European Observatory on Health Care Systems

Health Care Systems in Transition

Estonia




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

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

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Foreword

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

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

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

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

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

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

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

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

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The current series of Health Care Systems in Transition profiles has been prepared by the research directors and staff of the European Observatory on Health Care Systems.

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The Observatory team working on the HiT profiles is led by Josep Figueras, Head of the Secretariat and the research directors Martin McKee, Elias Mossialos and Richard Saltman. Technical coordination is by Suszy Lessof. The series editors are Reinhard Busse, Anna Dixon, Judith Healy, Elizabeth Kerr, Suszy Lessof and Ana Rico.

The research director for the Estonia HiT was Martin McKee and it drew on an earlier edition written by Maris Jesse, then at the Ministry of Social Affairs and edited by Tom Marshall

Administrative support, design and production of the HiTs has been undertaken by a team led by Phyllis Dahl and comprising Myriam Andersen, Anna Maresso, Caroline White and Wendy Wisbaum. Special thanks are extended to the Regional Office for Europe health for all database from which data on health services were extracted; to the OECD for the data on health services in western Europe, and to the World Bank for the data on health expenditure in central and eastern European (CEE) countries. Thanks are also due to national statistical offices which have provided national data.

Introduction and historical background

Introductory overview

Estonia is the smallest of the three Baltic Republics on the east coast of the Baltic Sea, bordered by Russia to the east and Latvia to the south. It covers an area of approximately 45 215 km^2.

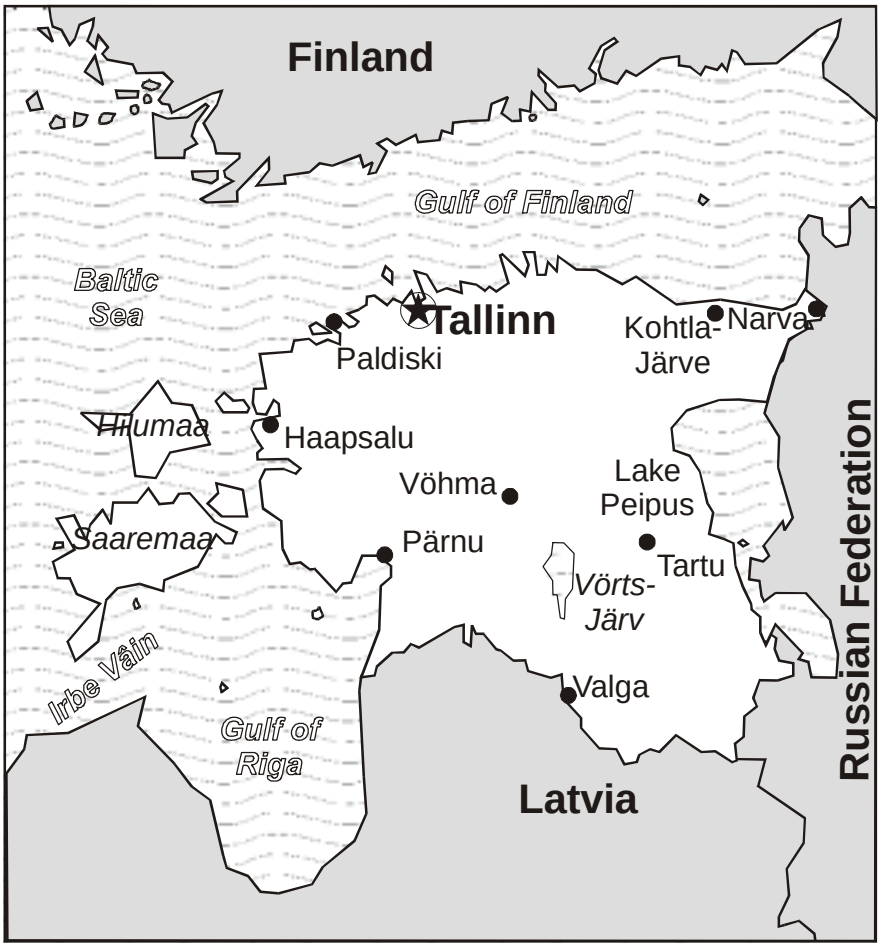
Estonia has a population of 1 445 580 people, of whom more than two thirds live in urban areas (73% in 1993). As in the other Baltic Republics there is a large Russian minority (28%). Unlike the other republics, many of these came to Estonia after the Second World War. The Russian population is concentrated near the Russian border, especially in the city of Narva. Since 1989, the population of Estonia has decreased by about 100 000, mostly because of migration of Russians to the Russian Federation. This was most significant during 1992, the first year of independence, when the Soviet Army and many of those working for it departed.

Estonia is a parliamentary republic. The parliament (Riigikogu) consists of one chamber with 101 members. The municipalities are generally small with populations ranging from 300 to 100 000. Tallinn, with its 450 000 inhabitants, is the major exception. Administratively, Estonia is divided into 15 counties. These mostly have a population of 40 000–50 000, except for one island county of 12 000, three counties of 100 000–200 000, and one of 566 000 inhabitants (Harju County including Tallinn).

Per capita GDP declined by about one third from 1989 to 1995, but has since begun to recover. Inflation has fallen from a peak of over 1000% in 1992 and was 8% in 1998. Estonia was in the first wave of former Socialist countries for accession to the European Union. Consequently, harmonization of legislation and the economy with EU is a high priority.

Trends in life expectancy at birth have mirrored those in the other Baltic Republics and the Russian Federation, fluctuating markedly since the mid-1980s. Following a substantial increase in 1985, coinciding with President

Fig. 1. Map of Estonia[1]



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

Gorbachev's anti-alcohol campaign, life expectancy deteriorated substantially after 1987, accelerating after the breakup of the Soviet Union in 1991. As in the other Baltic Republics and the Russian Federation, life expectancy began to improve in 1994. These fluctuations have largely been due to changes in deaths among those aged between 20 and 50 years, and especially men. The main causes of death are injuries and violence and cardiovascular disease.

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

Research from the Russian Federation, where the trends has been almost identical, indicate that alcohol consumption has played a major role. These fluctuations have occurred on top of an underlying high prevalence of many chronic diseases, including many cancers and cardiovascular and cerebrovascular disease.

Infant mortality has, in contrast, fallen steadily reaching 9.3 per 1000 in 1998. Comparisons with earlier years (before 1990) is problematic because of the change from the Soviet to the WHO definition of a live birth. As in other transition countries, there has been a dramatic fall in birthrate, to 8.46 per 1000 population in 1998. In addition, the high rate of abortions (common to all former Soviet republics), has declined continuously since 1992, although at 50.2 per 1000 women of fertile age, it is still higher than in western Europe.

Estonia is one of the few central and eastern European countries about which it is possible to say anything meaningful about the outcome of medical care. This is due to the maintenance, for many years, of a high-quality cancer registry, which has participated in international collaborative studies such as the EUROCARE study. This shows that cancer survival in Estonia lags behind that of western European countries.

Historical background

The development of the health care system in Estonia during twentieth century has been influenced by dramatic political events, and so has been marked by abrupt changes in direction and organization. These changes have not necessarily built on earlier bases or learned from previous experience. The development can be thought of as falling into three periods.

Before 1940

Estonia has a long tradition of medical education, dating back to the establishment of Tartu University in 1632.

By the beginning of twentieth century a basic system of health care was in place. The system was highly decentralized, with services developed and managed locally. There were three kinds of hospitals: state-owned, municipal and private. There were also clinics for mothers and children, tuberculosis dispensaries, sanatoria, and institutions for the mentally ill. Outpatient care was carried out mostly by private physicians, with dispensaries owned by sickness funds and schools. During 1920 and 1921, the activities of sickness

funds expanded, the number of doctors gradually increased and societies of physicians were founded.

1940 to 1990

With the occupation of Estonian Republic by the Soviet Union following the Molotov–Ribbentrop Pact, the earlier development of the health care system was interrupted. The Soviet Semashko system was implemented, in which health care was funded from the state budget and directed by the government through central planning. The preoccupation with quantitative targets led to a substantial overprovision of hospital beds. There was no private sector involvement in health care. All citizens had nominally free access to health services which were provided by salaried government employees.

From 1990 until today

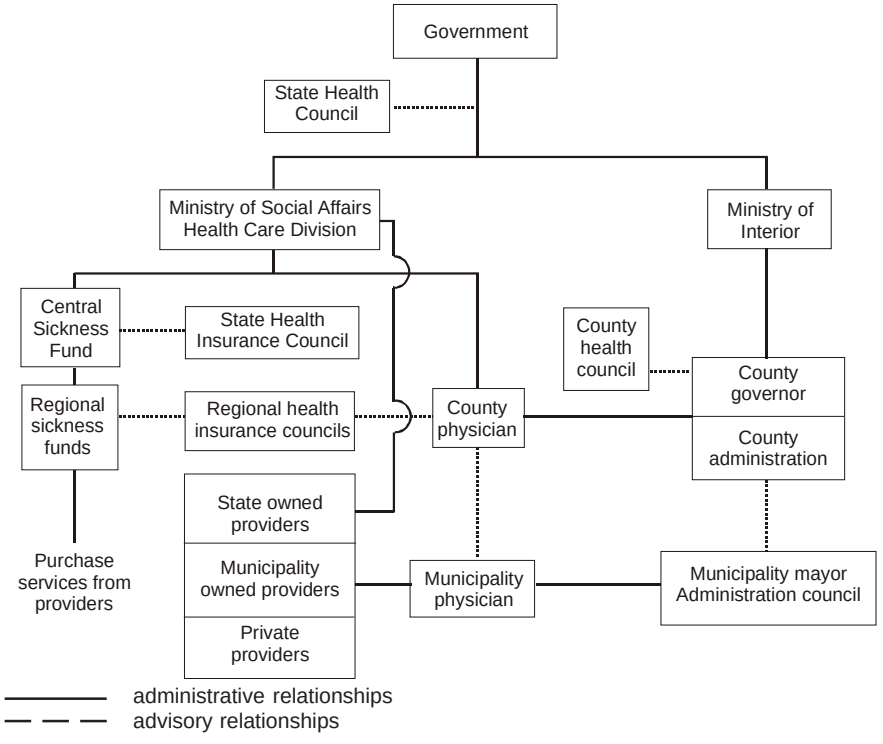
Reforms in health care had already been planned before independence. By the time that independence was declared in August 1991, it had already been decided that a social health insurance system should be established by the following year and reforms in health care had already begun. Planning and organization of the health care system had to change to respond to the needs of the Estonian population and to be affordable given the state of the economy. The major thrusts of reform were decentralization and financing through social insurance. This involved a complete reorganization of the health care system.

Organizational structure and management

Organizational structure of the health care system

Since the Estonian re-independence in 1991, the Estonian health care system has undergone two major changes. The first was from a centralized and state-controlled health care delivery system towards a decentralized one; the second from one funded from state revenues to one based on social insurance. In addition, there has been a growing emphasis on primary care and public health.

Fig. 2. Organizational chart of the health care system



The provision of health care in Estonia as well as health insurance have been the responsibility of the Ministry of Social Affairs since 1993, when the formerly separate Ministries of Health, Social Welfare and Labour were merged. Responsibility for health care includes health policy formulation, analysis of the health of the population, general organization and surveillance of health care, determining the scope of primary, secondary and tertiary care, planning and organization of tertiary care, development and enacting of standards and licences for health care providers. The Ministry of Social Affairs is not responsible for health care for the armed forces or prisons. Other previous "parallel" health systems, e.g. police, railways, etc, were integrated into one national health care delivery system. Day-to-day administrative responsibility lies with the Secretary General, a civil servant, who reports to the minister.

The Ministry of Social Affairs has three major policy divisions: health care, social services and employment. The health care division has three departments: the Health Care Department, dealing with health care services; the Public Health Department; and the Health Protection Department. The importance of health protection and issues of the work environment have increased considerably in the context of accession to the European Union.

The Minister of Social Affairs offically leads the State Health Council**,** an advisory body to the Estonian government in health care issues. The Council comprises representatives from the Permanent Parliamentary Committee on social issues, the Ministry of Social Affairs, the State Health Protection Inspection, the emergency services and local governments. The Dean of Tartu University Medical Faculty and the heads of the Estonian Medical Association, Nurses Union and Red Cross are also members. The Council's purpose is to advise on health policy and to evaluate legislative proposals. Unlike other advisory councils at county levels and at sickness funds which meet regularly, the State Health Council has met only once in its seven years of existence.

There are a number of other national health care agencies which come under the Ministry of Social Affairs. These are: the Health Protection Agency, which has offices in every county and whose main function is public health surveillance and organizing of health protection measures; the Medicines Agency, whose main function is regulation of the pharmaceutical market and registration of medicines; and the Centre for Health Education and Promotion, which organizes national health promotion programmes and supports local health promotion activities.

At regional level, the Ministry of Social Affairs is represented by county physicians. They are responsible for the planning and control of health care services at county level, health surveillance and health protection of the population. County physicians are appointed for five years by county governors.

Appointments are subject to approval by the Minister of Social Affairs. County physicians also lead the county health councils**,** which advise the county governor on the organization of health promotion, disease prevention, provision of health care services and health surveillance. Members of the county health councils are representatives of local governments, municipal and town physicians, private health care providers, pharmacies, regional sickness funds, health protection office, and medical associations.

According to the Health Care Organization Law of 1994, health care at local government level is organized individually or jointly by the municipality or town councils and the municipal physician. This includes organization of primary and secondary health care and some health protection functions.

In health financing, the Health Insurance Law, which came into force on 1 January 1992 established a public health insurance system, which is under supervision of the Ministry of Social Affairs. Health insurance is administered by the Central Sickness Fund and 17 regional sickness funds (based in each of 15 counties and two cities). The Central Sickness Fund organizes, coordinates and supervises the activities of the regional sickness funds. It prepares the state health insurance budget and approves the budgets of regional sickness funds. The Central Sickness Fund is led by a director, appointed by the Minister of Social Affairs. Directors of the regional sickness funds are contracted by the Director of Central Sickness Fund. At the Central Sickness Fund and regional sickness fund levels there are the advisory Estonian Health Insurance Council and regional health insurance councils to advise in planning and contracting and to supervise the public health insurance system. The council members represent employers, employees and the medical profession.

The planning functions of the Ministry of Social Affairs, county physicians and municipality physicians and financing functions of sickness funds are coordinated through the regional health insurance councils within the regional sickness funds, where county physicians and municipality physicians are represented.

The main professional group in the Estonian health care system is the Estonian Medical Association – representing about 60% of Estonian doctors. It was re-established in 1988 and is the main representative body for clinicians. The Estonian Nurses Association, representing 50% of nurses is also important. The hospitals have joined to form the Union of Hospitals, which does not however represent all hospitals. There are also various specialist associations. Associations and societies are also formed by patient groups, mostly on the basis of specific illness or disability: for example, the Society of Diabetes, the Society of Multiple Sclerosis and the Heart Association. Patient/consumer-involvement in debates on health care has become more significant in recent

years. For example, the Society of Disabled is represented in the Estonian Health Insurance Council.

Health care providers are mainly publicly owned, either by the state or municipality. In some cases, the process of municipalization is still in progress. Most providers have contracts with sickness funds which provide the main source of finance. The private health care sector is active in outpatient services, representing mostly dentistry, gynaecology, otorhinolaryngology, ophthalmology and urology. The private sector is most developed in dentistry where over 75% of providers are in private ownership. The share of private sector has increased since 1998 when, in the course of the primary care reform, almost 50% of primary care providers are private contractors now. Also, a growing number of hospitals work as private legal entities (stock-companies, foundations), although remaining in the ownership of the municipalities. The biggest Estonian hospital – Tartu University Clinic – is a self-governing foundation as of 1999.

Changes in health services organization

Prior to 1990, the entire health service was directed by the Ministry of Health on the basis of instructions from Moscow. Health protection was implemented through the national health protection centre and the sanitary-epidemiology stations. The Ministry of Health was also responsible for hospitals and ambulatory services. Technical support was provided by national institutions with specialization in particular areas such as preventative medicine, clinical medicine, traumatology and cardiology. There was a distinct separation between the organization of outpatient and inpatient care, with outpatient care delivered by specialized, stand-alone outpatient clinics. As a consequence, for primary care, families consulted gynaecologists, paediatricians, internists or generalists, as well as dentists, in polyclinics and ambulatories. A parallel system for health care delivery, care was offered by many industries for those in employment.

As noted above, in 1993 the Ministry of Social Affairs was created from three previously separate ministries for health, social welfare and labour. At the same time all previous parallel health systems, (e.g. police and railways) were integrated into one national health care delivery system. The Health Care Organization Law of 1994 placed responsibility for organizing primary and secondary care on local governments. The positions of county physician and municipal physician were created.

In health financing, the Health Insurance Law, which came into force on 1 January 1992, introduced a health insurance principle to Estonia, establishing sickness funds to administer the health insurance contributions and benefits.

The public health system was also changed and the former sanitary-epidemiology system was reformed into a public health network comprising the Health Protection Agency and its county offices.

The changes were implemented very quickly in the first years of Estonian independence. On one hand, as the whole country was changing politically, economically and socially, so the window of opportunity was open. Thus, the introduction of health insurance was not discussed as widely as later changes such as family practice reform. On the other hand, the planning functions of health care were not thoroughly explored and substantial expectations were placed on the newly decentralized county and municipality-level authorities.

There are now plans in the health sector as well as other sectors to re-centralize planning and administration to some extent, because of the dis-economies and overlap resulting from involvement by 15 counties with relatively small populations. The government is preparing a local government reform that will decrease the number of counties to between four and six.

Planning, regulation and management

As described earlier, the planning function is legislatively divided between three levels. The Ministry of Social Affairs is the main body responsible for health policy development, analysis of population health status and general health care planning. The strategy developed by the ministry is expected to be translated into action at lower levels. Under the Health Care Organization Law there are three types of health care services. Municipalities are responsible for planning primary and secondary care, and the Ministry of Social Affairs at national level or through county physicians at county level is responsible for planning tertiary care.

There has been no national health or health care plan, and there have not yet been any explicit targets for numbers of acute beds or numbers of personnel. The planning approach taken in 1994 was bottom-up planning, hoping that the county physicians with municipality representatives would develop regional health plans according to local needs, based on which a health care plan for Estonia can be developed. It was hoped that excess provider capacity would be reduced by this process.

There is an emerging view that the process would have been more successful if there had been more central leadership and monitoring, with clearer objectives for health care development and targets for health care planning. Although plans have been developed in many counties, no national plan has been created.

Also, the regional plans tend to give a greater emphasis to high technology treatment in county hospitals than seems economically feasible.

Estonian health care policy makers have recognized the over-decentralization of health care planning, and the new Health Care Organization Law, drafted in the second half of 1999, proposes giving responsibility for planning primary care to county authorities. Specialist care would be planned by the government according to a hospital master plan. The first Hospital Master Plan will be developed by April 2000 in cooperation with international consultants.

Health care providers (hospitals, health centres and individual practitioners) are contracted by sickness funds, independent of ownership or legal status. The sickness funds currently have no clear long-term purchasing strategy. Contracts are planned according to the best interpretation of regional needs and historical service-use patterns. However, there are also positive examples where a regional health plan has been developed in cooperation with main regional stake-holders and the sickness funds have been able to use the plan as the basis for purchasing. All sickness fund contracts are discussed at the regional health insurance council, which includes representatives of insured persons and employers as well as local medical professionals.

The main regulatory body in health care is the Ministry of Social Affairs, laying down requirements for health care management, licensing of provider institutions and of health care personnel and control of activities by personnel and institutions.

Since 1994 working groups of acknowledged national experts have developed standards for 26 specialist departments, laboratories, diagnostic and intensive care services. There are separate requirements for secondary and tertiary hospitals. Certain procedures can only be undertaken with specific approval. There are also standards for health facilities and technologies which, however, are less clear and explicit. A first round of hospital licensing was carried out at the end of 1994.

In the process of drafting the new Health Care Organization Law, questions of licensing have been discussed extensively. A greater role is planned for professional organizations in the future.

Decentralization of the health care system

When Estonia was part of the USSR, many decisions concerning health care were taken in Moscow. As the whole Republic is smaller than many oblasts in the Russian Federation, political independence by itself represents a significant

step towards decentralization. Decentralization policies within Estonia have been implemented since 1992.

Decentralization policies include appointing county doctors whose responsibilities are to organize and supervise county level health care. The public health network has also been decentralized, functioning through the Health Protection Inspection and its county offices. Health insurance systems also serve as an example of decentralization policies.

Responsibility for organizing primary and secondary care has been devolved to elected municipalities. They retain 58% of total income tax, and can raise additional taxes for expenditures on local services.

The private sector started to develop in 1990, when the first licences for private practice were issued by the Ministry of Social Affairs. The private sector has grown continuously, but is mostly restricted to ambulatory services. As of today, only two hospitals have been privatized. Four fifths of pharmacies, however, have been privatized.

Two main problems can be observed in the implementation of decentralization policies. Firstly, the decision to decentralize was implemented without adequate preparation, in terms of staff training, accountability procedures and guidelines for policy sustainability. It is now recognized that administrative structure need further development, with better staff training and more clearly defined administrative procedures.

Secondly, administration has been decentralized to 15 counties with responsibility for health care planning and the health insurance programme to 17 sickness funds. This has created entities which are very small. Smaller purchasing units also raise theoretical problems of higher transaction costs and of risks associated with occasional expensive patients.

Health care finance and expenditure

Main system of finance and coverage

The main source of health care finance in Estonia is the health insurance system. Discussion of a health insurance-based system was first raised at the end of the 1980s, when Estonia was still part of the Soviet Union, but there was a strong movement towards autonomy. In 1990 the Health Insurance Law was presented to the Estonian parliament. It was approved in June 1991 and came into force on 1 January 1992.

The objectives of the change were:

- to establish autonomous finances for health care services;
- to decentralize health care financing;
- to establish a basis for increasing personal responsibility for health care. In the Soviet Union, health care services were free, and no consideration was given among the public and also medical community to the actual costs of health care;
- to establish an explicit link between health care expenditure and national economic performance.

In addition, although not an explicit goal, many policy-makers saw financing reform as a tool to reduce the overcapacity of health care facilities. The Health Insurance Law established a mandatory system of health insurance. The population coverage is quite broad, and wider than the actual contributors. Estonian health insurance covers the employed and self-employed. Also covered without paying contributions are the non-working spouses of insured persons, all children up to 18 yearsof age, full-time students, persons receiving an Estonian pension, pregnant women and some other clearly defined groups. For those registered as unemployed, in military service and three smaller groups, the state pays contributions from state budget. At the end of 1998, the total number of insured in Estonian health insurance was 1 378 396 persons, of whom

contributions were paid for 649 718 (employees and self-employed) and the number of those equalized to the insured by law was 728 678.

The entitlement to public health insurance is based on residency, not citizenship. The law also establishes the right of residents to supplementary private insurance, but opting out of the mandatory system is not permitted.

Health insurance is paid by employers as a flat 13% surcharge on salaries paid to employees, being thus proportional, not progressive. In 1992 it was established as a health insurance contribution. In 1994, with an aim to enforce collection, the health insurance contribution was combined with the pension contribution to form a 33% social tax (20% for state pension insurance and 13% for health insurance). The tax is income-related, without any risk-adjustment or community-rating. The health insurance part of the social tax was collected by the sickness funds. From January 1999, the collection was transferred to the Taxation Agency, resulting in short-falls during the first quarter of 1999 due to change in the process. The shortfall was covered with health insurance reserves from previous years.

The social tax is only paid by the employer, although the plan in 1992 at the establishment of the health insurance was to divide the contribution between employer and employee by 10% and 3% respectively.

For administration purposes, sickness funds were established in 1992 in each of the 15 counties and six towns, with one Seamen's Sickness Fund: 22 sickness funds in total. For national level coordination, an Association of Sickness Funds was established. Based on the first years of experience, the Central Sickness Fund was established in 1994 to strengthen central functions such as planning, redistribution of revenue between regions to provide regional equity, and control of financial resources. After this change, regional sickness funds are directly subordinated to the Central Sickness Fund, formerly having been controlled by county and town governments. The number of regional sickness funds has been decreased to 17 aiming for more economical use of resources.

The sickness funds were quasi-public at the time of establishment in 1992. Over the decade, as Estonia's own legal system developed, the legal status of sickness funds has become ambiguously defined, having some features of public independent legal person and some of a state agency. In 1999, the re-defining of the sickness fund's legal status was under discussion again with three main legal options: (a) a state agency; (b) public independent legal person; (c) foundation under private law. Although the government has not yet decided on the issue, there seems to be political support to define the sickness funds and the Central Sickness Fund as a single public independent entity with regional branches. The government is expected to discuss the issue in 2000.

People can choose to be a member of the regional sickness fund where they live and use health services. Sickness funds do not compete for members.

Entitlement to health insurance is demonstrated by possession of a sickness fund card, which is issued by the sickness funds to persons covered by health insurance. The first sickness fund cards were paper, exchanged for plastic cards with magnetic stripes during 1998. In 1997, an internet-based information system between sickness funds and health care providers was created, which initially enables checks of insurance entitlement and information on employers and family practitioners, but to which other functions can be added in the future.

In 1999, the estimated number of people not covered by health insurance was approximately 70 000 persons. These are mostly people who are either not in official employment and thereby avoiding payment of tax or those who are in the country illegally (former Soviet citizens who have not decided on their new citizenship and/or not having applied for residence in Estonia). The responsibility for organizing medical care for the uninsured is legally placed on the municipalities. The state budget provides money to the municipalities to cover the costs of emergency care of the uninsured.

Although it needs further development and refinement, the health insurance system in Estonia is fully operational. The intent of the initial legislation was to establish a health insurance mechanism on a decentralized basis administered through regional sickness funds. This pragmatic approach was necessary at the time because of the urgent need to create a workable structure to replace the centralized Soviet model of direct state provision. Despite the ideological underpinnings of a desire to decentralize, it appears that the decision to decentralize the health insurance administration was implemented without adequate preparation, in terms of definition of roles, staff training, systems and procedures to ensure accountability and guidelines for policy and programme consistency. These deficiencies were recognized in the thrust of the 1994 amendments. The operational skills of sickness funds are improving continuously. The importance of having good information systems is recognized and their development has been a high priority over the last five years. Still, the administrative costs of sickness funds have been kept extremely low, at less than 2% of the health insurance budget.

Looking back at the reaction of the medical community and the public during the implementation of health insurance, it was almost two years before the medical community understood fully the principles of health insurance. There is still some evidence of a lack of public understanding. Today, there are clear signs of an increase in public interest in the quality of health care, including both medical and environmental quality. This can be attributed to a growing consumerism in Estonia. There are no plans for changing the principles of

Estonian health insurance at the moment. The most important decision will be to define the legal status of the sickness fund. Related to this is the structural reform aimed at decreasing the number of regional sickness funds with purchasing functions.

An initial analysis of the 1998 health care expenditure showed that health insurance accounted for 68.3% of total health care expenditure. Health insurance was not intended to replace general taxation entirely. The state and municipal budgets make up 12.4% of total health care expenditure (9.9% and 2.5% respectively). In 1998, the state budget financed ambulance services, several health promotion and disease prevention programmes (for children and youths, AIDS prevention, prevention of tuberculosis) and capital investment into some hospitals. For the uninsured, the state only pays for emergency care through the municipalities, although the allocation in state budget has been insufficient to fully cover actual costs. The state budget also pays for the provision of medical aids and prostheses for disabled persons.

Health care benefits and rationing

Health insurance in Estonia covers compensation for sick and maternity leave as well as health care. Due to the evolution of a system from one where the state provides all health benefits, the range of benefits is generous compared with many other countries with long-established national health programmes.

The inclusion and exclusion of services in the health insurance package is decided by the Ministry of Social Affairs following evaluation of proposals by a committee of provider and sickness fund representatives at the ministry. There are only a few services excluded from the public health insurance programme such as cosmetic surgery, alternative therapy, and opticians.

Treatment abroad is covered by the Central Sickness Fund either according to bilateral international agreements or on prior approval of each individual case by the Estonian Health Insurance Council. This is subject to the treatment not being available in Estonia and a possibility of a successful outcome.

In recent years, treatment effectiveness criteria are being applied to evaluate proposals for inclusion of new treatments. For example, IVF (in vitro fertilization) has been paid by the sickness fund only since 1999. Payment is based on effectivess of the procedure, and is provided only for women under the age of 35 and for up to three procedures. Proposals for adding new treatments to the health insurance package are also weighed against already existing ones. With the exception of dental care, there have however not been direct reductions in services. The over-utilization of some services like electric physiotherapy

(common in FSU) is being addressed through incentives based on provider payment methods.

Restricting the benefit package from its current range is being discussed, and work is commencing to develop a system to evaluate service effectiveness. At the same time, pressure also exists to broaden the benefit package with newly available, but often very expensive, services and pharmaceuticals.

Complementary sources of finance

Table 1. Percentage of main sources of finance

Source of finance	1980	1990	1998 (initial)
Public	100	100	80.7
• Taxes	–	–	12.4
• Statutory	–	–	68.3
Private	–	–	13.2
• Out-of-pocket	–	–	11.6
• Private insurance	–	–	1.6
Other	–	–	6.1
• External sources	–	–	1.0

Source: Estonian Ministry of Social Affairs, October 1999.

There are presently discussions about the relative contributions of the national health insurance and the state/municipal budgets. The trend over recent years has been to decrease the proportion of state/municipality financing and increase the share of out-of-pocket payments. This reflects the growing number of private providers, and the growth of the pharmaceutical market. There are still weaknesses in the methods used to analyse total health care expenditure. A regular detailed monitoring of National Health Accounts only started in 1999.

Out-of-pocket payments

The main cost-sharing measures by different categories of care in Estonia are:

- In ambulatory care – as a first step in cost-sharing, a small visit-fee of 5 EEK (US $0.3) was introduced in April 1995. Due to political pressure, large population groups – retired persons, invalids and children – were exempt from the fee a few months later. Private providers, excluding family practitioners, can charge extra fees. The payment for induced abortions is shared equally by the sickness fund and the patient;

- Hospital care – co-payments only for extra-commodities as single room, etc.;
- Drugs – of total expenditure on prescription pharmaceuticals the out-of-pocket payment was approximately 25%. The system is described under the section on *Pharmaceuticals*. Over-the-counter drugs are paid in full by patients.

Out-of-pocket payments continue to increase. This is firstly due to an increase in the prices of pharmaceuticals and the growing private market in specialist care, where specialists can today charge extra from the patient to the amount covered by the sickness fund. Secondly, the sickness fund does not provide 100% cover for all services, for example for certain dental treatment.

Voluntary health insurance

Voluntary health insurance covers only 1% of the total health care expenditure, mostly consisting of travel insurance. This is offered by private for-profit insurance companies.

Although legally there is the option to offer private medical insurance, at present insurance companies do not have any products available. One failed attempt was made to offer insurance for complementary services. There is no policy to attempt to increase the share of private insurance.

External sources of funding

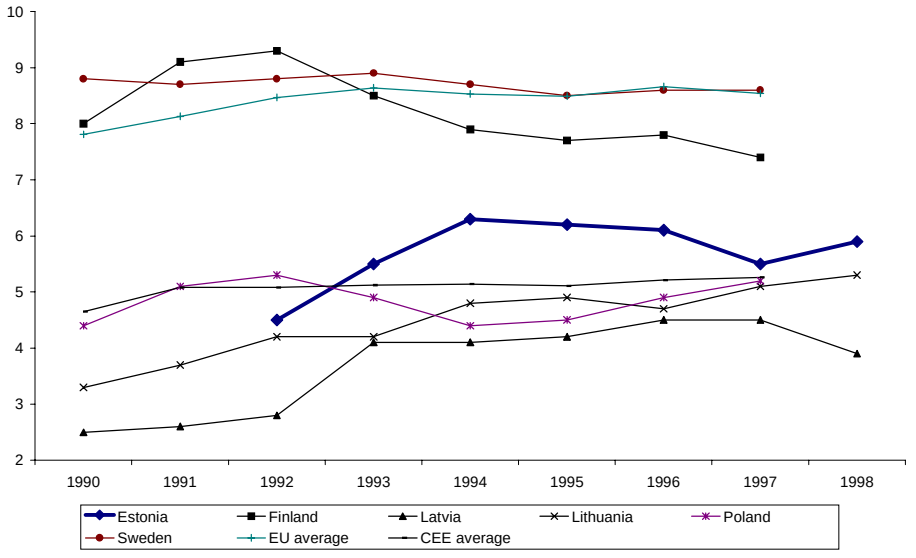
Bilateral and multilateral programmes in Estonia started at the beginning of the 1990s. In 1990 and 1991, under the financial constraints imposed by hyperinflation of the Soviet rouble, the Estonian health care system received assistance in pharmaceuticals and medical equipment as humanitarian aid. Even then, the Estonian government's approach was to prefer a "fishing net" to a "fish". For example, in 1992, Swedish assistance was available to provide pharmaceuticals, but a decision was taken not to take pharmaceuticals as a gift but to develop a pharmaceutical manufacturer with good manufacturing practice (GMP). The firm "Vagos" was established and a modern packing plant for tablets was given as a gift from Sweden.

Bilateral programmes have provided medical equipment to hospitals. In addition, clinically oriented programmes, organizational development programmes and management training programmes have been run. These are oriented towards both systems development (e.g. health information systems, quality assurance) and training (e.g. management of health organizations and institutions).

A major external lending agency has been the World Bank. Its first loan in 1992 included a health care component of US $3 million. It was used to buy essential pharmaceuticals and part of it was lent to hospitals for high technology equipment. A JEXIM loan of US $4.5 million was also used for pharmaceuticals and health technology. A second loan from the World Bank was received in 1995 to support health care reforms. The total loan amount is US $18 million and was mostly invested in a new educational building for Tartu University Medical Faculty. The loan is supplemented by bilateral and multilateral donor-financed development programmes – hospital management strengthening, development of a hospital masterplan for counties, support to primary care reform, etc. and state budget resources within the framework of the overall Estonian Health Project.

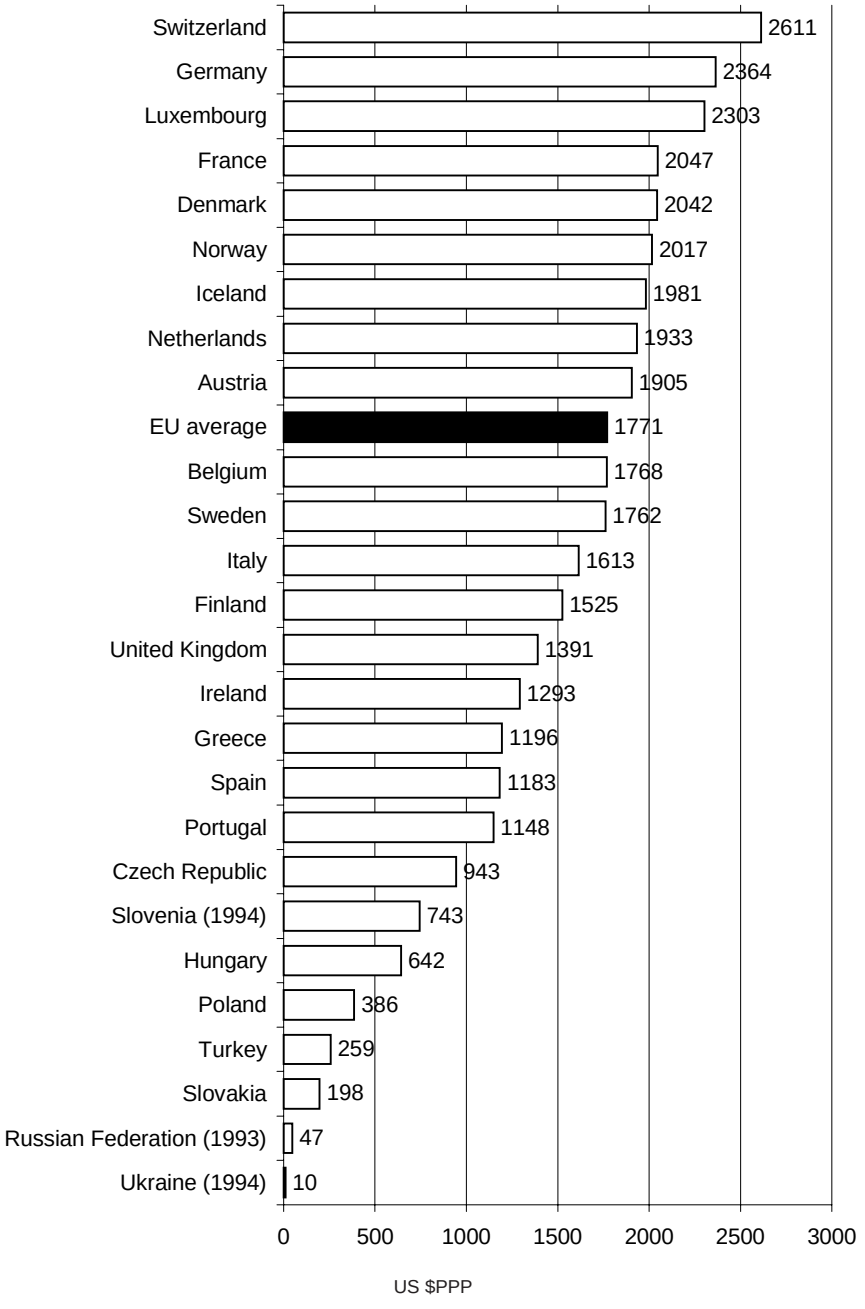
External sources in 1998 made up 1.0% of total health care expenditure, of which 0.4% was grants and 0.6% was loans. Presently, the bilateral and multilateral aid-programmes are already decreasing.

Fig. 3. Trends in health care expenditure as a share of GDP (%) in Estonia and selected countries, 1990–1998



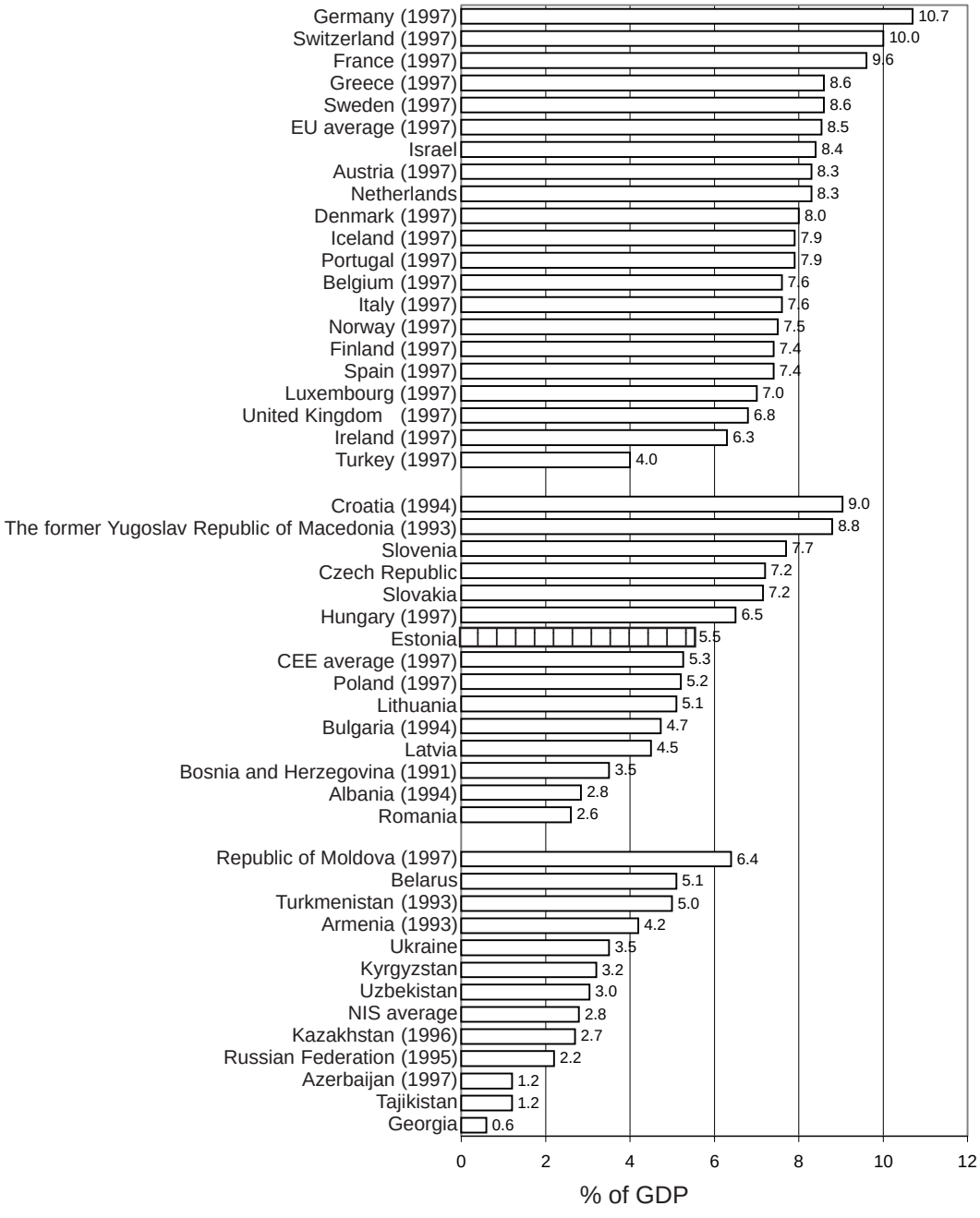
Source: WHO Regional Office for Europe health for all database.

Fig. 4. Health care expenditure in US $PPP per capita in the WHO European Region, 1997 (or latest available year)



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

Fig. 5. Total expenditure on health as a % of GDP in the WHO European Region, 1997 (or latest year)



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

Health care expenditure

As noted above, there remain some questions about the validity of data on total health care expenditure so caution is required in interpreting changes in spending.

Table 2. Trends in health care expenditure, 1992–1998

Total expenditure on health care	1992	1993	1994	1995	1996	1997	1998
Share of GDP (%)	4.5	5.5	6.3	6.2	6.1	5.5	5.9
Public share of total expenditure on health care (%)					88	87	87

Source: Ministry of Social Affairs/WHO Regional Office for Europe health for all database.

Estimated health care expenditure increased as a result of introducing health insurance in the first years, but has remained in the range of 6.0–6.5% of GDP in the last four years.

Table 3. Health care expenditure by category, (%) of total expenditure on health care, 1996–1998

Total expenditure as share of total expenditure on health care	1996	1997	1998
Public	88	87	87
Pharmaceuticals	17	17	16.6
Investment	5.3	4.2	7.0

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

Health care delivery system

Primary health care and public health services

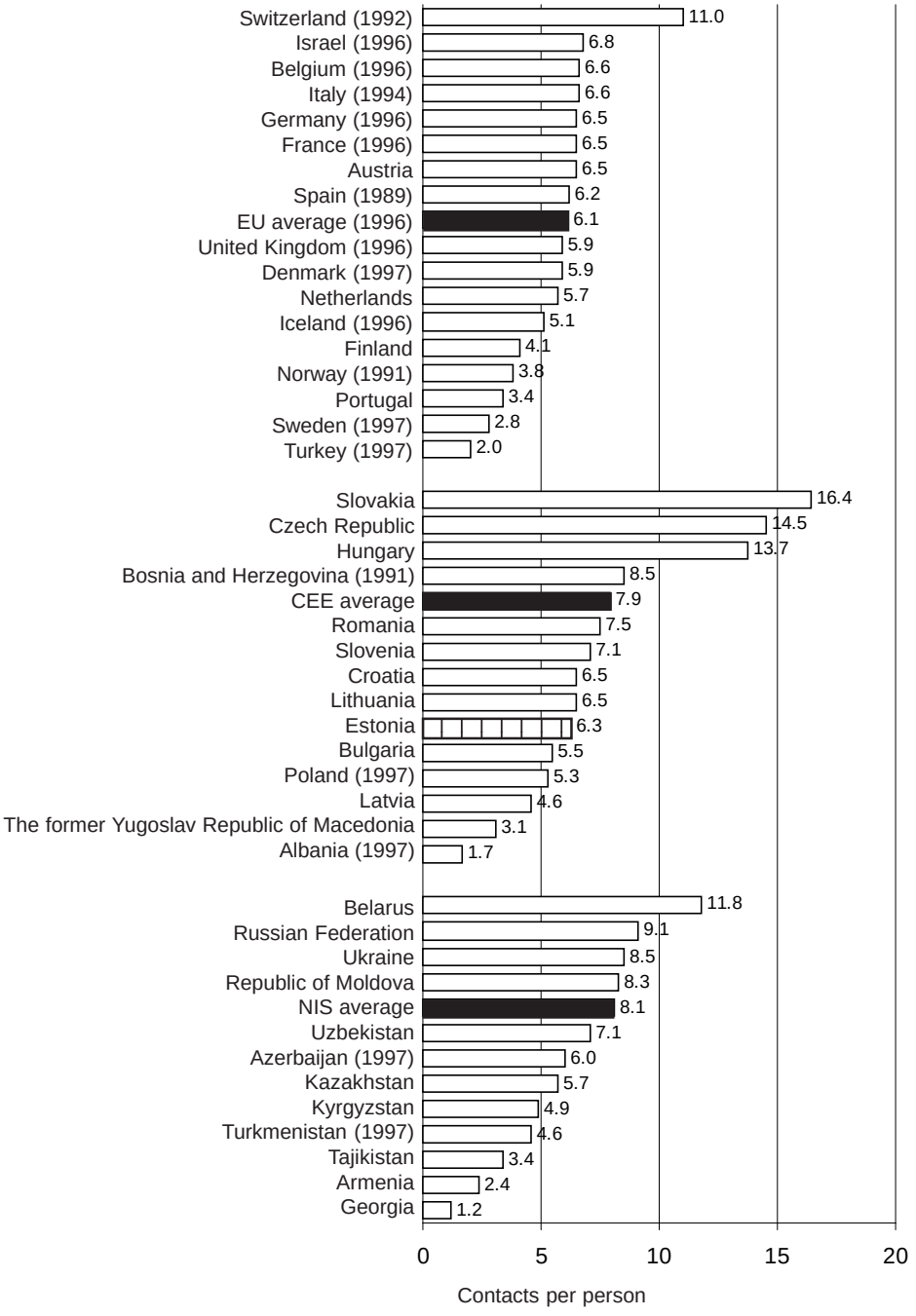
The reorganization of primary health care services constitutes a key element of the health reforms in Estonia. The changes started in 1991 with the establishment of a postgraduate training programme for family medicine, which was designated as a specialty in 1993. In 1998 a new financing scheme for family doctors came into force, which foresees establishing patient lists, introduces combined payment mechanism (main source – capitation), establishes a partial gatekeeper function for family doctors and renders the status of an independent contractor to family practitioners.

Until 1998 primary care was mostly provided in polyclinics and ambulatories, owned by the municipalities, and by a few private providers. The system had several problems which stem from its history. The work of medical practitioners in ambulatories has been of low prestige – both among medical professionals and the general public. Traditionally, any medical graduate could opt to practice in ambulatories: no additional or specialist training was required. The average earnings of doctors and nurses in primary care were lower when compared with specialists. This added to the low level of satisfaction of doctors and nurses in primary care.

All this resulted in poorly motivated primary care practitioners and a low effectiveness and quality of primary care services. Very commonly, patients bypassed the primary care level and went directly to specialists in polyclinics or hospitals. The major challenge in introducing family practice was, and still is, to change the old attitudes towards primary care both among the public and specialists.

The need for reforming primary care was recognized in the late 1980s, before Estonian independence. Since 1991, the Tartu University Medical Faculty has been providing a three years retraining course in family medicine for re-specialization of previous specialists in polyclinics (district internists and district

Fig. 6. Outpatient contacts per person in the WHO European Region, 1998 (or latest available year)



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

paediatricians mostly) and hospital doctors. In March 1998, there were 351 graduates from the course. In October 1999, this rose to 401. A further 370 doctors are currently following the retraining course. In 1993, a three-year residency programme for new medical graduates to specialize in family medicine was also introduced.

A model of primary care organized around family practice was developed. It proposed that the family practitioner would be a private contractor with the sickness fund. Payments are based on a mix of capitation and fee for service. Family practitioners would be required to act as gatekeepers for the rest of the service. The reform aims at creating a more personal relationship between the doctor and the patient, with the doctors financially more influenced by the results of their work. The capitation payment method is hoped to give more incentive for the family practitioner to undertake disease prevention and health promotion among those registered with him or her.

The reform was announced by a decree of the Minister of Social Affairs in April 1997, stipulating registration of people to family practitioners and tasks for different institutions in the implementation of the reform. The main steps were:

(a) selection of family practitioners for practices as private practitioners in the regions;

(b) registration of population to the practices;

(c) developing a new financing and direct contracting method with the sickness funds for 1998.

The size of the patient-list for a doctor is 1500–2300 persons, with exceptions allowed in remote areas or small islands. It has been estimated that the required services could be provided by 808 family practitioners. The 808 practices were established according to the proposals of county officials and registration was opened for the practices. Although self-registration of people was slow at the beginning, it reached levels of 80% in some counties by November 1997.

Transformation of primary health care is planned to be gradual, through the introduction of family practitioners to replace the old system. In 1998, 391 family practitioners and paediatricians started to work as private independent or joined contractors with the sickness fund under the new financing arrangement. In the beginning of July 1999, the number of new-type capitation contracts was 324, with 493 family physicians working jointly or independently under the new scheme. For 1998–1999, paediatricians and district internists were also allowed to register people, provided that they started retraining in two years.

The services to be provided by the family practitioners are described in documentation accompanying the decree of the Minister of Social Affairs. The services include general medical care, including the elderly, children, family planning, obstetric care, minor surgery, dispensing prescriptions, sick-leave certification and home visits. The family practitioners are expected to provide health promotion and disease prevention services. The payment formula consists of four types of payments, with capitation-based payments for general medical services and fee-for-service arrangements: for example, for minor surgery. This will be described in more detail in the section on *Payment of physicians*.

Although gatekeeping is established, it does not deny all direct access. Direct access remains an option to ophthalmologists, dermato-venerologists, gynaecologists, psychiatrists, phthisiatricians, dentists and also to traumatologists and surgeons in case of trauma. To counteract a worry raised by the public and specialist doctors that the family practitioners would refrain from referring patients to specialists when needed, referrals to all specialists are paid separately by the sickness fund. The referrals, however, have to take into account the contracts between the sickness funds and ambulatory specialists and hospitals.

Most of the counties have implemented the new system in full, in some both new and "old" fee-for-service financing methods are used in parallel. In general, it can be said that the pace of change was quick, and positive expectations for reform were seen in most parts of Estonia – only the capital, Tallinn, being conservative. This can be explained by the high number of specialists working in Tallinn and the existence of large polyclinics that provide a mixture of primary and secondary care.

The reform has been monitored closely by the Ministry of Social Affairs, Tartu University Department of Polyclinic and Family Medicine and the Estonian Society of Family Doctors. In October 1998 a study of a representative random sample of the Estonian population indicated that there were 2.5 times as many people satisfied with the changes as compared to those who have felt a deterioration in the system. Primary care provided by family doctors is easily accessible when compared with international standards. A recent study on immunization revealed that there were no differences between the immunization coverage and appropriate timing of immunizations between children registered with family doctors and those registered with pediatricians. It can be concluded that the range of services provided by family doctors has increased, as have both patients and doctors' satisfaction.

In December 1999, a health care service satisfaction survey was conducted on the request of the Central Sickness Fund. Among other issues, satisfaction with family doctors and primary health care was reviewed. Eighty-five per cent (85%) of those who had visited their primary care doctor were satisfied

with the doctor. However, partial gatekeeping is not effective yet, as 65% of people seeking medical assistance turned directly to a specialist, especially in Tallinn. Thirty-six per cent (36%) had a referral from the primary care doctor. To the question of how people would prefer to seek specialist care, 40% of respondents prefered referrals from the family physician, 26% said the patient should decide and find the specialist. One third of the people answered that the choice whether to turn to the family doctor to decide on the need to see a specialist or to turn directly to the specialist should be decided by the patient on the concrete case.

Public health services

The main public health institutions at national level are the Ministry of Social Affairs, the Health Protection Inspection, the Labour Inspection and the Centre for Health Promotion and Education.

Within the Ministry of Social Affairs there are three departments dealing with public health issues. The Public Health Department is responsible for health policy, health promotion and disease prevention issues, whereas the Health Protection Department deals with more directly applied health protection policy like environmental and communicable disease control issues. The Occupational Environment Department is responsible for the occupational health policy.

There are national programmes for health promotion and disease prevention in Estonia. Programmes of child and adolescent health, tuberculosis prevention, narcotics-use-prevention, AIDS and STD prevention are funded by the state budget. In 1999, three new programmes were approved in principle by the government. These are programmes on hypertension, cancer, and reproductive health. If funded, it is envisaged that they will have a duration of three to ten years.

The health insurance budget contains a separate budget of around 0.5% of the total budget for supporting health promotion activities. An advisory Public Health Development Committee at the Ministry of Social Affairs evaluates applications for projects each year. The funds are open for everybody to submit proposals and are announced in the newspapers.

The National Centre for Health Promotion and Education was set up in 1994. Its proposed functions are the surveillance and development of health programmes for noncommunicable diseases (e.g. cardiovascular diseases, cancer, etc.), providing support and education in health promotion activities,

and liaison with other agencies. Intersectoral cooperation is particularly important in health promotion. The National Centre for Health Promotion and Education is well placed to play this coordination role between a diverse range of ministries and other agencies. The centre has already created intersectoral teams for the three national health promotion programmes, which include a heart health programme, an anti-tobacco and an injury prevention programme. This informal coordination indicates the role that could be played by formal mechanisms to coordinate activities.

The structure and functions of the Health Protection Inspection, although based on the "sanitary-epidemiological services" of the Soviet era, represents a new development, with inspection and enforcement now only two of a range of instruments. It deals with environmental health[2], control and surveillance of communicable diseases and immunization.

At county level the public health network is based on three institutions – the county physician in the county government, the local office of the health protection inspection and the local office of the labour inspection. These agencies are expected to implement the guidelines and programmes set up by their parent agencies at national level, and to ensure that other institutions act according to the public health regulations, especially health protection regulations.

Public health services at county level are accountable to the county physician according to the Health Care Organization Law and Public Health Law of 1995. The county physician should play an innovative role in the Estonian health system, having functions of integration and coordination of curative, health promotion and preventive activities. The Health Care Organization Law endows the county physician with the responsibility for the main public health functions. Its chief responsibilities are the surveillance of the health of the population (environmental hazards, mortality and morbidity due to communicable and noncommunicable diseases), the identification of the health needs of the population and the organization of environmental, occupational, preventive and health promotion activities. Also, as pointed out earlier, the county physician is responsible for the planning, management and evaluation of health care services.

At municipality level, public health functions will be carried out by a municipality physician whose role is equivalent to that of the county physician, but at municipality level. The functions of municipality physicians will vary depending on the size of the municipality. While in large cities their functions will be

[2] This includes control and surveillance of water, atmospheric pollution, pests, radiation, noise, housing and institutional hygiene and food hygiene.

mainly administrative and could potentially overlap with those of the county physicians, in small towns they will have a direct role in providing public health services. It is also foreseen that municipality physicians in very small municipalities will have clinical duties or, alternatively, their functions will be carried out by family physicians.

The role of public health, especially in the fields of health protection and occupational health, has considerably increased in the last two years due to the pre-accession process. However, the main problem is that, despite efforts for horizontal cooperation between these three institutions, they still represent quite separate vertical systems without sufficient information exchange, planning and cooperation.

The level of immunization against measles has increased in the last few years, with data supplied to WHO indicating an increase in coverage from 74% to 88% from 1994 to 1998.

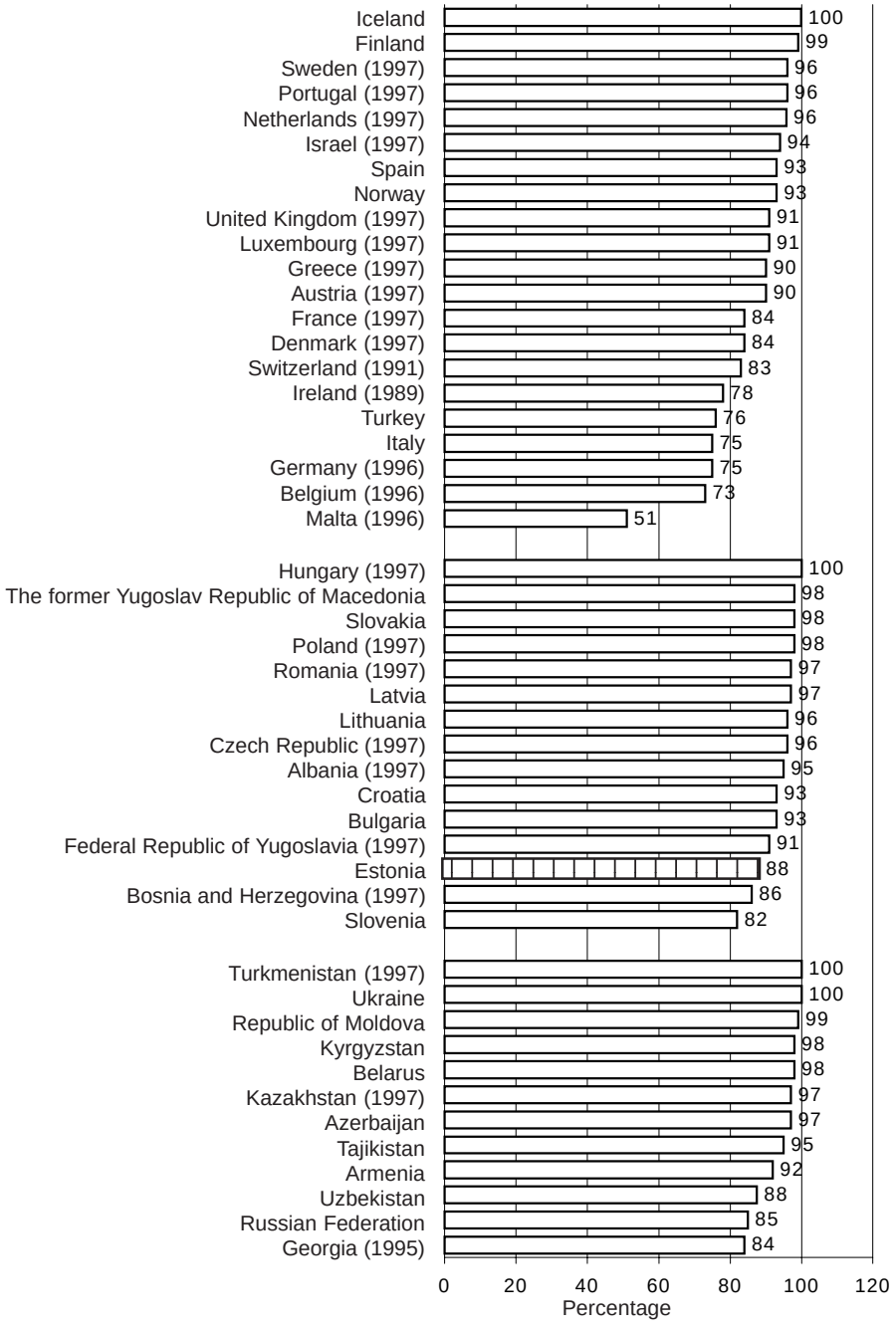
Secondary and tertiary care

Specialist ambulatory services in Estonia are provided by polyclinics, outpatient departments of hospitals and specialists working in their own practices. These providers have contracts with sickness funds and are paid by a fee-for-service method up to the limit of the contract. Most of the specialist providers are public. The private sector is more developed in dentistry, gynaecology, urology, ear-nose-throat and ophthalmology. Private providers may have contracts with sickness funds, but the services are paid for according to the public health insurance's price-list. Private providers can charge higher prices, in which case the patients' co-payments will cover the rest.

The hospital system in Estonia is geographically strongly decentralized and has a high capacity, considered to be in excess of the needs of the population. During the Soviet period, hospital capacities were increased for strategic military reasons. Up to 1991, there were about 120 hospitals providing services for the Estonian population. Together these provided about 18 000 beds, or more than 113 per 10 000 inhabitants. Inpatient services included not only acute care, but also long term care and inpatient psychiatric services.

Today, the system of acute care hospitals officially consists of two levels of care. In addition to primary care, which is provided by family practitioners, ambulatory centres or polyclinics, there is secondary and tertiary health care in hospitals. In 1998, there were 29 smaller "municipal" hospitals, with less than 50 beds. They provide mostly internal medicine services and long-term care.

Fig. 7. Levels of immunization for measles in the WHO European Region, 1998 (or latest available year)



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

Then there were 25 hospitals with 51–150 beds and 13 hospitals with 151–300 beds. Most of the 11 so-called county hospitals (average 80–200 beds) were built between 1970 and 1988. These hospitals provide a variety of specialized services, normally internal medicine, cardiology, surgery/orthopaedics, obstetrics/gynaecology, paediatrics, neurology.

Tertiary care hospitals are mostly situated in Tallinn and Tartu. The Tartu hospitals are also teaching hospitals, being medical clinics of Tartu University Medical Faculty, and form one big University Clinic. These hospitals provide a highly-specialized service. They have a wide range of high technology facilities. Tertiary level hospitals also provide secondary level hospital care to their regions. Outside the University Clinic there also are a number of other specialized hospitals in Tallinn. These are the Tallinn Oncology Centre, the Psychiatric Hospital, the Venereal Disease Hospital and the Communicable Disease Hospital in Tallinn.

The number of hospitals and hospital beds has been reduced considerably since the beginning of the 1990s (Fig. 10). Between 1991 and 1995, over one third of the 18 000 beds was closed, both in small and large hospitals. After establishing a hospital licensing system in 1994, the number of hospitals and hospital beds has continued to decrease because small hospitals, which in practice provided long-term care, lost their acute care licenses and were turned into nursing homes. In 1998, there were 78 hospitals in Estonia. As mentioned earlier, although the majority of hospitals are in public ownership, an increasing number of these are working under private law as joint-stock companies or not-for-profit foundations. Hospitals are accountable to two parties – to the sickness funds for health care services, and to the owner of the hospital, mostly municipalities, for the financial management. Most hospitals are led by head doctors. Hospitals are quite autonomous in their decisions concerning renovation, employment decisions and negotiation of staff salaries. Hospitals can earn money through renting out space to private enterprises (e.g. banks and shops in hospital lobbies). This revenue is taxed but can be retained by the hospital. Subject to approval by their owner, hospitals can also borrow money from financial institutions. Liability in case of default has yet to be established.

The total number of hospital beds was 10 509 in 1998. Of the hospitals which lost their licences in 1994–1995, 23 are operating as nursing homes financed by municipalities. Some hospitals have been reorganized into primary care centres providing ambulatory care. However, it is still obvious that health insurance pays for hospital-stays that are longer than necessary, which occur more on social indications, than out of medical necessity. Thus health insurance is paying for the social care provided in hospitals.

The reform continues further in the direction already taken. Preparations are being made to establish criteria for the minimum number of certain procedures which should be performed in specialist departments. This would be related to licensing of the department. It is believed that, as a result, hospitals will have an incentive for coordination of provision of specialist services within and between counties.

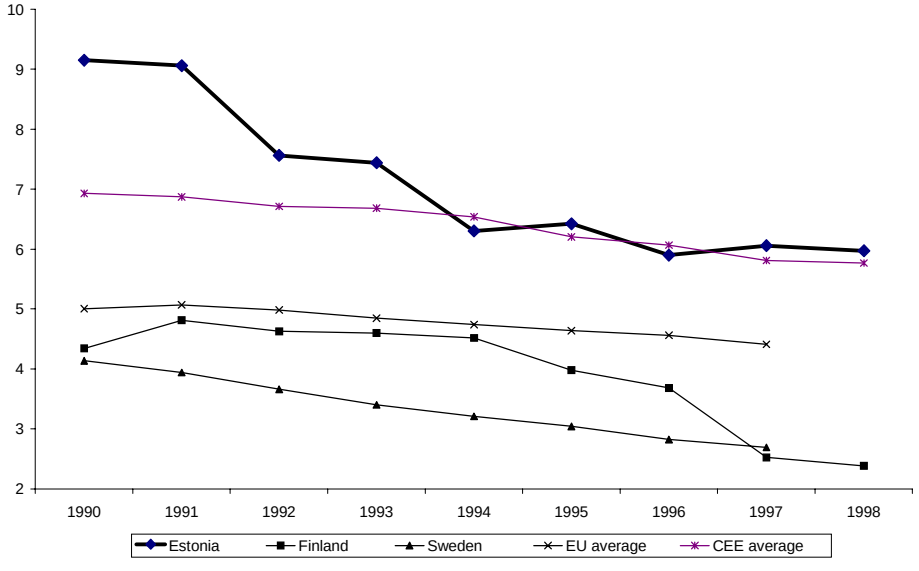
For the long-term vision of specialist care need, an Estonian hospital master plan is currently been worked out in cooperation with a Swedish contractor. The plan, which is expected to be ready in April 2000, will hopefully provide the basis for the further reorganization of a hospital network.

Table 4. Inpatient utilization and performance, acute hospitals, 1980–1998

Inpatient	1980	1985	1990	1992	1994	1996	1998
Hospital beds per 1000 population	9.62	9.74	9.15	7.56	6.30	5.90	5.97
Admissions per 100 population	18.5	19.9	17.5	17.0	16.5	16.7	17.9
Average length of stay in days	–	15.0	14.3	13.1	11.4	9.6	8.8
Occupancy rate (%)	84.3	84.3	74.2	74.2	76.6	71.9	74.9

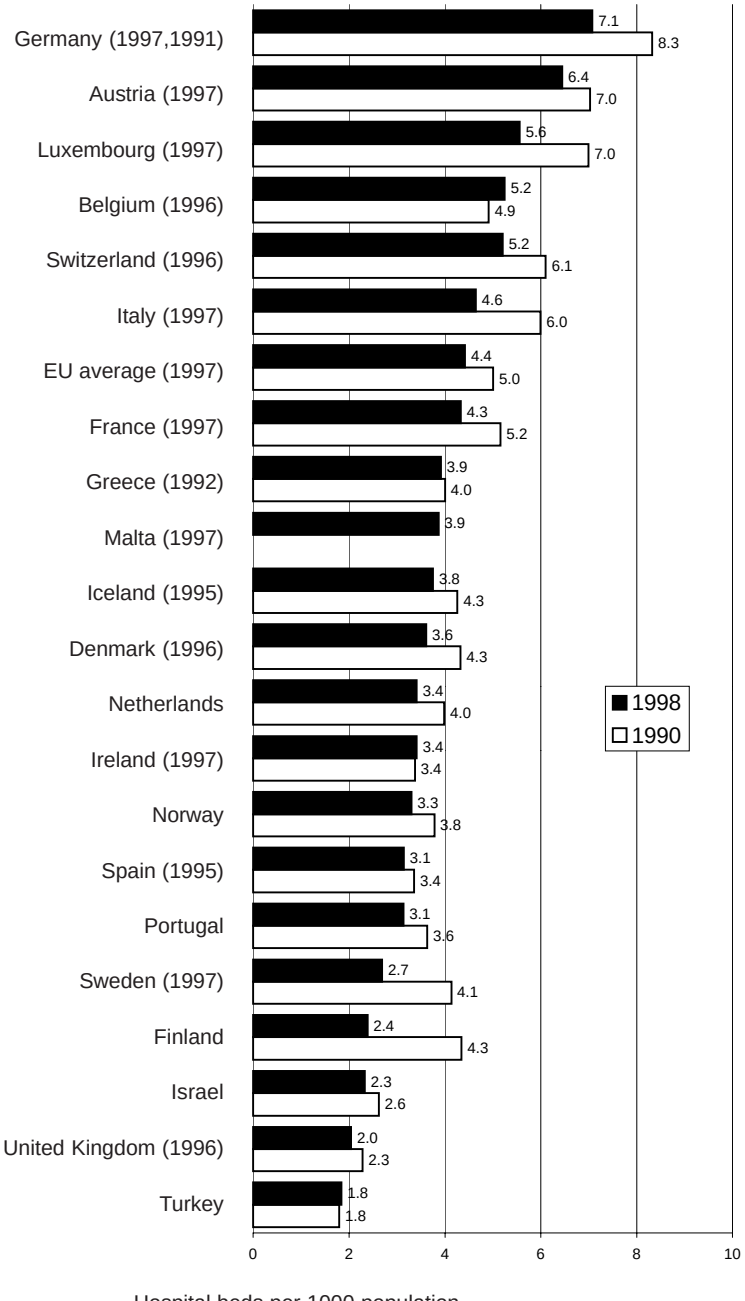
Source: WHO Regional Office for Europe health for all database.

Fig. 8. Hospital beds in acute hospitals per 1 000 population in Estonia and selected European countries, 1980–1998[a]



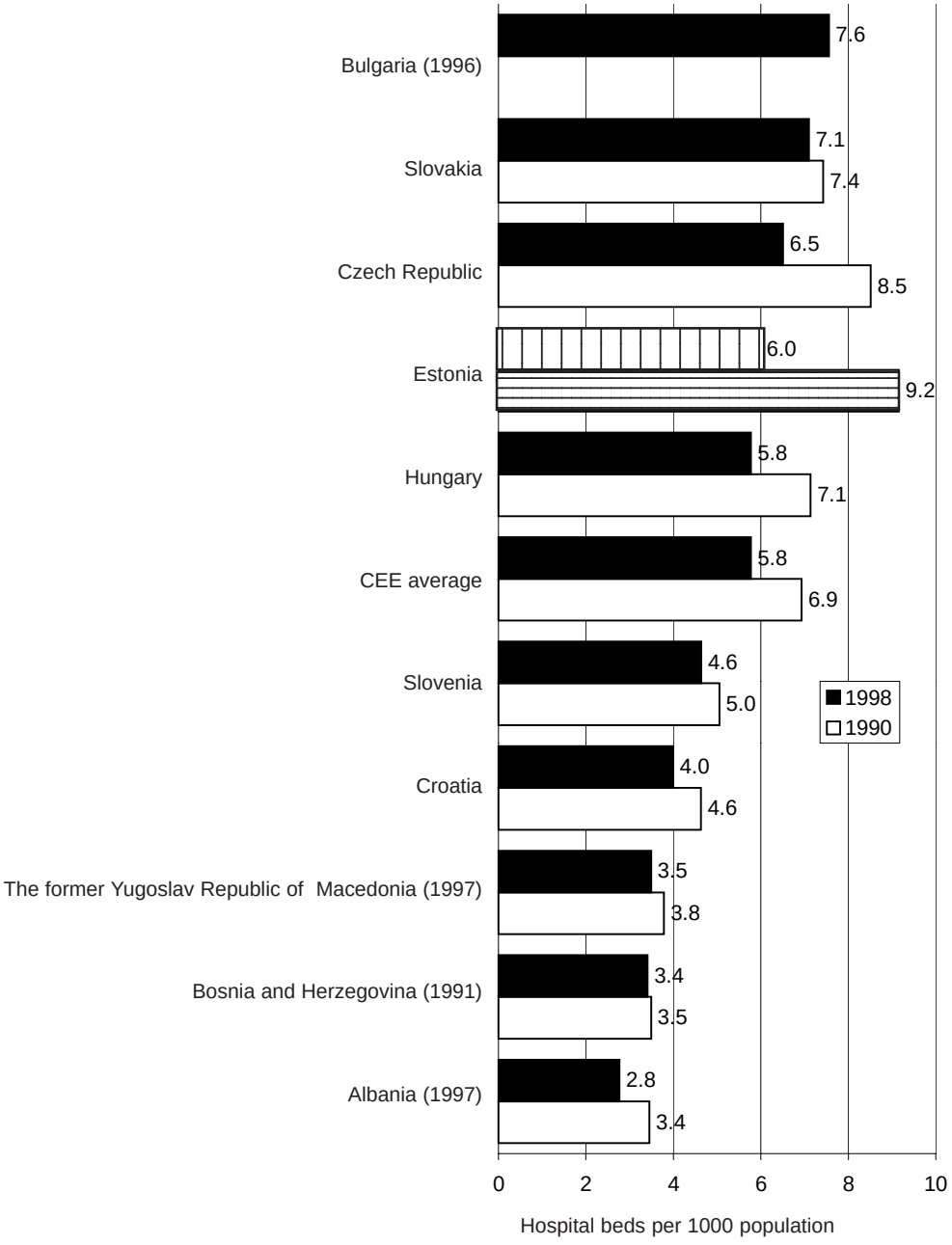
Source: WHO Regional Office for Europe health for all database.
Note: [a] No data available for Latvia, Lithuania or Poland.

Fig. 9. Hospital beds in acute hospitals per 1000 population in western Europe, 1990 and 1998 (or latest available year)



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

Fig. 10. Hospital beds in acute hospitals per 1000 population in central and eastern Europe, 1990 and 1998 (or latest available year)



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

Estonia

Table 5. Inpatient utilization and performance in acute hospitals in the WHO European Region, 1998 or latest available year

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

Source: WHO Regional Office for Europe health for all database.
Note: [a] 1997, [b] 1996, [c] 1995, [d] 1994, [e] 1993, [f] 1992, [g] 1991, [h] 1990.

Social care

Estonia inherited a system of social care based on institutional provision. Treatment of chronic diseases took place in hospitals, and long-term care was provided by hospitals. Disability, physical or mental, was more or less a taboo subject and practically all the disabled were taken into institutional care. The previous approach of hiding the disabled in institutions also broke family ties. Many people were committed to institutions even though they could have managed in the community with quite modest assistance.

Since re-independence, a new concept of social services has begun to be implemented. Its strategic objectives are a reduced and restructured institutional care and the development of an "open care" system.

Since April 1995, the Social Welfare Law has defined the objective of social welfare as to provide assistance to individuals or families to prevent or abolish management difficulties and to assist individuals with special social requirements to acquire social security, development and adaptation to society. The organization of service provision is the responsibility of local government.

Long-term care for the chronically ill is provided by nursing homes, which are funded by municipalities. In case of financial difficulties, some support can be received from the state budget. The number of nursing homes has increased in the last few years as small hospitals, which did not get licenses for acute care, have been converted into nursing homes. This transfer is supported by funds from the state budget for renovation costs.

The number of nursing homes and long-term care providers is believed to be insufficient. There are waiting lists for public nursing homes, especially in Tallinn. The number of private nursing homes and especially home-care providers is increasing. These are considered expensive and thus not affordable to everyone in need. Due to constraints in the health insurance budget, home care is only covered for terminal cancer patients. Social care is the responsibility of municipalities but it must compete with other priorities. In addition, it is recognized that there is scope for greater cooperation between health and social care.

In 1996, there were thirteen special care homes for adults, providing 2820 places. Orphans and children with disabilities or without parental care are taken care of in special children's homes providing 300 places. Five school homes with 370 places provide care for and support the development and education of disabled school-age children. These institutions are owned by the state and financed from the state budget.

Several initiatives are supporting the implementation of the changes. A support centre has been established for the education of disabled persons in

vocational training and self-help, as well as the training of teaching staff in occupational schools to work with disabled students, thus enabling the education of disabled young people in their home regions. Local governments have started preparations to implement an open-care system and are educating personnel. Much of the work is being done through bilateral assistance programmes. Day care centres are being established. Counties and local governments are developing the services required by the Social Welfare Law. However, at present, no regions offer disabled persons a comprehensive range of services.

The implementation of reforms is difficult because of the need for extensive capital investments. One major problem facing institutional care is the poor condition of the buildings and their high maintenance costs (e.g. heating). Most care homes are situated in old manor houses, built mainly in the nineteenth century. They are often located far from population centres, which makes it difficult to develop non-institutional services for the nearby community. The establishment of day care centres also needs first-hand capital investments, resources which are scarce both in municipal and state budgets.

There was a twofold philosophy of social services development at the time of Estonia's economic transformation. On the one hand, social services and safety nets had to be established for those population groups and individuals who had difficulties in adapting to a changed situation (and to the society in general). On the other hand, the social welfare systems should provide incentives to motivate people to act for themselves instead of becoming passive users of social assistance.

A great deal of work has already been carried out in a short period of time to develop the new basis of social services. The Ministry of Social Affairs, along with the municipalities, has been reorganized and various new services have been developed. The bulk of the legislation on social welfare has been prepared, staff has been trained and so on. Even so, development needs arise from the gap between the actual situation and the legislative principles, objectives and strategies. Perhaps the most important achievement of the last decade, however, has been that social attitudes to mental and physical disability have started to change.

Human resources and training

Estonia is faced with an overabundance of physicians, particularly in certain specialties. Conversely there is a shortage of nursing personnel and an uneven distribution of specialist services.

Medical personnel

Tartu University Medical Faculty is the only medical training institution in Estonia. Undergraduate training takes six years, ending with a graduation examination. This is followed by a minimum 3-year residency programme. By 1991, Tartu University had already initiated changes in both undergraduate and postgraduate training programmes. Currently, it is making efforts to evaluate programmes and to bring them up to European standards.

All residency programmes are under the auspices of the Tartu University Medical Faculty. After specialization, there still is a three-category system intended to guarantee the level of professional qualification. Peer commissions led by the Ministry of Social Affairs have developed accreditation criteria for each of the categories and specialties, including requirements for continuous education. Categories are registered in the Ministry of Social Affairs. Five years' experience, category two and successful completion of an examination entitles a physician to a license for private practice – the only official license issued at this moment. There are also regulations for foreign graduates and non-practising physicians.

There are plans to change the system, giving responsibility for monitoring and enhancing professional quality to professionals themselves.

During the last decade, the number of doctors has been continually decreasing from 5500 in 1991 to 4311 in 1998[3] . The decrease is attributable to a decrease in the "import" of doctors from the former USSR and an increased "export" of Estonian doctors to the former USSR[4] and to the west. There have also been increasing numbers of young doctors and medical graduates leaving clinical medicine for work in new health-related fields such as representatives of pharmaceutical companies and health care administration. The decrease is likely to continue in view of the reduction in medical student admissions to Tartu University. The faculty has reduced the number of students admitted from 200 per year in the 1980s to 70 in 1995. The admission has been increased again in the last years with 100 students admitted to general medicine and 35 to stomatology in 1999.

The general number of junior doctors admitted to the residency programmes is currently set by the Ministry of Education according to a proposal of Tartu University Medical Faculty, which has been evaluated by the Ministry of Social

[3] The numbers refer to physical persons, not full time equivalents.

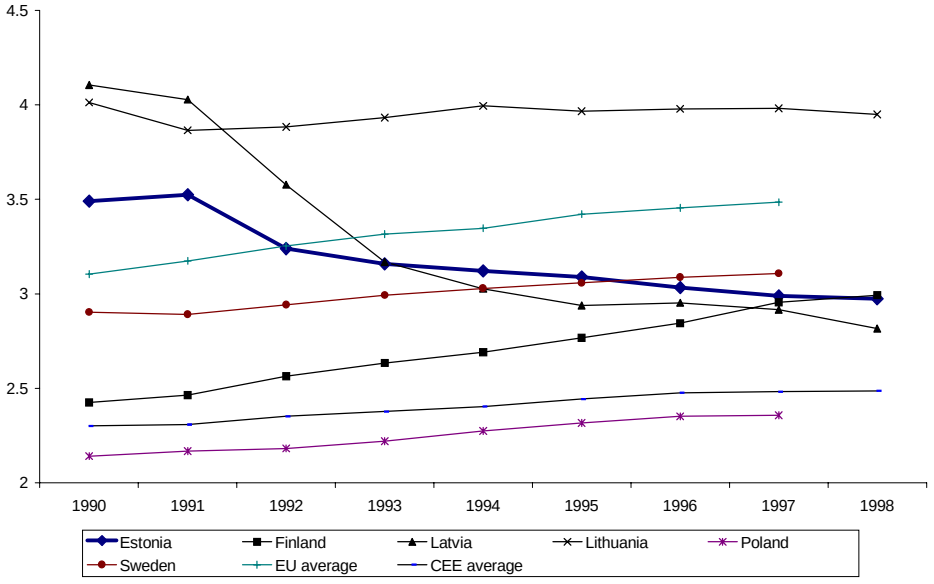
[4] Mainly Russian doctors who were family members of Soviet military personnel, who left with the Soviet army.

Affairs and the medical association. The number of admissions to the different residency programmes is set by Tartu University in discussion with specialist organizations witin the overall government specified total. However, a long-term national health manpower plan defining the country's needs for different health professionals does not exist.

As the introduction of family doctors is of key importance to Estonian health reforms, the first years of the Estonian experience in training and employing family doctors are of special interest. The retraining of doctors in family medicine started in Tartu University in 1991. The specialty was approved and added to the list of specialties by the Ministry of Social Affairs in 1993. Today, 401 physicians have retrained in family medicine in Estonia. A further 370 are currently in the two-year retraining course. Their average working experience before retraining was 13 years. About half of the doctors had previously worked in rural health centres as unspecialized doctors, the remainder being mostly adult internists or from polyclinics. There are two newly graduated resident doctors and a further 32 are currently studying at the Department of Polyclinic and Family Medicine in Tartu University.

Before the implementation of the family practice reform in 1998, a study was conducted during the autumn of 1995 to review the working conditions and job satisfaction of the 150 graduates on the retraining course at that time. It indicated that 92% of those working as family doctors were direct employees of the health system. Around 6% of them worked in private practice and had contracts with sickness funds. Over three quarters continued to work in their old positions. They had usually made some changes, although changes were less frequently made in rural offices. The majority had renamed their practices into "family doctor offices". In rural areas, there were more personnel working with family doctors than in urban areas. These included nurses, laboratory assistants, drivers and cleaners. A small number of doctors were assisted by as many as five or six people, adding a physiotherapist, secretary, accountant and others to the usual ancillary staff. Nearly one half of the family doctors used computers – half of those in rural areas. Just over one fifth of the working family doctors reported that they were completely satisfied and just under one in ten were not at all satisfied. The reasons for dissatisfaction were the relatively high workload, unsatisfactory working conditions, large amounts of paperwork and also the vague role of family doctors.

Fig. 11. Physicians per 1000 population in Estonia and selected European countries, 1990–1998



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

Nursing personnel

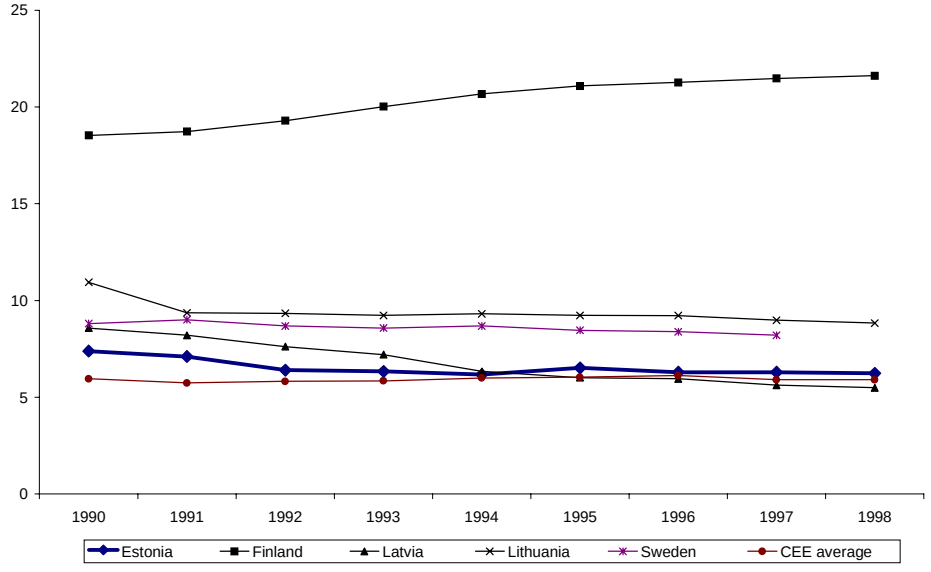
The number of nurses shows a declining trend, a phenomenon thought to reflect poor salaries and low professional status. In 1990 there were almost 8800 nurses in Estonia, but by 1994 there were 7300. The total number of nursing personnel, including midwives and felshers was 9055 in 1998. The present ratio of doctors to nurses (1:2) is thought to be too high and it is aimed to achieve a ratio of 1:4. Over one third of all nursing staff work in Tallinn, approximately reflecting the distribution of the population.

There are three nursing schools in Estonia, which are under the control of the Ministry of Education. Training is offered in Estonian and in Russian. The schools have developed new curricula. The training lasts three and half years and approximately 300 students enter training each year. There is also an 18-month course for hospital attendants. In 1991, a university degree course for nurses with at least two years of work experience was established at Tartu University Medical Faculty. In 1998 there were 52 graduates from these courses. The available specialties are general nursing, midwifery, community nursing, mental health nursing, mental handicap nursing and pediatric nursing. After

specialization, nurses can also work in physiotherapy, X-ray, radiology, operating theatres and as anaesthetists. After graduation, the Diploma in Nursing is registered by the Ministry of Education. A central registry of nursing personnel is planned. Graduate nurses can work in hospitals, including psychiatric hospitals and polyclinics. Nurses are categorized according to experience and education.

Efforts have been made to raise the status of nurses through continuous education and increasing their responsibilities. The issue of an appropriate skill mix in the health care team is still being considered. However, due to the enthusiasm and efforts of the nursing leadership in introducing modern nursing concepts, the attitudes are changing surprisingly rapidly.

Fig. 12. Nurses per 1000 population in Estonia and selected European countries, 1980–1998



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

Other personnel issues

The lack of management skills in health care and the enhancement of administration of the health care institutions is being addressed. There is a trend towards separation of health service and management responsibilities in hospitals by appointing hospital managers alongside head physicians. Short-term health care

management courses are offered at the Public Health Training Centre, which was established in April 1996 in Tallinn for public health and health administration continuous training. Courses in public health are also conducted at Tartu University. A new training programme for public health specialists will be established at Tartu University, as this training is not available in Estonia at all, and specialists in this field were previously trained in the Russian Federation.

Several patient satisfaction surveys have been conducted in Estonia. In October 1995 EMOR, a sociological review company, conducted a survey on behalf of the weekly magazine, *Luup*. Among other issues the researchers investigated patients' attitudes towards health services personnel. The survey indicated that only 5% of the sample population had no unpleasant impressions of their contacts with the health care system. A much larger proportion (two fifths) of respondents had complaints or suggestions. Half of those with complaints doubted the competence of the treating doctor and it was suggested that the older generation of doctors should be more informed of recent developments in medicine. Respondents also mentioned the impolite attitude of doctors, lack of information, poor knowledge of the Estonian language and an indifferent attitude among nursing personnel. The survey also indicated that the public has little knowledge and understanding of the health insurance system and work of the sickness funds. More information and freedom of choice is expected.

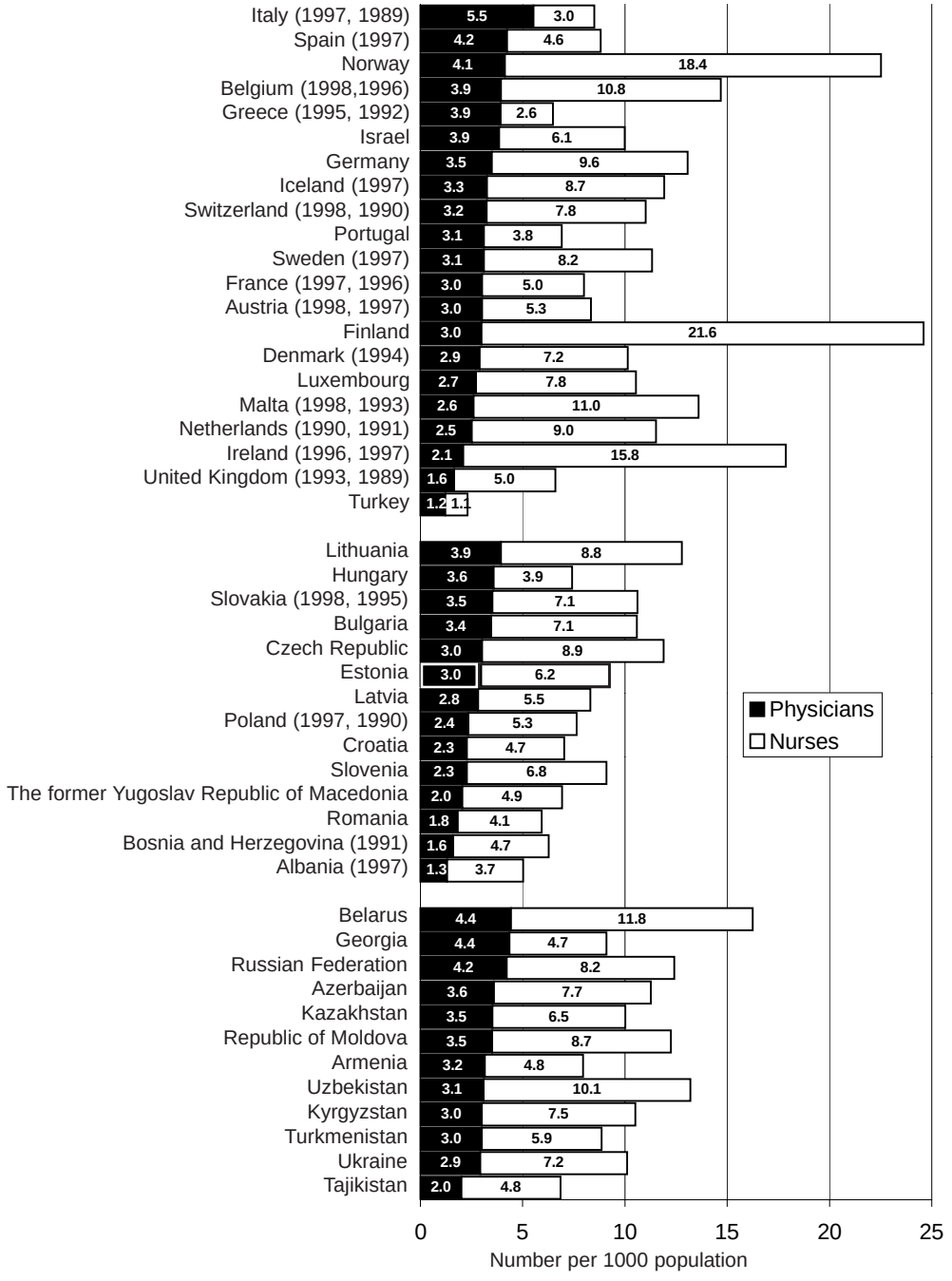
In December 1996, the Central Sickness Fund ordered a review by the same company. This survey showed that people who had used health care services in the last year were satisfied with the service overall. There was a slightly higher satisaction level with private providers, who were regarded as paying more attention to the patient.

Table 6. Health care personnel per 1000 population, 1970–1998

Number	1970	1975	1980	1985	1990	1995	1996	1997	1998
Active physicians	2.37	2.57	2.93	3.30	3.50	3.09	3.03	2.99	2.97
Active dentists	0.33	0.36	0.40	0.45	0.48	0.58	0.63	0.66	0.68
Certified nurses	4.22	4.25	4.40	4.94	5.58	6.52	6.29	6.3	6.25
Midwives	0.48	0.55	0.48	0.48	0.62	0.46	0.44	0.39	0.37
Active pharmacists	0.44	0.49	0.48	0.48	0.59	0.49	0.49	0.52	0.53
Physicians graduating	–	–	–	–	0.15	0.12	0.09	0.09	0.08
Nurses graduating	–	–	–	–	0.26	0.18	0.16	0.17	–

Source: Ministry of Social Affairs, Estonia; WHO Regional Office for Europe health for all database.

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



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

Pharmaceuticals and health care technology assessment

The pharmaceutical sector in Estonia has been reformed. The goal was to set up regulatory authorities, create a legislative background, introduce a reimbursement system of pharmaceuticals, and carry out privatization of the pharmaceutical services. Availability of medicines with known quality and proven efficacy in the pharmaceutical market has been achieved and access for the public to prescription medicines is supported by the functioning reimbursement system. Further development in certain fields is needed but no reforms are necessary. In fact, the pharmaceutical sector in Estonia today is very similar to those in the European Union (EU).

The legislation concerning pharmaceuticals is based on the Medicinal Products Law and on numerous governmental and ministerial decrees, providing detailed regulations and guidance. The legislation on pharmaceuticals for human use has been harmonized with EU legislation, but some differences still exist in the regulations on veterinary medicinal products.

The Agency of Medicines (for more information and references see also home page in the internet: www.sam.ee) is fully responsible for the control of all pharmaceutical activities in the country. Starting from the year 2000, it will also be responsible for the control of veterinary medicines and medical devices and technologies.

All pharmaceutical activities (manufacturing, wholesale and retail trade, import/export and hospital pharmacies) are licensed by a special Licensing Board at the Ministry of Social Affairs. The pharmaceutical services are subject to inspections by the Agency of Medicines and for example GMP (good manufacturing practice) standard is obligatory to start production of pharmaceuticals in Estonia. The Agency also authorizes marketing of pharmaceuticals, and regulates advertising and promotion of pharmaceuticals and approval of clinical trials to be carried out in Estonia.

Pricing of pharmaceuticals is free in Estonia, but a regressive cost plus (profit margin) system is in use for wholesalers and pharmacies. As the enforcement system is effective, violations of the established pricing system are rare.

Local production covers approximately 10% of the market of pharmaceuticals and there were eight licensed manufacturers, mainly of generic products, in 1998 in Estonia. All manufacturers and wholesale dealers in Estonia are private companies. Three major wholesalers provide almost 90% of the turnover. They have excellent premises, computerized logistic systems and well functioning distribution networks.

There were 250 retail pharmacies in Estonia in 1998, of which 235 were privately owned, 13 municipal and 2 belonging to the University of Tartu. Hospital pharmacies (45) in Estonia provide medicines only to the hospitals and are not allowed to sell medicines to the public.

In monetary terms the sales of pharmaceuticals has been increasing by 30% in the recent couple of years. Per capita annual consumption of pharmaceuticals, including prescription medicines, over-the-counter pharmaceuticals and the use of medicines in hospitals, can be estimated as EEK 640 (US $45) in 1998. In volume terms (doses per capita), the amount of prescription medicines used in Estonia is approximately 25–30% from that in the Nordic Countries.

Table 7. Sales of pharmaceuticals in retail pharmacies 1996–1998 (mill. EEK)

				Annual increase	
	1996	1997	1998	97/96	98/97
Total sales in pharmacies	461	628	816	36%	30%
Over-the-counter pharmaceuticals	197	237	301	20%	27%
Prescription medicines	264	391	515	48%	32%
Paid by reimbursement	143	230	315	61%	37%
Patient co-payment	121	161	200	33%	24%

Source: Agency of Medicines.

In 1993 a drug reimbursement scheme was introduced for pharmaceuticals purchased from outpatient pharmacies in Estonia with obligatory patient co-payment for each purchase of drugs. The reimbursement system is quite complex and based on different reimbursement levels for prescription-only medicines, depending on the disease and providing higher reimbursement levels for disabled and retired persons. In brief, all precription-only medicines exceeding the patient co-payment of EEK 50 are covered by at least 50% reimbursement. The reimbursement goes up to either 90% or 100% for medicines assigned to lists of more serious diseases, in which case the co-payment is also lower at 20 EEK. In compiling these lists, the essential drug concept was followed and only medicines with proven efficacy for the treatment of a disease were assigned the preferred status. As of 1999, the Health Insurance Law stipulates that, in order to become preferred status drugs for health insurance reimbursement, the drugs have to be medically effective and economically reasonable. The proposals submitted are evaluated by the Agency of Medicines, the Central Sickness Fund and the health care services price committee at the Ministry of Social Affairs. Over-the-counter pharmaceuticals, vitamins and mineral supplements, herbal remedies, etc. are not reimbursed. On the other hand, all pharmaceuticals used in hospitals are free for the patients, similar to other inpatient services for insured persons.

The increasing expenditures on reimbursement for pharmaceuticals in the health insurance budget during recent years (Table 7) has forced the implementation measures of cost-containment. Until now, there have been no financial incentives to the prescribers to encourage the choice of a cheaper alternative, but this practice cannot be continued. Currently, the adoption of reference prices by the sickness fund is being prepared and to promote cost-conscious prescribing and use of medicines.

The first essential drug list for Estonia was developed in 1992 and at that time it was used as a guide for drug donations. Later it was used by hospitals to develop their own drug formularies and also to create the positive lists of the drug reimbursement system for outpatient use of pharmaceuticals.

Information about medicines, directed either to the prescribers or consumers, is controlled by the Agency of Medicines in connection with granting marketing authorizations and this information is published in the annual compendium *"Pharmaca Estica"*.

In Estonia, the use of generic products is common and facilitated by the relatively low purchase power of the consumers. The first edition of a *National Formulary* (similar to British BNF) for medical doctors was printed in 1995 and this handbook promotes the use of products with established efficacy and of high benefit-to-cost ratio.

A bimonthly *Drug Information Bulletin* is distributed free-of-charge to the majority of medical doctors and to all pharmacies by the Agency of Medicines. The Bulletin is independent from the industry and provides non-commercial reviews and comparisons on existing treatment alternatives and critical evaluations of new medicinal products.

During recent years, several treatment guidelines have been developed and implemented, i.e. for asthma and hypertension. However, it is recognized that there is a need for greater work in this area. Thus, until now, the national policies on the use of pharmaceuticals and new equipment have been limited to information and guidance. Economic constraints, however, require that control mechanisms on drug expenditure have to be implemented soon, in order to balance between the growing demands and available resources.

There is no systematic programme of technology assessment, with activities limited to ensuring the safety of medical equipment. There were attempts to address this issue by establishing a Committee on Medical Technology in February 1995 to coordinate and advise on the procurement and use of high-technology medical equipment. It consisted of representatives of the Ministry of Social Affairs, the Central Sickness Fund, the Estonian Medical Association and the Union of Hospitals. To be accepted for health insurance financing, all

purchases of equipment costing over 350 000 kroons (US $30 000) were subject to approval by the Committee on Medical Technology. In reality, however, equipment was also purchased without approval. There was no practical way to enforce a refusal of payment by the sickness fund. The need to develop a national medical equipment quality control policy and to implement quality control systems, and also to create a national plan for hi-technology equipment use in order to ensure the financial viability, still exists.

Financial resource allocation

Third party budget setting and resource allocation

The main source of health care finance in Estonia is the health insurance system, comprising almost 70% of the total. The health insurance budget is calculated on the basis of the expected health insurance tax. The macro-economic prognosis of total payroll is calculated by Ministry of Finance. The Central Sickness Fund estimates next year's revenues based on this prognosis and last year's health insurance expenditure, and a consolidated health insurance budget is formed by the Central Sickness Fund.

The Central Sickness Fund presents the overall health insurance budget to the Ministry of Social Affairs and to the State Health Insurance Council for approval. The approved budget is presented to the Ministry of Finance and the Estonian government. Then, the State Health Insurance Budget is presented to the Estonian parliament for approval as part of the state budget.

The health insurance budget specifies the following overall expenditures:

1. health care services (separate allocations to treatment, health promotion, disease prevention, rehabilitation, medical aids)
2. sickness cash benefits
3. pharmaceuticals (compensations to the insured, centrally purchased pharmaceuticals)
4. high-technology equipment;
5. administrative costs of the Central Sickness Fund and regional sickness funds
6. sickness fund information technology
7. capital investments in sickness funds.

The budget is allocated to regional sickness funds on a per capita basis according to the number of insured in each regional sickness fund. This levels the differences in financial resources between counties resulting from differences in economic activity. In 1998, the Tallinn region supported the

other 16 regions with approximately 700 million EEK. For allocation of resources between primary care, hospital care, rehabilitation and dental care only general guidelines are given by the Central Sickness Fund. The decisions of provider contracting are taken by regional sickness funds. In 1998, the overall proportions in the medical services were: primary care 16%, specialist ambulatory and inpatient care 73% and dental care 11%. There is a separate allocation for rehabilitation services.

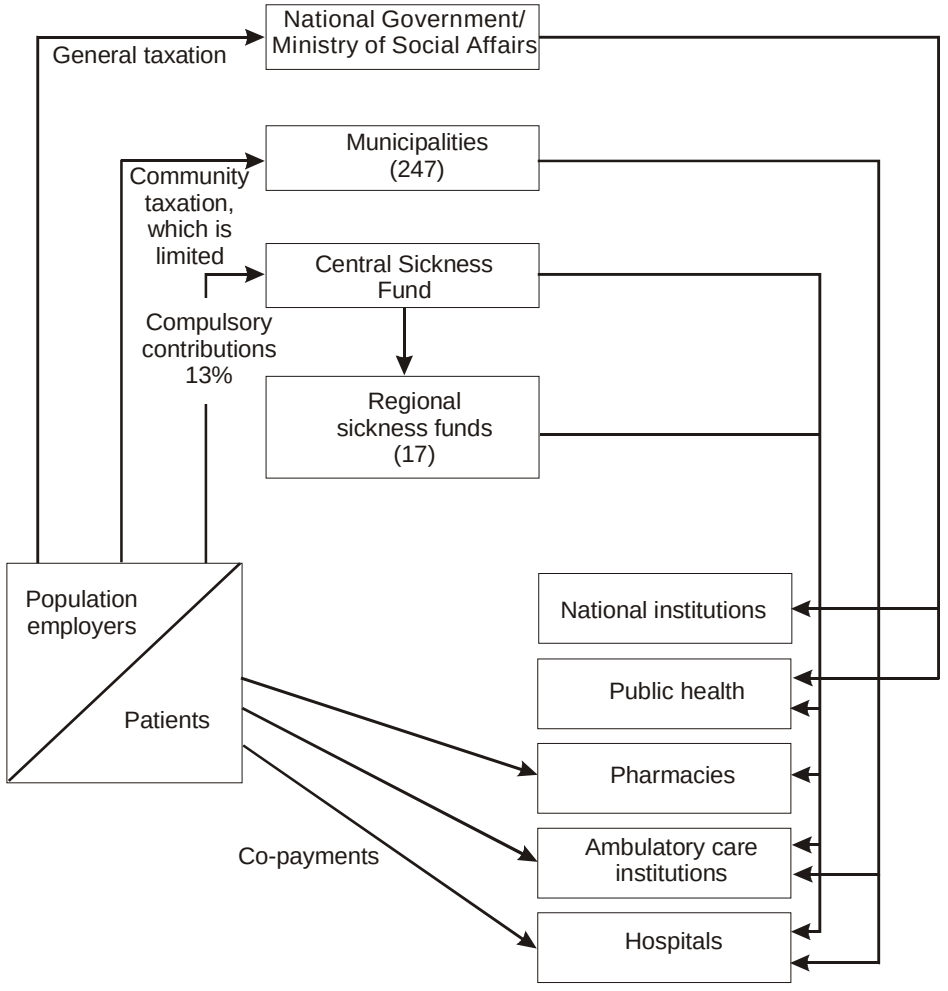
The state budget proposal for the health sector is prepared by the Ministry of Social Affairs. Legislatively, the Estonian state budget has to balance in order to be approved by the parliament and it has been in balance since 1992. For planning the next year's sectoral budgets, the Ministry of Finance sets budgetary ceilings by sectors, based on legislatively needed expenditures on laws and programmes and Government priorities. The Ministry of Social Affairs, on the other hand, receives budget proposals from organizations funded by the state budget, as well as partly state budget-supported institutions.

State budget allocations in 1998 were made for administration (the Ministry of Social Affairs, the Medical Library and the Medical Museum). The state budget also funds ambulance service, certain health programmes approved by the government, emergency care of the uninsured. The nursing schools and Tartu University are funded from the education sector budget under the Ministry of Education.

Capital investment is a problematic area in Estonia. Legislatively, these costs are the responsibility of the hospital owners, mostly state or the municipalities. However, as capital funding competes with other claims on municipal and state budget spending, it is therefore not easy to access. Also, the allocations in consecutive budgets may not be sufficient, thus causing delays in the investment project. There is no capital charge on municipal/state budget capital investements. Due to the problems of accessing the budget-resources, growing numbers of providers are taking loan from the banks and paying them back from income they receive from sickness funds. This has meant loss of central control over capital investments.

The problem of not having a systematic approach to capital investments has been acknowledged by the Ministry of Social Affairs. In drafting the new Health Care Organization Law, the problem is being discussed. The new capital investment system is intended to serve the following objectives: the establishment of general central controls over the capital investments and equal investment conditions to providers. It is expected that most investments will be done with private sector resources in the future. A project of building a municipal hospital for an area of 100 000 of population in cooperation with an investment group is currently being prepared.

Fig. 14. Financing flow chart, 1999



Payment of hospitals

Health care providers are paid through contracts with regional sickness funds. The basis for payment is a price-list of services, worked out by the Health Care

Services and Investigations Price Committee at the Ministry of Social Affairs. The committee has representatives of the Medical Association, the Hospital Union, the Society of Family Physicians and the sickness funds. The price-list sets approximately 1800 different service prices at the moment. The price-list is enacted by the Decree of Minister of Social Affairs. In signing contracts, the providers and sickness funds can agree to lower prices by 20%. In individual exceptional cases, in agreement with Central Sickness Fund, the price can also be increased by a maximum of 20%.

In the beginning of the year, regional sickness funds negotiate contracts with hospitals. The contract stipulates the range of services with capacities to be purchased and service prices. There is a ceiling on total payments in the contract. The hospitals are paid according to submitted invoices per patient. The basis for the next year's contracts are mostly the services provided in the previous year. During contract negotiations, regional health insurance councils approve the planned contracts.

For inpatient services, the calculation unit is a bed-day, which includes a history and examination, diagnosis and treatment planning, nursing, food, simple medical procedures and laboratory tests and pharmaceuticals. All additional required procedures, operations, laboratory tests will be added to the sickness fund bill according to the price-list on a fee-for-service basis. The price of a bed-day differs according to the specialty (general surgery, cardiology, etc.) and is based on a set length of stay. If an admission lasts longer than the set length, the additional days are reimbursed at a lower rate (the price of a long term care bed-day). This has supported the reduction in average length of stay, which in rheumatology for example in 1994 was 17.4 days compared with 12.4 in 1996 and 10.3 in 1998. Bonus payments are not used.

The tendency over the last years in price formulation has been to move away from very detailed fee-for-service method to case-payment. So-called complex prices have been introduced in 1998 for several well-definable surgical diagnosis (appendectomy, hip- and knee-prostheses operations) and also normal child-delivery. The objective is to gradually adopt more case-payments and to decrease some of the problems of overprovision of services. However, the approach will be gradual, in order to develop mechanisms against under-treatment and adverse selection.

Private providers can charge extra from the patient in addition to the price paid by the sickness fund.

Depending on the decision of the future legal status of the sickness fund, the price-formulation responsibility may move from the Ministry of Social Affairs to the sickness fund.

Payment of physicians

The service-prices in the sickness fund price-list, which is approved by the Minister of Social Affairs also includes the physician's fee. Most physicians, excluding the self-employed, are employees of provider institutions and therefore salaried.

Primary care was provided until 1998 in polyclinics and ambulatories, owned by the municipalities. The provision of medical services was funded through the sickness fund contracts on a fee-for-service system. In order to counteract the problems of generations of unnecessary activity to maximize income, the sickness funds set up contract ceilings for each centre, based on population estimates, the number of doctors and service levels in last years.

In the course of the primary care reform, family practitioners became private contractors with the sickness funds. Payments are based on a mix of capitation and fee-for-service. The medical services are paid for by (a) monthly capitation fee per registered person, covering most of the services provided by the family practitioner; and (b) fee for extra services specified in the work-description like minor surgery. There is also a basic allocation for infrastructure and equipment and extra fee for working in distant areas (over 20 km from a county hospital). In the first years of the reform, internists and paediatricians were also allowed to start as family practitioners, so certified family practitioners

Table 8. Monthly fees for family practitioners in 1998 and 1999

		EEK	US $ (EEK/US $ = 14.6)
(a) Capitation per person in one month			
1998		15	1.0
1999	0–2 years of age	20	1.4
	2–70 years	16	1.1
	over 70 years	18	1.2
(b) Extra fee-for-service		Maximum 18% of the capitation sum	
(c) Basic allowance in 1 month		5 000	342.5
(d) Extra fee for FP training		1 000	68.5
(e) Extra fee for distance			
20-40 km from county hospital			
1998		500	34.2
1999		700	47.9
over 40 km from hospital			
1998		1 000	68.5
1999		1 400	95.9

Source: Central Sickness Fund.

receive an extra fee during the first years. To counteract fears among the public and specialists that family practitioners would refrain from referring patients to specialists when needed, referrals to all specialists are paid separately by the sickness fund. For simplicity, the capitation fees were equal for all people in 1998. From 1999 these are weighted by age-groups 0–2 years; 2–70 years; over 70 years.

Other primary care providers not yet in the new system, as well as specialist ambulatory services, are still paid on the basis of fee-for-service, according to the services offered, up to the limit of the contract with the sickness fund. The unit of calculation in ambulatory care is the consultation, which includes history and examination, diagnosis, initial treatment, prescriptions, recommendations for health promotion and disease prevention, filling medical documentation, simple medical treatment like bandages or injections, first line laboratory tests. If other laboratory tests or treatment measures are needed, they are billed according to the price-list of services. Bills to sickness funds are submitted by case, not by visit. Private providers can charge extra from the patient additional to the price paid by the sickness fund.

In the hospital setting, the hospital is paid per patient according to the bill submitted. Doctors are employed by hospitals. Salaries are decided locally by the employing hospitals. As a result, the exact earnings levels of physicians are not publicly known. The state fixes only minimum salary rates for all employees, regardless of the field of work. The Ministry of Social Affairs has information on the average salaries of employees of state and municipal hospitals.

This data reflects the average basic salaries. The bonus payments, supplementary payments for night-shifts etc are not included. The personnel of tertiary hospitals may have a salary up to two or three times higher.

Table 9. Average salaries in state hospitals in 1997 (data from 9 hospitals)

	in EEK	in US $
Hospital management	11 594	966
Doctors	6 118	509
Nursing staff	3 150	262.5
Sub-nursing staff	1 991	166
Other personnel	2 914	243

Source: Ministry of Social Affairs.

Table 10. Average salaries in state and municipal hospitals and polyclinics, 1997 (data from 216 institutions)

	in EEK	In US $
Management	8 740	728
Doctors	5 916	493
Nursing staff	2 802	233.5
Sub-nursing staff	1 748	145
Other personnel	2 245	187

Source: Ministry of Social Affairs.

Health care reforms

Aims and objectives

Health care reforms in Estonia were planned and developed in the context of the major political and economic reforms in the country. At the end of the 1980s, Estonia was already seeking more autonomy within the USSR although, even at that time, the long-term goal was to re-establish independence. When the opportunity to declare independence presented itself during the military coup in Moscow in August 1991, reforms had begun and preparations had already been made for independent planning and management.

There were a number of reasons why health care reforms were needed:

- The health care system had excessive hospital capacity and too many specialist doctors for the needs of the Estonian population.
- Alongside overcapacity in the secondary and tertiary care sectors was a disproportionately weak and underdeveloped primary health care system.
- As health care services were free for everyone, the actual costs of health care were rarely considered.

At the same time, the economy of the USSR collapsed, starting a period of high inflation and economic hardship. In order to avoid supporting an already over-capacitated provider network in a situation of high inflation, reforms were started to improve the quality and efficiency of the health care system. In some respects, the economic collapse seems to have been regarded as an opportunity for reform.

The objectives of the health care reform today are firstly, to strengthen the quality and effectiveness of health care services and secondly, to ensure a sustainable financial basis for health care. Thirdly, public participation in health care issues should increase, both in developing intersectoral policies as well as priority setting decision making in health care services.

Content of reforms and legislation

The Estonian health care reforms started with reform of financing. The first draft of the Health Insurance Law was prepared in 1989, presented to the Estonian Parliament in the following year and approved in June 1991. This was before political independence had been achieved. The Health Insurance Law has been in force since January 1992. A detailed description of the system it created is given in the previous sections.

The Health Insurance Law and the Regulatory Acts (e.g. the price list for services) have been amended in the light of experience gathered during implementation. The price list has been updated yearly and prices have been adjusted to reflect inflation and new available services.

With the Health Care Organization Law the decision was made towards decentralization of health care services. It was approved in March 1994 and has been in force since April 1994. The Law, however, remained quite superficial. The planning system it created was diffuse and the system of regulation and licensing poorly specified.

The reforms of health care provision in Estonia are generally thought of as having begun when Tartu University Medical Faculty started to provide respecialization courses for family practitioners in 1991 and when this specialty was officially recognized in 1993. A draft of the Family Practice Law was prepared in 1994/1995. Subsequently it was extended to cover the whole area of primary health care and was rewritten as the Law of Primary Health Care. The draft stipulated the financial sources as well as the responsibilities, functions and rights of the different stakeholders in primary care provision. However, this law has never been presented to the Parliament and the primary care reform was eventually launched only at the level of a ministerial regulatory act (decree) in April 1997.

The regulation of health care providers is put into effect by ministerial acts on licensing. This process began in 1994.

The regulation of the developing pharmaceutical market was undertaken rapidly. A Law on Medicinal Products was prepared during 1993/1994, and presented to the Estonian government and parliament. It was not approved, however, until December 1995. Meanwhile, the pharmaceutical market was regulated by ministerial regulatory acts, known as decrees.

The reorganization of the public health system was officially approved with the Public Health Law, which was approved by parliament in June 1995. The Law established the status, structure, functions and financing of the public health network in Estonia.

The Estonian Health in Transition Profile written in 1996 says at this point:

> *With these reforms, Estonia has created a basis for more efficient planning and management of health care and health care financial resources. The major structural reforms have already been carried out. However, skills for efficient administration, analysis and planning need to be strengthened. Training staff of this calibre takes several years. There is also a need to define more explicitly some of the new functions. The position and responsibilities of county physicians has yet to be clarified. The system of municipal physicians has not worked in practice, and will have to be redefined.*

The need to strengthen skills and training of staff also applies to policy formulation and legislative development. Therefore, despite the acknowledgement of shortfalls in legislation already in 1995–1996, the period since 1995 has been quite modest in key legislative proposals.

In February 1997, the Law on Psychiatric Care was approved by the parliament. In June 1997, the Law on Protection of the Embryo and Artificial Fertilization passed the legislative process.

It is important to mention, that the Estonian Health Care Quality Policy paper was developed in 1997 and approved by Government.

Ensuring patients' rights has been an official priority and a draft of a Law on Patient Rights was prepared during 1993–1995, presented to the Estonian Government in September 1995, and passed on to parliamentary proceedings. The Law, however, has still not been properly discussed and approved until today. The medical community demands a Law on Protection of Medical Personnel parallel to the Law of Patient Rights.

Several drafts of Laws, which had been in preparation in recent years, have been approved by the parliament like the Law on Occupational Health and Safety in June 1999. The long-debated Tobacco Law was sent to the parliament in October 1999. The Law on Communicable Diseases was scheduled for presentation to the government in December 1999.

The key-laws of Estonian health care have been and are being revised. In 1999, the new Health Care Organization Law was drafted and will be presented to the government and parliament in 2000. The key proposals in this law are:

(a) to re-centralize planning functions to some extent. Primary care is proposed to be planned and monitored at county level, removing the responsibility from the municipalities. It has been proposed, that all hospital care is planned nationally according to an Estonian master-plan for the next fifteen years, which has to be approved by the government.

(b) to establish a new licensing system for physicians and provider-institutions

(c) to set the legal status of hospitals as private entities

(d) to provide an explicit definition of the financing responsibilities of the state budget. This includes ambulance care, primary and emergency care services of the uninsured, compulsory treatment in psychiatry and communicable diseases and some other activities.

It was also planned to present the Law of the Estonian Sickness Fund to the government in December 1999. This deals with the reorganization of the current sickness funds into one public independent institution, which will have more autonomy. The current advisory Health Insurance Council would be turned into a board being in charge of, and holding full responsibility for the health insurance system of Estonia. The suggested representation in the fifteen-member board is as follows: five representatives from the employer organizations, five members from the insured persons organizations and five state representatives. These include the Minister of Social Affairs, the Minister of Finance and the Chairman of the parliamentary Social Affairs Committee. The intention is to implement both these laws in January 2001.

The Health Insurance Law is also under revision, to provide better criteria and legal delegations for determining the list of health services paid by health insurance, and also to revize the pricing system for health care services. This revision should be conceptually agreed by February 2000, after which the Law can be rewritten.

A new draft of the Law of Patient Rights is currently in preparation at the Ministry of Social Affairs, together with patient representation groups.

Health for all policy

During 1994, an Estonian health policy document was prepared based on the WHO Regional Office for Europe health for all framework. This took place under the leadership of the Department of Public Health at the Ministry of Social Affairs, with inputs from a range of stakeholders in the health care system. The document was discussed by the Estonian goverment and approved in March 1995. The policy identified several main development areas:

- legislation requirements
- integrated approach to public health
- quality of health care services
- financing of health care systems
- development and research.

Reform implementation

As explained above, the Estonian health care reforms started with the implementation of national health insurance. This occurred at the same time as other major political and economic reforms, such as tax reform. The preparation period for the implementation of the health insurance was short and there was not sufficient time for thorough preparation such as staff training or development of information systems. At that time, in order to implement the new concept of health care financing, it was more important to use the overall public support and expectation of changes. The conceptual preparation was done in cooperation by ministerial officials and medical leadership. The successful implementation of the health insurance was largely due to the commitment of political parties to the system and political stability in 1992–1995. Support from the leadership of the medical profession was also of considerable importance, as well as the commitment and innovativeness of the sickness funds personnel.

Health care decentralization was one of the less successful aspects of the reform of health care organization. This was partly due to a lack of planning and administrative skills at local level and partly due to the fact that decentralization was carried out to municipalities which were too small to be administrative units. The functions of newly created positions (e.g. municipal physicians) were also not sufficiently defined. This led to uncertainties in reform implementation.

In the early 1990s, health care reforms were mainly the initiative of professional groups with political support from the Ministry of Health. Today's politicians in charge of health care and the leadership in the health care administration have often grown out of the leadership of the Estonian Medical Association, which was at the spearhead of reform development in the earliest years of re-independence. The ministry and its policy makers and analysers have gained a more active role in initiating reforms in the recent years. The NGOs remain more in a evaluatory role of the policy proposals. An exception in this respect was the active role of the Estonian Medical Association in health care quality assurance issues and strategy development.

A special feature of the country which has influenced the implementation of the reforms is the fact that Tartu University Medical Faculty is the only medical school in Estonia. Almost all Estonian doctors graduate from the same school and, therefore, often know each other personally.

International organizations have played a supportive role. In the Estonian experience a successful and mutually satisfactory and fruitful cooperation with international organizations and experts can arise only when a vision of the

reforms and a commitment to them exists within the country. Only then international know-how and expertise can be effectively used. The best recent experience was the support of WHO in developing the details of the primary care reforms and in providing international comparison to the reform plans, as also the role of the World Bank Estonia Health Project in supporting the reform in the implementation phase. The World Bank Estonia Health Project has been used as a framework for all health sector development activities, thus also coordinating the contributions of donor and other international organizations.

Since the mid-1990s, the European Union accession process has influenced policy and development priorities in health care as well as all other sectors. Harmonization of legislation and procedures with those of the European Union has been given priority in all legislative development.

Problems in development and implementation of the reform have so far mostly occurred due to a lack of shared vision and political will rather than other factors such as poor of infrastructure, etc. Here, the best example is again the family practice reform in 1997. Although the reform was initiated only with a ministerial decree, the reform was seen necessary by key-stakeholders like the ministerial health care leadership, the sickness funds, the county physicians as well as the trained family physicians and Tartu University. The joint efforts of the above-mentioned parties made the preparation of the reform possible within only nine months and achieved its implementation in 1998.

Conclusions

Since 1991, the Estonian health care system has undergone considerable organizational changes. For the most part, the changes have been successfully implemented. There have been planned reductions in the numbers of medical students and doctors, the financing system has been completely overhauled and excess hospital capacity is being reduced. At the same time, a pharmaceutical policy has been developed and the pharmaceutical market is regulated according to the European Union requirements. Reforms of primary care started in 1997.

Alongside this, there are still areas where change has not yet taken place. Social care is underdeveloped, nurses' salaries remain low and significant reform of the public health system has yet to take place. Implementation of the reforms has been supported by the main political groups and by the medical profession, but wider involvement by the general public would help to provide a better foundation on which to base future changes.

The ultimate goal of the health care sector is to improve health. Estonia has considerable excess mortality from heart disease and there is a wide gap between male and female life expectancy. The reforms have yet to show a significant impact on the health status of the population and it is probably unrealistic to expect them to do so. Progress in this area is likely to depend on wider policy changes, economic growth and the development of the public health system.

From the point of view of equity of finance, the Estonian reforms have had little impact. As the main source of finance is a proportional tax on salaries, a degree of reallocation between regions takes place and there are few co-payments for services. Financing is loosely related to income. In terms of access, the health care system has inherited a geographically widespread network of facilities. The lengths of stay have fallen consistently since 1990, but there is still excess hospital capacity. Patients now have greater choice than under the previous system. They are free to choose any primary care doctor or specialist

with whom their regional sickness fund has a contract. As first-contact provider-institutions are funded on a capitation basis, they have an incentive to attract patients. This may improve the quality of care, although the absence of a enforced gatekeeper system may incur a price in terms of efficiency. There are clearly still problems with the quality of services provided in terms of staff attitudes, information and communication. Some of these may improve as the training of staff undergoes changes and a new professional culture emerges in the health sector.

Overall the reforms seem to have improved performance in the health care system. Wide population coverage has been maintained and a comprehensive range of services is available to the population. However, the rising cost of maintaining this health care system may become important in determining the nature of future reforms.

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