of private health care (see sections 3.2.2.3 and 3.2.2.4). NHI is funded by the state, employers and employees through income-based insurance fees collected with taxes. The funding of NHI is divided into two parts: sickness insurance and income insurance, and fees are set by Parliament. Sickness insurance is funded by employees (1.24% of income in 2008) and the state (approximately half of the expenses). Income insurance is funded by employees (0.67% of the income) and employers (1.97% of gross wages). For retired people the sickness insurance fee is 1.41% of income. The expenditures of both schemes

are approximately equal. The total benefit payments of NHI was 3 billion euros in 2006 (SII 2007c).

Regarding the other types of statutory insurance (see sections 3.2.1.3 and 3.2.2.5), in 2004 bodily injuries were compensated by motor accident insurance at a total of 191 million euros, while injuries were compensated by statutory accident insurance at a total of 593 million euros.

3.3.2 Voluntary health insurance

Voluntary health insurance has a very marginal role in the Finnish health care system (see section 3.2.1.3).

In 2006, Finnish private insurance companies collected 221 million euros (a little less than 2% of total health care expenditure) as premiums for all types of voluntary private health insurance. Premiums collected have increased by 61% from the year 2000. Relief funds collected insurance premiums totalling 45 million euros and employers financed funds by 20 million euros in 2004.

3.3.3 Out-of-pocket payments

The share of out-of-pocket payments in total health care financing increased in the early 1990s (Table 3.1). This was partly due to the economic recession which forced the state to reduce public spending, meaning that the relative share of out-of-pocket payments increased. However, there has also been a real increase in out-of-pocket payments due to the abolition of tax deduction for medical expenses and the increase of user charges in public health care. User charges for curative outpatient services in health centres were reintroduced in 1993 (inpatient hospital care was already subject to daily fees). Before that, all visits to health centre doctors had been free of charge. The state has raised the maximum rate for user charges for health centre care several times since then. The maximum charges for hospital care and day surgery also increased several times. In addition to this, the reimbursement of NHI for private services has decreased, mainly because the level of reimbursement has not followed increases in service fees. However, the share of out-of-pocket payments has somewhat decreased again during the last five years (Table 3.1).

Nevertheless, there has been concern about the consequences of high user charges, particularly their influence on the accessibility of services among lower income groups. Exemptions from user charges are not available to low-income or any other groups. Rather, social assistance in the form of economic assistance is available when an individual's or a family's income is not sufficient to cover the cost of living, including health care costs. The payment of the

benefit is stipulated by the Act on Social Assistance and is handled by the municipalities. Social assistance includes a basic sum of money in addition to special expenses that are taken into account separately (supplementary benefit). User charges for municipal health care and outpatient drugs can be covered under the supplementary benefit category. Under this system, user charges can be paid directly to the health care unit or pharmacy, or they can be reimbursed to the patient.

The concerns that have been raised about high user charges led to the introduction of an annual ceiling for health care costs in the beginning of 2000. Within public sector health care, user charges have an annual ceiling of 590 euros, after which clients receive outpatient services free of charge. This ceiling is separate from the ceiling for out-of-pocket payments of outpatient drugs (see section 3.2.2.2). The payment ceiling applies to health centre outpatient physician's appointments, physiotherapy, a series of treatments, hospital outpatient department fees and outpatient surgery fees. Fees for short-term institutional care in both social welfare and health care institutions are partly covered by this ceiling. After reaching the ceiling the daily charge for short-term institutional care is reduced to 12 euros. The payment ceiling for parents also covers the fees for their children under 18 years of age.

Health care service users are responsible for monitoring whether the payment ceiling is met. Clients may be asked to present original receipts before being issued a certificate to prove that the payment ceiling has been met. A certificate is issued by a health centre or other public health care establishment.

3.3.3.1 Municipal health services

Legislation and Governmental decree defines the maximum fees which municipalities can charge for health care services and also the services which must be provided free of charge (Act on User-fees in Social and Health Care and Decree on User-fees in Social and Health Care). Municipalities are permitted to set lower fees than defined in the legislation, but usually municipalities use the maximum fees. Usually, user charges are not collected directly in the health care facility; instead patients are given a bill which is paid by bank transfer.

Preventive health care, such as the services of maternity and child health clinics, is free of charge. Also immunization, examination and treatment of some communicable diseases specified by law (sexually transmitted diseases (STDs), tuberculosis, hepatitis and some others), medical aids such as wheelchairs and other moving aids, prostheses and transport from a health care unit to another when the treatment will continue at the other unit are free of charge. Persons under 18 years of age do not have to pay for health centre ambulatory services, such as an appointment with a physician or dentist, but may be required to

pay a daily charge for up to seven days of treatment on an inpatient ward of a health centre or hospital.

All the amounts and reimbursement rates mentioned in the following paragraphs are maximum user-fees defined in the governmental decree (Decree on User Fees in Social and Health Care, April 2008). The current Government intends to increase these fees during 2008.

Health centre user charges

A visit to the maternity or child health clinic, appointments with a public nurse, and laboratory and radiological examinations are free of charge at a health centre. A health centre may charge a single or annual payment for a physician appointment. A single payment is 11 euros, which can be charged for a maximum of three appointments, that is, 33 euros per calendar year. An alternative annual payment is a maximum of 22 euros per calendar year. A fee of 15 euros can be charged for a visit to the health centre emergency clinic on weekdays between 8 p.m. and 8 a.m., on Saturdays, Sundays and bank holidays. Clients aged 15 and above may be required to pay a penalty charge of 27 euros for unattended appointments. The basic fee for dental care is a maximum of seven euros. On top of this, a fee can be charged for the treatment administered (5–130 euros). The daily charge of inpatient care in a health centre inpatient ward is 26 euros per day.

Hospital user charges

Hospitals charge for a visit to an outpatient department, an outpatient surgery procedure, a daily hospital fee for inpatient care, a series of treatments and rehabilitation. A hospital outpatient department visit fee is a maximum of 22 euros per visit, while the fee for an outpatient surgery procedure is a maximum of 72 euros. The daily inpatient hospital charge is 26 euros in a general hospital and 12 euros in a psychiatric hospital, covering examinations, treatment, medicine and meals. A maximum of 80% of a patient's monthly income (for example retirement pension) can be charged for long-term hospital or institutional care. Additionally, it must be ensured that at least 80 euros monthly remains available for the patient after paying user charges to the institution.

With regard to a series of treatments, 6 euros is charged for each appointment for up to 45 appointments a year. A series of treatments can be, for example, dialysis treatment, radiographic or chemotherapy and medical rehabilitation. A daily fee of nine euros can be charged by an establishment for the rehabilitation of a physically or mentally disabled person. A maximum fee of 27 euros can be charged for a medical certificate, depending on the type of certificate.

Home care charges

The fees for care provided at home depend on whether the care is occasional or continual. A maximum of 11 euros per visit is charged for occasional treatment by a physician or a dentist, while 7 euros is charged for a visit by other types of health care professional. A monthly fee is incurred for continual treatment, which depends on the quality and extent of the service, as well as the patient's monthly income and family size.

3.3.3.2 National Health Insurance and private sector

In the private sector, patients pay all treatment costs themselves, but may claim partial reimbursement from NHI. Private health care providers can have a contract with the SII so that private health care units can charge the reimbursed proportion from the SII directly. Fees for private services (both outpatient and inpatient care) are reimbursed by NHI at a rate of up to 60% of the established basic tariff defined by the Government. The basic tariff for a 30-minute appointment with a GP, for example, was 18.50 euros in 2007. Treatment and examination ordered by a private doctor, such as laboratory tests and X-ray examinations, are reimbursed at a rate of 75% of the established basic tariff exceeding a deductible of 13.46 euros. Private health care providers are free to set higher prices than the basic tariff, and frequently do so. This means that NHI actually reimburses only on average a third of patient fees to private services.

Outpatient drugs prescribed by a private physician are covered in the same way as those prescribed in municipal health care (see section 3.2.2.2).

For ambulance services a patient must pay a fee of 9.25 euros (by cash or invoice) and the rest is paid by NHI directly to the service provider. NHI also reimburses the cost of other forms of transportation in connection with the treatment and examination of a disease or accident if this exceeds 9.25 euros (for example, a taxi). If the cost of transportation paid by patients due to disease or accident exceeds 157.25 euros per year, NHI reimburses all transport costs in excess of this limit.

Private dentists' fees are also partly reimbursed by the NHI. The reimbursement rate for examination, preventive care and basic treatment is 60% of the established basic tariff (prosthetics and orthodontics are excluded).

3.3.3.3 Pharmaceuticals

Patients receive 42%, 72% or 100% reimbursement from NHI for the majority of prescription drugs. However, some pharmaceutical products are not included in the reimbursement system and some are reimbursed only to some specific

groups of patients (see section 3.2.2.2). There is a maximum limit for drugs to be paid by patients per year (627.47 euros in 2007). All drug costs exceeding this limit are paid by NHI (except that after reaching the limit there is a fixed deductible fee of 1.50 euros per prescription). In international comparisons, the out-of-pocket share of outpatient prescription drug expenses in Finland is quite high, at 37% in 2006 (NAM 2007). Drugs administered during inpatient care in municipal health care units are covered by hospital daily fees or other user charges describe above.

3.4 Allocation of resources and purchaser–provider relations

3.4.1 Municipal health care system

In the municipal health care system, resource allocation decisions are made at the municipal level. The state subsidy that is given to municipalities for arranging social and health care services (see section 3.3.1.1) is not earmarked.

Municipal primary health care is provided by health centres which are directly governed by the municipality or local federation of municipalities. Specialized care is mainly provided by hospital districts. There is not a genuine purchaser–provider split in Finnish public health care, since municipalities both fund and own the service provision organizations. This is especially clear in primary health care, where the provider (health centre) is usually an integral part of municipal administration. However, very recently a few municipalities have introduced a purchaser–provider split to their administration (for example, the cities of Tampere, Oulu and Raisio). In 2007, there was one municipality which outsourced the provision of all services in primary health care. This municipality (Karjaa) has drawn up a contract for the next several years with a private NGO-based foundation to provide primary health care and elderly care to its inhabitants (see section 7.1.2.3). In addition to this, it is increasingly common for municipalities to purchase segments of services or specific service items from the private sector (for example, certain specialist care operations).

The provision of municipal health services by municipalities' own units without any purchaser–provider separation is subject to continuous debate in Finland. Some argue for full separation of the two roles, some argue for preservation of the integrated system. It is claimed that a true purchaser–provider split would enhance steering and make the municipal administration more transparent. It would also better allow the outsourcing of services to private

providers, which has been argued to be a more efficient way to provide services. Introduction of a purchaser–provider split and outsourcing are most visibly backed by private health care providers, the Ministry of Employment and the Economy, the Finnish National Fund for Research and Development (Sitra) and right-wing politicians.

Decisions on resource allocation, planning and organization of health care services are made by municipal health boards, municipal councils and municipal executive boards (see section 2.2.1). The health boards prepare the proposals for health budgets of the municipalities and the municipal councils approve them. Budgets are typically based on historical data and allocated without any specific targets or incentives. Municipalities usually have separate budgets or budget sections for primary health care (health centres) and specialized health care (hospital districts). There is great variation in terms of how resources are allocated between health stations (in larger cities the services of health centres are provided through several health stations located in different parts of the city) and inpatient and outpatient care. This is because there is no state level guidance on this level of resource allocation and the different systems in the municipalities have evolved independently over many decades.

In hospital districts (see section 2.2.1 for details on their structure and function), it is the hospital district council which adopts the annual budget, approves the financial statements and makes decisions about major investments. There are different contractual or negotiation mechanisms between hospital districts and municipalities for agreeing target volumes and payments which comprise elements of purchaser and provider separation. These mechanisms have been under continuous change and development since 1993, when the new relationships came into effect (Act on Specialized Medical Care).

A hospital district and its member municipalities usually negotiate on a yearly basis a target for volumes of services and subsequent costs. These two constitute the core of the operational plan and the budget for each year. Both the volumes and costs are planned on the basis of the previous year. In many cases views on the right size of the resource allocations differ between the municipalities and the hospital districts. There is a tendency for budgets to be too low and agreements are therefore sometimes revised during the year according to the actual amount and type of services provided by hospital districts. Usually there are no explicit sanctions if there is deviation from agreed plans and targets and municipalities cover any deficits and retain any savings in their accounts. Inside the hospital district resources are allocated between specialties and hospitals based on negotiations with municipalities on volumes of services.

Particularly in the case of small municipalities, negotiations are shaped by the significant information and economic asymmetry between the municipality

and the hospital district (Häkkinen 2005). In general, municipalities complain that they have too little influence on the volume and costs of hospital care of the hospital districts. For municipalities, it is much easier to contain the costs of their own health centres than it is to contain their share of the expenses of the hospital district. There are currently many ongoing development projects and natural experiments to address these issues (see section 7.1.2.2).

In addition to contracting specialized health care services from their hospital districts, municipalities can organize specialist level services themselves, for example by using health centres as a base for consultative services. Municipalities can also purchase services from other hospital districts or from private providers. However, the volume of such arrangements is rather insignificant compared to services contracted from municipalities' own hospital districts. In these cases service providers are usually paid on a case-by-case basis classified by the treatment given.

3.4.2 National Health Insurance and occupational health care

The Parliament allocates resources to NHI by defining insurance fees (see section 3.3.1.2). The SII, which administers NHI, does not make purchasing contracts with private health care organizations; instead reimbursements are applied for directly by patients (except outpatient pharmaceutical reimbursements). NHI supervises neither the quality nor the efficiency of the private services which it funds (except by reminders in serious cases of obviously inappropriate drug prescriptions).

Occupational health care services are usually purchased by employers from private providers or municipalities. In these cases there is clear purchaser–provider separation and employers define by contract the level and scope of services purchased for their employees. Some larger companies may also own their own service provision units so that they can provide health services in-house.

3.5. Payment mechanisms

3.5.1 Paying for health services

In primary health care, municipalities prospectively fund the budget of the health centres they maintain on their own. Usually budgets are set based on previous budgets. In federation-owned health centres the budgets are also prospective and

built in a similar way but the sharing of costs to municipalities is determined usually by the volume of services given (see section 3.4.1).

Hospital district invoicing and pricing is in a continuous process of change, varying from district to district (Häkkinen 2005) and at present, it is difficult to directly compare the services and prices between different hospitals and hospital districts. Apart from some special arrangements for maintenance of readiness for catastrophes (such as large scale traffic accidents or natural disasters) or pooling of exceptionally high costs, payments of municipalities are mainly based on price lists by either service item or a package of services (along the general principles of NordDRG (diagnosis-related group) pricing). In 2003, a survey found that eight hospital districts used NordDRG-based invoicing in somatic inpatient care and day surgery while the majority of districts used service groupings of their own (Punkari and Kaitokari 2003). Municipalities are charged prospectively but finances are balanced retrospectively according to actual services purchased. All hospital districts have also developed a special funding pool between member municipalities to cover exceptionally high individual patient expenses (typically above 50 000 euros per individual patient or episode).

When municipalities and hospital districts make contracts to buy services from private providers, contracts and payment mechanisms vary considerably. These contracts must be arranged by open competition, due to anti-trust legislation.

For private care patients, NHI reimburses costs for some services (see section 3.3.3.2) and some pharmaceuticals (see section 3.2.2.2).

Occupational health care services are paid for by employers according to contracts between employers and providers (private providers or municipalities). Some larger companies may also have their own units to provide these services. Varying payment mechanisms are used in these contracts. Services are paid fully by employers and employers are partly reimbursed retrospectively by the NHI. NHI reimbursement is based on actual costs.

3.5.2 Paying health care personnel

3.5.2.1 Physicians

The salaries of all physicians working in the public sector are negotiated by the physicians' trade union (the Finnish Medical Association) and the Commission for Local Authority Employers. Other groups of health professionals have similar arrangements. The state plays no role in this procedure. Strikes by physicians are not very common. The last, by physicians in spring 2001 over pay and conditions of work, took five months to resolve. There has been only one previous strike episode by physicians, during the 1980s.

The payment system of GPs in municipal health centres varies between municipalities. The traditional payment method, which currently applies to about 45% to 50% of health centre physicians, is through a monthly salary with some extra fee-for-service payments for selected time-consuming service items or minor procedures. In those health centres where the personal doctor system has been introduced (see section 6.3), doctors are paid a combination of a basic salary, capitation payment and fee-for-service payment for visits.

During the last 10 years a new trend has emerged, that is outsourcing of the physician workforce (Vuorenkoski and Mikkola 2007). New firms have emerged which lease physicians to public sector primary health care. These firms are mainly owned by the physicians themselves. In these firms physicians are employed by the company and their salary is negotiated with the company. Municipalities use these services mainly when they have difficulties in recruiting physicians, especially for out-of-hour duties, although recently physicians have been leased by long-term contract for office-hour duties as well. These firms can offer better salaries and more flexible working conditions than municipalities and are therefore an attractive alternative for physicians. In 2004 about 5% of Finnish physicians worked in these firms (younger physicians are especially interested in these positions).

Physicians in hospital districts are salaried employees. The basic monthly salary depends on the physician's post and length of career. Various bonuses can be paid, such as for increased responsibility, but in practice this is little used. Usually there are no financial incentives for physicians to increase efficiency and quality. There is additional remuneration for being on call (it can also be taken as leave). Physicians receive some extra payments for issuing certificates of health status for various purposes.

In addition, until recently there was a "special payment category" system in public hospitals. The same principle and practice occurs on the international scene, known as "semi-private beds". According to this scheme, patients had the possibility to choose their medical doctor in public hospitals by paying extra fees, most of which go to the attending doctors. However, this special payment category was abolished in February 2008, and a new scheme has been introduced, in which private services can be offered in public hospitals during weekends and after 4 p.m. during weekdays. The system aims to compensate physicians for the loss of special payment category fees but in a way that will distribute earnings more equally among physicians and other hospital staff. The new system is also claimed to promote more efficient use of hospital facilities and equipment and to give the patients more freedom to choose their doctor and timing of care. The new scheme is a supplementary system and all patients still have their former rights to receive care at public hospital outpatient departments at defined fees during normal

working hours. However, to date this system has not been implemented in any hospital district, because current legislation does not allow NHI reimbursement under it.

Physicians' earnings depend largely on how much they work out-of-hours, and how many bonuses they receive for experience, level of training, responsibility and so on. Specialists who work in private practice in addition to their work in public hospitals, and personal doctors who see a lot of patients and do a large amount of on-call work usually have a much higher income than those who work only during regular hours. The basic salary of primary care physicians was on average 5200 euros per month in 2006. The basic salary of hospital physicians was on average 4700 euros per month. These figures include the salary from working regular hours, but not for example payments for being on call or night duties.

It is common that medical doctors working in public hospitals have a private practice in private facilities during evenings on a fee-for-service basis. In private health care, physicians usually work as autonomous practitioners. In these cases, practitioners are free to set their own rates. The SII has set a maximum level of reimbursement to the patient, but private practitioners are not obliged to set their fees at these levels and NHI has no contracts or negotiations on the level of charges. During recent years small private health care provider clinics have merged to form fewer, larger national level health care provider companies. An emerging trend is that physicians work for these firms as salaried employees rather than autonomous practitioners.

3.5.2.2 Nurses and midwives

Nurses and midwives have a basic monthly salary and compensation for doing out-of-office hours work (which is set at about 30% extra). The basic salary depends on the competence and experience of the employee. The average monthly salary of nurses is low, at about 2400 euros in 2006, including extra compensations. There are not any major differences in nurses' salaries between public and private health care, and between primary and specialized health care.

Nurses have gone on strike several times in recent decades without results. In late 2007, their union took extreme measures and threatened not only a strike but also mass-termination of their contracts because of their low pay levels. The politically sensitive and publicly very high-profile and serious conflict ended with a compromise at the last moment.

3.5.2.3 Pharmacists

Pharmacies are privately owned by pharmacists (see section 6.6). From the difference of wholesale price and retail price (average around 26% of net sales) pharmacists must pay taxes (VAT at 8%), rent and salaries of employed personnel and so on. Pharmacies also pay a graded pharmacy fee to the state which depends on their net sales. The function of the pharmacy fee is to decrease the differences in income between pharmacies, but there are nevertheless major differences in profits between pharmacies (MSAH 2007a). In 2005, the average annual profit for a pharmacist was 280 000 euros (9.2% of the net sales), after overheads and running costs.

4. Planning and regulation

4.1 Regulation

4.1.1 National level steering and regulation

The MSAH directs and guides the development of health care at the national level. It defines the main course of social and health policy, prepares legislation and key reforms and steers their implementation, and handles the necessary links with the political decision-making process.

In addition to legislation, health services are steered from the national level by programmes, information and resources. One of the most important tools in the national level steering process is the National Development Programme for Social Welfare and Health Care (previously the Target and Action Plan for Social Welfare and Health Care) which is drawn up for the whole period of office of each Government (normally four years). The general aims of the health care policy and the measures that will be taken in order to fulfil these aims are adopted in this document. The programme could be described as a cooperation plan between municipalities and the state. The Advisory Board of Social Welfare and Health Care is responsible for its preparation, implementation and follow-up. In addition, there are five regional steering groups. In relation to this programme the state funds local development projects in the social and health sectors (annually worth about 25 million euros). The programme also steers activities of KTL, STAKES, the Occupational Health Institute and provincial administration.

The Government has also implemented a major measure for steering health care on a more ad hoc basis. In 2001 the Government initiated the 'National Project to Ensure the Future of Health Care', proposed by the Prime Minister and the Minister of Social and Health Services at the time. This was a response to several years' debate concerning various problems in access to health care

services. Based on the health-related needs of the population, the aim of the project was to ensure the availability, quality and appropriate volume of care throughout the country, irrespective of residents' ability to pay. The main outcome of the project was the 'Decision in Principle by the Council of State on Securing the Future of Health Care' issued by the Government in 2002 (MSAH 2002), which focused on primary health care and preventive work, ensuring access to treatment, the availability and expertise of personnel, reforming functions and structures of health care, and augmenting the finances of health care (see section 7.1.1.2).

A further example of Government programme steering is 'Health 2015', a public health programme enacted in 2001, which outlines the targets for Finland's national health policy for the next 15 years (MSAH 2001a). The main focus of the strategy is on health promotion and the development of the health care system (see section 6.1.1). In addition, the MSAH has a wide variety of other projects to develop health care, for example for developing electronic prescriptions and nationwide electronic patient record systems (see section 7.2.2).

Several bodies established at the national level have some direct regulatory functions (see section 2.2.2). The two most important of these in regard to health services in general are the health and social departments in the provincial administration and the NAMLA. In 2006, national level supervision was reinforced by expanding the functions of the NAMLA from supervising individual professionals to supervision of health care organizations, municipal health centres and hospital districts.

Pharmaceutical markets are regulated by the NAM. STAKES has a central role in guidance through the provision of information (see section 4.2.2). STAKES produces statistical and comparative information and information on best practices in the field of welfare and health and forwards them to decision-makers and other actors in the field. For example, in recent years special quality guidelines have been developed for school health care and mental health care.

Finland has been active in seeking external international reviews and evaluations to develop national health policy. The latest health policy review was conducted by OECD in 2005 (OECD 2005).

4.1.2 Regulation of municipal health care services

Municipalities have a significant degree of freedom to plan and steer health care services. National legislation provides only a framework for the provision of health services at the municipal level. There are two main acts which set this

framework, (the Primary Health Care Act, 1972 and the Act on Specialized Medical Care, 1991). Further legislation includes, for example, governmental decrees that explicitly define which vaccinations (Decree on Vaccinations and Screenings of Communicable Diseases During Pregnancy) and which screenings (Decree on Screenings) municipalities must provide free of charge. Legislation also defines explicit maximum waiting times (the Primary Health Care Act and the Act on Specialized Medical Care) and maximum user-fees (Act on User-fees in Social and Health Care and Decree on User-fees in Social and Health Care) for municipal services.

The other main tools for steering municipal health services from the national level are information and local development programmes. STAKES has the main responsibility for managing information, and the application of EBM, local auditing and quality development programmes. By funding local development programmes the state can also attempt to influence services at the local level. However, the National Audit Office of Finland has conducted an audit of the system of development programmes in 2007 and found that it is not as efficient as it could be (Vuorenkoski 2007b). There have been some recent changes which have increased the possibility for stronger state regulation of municipal services (see section 7.2.3).

Oversight of municipal health services is mainly in response to complaints or other highly visible problems in the operation of services. If the state level administration (either the ministry, the NAMLA or the provincial state authorities), detect overt violation or neglect of existing health service legislation, they can intervene. Usually this means raising problems to start a discussion, or issuing reminders or formal warnings. For example, in 2007 the NAMLA approached municipalities which did not comply with the maximum waiting time guarantee and urged them to fully implement the guarantee. There is another option of imposing a conditional fine in very special situations, but in general this is not used.

Municipalities or municipal federations usually directly own and regulate health centres (see section 2.2.1). However, there has been a growing debate on whether municipalities should introduce a purchaser–provider split and outsource municipal administration, which would change this situation (see sections 3.4.1 and 7.1.2.3).

Municipal regulation of specialized care is more complex. Hospital districts are governed by member municipalities which can influence hospital districts through their representatives on the executive board and the council of the hospital district (see section 2.2.1). Not including negotiations on volumes and costs (see section 3.4.1), municipal regulation of hospital districts is rather weak. This is particularly the case with small municipalities, where there is

significant information and economic asymmetry between the municipality and hospital district (Häkkinen and Lehto 2005).

4.1.3 Regulation of National Health Insurance

NHI is run by the SII which is under the direct supervision of the Parliament. The Parliament regulates NHI by legislation (the Sickness Insurance Act) and through a board of Parliamentary Trustees of the SII. The legislation defines which services SII reimburses. NHI is also controlled to some extent by the Insurance Department of the MSAH. For example, the department contains the PPB, which decides on the inclusion of drugs in the drug reimbursement system (see section 6.6). SII does not regulate the private health care providers to which it makes reimbursements. This has not generally been perceived as a problem.

4.1.4 Regulation of private sector and private insurance

Regulation of private health care is stipulated in the Private Health Care Act, but is quite weak in Finland. Private health care providers must have a licence acquired from the provincial state administration. The provincial administration monitors the services to ensure they meet adequate standards and quality criteria. Independent private practitioners and private health care providers are also monitored by the NAMLA through patient complaints (see section 2.4.4). Private physicians who are members of the Finnish Medical Association are also regulated by the Association's own codes of conduct, for example on the advertising of physician services to the public. If municipalities and hospital districts purchase services from the private sector, they regulate and control purchased services by contracts.

Private health insurance is regulated by corresponding acts and the Insurance Department of the MSAH (see section 3.2.1.3).

4.2 Planning and health information management

The MSAH has the main responsibility for national level planning of the health care system. The general aims of the health care system and the measures that will be taken in order to fulfil these aims are outlined in National Development Programme for Social Welfare and Health Care (see section 4.1.1). In addition to this, every year the MSAH draws up an administrative action and finance

plan for the next four years. This document covers starting points and strategies, provides estimates and plans development.

In addition to this general planning conducted at the national level, municipalities are responsible for more practical planning, for example concerning infrastructure, capital and personnel. STAKES supports planning at the municipal and ministry level by carrying out research and development projects and collecting register information. Municipalities' planning activities are also supported by the Association of Finnish Local and Regional Authorities, of which municipalities are members. In primary care planning is performed by the chief physician and other senior individuals, the municipal council, the municipal health committee and the executive board. In hospital districts it is performed by chief physicians and other senior individuals, the council of the hospital district and the executive board. Citizens can participate in planning through the politically elected municipal council and municipal health committee (see section 2.2.1). It should be noted that the size of municipalities varies greatly and because of this there are significant differences between municipalities' ability to carry out health care planning.

4.2.1 Health technology assessment

The Finnish Office for Health Technology Assessment (Finohta) was established in 1995 within STAKES. The centre's main objectives are to improve the effectiveness and cost-effectiveness of care and to promote the use of evidence-based methods in health care. Operation of Finohta is steered and regulated by the MSAH and STAKES as financiers. Finohta also has an Advisory Board on Health Care Technology Assessment which has representatives from organizations and communities that are relevant to their activities. The advisory board monitors the technology assessment system and the activities of Finohta and makes proposals to develop them further. Secondly, it has a Scientific Committee on Health Care Technology Assessment which has a broad representation of expertise in many scientific fields. The committee participates in selecting the technologies to be assessed and joins various scientific fields together in order to promote multidisciplinary assessment activities. The committee also produces expert statements and develops Finohta's operations.

Health technology assessment (HTA) of screening and rehabilitation is a priority, while pharmaceuticals are not a priority and are dealt with in assessments only as comparators to other methods. Finohta projects also investigate the social, ethical and legal aspects related to the technology in question. In addition, Finohta disseminates HTA information produced abroad and gives methodological and financial support to systematic reviews and

research projects evaluating the cost-effectiveness of a given health technology. The Finnish branch of the Nordic Cochrane Centre is based within Finohta.

In 2006, Finohta had a staff of 32 persons in Helsinki and Tampere covering a variety of professional expertise. In addition to this, national experts of various medical specialties are invited to participate in HTA projects as needed. The bulk of the yearly budget of 2.2 million euros is state funding. The resources available are quite limited meaning only a fraction of new technologies can be evaluated. Finohta has a major role in EUnetHTA, a large European collaborative project drafting a joint HTA methodology.

Finohta completes between three and five major assessments yearly and between five and ten more limited HTAs, including systematic literature reviews (see section 5.1.3). The office disseminates assessment results both from Finland and other countries through several series of publications and the website (see section 10.3). In collaboration with other organizations, Finohta also provides education on HTA and evidence-based health care. The first Finnish language textbook of HTA was written by Finohta experts and published in 2007 (Mäkelä et al. 2007).

4.2.2 Information systems

Information on the health care system and health status is collected in many different ways. This information is mainly collected by Statistics Finland, STAKES, KTL and the SII.

4.2.2.1 Health status

Annual health survey on behaviour among the Finnish adult population, KTL

Since 1978, KTL has annually monitored the health behaviour of the adult population through postal surveys. Each year a random sample (n=5000) of Finnish citizens aged between 15 and 64 years is taken from the population register. The average response rate has been 70% among men and 80% among women. The primary purpose of monitoring is to obtain information on health behaviour such as smoking and dietary habits and changes of habits. The questionnaire also includes questions about the consumption of alcohol, physical activity, dental health, perceived general health status and the use of health services.

National Register of Infectious Diseases, KTL

Physicians and laboratories are obliged by law to inform KTL about the incidence of certain defined infectious diseases. These diseases include infectious diseases which are severe and highly infectious and diseases which are included in the

vaccination programme. In total there are approximately 30 diseases on the register, such as HIV, hepatitis, tuberculosis and measles.

National Death Register
Statistics Finland maintains a national death register based on death certificates issued by physicians.

Registry of Occupational Diseases
The FIOH has maintained the Registry of Occupational Diseases since the year 1964. All work accidents and occupational diseases which are reported to the statutory accident insurance system are registered. In addition, occupational diseases which are reported by physicians to occupational safety authorities are included in the register.

National Health Insurance Statistics, SII
The SII extensively collects and reports information concerning NHI. These include, for example, data on drug reimbursement (utilization), sickness allowances, disability pension, occupational health services, private care reimbursements and rehabilitation reimbursements (see section 2.2.3).

Register of Congenital Malformations, STAKES
The Register of Congenital Malformations contains data on congenital anomalies detected in stillborn infants and in live born infants before the age of one year. The register receives data from hospitals, health care professionals and cytogenetic laboratories as well as from the Birth and Care Registers maintained by STAKES and the Cause of Death Register maintained by Statistics Finland. The register contains data from 1963 onwards.

Register of Visual Impairment, Finnish Federation of the Visually Impaired, STAKES
The Register of Visual Impairment is maintained for STAKES by the Finnish Federation of the Visually Impaired. Notifications are sent to the register by the treating physician or another member of the care personnel. The register contains data on cases of visual impairment from 1983 onwards.

Database on alcohol and drugs, STAKES
This database contains data gathered from different authorities on the consumption and use of alcoholic beverages and drugs, the alcohol economy, the adverse health effects and social effects of substance abuse, and services for substance abusers. The database was established in 1995 (alcohol statistics have been gathered since the year 1932).

Cancer Register, the Cancer Society of Finland, STAKES
The Cancer Register is maintained for STAKES by the Cancer Society of Finland. Notifications on cases of cancer are sent to the register by physicians, pathological, cytological and haematological laboratories and Statistics Finland (death certificate data). The register was established in 1952.

4.2.2.2 Health care services

Hospital Discharge Register, STAKES

The register contains client-specific hospital discharge data on institutional care in social and health care. Hospitals (both public and private hospitals) and health centre inpatient wards report the end of all periods of care (including ambulatory surgery) to the register. The register includes, for example, age, sex, diagnosis, treatments given and treatment period. In addition, client censuses are conducted concerning all clients that have received care at the end of the calendar year.

Health Care Activity Statistics, STAKES

These statistics relate to public ambulatory health care and support services. The data are collected as summary data from health centres and hospital districts. Between 1994 and 2001, the statistics were compiled by the Association of Finnish Local and Regional Authorities. After that, STAKES became responsible for the compilation. Before 1993, the MSAH maintained a report system for social welfare and health care.

Municipal Database for Social and Health Statistics

The Municipal Database for Social and Health Statistics (SOTKA) contains statistical data and indicators concerning welfare and health collected from different sources. Municipality-specific data concerns various items, including municipal finances, population, families, housing, social and health care personnel, use and expenditure of services.

Statistics on Municipal Finances and Activities, Statistics Finland

Statistics Finland gathers information on municipal finances and activities on a yearly basis. The statistics contain information on municipally funded services, meaning services that the municipality provides itself for its inhabitants or purchases from other municipalities, municipal federations, the state or private service providers.

Statistics on Health Care Expenditure, STAKES

The data on health care expenditure and financing is derived from a database maintained by STAKES. Data for the database comes from various health care statistics, inquiries and studies. The earliest data is from 1960.

Register of Induced Abortions and Sterilizations, STAKES

STAKES maintains a register on abortions and sterilizations from the reports of the treating physicians. Data on induced abortions has been collected since 1950 and on sterilizations since 1935.

Infertility treatment statistics, STAKES

The infertility treatment statistics contain data on advanced infertility treatments. Data is collected on the number of procedures, the background information of treated women or couples and the results of treatments (pregnancies, deliveries

and births). STAKES has gathered this data from the year 1994 onwards. The data is obtained from all clinics giving infertility treatments.

Medical Birth Register, STAKES
The register contains data on mothers and children born in Finland. The data is gathered from hospitals and complemented by data obtained from the Cause of Death Register of Statistics Finland and by data from the Central Population Register. The register contains data from 1987 onwards.

Register of Health Care Professionals, NAMLA
The NAMLA is responsible for the authorization and registration of health professionals. Every year STAKES compiles statistics concerning these professional groups.

Register of Municipal Employees, Statistics Finland
The register contains data on personnel employed by municipalities and municipal federations.

Statistics on Private Health Care, STAKES
The statistics are based on activity reports submitted by private health care providers to the Provincial State Offices. The statistics contain data on ambulatory service provision and employees.

Drug consumption statistics, NAM
The NAM gathers drug consumption statistics. The sales figures are based on the sales of the three largest drug wholesalers in Finland, which together account for nearly 100% of total drug sales. The remainder (about 1%) is mainly comprised of hospital sales.

Adverse effects of drugs and devices, NAM
Information on adverse effects of drugs and medical devices is gathered by the NAM. The information is gathered from physicians, dentists and manufacturers.

National Implant Registers, NAM
The NAM keeps the Implant Register on Orthopaedic Endoprostheses and the Register on Dental Implants.

4.2.3 Research and development

There are many organizations contributing to health care research and development in Finland. Main state level organizations are STAKES, the FIOH and KTL. The MSAH has a small research and development unit which is responsible for overall coordination of research and development activities in the social and health sector.

STAKES produces and disseminates knowledge and expertise on the social and health sector to decision-makers and other actors in the field. STAKES is a centre of expertise, and its core functions lie in research, development and information resources. In 2006 STAKES had a staff of about 500. It had 25 million euros for operational expenditure from the state budget, which was 66% of its total funding. Every year an operational plan is negotiated and agreed with the MSAH which gives STAKES guidelines for the activities of the next year. STAKES has a Health Services Research division which has about 90 employees. The division includes the HTA unit (Finohta) (see section 4.2.1) and the Centre for Health Economics. Currently, health care related activities of STAKES include among other things research on: equity and quality in health care services; health economics; development of information systems; health promotion; mental health; and substance abuse. STAKES also has a separate division for maintaining national statistics and registers in the health and welfare fields. The WHO Collaborating Centre for Mental Health Promotion, Prevention and Policy Implementation (WHO-MH3P) has been in STAKES since 2006.

Research and development work is also an important part of the activities of FIOH. The aim of this work is to generate new knowledge that can be applied to improve working conditions, to promote workers' health and work ability, to ensure the smooth functioning of working communities, and to enhance well-being. Most of the research done by FIOH is applied research yielding results that can be quickly put to use in Finnish working life. Some of the research aims at more long-term results, seeking to understand, for instance, the causal mechanisms of diseases and determining the theoretical basis for occupational health-related phenomena. In 2006 FIOH had a staff of about 800.

KTL monitors the health of the population and the factors influencing it. Additionally, it develops tools to promote public health and distributes information to decision-makers, actors and individual citizens. Together with the relevant authorities, organizations and health experts, the institute participates in the national and international tasks of health promotion. The institute maintains monitoring and information systems. It also modifies data, whether collected by itself or some other party, for the use by decision-makers and other actors. In 2006 KTL had a staff of about 900.

The Rohto was established in 2003 to deal with the assessment of drugs, especially those used in primary health care, and the implementation of such information to develop pharmacotherapy in Finland. In addition to about 10 full-time employees, Rohto has part-time employees working in the field. Implementation of knowledge for promoting rational pharmacotherapy is based on local Rohto educational and development activities coordinated by regional facilitators in hospital districts and by local facilitators in health centres.

The SII has a research department, which undertakes research and development projects focusing on social security and health provision of the Finnish population and on the benefit schemes, client services and other operations of SII. It has a staff of about 60 persons. Research is focused on for example, the following topics: the need for health services and rehabilitation and their outcomes; mental health problems as a cause of work disability; the funding of health care through insurance-based arrangements; the targeting of drug reimbursements according to needs; and the links between the availability of drug reimbursements and the use of prescription pharmaceuticals.

The Academy of Finland, which works under the supervision of the Ministry of Education, provides funding for high quality scientific research, serves as an expert organization in science and science policy, and strengthens the position of science and research in society. One of the four councils of the Academy is the Research Council of Health. In 2005 the Academy of Finland funded research on medicine and health sciences to a sum of 42 million euros. The Academy of Finland also had a special Health Services Research Programme during the years 2003–2007.

Sitra is an independent public foundation under the supervision of the Finnish Parliament. Its activities are designed to promote the economic prosperity of the Finnish people. The Fund was set up in conjunction with the Bank of Finland in 1967 in honour of the 50th anniversary of Finnish independence. The Fund was transferred to the supervision of the Finnish Parliament in 1991. Sitra has a Health Care Programme, the objectives of which are: to improve the status of customers in health services; to increase the profitability and effectiveness and the cooperation between the public and private sectors; to promote the comprehensive use of new technologies and services; and to generate new business in Finnish and international markets. In 2007 the programme included six projects: Health Fund, internationalization, paperless health care, multi-centre specialized health care, seamless services and support services. In addition to venture capital investments, approximately three million euros annually have been reserved for these development projects. Health Fund was founded in 2006 as a new venture capital fund which invests in health care and companies serving the health care industry. Investments can be made in either existing or start-up companies that apply the best practices in health care. The aim of the investments is to enhance productivity of the health care sector and the acceleration of structural change. The Health Fund had 28 million euros worth of capital in 2007 from which 10 million is invested by Sitra.

TEKES, governed by the Ministry of Employment and the Economy, promotes the competitiveness and profitability of Finnish industry and the service sector by assisting in the creation of world class technology and technological know-how. From the perspective of the health care system the most important

programme of TEKES is the Healthcare Technology Programme lasting from 2004 to 2009 (FinnWell). The objective of the programme is to improve the quality and profitability of health care, and to promote business activities and export in the field. The total value of the programme is 150 million euros, of which TEKES invests about half and the participants of the programme fund the other half. Three kinds of projects are funded by the programme: development of technologies for diagnostics and care; development of information technology products and systems that support care, follow-up or prevention of illnesses; and development of the operational processes of health care. TEKES also funds programmes for the biomaterial industry and pharmaceutical industry.

Other important research organizations are the universities and polytechnics (also called universities of applied sciences). These organizations conduct for example, clinical research, nursing research, health economics and health care administration research, health policy research and health sociology. The main organizations which conduct clinical research are five medical faculties connected to five university central hospitals. Health service providers receive special earmarked contributions from the state which are intended to compensate for the research component of their work (49 million euros in 2006 from which 84% was given to university central hospitals).

5. Physical and human resources

5.1 Physical resources

5.1.1 Infrastructure

Finland does not have an explicit national level planning system for health care infrastructure. Planning for health care services is decentralized: the 415 municipalities and 20 hospital districts are responsible for planning on a municipal level. At the national level, STAKES gathers information concerning infrastructure and provides this information on a regular basis to municipalities and hospital districts for planning purposes. Planning in private health care rests solely on the provider companies.

In 2005 there were 46 episodes of inpatient care in health centres per 1000 inhabitants and 209 episodes in hospital districts per 1000 inhabitants (Table 5.1). Health centre inpatient wards cater mainly for the needs of elderly persons including long-term care services (see section 6.3).

Finland no longer compiles data on general hospital bed numbers. However, we can estimate the number of beds based on the number of care days assuming a 100% occupancy rate: there are estimated 3.1 hospital beds per 1000 inhabitants in hospital districts, 3.8 per 1000 inhabitants in health centres and 0.3 per 1000 inhabitants in private health care facilities. The average length of stay (excluding psychiatric beds) was 5.4 days in hospital district hospitals and 30.4 days in primary health centres in 2006 (STAKES 2007d). There has been a shift from inpatient care to day surgery since the 1990s (see section 6.4).

In the early 1990s there were 4.3 acute hospital beds per 1000 inhabitants (Fig. 5.1), comparable to the EU average. During the period 1990–2003 the number of acute care beds decreased to 2.3 per 1000 population, so that towards the end of the decade Finland (together with Sweden) had the lowest number of acute hospital beds among the Nordic countries (Fig. 5.2). Compared to western

Table 5.1 Patients in inpatient care

	1995/1996	2005
Municipal primary care (health centres)		
Periods of care (per 1000 inhabitants)	39	46
Care days (per 1000 inhabitants)	1371	1388
Municipal specialized care (hospital districts)		
Periods of care (per 1000 inhabitants)	210	209
Care days (per 1000 inhabitants)	1561	1149
Private health care		
Periods of care (per 1000 inhabitants)	10	14
Care days (per 1000 inhabitants)	97	92
Treatment of mental disorders		
Periods of care (per 1000 inhabitants)	14	14
Care days (per 1000 inhabitants)	500	397

Source: STAKES, 2006b.

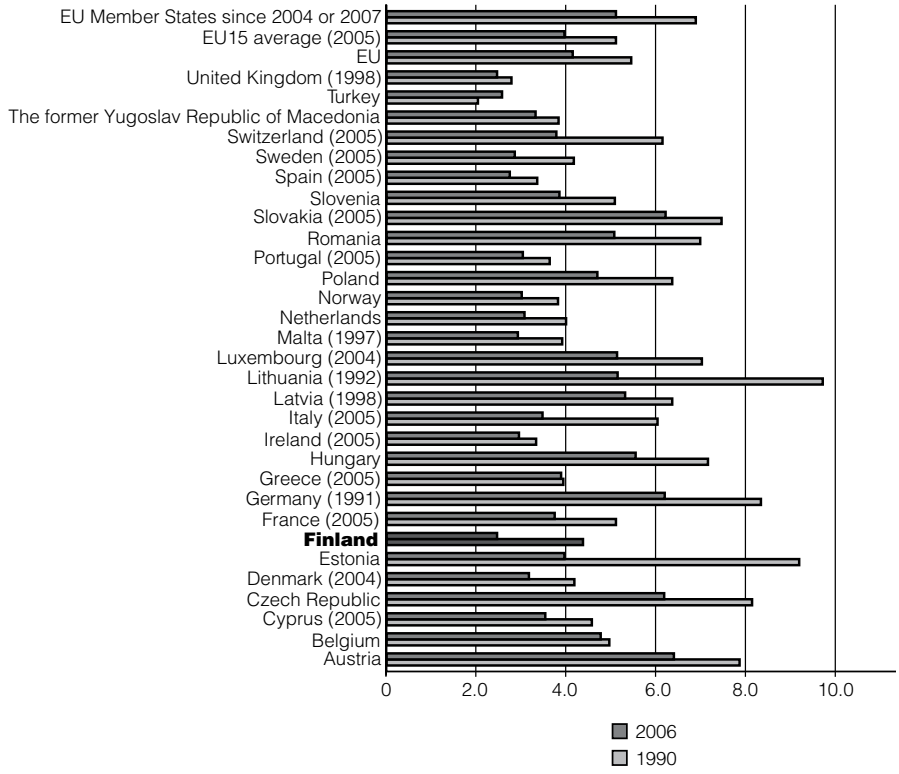
Europe, the reduction in acute hospital beds in Finland was steep (Fig. 5.1). In 2003, the number of hospital admissions in acute care was similar to the EU average, while the average length of stay was among the lowest (Table 5.2).

Between 1995 and 2005 inpatient psychiatric hospital care days decreased from approximately 500 to 397 days per 1000 inhabitants (Table 5.1). This reduction is largely due to declining average lengths of stay, since the number of inpatient episodes have not decreased during this period. During the 1990s many long-term patients were transferred from institutionalized care to outpatient care and 'transitional' services such as supported housing.

5.1.2 Capital stock and investments

From the 1970s until the 1980s there was a special state subsidy system to support capital investments. From 1993 the state almost totally withdrew from funding capital investments. Currently, capital investment in health care is controlled by the providers: municipalities, hospital districts and private providers. The state level administration may only intervene in special situations, for example if an important building is removed from active use due to health and safety reasons. The municipalities and hospital federations are free to invest in technologies. Municipalities and hospital districts normally fund the investments from the annual budget (see section 3.4). Usually the hospital and health centre buildings are owned by the municipal service providers. Many of the hospital buildings were built in the 1950s–1960s, and health centre buildings

Fig. 5.1 Hospital beds in acute hospitals per 1000 population in the European Union, 1990 and 2003 or latest available year (in parentheses)



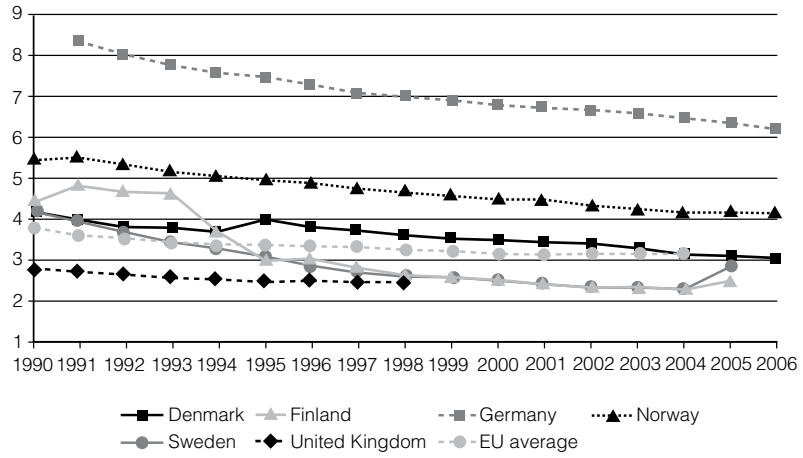
Source: WHO Regional Office for Europe, January 2007.
Note: EU: European Union.

were built about 20 years later. Both hospitals and health centre facilities are increasingly requiring renovations.

5.1.3 Medical equipment

Public sector health care units (health centres and hospital districts) fund medical equipment from their annual budget. There is no state level control over the acquisition of medical equipment, even concerning very expensive equipment. Because of this, it can be assumed that there is considerable variance in geographical distribution of equipment, although there is no data to support this. In 2005 there were 14.7 magnetic resonance imaging units and 14.7 computed tomography (CT) scanners in Finland per million population (Table 5.3).

Fig. 5.2 Beds in acute hospitals per 1000 population in Finland and selected other countries



Source: WHO Regional Office for Europe, January 2007.
Note: EU: European Union.

Health care units can seek advice from Finohta (see section 4.2.1) when making decisions to acquire new medical equipment. In 2006 Finohta and hospital districts initiated a joint process to develop a structure for joint appraisal and decision-making with regards to the uptake of new medical technologies (MUMM-programme) (Kaila 2007). In 2007 a pilot assessment on five interventions was done (intravenous laser therapy for varicose veins, MARS – liver dialysis, vacuum treatment of wounds, long anti-thrombotic treatment in conjunction with joint replacement surgery, and 64 multislice-CT in the diagnosis of coronary disease). The second set of selected topics include: spinal cord stimulation for chronic back pain, radio-frequency ablation for snoring, vagus nerve stimulator treatment for treatment resistant depression and epilepsy, and treatment of macular degeneration with intravitreal anti-vascular endothelial growth factor injections. Over the next few years it will become evident whether this process improves the managed uptake of new medical technologies in hospital districts.

5.1.4 Information technology

Almost all health centres and some hospital districts have electronic patient records and other information technology systems for data management. However, the Finnish health care system is decentralized and the development of health care information systems has been pronouncedly uncoordinated which

Table 5.2 Inpatient utilization and performance in acute hospitals in the European Union, 2006 or latest available year

	Hospital beds per 1000 population	Admissions per 1000 population	Average length of stays in days	Bed occupancy rate (%)
Austria	6.4[a]	26.1[b]	6.9[b]	79.6[a]
Belgium	4.7[a]	16.2[b]	8.0[b]	67.3[b]
Bulgaria	7.6[h]	14.8[h]	10.7[h]	64.1[h]
Cyprus	3.5[b]	7.9[b]	6.0[b]	84.5[b]
Czech Republic	6.1[a]	20.5[a]	8.0[a]	72.9[a]
Denmark	3.1[c]	17.8[f]	3.4[c]	84.0[f]
Estonia	3.9[a]	16.8[a]	5.9[a]	70.9[a]
Finland	2.4[a]	19.9[c]	4.2[c]	74.0[i]
France	3.7[b]	16.5[b]	5.9[b]	77.1[c]
Germany	6.2[a]	20.3[a]	8.5[a]	76.3[a]
Greece	3.9[b]	14.5[g]	5.7[d]	66.6[g]
Hungary	5.5[a]	23.0[a]	6.1[a]	70.3[a]
Ireland	2.9[b]	13.9[b]	6.6[b]	85.6[b]
Italy	3.4[b]	14.3[c]	6.7[c]	76.4[c]
Latvia	5.3[a]	20.3[a]	–	–
Lithuania	5.1[a]	20.7[a]	6.9[a]	76.1[a]
Luxembourg	5.1[c]	18.4[j]	7.7[g]	74.3[j]
Malta	2.9[a]	11.4[a]	5.3[a]	89.6[a]
Netherlands	3.0[a]	8.8[f]	7.0[c]	58.4[f]
Poland	4.7[e]	–	–	–
Portugal	3.0[b]	11.3[b]	7.1[b]	73.2[b]
Romania	5.1[a]	–	–	–
Slovakia	6.2[b]	18.1[b]	8.1[b]	67.2[b]
Slovenia	3.8[a]	17.1[a]	5.8[a]	71.6[a]
Spain	2.7[b]	11.6[b]	6.7[b]	79.1[b]
Sweden	2.8[b]	15.1[b]	6.0[b]	77.5[h]
United Kingdom	2.4[g]	21.4[h]	5.0[h]	80.8[g]
EU average	4.1[a]	17.1[b]	6.7[b]	75.9[b]
EU 15 average	3.9[b]	16.9[c]	6.7[c]	–

Source: WHO Regional Office for Europe, January 2007.

Notes: [a] 2006; [b] 2005; [c] 2004; [d] 2003; [e] 2002; [f] 2001; [g] 1998; [h] 1996; [i] 1995; [j] 1994; EU15: EU Member States before 1 May 2004.

has resulted in a situation where non-interoperable information systems are used even within individual health care organizations. However, national level steering has strengthened recently. Parliament decided in December 2006 that a statutory nationwide electronic patient record (EPR) system and nationwide electronic prescription system will be introduced in Finland following a four-year transition period (see section 7.2.2).

Table 5.3 Items of functioning diagnostic imaging technologies

	per 1 million population	
	1995	2005
MRI units	4.3	14.7
CT scanners	11.7	14.7

Source: OECD, 2007.

Notes: MRI: Magnetic resonance imaging; CT: Computer tomography.

In terms of general Internet utilization in 2006 there were 477 Internet subscriptions per 1000 inhabitants (Statistics Finland 2006b) and 61% of Finnish people (aged 15–74 years) used the Internet weekly from home, workplace or from their place of study.

5.2 Human resources

5.2.1 Trends in health care personnel

The majority of health care professionals working in the health care sector are employed in municipally operated health services (health centres and hospital districts). The distribution of municipal employees across the different professional groups is shown in Table 5.4. In 2005 there were 123 700 municipal employees in the health care sector of whom 71 400 (58%) were working in hospital care (STAKES 2007d). The number of employees has risen by 15% since 1995. In the private sector there were 28 400 employees in 2004. Some of the registered professionals work in other sectors or in other countries; in 2006, 840 doctors and 4010 nurses were employed outside Finland.

Until the 1990s unemployment among physicians, dentists and nurses was practically non-existent, but the economic crisis led to a reduction in health care resources and significant unemployment. In addition, the yearly intake to medical schools was reduced in the early 1990s, as it was predicted that the need for medical doctors was decreasing. As the public sector gradually recovered from the economic crisis in the late 1990s, a significant physician and dentist shortage developed. In order to rectify this situation the yearly intake of medical students was increased from 365 to 627 in the period 1995–2005. However, this measure will take many years to significantly address the physician shortage. Until 2007 there have been considerable difficulties to recruit physicians and dentists, especially to rural health centres which have disproportionately fewer physicians. For example, in October 2006 9% of the physician posts in health centres were not filled but in the Kainuu region (northern Finland) this figure

Table 5.4 Health care personnel (man years)

	Registered[1]		Municipal health care				Proportion in municipal health care
	2005	per 10 000 population	1990	2005	per 10 000 population	increase	
Health and social services managers			3320	3310	6	0%	
Other senior officials			520	440	1	-15%	
Physicians	17101	33	8070	10340	20	28%	60%
Dentists	4537	9	1960	2040	4	4%	45%
Senior nurses and ward sisters			7170	5690	11	-21%	
Nurses	62333	120	17190	31890	61	86%	60%
Public health nurses	14024	27	4520	5140	10	14%	37%
Radiographers	3327	6	1420	1740	3	23%	52%
Midwives[2]	3722	7	220	1470	3		40%
Dental hygienists[3]	1456	3	210	650	1	210%	45%
Auxiliary nurses	81996	158	19030	30030	58	58%	37%
Auxiliary mental nurses	5223	10	4660	2740	5	-41%	53%
Hospital and ambulance attendants	2033	4	710	670	1	-6%	33%
Dental assistants	6123	12	2430	2600	5	7%	43%
Physiotherapists	11290	22	1290	2250	4	74%	20%
Occupational therapists	1732	3	280	560	1	100%	32%
Medical laboratory technologists	6771	13	2830	3520	7	24%	52%
Assistant nurses and hospital ward assistants			14150	6460	12	-54%	

Sources: STAKES, 2006b; Statistics Finland, 2006b.

Notes: [1]Working age; [2]Midwives were officially composed of a distinctive group from nurses in 1994; [3]Statistical increase of dental hygienists is partly explained by the change in professional title.

was 26% (Parmanne and Vänskä 2006). Currently, the shortage is even more significant among dentists. About 12% of dentist posts in health centres were not filled in 2007 (MSAH 2008a). In addition, in spite of a significant increase in the number of nurses and auxiliary nurses since 1990, currently health care providers have increasing problems to recruit enough nurses.

During the years 1990–2005 the number of registered working age physicians increased by 41%. The number of physicians working in municipal health care increased by 28% during the same time period (Table 5.4). In 2006 47% of physicians worked in hospitals, 23% in health centres, 5% in occupational health

care, 6% in the academic field and 11% in full-time private practice (Suomen Lääkäriliitto 2006). The average age of working age physicians has increased by three years to 46 years during the last 10 years (Elovainio et al. 2007).

In 2006 the number of physicians per capita was the same as the EU average, while the number of nurses was slightly higher (Fig. 5.3) (note that Fig. 5.3 shows active personnel while Table 5.4 shows registered personnel). Fig. 5.4 compares the trend in the number of physicians in Finland from 1990 to 2006 with selected other countries. In comparison to the Scandinavian countries, the number of physicians per 1000 population in Finland remains one of the lowest but it has steadily increased since 1990, reaching the EU average by 2005. During the years 1994–2005 the number of registered working age nurses increased by 33% and in 2005 there were 12 registered working age nurses per 1000 inhabitants (Table 5.4).

More than half of Finland's dentists, dental hygienists and dental assistants are working in the private sector, as the majority of services are provided there. During the years 1990–2005 the number of registered working age dentists increased by 1%. The number of dentists and dental assistants in the municipal sector remained almost the same during the same time period (Table 5.4).

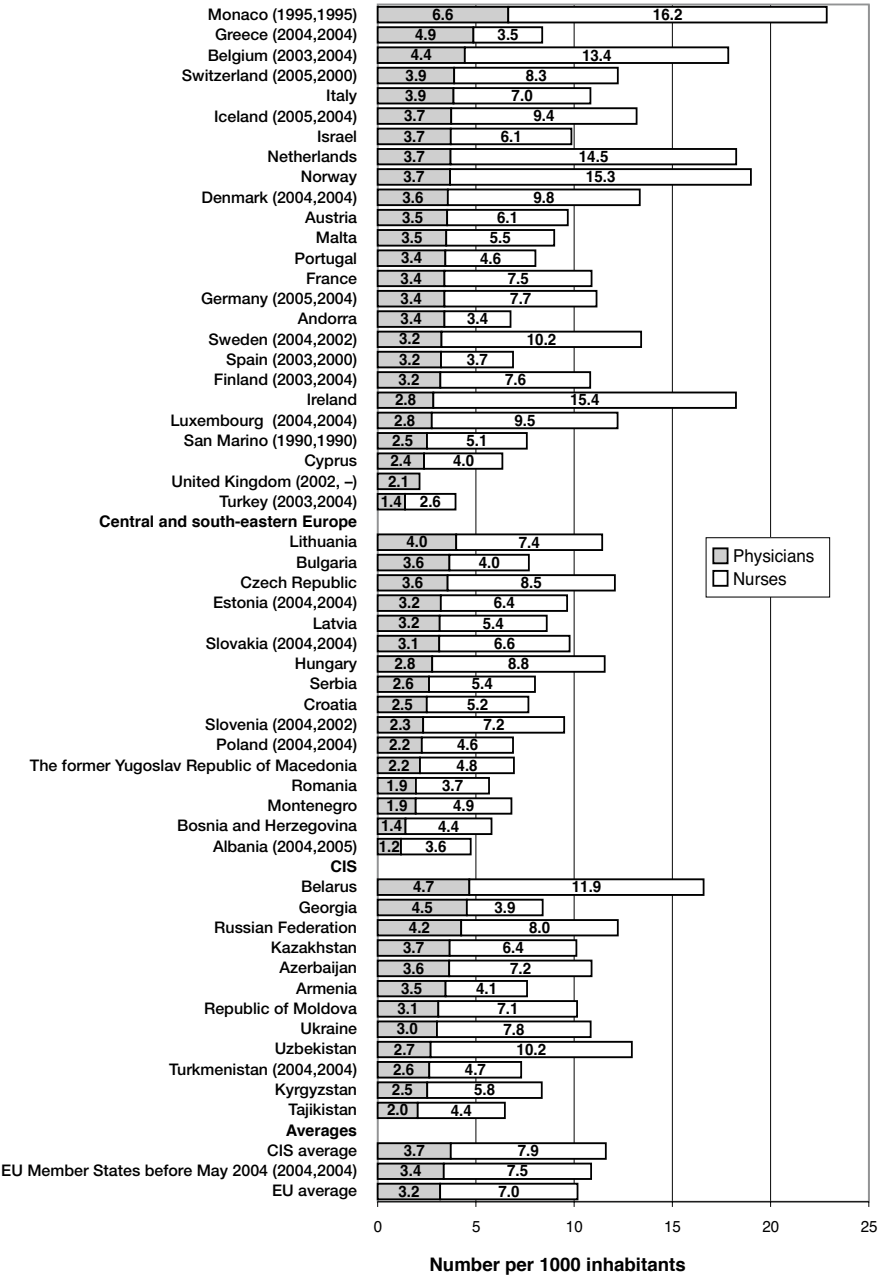
During the years 1990–2005 the number of registered working age pharmacists increased by 61%. In 2007 there were 1400 pharmacists and 3800 assistant pharmacists working in pharmacies (excluding hospital pharmacies). Very few pharmacists work in the municipal sector (those that do are mainly in hospital pharmacies).

5.2.2 Planning of health care personnel

In Finland there is no state level mechanism to directly steer strategic human resources for health geographically or by level of care, except to influence the education of health professionals. However, in the last few years general level needs assessment and human resource planning have been conducted in the context of overall labour projections in collaboration with the Ministry of Education, the Ministry of Labour, MSAH, Statistics Finland and municipal organizations.

The Ministry of Education is responsible for regulating and supervising the training of health care professionals. Universities are public, but autonomous. In theory, universities are free to decide on the number of students to be taken in, but in practice, the Ministry of Education and the universities reach an agreement on the budget and number of students. Polytechnics (institutions providing training for nurses) are governed by municipalities under the guidance

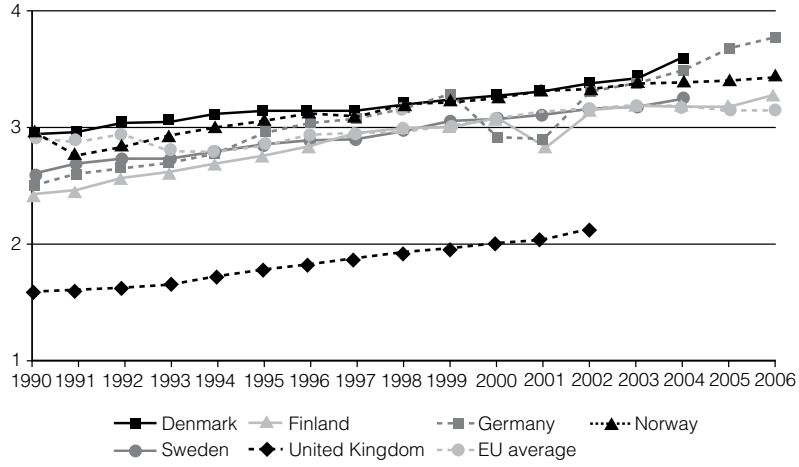
Fig. 5.3 Number of physicians and nurses per 1000 population in Finland and selected other countries



Source: WHO Regional Office for Europe, January 2007.

Notes: CIS: Commonwealth of Independent States; EU: European Union.

Fig. 5.4 Number of physicians per 1000 population in Finland and selected other countries



Source: WHO Regional Office for Europe, January 2007.
Note: EU: European Union.

and financial support of the Ministry of Education. The Ministry of Education also consults the MSAH on the number of students needed.

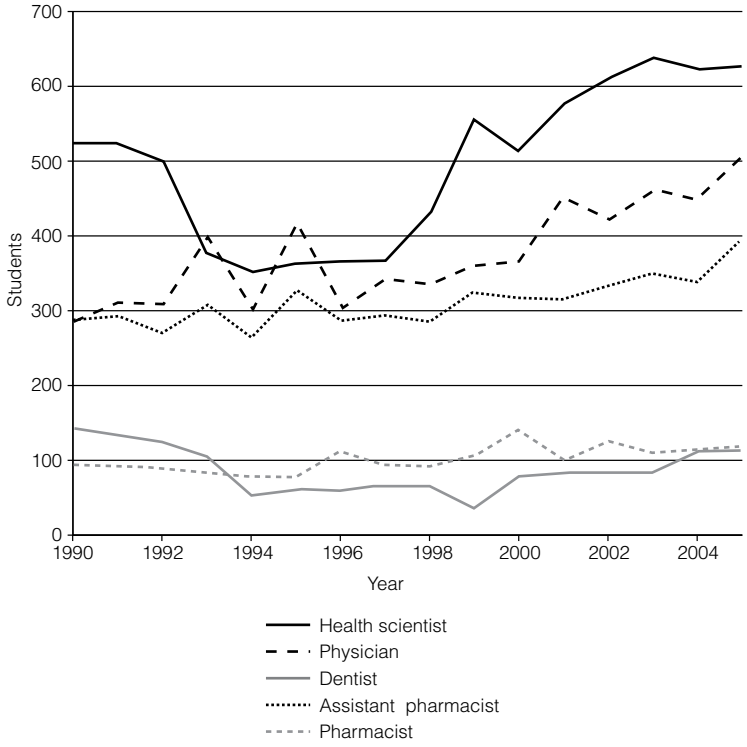
During the early 1990s, in connection to the economic recession, entrance places in medical schools were reduced. However, from the mid-1990s a significant shortage of physicians developed due to the gradual recovery of the public sector. To address this shortage, the yearly intake of new medical students was increased (Fig. 5.5). However, the impact of this measure takes a long time to take effect and there is still a lack of physicians in Finland. The same pattern can also be seen among dentists. Training for pharmacists and assistant pharmacists has also increased during the years 1995–2005.

In the future the need of health care professionals will increase mainly for two reasons. Firstly, a significant proportion of health care professionals will retire in the near future. Secondly, the demand for health services will continue to increase with the ageing population and growing expectations for medical care.

5.2.3 Training of health care personnel

Physicians are educated at five universities. Universities are public and education is free of charge. Entrance is based on grades from high school and on entrance exams. Basic medical education lasts six years and contains

Fig. 5.5 New students accepted in universities (related to health care)



Source: KOTA, 2007.

considerable guided practical training. After studies in university, two years of practical work and training is required, both in hospitals and in health centres, to obtain a licence to work independently as a physician. Part of this training may be completed in the private health care sector or by practising scientific research. Dentists are trained in three university medical faculties and their studies last five years in total.

To become a specialist, physicians and dentists must register with a faculty of medicine for the relevant specialist training programme. Specialization lasts five to six years depending on the specialty. To obtain a specialist diploma, a specified amount of theoretical study is required and a national examination must be passed in addition to the required amount of clinical work. Specialization begins with the resident working as a junior hospital doctor at a central hospital or district hospital under the supervision of an experienced physician. This is followed by at least one or two years working at a university hospital

in addition to a structured training programme which is required for most medical specialties. In 2006 about 63% of working age physicians had specialist training (the majority of the rest were working as GPs) and 22% had a PhD degree (Suomen Lääkäriliitto 2006). According to the statistics of the Finnish Medical Association, there were estimated 360 physicians licensed in Finland in 2007 who were not Finnish. The largest groups of foreign physicians were from Estonia and the Russian Federation.

The training of nurses and other health care personnel such as physiotherapists, midwives and laboratory personnel takes place at polytechnic schools. In Finland general and specialized programmes of nursing have been combined: students have common training in general nursing, complemented with training from a specialty of their choice: nursing for surgery and internal medicine; paediatric nursing; anaesthetic and operating theatre nursing; or psychiatric nursing. The training programme for public health nurses lasts three and a half years and for midwives four and a half years. Assistant nurses used to be trained in a one-year programme, but this programme has been abolished. Instead, a new two and a half-year programme in basic care provision has been launched in both health and social services.

Finnish universities also have programmes of nursing science and health sciences. Both of these lead to bachelor and master degrees. These programmes lead to administrative, educational and scientific careers. Training of pharmacists and assistant pharmacists takes place in three universities. Pharmacist education takes five years and assistant pharmacist three years. Training of psychologists also takes place in the universities.

Legally, health centres and hospital districts are responsible for arranging continuous education for their personnel (Primary Health Care Act and Act on Specialized Medical Care). It is recommended that 3–11 days training per year is undertaken, depending on the type of profession. After graduation, continuous medical education for physicians is provided by employers, medical societies, universities and pharmaceutical companies.

5.2.4 Registration/licensing

The NAMLA is responsible for licensing, registration and, together with the State Provincial Offices, supervising of health care personnel. It also undertakes disciplinary procedures (99 procedures in 2006) concerning health care personnel. Health care professionals in Finland are licensed for their entire active careers and systems of periodic relicensing are not in use.

6. Provision of services

6.1 Public health

Health promotion, including the prevention of diseases, has been the main focus of Finnish health care policy for decades. This has resulted in the eradication of certain communicable diseases, a decrease in several lifestyle-related diseases and an improvement in the health of the population.

Health promotion is carried out on a national and municipal level. Many NGOs also implement extensive programmes for health promotion. Health promotion is funded primarily through municipal budgeting. In addition, the state budget includes a separate allocation for health promotion programmes (9.3 million euros in 2007) from which contributions are given upon application for projects arranged by municipalities, NGOs and other actors. NGOs are also eligible for financial support from the revenue of the Slot Machine Association (see section 2.2.5).

6.1.1 National level

At the national level, the MSAH is the main actor to protect and promote public health. It has responsibility within the state administration for health protection, environmental health and chemical affairs, and tobacco and alcohol control. Several agencies and institutions subordinate to the ministry carry out some of these tasks (STAKES, KTL and the FIOH). The goal is to address health issues in all societal sectors and all policies. In 2007 the Government initiated a new four-year multisectoral Government Policy Programme for health promotion (see section 7.1.1.9). The aim of the programme is to promote health and reduce health disparities through coordinated actions of different ministries.

The overall health promotion target is based on the Health 2015 public health cooperation programme, which was approved by the Government in

2001 (MSAH 2001a). The programme outlines the targets for Finland's national health policy for the next 15 years. The strategy design was based on the WHO Health for All programme, revised in 1998. The strategy is a continuation of the Finnish national Health for All 2000 programme which was adopted in 1986 (MSAH 1987).

The public health cooperation programme provides a broad framework for health promotion in various component areas of society. It reaches across different sectors of administration, since public health is largely determined by factors outside health care. The concepts 'settings of everyday life' and 'life course' play a key role in the programme. The strategy presents eight targets for public health, which focus on important problems requiring concerted action by various bodies. Examples of these targets include: to increase average healthy years of life by two years, to cut accidental and violent death among young adult men by a third, to delay average retirement age by three years and to reduce smoking among young people. In addition, there are 36 statements concerning the lines of action underlined by the Government, incorporating challenges and guidelines related to citizens' everyday environment and various actors in society. The programme was prepared by the Advisory Board for Public Health set up by the Government. The process involved consultation with specialists, analyses, seminars and group work.

National level responsibility on the prevention of communicable diseases rests with KTL. The Institute also reports on communicable diseases to health authorities, health care providers, the mass media and the general public. KTL and the hospital districts maintain communicable disease registers. Doctors are obliged to report certain communicable diseases, including tuberculosis, diphtheria, hepatitis, malaria, HIV, poliomyelitis, cholera and rabies. Also, microbiological laboratories report any incidence of these infectious diseases and related observations. Additionally, KTL runs many programmes to decrease the burden caused by several other diseases, such as cardiovascular diseases and mental health problems.

Occupational health promotion is arranged by employers. According to law (Occupational Health Care Act), employers must provide services that are necessary to prevent health risks caused by work. They must also provide sufficient information on health risks related to work and to advise their employees on how to avoid those risks. Furthermore, employers are obliged to check an employee's status of health when a job might endanger his or her health. The FIOH carries out research, offers training for occupational health and safety professionals, provides advisory services and disseminates information on occupational health.

Efforts have been made to reduce the consumption of harmful products, such as alcohol and tobacco. This has partly been achieved by taxation, which has kept the prices of alcohol and tobacco products at a high level. As in most other Nordic countries, the sale of alcohol has been a state monopoly, making it possible to regulate prices and sales. Smoking is reduced by smoking cessation campaigns, pricing and legislation. Since the 1970s, Finland has had extensive tobacco legislation, prohibiting tobacco advertising and smoking in public places. In 1995 smoking became prohibited at workplaces, and in 1999, restrictions were imposed on smoking in restaurants. The most recent reform of the Tobacco Act was enacted in June 2006. The new act bans smoking in pubs and restaurants, except in specific closed and ventilated rooms where food or drink are not permitted. Small pubs had to implement the reform by July 2007, whereas larger pubs and restaurants have a transition period until July 2009. The sale of tobacco to children under 18 is prohibited in Finland. Advertising of tobacco and strong alcohol is also prohibited.

The state supervises, integrates and steers environmental health policy as a whole. The primary responsibility for environmental health policy, however, is devolved to the municipalities. Tasks at the national level are divided between several ministries. State Provincial Offices direct and supervise environmental health services on a regional level. Environmental health services in Finland include the following: the quality and hygiene of foodstuffs, health impacts of housing and public areas, noise abatement, the quality of drinking- and bathing-water, assessment of adverse environmental health effects and waste management. Furthermore, surveillance of gene technology, chemical control and protection from radiation are included under environmental health policy.

6.1.2 Municipal level

At the municipal level public health is primarily the responsibility of the health centre, according to the Primary Health Care Act. In Finnish terminology, legislation and practice, ‘primary care’ carries the double meaning of primary health care and public health. In addition, environmental authorities, social welfare authorities, work health and safety authorities and local school authorities are responsible for some public health activities.

Maternal and child health care and school health care are the most important municipal services for promoting public health (see also section 6.1.4). Maternal and child health care has a strong tradition in Finland pre-dating the establishment of health centres. Partly owing to the comprehensive network of maternal and child health care services and the great emphasis placed on them,

infant mortality in Finland is one of the lowest in the world. Children and young adults also receive extensive publicly funded preventive dental care.

Municipalities are also responsible for providing free immunizations for residents. The general immunization programme in Finland, which mainly follows WHO recommendations, covers the whole population. It starts with child health care in health centres and is continued in schools. The national vaccination programme includes diphtheria, tetanus, pertussis, measles, mumps, rubella, polio and Hib. The vaccination programme was last revised in 2006, when vaccination for tuberculosis only for children at risk was introduced. Vaccination coverage is relatively high in Finland (Fig. 1.3). In 2005, about 93% of children born in 1999 received all vaccinations included in the national vaccination programme (Joensuu et al. 2005). The decree of the MSAH also includes vaccination against influenza for certain high-risk population groups. KTL has defined that free influenza vaccinations should be provided to people aged over 65 and to younger people with specific chronic diseases.

Municipalities are obliged by decree of the MSAH to provide breast cancer screening for all women between the ages of 50 and 69 in two-year intervals and cervical cancer screening for women aged 30–60 years in five-year intervals. Breast cancer screening was expanded to 60–69 year-olds at the start of 2007. In 2002, 88% of those who received an invitation participated in mammography screening and 72% in screening for cervical cancer (Cancer Society of Finland 2005). In addition, some municipalities are offering breast and cervical cancer screening to other age cohorts and also other screening services such as osteoporosis or bowel cancer screening (the latter may become a national programme depending on the results of an ongoing evaluation). The majority of municipalities provide antenatal screening for chromosomal and structural malformations (see section 6.1.4). Across all municipalities newborns are screened for hypothyreosis.

Municipalities provide family planning and other reproductive health services. The prevention of STDs is based on the detection of all those infected and on easy access to treatment that is free of charge. All those possibly infected are to be identified and directed to a health centre or elsewhere to receive treatment. The largest cities have separate STD clinics in their health centres, but otherwise treatment is provided as part of general health centre services. Because of comprehensive family planning services provided by health centres and health education targeted to young people, the abortion rate in Finland is rather low, despite a liberal abortion law.

Municipalities are responsible for the implementation of environmental health services in their respective areas. Environmental health activities can be either under the health centre or under the local municipal environmental

protection authority. Municipal health inspectors ensure that environmental health legislation is complied with and provide consultation and guidance in environmental health issues. For wider environmental problems or catastrophes, the provincial or state authorities work together with the municipal level authorities.

6.1.3 Other organizations and programmes

There are many NGOs working in the field of health promotion in Finland. The Finnish Centre for Health Promotion is an umbrella organization with 125 member organizations. Its aim is to promote cooperation between universities, officials and organizations performing health promotion work. The centre participates in several projects, programmes and campaigns (for example on promoting health in schools, prevention of domestic accidents, environmental health and drug abuse). It produces professional publications, guides, posters, reports and the health promotion magazine 'Promo'. The main funding sources of the centre are the Slot Machine Association and the MSAH. The centre has a staff of about 25 persons.

There have been several major public health campaigns in Finland to reduce mortality and risk factors related to chronic disease. For example, in 1972, the North Karelia Project was launched in the eastern province of North Karelia in response to a local petition to reduce the high coronary artery disease mortality rates among men (Puska et al. 1995). The North Karelia Project was launched as a community-based, and later as a national, programme to influence diet and other lifestyles that are crucial in the prevention of cardiovascular diseases. The original project period lasted from 1972 to 1977, but it continued operating beyond this period until the end of the 1990s. The prevalence of cardiovascular diseases among men in the eastern parts of Finland was higher than in other parts of the country and was one of the highest in the world. In cooperation with local and national authorities and experts, as well as with WHO, the project was designed and implemented to carry out comprehensive interventions through community organizations in the area, and the actions of people themselves. The project was integrated as far as possible into the local service system and social networks.

Various methods were used in the project: provision of general information and health education (through materials, mass media, meetings, campaigns, etc.); development of referral and screening procedures in health services; encouragement of environmental changes (such as smoking restrictions, promoting vegetable growing, collaborating with food manufacturers); preventive work directed at children and young people; and training and education of health personnel. Much of the practical work was carried out by

various bodies in the community itself, coordinated by hospitals and health centres.

Over the 25-year period since the start of the project, major changes have taken place. Among men in North Karelia, smoking has greatly reduced and dietary habits have markedly changed. In 1972, a little more than half of middle-aged men in North Karelia smoked. In 1997 the percentage had fallen to less than a third. By 1995 the annual mortality rate of coronary heart disease among men under 65 years old was reduced by about 73% from the pre-programme years (Puska, Pietinen, Uusitalo 2002). Among women, the reduction in deaths from cardiovascular diseases has been of similar magnitude. Broad community organization and the strong participation of people were the key elements of the success of the programme.

Perhaps the greatest impact of the North Karelia Project was inspiring the whole country in the nationwide implementation and boosting primary health care in the country. The project also contributed to policy changes in health, agriculture and commerce within Finland as a whole. For example, the food industry collaborated with the project to promote low-fat dairy products, as well as salt reduction in several foods. On the other hand, smoking dropped dramatically among men but actually increased among women.

Recently, the increasing prevalence of type 2 diabetes has been notified as a major current public health problem in Finland. As a result the National Programme for the Prevention of Type 2 Diabetes 2003–2010 (DEHKO) was set up (Finnish Diabetes Association 2003). The programme is coordinated by the Finnish Diabetes Association and a wide variety of other relevant organizations are participating. The programme comprises three concurrent strategies: the Population Strategy aimed at promoting the health of the entire population by means of nutritional interventions and increased physical activity so that the risk factors for type 2 diabetes, such as obesity and metabolic syndrome, are reduced in all age groups; High-Risk Strategy comprises measures targeted at individuals at particularly high risk of developing type 2 diabetes, providing a systematic model for the screening, education and monitoring of people at risk; the Strategy of Early Diagnosis and Management is directed at persons with newly diagnosed type 2 diabetes with the aim of bringing these people into the sphere of systematic treatment, thus preventing the development of diabetic complications that reduce the affected person's quality of life and are expensive to manage.

The food industry is increasingly taking recommendations on healthy nutrition into account in its product development. For example, the supply of milk products with a low percentage of animal fat has widened and the use

of vegetable oil has increased. Healthy nutrition has also been supported by legislation.

6.1.4 Maternal and child health

According to the Primary Health Care Act, health centres must have maternity and child health clinics. Free-of-charge child health clinics have existed in Finland since the late 1940s. The purpose of maternity clinics is to promote the health and well-being of parents, foetus and newborn child. The aim is to help parents in preparation for parenthood and for the changes brought on by the arrival of a child, as well as to promote a healthy lifestyle. Support is provided for the whole family, paying particular attention to parenthood and the relationship between the parents, with the father's role and responsibility as a parent playing an integral part. Maternity clinics are also responsible for birth preparation, identification of complications relating to the pregnancy and referral of the mother for further treatment, as necessary.

Women with normal pregnancies attend the clinic between 11 and 15 times. Most of the appointments are with a public health nurse, and two to three visits are with a physician. Most health centres provide ultrasounds between weeks 12 and 16 of pregnancy to screen for chromosomal and structural malformations (for example Down's syndrome), but there are significant variations between municipalities in the provision of these screening services. However, a decree obliging municipalities to provide antenatal screening on a nationally uniform basis will come to force in 2010. Almost all pregnant women have a check-up at the maternity clinic in a health centre at least once before the end of the fourth month of their pregnancy, because this check-up is a precondition for receipt of the maternity grant.

The objective of child health clinics is to promote the health of children and the welfare of families, and to reduce inequalities in health between families. The child health clinics monitor and support the physical, psychological and social development of under school-age children, and support parents in safe, child-centred upbringing, good child care and the relationships between parents. The focus is increasingly placed on identifying possible problems that families with children have at as early a stage as possible, and on arranging appropriate support.

The national recommendation is that child health clinics arrange 16 periodic check-ups, five of which are appointments with a physician and the rest with a public health nurse. There are eight check-ups for under one year-olds, four check-ups per year for one and two year-olds, and one check-up per year for older children until the child attends school where she or he receives school

health care. A public health nurse carries out a home visit before and after the birth, and at other times if needed. Additional support is provided through parent groups. Child health clinics are increasingly involved in multi-professional cooperation with other organizations that work with families with children. The clinics also administer the vaccinations provided under the immunization programme (see section 6.1.2).

Maternity and child health clinics have been very successful in Finland. Infant mortality has decreased rapidly over the last 30–40 years. At the beginning of the 1970s, almost 15 out of every 1000 newborn infants died; since the mid-1990s the rate has been less than 5 per 1000, one of the lowest in the world (see also section 1.5).

6.2 Patient pathways

There are three main systems providing health care services in Finland: municipal health care, occupational health care and private health care. The advantage of the municipal system is that it provides comprehensive services and there are low user-fees. The advantage of occupational health care is that there are short waiting times and it is free of charge. The advantage of private health care is that there are short waiting times and the patient is free to choose the provider. Usually, employed persons can choose between these three systems (see section 2.4.2). According to a recent population survey, about 45% of physician visits by employed people were in occupational health care, 35% were in municipal health care and 15% were private health care (Perkiö-Mäkelä et al. 2006). For low-income, unemployed or retired persons or children from low-income families the municipal health care system is, in practice, the only option.

Municipal health care is accessible for all permanent residents of the municipality (see sections 2.2.1 and 3.2.1.1). Patients cannot choose their health centre. In larger cities there are many health stations serving different geographical areas of the city and people are registered to one of these. Initially, patients should contact the health centre by phone to make an appointment. At this point the need for care is assessed. If a patient needs to visit a physician or nurse (see section 6.3), an appointment is made. In some municipalities patients can choose a physician in the health centre (see section 6.3). There can be long waiting times for health centre physician appointments in non-acute cases.

If the physician in the health centre assesses that a patient needs secondary health services, the patient is referred to secondary care in the hospital district. Patients cannot choose the hospital they are referred to. There can be long

waiting times for outpatient hospital appointments. After specialist level care is received the referring physician receives a discharge summary from the hospital district and is responsible for further follow-up. If the discharged patient is not fit to live at home, the patient is taken to the inpatient ward of the health centre. The municipality can also provide suitable home care or other institutional long-term care if necessary.

Most employers provide voluntary curative services (see section 2.2.4). In these cases a patient can attend an occupational health care clinic assigned by the employer free of charge (there are different kinds of limitations on services employers provide). If the physician in occupational health care assesses that the patient needs secondary health services, the patient can be referred to the hospital district (municipal system) or to a private specialist or private hospital. Occupational health services are free of charge.

If a patient wants to use private services, the patient can choose any private physician. The patient can go directly to an outpatient specialist provider. Usually, the patient has to first pay the full costs of the services and then receive reimbursement from NHI (on average 30% of expenses). If the patient has voluntary private sickness insurance, after NHI reimbursement she or he can claim part of the out-of-pocket expenses from their insurance company (see section 3.3.3.2). If the physician in private health care assesses that the patient needs secondary health services, the patient can be referred to the hospital district (municipal system) or to the private system.

For the majority of NHI benefits (for example sickness allowance, higher drug reimbursement, rehabilitation and compensation of travel costs to a health care unit) a patient needs a medical statement from the treating physician (see section 3.2.2.3).

6.3 Primary care

The current system of delivering municipal primary health services originated with the enactment of the Primary Health Care Act in 1972. This act represents one of the major milestones in the history of Finnish health care. It adopted a broader perspective on the provision of primary care than simply the provision of general medical treatment, covering primary medical care and public health. It obliged municipalities to provide these services to their inhabitants in what was a completely novel provider organization at that time, a “health centre”.

A municipal health centre can be defined as a functional unit or an organization that provides primary curative, preventive and public health services to its population. It is not necessarily a single building or a single

location; health centre activities can be organized at several locations, for example, maternal and child health care or school health might be provided at a separate location from the health centre doctor's office. Large cities usually have activities organized at several health stations. Health centres are owned by one municipality or jointly by several municipalities through a federation. They do not aim to make a profit: they are publicly owned and run (see section 2.2.1).

There were 237 health centres in Finland in 2007. In sparsely populated areas such as Lapland, the distance to the nearest health centre facility is much greater than in the more densely populated south. The size of a health centre varies, depending on the number of people it serves. When health centres were first set up, it was thought that they should serve a population of at least 10 000, but later health centre federations were permitted to divide, so the number of health centres went from 205 to a peak of 279. In January 2007, Parliament introduced a law outlining that primary health care services would be run by organizations covering at least 20 000 inhabitants, following a four-year transition period. Currently, only about one in four health centres has population base of 20 000 or more (see section 7.2.1).

Health centres offer a wide variety of services: outpatient medical care, inpatient care in inpatient wards (in larger cities these can be classified more as a GP-run hospitals), preventive services, dental care, maternity care, child health care, school health care, care for older people, family planning, physiotherapy and occupational health care. Legislation does not stipulate in detail how the services should be provided, and in most cases this is left to the discretion of the municipalities, although for some services there are national guidelines (for example on maternity and child health clinics, for school health care and for screening).

Health centres are usually well equipped with staff and medical technologies. In addition to the physicians' and nurses' consulting rooms, there are normally X-ray facilities, a clinical laboratory, facilities for minor surgery and endoscopic examinations and equipment such as electrocardiogram and ultrasound.

The personnel of health centres consists of a wide selection of various health professionals: GPs, who can hold the specialty of general practice or sometimes also other clinical specialties, nurses, public health nurses, midwives, social workers, dentists, physiotherapists, psychologists and administrative personnel. The number of inhabitants per health centre physician varies, averaging about 1500–2000.

According to Nordic principles, general practice is a specialty comparable to other clinical specialties, with six years of postgraduate training. However, it is not obligatory to be a specialist in general practice medicine to work as a

physician in a health centre. Originally it was planned that health centres were to have permanent posts available only for specialists, but with the shortage of health centre physicians this was not possible. In 2006, approximately 30% of all physicians working in health centres specialized in general practice (Suomen Lääkäriliitto 2006).

The main work of health centre physicians is to provide office-based general medical care to patients of all ages. They are also involved in maternal and child health care, school health services, occupational health care, family planning, care in the health centre inpatient wards, home nursing (although home visits by GPs are not very common; these are more often done by nurses), consultation at municipal nursing homes and in various public health and forensic activities. The tasks are often divided up among the health centre physicians according to the circumstances of the centre and the experience or interests of the physicians. Some health centres have arranged for specialists to come for regular consultations – for example, a radiologist from the nearby hospital to interpret X-rays.

The GP-run inpatient department of a health centre works in much the same way as a hospital department. A typical health centre has between 30 and 60 beds. The number of inpatient departments within a health centre varies; large centres have several. The large majority of inpatients of health centres are older people with chronic diseases. The average age of these patients was 75 years in 2005 (STAKES 2006c). A significant part of the care provided in this setting is long-term care; in 2005 54% of inpatient days were for patients who stayed in the unit for more than six months (STAKES 2006c). In remote, sparsely populated areas, however, health centres provide comprehensive emergency and short-term curative inpatient services to the entire population. During recent years, many municipalities have sought to curtail specialist hospital costs by quickly admitting post-operative surgical patients to health centre inpatient wards.

Nurses play an essential role in Finnish health centres. There are nurses with a general nursing education who, in addition to assisting GPs, have their own consulting hours for giving injections, removing sutures and measuring blood pressure. The role of nurses is currently also expanding in acute care and in assessing new patients. Nurses do not act as formal gate-keepers to the physicians, but in practice, seeing the nurse first is becoming a common route to a physician appointment. Maternal and child care are largely carried out by public health nurses who have specific training in preventive services. In addition to maternal and child health care, public health nurses are engaged in family planning, school health care, occupational health care, home nursing and all kinds of health promotion activities.

Occupational health care at health centres is offered to those employees whose employers have elected to use the health centre to provide this service (see section 6.2). Occupational health care is provided by one or more of the health centre physicians, along with one or several nurses. The physician may be a specialist in occupational health care (which is a medical specialty in Finland) or have additional training in occupational health care (see section 2.2.4). Employers are charged the full cost of these services by the municipality.

Physiotherapy and rehabilitation in health centres are carried out mainly by physiotherapists by referral from a health centre physician. They give treatment to individual patients and arrange guidance and physical exercise for patients. The health centre physiotherapy department is usually also the place that provides medical aids and prostheses.

Health centres often employ social workers to deal with various problems related to illness, such as helping patients to apply for benefits or arranging home help and other services needed by patients discharged from inpatient care. Health centres also work in cooperation with municipal social services. Health centres also provide outpatient mental health care services (see section 6.9).

Health centres do not have a pharmacy for the sale of prescription drugs to patients, but they have a stock of pharmaceuticals for their own use: for minor surgery, for inpatient departments and for acute cases at night when pharmacies are closed.

The management of health centres varies. Usually, the head of a health centre is the chief physician, but in large and middle-sized centres the management often includes several leading persons. There are often several chief physicians accountable to the medical director, one or several chief nurses and one director of finance and/or administration.

Some municipalities have a personal doctor system, which was developed in the 1980s–1990s. Currently, approximately half the physicians working in health centres belong to this system. In this system, a person or a family is assigned to a specific health centre doctor usually based on place of residence. Physicians organize their practice so that patients on their list are able to see them within three days. Physicians can decide on their own working hours, but not on the work of other personnel. Physicians in this scheme remain public employees. Collaboration between different health care personnel has been encouraged in this model: physicians and nurses form a team that is responsible for the care of a geographically defined area covering between 1500 and 5000 people. The teams have not been given special budgets or financial responsibilities. The reforms were made in order to improve access (every patient has a specified physician who has responsibility for access to them) and continuity of care (physicians do not change between visits). In some municipalities the size of

the population covered is so small that the principle of a personal doctor system already exists without a specific system.

As a rule, patients must use the health centre of their own municipality of residence, except in emergency situations. If a patient wants to make an appointment with a health centre physician, he or she is assigned either to the physician he or she wishes to see or to any physician who is available. If the "personal doctor" model is in use, the patient is usually assigned to the list of the doctor responsible for the care of his or her residential area. This means that there is not usually much choice of physician, as the initial assignment is based on address. However, if a patient wishes to change his or her personal doctor, this can usually be arranged.

About 13% of physicians working in health centres in 2006 also worked in the private sector (Suomen Lääkäriliitto 2006) (see sections 6.2 and 3.3.2.2 for details on private primary care).

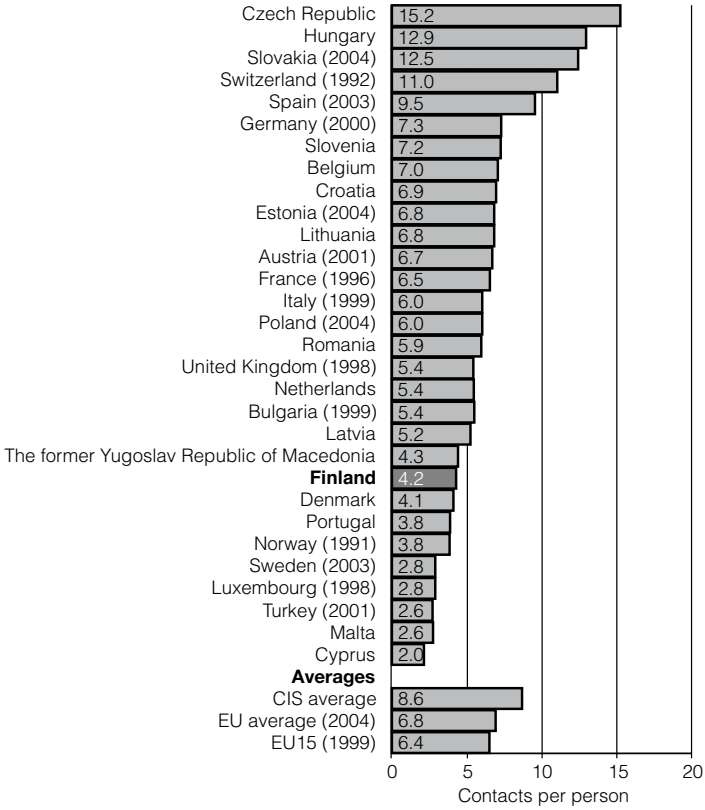
In 2005 there were 1.7 patient contacts to health centre physicians and 3.0 contacts to other health centre personnel per inhabitant, excluding occupational health services (STAKES 2006b). In municipal specialist level care (hospital districts) there were 1.3 outpatient contacts to physician per person, in occupational health care there were 0.5 outpatient contacts and in private health care there were 0.7 outpatient contacts (part of which were specialist visits). The number of outpatient physician contacts per person in Finland is lower than the EU average (Fig. 6.1; in Finland this figure includes all outpatient physician contacts). In part this may be due to different medical traditions such as the important role played by nurses, midwives and public health nurses, who may carry out tasks that physicians in other countries may do, especially in the field of maternal and child health.

6.4 Secondary care

Secondary care is mainly provided by the municipality-owned hospital districts (see section 2.2.1). There are 20 hospital districts in Finland. About 10% of specialist level outpatient visits are provided by health centres (STAKES 2006a) (see section 6.3). In 2006 there were 897 000 inpatient episodes, 179 000 periods of care in day surgery and 6.9 million specialist level outpatient physician visits in the municipal health care system (STAKES 2007d). In addition, there are private specialized ambulatory services and 41 private hospitals (the majority being very small) (STAKES 2006e).

Each municipality must belong to one hospital district. The largest hospital district in terms of population base has over 1.4 million inhabitants, while the

Fig. 6.1 Outpatient contacts per person in the European Union, 2003 or latest available year (in parentheses)



Source: WHO Regional Office for Europe, June 2007.

Notes: CIS: Commonwealth of Independent States; EU15: EU Member States before May 2004.

smallest has only 65 000. The number of member municipalities covered by the hospital district varies from 6 to 58. Each hospital district has a central hospital and other hospitals as needed, depending on the size of the hospital district. Five of the central hospitals are university teaching hospitals offering more demanding forms of specialized medical care and tertiary care. Hospital districts are funded by the member municipalities mainly based on fee-for-service (see section 3.5.1). The state owns two psychiatric hospitals, which are subordinate to STAKES. Physicians and other personnel in public hospitals are salaried employees of hospital districts. About 37% of physicians working in hospitals in the public sector also worked in the private sector in 2006 (Suomen Lääkäriliitto 2006) (see section 3.5.2).

Hospital districts provide specialized outpatient care, inpatient care and day surgery, usually in the same facilities. Patients need a referral from their health centre physician or any other licensed physician in order to access the outpatient or inpatient department in a specialized care hospital, except in emergencies. It is estimated that about 5% of visits to a health centre doctor lead to a hospital referral (Puhakka et al. 2006). In 2005, about 39% of the referrals to inpatient care in hospital districts came from health centres (STAKES 2007b). Most of the remaining referrals came from other hospitals' physicians (22%) and private physicians (15%, including private occupational health care).

Day surgery has become a very important form of operation in specialist care. Day surgery is defined as specialist level operations that do not require patients to stay overnight in the hospital. Day surgeries increased from 77 000 to 171 000 between 1997 and 2006. In 2006, day surgeries represented 40% of all surgical procedures (compared with 19% in 1997) (STAKES 2007d). Over half of operations on the eyes, ears, nose, larynx and mouth are day surgery operations.

In general, patients cannot choose the hospital where they will be treated (see section 2.4.2). Health centres have guidelines on where patients with certain symptoms and diagnoses are referred to.

Primary and secondary care is not always well coordinated as there are usually separate organizations providing these services (i.e., health centres and hospital districts). For example, health centres are not always given sufficient feedback information about the treatment of patients after their referral to hospital. However, the general aim is to organize one coordinator of care, for example the personal doctor, to maintain an overall view and responsibility of patients when they are treated at different levels of the health system. The planned national electronic patient record system should help achieve this goal (see section 7.2.2). Also, at the local and regional level there have been numerous reforms aiming to increase the coordination between the primary and specialized care (see section 7.1.2.2). The issue of continuity of care has been raised in various national health policy documents, often expressed as a "seamless chain of care".

There are few private hospitals in Finland, providing only 5% of the hospital episodes of care in the country (STAKES 2007b). The main reasons for choosing a private hospital are shorter waiting times, the possibility to choose a physician, and the perception of better quality services. Also, patients do not need a referral for private hospitals, and NHI reimburses part of the expenses to the patient. Some municipalities and hospital districts purchase some specific services from private hospitals; however, this is not very common. There are also physicians' private practices that provide specialized outpatient care services

that are partly reimbursed by NHI. These private outpatient services are much more common than private inpatient care. In private health care facilities there were 3.5 million outpatient physician visits in 2006 (compensated by NHI), of which 79% were visits to specialists (SII 2007a). The specialties with the most private outpatient visits are gynaecology and ophthalmology, together making up more than one-third of the total specialist visits.

6.5 Emergency care

Emergency care is provided by health centres and hospital districts. Normally, every health centre has at least one physician on call for emergencies. It is common that a large proportion of physicians' work on call in health centres is not genuinely medically urgent as many times patients have difficulties in getting ordinary daytime appointments. This is especially the case in municipalities with physician shortages. Currently, it is very common to lease physicians from private firms for out-of-office hour care, so they are different physicians than those working during the day (see section 3.5.2.1). Normally, patients should first go to the health centre emergency care to receive a referral to hospital if needed. In hospitals there are several physicians of different specialties on call. The arrangement for emergency care differs greatly between hospital districts as their size varies considerably.

Municipalities are responsible for arranging ambulance services. Provision of ambulance services differs between municipalities. Services can be provided by health centres, private companies and municipal fire departments. In the majority of municipalities the ambulance services are outsourced to private companies. There are more than 200 private companies providing ambulance services in Finland, the majority of them being small with less than three ambulances. NHI reimburses expenses exceeding out-of-pocket payment of 9.75 euros (in 2007) directly to the service provider when a patient arrives to a health care unit by ambulance (see section 3.2.2.3). NHI does not cover costs when patients are transported from one health care unit to another. In that case the service is paid for by one of the health care units. In 2005 NHI reimbursed 60 million euros for ambulance services, averaging 137 euros per trip (SII 2006). This is about half of the total expenses (Kuisma 2007), with the remainder paid by municipalities, hospital districts and patients as user-fees.

It has been argued that the emergency care system is fragmented and a large proportion of municipalities have population bases that are too small to provide good quality and efficient services themselves (Kuisma 2007). Very few municipalities place any strict quality standards on the providers and

in the majority of the municipalities, regulation of service provision is very weak. There are considerable regional differences in the service and cost levels that cannot be explained by differences in morbidity or regional characteristics but that are partly linked to different ways of organizing services.

In 2007 there were six ambulance helicopters in Finland operating from Helsinki, Turku, Oulu, Varkaus, Sodankylä and Vaasa. These helicopters also operate other rescue missions. Ambulance helicopters are funded by private donations, hospital districts and the state.

6.6 Pharmaceutical care

Pharmaceutical products may enter the market by permission of the NAM, which is subordinate to the MSAH. New drugs can also enter the market by the integrated European market authorization system (the European Medicines Evaluation Agency). The NAM also decides what plants are considered as medicinal. Herbal products containing these plants, or products made of them must usually have a marketing authorization as herbal medicinal products from the NAM.

Finland is TRIPS (Trade-related Aspects of Intellectural Property Rights) compliant, and it was one of the last countries in western Europe to introduce product patents for pharmaceuticals (in 1995). However, process patents were granted before 1995. In 2007, there were very few pharmaceutical products in the Finnish market with a product patent as it takes about 10 years or more from patent application to market introduction. Although there is 10-year data exclusivity in Finland, it is somewhat easier to introduce generic products in Finland than most other European countries because of weaker patent protection. Historically, the Finnish pharmaceutical industry has made almost solely generic products.

There are two wholesalers of pharmaceuticals in Finland that provide pharmaceuticals to pharmacies and hospitals. The pharmaceutical manufacturer makes a sole-distribution contract with the wholesaler and the products are available only through that wholesaler (so called one-channel system). Certain products may be delivered through an alternative route directly from the manufacturer to hospital pharmacies. The wholesalers and hospital pharmacies are obligated to maintain stocks for a possible crisis situation (for use for 5–10 months).

Outpatient pharmaceuticals can be sold to patients only by pharmacies (including over-the-counter (OTC) drugs). The only exception is nicotine replacement products which have been sold by grocery stores since 2006.

Prescription drugs are sold based on the prescription of a physician, a dentist or a veterinary surgeon. Health care units can provide drugs to patients which are administered in the health care unit. There are no Internet pharmacies in Finland.

Pharmacies are privately owned by pharmacists, but they cannot be owned by companies. One pharmacist can run only one pharmacy (and possibly two subsidiary pharmacies). As an exemption, the University of Helsinki and University of Kuopio have special rights to own pharmacies. Hospitals have their own hospital pharmacies (there were 24 in 2006). In 2006 there were 804 pharmacies in Finland including subsidiary pharmacies (NAM 2007).

Pharmacies are regulated in many ways. The NAM decides which locations pharmacies can be placed and also selects the pharmacists to run them. The PPB sets maximum wholesale prices for each pharmaceutical substance included in the drug reimbursement system of NHI. Wholesale prices must be the same for all outpatient pharmacies (this does not apply to hospital pharmacies). Companies can change the wholesale prices every two weeks. The retail price is determined by a combination of the wholesale price, the pharmacy's profit margin (the rate is set by the Government) and VAT (see section 3.5.2.3). Pharmacies pay a tax-like graded pharmacy fee to the state depending on their net sales. The function of the pharmacy fee is to decrease the differences in income across pharmacies, but still there exist major differences in profits across pharmacies. Because of this strong regulation there is hardly any competition between pharmacies (MSAH 2007a). The average annual business profit for the pharmacist after reduction of other running costs was 280 000 euros in 2005 (9.2% of net sales).

The PPB is attached to the MSAH. It regulates which drugs are reimbursed by NHI and their maximum wholesale prices. There are no restrictions on pricing of other drugs with a marketing licence. This price limit does not apply to hospital sales, because reimbursement of NHI applies only to outpatient drugs; drugs used in hospitals are paid from the hospital budget. There is no clawback system in Finland.

Pharmaceutical companies holding sales permits have to apply for reimbursement and the maximum wholesale price from the PPB (see information on the drug reimbursement system in section 3.2.2.2). The majority of prescription pharmaceutical products which have a marketing licence are reimbursed. There are three main categories of drugs that are not reimbursed: low cost drugs in which reimbursement is not considered important for patients, and to which companies want to freely set the price; where the PPB and the drug company have not reached an agreement on what is a reasonable price; and where the drug is used solely in hospitals.

A pharmaceutical company is free to set the wholesale price lower than that which is determined by the PPB to be reasonable.

Compulsory generic substitution was introduced in Finland in 2003 (voluntary generic substitution was in effect for a few years in the early 1990s without significant success). According to law (the Medicines Act), pharmacies are obliged to substitute a prescribed medicinal product that costs more than a certain defined maximum price limit with a product costing less than that limit containing the same substance. The NAM defines the list of substitutable medicinal substances. The majority of drugs are in this list, but, for example, insulin and anti-epileptics are not included. The price limits for generic substitution for each pharmaceutical substance are defined every three months by the SII. The SII calculates the maximum price by adding two euros to the price of the cheapest alternative at that moment (and 3 euros if the price of the drug is more than 40 euros).

The prescribing physician may decline generic substitution for medical or therapeutic reasons. The patient does not need any reason in order to decline substitution and he or she is refunded by the NHI according to the actual costs of the prescription. Historically there has been no reference pricing system in Finland, although MSAH has planned to introduce it in 2008. Physicians rarely decline substitution and patients refuse only about 10% of the potentially substitutable prescriptions. Annual savings from the first year of generic substitution was about 5% of outpatient drug expenses, of which about two-thirds has been attributed to price competition (Ahonen and Martikainen 2005). Price competition continued to lower prices after the first year (Paldán 2006).

Hospitals and health centres usually have pharmaceutical boards which are expert bodies evaluating and recommending medicines to be approved for entry into the drug formulary. The drug formulary is intended to ensure safe and effective pharmacotherapy for medicines regularly needed in hospitals (Hermanson et al. 2001; Pekurinen and Häkkinen 2005). These boards also negotiate medicine prices and decide on procurement. Hospitals and health centres have also formed purchasing pools to strengthen their negotiation power.

As in many other European countries, expenditure on pharmaceuticals has grown rapidly, both in real terms and as a share of total expenditure (see section 3.1). From the beginning of the 1990s, pharmaceutical costs grew on average 7–8% every year in Finland (Pekurinen and Häkkinen 2005). In 2006 total sales including inpatient and outpatient use were 2.4 billion euros and about 470 euros per inhabitant (NAM 2007). In 2005 total sales of pharmaceuticals was 20.5% of total health care expenditure (compared to 15.4% in 1994). Of the total sales, 74% was attributable to prescription medicines used in outpatient care,

16% to medicines used in inpatient care and 10% to OTC medicines in 2006. The NHI reimbursed a total of 1.1 billion euros for outpatient drugs. Between 2005 and 2006 the total sales of pharmaceuticals decreased (by 1.6%) for the first time in Finland in the last two decades. The price decrease in early 2006 and the effects of generic substitution were the principal factors contributing to this (see section 7.1.1.4).

Direct-to-consumer advertising of prescription drugs is not allowed in Finland. However, disease-oriented advertisements not specifying drugs are permitted. On the Internet, only text containing patient information can be presented. Direct-to-consumer advertising of OTC drugs is permitted, but regulated. The NAM and Pharmaceutical Industry Finland (a national industry association) enforce regulations concerning drug promotion to the public and to health care professionals.

Rohto was established in 2003 to develop pharmacotherapy in Finland by disseminating independent drug information to physicians. The SII annually sends a letter to physicians reporting on the expenses for the drugs that particular physicians had prescribed in the last year and, for comparison, the average expenses of all physicians of the same specialty (Pekurinen and Häkkinen 2005). Prescribing is also guided by Current Care, which are guidelines produced by the Finnish Medical Society Duodecim. However, with very few exceptions these guidelines do not include economic information (see section 7.1.1.6).

In outpatient care physicians do not have any financial incentives, such as holding a budget to assess costs, and NHI as a payer has few possibilities to directly influence physicians. However, prescription patterns can be somewhat regulated by limiting reimbursement. For example, in 2006 the PPB decided that the most expensive statins would only be reimbursed after less expensive statins are first tried and found to be inadequate. This significantly lowered the use of statins without a generic alternative, although it appears physicians do not follow this rule consistently for all patients (Martikainen and Maljanen 2007). In inpatient care, physicians need to assess costs more closely as expenditures are included in the departmental budget.

Pharmaceutical policy in Finland is currently under review and a report about it was published in 2008 (Mossialos and Srivastava 2008).

6.7 Rehabilitation

Health centres and hospital districts provide medical rehabilitation in the form of rehabilitation counselling, tests to establish the individual's need for rehabilitation, treatment and course of rehabilitation to improve functional and working capacity, the provision of various technical aids, adaptation training and rehabilitation guidance. Rehabilitation is provided in cooperation with the health centre and other agencies such as social welfare offices, employment offices, schools, the SII and insurance companies. Rehabilitation coordination in the municipalities is often provided by a special liaison team.

In addition to municipal services, the NHI also reimburses part of the cost of medically prescribed private rehabilitation services (see section 3.2.2.3) (covering 106 000 persons in 2006; SII 2007c). NHI covers vocational rehabilitation for persons with impaired functional capacity and medical rehabilitation of persons with severe disabilities. The state budget also includes a special allocation that the NHI can use to reimburse other vocational services, including early rehabilitation measures geared to the requirements of a particular occupation, institutional rehabilitation services, adaptation training and psychotherapy.

6.8 Long-term care

Long-term care for older people is mainly provided in the inpatient departments of health centres, in nursing homes and in service homes. The majority of nursing and service homes for older people are owned by municipalities, but there are also a number of private homes and homes provided by NGOs. Other long-term care services for older people and people with disabilities include home-care services, home nursing, day hospitals and other day-care centres and part-day nursing. In service homes, older and disabled people live in their own apartments but are offered different kinds of service in the same building, such as meals, nursing, alarming system and other assistance with daily living. Health centres have to work closely with municipal nursing homes; for example, a health centre physician takes care of the medical treatment once or twice a week.

In 2005, 12% of over 75 year-olds were in regular home-care, 5% in service homes (of which little more than half had 24-hour assistance), 4% in nursing homes and 3% in long-stay care in inpatient wards of the health centres (STAKES 2006b). Long-term inpatient care at health centres has somewhat decreased since 1990. From the early 1990s, the volume of traditional nursing homes has decreased and the volume of service housing living has

increased. This development has been prompted by financial incentives for the municipality. In service homes, the terms are similar to ordinary living with the help of community-based services and, for example, drug costs are covered by NHI and not by the municipality as would be the case in a nursing home. Various health and social policy documents have stressed the need for more support for older people and people with disabilities living in their own homes. As a result, an effort has been made to improve the supply of home support services offered.

There is considerable variation across municipalities in the type of services provided and in some municipalities there have been concerns that the level of quality in nursing homes is poor. To address this situation national quality guidelines for elderly care were published by the MSAH in 2001 to help municipalities monitor their attainment of a set of targets for elderly care (MSAH 2001b). The quality guidelines, for example, recommend that municipalities should define the number or ratio of personnel per client needed for each service. However, the targets are recommendations rather than rules.

Persons with other disabilities are also offered special residential services and other services by municipalities. Legislation requires that disability services must be provided according to need in a municipality, and that people with disabilities have a right to certain services. In 2005 there were 2500 persons (0.5 per 1000 inhabitants) in institutions for people with intellectual disabilities, 7500 (1.4) in housing with assistance, 1900 (0.4) in sheltered and supported housing and 2800 (0.5) in service housing for seriously disabled people (STAKES 2006b). Since the mid-1990s, there has been an increase in housing with assistance and service housing for seriously disabled people alongside a decrease in the number of persons in institutions for intellectual disabilities.

6.9 Mental health care

Municipalities are responsible for providing mental health care services to their inhabitants; mental health is one of the task areas of the health centres according to the law (Primary Health Care Act). There is also a special act on mental health services (Mental Health Act) enacted in 1991, in which for example, rules on coercive measures are defined.

In the 1970s and 1980s curative mental health outpatient services were under the administration of specialist level services, but health centres were funded to employ psychologists for preventive mental health services. These psychologists directed their work to children, schools, special risk groups, or they offered office-based services for common life crisis situations.

Later, mental health services were actively shifted away from the hospital to the community. During the 1990s, gradually a significant proportion of mental health services were transferred under the administrative roofs of health centres in most hospital districts and many long-term patients were transferred from institutionalized care to outpatient care and to transitional services such as supported housing. During this time the average length of treatment periods in inpatient care decreased significantly. However, partly because of economic recession, the supply of outpatient psychiatric services as well as other supportive services and intermediate services has not increased to the same extent as hospital beds had been reduced (Lehtinen et al. 2006). There was also greater emphasis placed on public health in this period. Because of the high suicide rate (see section 1.5), the national administration carried out a suicide prevention programme during the years 1986-96. The programme, led by KTL, included a research project on suicide risk factors and an action plan based on the findings. The successful implementation of the action plan involved the extensive participation of stakeholders from national, provincial and municipal levels and may have contributed to the reduction in suicide mortality in Finland over the last twenty years.

In 2006 there were about 73 000 episodes of inpatient mental health care and 2.1 million inpatient care days (2.5 million in 1996) (STAKES 2007d). That same year there were 1.4 million outpatient mental health visits in hospital districts (1.2 million in 1995) and 650 000 outpatient mental health visits in health centres (215 000 in 1995). In 2006 there were 217 child psychiatrists, 132 adolescent psychiatrists, 46 forensic psychiatrists and 977 adult psychiatrists (Suomen Lääkäriliitto 2006).

Institutional care is provided in the psychiatric units of hospitals. Some units are physically located in general hospitals and some are separate psychiatric hospitals governed by hospital districts. Finland has two state-owned psychiatric hospitals that provide mental health examinations and treatment for criminals waived prosecution for mental disorders, and other patients whose care is considered dangerous or particularly complex.

Outpatient services are provided by health centres, mental health offices and psychiatric hospital outpatient departments. Mental health offices are staffed by psychiatrists, psychologists, psychiatric nurses and social workers, among other professionals. Many mental health offices have been transferred to the administration of health centres but there has been no systematic national policy to do so. The overall picture is quite variable across the country in this respect.

Outpatient services supporting long-term psychiatric patients consist of residential homes, rehabilitation homes, shared apartments, day hospitals and

day-care centres, and sheltered housing. The organizations providing these services vary from region to region; from the municipal social or health service system, the private sector or NGOs, to specialized psychiatric hospitals.

The SII reimburses part of the private psychotherapy fees incurred by over-16s who are threatened by incapacity to work or study, or who are unable to return to employment or studies without the support of psychotherapy. In the case of the under-16s, the SII places importance on organizing and funding a diversity of family-oriented rehabilitation.

6.10 Dental care

The population can access public dental services in municipal health centres or alternatively they can use private services. Private dental care is partly reimbursed by the NHI with the exception of orthodontic or prosthetic treatments.

From the early 1970s onwards, when the Primary Health Care Act came into force, regular dental check-ups for children and adolescents were provided by health centres. In the 1980s this programme covered about 80% of children and adolescents (Nordblad et al. 2004). In the 1990s the length of time between check-ups was extended from one year to two years. During this period public financing of other dental services was very limited.

Gradually, municipal dental services expanded to other population groups. By 2001, all children, adults born in or after 1956, veterans of the Second World War and adults with certain illnesses had access to municipal services or were reimbursed for private dental services. From December 2002 the age limits regulating access to municipal services or reimbursement of private dental services were abolished altogether. Before the reform there were significant local and regional variations in the dental care provided by health centres. Some municipalities managed to offer dental care to their whole population, while others offered fewer services than those defined in the legislation. In general, regular examinations of the child population including preventive dental care and orthodontics, and care of younger adults and some special groups were top priority in municipal services. Private services were concentrated in densely populated areas.

Following the 2002 reform the use of municipal dental services increased and the number of persons receiving reimbursement for the cost of private care doubled (see section 7.1.1.5). However, some municipalities, mostly larger cities with a substantial private sector, have still had difficulties meeting the demand for dental care and waiting lists have become long.

In 2006 there were 4.9 million dental visits to the municipal dental services, of which 3.9 million were made to dentists and the remainder to dental hygienists and dental nurses (STAKES 2007d). Approximately 41% of dentist visits in 2006 were made by under-18 year-olds. At the same time there were 2.8 million visits to private dentists of which 3% were visits by under-24 year-olds according to reimbursement statistics (SII 2007c). In relative terms, use of private services by adults is much more common in dental care than in the field of general medicine.

6.11 Health care for specific populations

Municipalities provide health care services in primary schools, training colleges and high schools. Primary school health care includes medical examinations by a physician or nurse, health education, dental care, in addition to psychological and speech therapy services. Pupils are examined by a physician on two or three occasions, and other check-ups are carried out by a school nurse. Pupils can also visit a school nurse when needed. The nurse is also responsible for matters related to health education and the overall health care of pupils. In many schools the school nurse holds classes on relationships and sex education.

The University Healthcare Foundation founded in 1954 is responsible for providing health care for 140 000 university students (including preventive health care, medical care, mental health care and dental care). The Foundation has 16 health centres in university cities. In 2006 its budget was 35 million euros which is financed by NHI (65%), the students and student unions (18%), the university cities (12%) and the Ministry of Education (5%).

There are special health care services for armed forces and prisoners. In every prison there is an outpatient clinic and in addition there are three prison hospitals (one of which is a psychiatric hospital). Health care for prisoners is funded by the Ministry of Justice. For conscripts, the armed forces must provide full health care services free at the point of use. Until 2006 the armed forces Central Military Hospital provided specialized health care services, but since then these services have been contracted to hospital districts. For primary health care services the armed forces have 25 health centres within garrisons. For employed staff of military forces, health care services are arranged under the Occupational Health Care Act.

According to the Act on Adaptation of Immigrants and Reception of Asylum Seekers, asylum seekers are entitled to the same health services as permanent residents. These services must be organized by reception centres for refugees.

7. Principal health care reforms

The long-term objectives of Finnish health policy are to achieve the best possible health of the population and to reduce disparities in health across social groups. Until the 1970s, policy issues that concerned the health care delivery system had been mainly focused on employing the increased resources to develop the system and improving accessibility to services. The introduction of the Primary Health Care Act at the beginning of the 1970s formed the basis for the further development of the health care system and health policy in Finland.

In the 1980s public health policy became particularly important (see section 6.1.1). The WHO Health for All programme contributed significantly to Finnish health policy. In the 1990s, developments in health care were influenced by "external" circumstances: severe economic recession, the 1993 state subsidy reform and Finland's membership of the EU. The recent aim of Finnish health policy has been to reduce hospital and other kinds of institutionalized care and to expand outpatient and home care services. The growing number of older persons, together with pressure for cost containment, has also influenced this emphasis on outpatient care.

While there has been no major reform of the health care system in Finland during the period 1997 to 2007, there have been a number of changes addressing specific issues. The most important reforms since 1995 are described in Table 7.1. Some of the earlier reforms are described in section 2.1.

Table 7.1 Major health care reforms and policy measures, 1995–2007

Year	Event
1995	Founding of Finohta
1995	Beginning of the Current Care Guidelines project
1998	Economic evaluation of new drugs introduced
1999	Limited 42% reimbursement category for certain drugs introduced
2000	Internet portal Terveysportti set up
2002	National Project to Ensure the Future of Health Care launched
2002	Extension of public dental health care to all age groups
2003	Compulsory generic substitution of pharmaceuticals introduced
2003	The Centre for Pharmacotherapy Development (Rohoto) established
2005	Maximum waiting times defined
2005	Project to restructure municipalities and services launched
2007	Decision made on national electronic prescription and patient record systems

Note: Finohta: Finnish Office for Health Technology Assessment.

7.1 Analysis of recent reforms

7.1.1 National measures and development projects

7.1.1.1 State level four-year plans

When a new Government is appointed it draws up a social welfare and health care programme for the next four years. The aim is that the Government, municipalities and other actors in the field of social welfare and health work towards the achievement of common targets, based on the Government programme (see section 7.2). These targets and development recommendations apply primarily to the municipalities, but the programme includes also recommendations for measures through which the state can support the municipalities in reaching their targets. Before 2007 this programme was called the Social Welfare and Health Care Target and Action Plan. In January 2007 Parliament reformed legislation in this respect (change of the Act on Social and Health Service Planning and State Subsidy) and the plan was replaced by the National Development Programme for Social Welfare and Health Care. The objective of the reform was to strengthen the steering function of the programme, for example by integrating the state funding of local development projects into the programme (see section 4.1.1).

The Target and Action Plan for 2000 to 2003 emphasized the importance of prevention. The main objective of the plan was to increase cooperation between different sectors of society and between municipalities. Further, the plan emphasized the importance of ensuring there are sufficient staff with the appropriate skills within the social welfare and health care services. Particular

attention was paid to the health and social welfare of children, older people and people with mental health problems. The Target and Action Plan for 2004 to 2007 was issued in December 2003. It included 75 different recommendations for action. The main goals for health care in the action plan were to improve access to care (especially to dental care), to reduce the differences in care provision between municipalities, to develop maternal and child health services, to reduce alcohol-related health problems and to improve the prevention of mental health problems.

The current Government was appointed in April 2007 and the first National Development Programme for Social Welfare and Health Care was accepted in January 2008. The central theme of the programme is to strengthen the development activities of municipal services. The main targets of the programme are to decrease marginalization of vulnerable people; increase overall levels of, and decrease inequalities in, health and welfare; and increase quality, effectiveness and accessibility of services and decrease geographical differences therein. The main actions defined in the programme are to strengthen promotion of health and well-being; to secure sufficient human resources for services; to increase competence of personnel; to strengthen the position of users of services (patient empowerment); to reform the organization of services; to create a good practices network; to strengthen primary care services; and to further develop national quality guidelines (MSAH 2008b).

7.1.1.2 Securing the future of health care

In 2001 the Government initiated the National Project to Ensure the Future of Health Care proposed by the Prime Minister and the Minister of Social and Health Services at the time. The project aimed to solve a variety of deficiencies identified in the Finnish health care system.

The preliminary work of the project was divided between five working groups focusing on the following areas:

- the reform of the operational and administrative structures of the delivery system and improvement in efficiency and productivity;
- the need for an increased labour force, division of duties, and the improvement of working conditions and improved continuous medical education;
- increasing the level and stability of health care financing and sources of finance and the improvement of steering mechanisms;
- the development of the division of labour and cooperation between public health care, private health care and NGOs; and
- the consolidation of treatment practices and improvement of access to treatment.

The main outcome of the above project was the working group memorandum and "the Decision in Principle by the Council of State on Securing the Future of Health Care" issued by the Government in April 2002 (MSAH 2002). It focused on strengthening primary health care and preventive work, ensuring access to treatment, ensuring the availability and expertise of personnel, reforming of functions and structures and augmenting the finances of health care.

The final action plan of the project included the following proposals:

- to increase state level funding of health care services;
- to embody the principle of access to treatment within a reasonable period in legislation by 2005 (see section 7.1.1.3);
- to allocate funds for developing the service system (30 million euros annually);
- to allocate funds for the current care guidelines project (1.4 million euros annually; see section 7.1.1.6);
- to establish a centre for rational pharmacotherapy (1.3 million euros annually; see section 7.1.1.4);
- to increase funding of Finohta (see section 7.1.1.6);
- to increase the number of people educated for health care professions; and
- to develop the division of labour within specialized medical care.

A working group was set up by the MSAH to propose an implementation plan for the decision. The project has continued following the path set by the memorandum and the decision in principle. It has produced many reports and arranged several seminars. It has also distributed funding for local development projects. However, the overall impact of the project has been rather modest. The most visible reform has been the waiting time guarantee and founding of Rohto. Improvement has also occurred, for example, in the increase of students trained as health professionals, in developing the division of duties among health professions, in development of information technology and in strengthening continuous medical training. More detailed description of some of the reforms initiated by this process is presented in the following sections. The final report of the monitoring group of the project was published in February 2008 (MSAH 2008a).

7.1.1.3 Ensuring access to care

As in most countries, one major challenge in the health care system in Finland has been the gap between available resources and increasing demand for health care services. This discrepancy has generated long waiting times for certain services in ambulatory and hospital care. There have also been considerable differences in waiting times between municipalities. The Decision in Principle

by the Council of State on Securing the Future of Health Care issued by the Government in 2002 (MSAH 2002) stated that the principle of access to treatment within a reasonable period would be embodied in legislation by the year 2005 (Vuorenkoski 2006b; Vuorenkoski and Keskimäki 2004).

According to the decision, in principle patients must be assured immediate contact with their health centre, and their need for care must be assessed by a health care professional (not necessarily a physician) within a maximum of three weekdays after their contact with the health centre. In non-acute specialized medical care, it is the responsibility of the hospital district that the patient's need for care is assessed within a maximum of three weeks after receiving a referral, and any necessary medical care must be provided within three months, or at the very latest, six months. If the treatment cannot be provided within the time specified, treatment must be procured from another service provider at no extra charge to the patient.

In 2004 the MSAH put together national guidelines defining the limits of access to non-urgent specialized care procedures based on expert proposals. The guidelines were made for 193 diseases or treatment groups comprising about 80% of non-emergency hospital care. The guidelines define which patients should receive the treatment guarantee, but they are not legally binding. Scoring systems are used in some of these guidelines. In March 2007, 87% of health centres reported that they used these guidelines.

A change to the legislation (Primary Health Care Act and Act on Specialized Medical Care) containing these proposals came into force in March 2005. The legislative reform has had a significant positive impact in reducing waiting times, although some municipalities and hospital districts still fail to comply with the legislation. In April 2008, 62% of the population lived in municipalities not experiencing problems in obtaining immediate contact to primary health care (up from 37% in January 2005), and 95% of the population lived in municipalities where the assessment of the need of care by a public health care professional was provided within the enacted maximum of three weekdays in primary health care (up from 49% in January 2005). In December 2007, the number of patients who had waited more than six months for a specialized health care operation was 9700 (compared to 66 000 in October 2002 and 41 000 in January 2005). New legislation did not define the maximum waiting time for a physician appointment (the legislation refers to a "health care professional") in non-acute cases, but this has improved somewhat also: in April 2008, 37% of the population lived in municipalities where patients did not have to wait more than two weeks for a physician appointment in non-acute cases (25% in September 2005).

7.1.1.4 Pharmaceuticals

The Government has long been concerned about the problem of increasing pharmaceutical expenditure and has introduced several measures to address this. However, no effective solution with long-term effects has been found. Pharmaceutical policy in Finland is currently under review and a report was published in 2008 (Mossialos and Srivastava 2008). The most important reforms from the past 10 years are described below.

As of 1998, a holder of a sales permit applying for inclusion of a drug in the reimbursement scheme is required to carry out an economic evaluation and present it to the PPB as part of the application. However, the quality of these evaluations has been rather poor and of little value to the decision-making process.

In 1999, a category of significant and expensive drugs was introduced in the drug reimbursement system. Drugs in this group have 42% reimbursement only if the illness of the patient fulfils certain criteria. For example, expensive drugs for treating erectile dysfunction (for strictly medical reasons), MS-disease and Alzheimer's disease were included in this group.

Rohto was established in 2003 to deal with the independent assessment of drugs and the dissemination of such information to develop pharmacotherapy in Finland. The implementation of treatment guidelines and other evidence-based knowledge in practice is the main goal for the agency's training activities and information dissemination. The agency does not compile its own treatment guidelines, but uses existing treatment guidelines from Finland and other countries.

Voluntary generic substitution was in effect for a few years in the early 1990s without significant success. Compulsory generic substitution was introduced in Finland in 2003. According to the legislation (Medicines Act), pharmacies are obliged to substitute a prescribed medicinal product that costs more than the defined maximum price limit with a product costing less than that limit containing the same substance. The prescribing doctor may forbid generic substitution for medical reasons. The patient does not need any reason in order to refuse substitution and she or he is refunded by the NHI according to the actual costs of the prescription (see section 6.6). Generic substitution appears to have significantly lowered pharmaceutical expenses and thus has been considered to be very successful.

However, after the successful start of generic substitution pharmaceutical companies started lobbying the MSAH to restrict the list of substitutable drugs. They argued that in the worst cases they are not able to introduce drugs to the Finnish market and they also claim that the situation may restrict their research and development activities in Finland. Because of this drugs without

a product patent but with a process patent in Finland and with product patents in five European countries were excluded from generic substitution in 2006 (Finland has somewhat weaker patent protection of pharmaceuticals than other EU countries in general; see section 6.6). Because of this generic substitution is not currently as effective as it could be.

In 2006 two other important measures concerning pharmaceuticals were taken. Firstly, maximum wholesale prices were decreased by law by 5% at the start of 2006 (the Sickness Insurance Act). In practice this lowered the prices only of drugs which are sold at the maximum price set by the PPB. Generic products are usually already sold at much lower prices than the maximum and the reform therefore did not influence those prices. Nevertheless, partly as a result of this reform total pharmaceutical expenditure decreased by 1.6% between the years 2005 and 2006 (in the year before expenditure had increased by 6.7%).

Secondly, as a result of a change in the legislation (Medicines Act), the sale of nicotine replacement products was allowed for shops, kiosks and gasoline stations (only those in which tobacco products are also sold). The reform decreased prices of these products by 15% on average and considerably increased their availability.

7.1.1.5 Dental Care

Publicly funded dental care was offered to the whole population from December 2002 onwards (Keskimäki 2003b). The reform is based on the legal amendments passed in 2000, which extended public funding from those born in 1956 or later to all age groups (Primary Health Care Act, Act on Specialized Medical Care and the Sickness Insurance Act). This reform concerned both public dental services and the NHI reimbursement of private dental services. However, prosthetic and orthodontic services, and technical works are not publicly provided or refunded by NHI except in cases when they are offered due to other diseases.

Besides socioeconomic equity, a major objective of the reform was to equalize municipal differences in the coverage of dental services. Before the reform, one third of the Finnish population lived in municipalities providing dental services for all age groups in their health centres, and one third lived in municipalities providing public services for those born in 1956 or later which was stated as a minimum in the legislation. Due to vague wording of the law, several, mainly urban, municipalities with the remaining third of the population had more strictly limited the age groups for whom they provided dental services.

According to the reformed legislation, municipalities are obliged to provide basic dental services for all their inhabitants. The municipalities can provide

services themselves or contract them out to other municipalities or private providers. Persons using private dental services are eligible to be refunded by NHI. The reform for expanding NHI coverage was accepted already in the 1991 amendment of the Sickness Insurance Act, but the enforcement of the legislation was temporarily postponed several times due to economic reasons. The increased expenditure of municipalities due to the reform is partly compensated by higher state subsidies.

After the reform the use of municipal dental services increased and the number of persons receiving reimbursement for the cost of private care doubled (Widström 2006). The proportion of adults using municipal dental services increased from 22% to 24% and those receiving reimbursements for private dental care increased from 12% to 25% between 2000 and 2004. At the same time dental care expenses increased by 12% (STAKES 2007a).

However, larger cities with little tradition of treating adults in public dental services have had difficulties supplying the services and queues have become long. A number of municipalities have had serious difficulties in carrying out the reform. A shortage in dentists is one important obstacle in the implementation of this reform, which is being addressed partly by the delegation of tasks from dentists to dental hygienists.

7.1.1.6 Information for clinical and administrative decision-making

In 1995, an independent centre for HTA, known as Finohta, was established within STAKES. The centre's main objective is to promote evidence-based medicine and to improve the effectiveness and cost-effectiveness of care (mainly non-drug diagnostic or treatment methods). Finohta coordinates HTA research, disseminates information and gives methodological and financial support to research projects aiming at evaluating the clinical effectiveness or cost-effectiveness of a given health technology. The majority of the funding for Finohta comes from the state. As a result of the decisions that were made based on the National Project to Ensure the Future of Health Care, the annual state funding of Finohta has doubled from 1.1 million to 2.2 million euros between 2004 and 2007.

In 1995, the first Current Care Guidelines were made by the Finnish Medical Society Duodecim and various medical specialty associations. Since then the work has continued with increasing resources. The guidelines are devised in working groups in which Finnish experts of a particular field are selected. The guideline development process follows the principles of evidence-based health care, and recommendations are graded according to the level of evidence. The draft guidelines are widely circulated to relevant stakeholders for comments and are then reviewed. By June 2007 guidelines had been developed for 76

different diseases and conditions. The guidelines are meant to be updated every two or three years. The guidelines are primarily intended for clinical practitioners, but they are also used for developing local care programmes and care pathways. The secretariat of Current Care Guidelines is situated in the Finnish Medical Society Duodecim. For the period 2003 to 2007 the MSAH allocated 1.4 million euros yearly from the funds of the Finnish Slot Machine Association for the development of these guidelines.

In 2000, the Finnish Medical Society Duodecim opened the Internet portal Terveysportti (Health Portal) for health care professionals. From the portal health care professionals can access, for example, EBM guidelines, the Current Care Guidelines, short product characteristics and prices of pharmaceuticals sold in Finland, the Cochrane Library, several leading international medical journals, ICD-10 codes, the drug interaction database, the comprehensive Finnish Medical Terms book and two leading Finnish medical journals. Almost all municipalities and hospital districts have purchased this service for their employees. It has been rather successful having on average 35 000 front page openings per day in 2006.

7.1.1.7 Information technology

The development of health care information systems has been pronouncedly uncoordinated partly because of a very decentralized health care system. This has resulted in a situation where non-interoperable information systems are used even within individual health care organizations.

To promote the utilization of information technology the MSAH launched the MacroPilot project in 1999. The objective of MacroPilot was to develop social welfare and health care services, in particular to produce client-oriented seamless service chains and to develop and test relevant information technologies. Among other things the goal of the project was to create a preliminary technical framework for a regional information system. However, the project did not meet its goals in terms of the development of information technology. The objectives of the MacroPilot were too broad with regard to the period of time reserved for the project, and the development of the social welfare and health service system with focus on information technology proved to be a slower process than had been expected.

A major milestone in the development of information technology was achieved in December 2006 when the Parliament accepted new legislation on the electronic prescription database and the patient record database (Act on Electronic Prescription and Act on Electronic Management of Information on Users of Social and Health Services) (see section 7.2.2). According to the acts new electronic databases will be maintained by the SII. All service providers

are obliged to join these systems and they should be fully functional after a four-year transition period in 2011.

7.1.1.8 Project to restructure municipalities and services

The project to restructure municipalities and services was first introduced in February 2005 as one solution to the problems of municipalities' increasing financial difficulties and the future impacts of the ageing population in the future (Järvelin and Pekurinen 2006). The ageing population will reduce the availability of the workforce as a significant number of personnel within social and health services will retire in the next decade or so, and at the same time, it will increase the need for health care professionals. The purpose of the planned public sector reform is to create a firm structural and financial basis within municipal services so that the organization and provision of services will be secured in the future. At the same time, quality, effectiveness, availability, efficiency and technological change of services are taken into consideration. The project concerns all services organized by municipalities, not only health care services. After extensive discussion with relevant actors, the Parliament passed an act on how to continue the process in January 2007 (see section 7.2.1).

7.1.1.9 Policy programme for health promotion

In 2007, the Government initiated a new four-year multisectoral Government programme entitled the "policy programme for health promotion". The objectives of the health-promotion programme are to improve the general state of health of the population and to reduce health inequalities. The policy programme continues with efforts to promote health and prevent health hazards beyond conventional administrative boundaries. Issues to be addressed in the context of the programme will include developing measures to promote health and related legislation, promote the well-being of children and youth, improve the health, functional capacity and workplace welfare of people of working age, promote the health and functional capacity of older people, assign responsibility for preventive efforts and allocate related resources, stress the importance of physical activity and culture for well-being and increase the health of the environment.

7.1.2 Local development projects

A marked feature of recent structural developments in the municipal health care system is the emergence of a number of local projects and experiments around the country. These reforms could be roughly divided into three different types:

enhancing regional cooperation between municipalities; integration of primary health care and specialized health care; and cooperation with the private sector. Currently, these local projects are an integral part of the national project to restructure municipalities and services (see section 7.2.1).

7.1.2.1 Regional cooperation

The underlying aim of enhanced regional cooperation is to increase efficiency. Recent mergers of administrative units in Finland took place at different levels of the health care system (i.e. municipalities and hospital districts) and in diverse areas (information technology, secondary care and primary health care). Some examples of these reforms are described below.

In the capital, Helsinki, a new hospital district (known as 'HUS') was formed in 2000 by merging two hospital districts in the capital area (Helsinki and Uusimaa) and the Helsinki University Central Hospital. The new HUS covers a population of 1.4 million which is about 27% of the Finnish population. The member municipalities vary from the capital to the small rural municipalities. The goal was to merge two geographically proximate hospital districts and the Central University Hospital of Helsinki in order to achieve more effective organization and to avoid the duplication of services. However, it has been found that old structures are hard to change rapidly in an organization of this size.

Since 1972 when the Primary Health Care Act was brought in, some municipalities have merged to provide primary health care services. Recently there have been an increasing number of mergers. For example, six municipalities in north-west Finland formed the "Siikalatva Health Service District" in 2005 by uniting their health centres under one administration. The new organization provides primary health care services for the municipalities but specialized health care services are still purchased separately by every municipality from hospital districts. These six municipalities have a total of 16 500 inhabitants.

Regional data systems for sharing patient information were created, for example, in the Pirkanmaa and Satakunta hospital districts. Since the year 2004, Pirkanmaa hospital district has had a regional data system providing the hospital district access to electronic patient records of health centres from seven member municipalities. In Satakunta, the hospital district and health centres initiated a project (Salpa project) that aims to provide health centres with access to patients records from the hospital district. The second target of the Salpa project is to provide hospital districts with access to patient records from health centres. The hospital districts of Etelä-Karjala and Kymeenlaakso have a similar joint project (KAAPO).

There have been many other projects to improve regional cooperation, for example primary health care call centre services, pharmacy services for health care units, ambulance services and radiological imaging services.

7.1.2.2 Integrating primary and specialized health care

Several local reforms have been conducted to improve cooperation between primary and secondary health care and social welfare services by integrating organizations (Vuorenkoski and Mikkola 2007). These reforms are also meant to promote cooperation between small neighbouring municipalities and to create a better structural and financial basis for the provision of municipal health services. This development is further endorsed by a national project to restructure municipalities and services (see section 7.2.1). In addition, to lower the barriers between primary and specialist health care and improve cooperation, the Government plans to combine the Primary Health Care Act and the Act on Specialized Medical Care into a comprehensive Health Care Act. These reforms are controversial because of the diminishing power of single municipalities and the shifting of power relations between primary and secondary services.

Separate organizational structures for primary and secondary care negatively influence the extent of cooperation between these levels of care. This separation can hinder the optimal organization of care from both clinical and economic perspectives. For example, transmitting patient records and other information between primary and secondary care can be difficult. The separation of organizations can also lead to a situation where primary health care is in too weak a position as regards resource allocation, since when faced with difficult financial situations municipalities are better able to limit health centre costs than the hospital districts.

The most innovative reform of this type is the new administrative pilot in the Kainuu region (north-east Finland), started in 2005. It covers nine municipalities having a total of 85 000 inhabitants (Keskimäki 2003a). The experiment created a new regional self-regulating mid-level administrative body with its own regional council elected for a four-year term at the same time as the general municipal councillors' election. The new administrative body cannot levy taxes but receives funding from municipalities. It is responsible for several welfare services that were previously run by the municipalities: upper secondary schools and vocational education, primary health services, specialized health care, and a large part of social services. In this pilot, provision of primary health care and specialized health care (municipal health centres and Kainuu central hospital) were merged into the same organization. Among other things, this has provided the possibility to unify electronic patient record systems.

Two of the most recent reforms of this type were in the Itä-Savo and Päijät-Häme regions (Vuorenkoski and Wiili-Peltola 2007). In both regions municipalities formed new organizations to provide primary and secondary care and social services (since January 2007). The new organizations replaced hospital districts that had provided only secondary medical services. Like hospital districts the new organizations are municipal federations governed and funded by member municipalities.

The Itä-Savo district, located in eastern Finland, has nine municipalities and a total population base of 60 000. One of the municipalities is a small city and others are small rural municipalities. All member municipalities purchase secondary care services from the new organization, seven of the municipalities purchase primary health care services (for 80% of population) and three of the municipalities also purchase some social services such as elderly care and services for alcohol and drug abusers (for 62% of population). The district has eight health centres and one hospital.

The Päijät-Häme district, located in southern Finland, has 15 municipalities and a total population of 210 000 inhabitants. One of the municipalities (city of Lahti) is the seventh largest city in Finland. The new organization is responsible for providing secondary care services for all member municipalities, and primary health care and social welfare services for eight member municipalities with a total population of 51 000.

7.1.2.3 Municipalities' cooperation with the private sector

Traditionally all municipal health services have been delivered by municipally owned organizations, health centres and hospital districts. In 1993, municipalities were given the freedom to purchase services from private providers. This has become more popular since the mid-1990s, but only a small fraction of municipal services is currently purchased from private providers. Some municipalities and hospital districts have introduced a purchaser–provider split to their administration which improves the possibilities to purchase services from private providers (for example, the cities of Tampere, Oulu and Raisio, and Pirkanmaa Hospital District).

At present, there is controversy among politicians about the appropriate role for the private sector in municipal health care: in general, left-wing politicians oppose and right-wing politicians support purchasing services from private providers. Cooperation with private providers is promoted especially by the Ministry of Employment and Sitra. Below are some examples of cooperation between municipalities and the private sector.

The highly specialized hospital, Coxa, was founded in Tampere in 2002 to carry out endoprosthetic operations. Coxa works as a limited company,

and it was founded by Pirkanmaa hospital district (and three other hospital districts), four cities, one Finnish foundation (Invalidisäätiö) and a German private hospital company, Wittgensteiner Kliniken AG, which originally had 20% ownership. All elective endoprosthetic operations of Pirkanmaa hospital district are carried out in Coxa hospital. In addition, it provides these services for patients from other hospital districts as well as private patients. Private patients are operated on only after regular working hours and physicians do this work as private practitioners. About 10% of the hospital's activities were for private patients in 2005. In 2005 Wittgensteiner Kliniken AG sold all its shares to Sitra (see section 4.2.3).

The municipality of Karjaa agreed with Samfundet Folkhälsan (a non-profit "third sector" organization) in 1998 that Karjaa would purchase all primary health care and geriatric services from Folkhälsan. Folkhälsan founded a company which it owns in its entirety to provide the services, renting facilities from Karjaa. The objective of Karjaa was to reduce health care spending, but during the first few years costs increased and there were some disagreements between Karjaa and Folkhälsan. However, after a few years spending stabilized and currently is at the average level in Finland. At present, the company also provides services in the same facilities for other municipalities.

In 2004 the City of Lahti made a contract with the Finnish private company MedOne to provide all the services of one of its health stations (Vuorenkoski and Mikkola 2007). The business activity of MedOne concentrates on outsourcing health care services, mostly leasing health care professionals (mainly physicians) to public health care (see section 3.5.2.1). The personnel of the health station were transferred to this private company. The primary reason for the reform was difficulty in acquiring personnel (mainly physicians). More recently, many other health stations have also been outsourced to private firms (for example in the cities of Kotka and Kouvola). Other types of service packages have also been outsourced (for example primary health care, emergency services and polyclinics).

Some hospital districts have transformed laboratory services into publicly owned companies, which can provide services to hospital districts, municipalities and also to the private sector. Also, some nonclinical services are outsourced in some hospital districts such as catering and laundry services.

7.2 Future developments

Following the parliamentary elections in March 2007, a new Government was appointed in April 2007 (see section 1.4). The Prime Minister is Mr Matti Vanhanen (the Finnish Centre Party). Compared to the previous Government, the most notable changes are the shift of the Social Democratic Party from Government to opposition and shift of the National Coalition Party from opposition to Government. As a consequence the new Government is more right-leaning than the previous Government.

The current Government's programme is "A responsible, caring and rewarding Finland" (Prime Minister's office 2007). It identifies about 25 different actions related to health policy.

Actions related to organizational structure:

- Steps will be taken to guarantee the attainment of the objectives defined in the project to restructure local Government and services and to prepare the necessary legislative amendments (see also section 7.2.1).
- The development of electronic information systems will be continued (see section 7.2.2).
- To lower the barriers between primary and specialist health care and improve cooperation, the Primary Health Care Act and the Act on Specialized Medical Care will be combined into a comprehensive Health Care Act.
- The role of primary health care will be reinforced. In order to restructure services, special measures will be taken to develop primary health care, social work, emergency care, and mental health and substance abuse services.
- Seamless service chains in primary care, secondary care and closely related social services, including preventive measures, will be improved.
- Steps will be taken to improve the evaluation of the quality and effectiveness of services and their supervision and guidance.
- Municipalities' capabilities for research, product development and service innovations will be enhanced.
- A social and health care services innovation project will be carried out aimed at improving patient empowerment, effectiveness and cost-efficiency of services, developing the division of duties and expanding the diversity of services.
- The availability of sufficiently qualified personnel will be ensured by means of on-the-job training, competitive compensation plans, and developing the content of work and management systems.

Actions related to access to services:

- The system of guaranteed access to health care will be reviewed, and the necessary changes to time limits and procedures will be made (see section 7.1.1.3).
- Citizens' right to seek care across municipal borders will be expanded.

Actions related to costs/financing:

- A revision of user-fees for social and health care services will be carried out to adjust for inflation. At the same time, a system will be created under which charges will, in future, be adjusted to reflect actual cost levels and that the charges do not induce people to select inappropriate forms of treatment.
- The payment ceiling system will be reformed.
- In order to raise cost awareness, the transparency of the pricing and financing of municipal services will be increased, the objective being that the customer is informed not only of his or her own share of the cost but also of the total cost of the service provided.
- The outpatient drug reimbursement system will be reformed so that cost containment is more efficient. A special working group will be appointed by the MSAH to address this issue.
- The state contribution to NHI will be included within the general state spending limits (previously they were not included).
- Municipal finances will be strengthened by increasing state subsidies to municipalities.

Actions related to health promotion:

- The multisectoral Government programme "Policy programme for health promotion" will be started (see section 7.1.1.9);
- Taxes on alcoholic beverages and tobacco products will be raised in an attempt to promote public health.

Actions related to private provision:

- Government promotes partnerships between the public, private and third sector in the provision of services. The adoption of a purchaser–provider split will be encouraged (see section 7.1.2.3).
- The use of municipal service vouchers will be extended to include social and health care services. Service vouchers will be accepted in home nursing from the beginning of 2008 (Vuorenkoski 2007c).
- NHI reimbursement for dentists' fees will be increased from 30% to 40%.
- More efficient use of public health care facilities for private health care provision will be promoted.

- Commercialization and exports of health care innovations will be encouraged in the social and health care services innovation project.

The Government programme, the National Development Programme for Social and Welfare and Health Care, was devised for the next four years (see section 7.1.1.1). The Advisory Board of Social and Health Care is responsible for its preparation, implementation and follow-up. Key stakeholders are represented in this legislative board which is chaired by the Minister of Health and Social Services. The development programme will be strongly implementation oriented.

Three major developments that are likely to have a significant impact on health services in the future are described below.

7.2.1 Restructuring of municipalities and services

One of the most discussed future developments of the public sector health care system is to create a secure structural and financial basis for municipal services by creating organizations serving a larger population base. At the moment there are 415 municipalities (in 2008) with a median of about 5000 inhabitants. Although the number of municipalities has already decreased in the last five years from 448, the Government aims to further decrease the number. Some municipalities have already formed health centre federations to provide primary health care services (there are currently 65 federations). Secondary and tertiary level health care services are provided mainly by 20 hospital districts which are municipal joint federations. There are numerous ongoing local projects to increase regional cooperation (see section 7.1.2.1).

To promote this process the Government initiated a project to restructure municipalities and services in 2005 (Järvelin and Pekurinen 2006). The project made three different proposals for organizing basic services in the future: a model of basic municipalities, a regional model and a district model. In January 2007, the Parliament accepted an act (Act on Municipal and Service System Reform) which directed the process according to the basic municipalities model. According to the act, the state will financially support mergers of municipalities. The act states also that primary health care and social services closely related to health services should be organized by organizations covering at least 20 000 inhabitants. This would not necessarily require mergers of municipalities smaller than 20 000 inhabitants, but forming of for example municipal joint federations. Currently, only about one in four health centres has a population base of 20 000 or more. Additionally, according to the act, the responsibility of organizing and funding forensic psychiatry examinations and examinations related to child sexual abuse will be transferred to the state by no later than 2009.

In autumn 2007, all the municipalities made detailed plans for the state administration on how the stated goals are to be achieved. However, the state administration was satisfied only with a minority of these plans. The majority of the municipalities are required to further specify their plans or have been summoned for negotiations with the state administration. Plans reveal that municipalities intend to form about 70 cooperational regions involving about 300 municipalities. About half of these would work as joint municipal federations. Another proposed model is that one municipality would have the administrative responsibility of organizing services and others would have a contract with that municipality related to the organization of services for their residents (currently about 20 municipalities have arranged services according to this model). In February 2008, decisions on municipal mergers were made so that the number of municipalities will be reduced by 62 by January 2009. Additionally, there are another 12 ongoing merger processes involving 29 municipalities.

The Government will produce a report to the Parliament on the progress of the project during 2009. Municipalities are obliged to make final decisions on the implementation of the law before that. The target for this process is to be completed by 2012.

7.2.2 Electronic information systems

In December 2006, the Parliament decided to introduce a nationwide EPR system in Finland (Vuorenkoski 2007a). Currently, every service provider has chosen their patient record system individually and systems are usually not connected to each other. According to the new act (Act on Electronic Management of Information on Users of Social and Health Services), the SII will set up a national digital archiving service for health service providers.

In the new system every provider organization will still have their own patient record archive in the archiving system of SII. However, the structure of the archives will be uniform. All public service providers are obliged to have their patient record archive in the new system and private providers have to join the system if they have electronic archives. Every service provider will have access to all archives through the national index service. Consent from the patient is needed for accessing patient records from the archive of other service providers. Individuals will have access to their own patient records and will be able to see who has accessed their records and when. According to law, the system should be fully functional in 2011. The introduction of the national EPR system will probably significantly change the current situation and lead to more integrated information technology solutions in health services.

Linked to the development of the national EPR system is the development of a national electronic prescription system. A pilot programme was implemented between 2003 and 2006. In December 2006, the Parliament accepted a new act (Act on Electronic Prescription) on how to develop the system further (Vuorenkoski 2007a). According to the act a national electronic prescription database will be maintained by SII. In this system prescriptions are sent electronically from the physician's office to the central database to which pharmacies have electronic access. All service providers are obliged to make prescriptions electronically by 2011. However, patients can refuse the electronic prescription and receive a conventional paper prescription instead.

7.2.3 National level steering of health services

In Finland the responsibility for the organization of public health services is decentralized to over 400 municipalities. Currently, the delivery and quality of health care services varies considerably across municipalities which can lead to conflict with the constitution assuring equal access to health services according to need for all Finnish residents. One reason for this variation is that direct national level steering mechanisms have gradually been weakened since the 1980s. At present, the municipalities are rather independently able to organize health care services because legislation (in particular the Primary Health Care Act and Act on Specialized Medical Care) provides only a loose framework for municipal health service provision. During the last fifteen years the main national level steering mechanisms have been steering by information, for which STAKES has had the main responsibility. However, this approach is not considered as effective as it was intended.

The main responsibility for national level supervision of health care providers is currently held by the five provincial state offices, to which patients can make complaints (see section 2.4.4). In severe cases these complaints are forwarded to the NAMLA. Citizens can also appeal to the administrative court if they do not receive appropriate health services from the municipalities. These appeals have increased somewhat since the year 2000.

Several recent reforms have shifted towards centralization after a long line of actions to decentralize decision-making in public health care services. In 2005, Parliament enacted maximum waiting times for public sector health services (reformed Primary Health Care Act and Act on Specialized Medical Care) and the MSAH put together national level guidelines defining the limits of access to non-urgent specialized care procedures (see section 7.1.1.3) addressing the considerable differences in waiting times across municipalities and services.

The second major reform took place in 2006, when national level supervision was reinforced by expanding the functions of the NAMLA from supervising individual professionals to supervising health care organizations, health centres, hospitals and other institutions providing health services (Vuorenkoski 2006a). This supervision is based mainly on complaints of the patients. But the agency can also take necessary actions without specific patient complaints. For example, in summer 2007 the NAMLA approached municipalities that did not comply with the maximum waiting time guarantee and urged them to fully implement the legislative guarantee.

The third major reform to strengthen national level steering was a legislative change by Parliament in January 2007. The four-year Target and Action Plan for Social Welfare and Health Care (see also section 4.2) was replaced by the "National Development Programme for Social Welfare and Health Care" which is devised by each Government for a four-year time period. The first National Development Programme for Social Welfare and Health Care was produced in January 2008. This programme aims to be more implementation-oriented than the previous plans. In the future state funding for local development projects in the field of social and health care will be closely tied to the development programme. The responsibility for preparation, implementation and follow-up of the plan has been given to a new Advisory Board of Social and Health Care as defined in the new legislation.

Fourthly, in recent years the Government has regained legal powers to regulate by using lower level decrees to make changes in specific areas of concern, such as school health care, care of people addicted to opiates, maternal and child health and screening. Sometimes these changes have been accompanied by earmarked state contributions in the municipal budget.

8. Assessment of the health system

8.1 Stated objectives of the health system

Finnish health policy seeks to incorporate health into all policies and all aspects of public decision-making. In addition to a broadly based preventive health policy, Finnish health policy also stresses the importance of efficient and accessible health care services for the entire population.

More specifically, Finnish health policy aims to reduce premature deaths, extend people's active and healthy lives, ensure the best possible quality of life for all and reduce inequalities in health (MSAH 2004). These aims have been stated, for example, in the Finnish National "Health for All by the year 2000" strategy, which was adopted by Parliament in 1986 (MSAH 1987). Finland's health policy has been broadly successful. For example, life expectancy increased by nine years between 1970 and 2005, infant mortality has decreased rapidly over the last 30–40 years, age-standardized mortality from coronary heart disease among working age people dropped by more than 50% between 1984 and 2005 (Statistics Finland 2006a) and the PYLL rate lowered in Finland between 1992 and 2004 by approximately 25% (Vohlonen, Bäckmand, Korhonen 2007). However, problems still remain. For example, differences in health status remain between different sections of the population and socioeconomic inequality in mortality has even increased (Häkkinen 2005). During the years 1971–1995 life expectancy at age 35 increased by about four years, but more among the upper class than lower class population (Martikainen, Valkonen, Martelin 2001) (see section 8.2.2).

The health care system is one important tool to improve mortality and morbidity trends. The basis of the health care system is laid down in the Constitution of Finland (section 19). According to the Constitution:

> Everyone shall be guaranteed by an Act the right to basic subsistence in the event of unemployment, illness, and disability and during old age, as well as at the birth of a child or the loss of a provider. The public authorities shall guarantee for everyone, as provided in more detail by the Act, adequate social, health and medical services and promote the health of the population.

The following sections discuss the extent to which these and other normative criteria commonly employed to evaluate the performance of a health system have been met in Finland.

8.2 Distribution of the health system's costs and benefits across the population

8.2.1 Distribution of costs

The majority of health care financing stems from municipal and state taxes. The income tax of the state is progressive and income tax of municipalities is proportional (a flat percentage in each municipality). NHI is funded by tax payers, the state budget and employers. The insurance premium for tax payers is proportional, being a flat percentage of income. Since the share of the progressive source of state finance has decreased (from 36% to 21% of total health expenditure between the years 1990–2005; Table 3.1) the total financing of health care has become more regressive, that is, financing has been shifted relatively more to low-income groups.

The most regressive part of the financing system is user-fees (see section 3.3.3). For municipal services legislation sets the maximum user-fees and an annual ceiling for health care charges. About 7% of health care financing in municipalities derives from user-fees. Outpatient drugs are not covered by the municipal health care system but by NHI. On average, 63% of the costs of outpatient prescription drugs are reimbursed to the patient (NAM 2007), which is much lower than for municipal health care services. In extreme situations when an individual's or a family's income is not enough to cover the user-fees of municipal health care services or outpatient drugs, social assistance is available.

NHI covers about one third of the actual costs of private health services and users have to pay a large proportion of expenses out-of-pocket. Poorer people have less opportunity than wealthier people to use private health care as the reimbursement rate is low, but they can use the municipal services instead. Statistics show that, for example, unemployed people do not use private services

as much as employed people (MSAH 2007b). There are also geographical differences in the use of private services since in rural municipalities there are less private services available. It may be considered inequitable that NHI covers a portion of private health care costs while some parts of the population (e.g. poorer people and those living in rural areas) do not use these services.

8.2.2 Distribution of benefits

In terms of distribution of benefits there are two major challenges in the Finnish health care system: geographical inequities and inequities between socioeconomic groups. Another future challenge is the ability to provide own language and culturally sensitive health services to ethnic minorities with the expected continued increase in immigration. Data on inequities between population groups are not collected routinely (except geographical differences) but some information can be obtained from empirical research (Teperi et al. 2006).

There are significant differences between municipalities in service provision (for example GP visits, dental care, mental health care, elective surgery in specialized care) and waiting times. The numbers of inpatient cases and surgical procedures per capita vary markedly between hospital districts (adjusted by age and sex), for example, in treatment of ischaemic heart disease (Häkkinen et al. 2002) and in orthopaedic operations (Mikkola et al. 2005). Significant age-adjusted variations between five university hospital regions in outpatient care have also been observed (Häkkinen and Alha 2006). There are also significant differences between municipalities in resources invested in municipal health care, which persist after needs adjustment (see also section 8.3). Needs can be difficult to assess since statistics on morbidity are not routinely collected (except cancer and communicable disease register data), but there are some proxy indicators collected on mortality, use of special drug reimbursement, working age recipients of sickness allowance, recipients of disability pensions and recipients of disability benefits. For example, the proportion of working age recipients of sickness allowance varies between 7% and 18 %, which implies that there are significant differences in morbidity between municipalities (SotkaNet 2008).

Several factors may explain the differences in delivery and utilization of municipal health services. It is important to highlight that the Finnish health care system is decentralized and national steering is rather weak (see section 2.3). There are also differences in age structure, morbidity, physician shortage (more severe in rural municipalities) and access to private health care services and use of occupational health care services (more common in cities) which

may explain these variations. However, it is clear that some of the variation leads to geographical inequities in quality and scope of municipal services.

To tackle geographical inequities in access to care, maximum waiting times were defined in the Primary Health Care Act and Act on Specialized Medical Care in 2005 and the MSAH put together national guidelines defining the limits of access to non-urgent specialized care procedures (see section 7.1.1.3). The legislative reform has had a significant impact on reducing waiting times, although there are still problems in some municipalities and hospital districts. In addition, there are national treatment guidelines and quality guidelines for services to standardize practices across the health care system.

There are also significant socioeconomic differences in the use of health care services (Häkkinen and Alha 2006). Among OECD countries pro-rich inequity in doctor visits was found to be one of the highest in Finland in 2000 (along with the United States and Portugal) (Van Doorslaer, Masseria, Koolman 2006) despite the fact that inequality of distribution of physician visits between socioeconomic groups has decreased somewhat in Finland between 1987 and 2000 (Teperi et al. 2006). There are also significant pro-rich differences in screening, dental care, need-related coronary revascularizations and in some elective specialized care operations (for example hysterectomy, prostatectomy, lumbar disc operation) (Teperi et al. 2006). These differences are amplified by the fact that there are persistent socioeconomic inequalities in health status: white-collar workers are healthier than blue-collar workers, employed people are healthier than the unemployed, and people with high income and the highest educational level are healthier than low-income people with only a basic education (Koskinen 2004; Martelin, Koskinen, Lahelma 2006).

Perhaps one of the most important reasons for the socioeconomic differences in the use of services is that the private sector and occupational health care, which are less accessible to the low-income population, offer better access to services (e.g. a major difference is waiting times) than the municipal sector. As opposed to municipalities, NHI does not set any financial limits for providers which would lead to rationing of services. Additionally, NHI funds services without any assessment of need or efficiency. By contrast, services provided in the municipal system usually have strict budgets. There are clear gaps in the coverage of municipal services in some areas, for example in dental services and psychotherapy. Inequities arise also from the fact that occupational health care is free for patients compared to municipal health care which has user-fees (see section 3.3.3).

In general, private health services and occupational health are more commonly used by the wealthiest part of the population (Häkkinen 2005). Also, in some disease groups the pro-rich distribution of private and occupational

health services may lead to a pro-rich distribution also in municipal services since private outpatient services are an important pathway to specialized care in municipal health services (for example, for cataract operations and several other surgical treatments). Better access for private patients also may derive from the fact that private health care does not have the financial incentive for gate-keeping as municipal health centres have.

During the last ten years private and occupational health services have grown faster than municipal health services. During the years 1996 to 2006 the number of physicians in occupational health care has increased by 69% and in private health care by 62%, whereas in municipal health centres the increase in physicians has only been 9% (Suomen Lääkäriliitto 2006).

8.3 Efficiency of resource allocation in health care

Allocative efficiency in the municipal health care system has not been analysed in Finland. However, it has been estimated that mental health services are underfunded (Lehtinen et al. 2006) and specialized health care services in general are overemphasized in comparison to primary care services (Mattila K 2006). Generally, municipalities do not have much influence on the volume and costs of hospital care of the hospital districts. This leads to the situation in which it is easier to limit the costs of primary health care than specialized health care and hence increase the resources of specialized health care compared to primary health care. The number of physicians in health centres has increased by 9% and in hospitals by 21% between 1996 and 2006 (Suomen Lääkäriliitto 2006).

There are striking variations between municipalities in terms of per capita health care expenditure. Health expenditure including long-term care varied from 940 to 2310 euros per inhabitant in 2004 (Hujanen, Pekurinen, Häkkinen 2006) and needs-adjusted expenditure was 2.5 times more in the "most expensive" municipality when compared to the "least expensive" municipality. These differences have existed for a long time, although during the last 10 years they appear to have narrowed. Differences in the organization of the delivery system is one of the major factors explaining this variation in expenditure.

The system of dual public financing (municipalities and NHI) creates challenges for the overall efficiency of the service production. For example, in pharmaceutical care dual financing leads to cost-shifting problems as municipalities pay drugs used in inpatient care and NHI funds drugs used in outpatient care. Health centres and hospitals have financial incentives to use outpatient drug therapy instead of drugs administered in the health care

unit (intravenous drugs) or specialist level operations, even when it is not the economically or even clinically optimal choice. Municipalities also have incentives to treat older patients in sheltered accommodation rather than nursing homes as they have to pay for drugs used in nursing homes. At a more general level, health care service providers do not have financial incentives to reduce outpatient drug spending. In a recent OECD country report of Finland in 2005 it was suggested that some financial incentives should be introduced for physicians to contain outpatient pharmaceutical expenditure (OECD 2005). More information on the advantages and disadvantages of dual financing are discussed in the OECD report on Finnish health care system (OECD 2005).

8.4 Technical efficiency in the production of health care

The measurement of technical efficiency of the Finnish health care system has been in practice for some time. The largest projects analyse productivity in hospitals (Linna 2006) and in elderly care (Noro 2005); they are carried out by STAKES.

A research and development project to produce benchmarking information on hospital performance and productivity (Hospital Benchmarking) was launched in 1997 (Linna 2006). At the beginning, the main aim of the project was to develop a new measure to describe the output of hospitals better than traditional measures such as admissions or outpatient visits. A further aim was to provide the management of hospitals with benchmarking data for improving and directing activities at hospitals. After a few years the project expanded and at present, nearly all publicly delivered specialized health care in Finland is included. Hospital Benchmarking data were integrated into the production of national statistics in 2006. The data allows regional measurement of productivity and costs indicating, for instance, how much the costs of a hospital district or a municipality deviate from the national average and how much of this deviation reflects the inefficient delivery of services and the per capita use of services. Hospital Benchmarking data have increasingly been used for appraising and directing hospital activities.

Hospital Benchmarking data indicate that productivity of hospitals has decreased somewhat from 2001 to 2005 and that there are significant differences in productivity between hospitals (STAKES 2007c). A clear increase in productivity in the Finnish health care system was observed between 1990 and 1994 connected to the economic recession (Häkkinen 2005). One possibility to increase technical efficiency, or at least to increase

transparency, is to develop a uniform national method for pricing the services of hospital districts, which would allow comparisons across providers (OECD 2005).

Finnish researchers have also made path-breaking progress in outcome-evaluation based cost-effectiveness evaluation under the PERFECT project. The project aims to develop indicators and models that can be used to systematically monitor the effectiveness, quality and cost-effectiveness of treatment episodes in specialized medical care across regions, hospitals and population groups. The first stage of the analysis comprises stroke, hip fracture, low birth weight infants, breast cancer, schizophrenia, acute myocardial infarction, and hip and knee replacements. For example, in acute myocardial infarctions (Häkkinen et al. 2007) the project has found significant differences in clinical practices, effectiveness and costs between hospital districts.

Technical efficiency in pharmaceutical care has been promoted recently by generic substitution, introduced in Finland in 2003. Pharmacies are obliged to substitute a prescribed medicinal product that costs more than a certain defined maximum price limit with a product costing less than that limit containing the same substance. The policy has been very successful with annual savings of about 5% of outpatient drug expenses (see section 6.6).

In international comparisons Finnish health care expenditure appears relatively low compared to other OECD countries while levels of human and capital resources are comparable. One important reason for this is the low salary of health care personnel.

8.5 Accountability of the health care system

In the public sector health care system decentralization offers many possibilities to ensure the accountability of health services to local citizens. This has been considered to be one of the most important benefits of decentralization in Finland. The municipalities are also accountable to the state by following legislation, national level policies and guidelines.

In municipalities the main decision-making power lies with the municipal council, which is elected every four years by the inhabitants of the municipality. The council appoints a municipal executive board and various municipal committees, including a health committee. The most important decisions on public sector health services are made in these bodies which are politically accountable to the residents. Primary health care is usually directly supervised by these bodies, and specialized services through the council and the executive board of the hospital district. However, although these political bodies are rather

active in financial and structural issues, explicit priority setting is left to the administrative and clinical personnel.

In addition to the accountability of the health care system through the political system, two important official mechanisms through which citizens can influence health care services are complaints to the provincial administration, which can, in severe cases, be forwarded to the NAMLA, and appeal to the administrative court. Organizations providing medical treatment must have a patient ombudsman, whose duty is to inform patients of their rights and assist them, if necessary, to submit a complaint, appeal or claim for indemnity (see section 2.4.4).

From the perspective of the patient, one major problem of the health care system has been long waiting times for certain services in ambulatory and hospital care. These waiting times vary considerably between municipalities which led to state-defined maximum waiting times for health services in 2005. The legislative reform has had a significant impact in reducing waiting times (see section 7.1.1.3).

In the private health care system providers are mainly accountable directly to the individual patients. NHI, which partly reimburses private health care costs, has a very limited role in overseeing the quality of these services.

8.6 Contribution of the health system to health improvement

Analysis of the contribution of the health sector to the population's general health has been scarce in Finland, but it is clear that technological advances in medicine and preventive measures during the last decades have had some influence in improved life expectancy and functional capacity.

One indicator of health status that is directly connected to the health care system is mortality amenable to health care (avoidable mortality). During the 1980s and 1990s the improvements in life expectancy in Finland were mainly due to a decline in amenable mortality and especially in mortality from ischaemic heart disease, although in the 1990s the contribution to the health care system was somewhat smaller (Nolte and McKee 2004). The PYLL rate reduced in Finland between the years 1992 and 2004 by approximately 25% (Vohlonen, Bäckmand, Korhonen 2007). Contrary to the equity goal of Finnish health policy, the differences between socioeconomic groups in avoidable mortality is large and in some cases seem to be widening (Arffman et al. 2007). In a comparative study (Nolte and McKee 2003) using an aggregate measure

of amenable mortality (not including ischaemic heart disease) from the year 1998, Finland ranked eighth among 19 OECD countries, behind, for example, Sweden and Norway.

Another example of the possible contribution of the health system to health improvement is cancer care. Five-year cancer survival has significantly increased during the last decades (Cancer Society of Finland 2005). This is probably at least partly due to improved health care.

Health promotion, including the prevention of diseases, has been the main focus of Finnish health care policy for decades. Public health efforts have resulted in the total eradication of certain communicable diseases, a decrease in several lifestyle-related diseases and an improvement in the health and functional capacity of the population. Several national measures have been implemented to reduce smoking, alcohol consumption, harmful dietary habits, road traffic accidents and occupational diseases (see section 6.1). Partly owing to the comprehensive network of maternal and child health care services, infant mortality in Finland is one of the lowest in the world. Children and young adults receive extensive preventive dental care (see section 6.10), which may have contributed to the observed improvements in oral health (see section 1.5). Vaccinations have been effective in reducing the prevalence of diseases; vaccination coverage in Finland is very high (see section 6.1). In the last few decades perhaps the most significant programme to improve population health was the North Karelia Project launched in the 1970s, which was associated with a 73% reduction in the national annual mortality rate of coronary heart disease among men under 65 years old in 1995 from the pre-programme years (see section 6.1).

9. Conclusions

The Finnish health care system provides relatively good quality health services for reasonable cost with quite high public satisfaction. The most visible problems are long waiting times and personnel shortages in some municipalities. An ageing population, new medical technology and drug innovations alongside increasing public expectations are creating challenges for the Finnish health care system. There are also some features of the Finnish health care system that are perceived as problematic: high level of decentralization, weak position of primary care compared to secondary care, relative lack of coordination between primary and secondary care, and dual financing. In addition, there exist significant inequalities in health and access to health care services. These problems are summarised here.

Following the reforms of 1993, the Finnish health care system (municipal services) was decentralized. More than 75% of municipalities have fewer than 10 000 inhabitants and 20% have fewer than 2000. It has been stated that public responsibility for health care has been decentralized in Finland more than in any other country (Häkkinen and Lehto 2005). State level regulations and steering on municipal health care service provision are not very detailed. Municipalities can rather freely set their own municipal income tax rates, decide how much they invest in health care and how they organize services.

The advantages of decentralization are strong local democracy, local ownership of public services and better responsiveness to local needs (OECD 2005). However, in recent years growing concerns have been raised that the problems of decentralization outweigh the advantages. Problems created by decentralization are diseconomies of scale, lack of expertise, geographical inequalities in access to services, increase in problems relating to random shifts in expenditure (e.g. the possibility that a few expensive treatments can seriously hamper the annual budget of a municipality), difficulties in securing a sufficient workforce and lack of regional and national cooperation. The limited

coordination across municipalities has led to increasing regional variations in care. In addition, population movement from rural municipalities to cities and ageing of the population especially in rural areas have made small rural municipalities more and more vulnerable while being solely responsible for the organization of the health services.

Indeed, there are signs in recent years that decentralization is reversing slightly. The MSAH has tightened the regulative steering of municipalities (for example, defining maximum waiting times for municipal health services) and national level supervision has been reinforced by expanding the functions of the NAMLA from supervising individual professionals to supervision of health care organizations, health centres, hospitals and other institutions providing health services. Additionally, the Government started a project to restructure municipalities and services in 2005 which will lead to a decreasing number of municipalities and increasing cooperation between municipalities. In January 2007, Parliament accepted an act defining how to continue the process which stated that primary health care and social services closely related to health services should be organized by organizations covering at least 20 000 inhabitants. In response to this municipalities have made plans to increase cooperation in many regions and in February 2008 decisions on municipal mergers were made so that the number of municipalities will be reduced by 62 by January 2009. It is, however, difficult to estimate what the final outcome of this process will be. The principle of municipal autonomy has a strong tradition in Finland and municipalities value highly their independence in arranging basic services, so the reform will not be easy. Mergers of municipalities can be an especially difficult process for local politicians, municipal employees and residents. However, the general view is that this is the right direction in which to develop the organization of health services in Finland.

The municipal health care system has different structures in place for primary and secondary services. There are also separate acts governing the provision of these services. Having separate organizational structures has clearly hindered the cooperation between these levels, both from clinical and economic perspectives. For example, transmitting patient records and other information on patients between primary and secondary care can be difficult. During the last 10 years several local reforms have been conducted to enhance cooperation between primary and secondary health care and social welfare services by integrating organizations. The new Government appointed in April 2007 will promote this process further as it announced that the Primary Health Care Act and the Act on Specialized Medical Care will be combined into a comprehensive Health Care Act. The central aim is to reinforce the role of primary health care. It will be necessary in the future to carefully assess whether municipal primary and secondary services should be structured and financed by the same

organizations. In any case it is evident that primary health care services need to be strengthened relative to secondary care services.

There is a dual system of public financing for health care services in Finland: municipal financing based on taxes and NHI financing based on compulsory insurance fees. Municipalities fund municipal health care services (except outpatient drugs and transport costs) and NHI (partly) funds private health care, occupational health care, outpatient drugs, transport costs and sickness allowances. This dual public financing creates challenges for the overall efficiency of service provision, for example as evidenced by cost-shifting in pharmaceutical care.

Public funding for private services and curative occupational services is problematic from many perspectives: part of the insured population (low-income people, unemployed people and people living in rural areas) has fewer possibilities to use these services; the SII does not regulate the quality or efficiency of the services provided; and private services provide the possibility to bypass municipal primary care gate-keeping for municipal specialist level services. It is not the most efficient use of resources for these three somewhat overlapping systems to be publicly funded. One possible danger is that in the future the Finnish health care system will provide different levels of publicly financed services for different population groups which goes against current general health policy objectives.

There are significant socioeconomic differences in the use of health care services, including physicians, screening, dental care and some elective surgeries. Although overall mortality has fallen, socioeconomic inequality seems to be increasing. Indeed, even though the Nordic welfare state model served as an important guide when the health care system was being developed, socioeconomic inequalities are still one of the major challenges facing the Finnish health care system.

However, despite these challenges, the Finnish health care system has made considerable strides in improving public health, both through preventive and curative measures. Infant and maternal mortality in Finland is one of the lowest in the world and there have been significant improvements in life expectancy, amenable mortality, eradication of communicable diseases, cancer survival and the functional capacity of the population.

10. Appendices

10.1 References

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10.2 Principal legislation

Employment Accidents Insurance Act 608/1948
Motor Liability Insurance Act 279/1959
Primary Health Care Act 66/1972
Act on Social Assistance 710/1982
Patient's Injury Act 585/1986
Medicines Act 395/1987
Act on Specialized Medical Care 1062/1989
Mental Health Act 1116/1990
Private Health Care Act 152/1990
Act on Social and Health Service Planning and State Subsidy 733/1992
Act on User-fees in Social and Health care 734/1992
Act on the Status and Rights of Patients 785/1992

Act on Municipality of Residence 201/1994
Act on Adaptation of Immigrants and Reception of Asylum Seekers 493/1999
The Constitution of Finland 731/1999
Occupational Health Care Act 1383/2001
The Sickness Insurance Act 1224/2004
Act on Rehabilitation Benefits of Social Insurance Institution 566/2005
Act on Electronic Prescription 61/2007
Act on Electronic Management of Information on Users of Social and Health Services 159/2007
Act on Municipal and Service System Reform 169/2007

10.3 Useful web sites

The Association of Finnish Local and Regional Authorities: www.localfinland.fi
Centre for Pharmacotherapy Development: www.rohto.fi
Finnish Centre for Health Promotion: www.health.fi
Finnish Institute of Occupational Health: www.ttl.fi/English
Finnish Government: www.vn.fi/english
Finnish Legislation Database: http://www.finlex.fi/en/
Finnish Medical Association: www.laakariliitto.fi/e/
Finnish Slot Machine Association: www.ray.fi/inenglish
Finohta (Finnish Office for Health Technology Assessment) http://finohta.stakes.fi/en
The Ministry of Social Affairs and Health: www.stm.fi/english
The National Agency for Medicines: www.nam.fi/english
The National Authority for Medico-legal Affairs: www.teo.fi
The National Product Control Agency for Welfare and Health: www.sttv.fi
The National Public Health Institute: www.ktl.fi/english
The National Research and Development Centre for Welfare and Health: www.stakes.fi/english
The Parliament: www.parliament.fi
Pharma Industry Finland: www.pif.fi
The Radiation and Nuclear Safety Authority: www.stuk.fi/english
The Social Insurance Institution: www.kela.fi/english
SotkaNet Indicator Bank www.sotkanet.fi
Statistics Finland: www.stat.fi/index_en.html
Suomi (public sector portal) http://www.suomi.fi/suomifi/english
Terveyskirjasto (health library) www.terveyskirjasto.fi
Terveysportti (health portal for professionals) http://www.terveysportti.fi/

10.4 HiT methodology and production process

The Health Systems in Transition (HiT) profiles are produced by country experts in collaboration with the Observatory's research directors and staff. The profiles are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources, and examples needed to compile HiTs. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: http://www.euro.who.int/observatory/Hits/20020525_1.

Authors draw on multiple data sources for the compilation of HiT profiles, ranging from national statistics, national and regional policy documents, and published literature. Furthermore, international data sources may be incorporated, such as those of the Organisation for Economic Co-operation and Development (OECD) and the World Bank. OECD Health Data contain over 1200 indicators for the 30 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European HFA database. The HFA database contains more than 600 indicators defined by the World Health Organization (WHO) Regional Office for Europe for the purpose of monitoring Health for All policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard HFA data have been officially approved by national governments. With its summer 2004 edition, the HFA database started to take account of the enlarged European Union (EU) of 25 Member States.

HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT profile consists of 10 chapters.

1 Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.

2 Organizational structure: provides an overview of how the health system in the country is organized and outlines the main actors and their decision-

making powers; discusses the historical background for the system; and describes the level of patient empowerment in the areas of information, rights, choice, complaints procedures, safety and involvement.

3 Financing: provides information on the level of expenditure, who is covered, what benefits are covered, the sources of health care finance, how resources are pooled and allocated, the main areas of expenditure, and how providers are paid.

4 Regulation and planning: addresses the process of policy development, establishing goals and priorities; deals with questions about relationships between institutional actors, with specific emphasis on their role in regulation and what aspects are subject to regulation; and describes the process of HTA and research and development.

5 Physical and human resources: deals with the planning and distribution of infrastructure and capital stock; the context in which IT systems operate; and human resource input into the health system, including information on registration, training, trends and career paths.

6 Provision of services: concentrates on patient flows, organization and delivery of services, addressing public health, primary and secondary health care, emergency and day care, rehabilitation, pharmaceutical care, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health care for specific populations.

7 Principal health care reforms: reviews reforms, policies and organizational changes that have had a substantial impact on health care.

8 Assessment of the health system: provides an assessment based on the stated objectives of the health system, the distribution of costs and benefits across the population, efficiency of resource allocation, technical efficiency in health care production, quality of care, and contribution of health care to health improvement.

9 Conclusions: highlights the lessons learned from health system changes; summarizes remaining challenges and future prospects.

10 Appendices: includes references, useful web sites, legislation.

Producing a HiT is a complex process. It involves:

- writing and editing the report, often in multiple iterations;
- external review by (inter)national experts and the country's Ministry of Health – the authors are supposed to consider comments provided by the Ministry of Health, but not necessarily include them in the final version;

- external review by the editors and international multidisciplinary editorial board;
- finalizing the profile, including the stages of copy-editing and typesetting;
- dissemination (hard copies, electronic publication, translations and launches).

The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

10.5 About the author

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