National Institute for Health Development
Department of Health Statistics

HEALTH EXPENDITURE IN ESTONIA, 2007

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Public Health and Welfare through Better Statistics and Information

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BRIEF OVERVIEW

The share of total expenditure on health in the gross domestic product increased by 0.3 percentage points in 2007 and comprised 5.4%. Public expenditure on health comprised 4.1% of GDP (3.8% in 2006).

Total expenditure on health increased by almost 2.5 billion kroons or 23.4% when compared to the previous year and comprised 13.0 billion kroons in current prices in 2007. This was the biggest nominal increase in the last eight years. Total expenditure on health also increased at constant prices – 15.7%, but this increase was smaller than in 2005 and 2006 (36.4% in 2005 and 16.9% in 2006).

Expenditure on health in the public sector increased by 27.3% when compared to the previous year and comprised 9.8 billion kroons. As usual, the majority of public expenditure (84.9%) was financed from the funds of the Estonian Health Insurance Fund.

The share of the public sector in financing health-related costs has increased when compared to the previous year (75.6% in 2007, 73.3% in 2006). The growth occurred on account of the increase in the share of the government's health expenditure and the share of the expenses of the Estonian Health Insurance Fund. The share of the private sector has decreased from 26.1% in 2006 to 23.3% in 2007.

The average expenditure on health per resident of Estonia in 2007 amounted to 9,664 kroons (618 EUR), which is 1,847 kroons (118 EUR) more than in the previous year.

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Abbreviations and Symbols

EHIF	Estonian Health Insurance Fund
ES	Estonian Statistics
EU	European Union
GDP	Gross Domestic Product
ICHA	International Classification for Health Accounts
GP	General Practitioner
IVF	In vitro fertilisation procedure
LG	Local Government
NGO	Non-profit organisation
NHA	National Health Accounts
NIHD	National Institute for Health Development
OECD	Organisation for Economic Cooperation and Development
OTC	Over-the-counter medicines
SHA	System of Health Accounts
ST	Sole Trader
THE	Total health expenditure
WHO	World Health Organization
-	phenomenon did not occur
…	no data available

INTRODUCTION

This report belongs to the series of reports *Health Expenditure in Estonia* of the National Institute for Health Development[1] and gives an overview of the expenditure on health incurred in 2007 and follows a structure similar to the one used in the previous analyses in the series. The objective of the analysis is to give basic information about how the health system is financed through different sources of funding, providers of health services and the service using the methodology developed by the OECD (Organisation for Economic Cooperation and Development) – System of Health Accounts (hereinafter the SHA)[2]. Regular reports about expenditure on health are important as they give us a better understanding of the health system in Estonia. These statistics give us overviews of the resources poured into the production and consumption of health services and products, and which in their turn contribute to the development of public health and welfare.

According to SHA, expenditure on health includes such health-related activities as active treatment, nursing care and rehabilitative services, occupational health, medicine of the Defence Forces, health care in prisons and administration of health in the public and private sectors. At the same time, total expenditure on health (hereinafter the THE) does not include the expenditure of teaching, health research and development, environmental health and other services (whose principal activity is not improvement of health). This means that the SHA definition is restrictive and does not cover the resources of the health system as a whole. Those who wish to use the analysis for planning health resources must consider the fact that the analysis only covers expenditure associated with Estonian residents. It means that the report does not reflect the cost of health services provided to foreigners and the cost of medical goods purchased by foreigners.

The analysis consists of three parts: an analysis of the health expenditure of Estonia, international comparison and technical notes. The tables in the first part of the report contain absolute figures and indicators for 2007, and data from 2006 have often been added for comparison. Trends of the previous years have also been considered in the text of the report.

[1] The Ministry of Social Affairs was responsible for the analysis before 31 December 2007.
[2] The OECD methodology is called the System of Health Accounts (SHA) and it is used in more than 100 countries.

The analysis can be used by all institutions and persons interested in the sphere of health funding and by the wider public. We hope that this material will give additional information about how the health system is funded and about the health expenditure in Estonia and helps to understand the reasons why health expenditure has changed.

The author is grateful to everyone who contributed their time, provided information and helped to prepare this analysis. The organisations whose data were used in the analysis are listed in Chapter 3.3.

1. ANALYSIS

1.1. Total Expenditure on Health and General Economic Activity

Economic growth continued in Estonia in 2007, but the data of Estonian Statistics (hereinafter the ES) showed that its speed had become slower. In 2007, the gross domestic product (hereinafter the GDP) of the country increased by 16.5% at nominal prices and 6.3% at constant prices (in 2006 by 18.1% and 10.4%, respectively).

On the level of state, GDP is one of the most important indicators of economic activity. It is also used to compare the ratios of different health expenditure[3] on the international level. The share of THE in GDP is one of the most important indicators, which in 2007 comprised 5.4%. Table 1 shows that the ratio of THE to GDP was decreasing in 2000 and 2001, but it has increased by 0.5% in the subsequent five years.

Table 1. Ratios describing the health system and gross domestic product at current prices (million kroons), 2000-2007

	2000	2001	2002	2003	2004	2005	2006	**2007**
THE as % of GDP	5.4	4.9	4.9	5.0	5.2	5.1	5.1	**5.4**
Public sector health expenditure as % of GDP	4.1	3.8	3.7	3.9	3.9	3.9	3.8	**4.1**
GDP	95,491	108,218	121,372	136,010	151,012	173,530	205,038	**238,929**

Data source: ES (GDP), NIHD

Public sector health expenditure is following the same tendency – the ratio dropped from 4.1% in 2000 to 3.7% in 2002. The share of the public sector in expenditure on health started growing again after 2002.

Total expenditure on health at current prices comprised 13 billion kroons in 2007 and their growth in comparison to 2006 was 2.5 billion kroons or 23.4% (Table 2). It is the biggest nominal increase in the THE in the last eight years.

[3] The terms total expenditure on health and expenditure on health are used as synonyms in this analysis. Expenses and expenditure are also not differentiated.

A sudden increase occurred in the actual increase of the THE in 2009, which dropped by more than a half in the next year. The increase of THE in 2007 at real prices was comparable to 2006: 15.7% and 16.9%, respectively.

Table 2. Total expenditure on health at current and constant prices, speed of growth, 2000-2007

Years	At current prices (thousand kroons)	At constant prices (thousand kroons)	Nominal increase (%)	Actual increase (%)
2000	5,145,500	5,145,500	4.0	…
2001	5,353,800	4,844,364	4.0	-5.9
2002	5,958,800	4,956,823	11.3	2.3
2003	6,812,166	4,392,008	14.3	-11.4
2004	7,782,648	4,479,081	14.2	2.0
2005	8,787,431	6,107,387	12.9	36.4
2006	10,511,344	7,141,049	19.6	16.9
2007	12,964,349	8,257,249	23.4	15.7

Data source: NIHD

A comparison of the actual increases in GDP and THE shows that THE was increasing more quickly than the entire economy on an average. The salary increase of healthcare professionals played an important role in the increase of THE. The average gross monthly salaries of healthcare professionals increased faster in 2007[4] than the average salary in the country. The gross salaries of doctors increased by 28.1% in a year and thereby exceeded the average salary in the country by 2.1 times. The salaries of other health care professionals also increased – the salaries of nursing staff increased by 39.9% and the salaries of carers increased by 36% over the year [2]. According to the ES, the average salary in Estonia increased by 21% over the same period.

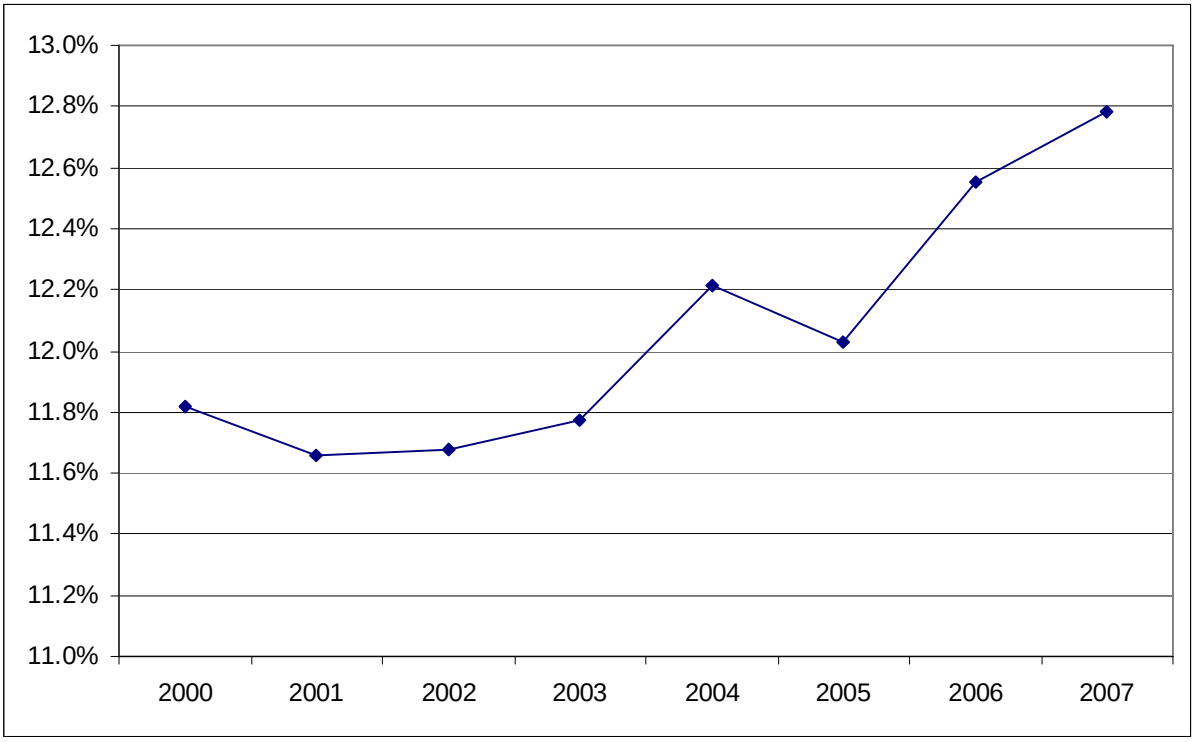
Even though we are used to assessing national health care through the share of THE in GDP, it does not describe the actual efficiency of the national health system. In order to observe changes, we should compare the health expenditure incurred in different years with each other and not compare the relevant indicators with those of other countries. We have to keep in mind that all countries are different, their health care history is different and this means that the structure of their health systems is also different. Using the share of THE in GDP for international comparison means we also have to keep in mind that different countries calculate their GDP and THE according to different methodology.

[4] The data for 2007 from the report *Hourly Wages* of the National Institute for Health Development are used here. The salaries paid to healthcare professionals in March in the reporting year were used as the basis for calculating the average gross monthly salary of healthcare professionals.

If we want to measure the efficiency of the health system, we also have to look at illnesses and other health indicators. For example: how many patients were treated, how many times did patients see doctors with recurring diagnoses, how long are the waiting lists, etc. Average lifetime is also an important indicator.

According to the ES, expenditure on health comprises almost 12.8% of public sector expenditure, which makes it the third biggest area of expenditure after social protection and education (23.4% and 14.8%, respectively). The share of healthcare in public sector expenditure has increased over the years (Figure 1).

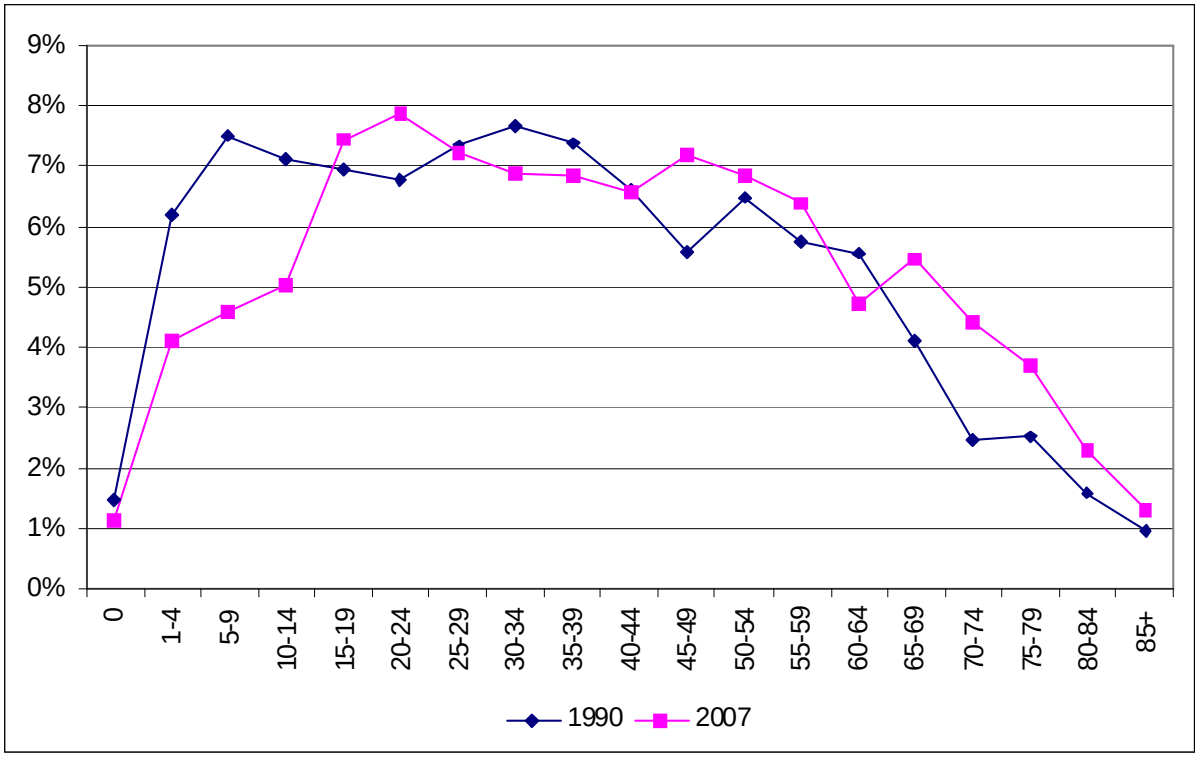
Figure 1. Share of the health sector in public sector expenditure, 1997-2007



Data source: ES
Figure: the author

The data of the ES show that 1,342,409 people lived in Estonia by the end of 2007, which is 0.2% less than in the previous year (1,344,684). Since the population of Estonia is aging (Figure 2), then it is natural that total expenditure on health is growing.

Figure 2. Population according to age groups, 1990, 2007



Data source: ES
Figure: the author

The average amount spent by the healthcare system per resident in 2007 was 9,664 kroons, which was 1,847 kroons more than in 2006.

1.2. Health Insurance System

Compulsory health insurance has been applied in Estonia since 1 January 1992. The law requires all employers to pay social tax for all working people and sole traders (ST) have to pay social tax on their income themselves. 13% of gross salaries is therefore sent to the Estonian Health Insurance Fund (hereinafter the EHIF) through the Tax Board.

The people for whom social tax has been paid or who have paid it themselves are called insured persons. Those who are dependent on the insured persons or children less than 19 years of age, students, pensioners, maintained spouses who have less than 5 years left until retirement age and pregnant women from the 12th week onwards are called persons equal to the insured persons.

There are also insured persons in Estonia for whom social tax is paid by the state.
They are:

- persons on parental leave with children less than 3 years of age;
- non-working spouses of diplomats and officials working in foreign missions;
- conscripts serving in the Defence Forces; and
- persons registered as unemployed [7, p. 52].

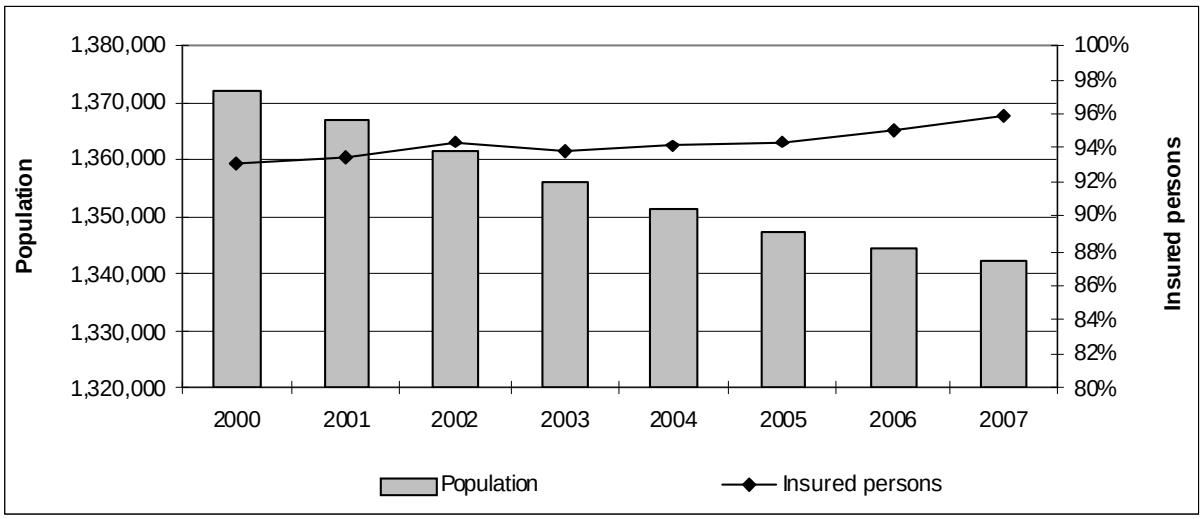
Estonian health insurance observes the solidarity principle: the quantity and quality of health services provided in the case of illness does not depend on the amount of social tax paid for the specific person.

The right to health insurance does not depend on citizenship, but on the place of residence. The laws of Estonia also allow people residing in Estonia to insure their health through private insurance companies, but this is voluntary.

All people in Estonia have the right to receive emergency medical care regardless of whether they have health insurance. Emergency medical care must be provided in situations where postponing the care or failing to provide it may cause the death of the person in need of assistance or damage their health permanently. The expenses of emergency care are covered by the state - they are paid by the Ministry of Social Affairs.

95.9% of all people in Estonia (1,287,765 people) were covered with health insurance at the end of 2007 (Figure 3, Table 3).

Figure 3. Population and insured persons in Estonia, 2000-2007



Data source: ES

Figure: the author

The number of insured persons has increased by 9,749 people since the end of December 2006 and it has mainly occurred on account of the absolute and relative increase of the number of people equal to the insured persons. The share of people covered with health insurance has increased by almost 3% from 2000 to 2007 [3].

Table 3. The number of insured persons, 2006-2007

	31.12.2006		**31.12.2007**		Change (%)
		%		%	2007/2006
Insured persons	651,141	52.2	672,706	50.9	3.3
Persons having equal status to insured persons on the basis of contracts	232	<0.1	285	<0.1	22.8
Persons insured by the state	30,663	2.5	31,942	2.4	4.2
Persons having equal status to insured persons	592,455	45.0	579,413	46.4	-2.2
Persons insured on the basis of international agreements	3,525	0.3	3,419	0.3	-3.0
TOTAL PERSONS COVERED WITH HEALTH INSURANCE	**1,278,016**	**100.0**	**1,287,765**	**100.0**	**0.8**

Data source: EHIF

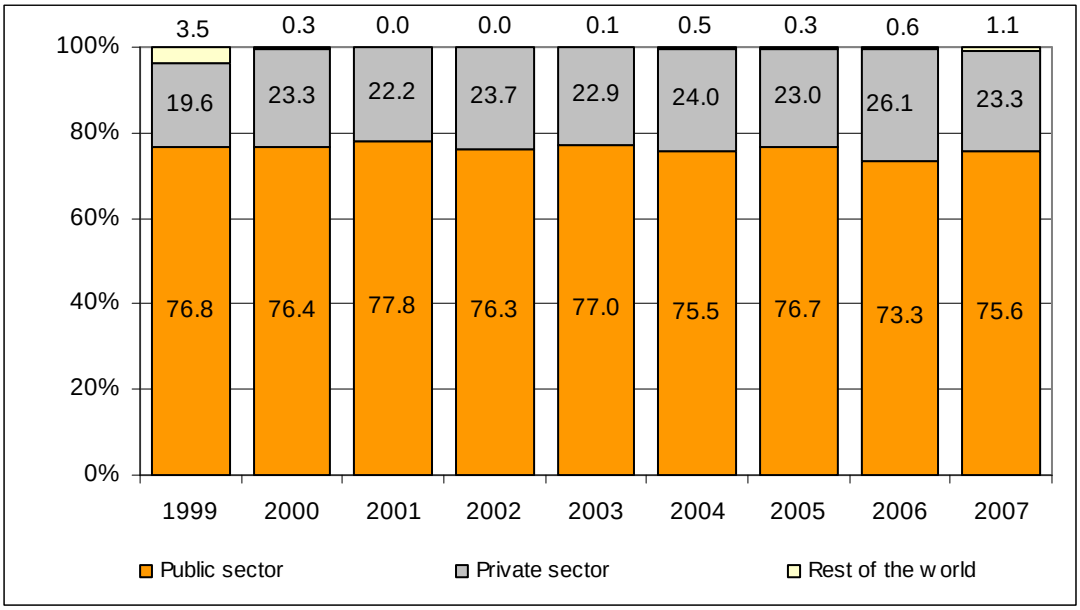
2007 was a successful year for healthcare in Estonia: the planned income from the health insurance part of social tax into the budget of the EHIF was 10.9 billion kroons.

Approximately 11 billion kroons was received, which is 1,1% more than planned and 24.9% more than in the previous year [5, p. 26]. The quantity of health services provided to insured persons with health service providers was bigger than in 2006. The satisfaction of insured persons with health services has also improved. The general economic rise of the state and the increase in people's income also contributed to the increase in satisfaction [5, p. 9].

1.3. Sources of Health Funding

The sources of funding for the health system can be divided in three – the public sector, the private sector and the rest of the world. The public sector is the biggest financing agent of health expenditure in Estonia. The share of this source in financing THE has remained more or less stable over time (Figure 4).

Figure 4. Share of the public sector, the private sector and the rest of the world in THE, 1999-2007



Data source: NIHD
Figure: the author

Public sector health expenditure comprised 75.6% of THE or 9 billion and 796 million kroons in 2007 (Table 4). At the same time, the private sector financed 23.3% (3 billion and 21 million kroons) and the rest of the world 1.1% (147 million kroons) of THE in 2007.

Table 4. Main sources of health funding, 2006-2007

	2006		2007		Change (%)
	million kroons	%	million kroons	%	2007/2006
Public sector	7,700	73.3	9,805	75.6	27.3
Private sector	2,748	26.1	3,021	23.3	9.9
Rest of the world	63	0.6	147	1.1	133.1
TOTAL	**10,511**	**100**	**12,973**	**100.0**	**23.4**

Data source: NIHD

The share of the rest of the world in financing expenditure on health in Estonia in 2007 was marginal as usual, even though this share was the biggest in comparison of the last eight years; in 1999, however, it was as high as 3.5%.

The amount of expenditure can also be expressed as a percentage of GDP. The share of public sector health expenditure in GDP has been fluctuating within the limits of 0.4 percentage points (from 3.7% to 4.1%). This ratio was 4.1% in 2007 (Table 5).

Table 5. Share of main sources of health funding in gross domestic product, 1999-2007

	Public sector (%)	Private sector (%)	Rest of the world (%)
1999	4.7	1.2	0.21
2000	4.1	1.3	0.02
2001	3.8	1.1	…
2002	3.7	1.2	…
2003	3.9	1.2	<0.01
2004	3.9	1.3	0.02
2005	3.9	1.2	0.02
2006	3.8	1.3	0.03
2007	4.1	1.3	0.06

Data source: NIHD

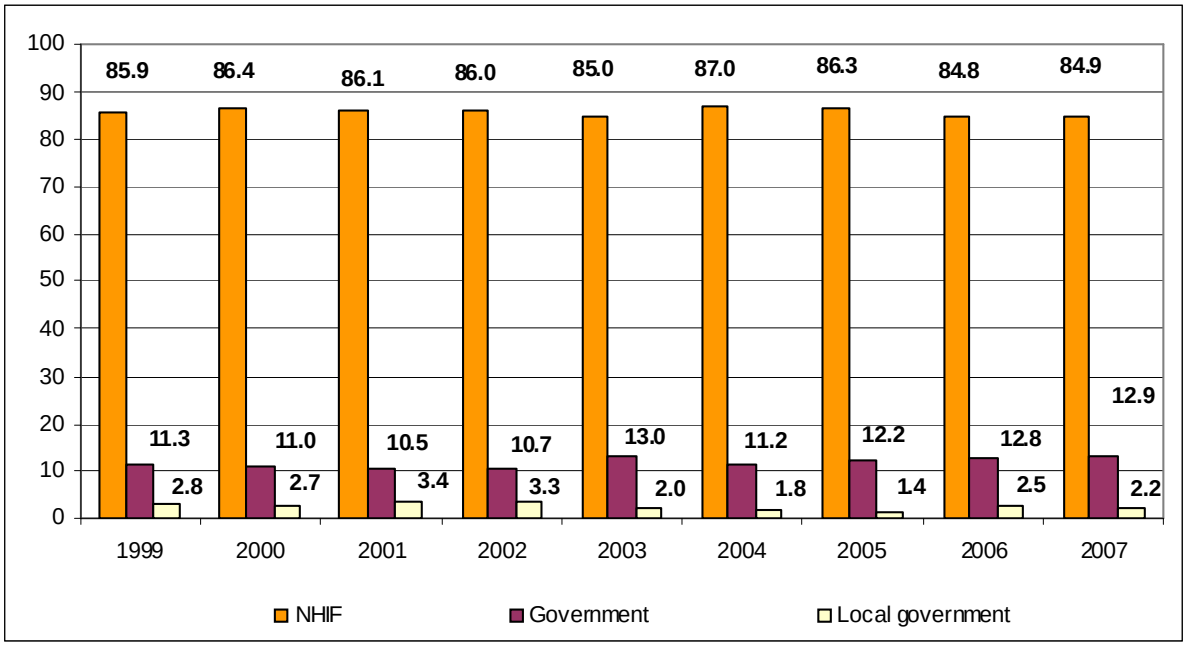
The share of private sector health expenditure in GDP has been a stable 1.3% in the last two years and the share of the rest of the world doubled in 2007 in comparison to 2006.

1.3.1 Public Sector

The public sector is the main source of health funding. In comparison to the previous year, the expenditure incurred by the public sector increased by 2.11 billion kroons or 27.3%. The increase in public sector expenditure was the highest in the last eight years and occurred on account of the increase in the expenditure incurred by the EHIF and the Government.

The public sector in its turn consists of three financing agents: Government, Local government (hereinafter LG) and EHIF. The EHIF is the biggest financing agent of the sector with 84.9% (Figure 5).

Figure 5. Division of the sources of public sector funding, 1999-2007, %



Data source: NIHD

Figure: the author

Below, we will take a look at all the financing agents of public sector health expenditure separately.

1) The health expenditure financed by the **Government** or from the state budget increased by 280 million kroons or 28.5% in 2007 when compared to the previous year.

The exceptionally large increase in expenditure can be explained with the generally good economic conditions, which allowed the state to invest more in healthcare. The increase in the Government's expenditure on health was also the largest in the last nine years and considerably exceeded the increase in the previous economically successful years (25.1% in 2005, 19.0% in 2006). The increase in Government expenditure exceeded the increase of the expenditure incurred by EHIF in 2007 slightly and the share of the Government in public sector expenditure had therefore increased by 0.1%. The share of Government expenditure comprised 12.9% of public sector expenditure on health and 9.7% of THE in 2007. Expenditure financed by the Government divided between ministries as follows (Table 6):

Table 6. Health expenditure of ministries, 2006- 2007

	2006		**2007**		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
Ministry of Education	3,335	0.3	4,748	0.4	42.4
Ministry of Justice	57,613	5.9	53,960	4.3	-6.3
Ministry of Defence	22,698	2.3	50,656	4.0	123.2
Ministry of Environment	478	0.1	363	<0.1	-24.1
Ministry of Culture	57	<0.1	421	<0.1	638.6
Ministry of Economic Affairs and Communications	1,042	0.1	868	0.1	-16.7
Ministry of Agriculture	495	0.1	426	<0.1	-13.9
Ministry of Finance	1,027	0.1	1,165	0.1	13.4
Ministry of the Interior	8,042	0.8	15,263	1.2	89.8
Ministry of Foreign Affairs	202	<0.1	650	0.1	221.8
Ministry of Social Affairs	887,187	90.3	1,133,336	89.8	27.7
TOTAL GOVERNMENT	**982,176**	**100.0**	**1,261,856**	**100.0**	**28.5**

Data source: NIHD

The highest increase in expenditure in percentage terms occurred in the expenditure on health of the Ministry of Culture and the Ministry of Foreign Affairs (645.5% and 221.8%, respectively). The increase in the expenditure of the Ministry of Culture can be explained by better coverage of the divisions of the Ministry of Culture rather than an increase of expenditure in its area of administration. Similarly to the Ministry of Foreign Affairs, the share of this ministry in total Government expenditure was so small that this increase did not have a significant impact on the absolute increase in the THE of the Government. One of the biggest increases in THE occurred in the Ministry of Defence whose expenditure increased more than twice in comparison to 2006.

At the same time, we can see that the Ministry of Justice, the Ministry of Environment, the Ministry of Economic Affairs and Communications and the Ministry of Agriculture reduced their expenditure on health.

As usual, the expenditure of the Ministry of Social Affairs comprised the biggest share of expenditure on health with 89.8%. The share of the Ministry of Social Affairs in THE has remained rather stable or the expenditure of the Ministry of Social Affairs increased at the same speed as the total expenditure on health of the Government. The Ministry of Social Affairs financed the following health services in 2006 and 2007 (Table 7):

Table 7. Health services funded by the Ministry of Social Affairs in 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
ACTIVE TREATMENT	102,006	11.0	108,185	9.5	6.1
REHABILITATION	39	0.0	1	0.0	-97.4
NURSING CARE	147,308	17.0	190,495	16.8	29.3
ANCILLARY HEALTH SERVICES	242,755	27.0	334,512	29.5	37.8
incl. emergency medical care	228,651	26.0	334,512	29.5	46.3
MEDICAL PRODUCTS	115,125	13.0	126,290	11.1	9.7
incl. medicines	7,660	1.0	8,335	0.7	8.8
PREVENTION AND PUBLIC HEALTH	102,517	12.0	162,444	14.3	58.5
Prevention of infectious diseases	74,240	8.0	116,461	10.3	56.9
Prevention of non-infectious diseases	27,386	3.0	44,192	3.9	61.4
HEALTH ADMINISTRATION AND HEALTH INSURANCE	122,513	14.0	159,000	14.0	29.8
CAPITAL FORMATION	54,924	6.0	52,409	4.6	-4.6
TOTAL	**887,187**	**100.0**	**1,133,336**	**100.0**	**27.7**

Data source: NIHD

The main duties of the Ministry of Social Affairs in the area of health are:
- regulation and management of the national health system;
- promotion of public health;
- financing emergency medical care;
- financing emergency medical care of uninsured persons.

As usual, ancillary services or emergency medical care had the biggest share in the expenditure of the Ministry of Social Affairs (29.5%). Expenditure on prevention underwent

the fastest increase (58.5%) – expenditure on prevention of non-infectious and infectious diseases has grown. Development of the following registers and public health programmes was funded in 2007:

- Estonian Medical Birth Register and Pregnancy Termination Database
- National HIV and AIDS Strategy for 2006 to 2015
- National Programme for Prevention of Tuberculosis
- National Health Programme for Children and Young People
- National Strategy for Prevention of Drug Addiction until 2012;
- Public Health Programme
- National Cancer Strategy for 2007 to 2015
- Strategy for Prevention of Cardiovascular Diseases
- Cancer Register
- National Strategy for Prevention of Injuries
- Drug Monitoring Centre

Financing of active treatment services, which in the case of the Ministry of Social Affairs usually covers benefits to people without health insurance, increased only by 6.1% in comparison to the previous year, which remains below the general speed at which the expenditure on health of the Ministry of Social Affairs has increased. At the same time, expenditure on emergency medical care (46.3%) increased faster than the average and expenditure on nursing care and health administration (29.3% and 29.8%, respectively) increased at a speed that is comparable to the average of the Ministry of Social Affairs. Capital formation and expenditure on rehabilitation decreased in absolute figures. In total, the health expenditure of the Ministry of Social Affairs increased by 246 million kroons or 27.7% when compared to the previous year.

The health expenditure of the Government increased by 28.5% in 2007 when compared to 2006 (Table 8, Figure 6).

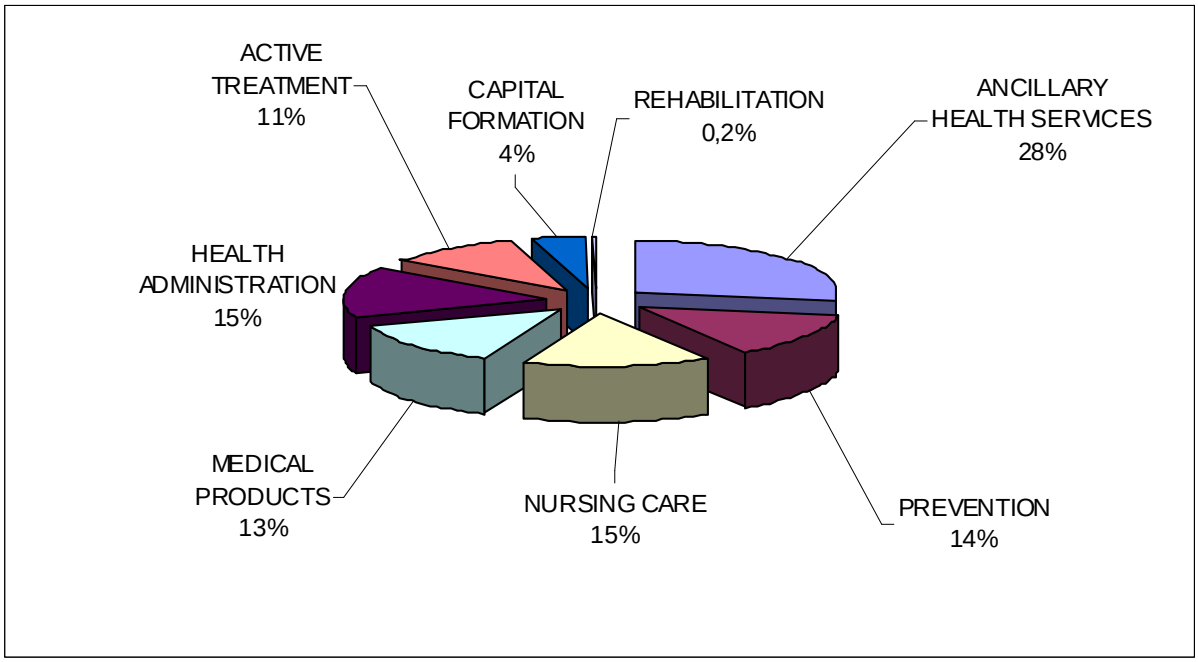
Table 8. Health services funded by the Government in 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
ACTIVE TREATMENT	134 882	13,7	137 019	10,9	1,6
REHABILITATION	2 448	0,2	2 849	0,2	16,4
NURSING CARE	147 308	15,0	190 495	15,1	29,3
ANCILLARY HEALTH SERVICES	250 512	25,5	343 880	27,3	37,3
incl. emergency medical care	228 684	23,3	334 595	26,5	46,3
MEDICAL PRODUCTS	133 682	13,6	169 430	13,4	26,7
incl. medicines	18 793	1,9	24 290	1,9	29,3
PREVENTION AND PUBLIC HEALTH	109 067	11,1	174 187	13,8	59,7
Prevention of infectious diseases	74 276	7,6	116 523	9,2	56,9
Prevention of non-infectious diseases	27 387	2,8	45 801	3,6	67,2
HEALTH ADMINISTRATION AND HEALTH INSURANCE	149 324	15,2	191 559	15,2	28,3
CAPITAL FORMATION	54 953	5,6	52 437	4,2	-4,6
TOTAL	**982 177**	**100,0**	**1 261 856**	**100,0**	**28,5**

Data source: NIHD

The main increase occurred on account of the increase in the expenditure of the Ministry of Social Affairs. Government expenditure on emergency medical care and prevention increased by 46.3% and 59.7%, respectively. Financing of capital formation decreased both relatively and absolutely. The majority of capital formation has been calculated as part of health services (health services financed by the NHID) since 2003 and therefore cannot be separately highlighted.

Figure 6. Health services funded by the Government in 2007



Data source: NIHD
Figure: the author

Below, we take a look at the Government's expenditure according to health service providers. Pursuant to the methodology, we will discuss **current expenditure** (total expenditure minus capital formation) further in this report.

The Government's capital formation in 2007 comprised 4.2% of the total expenditure on health. This means that current expenditure comprised 95.8% of the total expenditure of the Government or 1.21 billion kroons. The current expenditure of the Government according to health service providers was as follows (Table 9):

Table 9. Current expenditure of the Government by health service providers, 2006-2007

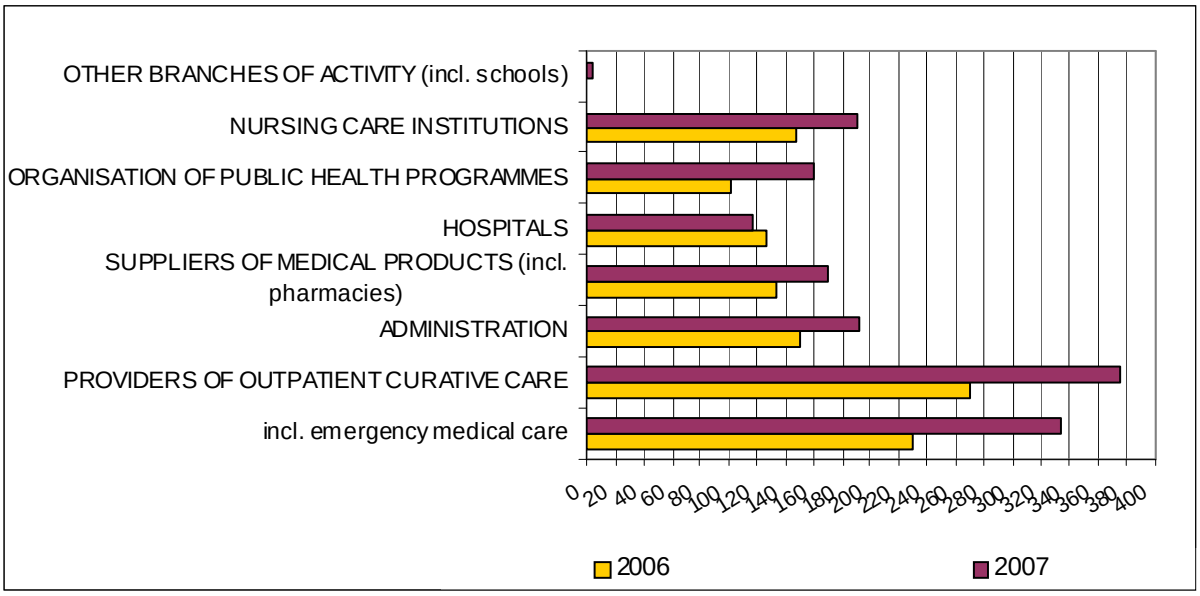
	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
HOSPITALS	126,132	13.6	117,401	9.7	-6.9
NURSING CARE INSTITUTIONS	146,545	15.8	190,490	15.8	30.0
PROVIDERS OF OUTPATIENT CURATIVE CARE	269,227	29.0	376,076	31.1	39.7
incl. support to emergency medical care	228,684	24.7	334,595	27.7	46.3
SUPPLIERS OF MEDICAL PRODUCTS	133,682	14.4	169,430	14.0	26.7
incl. pharmacies	18,793	2.0	24,290	2.0	29.3
opticians	5,190	0.6	6,262	0.5	20.7
Other suppliers of medicines and medical goods	109,699	11.8	138,878	11.5	26.6
ORGANISATION OF PUBLIC HEALTH PROGRAMMES	100,380	10.8	159,856	13.2	59.3
INSTITUTIONS DEALING WITH GENERAL HEALTH CARE ADMINISTRATION	149,324	16.1	191,559	15.8	28.3
OTHER BRANCHES OF ACTIVITY (incl. schools)	1,934	0.2	4,606	0.4	138.2
TOTAL	**927,223**	**100.0**	**1,209,419**	**100.0**	**30.4**

Data source: NIHD

Similarly to the previous year, the largest amount of Government money planned for health care was used on the services offered by outpatient curative care providers in 2007. The biggest increase in percentages occurred in the expenditure of the organisers of public health programmes (59.3%).

Almost all health service providers received more money from the Government in 2007 than in the previous year (Figure 7).

Figure 7. Current expenditure of the Government according to health service providers, 2006-2007, million kroons



Data source: NIHD
Figure: the author

The expenditure incurred through the organisers of public health programmes and providers of outpatient curative care increased considerably (59.3% and 39.7%, respectively). The amount spent through hospitals was 6.9% smaller when compared to 2006.

2) The expenditure on health financed from the budgets of **Local governments** in 2007 comprised 2.2% of public sector health expenditure (2.5% in 2006) or 1.7% of THE (1.8% in 2006) (Figure 5). Expenses covered from the budgets of LGs decreased by 26 million kroons in 2007 when compared to the previous year.

The total increase in the expenditure on health of LGs was 13.8% and occurred on account of the expenditure on nursing care (Table 10). The share of said expenditure in the THE of LGs increased by 78.7% over the year and comprised 41 million kroons in 2007. This increase can be explained with the changes made in the methodology of calculating expenditure on nursing care. Similarly to central Government expenditure, the share of ancillary health services (emergency medical care) had increased considerably in the expenditure of LGs (Government – 37.3%, LGs – 51.3%). Active treatment services comprised the biggest share of the total expenditure of LGs, but the amount spent on it in 2007 is relatively small when compared to the previous year. The increase in expenditure aimed at active treatment services in 2007 was modest in comparison to 2006 – 7.9%.

The absolute increase in the expenditure made on treatment services from the budgets of LGs is 6 million kroons. Both relative and absolute decrease occurred in the areas of health administration and prevention.

Table 10. Health services funded by local governments, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
ACTIVE TREATMENT	80,782	42.3	87,187	40.1	7.9
NURSING CARE	23,121	12.1	41,310	19.0	78.7
ANCILLARY MEDICAL SERVICES (emergency medical care)	1,447	0.8	2,189	1.0	51.3
MEDICAL PRODUCTS	9,632	5.0	9,775	4.5	1.5
PREVENTION	916	0.5	474	0.2	-48.3
HEALTH ADMINISTRATION	44,738	23.4	43,624	20.1	-2.5
CAPITAL FORMATION	30,394	15.9	32,873	15.1	8.2
TOTAL	**191,029**	**100.0**	**217,431**	**100.0**	**13.8**

Data source: NIHD

Unlike the years 2005 and 2006, the majority of the current expenditure of LGs in 2007 was spent on outpatient curative care providers – 36.6% (Table 11).

Table 11. Current expenditure of the local governments according to health service providers, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
HOSPITALS	38,859	24.2	21,905	11.9	-43.6
NURSING CARE INSTITUTIONS	23,121	14.4	41,310	22.4	78.7
PROVIDERS OF OUTPATIENT CURATIVE CARE	43,369	27.0	67,471	36.6	55.6
SUPPLIERS OF MEDICAL PRODUCTS	9,632	6.0	9,775	5.3	1.5
ORGANISATION OF PUBLIC HEALTH PROGRAMMES	916	0.6	474	0.3	-48.3
GENERAL HEALTH ADMINISTRATION	44,738	27.9	43,624	23.6	-2.5
TOTAL	**160,635**	**100.0**	**184,558**	**100.0**	**14.9**

Data source: NIHD

The biggest increase in percentage terms occurred in the amounts allocated to nursing care institutions. At the same time, expenditure on hospitals and organisation of public health programmes has decreased considerably.

3) The **National Health Insurance Fund** continues to be the biggest financing agent of health expenditure. The expenditure incurred by the EHIF in 2007 comprised 84.9% of all public sector expenditure (Figure 5). At the same time, the share of the EHIF in the total public sector expenditure is one of the lowest in the last nine years. The expenditure of the EHIF also comprised most of the THE – 64.2% (62.1% in 2006). The expenditure incurred from the budget of the EHIF increased by 1.8 billion kroons or 27.8% in 2007 when compared to 2006 (Table 12).

Table 12. Health services funded by the Estonian Health Insurance Fund, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
ACTIVE TREATMENT	4,552,921	69.8	5,849,607	70.3	28.5
incl. hospitalisation	2,720,572	41.7	3,317,395	39.8	21.9
day cases of curative care	186,210	2.9	257,256	3.1	38.2
outpatient curative care	1,621,287	24.8	2,243,040	26.9	38.3
incl. dental care	270,096	4.1	329,290	4.0	21.9
home treatment	24,852	0.4	31,916	0.4	28.4
REHABILITATION	78,516	1.2	113,412	1.4	44.4
NURSING CARE	132,386	2.0	189,267	2.3	43.0
ANCILLARY HEALTH SERVICES	586,182	9.0	810,639	9.7	38.3
MEDICAL PRODUCTS	999,450	15.3	1,164,897	14.0	16.6
incl. prescription medicines	966,796	14.8	1,120,559	13.5	15.9
other medical goods	21,163	0.3	31,900	0.4	50.7
PREVENTION	90,238	1.4	102,836	1.2	14.0
HEALTH ADMINISTRATION	87,044	1.3	95,132	1.1	9.3
TOTAL	**6,526,737**	**100.0**	**8,325,790**	**100.0**	**27.6**

Data source: NIHD

The price of EHIF health services also includes capital formation, i.e. the EHIF does not finance capital formation directly. This means that the total expenditure of the EHIF coincides with current expenditure. The budgetary expenditure of the EHIF also differs from total expenditure, because the calculation of total expenditure does not include allocations into the reserve fund of the EHIF or monetary benefits associated with health (e.g. sickness benefits).

Expenditure on active treatment comprises the biggest share of EHIF expenditure and its share in total EHIF expenditure has not changed considerably over the year. However, a structural change can be noticed in the services falling under active treatment. According to the trend that can also be observed on the international scale, the share of health services

provided by the EHIF to outpatients has increased whilst the share of inpatient services has decreased [5, p. 30]. EHIF expenditure on hospital treatment in 2007 was 597 million kroons more than in the previous year and its share in total EHIF expenditure decreased by 1.9% to 39.8%. Expenditure on outpatient curative care has increased by 622 million kroons and its share in total EHIF expenditure increased by 2.1% to 26.9%. Similarly to outpatient curative care, the increase in expenditure on day cases of curative care incurred by the EHIF is higher than the average. This tendency may refer to health insurance funds being used more efficiently with more and more services provided outside hospitals or in the form of outpatient or day cases of curative care. This makes it possible to treat more patients with the same amount of resources as treatment of hospitalised patients is generally more expensive than outpatient and day cases of curative care [5, p. 30]. On the other hand, this tendency may lead to the situation where inpatient curative care will be financed more by the private sector.

Data for 2007 show that whilst the share of outpatient curative care is increasing in the use of health insurance funds, the private sector spends more and more on inpatient services and less on outpatient services. Private sector health expenditure has been described in greater detail in Chapter 1.3.2.

The expenditure of the EHIF on prevention has increased by 14.0% or 13 million kroons in a year. Prevention covers prevention of diseases and health promotion, and the EHIF deals with the latter through project work. The activities of the 14 projects launched in 2006 continued in 2007 and 37 new projects were also launched.

Health promotion expenditure comprised 13 million kroons in 2007. The health prevention activities planned for achievement of the goals in areas of primary importance was aimed mainly at two target groups: schoolchildren and adults, who included pregnant women, parents and patients with (chronic) illnesses [5, p. 49].

All services funded by the EHIF increased in 2007. Expenditure on day cases of curative care, outpatient curative care, rehabilitative and nursing care, other medical services and ancillary health services has increased considerably faster than the average (27.6%).

The total amount of medicines compensated to insured persons in 2007 was 1.12 billion kroons. Expenditure on prescription medicines increased by 154 million kroons when compared to the previous year.

The health of mothers and children and attempting to increase the birth rate is becoming increasingly more important in the situation where the population is aging fast. The state

supporting infertility treatment is one measure that can be used to improve the situation. Until 2007, the performance of infertility treatment procedures was restricted by the fact that they were financed with the treatment funds of the EHIF. An allocation for this purpose was made from the state budget in 2007 and transferred directly to the EHIF. Pursuant to the contract entered into by the EHIF and the Ministry of Social Affairs, IVF procedures were compensated in 2007 from the funds allocated for this purpose from the state budget to the extent of 70% of the total cost of the service and embryo transplants to the extent of 100% for up to three times for women up to 40 years of age. The total cost of IVF and medicines may amount to 40 thousand kroons per procedure. 1,123 procedures were performed in 2007, which is almost twice as much as two years ago [1 p. 1-11]. A total of 25 million kroons have been spent on compensating infertility treatment and medicines according to the state budget execution report (Table 13).

Table 13. Infertility treatment and compensation of medicines, 2007

	2007	
	thousand kroons	%
Compensation of infertility treatment	12,173	48.8
Compensation of infertility medicines	12,768	51.2
TOTAL	**24,941**	**100.0**

Data source: State Treasury

The majority of the EHIF funds was spent through hospitals and they comprised 5.39 billion kroons in 2007, which is approximately 1.2 billion kroons or 28.5% more than in the previous year (Table 14).

Table 14. Current expenditure of the Estonian Health Insurance Fund according to health service providers, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
HOSPITALS	4,192,371	64.2	5,388,585	64.7	28.5
NURSING CARE INSTITUTIONS	11,061	0.2	15,549	0.2	40.6
PROVIDERS OF OUTPATIENT CURATIVE CARE	1,140,118	17.5	1,550,051	18.6	36.0
SUPPLIERS OF MEDICAL PRODUCTS	999,450	15.3	1,164,897	14.0	16.6
incl. pharmacies	966,796	14.8	1,164,897	14.0	20.5
ORGANISATION OF PUBLIC HEALTH PROGRAMMES	90,238	1.4	102,836	1.2	14.0
GENERAL HEALTH ADMINISTRATION	87,044	1.3	95,132	1.1	9.3
REST OF THE WORLD	6,455	0.1	8,740	0.1	35.4
TOTAL	**6,526,737**	**100**	**8,325,790**	**100.0**	**27.6**

Data source: NIHD

Expenditure on financing providers of outpatient curative care has increased considerably. The expenditure aimed at them comprised approximately one-fifth of the total expenditure of the EHIF in 2007 (18.6%) and increased by 36.0% over the year, comprising 1.55 billion kroons. The share of curative care expenditure incurred abroad in EHIF expenditure remained small in 2007 (0.1%), but did increase by 35.4% in comparison to 2006.

1.3.2 Private sector

Health care institutions can also offer patients health services for a charge and collect co-payments for some services compensated by the EHIF. Private sector health expenditure increased by 272 million kroons or 9.9% when compared to the previous year. This is a rather modest increase in comparison to previous years (35.9% in 2006, 19.5% in 2005). Irrespective of the fast increase of private sector expenditure in absolute figures, the share of the private sector in THE in 2007 dropped to the level of 2005 and comprised 23.3% (26.1% in 2006) (Figure 4). This relative decrease implies that expenditure in the public sector grew even faster than in the private sector.

The private sector consists of four different financiers: private insurance, non-profit organisations (hereinafter NPO) and private people (cost-sharing by people). Similarly to previous years, cost-sharing by people represents the biggest share of private sector expenditure (94.1%) (Table 15). The share of households has decreased and the share of expenditure of companies has increased somewhat in comparison to 2006 (2.8% in 2006 and 4.6% in 2007). Household expenditure in 2007 totalled 2.84 billion kroons (2.64 billion kroons in 2006). The increase in private sector expenditure in 2007 occurred on account of the increase in cost-sharing by people, private insurance and private companies. However, the share of the last two sources of financing in total expenditure was relatively small.

Table 15. Division of expenditure on health in the private sector, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
PRIVATE INSURANCE	31,101	1.1	37,830	1.3	21.6
COST-SHARING BY PEOPLE	2,637,453	96.0	2,841,909	94.1	7.8
NON-PROFIT ORGANISATIONS	3,217	0.1	3,293	0.1	2.4
PRIVATE COMPANIES	76,398	2.8	137,567	4.6	80.1
TOTAL PRIVATE SECTOR	**2,748,169**	**100.0**	**3,020,599**	**100.0**	**9.9**

Data source: NIHD

Non-profit organisations, whose most remarkable representative in Estonia is the Estonian Red Cross, spent almost as much on health in 2007 as they did in the previous year. However, the division of financed services has changed in years. The amounts of money aimed for the prevention of non-infectious diseases started to decrease in 2005. They totalled 1 million and 33 thousand kroons in 2007. However, the amounts aimed at school health and prevention of infectious diseases increased (by 741 and 694 thousand kroons, respectively).

The private sector spent a total of 3.02 billion kroons on health in 2007, which is 272 million kroons or 9.9% more than in the previous year (Table 16). The increase occurred on account of expenditure on medical products, whose share in private sector expenditure is still the biggest (64.0%). Expenditure on rehabilitative care has increased considerably. This expenditure increased by 100 million kroons or 53.4% in a year. Private sector expenditure on health administration has increased almost five times, mainly due to the increase in private insurance expenditure, but it still comprises only a minute share of the total private sector expenditure in 2007.

Expenditure on nursing care and ancillary health services has decreased both in relative and absolute terms. The last decrease was caused by a decrease in household expenditure on radiological tests with the general amount spent decreasing more than twice in a year. Expenditure on nursing care has decreased by 10.4% in comparison to the previous year. This change can rather be explained by the changes in the methodology used to calculate nursing care expenditure than an actual change in the expenditure.

Table 16. Health services funded by the private sector in 2006-2007

	2006		**2007**		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
ACTIVE TREATMENT	672,541	24.5	686,927	22.7	2.1
REHABILITATION	187,587	6.8	287,710	9.5	53.4
NURSING CARE	66,879	2.4	59,953	2.0	-10.4
ANCILLARY HEALTH SERVICES	84,807	3.1	81,972	2.7	-3.3
MEDICAL PRODUCTS (incl. medicines)	1,710,031	62.2	1,875,107	62.1	9.7
PREVENTION AND PUBLIC HEALTH	26,259	1.0	28,560	0.9	8.8
HEALTH ADMINISTRATION AND HEALTH INSURANCE	65	<0.1	371	<0.1	470.8
TOTAL	**2,748,169**	**100.0**	**3,020,599**	**100**	**9.9**

Data source: NIHD

Similarly to the previous year, most of the money in the private sector was spent through providers of outpatient curative care and suppliers of medical products, mainly pharmacies, in 2007 (Table 17).

Table 17. Current expenditure of the private sector according to health service providers, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
HOSPITALS	234,023	8.5	356,085	11.8	52.2
NURSING CARE INSTITUTIONS	66,879	2.4	59,755	2.0	-10.7
PROVIDERS OF OUTPATIENT CURATIVE CARE	733,235	26.7	726,517	24.1	-0.9
SUPPLIERS OF MEDICAL PRODUCTS	1,710,031	62.2	1,875,107	62.1	9.7
incl. pharmacies	1,488,114	54.1	1,619,099	53.6	8.8
opticians	160,664	5.8	212,028	7.0	32.0
ORGANISATION OF PUBLIC HEALTH PROGRAMMES	3,294	0.1	2,023	0.1	-38.6
OTHER BRANCHES OF ACTIVITY	642	0.0	371	0.0	-42.2
GENERAL HEALTH ADMINISTRATION	65	0.0	741	0.0	1040.0
TOTAL	**2,748,169**	**100.0**	**3,020,599**	**100.0**	**9.9**

Data source: NIHD

Below, we give a breakdown of all private sector financing agents and take a look at how much each of them spent on health services (Table 18).

Table 18. Private sector expenditure by health services and sources of funding, 2007

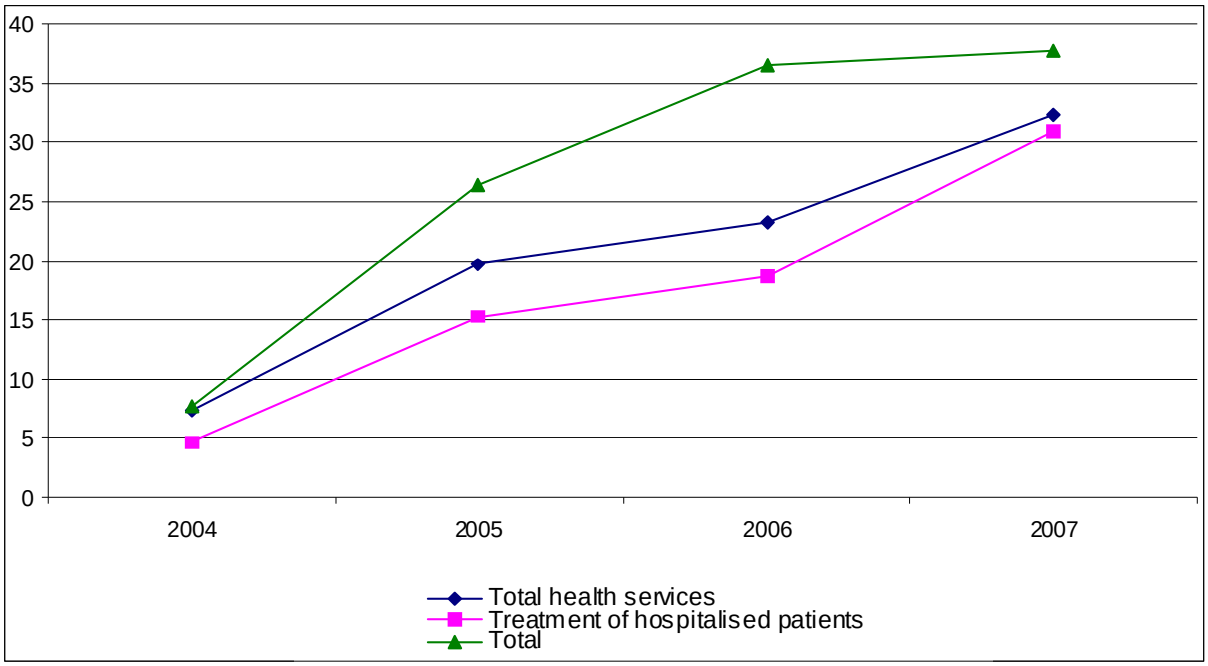
	Private insurance		Cast-sharing by people		Non-profit organisations		Private companies		**TOTAL PRIVATE SECTOR**	
	thousand kroons	%	thousand kroons	%	thousand kroons	%	thousand kroons	%	**thousand kroons**	**%**
Active treatment	32,373	85.6	654,554	23.0	-	-	…	…	**686,927**	**22.7**
Rehabilitation	1,310	3.5	286,400	10.1	-	-	…	…	**287,710**	**9.5**
Nursing care	309	0.8	59,446	2.1	198	6.0	-	-	**59,953**	**2.0**
Ancillary health services	27	0.1	81,945	2.9	-	-	…	…	**81,972**	**2.7**
Medical products	3,496	9.2	1,759,564	61.9	-	-	112,046	81.4	**1,875,107**	**62.1**
Prevention	4	<0.1	…	…	3,035	92.2	25,521	18.6	**28,560**	**0.9**
Health administration and health insurance	311	0.8	…	…	60	1.8	-	-	**371**	**<0.1**
TOTAL	**37,830**	**100.0**	**2,841,909**	**100.0**	**3,293**	**100.0**	**137,567**	**100.0**	**3,020,599**	**100.0**

Data source: NIHD

1) Private insurance means all private insurance companies apart from social security, i.e. alternative insurance to the EHIF. Private insurance expenditure covers separate health insurance and the part of health in travel and motor third party liability insurance.

The expenditure of insurance companies has been calculated as part of total expenditure since 2004. The expenditure on health of insurance companies has increased by more than five times in the last four years (Figure 8). The cost structure, however, has remained relatively stable.

Figure 8. Expenditure of insurance companies, 2004-2007, million kroons



Data source: NIHD

Figure: the author

The share of the health expenditure of private insurance in 2007 comprised 1.3% of private sector expenditure (Table 15). Private insurance spent the most on active treatment services in 2007 – 85.6% of the total health expenditure of private insurance. The majority of this was spent on treatment of hospitalised patients (82.1%).

2) The share of **cost-sharing by people**[5] in private sector expenditure on health was the highest also in 2007, as expected – 94.1% (96.0% in 2006), comprising 21.9% of THE (25.1% in 2006) (Table 15). The share of cost-sharing by people in THE therefore decreased

[5] The terms cost-sharing by people and household health expenditure have been used in parallel in this analysis.

by 3.2% over the year. As mentioned before, the decrease in this ratio when compared to 2006 may imply that the increase in expenditure on health in the public sector was faster than the increase of private sector expenditure (public sector – 27.2%, cost-sharing by people – 7.8%). The expenditure of households has increased by 204 million kroons in absolute figures. It was the lowest increase in cost-sharing by people since 2001.

Expenditure on medical products (61.9%), incl. on medicines, comprises the biggest group of expenditure in household expenditure on health. Households spent more than one-third or 37.1% of their health expenditure on prescription medicines and 14.3% on OTC medicines. Considering the population of Estonia, we can say that on an average, each person spent 1,088 kroons or approximately 100 kroons per month on medicines in 2007.

Table 19. Cost-sharing according to health services, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
ACTIVE TREATMENT	649,192	24.6	654,554	23.0	0.8
incl. treatment of hospitalised patients	27,796	1.1	37,319	1.3	34.3
Outpatient curative care	621,396	23.6	617,235	21.7	-0.7
incl. dental care	534,746	20.3	543,880	19.1	1.7
REHABILITATION	187,166	7.1	286,400	10.1	53.0
NURSING CARE	65,137	2.5	59,446	2.1	-8.7
ANCILLARY HEALTH SERVICES	84,804	3.2	81,945	2.9	-3.4
MEDICAL PRODUCTS	1,651,154	62.6	1,759,564	61.9	6.6
incl. prescription medicines	964,821	36.6	1,054,794	37.1	9.3
OTC medicines	407,953	15.5	405,544	14.3	-0.6
Glasses and other vision aids	160,664	6.1	212,014	7.5	32.0
TOTAL	**2,637,453**	**100.0**	**2,841,909**	**100.0**	**7.8**

Data source: NIHD

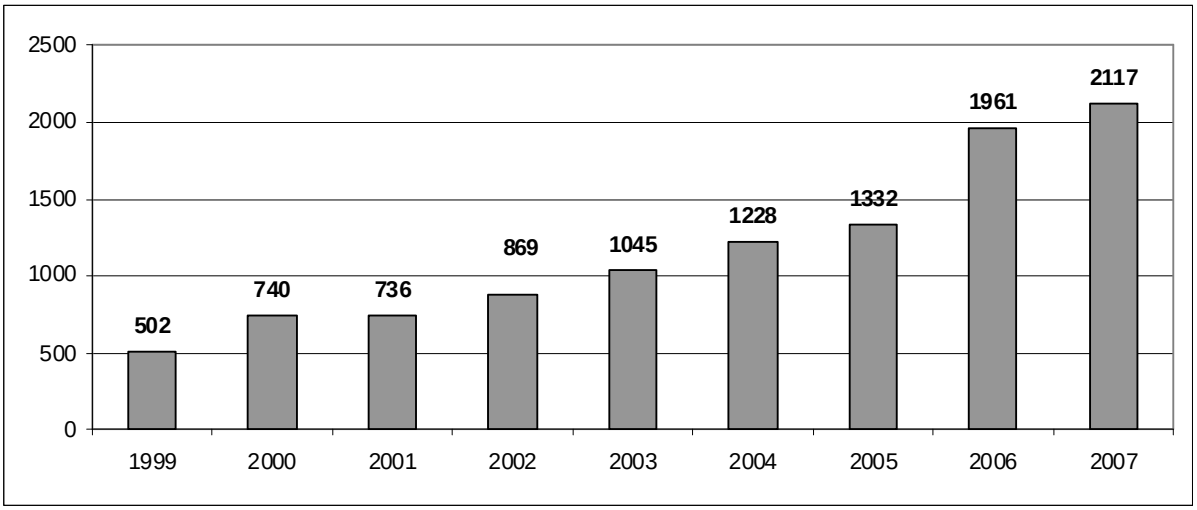
Active treatment services are another large cost group in the health budget of households – people spent 655 million kroons or 23.0% of total cost-sharing by people on these.

Dental care comprises the biggest share of active treatment services and the EHIF does generally not compensate adults for this. At the same time, the increase in expenditure on dental care was modest – 1.7% in comparison to 2006.

It is important to note the circumstance that household expenditure on outpatient curative care has decreased over year whilst expenditure on the treatment of hospitalised patients increased both in the absolute amount as well as the share in all household expenditure. The tendency

that can be noticed in public sector and EHIF expenditure is completely the opposite – patients are financing more and more of inpatient curative care (Table 12).
People started spending considerably more on rehabilitation. This expenditure totalled 286 million kroons in 2007 (187 million kroons in 2006).
Cost-sharing expenditure comprised 2,117 kroons per resident in 2007. The same indicator in 2006 was 1,961 kroons (Figure 9).

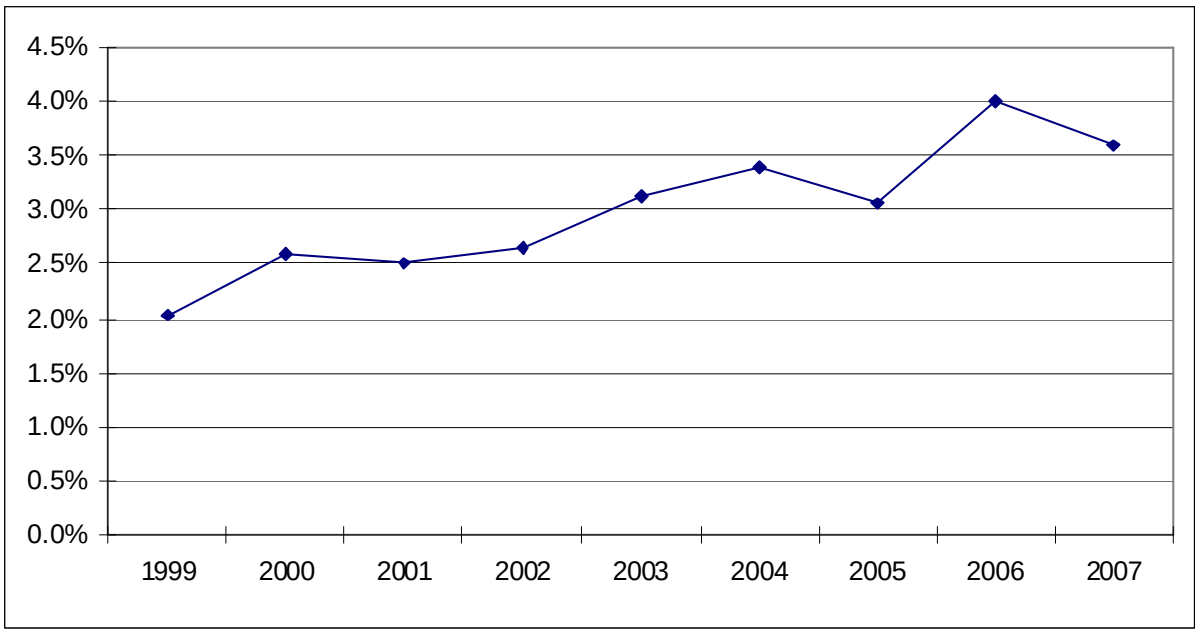
Figure 9. Coast-sharing per capita, 1999-2007, kroons



Data source: NIHD
Figure: the author

Figure 10 illustrates the ratio of the health expenditure of Estonian households to total household expenditure.

Figure 10. Share of expenditure on health of one household member intotal expenditure of one household member per month, 1999-2007



Data source: ES
Figure: the author

In absolute figures, expenditure on health has increased by approximately four times in the last eight years. The share of expenditure on health in total expenditure of one household increased considerably – from 2.0% in 1999 to 3.6% in 2007. The indicator was the highest in 2006 – 4.0%. The share of expenditure on health is relatively small in comparison to expenditure on food and housing (in 2007, 24.6% and 14.3%, respectively), which are the two largest groups of expenditure for households.

Private persons spent most on medical products. This means that they financed suppliers of medical products (1.76 billion kroons or 61.9%) more than any others (Table 20).

Table 20. Cost-sharing according to providers of health services, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
HOSPITALS	214,962	8.2	323,719	11.4	50.6
NURSING CARE INSTITUTIONS	65,137	2.5	59,446	2.1	-8.7
PROVIDERS OF OUTPATIENT CURATIVE CARE	706,200	26.8	699,180	24.6	-1.0
incl. dental care centres	534,746	20.3	543,880	19.1	1.7
SUPPLIERS OF MEDICAL PRODUCTS	1,651,154	62.6	1,759,564	61.9	6.6
incl. pharmacies	1,429,237	54.2	1,503,570	52.9	5.2
opticians	160,664	6.1	212,014	7.5	32.0
Other suppliers of medicines and medical goods	61,253	2.3	43,980	1.5	-28.2
TOTAL	**2,637,453**	**100.0**	**2,841,909**	**100.0**	**7.8**

Data source: NIHD

Most of this was spent through pharmacies like in the previous year. Financing of outpatient curative care providers by households decreased by 7 million kroons or 1.0% with expenditure on dental care providers increasing rather modestly (1.7%). Expenditure on the services of hospitals increased considerably more.

3) The expenditure on health of **private companies** comprised 4.6% of private sector expenditure and 1.1% of total expenditure on health (in 2006, 2.8% and 0.7%, respectively) (Table 15). The expenditure of private companies has increased considerably in the last two years when compared to previous years. Expenditure of private companies in 2007 comprised 138 million kroons in absolute figures.

The health expenditure incurred by companies from their own income, incl. the expenses of the mandatory medical examinations of employees in Medicover Eesti AS, are shown under private companies. Private companies mainly spent on OTC medicines and prevention or occupational health. The expenditure incurred on OTC medicines amounted to 112 million kroons and comprised 81.4% of the total health expenditure of private companies, and 26 million kroons or 18.6% was spent on occupational health (Table 18).

1.3.3 Rest of the world

The share of foreign funding of health care in Estonia is not particularly high. In 1999, it comprised 3.5% of THE and dropped to almost zero in 2001. Financing of THE from foreign sources increased constantly since 2004 and amounted to 147 million kroons or 1.1% of THE in 2007. In 2007, the majority of the funds (106 million kroons or 72.2% of total expenditure of the rest of the world) was invested into the development of the hospital network, which was outdated and in need of renewal, using the funds received from the European Regional Development Fund.

Funding from foreign sources has mainly been used for investments into human resources and technology and also to cover operating expenses. In 2007, foreign aid was received for prevention and public health, incl. infectious and non-infectious disease prevention, programmes (40 million or 27% and 763 thousand kroons or 0.5% of the total health expenditure of the rest of the world, respectively). 956 thousand kroons or 0.6% of the funds received from foreign sources was spent on the management of the health system on the general government level. Loans are not considered as part of foreign funding.

1.4. Health service providers

Until now, we took a look at health expenditure according to sources of funding. In order to obtain a better picture of health service expenditure and providers of such services over years, we will look at these categories separately.

1,309 independent health care institutions operated in Estonia at the end of 2007. Health care institutions can be classified in several ways. They have been classified according to services in this analysis. Provision of inpatient health services has been considered the most important in determining the type of a service: if an institution provides inpatient services, it is classified as a hospital regardless of its other services. Providers of outpatient and day curative care have been classified according to the principal service or the service the provision of which comprises the biggest part of the institution's work. According to this, institutions are divided into general medical care, specialised medical care, dental care and other institutions.

57 hospitals, 733 outpatient institutions, 446 dental clinics and 73 other institutions operated in Estonia in end of 2007 pursuant to the above classification. Outpatient institutions included 488 general and 245 special medical care institutions; most of the general medical care institutions were offices of GP – 476. Other institutions divided as follows: 5 emergency medical care and 35 rehabilitation institutions, 9 institutions that provide diagnostics services and 22 nursing care institutions.

The number of hospitals stabilised by 2002 already and 57 hospitals were operating in Estonia at the end of 2007. The classification of hospitals is defined in the Health Care Services Organisation Act, which stipulates that a hospital is either a regional hospital, central hospital, general hospital, local hospital, specialised hospital, rehabilitation hospital or nursing hospital. There were 3 regional hospitals, 4 central hospitals, 11 general hospitals, 6 local hospitals, 9 specialised hospitals, 3 rehabilitation hospitals and 21 nursing hospitals in Estonia at the end of 2007.

The Estonian health system focuses on hospitals and active treatment services. Hospitals use most of the resources of the health system and remain the major service providers (46.0% of current expenditure). They are followed by retailers of medical goods and other suppliers of medical products (25.2%) and providers of outpatient services (21.3%) (Figure 21).

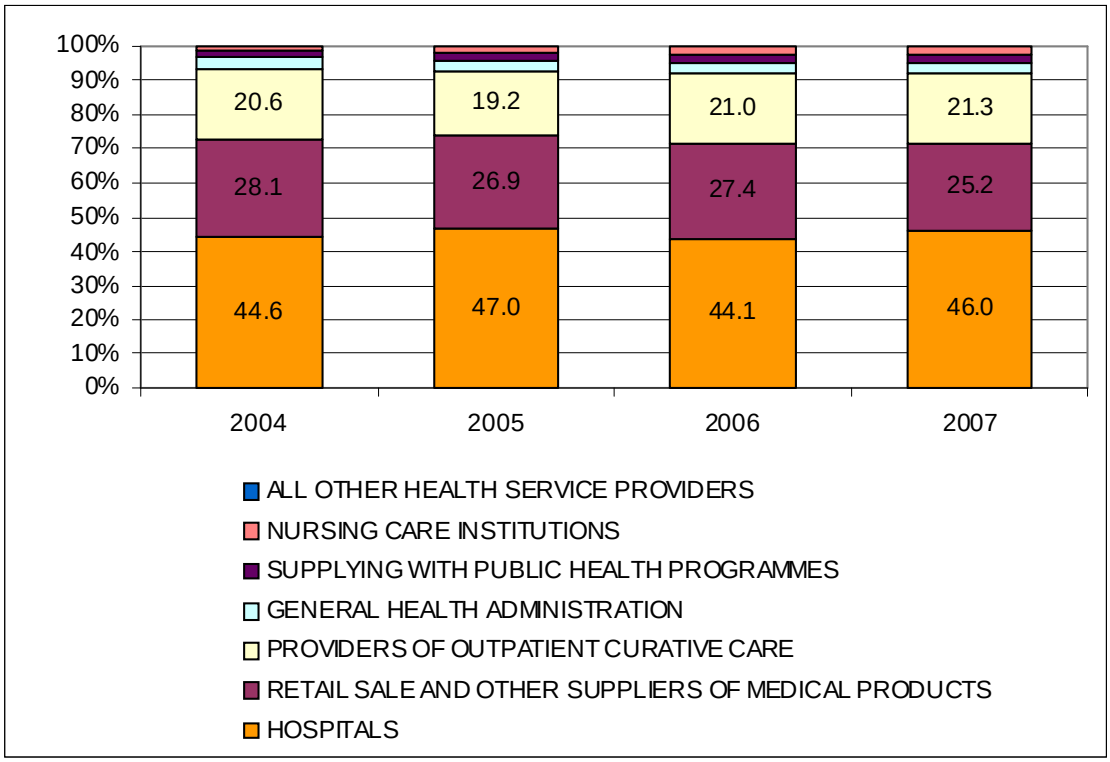
Table 21. Total expenditure on health according to providers of health services, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
HOSPITALS	4,591,385	44.1	5,908,917	46.0	28.2
NURSING CARE INSTITUTIONS	247,606	2.4	307,104	2.4	24.0
PROVIDERS OF OUTPATIENT CURATIVE CARE	2,186,080	21.0	2,720,115	21.3	24.4
RETAIL SALE AND OTHER SUPPLIERS OF MEDICAL PRODUCTS	2,852,795	27.4	3,219,210	25.2	12.8
SUPPLYING WITH PUBLIC HEALTH PROGRAMMES	234,081	2.2	305,941	2.4	30.7
GENERAL HEALTH ADMINISTRATION	284,647	2.7	331,642	2.6	16.5
OTHER BRANCHES OF ACTIVITY	2,576	<0.1	5,347	<0.1	107.6
REST OF THE WORLD	6,455	0.1	8,740	0.1	35.4
TOTAL	**10,405,625**	**100.0**	**12,782,076**	**100.0**	**22.8**

Data source: NIHD

The share of expenditure incurred through hospitals has increased by 2.1% in comparison to the previous year and the share of outpatient curative care providers has remained on almost the same level. Health administration expenditure also decreased, mainly as a result of the decrease in the operating expenses of the EHIF. Organisation of public health programmes has remained on more or less the same level in the last four years (Figure 11).

Figure 11. Shares of health service providers, 2004-2007



Data source: NIHD
Figure: the author

The share of medical expenses incurred abroad in expenditure on health increased by 35.4% in comparison to 2006 and comprised 9 million kroons in 2007. The EHIF paid for the tests and treatment of 78 persons in foreign countries in 2007 (59 persons in 2006). The share of medical expenses incurred abroad remains small (0.1%) irrespective of the increase in 2007.

1.4.1 Hospitals

Similarly to the previous years, hospitals comprised the largest group of health service providers in 2007 whose expenditure increased even further when compared to the previous year (Table 21). Hospitals provided services for 5.88 billion kroons in 2007, which is 28.2% more than in 2006. The expenditure of hospitals increased mainly as a result of the increase in EHIF funding.

EHIF funding of hospitals increased by 1.2 billion kroons (28.6%) over the year. However, funding of hospitals by the Government and LGs decreased at the same time. The expenditure of hospitals according to health services in 2006 and 2007 has been given in Table 22.

Table 22. Expenditure of hospitals according to health services, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
ACTIVE TREATMENT	3,763,819	82.0	4,714,257	80.1	25.3
incl. treatment of hospitalised patients	2,923,350	63.7	3,502,120	59.5	19.8
incl. treatment of day patients	157,223	3.4	222,730	3.8	41.7
incl. outpatient curative care	659,960	14.4	959,499	16.3	45.4
incl. treatment at home	23,286	0.5	29,909	0.5	28.4
REHABILITATION	263,271	5.7	399,024	6.8	51.6
Long-term nursing care	113,674	2.5	152,104	2.6	33.8
LONG-TERM NURSING CARE OF HOSPITALISED PATIENTS	107,704	2.3	143,634	2.4	33.4
ANCILLARY HEALTH SERVICES	450,621	9.8	618,590	10.5	37.3
incl. clinical laboratory tests	259,969	5.7	361,095	6.1	38.9
incl. radiological tests	186,356	4.1	252,566	4.3	35.5
PREVENTION AND PUBLIC HEALTH	…	…	1	<0.1	…
incl. prevention of non-infectious diseases	…	…	1	<0.1	…
TOTAL	**4,591,385**	**100.0**	**5,883,976**	**100.0**	**28.2**

Data source: NIHD

Hospitals provided the majority of health services as active treatment services. In 2007, hospitals provided active treatment services for approximately 4.71 billion kroons the majority of which was incurred in treating hospitalised patients. The share of hospital expenditure and treatment of hospitalised patients decreased in comparison to the previous year. This has occurred on account of outpatient and day cases of curative care and also means that the increase in expenditure on hospitalised patients was slower (19.8% over the year) than expenditure on day cases of curative care (41.7%) and outpatient curative care (45.4%).

1.4.2 Outpatient curative care providers

Outpatient curative care providers have been the third largest group of service providers after hospitals and retailers and suppliers of medical products since 2003.

A total of 2.72 billion kroons was spent through outpatient curative care providers in 2007, which is 24.4% more than in 2006 (Table 23). Regardless of this, the share of outpatient service providers in current expenditure has decreased considerably in the last eight years, comprising 32% in 1999, 35% in 2001 and only 19% in 2005. The relevant indicator has been 21% in the last two years.

Table 23. Expenditure of outpatient service providers according to health services, 2006-2007

	2006		**2007**		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
ACTIVE TREATMENT	1,669,512	76.4	2,035,938	74.8	21.9
incl. patients in day cases of curative care	28,987	1.3	35,265	1.3	21.7
incl. outpatient curative care	1,640,298	75.0	2,000,470	73.5	22.0
basic medical and diagnostic services	795,423	36.4	1,082,613	39.8	36.1
dental care	777,648	35.6	825,735	30.4	6.2
incl. treatment at home	227	<0.1	203	<0.1	-10.6
REHABILITATION	5,257	0.2	4,947	0.2	-5.9
NURSING CARE	9,752	0.4	23,621	0.9	142.2
ANCILLARY HEALTH SERVICES	472,458	21.6	620,089	22.8	31.2
incl. transport of patients and rescue (emergency medical care)	230,131	10.5	336,783	12.4	46.3
PREVENTION AND PUBLIC HEALTH	29,099	1.3	35,519	1.3	22.1
TOTAL	**2,186,080**	**100.0**	**2,720,115**	**100.0**	**24.4**

Data source: NIHD

Today, outpatient curative care providers offer active treatment services mainly in the form of outpatient curative care, which consists mainly of medical and diagnostic services and dental care.

The increase in the expenditure on primary medical and diagnostics services may be partially the result of the reorganisation of the GP remuneration system as salaries are an important component of the reference prices of health services. The events associated with this were:

- implementation of the performance pay system for general practitioners in order to make their activities in monitoring chronically ill patients and prevention more efficient;
- doubling the limits of the distance fees of GPs and increasing the limit of base money to motivate GPs to work in rural areas [5, p. 30].

1.4.3 Retailers of medicines and medical products

Retailers of medicines and medical products are the second biggest group of service providers and the money spent through them comprises 25.2% of the current expenditure of all providers (Table 21).

Retailers of medicines and medical products, such as pharmacies, suppliers of optical and hearing aids, provided services for 3.22 billion kroons in 2007. Expenditure increased by 366 million kroons or 12.8% when compared to the previous year (Table 24).

Table 24. Retailers of medicines and medical products, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
PHARMACIES	2,475,311	86.8	2,809,895	87.3	13.5
RETAIL SALE AND OTHER SUPPLIERS OF GLASSES AND OTHER OPTICAL AIDS	166,280	5.8	218,725	6.8	31.5
RETAIL SALE AND OTHER SUPPLIERS OF HEARING AIDS	14,137	0.5	15,700	0.5	11.1
SUPPLIERS OF OTHER AIDS	197,068	6.9	174,890	5.4	-11.3
TOTAL	**2,852,795**	**100.0**	**3,219,210**	**100.0**	**12.8**

Data source: NIHD

The expenditure on the goods offered by pharmacies and retailers of optical and hearing aids increased in 2007 when compared to 2006. Expenditure incurred on the acquisition of glasses and other optical aids increased the most (31.5%).

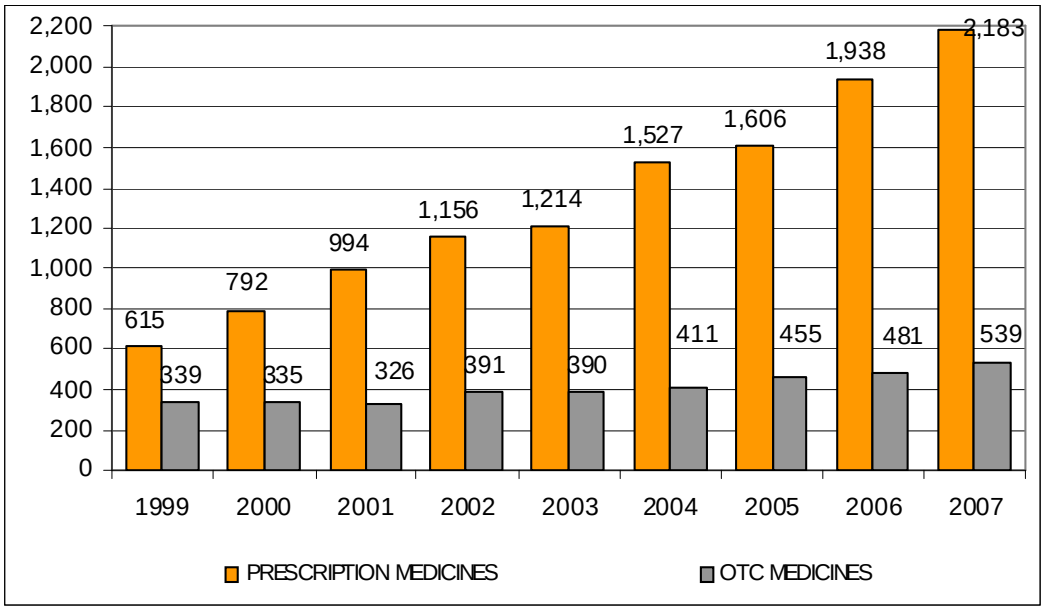
Households spend the most on glasses – 212 million kroons or 97% of all expenditure incurred through suppliers of glasses and optical aids.

Households are also the main financiers of pharmacies (53% of expenditure incurred through pharmacies), followed by the EHIF (41%). The public sector was the main financier of suppliers of other medical products in 2007 by spending 129 million kroons or 73.8% of all aids received through this supplier. The expenditure incurred by the Ministry of Social Affairs on prostheses, orthopaedic and other aids for disabled people comprised a significant share of this amount (58 million or 55.6%).

The medicine sales of pharmacies have increased year by year. They amounted to 2.81 billion kroons in 2007 and comprised 335 million kroons more than in 2006.

Sales of medicines per resident amounted to an estimated 2,028 kroons in 2007 and they keep growing constantly and strongly (for example, 822 kroons in 2000, 1,434 kroons in 2004 and 1,799 kroons in 2006).

Figure 12. Expenditure of pharmacies according to types of medicines, 1999-2007, million kroons



Data source: NIHD

Expenditure on both prescription and OTC medicines has increased over nine years. Expenditure on prescription medicine increased by almost four times during the period (615

million kroons in 1999 and 2.18 billion kroons in 2007). Expenditure on OTC medicines increased more modestly.

1.4.4 Organisers of public health programmes

Public health programmes are aimed at prevention of diseases and promotion of health. The objectives of disease prevention are early detection of diseases and measures to prevent sickness. The cause-consequence connections of preventive activities reduce expenditure on the treatment of specific health problems. The objective of health promotion is to propagate the kind of behaviour and a way of life that value and favour the health of people, and to develop a living environment that supports health.

Public health programmes include the following activities: the health of mothers and babies, family planning and counselling, school health, prevention of infectious diseases, prevention of non-infectious diseases, etc., which are financed from the health insurance budget and the state budget. It must be emphasised here that the activities aimed at mothers and children, such as monitoring pregnancies and health checks of children, are generally acknowledged health services in Estonia that are usually not performed in the course of programmes or project activities.

Expenditure on the organisation of public health programmes amounted to 311 million kroons in 2007, which was 76 million kroons or 31.5% more than in the previous year. The share of said providers in current expenditure on health decreased from 2003 to 2005 and started to increase in 2006, comprising 2.4% of expenditure on health in 2007 (2.5% in 2003, 2.0% in 2005).

The biggest public health programmes funded from the state budget are listed in Chapter 1.3.1.

The EHIF invested 103 million kroons into prevention of diseases and health promotion in 2007. The most important disease prevention projects of the EHIF were:

- School health;
- Reproductive health of young people;
- Early detection of breast cancer;
- Early detection of cervical cancer;

- Projects for prevention of heart diseases;
- Early detection of osteoporosis;
- Phenylketonuria and hypothyreosis testing projects;
- Newborn hearing screening;
- Vaccination against hepatitis B[6] [5, p. 32].

The most important areas of health promotion were:

- Activities aimed at the healthy development of children;
- Prevention of cardiovascular diseases;
- Early detection of malignant tumours;
- Prevention of injuries at home and during leisure activities;
- Prevention of alcohol-related damage to health;
- Activities aimed at various priority areas [5, p. 49].

The biggest expenditure in the area of public health programmes was incurred on the prevention of infectious and non-infectious diseases with expenditure on the prevention of infectious diseases increasing approximately 2.2 times in 2007 when compared to 2005 and more than 1.36 times in comparison to 2006 (Table 25).

Table 25. Expenditure of public health programme organisers according to functions, 2006-2007

	2006		2007		Change (%)
	thousand kroons	%	thousand kroons	%	2007/2006
Health of mothers and children; family planning and counselling	21,566	9.1	27,900	9.0	29.4
School health	41,488	17.5	47,440	15.2	14.3
Prevention of infectious diseases	115,906	49.0	157,706	50.7	36.1
Prevention of non-infectious diseases	57,807	24.4	78,243	25.1	35.4
TOTAL	**236,767**	**100.0**	**311,289**	**100.0**	**31.5**

Data source: NIHD

The share of funds aimed at the prevention of infectious diseases in 2007 was the biggest of the last four years among the expenditure of all public health programme organisers and comprised 158 million kroons or 50.7% of the expenditure of public health programmes. Expenditure on school health comprises the third large group in the expenditure of public

[6] Since 2006, vaccination against hepatitis B has been done on the basis of the national immunisation programme funded from the state budget.

health programmes (15.2%). The share of this cost item has decreased by 6.9% in the last three years and comprised 47 million kroons or 15.2% in 2007 (22.1% in 2005, 17.5% in 2006).

Expenditure on the health of mothers and children, family planning and counselling increased at a moderate speed in 2007, but its share has decreased by 2.3% in comparison to 2006. The majority of the expenditure on the health of mothers and children and school health was funded by the EHIF. The Ministry of Social Affairs was the source of funding for the expenditure on the prevention of infectious and non-infectious diseases.

Projects financed from the gambling tax through the Ministry of Finance have also been implemented since 2001 and they are aimed at helping drug addicts, alcoholics and HIV-positive people and other health promotion.

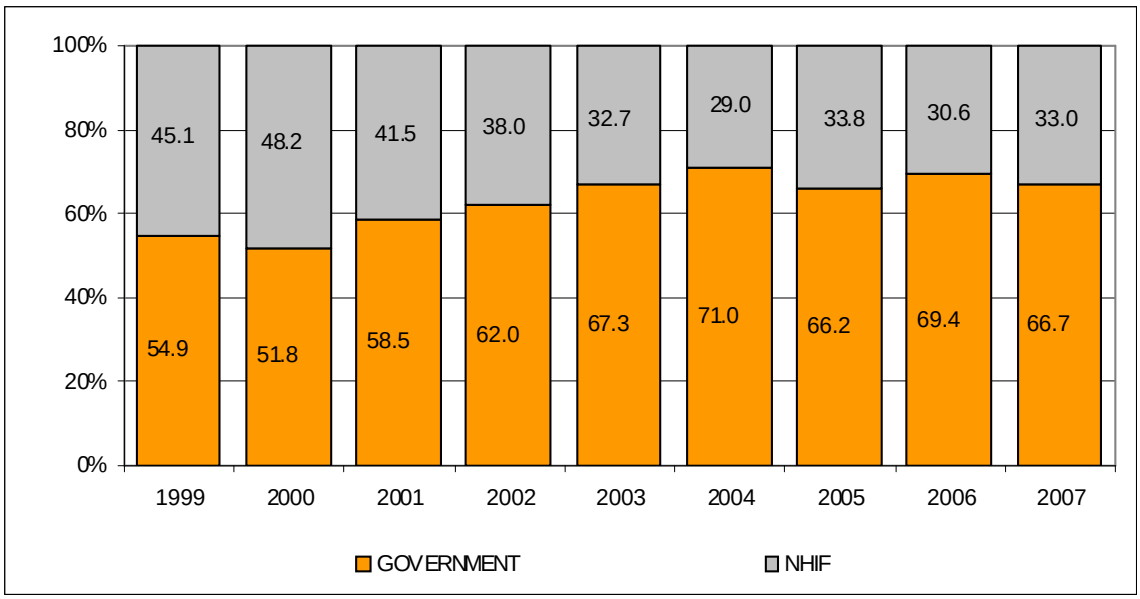
1.4.5 Institutions Dealing with General Health Administration

General health administration expenditure in 2007 amounted to 332 million kroons, which was 47 million kroons or 16.5% more than in the previous year.

Said expenditure consists primarily of the operating expenses of the Government or the Ministry of Social Affairs[7] and the institutions administered by the latter (159 million kroons or 47.9%) and the EHIF (95 million kroons or 28.7%). General health administration expenditure also contains the operating expenses associated with the health insurance area of private insurance in 2005 and in 2007 and 2006 also the expenditure of NPOs, but these amounts are marginal and not shown in the figure below (Figure 13).

[7] The expenses of the Ministry of Social Affairs are somewhat conditional here, because 1/3 of the total operating expenses of the Ministry have been calculated as operating expenses of health care every year by agreement.

Figure 13. Share of general health administration expenditure, 1999-2007[8]



Data source: NIHD

Figure: the author

Note: Government expenditure covers the administration expenditure of both the central Government and the LGs.

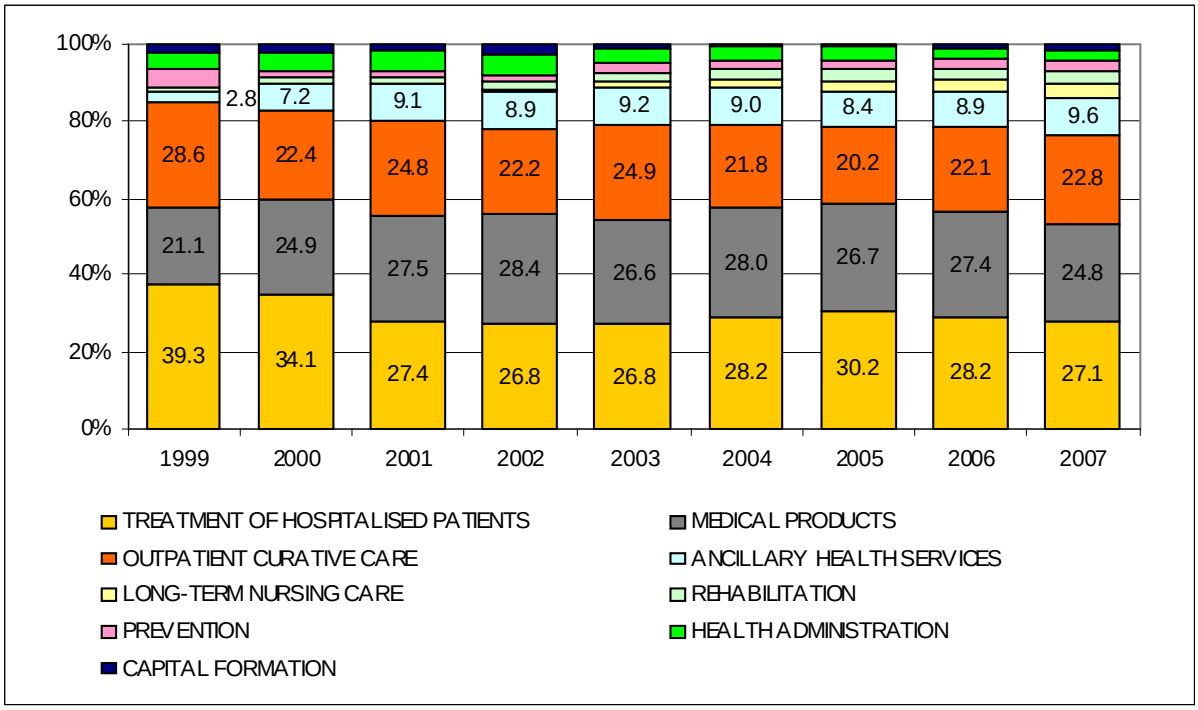
General health administration expenditure increased by 1.4% over the year on account of the relative and absolute increase of EHIF expenditure, because the health administration expenditure of the Government decreased by 2.5% over the year.

[8] The agreed increase occurred in 2003 due to changes in methodology. Expenditure incurred from the own income of divisions, which conditionally increase government expenditure, have also been considered as part of the government's administration expenditure.

1.5. Health Services

The health system of Estonia is focused on active treatment services and this is also illustrated by Figure 14. Active treatment services, which consist of treatment of hospitalised patients and outpatient curative care[9], comprise the biggest part of health services. The expenditure of these services has decreased when compared to the previous years (62.9% in 1999 and 52.1% in 2007). The number of treatment of hospitalised patients has decreased in comparison to the previous year, but the share of expenditure on outpatient curative care started to increase and amounted to 22.8% of all expenditure on health services. The share of outpatient curative care was on the lowest level of the last nine years in 2005 – 20.2%.

Figure 14. Share of health services, 1999-2007



Data source: NIHD

Figure: the author

The main financiers of treatment of hospitalised patients and outpatient curative care are the public sector and EHIF. The important trend in the changes in the structure of EHIF expenditure is increasing the efficiency of spending the money by decreasing the share of treatment of hospitalised patients and increasing the shares of outpatient and day cases of

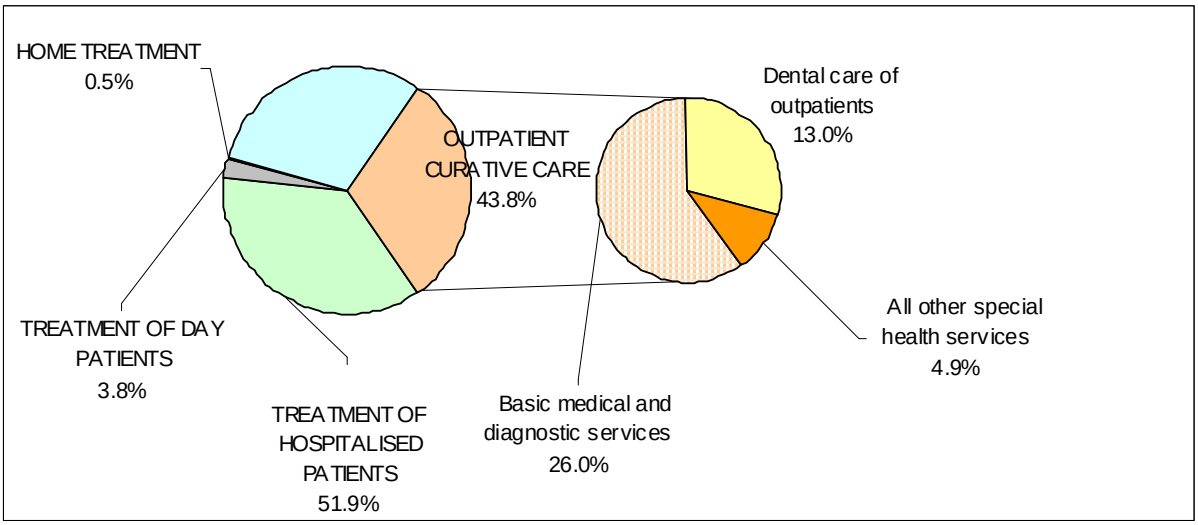
[9] According to the ICHA methodology, treatment of patients in day cases of curative care and at home also belong to active treatment services. They have not been shown separately in the figure in order to give a better overview.

curative care (Table 12) [5, p. 30]. A similar tendency can therefore also been seen in the THE (Figure 14). At the same time, the opposite started occurring in the structure of private sector expenditure, whose share in financing the THE is considerably smaller in comparison to the public sector – households started to fund hospitalised care more (Table 19).

The share of the expenditure on ancillary health services (laboratory tests, emergency medical care) was the biggest in the last nine years – 9.6% of the THE. The share of medical products (medicines, vaccines, prostheses, glasses, medical equipment) has decreased somewhat when compared to the previous year and prevention services have remained on more or less the same level. The share of capital formation in the THE has increased in the last two years and amounted to 1.5% of the THE. However, the majority of capital formation has been calculated as part of the health services and cannot therefore be differentiated.

Since active treatment services comprise the most important part of the health services provided in Estonia, then we will take another look at them. Active treatment consists of treatment of hospitalised patients, outpatient curative care, day cases of curative care and home treatment. Similarly to previous years, hospitalisation also comprised the biggest share of active treatment services in 2007 – 51.9% (Figure 15).

Figure 15. Division of active treatment services and outpatient curative care, 2007



Data source: NIHD
Figure: the author

Outpatient curative care, which consists of basic medical and diagnostic services (26.0% of all active treatment services) and dental care (13.0%) comprises the second largest group – 43.8% of active treatment services.

Considering that 1 million and 342 thousand people lived in Estonia in 2007, then active treatment expenditure per resident in 2007 amounted to 5,030 kroons, which is 984 kroons more than in 2006 (Table 26). 2,117 kroons of said amounts was paid by people themselves.

Table 26. Health services per person, 2006-2007

	2006		2007		Change (%)
	kroons	%	kroons	%	2007/2006
ACTIVE TREATMENT	4,046	51.8	5,036	52.1	24.5
Treatment of hospitalised patients	2,179	27.9	2,615	27.1	20.0
Treatment of day patients	138	1.8	192	2.0	38.8
Outpatient curative care	1,711	21.9	2,205	22.8	28.9
Basic medical and diagnostic services	*944*	*12.1*	*1,308*	*13.5*	*38.5*
Dental care of outpatients	*599*	*7.7*	*653*	*6.8*	*8.9*
All other special health services	*157*	*2.0*	*232*	*2.4*	*48.4*
All other outpatient curative care	*10*	*0.1*	*12*	*0.1*	*18.8*
Home treatment	18	0.2	24	0.2	33.3
REHABILITATION	200	2.6	301	3.1	50.7
LONG-TERM NURSING CARE	275	3.5	358	3.7	30.3
ANCILLARY HEALTH SERVICES	686	8.8	923	9.5	34.4
MEDICAL PRODUCTS	2,122	27.1	2,398	24.8	13.0
PREVENTION AND PUBLIC HEALTH	198	2.5	258	2.7	30.7
HEALTH ADMINISTRATION AND HEALTH INSURANCE	212	2.7	247	2.6	16.7
CAPITAL FORMATION	79	1.0	142	1.5	81.0
TOTAL	**7,817**	**100.0**	**9,664**	**100.0**	**23.6**

Data source: NIHD

9,664 kroons was invested into a person's health in 2007. Similarly to the previous year, expenditure on hospital treatment (2,615 kroons) and medical products (2,398 kroons) was the biggest.

1.6. Summary

2007 was a pivotal year for the economy of Estonia when the rapidly developing economy peaked and then started to cool down. It was possible to invest more in the health system as a lot of money was circulating in the economy.

The THE of Estonia in 2007 comprised 13.0 billion kroons or 5.4% of GDP. The nominal increase of the THE was 23.4%, which exceeded the increase in the previous year by 3.8% and was the highest in the last eight years. THE increased by 15.7% in comparison to the previous year when considering the inflation of healthcare. At the same time, the nominal increase GDP was 16.5% and actual increase 6.3%. It means that the THE increased faster than the entire economy on an average. The salary increase of healthcare professionals played an important role in the increase of THE.

The share of expenditure on health in 2007 comprised 11.6% of all public sector expenditure and continues to hold the third position after the area of social welfare and education. The public sector funded 75.6% of the THE in 2007. The health expenditure of the private sector and foreign countries amounted to 23.3% and 1.1%, respectively, in the same year.

Cost-sharing by people comprised the biggest share of private sector health expenditure – 94.1%, which at the same time comprised 21.9% of the THE. The biggest share of household health expenditure was spent on medical products (61.9%) and outpatient services (21.7%). Calculated cost-sharing expenditure comprised 2,117 kroons per resident in 2007.

An important trend in the structural changes of the THE is the decrease of the share of expenditure on hospitalised patients on account of the increase in the shares of outpatient and day cases of curative care. This change occurred in the expenditure of the main financier of the THE, the EHIF. However, the change that occurred in the structure of private sector expenditure, whose share in financing the THE is considerably smaller when compared to the public sector, was completely the opposite – expenditure on hospitalisation among the health expenditure of households increased.

2. INTERNATIONAL COMPARISON

Comparable countries are European Union (EU) Member States who, like Estonia, use the OECD methodology for THE calculation as recommended by Eurostat. The comparable period is 1998 to 2005 as later data for international comparison have not been published yet. Comparison is made difficult by the fact that each country understands the methodology in their own way and the term THE may have a very different meaning. Therefore, we must be cautious when drawing conclusions.

The THE of different countries can be compared as a percentage of GDP. It measures the share of health services, products and capital formation in the added value produced by national economy. Therefore, the fluctuation in the ratio of the THE and GDP may be misleadingly interpreted, because it made be caused by changes in GDP as well as THE itself.

The average share of total expenditure in GDP was 5.2% from 1998 to 2005. The data of the World Health Organization (WHO) published in 2005 show that the average share of THE in GDP in EU Member States has been growing slowly since 1998 and it reached approximately 8.9% of GDP in 2005 (7.9% in 1998). This increase has occurred irrespective of the fact that new countries have joined the EU, where the share of THE in GDP is lower than the average in the old EU. The ratio of THE to GDP in Estonia decreased in the same period and was 5.6% in 1998, 5.1% in 2002 and 5.0% in 2005 (Table 27).

Table 27. International comparison of the ratio of total expenditure on health to gross domestic product and total expenditure on health per capita, 1998-2005

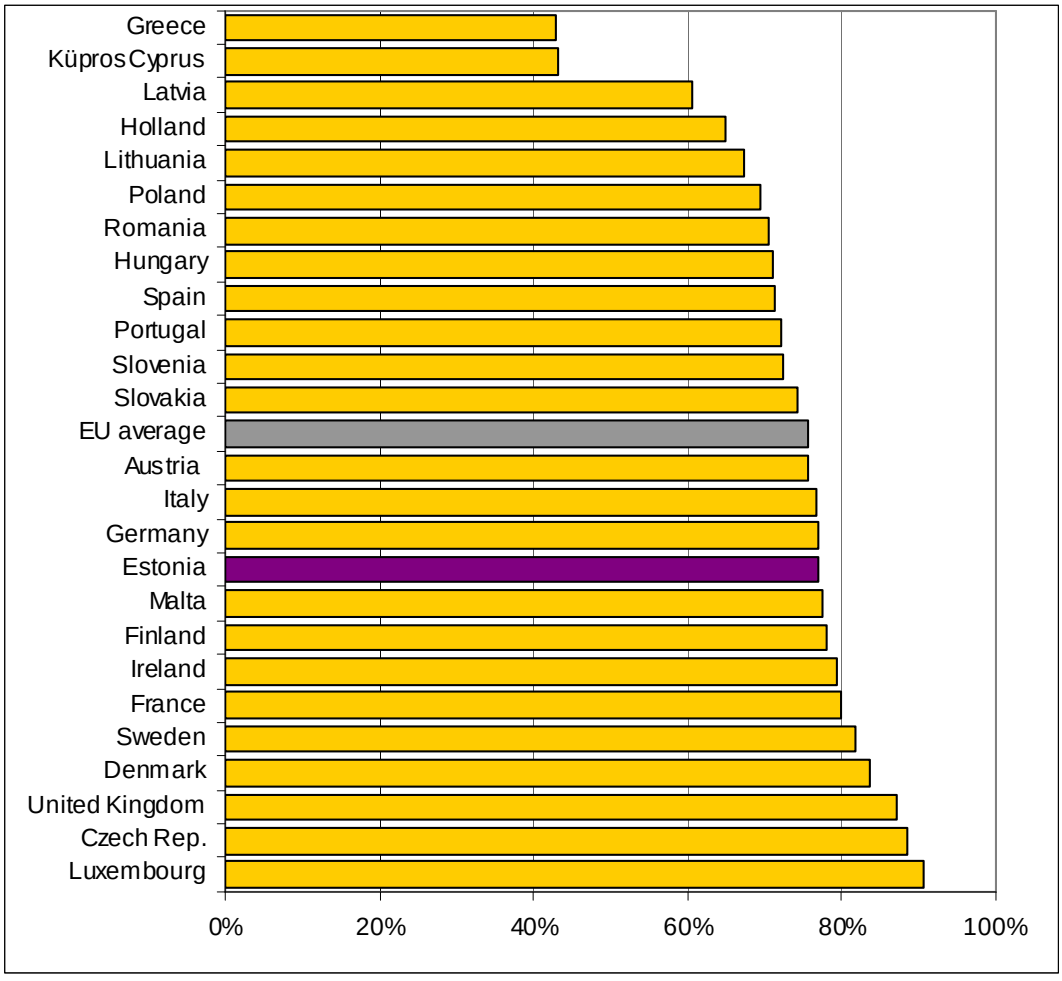
	1998		2002		2004		2005	
	THE and GDP ratio	**THE per capita**	**THE and GDP ratio**	**THE per capita**	**THE and GDP ratio**	**THE per capita**	**THE and GDP ratio**	**THE per capita**
		Inter-national		Inter-national		Inter-national		Inter-national
Countries	%	$	%	$	%	$	%	$
Austria	10.2	2650	10.1	3071	10.3	3398	10.2	3485
Belgium	8.7	2112	9.5	2837	9.7	3006	9.6	3071
Bulgaria	5.2	289	7.4	552	7.5	655	7.7	734
Croatia	7.7	676	7.8	852	7.7	974	7.4	1001
Cyprus	5.6	947	6.1	1228	6.3	1355	6.1	1550
Czech Rep.	6.6	926	7.1	1195	7.2	1388	7.1	1447
Denmark	8.3	2176	8.8	2696	9.4	3030	9.4	3169
Estonia	5.5	474	4.9	561	5.2	740	5	846
Finland	6.9	1554	7	1939	7.4	2203	7.5	2299
France	9.6	2252	10	2862	11	3211	11.2	3406
Germany	10.2	2482	10.6	2936	10.06	3166	10.7	3250
Greece	7.3	1382	9.7	2427	9.6	2667	10.1	2949
Hungary	7.1	763	7.6	1114	8.1	1315	7.8	1329
Ireland	6.2	1498	7.1	2360	7.5	2723	8.2	3125
Italy	7.7	1830	8.3	2224	8.7	2405	8.9	2494
Latvia	6.3	439	6.2	611	6.8	796	6.4	860
Lithuania	6.1	489	6.4	681	5.7	756	5.9	862
Luxembourg	5.7	2438	6.8	3915	8.1	5317	7.7	5521
Malta	6.6	1058	7.8	1492	8.2	1608	8.4	1733
Holland	8.1	2053	8.9	2833	9	3002	9.2	3187
Poland	5.9	559	6.3	733	6.2	808	6.2	844
Portugal	8.8	1331	9	1658	10	1913	10.2	2034
Romania	4.4	246	5.1	368	4.9	427	5.5	507
Slovakia	5.7	584	5.6	730	7.2	1058	7.1	1130
Slovenia	8	1226	8.7	1693	8.5	1863	8.5	1959
Spain	7.3	1383	7.3	1746	8.1	2097	8.2	2242
Sweden	8.2	1982	9	2597	9.2	2964	9.2	3012
UK	6.8	1569	7.6	2164	8	2506	8.2	2598
EU average	**7.9**	**1648**	**8.4**	**2110**	**8.8**	**2357**	**8.9**	**2468**
EU average before May 2004	**8.5**	**1962**	**9.0**	**2484**	**9.4**	**2760**	**9.6**	**2883**
EU average after 2007	**5.8**	**539**	**6.3**	**743**	**6.4**	**861**	**6.5**	**918**

Data source: European health for all database (HFA-DB); World Health Organization Regional Office for Europe; Used: July 2009

Even though the ratio of the THE and GDP was not the highest in Luxembourg in 2005, its per capita indicator shows that health expenditure there was the biggest – 5,521 international dollars. In Estonia, this indicator is lower than the EU average and gives the country the fourth place from the bottom after Romania, Bulgaria and Poland. Our neighbours Latvia and Lithuania spend more on the health of their people than Estonia.

The expenditure on health in the public sector when compared to the private sector is also considered when the expenditure on health of different countries is compared. The next figure illustrates how the health system is financed in different European countries (Figure 16).

Figure 16. Share of the public sector in total expenditure on health, 2005



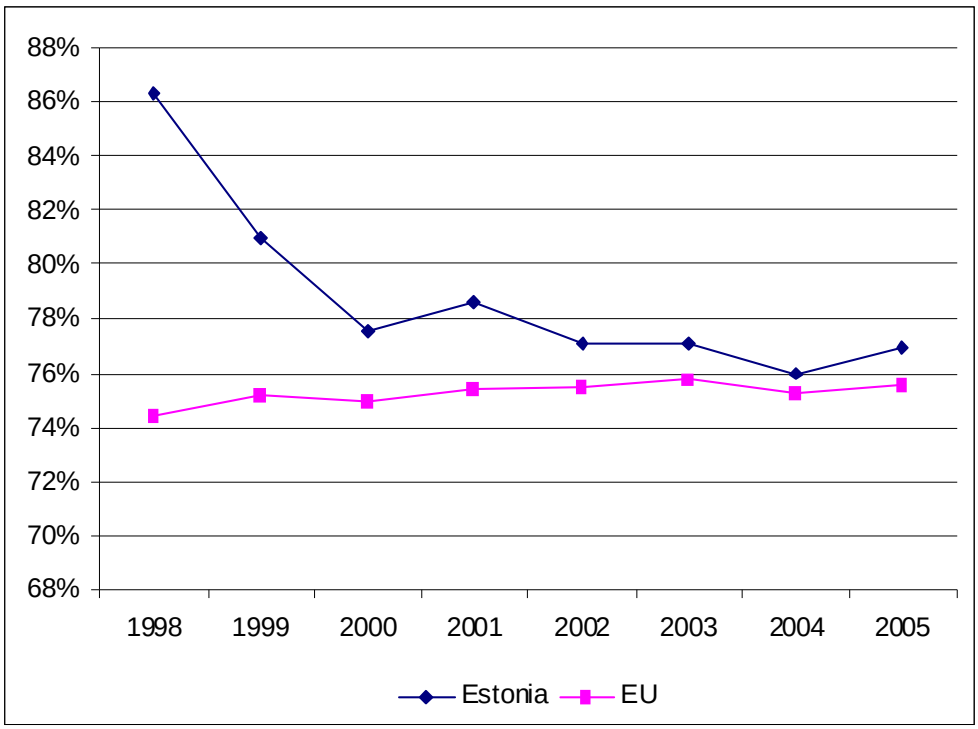
Data source: European health for all database (HFA-DB); World Health Organization Regional Office for Europe; Used: July 2009
Figure: the author

The public sector of Estonia invested 76.9% of the THE into health in 2005, which is on approximately the same level as the EU average. The public sector spends the most on health

in Luxembourg and the Czech Republic. The public sector in Austria covers only 76.5% of all health expenditure, which is just 0.4 percentage points less than in Estonia. At the same, Austria is in second place after Luxembourg in terms of per capita health expenditure.

The share of the public sector in the THE of Estonia has decreased considerably in the last nine years: it comprised 86.3% in 1998 and 77.1% in 2005. The biggest decrease occurred in the period that was economically unstable, from 1998 to 1999, but said share has been relatively stable thereafter at 76-78% and almost reached the average level of European countries. The average public sector expenditure in EU countries has also been rather stable from 1998 to 2005 (74.5% to 75.7% of the THE) (Figure 17).

Figure 17. Share of public sector expenditure in total expenditure on health, Estonia and the European Union, 1998-2005

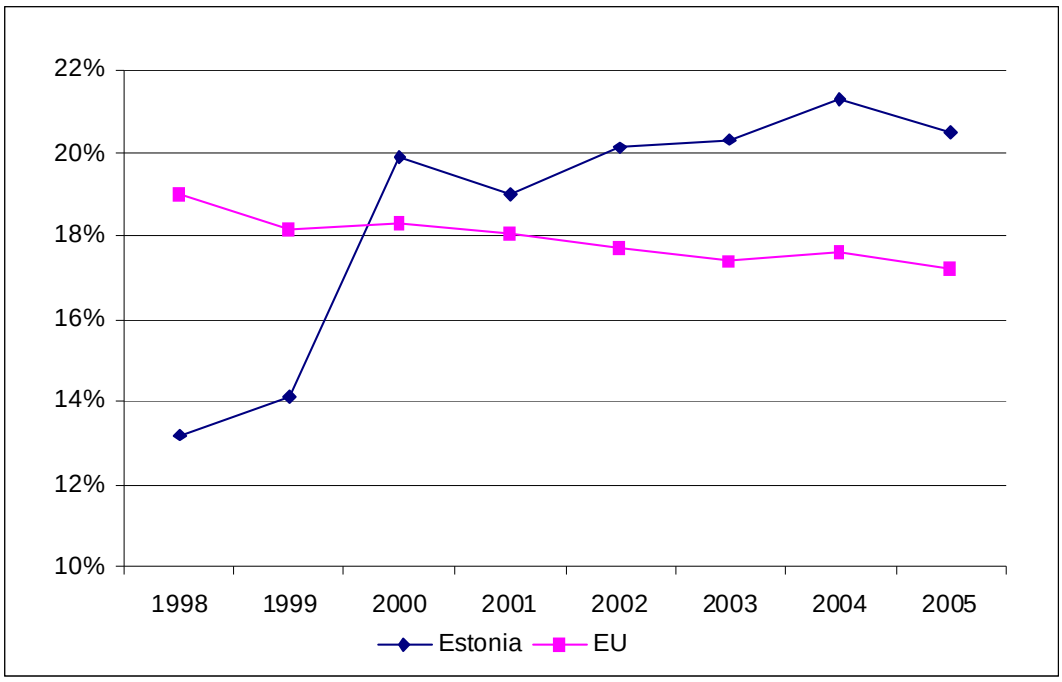


Data source: European health for all database (HFA-DB); World Health Organization Regional Office for Europe; Used: July 2009
Figure: the author[10]

The contribution of Estonian households to the THE has been higher than the EU average since 2000. The contribution of households was the lowest in 1998 (13.2%) and the highest in 2004 (21.3%).

[10] The data do not coincide with the data in Figure 5 as the data used in the course of this analysis were collected in Estonia. The Health for All database is used in international comparison, but its data may be inaccurate.

Figure 18. Share of household expenditure in total expenditure on health, Estonia and the



Data source: European health for all database (HFA-DB); World Health Organization Regional Office for Europe; Used: July 2009
Figure: the author

A slight decrease in the share of cost-sharing can been seen observed in the EU over the same period of time. In 2005, it comprised an average of 17.1% of total expenditure and in 1998, the same indicator was 19.0%.

3. TECHNICAL NOTES

3.1. Background Information

The System of Health Accounts[11] (SHA) is used to calculate THE. The analysis and tables are published on the website of the Estonian Institute for Health Development every year. Development of the Estonian THE methodology is a responsibility of the Department of Health Statistics. Since 2002, the Department of Health Statistics has been gathering and presenting data about THE in such a manner that they can be simultaneously sent to international organisations: the EU, the OECD and the WHO.

THE was calculated for the first time on the basis of the data from 1998. The methodology of the Harvard University was then used to calculate the THE. Since the Harvard methodology differs from the methodology used in some European countries, then the OECD methodology has been used since 1999.

Pursuant to the OECD methodology, THE is calculated with two-dimensional matrix tables where health expenditure is shown as follows:

- current expenditure on health according to services and their providers;
- current expenditure on health according to services and sources of financing;
- current and total expenditure on health according to services and sources of financing.

Calculation of THE is based on a system of three axes, where the ICHA (International Classification for Health Accounts) is used for calculating expenditure on health. It consists of the following parts:

- classification of health care (ICHA-HC);
- classification of health care providers (ICHA-HP);
- classification of health care financing (ICHA-HF).

[11] The System of Health Accounts has been developed by the OECD.

3.2. Definition of Total Expenditure on Health

The term 'total expenditure on health' refers to health services and products, services associated with health care and capital investments associated with health care.

Pursuant to the OECD methodology, THE is used to measure final consumption of goods and services associated with the health of residents, to which the capital formation of health care providers is added. In other words, it can be said that THE is used to measure the economic resources spent on health goods and services. In addition to health services and prevention, this amount also includes administration and capital formation, but does not include sickness benefits or the training expenses of medical staff.

When health services are classified, it is important to differentiate current expenditure on health that does not include capital formation and total expenditure, which also includes capital formation. The following division is used for classification of health services:

ICHA code:	
HC.1–HC.5	Expenditure on personal health
HC.6	Prevention and public health services
HC.7	Health administration
HC.1–HC.7	Total current expenditure on health
HC.R.1	Capital formation
HC.1–HC.7+ HC.R.1=THE	Total expenditure on health
HC.R	Health care related expenditure

According to the given scheme, expenditure on health is calculated pursuant to health services HC.1–HC.4 (total expenditure on personal health), to which function HC.5 has been added (medical goods dispensed to outpatients). Functions HC.1–HC.5 characterise expenditure on health aimed at persons. Adding HC.6 (prevention and public health services) and HC.7 (health administration) to these gives us *current expenditure on health.*

When we add investments or capital formation (HC.R.1) to the latter, we then get *THE*.

Health care related functions (HC.R) are highlighted as a separate group, but their expenses are not added to the THE to the OECD methodology (e.g. sickness benefits).

THE does not include:

- expenditure that is aimed at health, but incurred outside the health sector (for example: production of lead-free fuel, education of health care professionals);
- personal activities aimed at preservation and improvement of health (sport);
- health expenditure, which is a consequence of principal activities and not associated with people's income and does not describe the main indicators of national economy.

We also have to keep in mind that some categories of THE are known to us in greater detail than others. For example, expenditure on prevention in public health has been undervalued in this analysis. The type of the indicator will become clear when it can statistically differentiated (e.g. immunisation plan, public health policy, etc.). This means that the majority of health service providers who deal with counselling or consultations have been classified as providers of health services, not prevention services.

The labour costs of health care professionals have been calculated as part of service expenditure.

3.3. Data Sources

Sources of data used in the calculation of THE:

1. Estonian Health Insurance Fund – health insurance benefit expenditure
2. Ministry of Finance – 2007 Annual Report on Execution of LG Budgets.
3. Data of expenditure on health from the following ministries: Ministry of Education and Research, Ministry of Justice, Ministry of Defence, Ministry of Environment, Ministry of Culture, Ministry of Economic Affairs and Communications, Ministry of Agriculture, Ministry of Finance, Ministry of the Interior and Ministry of Foreign Affairs.
4. Estonian Statistics:
    a. The survey of household income and expenditure is the main source of data about the health expenditure incurred by households;
    b. The report *Rehabilitation* is the basis of the rehabilitation expenditure incurred by people.
5. Data of health expenditure from insurance companies.
6. State Agency of Medicines – turnover of medicines in hospital and retail pharmacies.
7. Health Protection Inspectorate – data associated with food, hygiene and drinking water and inspection of environmental health.
8. Institutions of occupational health – data of mandatory medical examinations of employees.
9. Database of the State Treasury – 2007 State Budget Execution Report is the source of data about the health expenditure incurred from the state budget according to ministries.
10. Departments of the Ministry of Social Affairs:
    a. Department of Finance and Asset Management – specified data about the medical treatment expenses of uninsured persons, foreign aid projects, foreign loans; operating expenses of emergency medical care and projects financed through the Ministry of Finance from gambling tax;
    b. Social Policy Information and Analysis Department – institutional reporting on social welfare.
11. Estonian Institute for Health Development – health promotion projects and programmes.
12. Estonian Red Cross – expenditure on prevention and public health.

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2. Salaries of Doctors Equalled 2.1 Times the Average Salary in Estonia Last March. – *Estonian Institute for Health Development.* http://www.tai.ee/?id=5520 (used: 25.05.2009)

3. Homepage of the Estonian Health Insurance Fund. http://www.haigekassa.ee/haigekassa/statistika (used: 25.05.2009)

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5. 2007 Annual Report of the EHIF. http://www.haigekassa.ee/files/est_haigekassa_aruanded/EHK_majandusaasta_aruanne_2007.pdf (used: 25.05.2009)

6. European Health for All Database (HFA-DB); World Health Organization Regional Office for Europe; http://data.euro.who.int/hfadb/ (used: 01.07.2009)

7. Koppel A., Kahur K., Habicht T., Saar P., Habicht J., Ginneken E. (2008). Estonia. Health System Review. – World Health Organization

8. Report on State Budget Execution. – *State Treasury*. http://rko.fin.ee/LoginCustomerPublicReply (used: 25.05.2009)