Estonian Health Care Expenditures in 2009

Ten Years Comparison

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National Institute for Health Development
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HEALTH EXPENDITURE IN ESTONIA

BRIEF OVERVIEW, 2009

1. The share of total health expenditure (THE) comprised 7% of gross domestic product (GDP).
2. Total health expenditure at current prices comprised EUR 968.7 million.
3. Compared to 2008, THE decreased by 1.5%, or nearly EUR 14.8 million.
4. Public sector expenditure on health comprised 5.3% of GDP.
5. Private sector expenditure on health comprised 1.5% of GDP.
6. Public sector expenditure on health comprised 75.3% of THE.
7. Central government expenditure on health comprised 8.6% of THE.
8. The Health Insurance Fund expenditure comprised 65.2% of THE.
9. Private sector expenditure on health comprised 20.9% of THE.
10. Households out-of-pocket (OOP) expenditure comprised 97.4% of the private sector health expenditure.
11. OOP expenditure comprised 20.3% of THE.
12. Expenditure on medical products comprised 25.8% of THE.
13. Expenditure on pharmaceuticals comprised 72.7% of the expenditure of OOP.

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INTRODUCTION

This analysis is a part of the series "Health Expenditure in Estonia", published by the National Institute for Health Development. The current analysis provides a brief overview of health expenditure[1] in 2009 in a comparison over the last ten years. As a result, it does not follow the same structure as previous analyses of the same series.

The objective of the analysis is to give information about how the health care system is financed through different sources of funding, providers of health services and the services, using the methodology developed by the OECD (Organisation for Economic Cooperation and Development) – System of Health Accounts (SHA)[2]. According to SHA, health expenditure 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. However, total health expenditure (THE) does not include the expenditure of teaching, health research and development, environmental health and other services, where the principal activity is not improvement of health. The analysis only includes expenditure on inhabitants of Estonia. It means that THE does not reflect the expenditure of health services provided to foreigners and the expenditure of medical goods purchased by foreigners.

The report can be used by all institutions and persons interested in the sphere of health funding, and by the wider public. The author is grateful to all the people who provided information and helped to prepare this analysis. A particular thanks goes to my colleagues Ingrid Valdmaa, Mare Ruuge and Harles Luts, who made some technical corrections and submitted their comments on the content.

[1] The terms 'total health expenditure' and 'health expenditure' are used as synonyms in this analysis. Similarly, the terms 'expenditure' and 'expenses' are used as synonyms.
[2] The OECD methodology – System of Health Accounts (SHA) or National Health Accounts (NHA) – is used in more than 100 countries.

1. FINANCING OF TOTAL HEALTH EXPENDITURE

The year 2009 was very difficult for Estonia's economy due to recession. Gross domestic product (GDP) and total health expenditure (THE) both decreased for the first time in the last ten years. At the same time, health expenditure was significantly less affected by the crisis than Estonia's economy in general. Namely, total health expenditure decreased only by 1.5% while GDP dropped by 13.9%. As a consequence, THE reached the level of 7% of GDP. This is the highest share of total health expenditure in the last decade (Table 1). The fast increase of THE as a percentage of GDP had already started in 2008, when a step up was made from the relatively stability of the previous eight years at a level around 5%.

Table 1. **GDP and THE at current prices and THE and public sector health expenditure as percentage of GDP, 2000–2009**

Year	GDP	THE	THE as percentage of GDP	Public sector health expenditure as percentage of GDP
	million EUR	million EUR	%	%
2000	6,159.8	328.9	5.3	4.1
2001	6,970.9	342.2	4.9	3.8
2002	7,776.3	380.9	4.9	3.7
2003	8,718.9	435.4	5.0	3.8
2004	9,685.3	497.4	5.1	3.9
2005	11,181.7	561.6	5.0	3.9
2006	13,390.8	671.8	5.1	3.7
2007	16,069.4	829.1	5.3	4.0
2008	16,304.2	983.5	6.1	4.8
2009	13,839.6	968.7	7.0	5.3

Source: Statistics Estonia, NIHD DHS[3]

However, it is very likely that the share of THE in GDP will stabilise or even decrease in the next two or three years. This would be caused by economic recovery and decrease of health expenditure as the government tries to balance the budget.

[3] National Institute for Health Development, Department of Health Statistics

In all years of the past decade, Estonia's total health expenditure as percentage of GDP has been one of the lowest in the European Union (Table 2). Only Romania had an even lower percentage (3.9% in 2000 and 4.5% in 2008).

Table 2. **THE as percentage of GDP in the European Union, 2000, 2008, 2009**

Country/Year	**2000**	**2008**	**2009**
	%	%	%
Austria	9.9	10.4	11.0
Belgium	8.1	10.1	10.9
Czech Republic	6.5	7.1	8.2
Cyprus	5.8	6.2	..[4]
Denmark	8.7	10.3	11.5
Estonia	**5.3**	**6.1**	**7.0**
Finland	7.2	8.4	9.2
France	10.1	11.1	11.8
Germany	10.3	10.7	11.6
Greece	7.9	..	..
Hungary	7.0	7.2	7.4
Ireland	6.1	8.8	9.5
Italy	8.1	9.0	9.5
Latvia	4.8	7.5	..
Lithuania	6.0	6.6	..
Luxembourg	7.5	6.8	7.8
Netherlands	8.0	9.9	12.0
Poland	5.5	7.0	7.4
Portugal	9.3	10.1	..
Romania	3.9	4.5	..
Slovakia	5.5	8.0	9.1
Slovenia	8.2	8.4	9.3
Spain	7.2	9.0	9.5
Sweden	8.2	9.2	10.0
United Kingdom	7.0	8.8	9.8
EU	8.04	9.2	9.9

Source: European health for all database (HFA-DB); World Health Organization Regional Office for Europe

The largest increase in the share of THE in GDP was recorded in our neighbouring Latvia. Having started out in 2000 almost at the same level as Estonia – 4.8%, Latvia was able to achieve an average annual increase by 6.5%, and was in 2008 approaching the level of 7.5 as the percentage of THE in GDP.

Compared to 2008, Estonia's THE increased in 2009 by one per cent at constant prices. However, at nominal prices, THE decreased from EUR 983.4 million in 2008 to EUR 968.7 million in 2009. The main reason for the decrease in health expenditure was reduction of public sector expenditure, with an annual decrease of 4.7%. The public

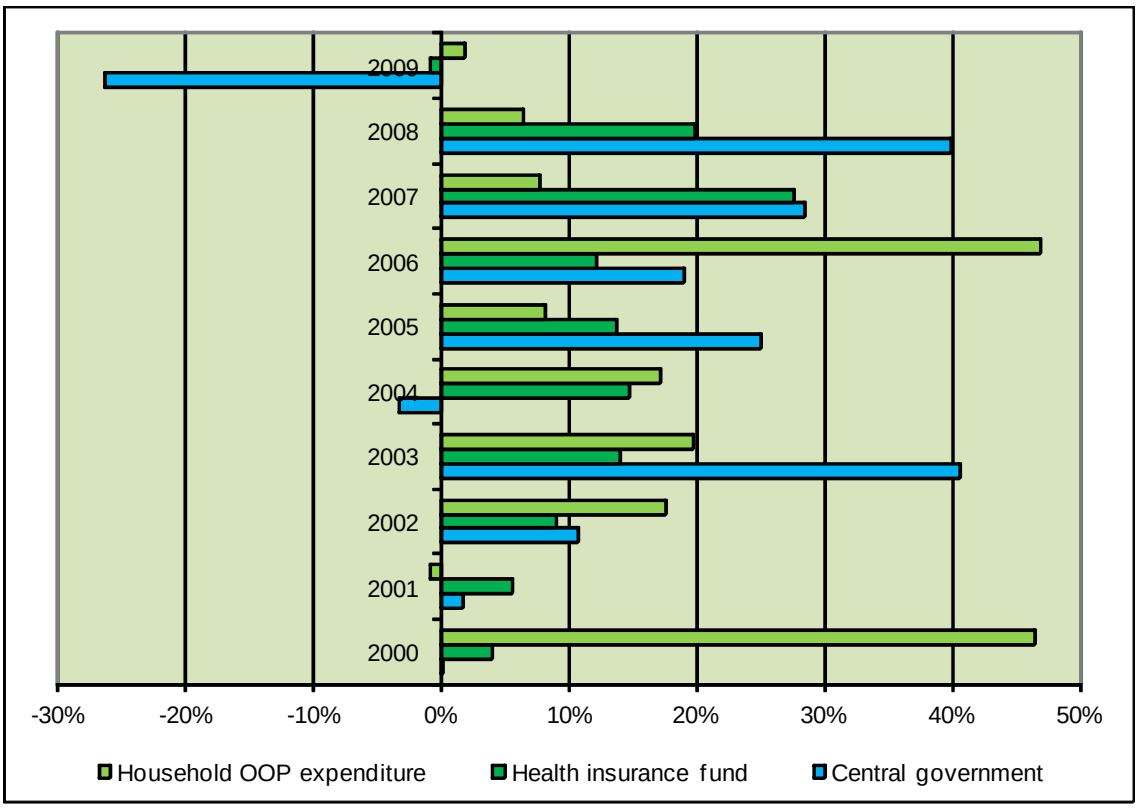
[4] Data unavailable

sector expenditure on health decreased primarily due to reduction of central government expenditure by 26.3%. This is a reflection of the period of economic recession and implementation of national expenditure control policies.

Owing to the structure of Estonia's health care system, the public sector was again the largest financier of THE, with 75.3% of THE. This was followed by the private sector at 20.9% and rest of the world at 3.9%.

Household out-of-pocket expenditure comprised the biggest share of private sector health expenditure with 97.4%. This was also the only source of financing for health expenditure (except for the rest of the world) where the amount of financing increased in 2009 (Figure 1). At a time when the public sector reduced its expenditure, individuals were forced to increase their share in the financing of necessary health services and medical products.

Figure 1. **Changes in health expenditure of the Central government, the Estonian Health Insurance Fund and households OOP, 2000–2009**



Data source: NIHD DHS

In 2009, people spent 1.8%,[5] or EUR 3.5 million, more on health care from their own pockets than in 2008. This makes, on average, three euros more per inhabitant than in 2008. However, the increase in that year was the lowest of the entire past decade.

The only instance of decrease in health expenditure of households was recorded in 2001 and was only marginal at – 0.9%. The fastest increase in household expenditure occurred in 2006, when both the Estonian Health Insurance Fund and the government only increased their health expenditure by a very small margin.

The expenditure of the rest of the world has risen very rapidly over the past decade, but there has been no stability in this field during the period considered (Table 3). This is due to the fact that financing from funds and other foreign sources is not decisive for Estonia's total health expenditure and, consequently, it has been irregular and sometimes difficult to budget. All health expenses financed from foreign sources have been budgeted through the state budget and allocated by the government, more specifically, the Ministry of Social Affairs.

Table 3. **Health care expenditure from the rest of the world, 2000–2009**

Year	thousand EUR
2000	1,035
2001	0[6]
2002	0[6]
2003	261
2004	2, 256
2005	1, 613
2006	4, 041
2007	9, 421
2008	15 ,141
2009	37, 654

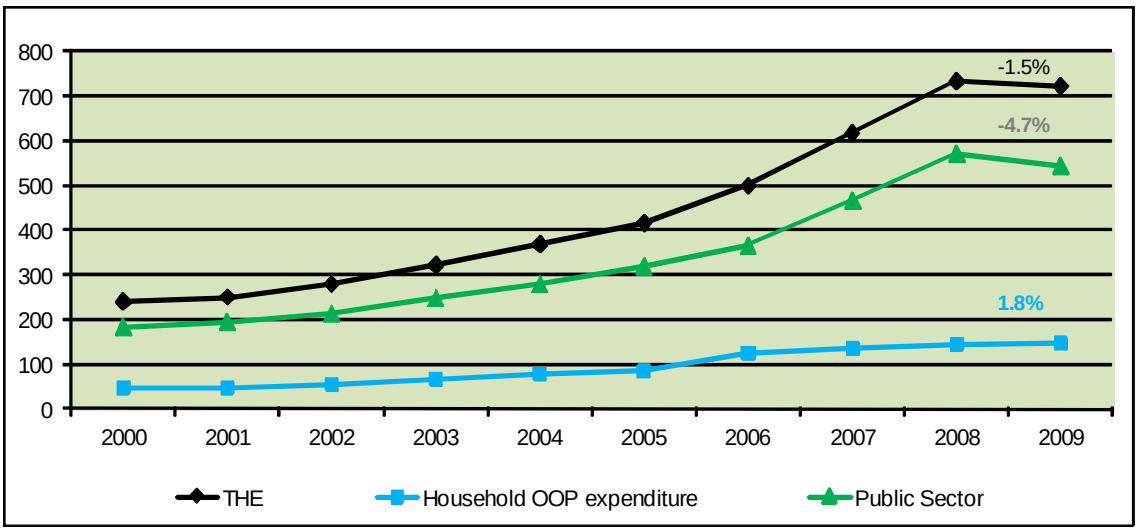
Data source: NIHD DHS

Compare to 2008 health expenditure from abroad increased 2.5 times in 2009. The main reason for the increase was an upsurge in capital expenditure due to development of the hospital network, i.e., implementation of construction and reconstruction projects for hospital buildings.

[5] The average wages in the country, however, decreased almost 5% from 2008.
[6] Value of the indicator less than half of the unit used.

In OECD countries, health expenditure per capita increased, on average, by 3.8% in 2008 and 3.5% in 2009. The increase of public health expenditure was even faster, at an average of 4.8% in 2008 and 4.1% in 2009. In Estonia, health expenditure per inhabitant increased as well during the period 2000–2008 (Figure 2), but both THE and public expenditure per capita decreased in 2009. While the rate of increase of THE per inhabitant in Estonia was several times higher than the OECD average, amounting to 18.7%, this indicator even decreased by 1.5% in 2009. The decrease of public sector health expenditure was even steeper at 4.7%.

Figure 2. **Total health expenditure, Public Sector and households OPP expenditure of per capita, 2000–2009 (EUR)**



Data source: NIHD DHS

The increase in household expenditure has continued in the majority of OECD countries, but at a slower rate (1.9% in 2008 and 2.7% in 2009). Similarly, in Estonia, the increase in household health expenditure per capita was slower than the increase in public sector expenditure, but it continued to increase even in 2009.

2. EXPENDITURE ON HEALTH SERVICES

Health expenditure is influenced by various factors: restrictions of the health care systems, for instance, access to medical care, use of hospital beds, number of health care professionals, availability of new medical equipment, health financing schemas and institutional arrangements, as well as disease burned and clinical methods used in a country. Recession is always a period when the government has to increase cost-efficiency, i.e., receive more value for its health expenditure. At the same time, it is important to retain stability and continue movement towards long-term-goals even during recession. This would ensure more balanced and efficient development of the health care system.

The year 2009 was characterised by decreased usage of certain health services. For instance, the number of outpatient visits fell by 3.8% and the number of hospitalisations by 4.6% from the previous year. The distribution of the decrease in the number of outpatient visits was uneven between different service providers. Provision of this service decreased 9.4% in outpatient specialised medical care institutions, 2.8% in general medical care institutions and also 2.8% in hospitals. However, the number of day cases of curative care and emergency medical care cases remained at the level of 2008. The number of visits to dentists has been decreasing steadily since 2006. The average number of dentist visits per capita was 1.5 in 2008 and 1.4 in 2009.[7]

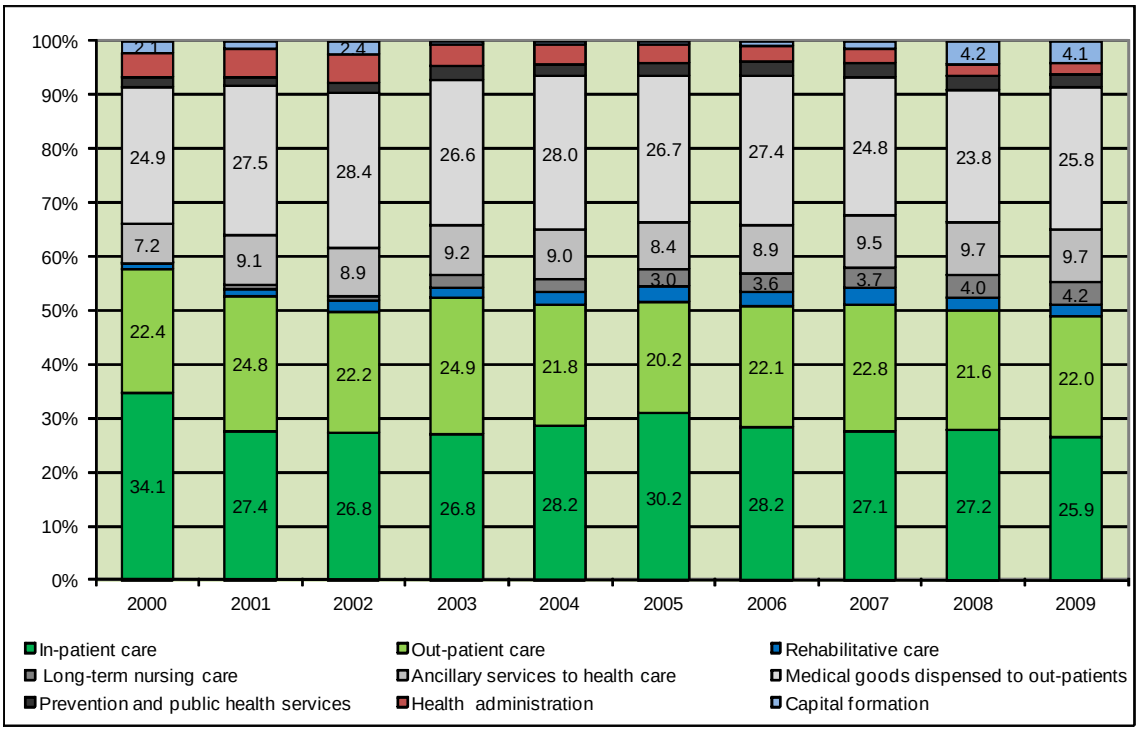
The pattern of distribution of expenditure on health services has not changed considerably over the past ten years. The Estonian health care system is geared towards active treatment services as illustrated by Figure 3. Active treatment services include treatment of hospitalised patients and outpatient curative care and they comprise the largest part of health services.

Expenditure on long term nursing care started to increase continually in 2005, which is a reflection of ageing of the population, leading to increased need for nursing care services. This coincided with a change in the regulatory sphere, particularly the salary agreement between the Government of the Republic, the Estonian Hospitals Association and the Estonian Medical Association, which stipulated an increase in reference prices

[7] Data source: Health Statistics and Health Research Database, http://www.tai.ee/tstua.

of nursing care, incl. an increase of the reference price for a bed day in nursing care by almost 18%.

Figure 3. **Distribution of expenditure on health services, 2000–2009**



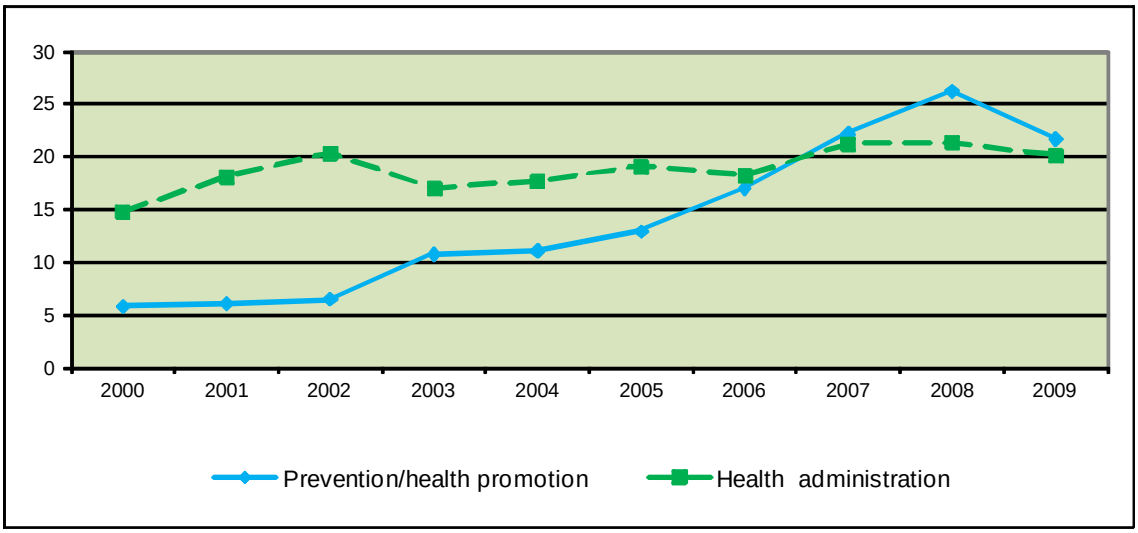
Data source: NIHD DHS

The share of expenditure on ancillary health services (laboratory tests, emergency medical care, etc.) has remained unchanged at an average of 9.7% of THE. The share of capital investments in total health expenditure started to increase in 2008, when the amount of allocations for hospitals of the hospital network was significantly increased.

A positive trend has been the decrease in the share of health administration expenditure, comprising largely operating expenses of the Ministry of Social Affairs and the Health Insurance Fund, over the ten years (4.5% of THE in 2000 and 2.1% in 2009). At the same time, the share of expenditure on prevention has increased (1.8% of THE in 2000 and 2.2% in 2009).

Figure 4 indicates that, while the amount spent on health administration exceeded the amount spent on prevention by three times in 2000, the expenditure on prevention has been surpassing the expenditure on system administration since 2007. This demonstrates the priorities of the country.

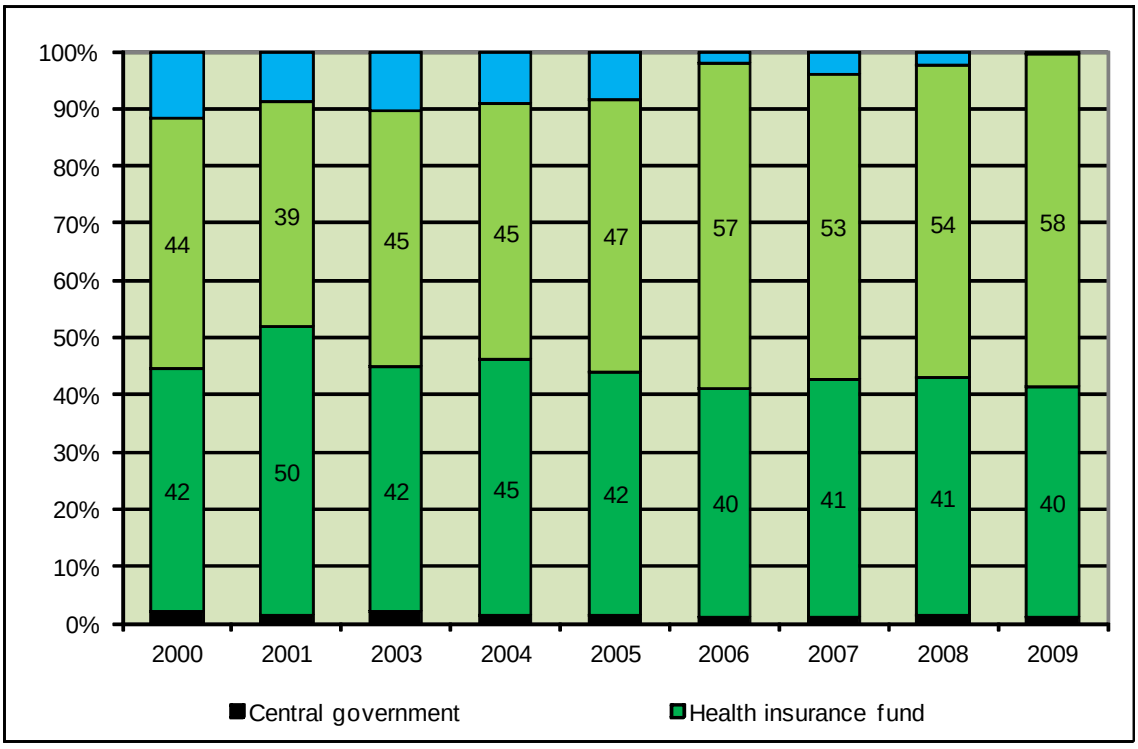
Figure 4. **Expenditure on prevention/health promotion and health administration, 2000–2009 (million EUR)**



Data source: NIHD DHS

The expenditure of pharmaceuticals constitutes almost one quarter of total health expenditure (Figure 3). In 2009, the share of households in financing the expenditure of medicines reached almost 60%, which is the highest level of the past few years (Figure 5).

Figure 5. **Sources of financing for the expenditure of pharmaceuticals, 2000–2009**



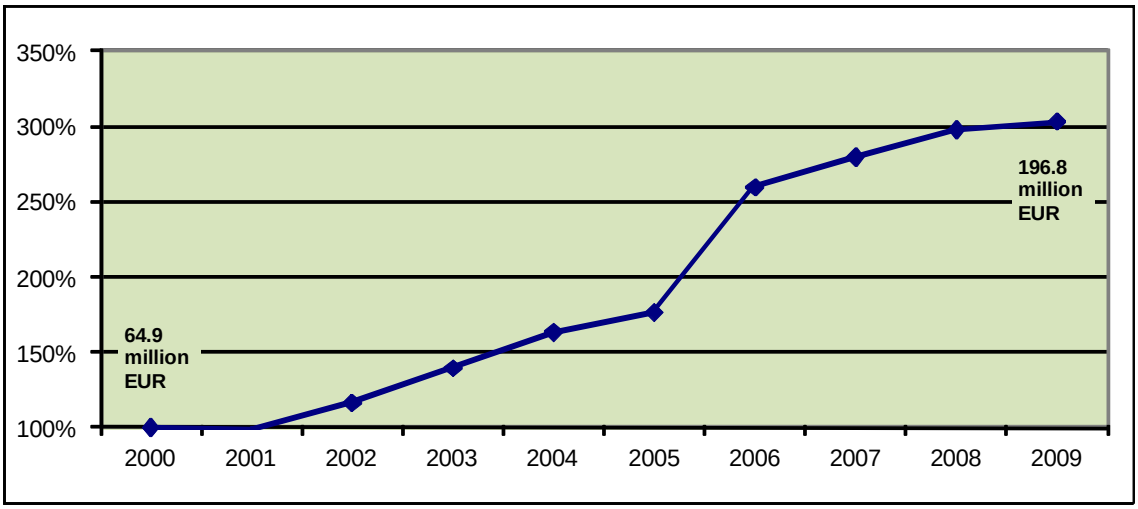
Data source: NIHD DHS

Despite the complicated economic situation, a characteristic increase in expenditure on medicinal products occurred in 2009. The corresponding expenditure of households increased as well, compared to 2008: the increase was 20.2% in case of prescription medicines, amounting to a total of over EUR 97 million, and 16.7% in case of over the counter (OTC) medicines, amounting to almost EUR 34 million. This increase was caused by a general rise in the use of pharmaceuticals, as well as the new VAT rate on medicines, which took effect in 2009.

3. HEALTH EXPENDITURE OF HOUSEHOLDS

Health expenditure of households as percentage of THE has not changed considerably over the past ten years. In 2009, cost-sharing expenditure comprised nearly 20.3% of THE, as has been the case during the entire period (19.7% in both 2000 and 2008). Estonia's indicator is slightly above the EU average (18.4% in 2000 and 16.4% in 2008).

Figure 6. **Change in health expenditure of households from the year 2000, 2001–2009**



Data source: NIHD DHS

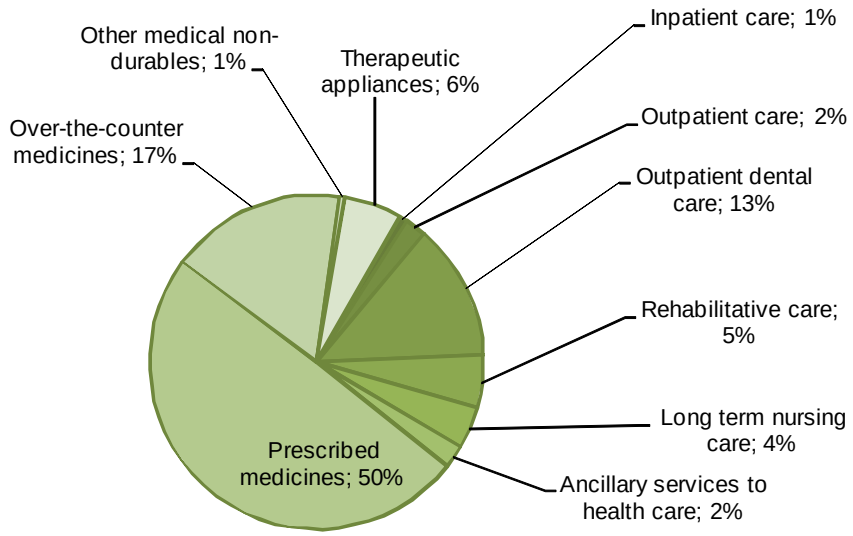
Health expenditure of households has increased in all European countries. Compared to 2000, we can see a tripling of health expenditure of Estonian households (Figure 6).

While the amount of household out-of-pocket expenditure was EUR 64.9 million at the beginning of the century, it had risen to EUR 196.8 million by 2009. This means that every inhabitant of Estonia paid 100 euro more for health services and products in 2009 than they did in 2000.

Figure 7 provides an overview of distribution of household OOP expenditure between different health services. The figure indicates that households spent nearly three quarters of their health budget on medicinal products, incl. 50% on prescription medicines and 17% on over the counter medicines.

Dental care is another major expense item, as the state (incl. the Estonian Health Insurance Fund) does not generally finance dental care for adults. On the other hand, services, which are largely financed from the state budget or the budget of the Health Insurance Fund (such as inpatient curative care, outpatient curative care, ancillary services, etc.), comprise only a marginal part of health expenditure of households.

Figure 7. **Health expenditure of households by health services, 2009**



Data source: NIHD DHS

This expenditure structure has not changed significantly in recent years (Table 4). Households have always spent the most money on medicinal products and dental care. The only notable change can be seen in expenditure on long term nursing care. While households spent almost nothing at all on nursing care in 2003, it had become a significant article of expenditure by 2009.

Generally, household expenditure on health services has increased 1.8% from 2008 and 123% from 2003. Comparing the years 2003 and 2009 by types of expenditure, we can see that the expenditure has increased in almost all service categories in terms of both nominal prices and percentages. Outpatient services were the only category where the expenditure has decreased. Households spent nearly one quarter less on outpatient services in 2009 than in 2003.

Table 4. **Household health expenditure and changes by health services, 2003, 2008 and 2009**

Type of service	**2003**	**2008**	**2009**	**Change 2003/2009**	**Change 2008/2009**
	thousand EUR	thousand EUR	thousand EUR	%	%
Inpatient curative care	643	1,508	1,317	105	-13
Outpatient curative care	5,291	5,569	4,112	-22	-26
Dental care	22,633	29,950	26,179	16	-13
Rehabilitation	4, 859	14,927	9,859	103	-34
Long term nursing care	0	7,175	8,013	463	12
Ancillary health services	729	5,189	4,335	495	-16
Medical goods	53,431	129,000	142,976	168	11
Pharmaceuticals and other non-durable medical products,	46,960	110,795	132,035	181	19
incl. prescription medicines	33,764	81, 09	97,453	189	20
incl. OTC medicines	12,594	28,750	33,551	166	17
Therapeutic equipment and other durable medical products	6,471	18,205	10,942	69	-40
Total health expenditure of households	**90,538**	**193, 317**	**196,791**	**117**	**2**

Data source: NIHD DHS

In comparison to 2008, only expenditure on medical products (incl. prescription and OTC medicines) and on long term nursing care increased in 2009. The expenditure on all other types of services decreased, which can be explained by recession and decreased purchasing power, as well as ageing of society and increased use of pharmaceuticals.

DATA SOURCES

The data sources used for THE calculations are listed below. Depending on source, data was presented on standard forms or in a custom format.

1. Estonian Health Insurance Fund – expenditure on health insurance benefits.
2. Ministry of Finance – 2009 report on local government budget implementation.
3. Health expenditure of ministries: Ministry of Education and Research, Ministry of Justice, Ministry of Defence, Ministry of the Environment, Ministry of Culture, Ministry of Economic Affairs and Communications, Ministry of Agriculture, Ministry of Finance, Ministry of the Interior, Ministry of Foreign Affairs
4. Statistics Estonia:
    a. Survey of household income and expenditure (2009 data are projections);
    b. The report “Rehabilitation” is the source of data on rehabilitation expenditure incurred by people.
5. Data on health expenditure from private insurance companies:
    a. AAS Gjensidige Baltic Estonian branch
    b. Public limited company SEB Elu- ja Pensionikindlustus
    c. AS Inges Kindlustus
    d. BTA Estonian branch
    e. Compensa Life Vienna Insurance Group SE
    f. ERGO Life Insurance SE Estonian branch
    g. ERGO Kindlustuse AS
    h. If P&C Insurance AS
    i. Mandatum Life Insurance Baltic SE
    j. QBE Insurance (Europe) Limited Estonian branch
    k. Salva Kindlustuse AS
    l. Seesam Rahvusvaheline Kindlustuse AS
    m. Swedbank Life Insurance SE
    n. RSA Kindlustus
6. State Agency of Medicines – turnover of medicines in hospital and retail pharmacies.
7. Health Board – data on health expenditure of the Health Care Board, the Health Protection Inspectorate and the Chemicals Notification Centre: the expenditure of provision emergency medical care services, prevention of infectious and non-

infectious diseases, environmental health, epidemiological surveillance, laboratory tests of samples, monitoring of social care institutions and chemical and product safety, tests of bathing water and air.

8. Institutions of occupational health – data on mandatory medical examinations of employees.
9. Database of the State Treasury – 2009 State Budget Execution Report is the source of data on the health expenditure incurred by the Ministry of Social Affairs.
10. Departments of the Ministry of Social Affairs:
    a. Department of Finance and Asset Management – specified data on medical treatment expenses of uninsured persons, foreign aid projects, foreign loans; projects financed through the Ministry of Finance from gambling tax;
    b. Social Policy Information and Analysis Department – institutional reporting on social welfare.
11. National Institute for Health Development – health promotion projects and programmes.
12. Estonian Red Cross – expenditure on prevention and public health.

REFERENCES

1. Pharmacy Statistics, State Agency of Medicines, http://www.ravimiamet.ee, accessed on 21.10.2011
2. Annual Reports of the Estonian Health Insurance Fund, 2000-2009. http://www.haigekassa.ee/haigekassa/aruanded, accessed on 21.10.2011
3. Pikaajalisi töötuid on järjest enam (*Long-term unemployment increasing*) – Statistikablogi, a blog of Statistics Estonia. http://statistikaamet.wordpress.com/2010/04/13/pikaajalisi-tootuid-on-jarjest-enam/, accessed on 5.04.2011
4. Health Insurance Act – Electronic State Gazette. https://www.riigiteataja.ee/akt/117022011004, accessed on 04.04.2010
5. Social Tax Act – Electronic State Gazette. https://www.riigiteataja.ee/akt/SMS, accessed on 04.04.2010
6. Health Services Organisation Act – Electronic State Gazette. https://www.riigiteataja.ee/akt/965572, accessed on 12.04.2011
7. Health Statistics and Health Research Database, http://www.tai.ee/tstua, accessed on 21.10.2011
8. OECD database, http://stats.oecd.org/index.aspx, accessed on 21.10.2011
9. WHO database, HFA, http://data.euro.who.int/hfadb/, accessed on 21.10.2011