



# Health system financing in Estonia: situation and challenges in 2005

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## ABSTRACT

In recent years, concern has grown about the sustainability of health system financing in Estonia. Nevertheless, no systematic overview of the health financing system has been available to serve as a basis for comprehensive discussions. This case study aims to fill this gap using a framework for country-level analysis of health care financing arrangements proposed by Kutzin (2001). The framework distinguished three subfunctions that all systems perform:

- collecting revenue that is ultimately used to purchase health services;
- pooling these funds: how the financial flows are organized; and
- purchasing, which describes the interaction between the intermediaries who manage the prepaid and pooled funds and those who deliver the services.

The executive summary gives an overview of the health financing system, underlines the challenges it faces and suggests possible way to move forward. The rest of the document is organized in three sections that describe in turn how each health financing function was organized in Estonia in early 2005.

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## **Introduction: WHO framework for analyzing health systems and health financing**

WHO (2000) has identified three generic goals that all health care systems should seek to achieve: improving the health of the population, achieving responsiveness and providing protection against the financial burden associated with health care expenditure while distributing the burden of funding in a fair way. A fourth goal, efficiency, transverses the previous ones: they should be attained in a way that gives the best result given the available resources.

Several interdependent functions need to be performed for the system to achieve these goals:

- providing services: personal and public health services need to be produced;
- generating resources: human and physical resources have to be created and developed;
- financing: funding and incentives must be organized; and
- stewardship: the whole system must be strategically managed and led.

Of these four functions, the present discussion focuses on health financing, which is at the core of the current debates in Estonia.

Kutzin (2001) proposed a framework to analyse health care financing arrangements that distinguishes three sub-functions:

- collecting revenue that will ultimately be used to purchase health services;
- pooling these funds: how the financial flows are organized, and
- purchasing of health services, which describes the interaction between the intermediaries who manage the prepaid and pooled funds and those who deliver the services.

The executive summary underlines the main challenges the health financing system faces and proposes further improvements. These suggestions reflect WHO's overall vision of specific policy objectives for health financing:

- promoting access to care and protecting against financial risk;
- promoting solidarity by distributing the burden of funding the system relative to individual capacity to contribute and by distributing health care services and resources in accordance with individual need;
- promoting efficiency through explicit incentives and streamlined administrative arrangements; and
- being transparent and understandable.

## **Executive summary and recommendations**

In 2003, total health expenditure in Estonia represented about 5.4% of gross domestic product (GDP), a level comparable to that of other middle-income countries. However, 75% of this expenditure is public, a funding mix that is closer to that of more affluent countries. Indeed, lower- and middle-income countries tend to rely more heavily on out-of-pocket payments at the point of care, which greatly undermines their capacity to provide financial protection to their population.

Despite its income level, Estonia is therefore in a good position to achieve one of the main objectives of a health care system: to protect citizens from an excessive individual burden from the cost of care and to ensure that resources and services are distributed according to need.

### **Challenges and recommendations for improving financial protection for the population**

The vast majority of the population, including children and elderly people, is covered by a public and compulsory health insurance scheme. Uninsured people, who represent about 6% of the population, consist mainly of low-income men who either are long-term unemployed or work in the informal sector. The government is responsible for funding emergency care for them, but in the long term, it would be advisable to better integrate them into the system and to ensure that they can access care early, at the primary care level, and not necessarily solely in an emergency situation.

Even if health expenditure continues to be funded mainly from public sources, the government share of total health spending has been declining in recent years. Unlike in many countries in this region, this decline is not a consequence of a collapse of the fiscal system and general cuts in public expenditure. Rather, the government appears to have been steadily setting priorities away from health. Since 1998, total real public expenditure has been increasing at about the same pace as the GDP (about 30% between 1998 and 2003). In contrast, the increase in real health expenditure in the public sector has been one third of this (10% between 1998 and 2003). Thus, health expenditure has comprised a decreasing share of total public expenditure (from 13% in 1998 to about 11% in 2003). Various studies (Jesse et al., 2004; Suhrcke, 2004) using a variety of health status measures show that Estonia's health performance is lagging behind that of other countries that became members of the European Union on 1 May 2004. In particular, the HIV/AIDS epidemic is posing a challenge that largely remains to be addressed. This does not mean that more public funds should pour indiscriminately into the health system. Nevertheless, addressing these health issues will most likely require some specific priorities to be established and funded sustainably while respecting global macroeconomic constraints. The main challenge will be to use the funds in a way that improves overall population health and financial risk protection, in particular by establishing a set of incentives for all actors in the system that are aligned with these objectives.

The main driving force behind the 26% real increase in total money raised for health in the past five years has been out-of-pocket payments, which have nearly doubled in real terms. What really matters is not the funding mix per se but rather the capacity of the system to limit financial barriers to the use of care and to avoid the most vulnerable people bearing a disproportionate burden. A recent study (Habicht et al., 2005) showed that, in 2002, nearly 1.5% of the population fell under the poverty line because of out-of-pocket payments for health care and that more than



7% of the population, concentrated among the people with low income, spent more than 20% of their non-subsistence income on health. Comparing 1995, 2001 and 2002, the study also shows that the situation has worsened over time and that the main source of the problem seems to be outpatient expenditure on medicines by lower-income elderly people. Since then, the co-payment policy has been changed, and although measures to provide additional protection for pharmaceutical expenditure have been put in place, their effectiveness has not yet been measured. Worryingly, however, the average level of out-of-pocket payments increased even further (from €48 annually per household member in 2002 to €72 in 2003). In other words, we believe that there is sufficient cause for concern, particularly with regard to the trend, and that this issue should be brought to the attention of Estonian policy-makers. Although increasing government health spending alone will not solve the problem of improving financial protection for poor people, the success of reforms to improve financial protection, such as targeted exemptions from co-payment, will probably have to be supported by increased public spending to “purchase” this extra protection for poor people. In general, closely monitoring the impact of out-of-pocket payments on individuals would be useful, especially if the funding mix is going to shift further in favour of private funding.

Relying on voluntary insurance to improve the distribution of the burden of private payments in the population is not a good solution. First, experience shows that developing a private insurance market is a very slow process. Second, and more importantly, private insurance is predominantly taken up by more affluent individuals and, unless it is heavily regulated, people who are in poor health face important barriers to accessing it. In other words, unregulated private insurance is not a good tool for improving the equity of funding in a health care system. Considering whether private insurance take-up should be encouraged and the market regulated, which means using public resources to try to overcome these limitations, requires paying attention to whether alternative uses of public funds may more efficiently achieve these objectives.

### **Estonian Health Insurance Fund: the main pooling institution in the system**

Most public revenue for health is pooled in the Estonian Health Insurance Fund (EHIF), which is responsible for purchasing care on behalf of the insured population. The EHIF is an independent public agency that operates under strict financial rules and is obligated to maintain financial reserves to be able to meet its obligations every year. The expenditure of the health insurance fund results from a mix of open-ended and legal obligations (such as reimbursing drugs, paying sick leave and maintaining reserves) and other commitments, which mostly pertain to funding health care services. The level of funding available for health care services essentially depends on the amount left once other obligations have been met. This system enabled the EHIF to mitigate the impact of the macroeconomic crisis of the late 1990s, but it also partly explains why health expenditure in the public sector remained stable afterwards: the reconstitution of reserves was a priority for the EHIF. In essence, the EHIF has played a key role in keeping government health expenditure under control in Estonia while concurrently avoiding the accumulation of deficits over time. Very few countries have managed to accomplish this. The disadvantage is that the Fund can be viewed as “responsible” for rationing or keeping prices down, a position that is probably politically difficult to sustain, especially when providers are putting pressure on the government to obtain higher remuneration.

Most EHIF revenue comes from earmarked contributions levied on the working population. Given the scope of health insurance and the fact that large categories of the population are insured statutorily (such as children and elderly people) without a defined source of funds for these groups, resources are being massively redistributed from those who are employed to those who are not. In fact, half the insured people are considered non-contributing, which means that they are benefiting from this implicit redistribution.

Relying solely on wage-based contributions may create some distortions and undermine the financial fairness of the system. Labour is the main source of household income in Estonia (66% in 2003). But as the economy grows, income sources tend to differentiate, and the income of higher-income people typically tends to be decreasingly based on wages. The fact that everyone 65 years and older is exempted from contribution regardless of their actual income may also not be fair. Thus, regularly estimating and monitoring whether and how what people earn and what they contribute are correlated would be interesting, regardless of the source of income. The fundamental reason why this is important, and this applies to issues other than health care insurance, is that how revenue is raised affects a system's political sustainability. In the long term, the perception that a small category of people pays for everyone else can only weaken support for the public system. Given how the EHIF is funded, this question is almost certain to arise sooner than later.

Interestingly, Estonia is somewhat of an exception in this respect, in spirit at least. Many countries explicitly provide for some institution (a pension fund, unemployment fund or general government budget revenue) to contribute on behalf of the non-contributing insured people (Normand & Busse, 2002; Busse et al., 2004). Such an arrangement signals that the burden is more broadly shared and that the responsibility is collectively assumed for funding those who cannot pay. In Estonia, the government does contribute on behalf of 4% of the population, but this is an exception. Having a "social insurance system" does not imply that it should solely be funded by wage-based contributions, even if these instruments have historically been used simultaneously. In western Europe, for example, Germany and the Netherlands are the only countries in which wage-related contributions comprise more than 60% of total health spending (Busse et al., 2004). Thus, the debate on labour cost can be disconnected from that on the level of public resources that flow into a social insurance fund. If more public resources are needed, whether to address specific diseases, to better protect some people from high expenditure, to provide full EHIF coverage for uninsured people or to fund the access of an ageing population, this does not mean that contribution rates have to increase.

Other agencies pool public revenue, in particular the Ministry of Social Affairs and municipalities, but they play a much smaller role than the EHIF, which is responsible for 87% of public expenditure on health. Municipal expenditure actually represents only 1% (2003) of total health expenditure. This situation results from a combination of factors: their responsibilities are somewhat loosely defined, and their capacity and willingness to actually address them appears limited. Although this may not be among the top priorities, clarifying the situation and injecting some accountability at this level would be useful in the long term.

In any case, a critical and positive feature of the current health financing system in Estonia is the fact that a single agency, the EHIF, pools most public resources. Having a single broad pool helps to achieve a number of important objectives.

First, it promotes equity and solidarity by disconnecting who pays (and how much they pay) from who benefits from available services (and the extent to which they use needed services). In

systems where independent funds are responsible for covering separate segments of the population, setting up a redistribution system across pools has proven to be both difficult and costly. As noted above, this separation still exists for uninsured people; their care is funded mainly by the central government budget and to a lesser degree by municipalities. The EHIF actually administers the state budget transfers for uninsured people but in a separate pool from the revenue for the rest of the population. Pooling this revenue on behalf of the entire population would facilitate an even greater degree of equity and solidarity in the health financing system, especially if the benefit package for uninsured people becomes identical to that of the whole population, as we believe would be advisable. The resources currently allocated to providers for the care they deliver to uninsured people do not seem to be high enough to cover their cost, and some degree of cross-subsidization is therefore probably taking place at the provider level. If this is true, then we would recommend that funding be adjusted, as the providers should not be bearing the financial risk of treating uninsured people.

Further, having a single pool for the population also creates a good purchasing environment. When separate insurers cover separate segments of the population, this also means that each insurer has to purchase care for its own population. Putting aside the issue of equity, a specific and complex regulatory framework is needed to promote an environment for the multiple purchasing organizations to establish coherent remuneration schemes that give proper incentives for the providers. Perhaps more simply, the presence of multiple payers dilutes purchasing power relative to what could be (and is currently being) achieved by a single agency such as the EHIF in Estonia.

In addition, a single pool also facilitates the allocation of resources according to need. When separate organizations are responsible for allocating funds to different segments of the health care system (either parallel systems or different categories of providers), they tend to compete with each other for resources and also try to shift responsibility for paying for care to the other organizations. Again, experience shows that mechanisms for reallocation across segments are difficult to implement effectively. This type of fragmentation is limited in Estonia, as the EHIF purchases most care, except for ambulance care. Some efforts are also made to direct resources according to need. Most resources are allocated among regions based on crude capitation, but the regional branches of the EHIF have some capacity to further adjust the allocation between types of care to better fit the population's needs. We believe that further attention should be given in the future to improving the scope and methods for strategic allocation based on more detailed need assessments at the subregional level. This strategic allocation is meant to have several dimensions, and it might translate into giving priority to specific geographic areas but also specific types of care to better respond to the needs of a given population (specific outpatient specialties). It should also take into account the priorities established for the whole system (for instance encouraging primary versus specialized care or outpatient versus inpatient surgery).

Finally, different organizations being responsible for funding parts of health care facility costs (such as salaries and capital costs) also limits the purchasers' capacity to set up coherent remuneration schemes. Similarly, it reduces the provider's capacity to combine input efficiently and to provide cost-effective care. Capital costs were recently included in the prices paid to health facilities; this is a good, albeit perhaps politically difficult, step in that direction. A great challenge in the coming years will be to integrate external funding from the European Union structural Funds into the system in a transparent way that is coherent with the priorities established at an overall level, especially in the Estonian Hospital Master Plan 2015, and also with the consequences of the EHIF integrating capital costs in the prices paid to hospitals. Another area where fragmentation is still an issue, as in many countries, is public health. This is

funded by the central budget, the EHIF, the municipalities and international sources, such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, and even if all the funds remain unpooled, responsibilities could be clarified

In a nutshell, the fragmentation of the pooling and purchasing arrangements in health financing systems, which was a predominant characteristic in Semashko-type health systems,<sup>1</sup> is harmful. By setting up a single fund for nearly the entire population and systematically developing its purchasing and accountability mechanisms over time, Estonia has both created the conditions and implemented specific mechanisms for the health financing system to contribute to improved performance of the overall health system. Maintaining a coherent system in that respect or even further reducing fragmentation should remain a priority.

Nevertheless, reducing fragmentation is not a political objective per se but a means to the several ends listed above. The ongoing challenges for the government become to ensure:

- that the level of resources granted is compatible with the tasks assigned; and
- that whoever has some autonomy to divide up the given budget does so in a way that contributes to the overall goals of the system: improving the population's health in a cost-effective manner while respecting standards of quality and protecting the population against potentially impoverishing levels of health care costs

Thus, more autonomy has to be accompanied by improved management capacity on the one side and more sophisticated monitoring and supervision on the other. When some degree of fragmentation remains, effective coordination has to be put in place.

### **Strategic purchasing of health services in Estonia**

Estonia has put in place a contractual framework and payment methods for purchasing care that combine a variety of incentives adapted to each type of provider. The contractual process is clearly designed: following the regional needs assessment, providers are selected. This translates less into selective contracting than into adjusting the contracted volumes per provider. In this process, some degree of price competition was introduced recently. In addition, the contracts include standard conditions intended to ensure access to the population, and their actual degree of achievement is meant to be monitored during the execution. This framework applies to outpatient and inpatient care provided to insured people. In areas such as ambulance care, care for uninsured people and public health, purchasing and allocation could be more strategic.

The payment method for each type of provider has become increasingly sophisticated over time. The principles that govern these changes appear to be logical and consistent. The trend is to rely on payment methods (such as prepayment rather than reimbursement) that contain incentives to better combine input while trying to cap the overall cost.

Similar to most industrialized countries, the next frontier will be to find better ways of rewarding the provision of better outcomes in terms of health but also quality of care and responsiveness to users. Specific challenges in this respect will be to improve the orientation towards users and to

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<sup>1</sup> Nikolaj Semashko was Minister for Health of the Russian Republic from 1918 to 1930. He was a friend of Lenin and a physician. His name has been associated with the centrally planned and state-funded system of health care introduced in Soviet Russia, which was subsequently implemented in the Soviet Union and in most countries in central and eastern Europe.

coordinate providers for chronic disease management. These objectives go beyond health financing alone, but health financing tools can be used to promote them.

Similar to many countries, the changes in the payment mechanisms over time probably reflect improvements in the capacity of all actors to react to incentives and to monitor their effects as well as the development of information systems (which has been consistently pursued in Estonia). Some changes were also made to offset or counterbalance specific limitations of the previous remuneration scheme that had become obvious over time. As a result, payment methods for most providers are mixed, which can be a good feature so long as they remain transparent and the result of coherent implementation. For instance, currently, general practices receive:

- a capitation that is now adjusted for age,
- some fees for services as an incentive to provide additional primary care but, in order to limit the impact on volumes, a limit is set on the proportion of the practices' income that fees for service can represent; and
- lump-sum payments for investment costs or specific practice characteristics: distance to hospital and a diploma in family medicine. The justification for the latter lump-sum payments is gone now as, since 2003, having a diploma in family medicine is a precondition for having a contract with the EHIF. But the next step is under discussion and should increase the focus on performance and the quality of care in the form of quality bonuses for family doctors.

Hospitals are paid by a combination of per diem with some time limits introduced to moderate the length of stay and fees for services with capped volumes. Capital costs were recently included in the prices, and the current concern is that the average length of stay is stable and might even increase as a reaction to the recent changes. Reimbursement based on diagnosis-related groups (DRGs) is currently being introduced, which should in theory counterbalance these incentives.

Overall, there is no one ideal model for purchasing care and remunerating providers. Mechanisms for this have to be constantly adapted and improved over time (Grignon et al., 2004; Figueras, Robinson & Jakubowski, 2005), a lesson that appears to have been learned in Estonia.

The main problem with provider payments in Estonia may not be able to be solved to everyone's satisfaction: providers rarely agree that they are paid too much, and purchasers rarely believe that they have gotten enough for their money. Decisions on remuneration are political and are too often taken under pressure. Ideally, increases in the level of remuneration should be negotiated in exchange for improvements in management or the quality or scope of services. Remuneration should also remain in accordance with the development of the overall economy so as not to create large distortions among different sectors or compromise the health system's attempts to reach important objectives such as equity in access and funding.

## **Conclusion**

In conclusion, we believe that the institutional structure of the health financing system in Estonia is fundamentally sound and that the performance of the system has been enhanced over time. As a result, the health financing system in Estonia has many positive features that make it a leader among transitional countries. It provides good financial protection for the vast majority of the population, its organization is fairly simple and clear incentives and accountability mechanisms are in place. Although this report identifies several areas for improvement, we intend to encourage both greater investment in health and further development of existing systems and mechanisms. We do not believe that the system needs radical reform.

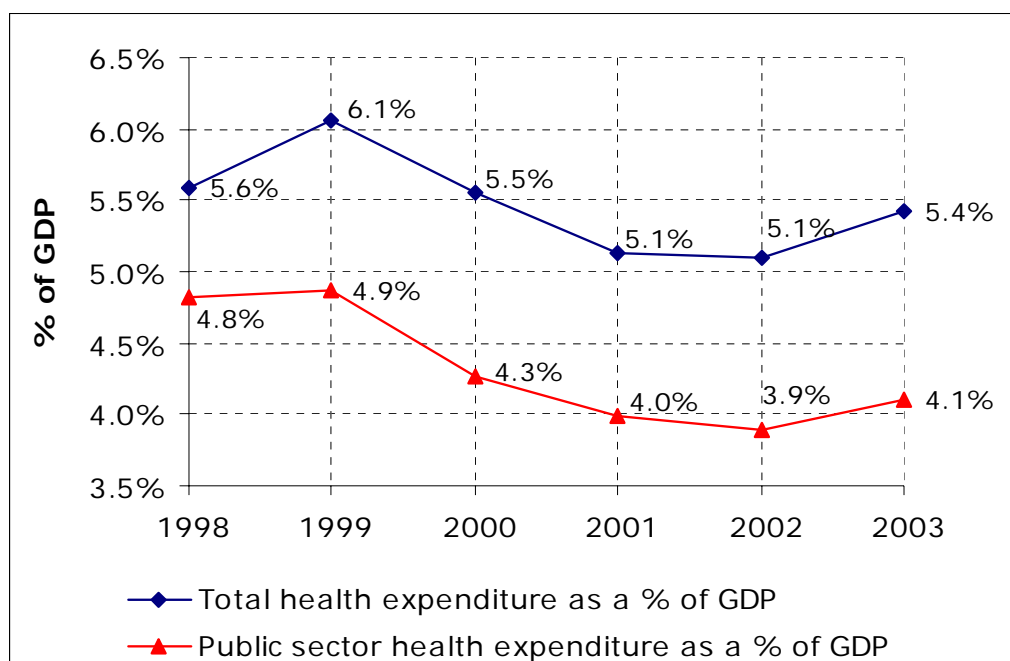
## Collection

### Background and trends

#### *Overall trends for health expenditure*

In 2003, Estonia spent 5.4% of gross domestic product (GDP) on health. Total expenditure amounted to 5.6% of GDP in 1998 (Fig. 1). It increased to 6.1% in 1999 and then started to decline. Health expenditure in the public sector followed a similar pattern, decreasing from 4.9% of GDP in 1999 to 3.9% in 2002. In 1999, the decline in real GDP due to the economic crisis in the Russian Federation and the global economic downturn was compensated by the Estonian Health Insurance Fund (EHIF), which used its reserves. The subsequent decrease in expenditure is explained by the EHIF's efforts to reconstitute these reserves. In 2003, the EHIF reserve requirements were fulfilled, and total expenditure and public expenditure as a proportion of GDP started increasing again. Fig. 3 shows that total health expenditure in real terms remained stable between 1998 and 2001 and has started increasing since.

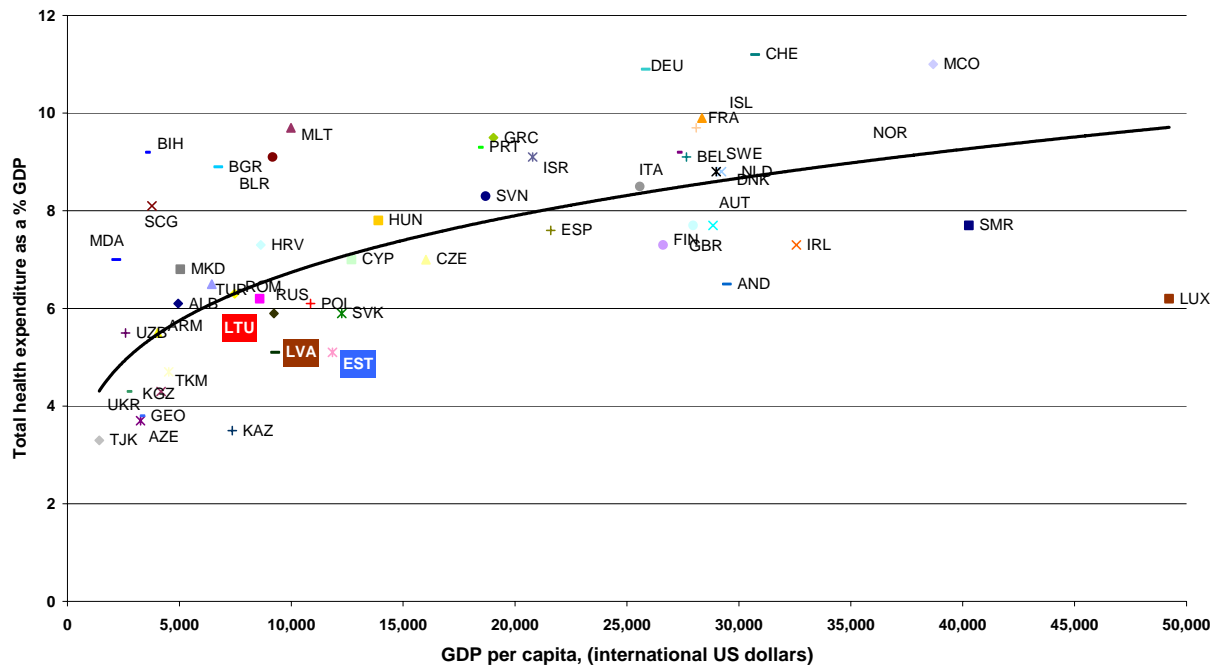
**Figure 1.** Total and public-sector health expenditures as a percentage of GDP in Estonia 1998-2003



Source: European Health for All Database, WHO/Europe; Estonian data is corrected according to GDP revisions in 2001-2002

Estonia's position in the relationship between countries' per capita income and levels of health expenditure (Fig. 2) is close to the general trend in the WHO European Region.

**Figure 2.** Relationship between GDP per capita in international \$ and health expenditure as % of GDP in European countries, 2002



Source: WHO (2005)

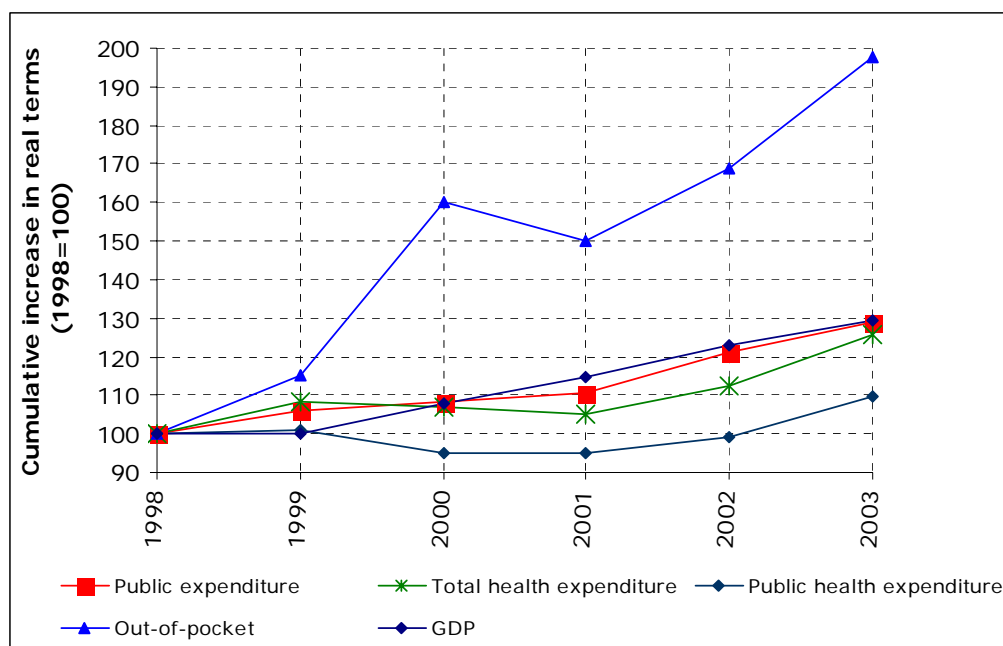
### ***Public and private expenditure***

Health expenditure in Estonia is mainly financed publicly, but the public share has been slightly eroding over time: it declined from about 85% in 1998 to 75% in 2003 (Table 1). Although no reliable data is available for the early 1990s, experts agree that the public share might have been even higher at that time.

Unlike many countries in the European Region, this decline is not a consequence of a collapse of the fiscal system and general cuts in expenditure. In fact, Fig. 3 shows that, since 1998, total real expenditure by the public sector has been increasing at about the same pace as GDP (about 30% between 1998 and 2003). The increase in real expenditure on health in the public sector, in contrast, has been one third of this (10% between 1998 and 2003). Thus, health expenditure has comprised a declining share of total public expenditure (from 13% in 1998 to about 11% in 2003). The main driving force behind the 26% real increase in total health expenditure has therefore been private, mostly out-of-pocket payments, which increased by almost 100% in real terms.



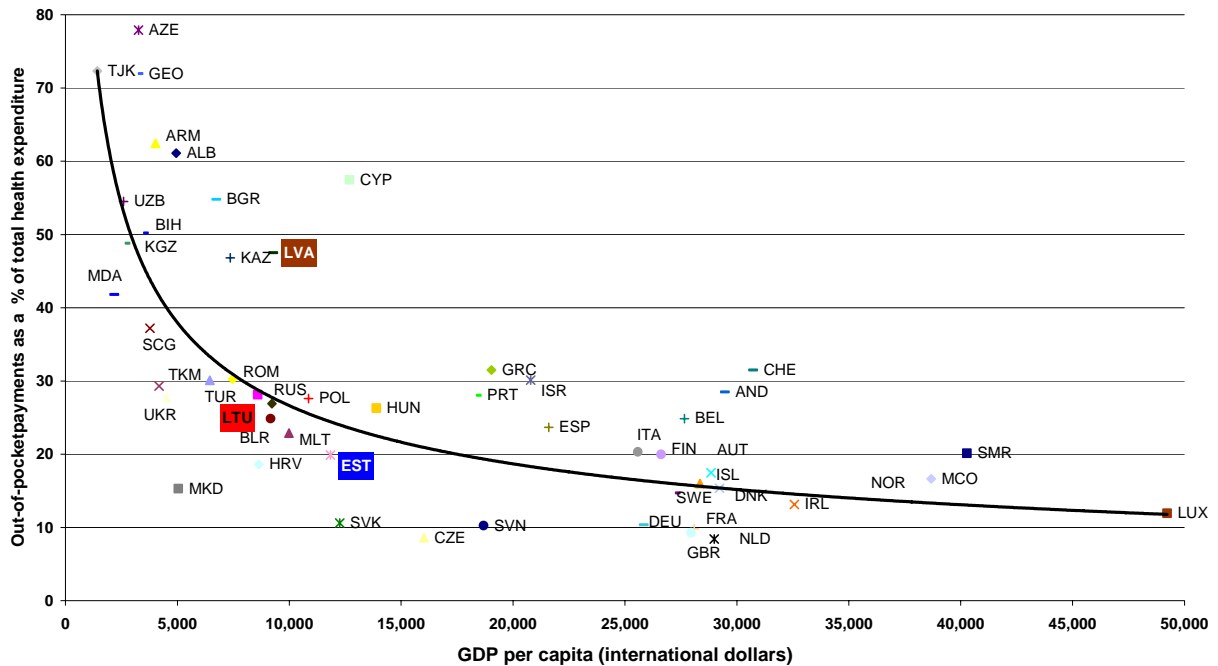
**Figure 3.** Changes in health expenditures by category, GDP and total public expenditures, 1998=100



Sources: Ministry of Social Affairs (2001, 2002, 2003, 2004), Ministry of Finance and Ministry of Economy and Communication (2004)

Nevertheless, Estonia remains somewhat an exception in the mix between public and private funding (Fig. 4). In general, the more affluent countries are, the less they tend to rely on private health financing. Given its income level, Estonia's reliance on private funding is below the trend curve and close to that of the most affluent countries. Whether this actually translates into good financial protection for all residents is discussed later, but Estonia is essentially in a much better position to achieve this objective than are many countries with a comparable income level.

**Figure 4.** National income and the funding mix, 2002

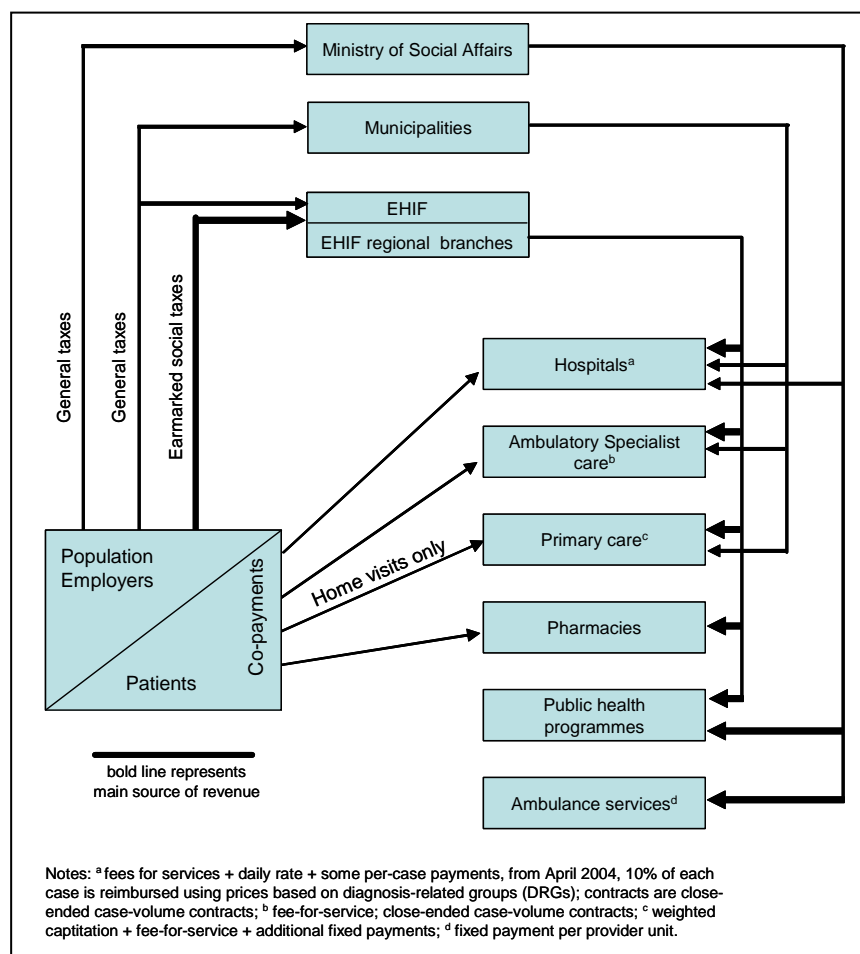


Source: WHO (2005)

### ***Overall architecture of the health financing system***

The following figure gives an overview of the organization of health financing in Estonia which will be detailed in the rest of this document. The Estonian Health Insurance Fund is at the core of the system and pools funds in order to purchase services from most categories of providers.

**Figure 5.** Overview of the health financing system in Estonia



Source: adapted from Jesse et al. (2004)

## Public sources

**Table 1.** Total health expenditure in Estonia in millions of EEK and as percentages according to source, 1999-2003

Source	1999		2000		2001		2002		2003	
	Expend-iture	% of total	Expend-iture	% of total	Expend-iture	% of total	Expend-iture	% of total	Expend-iture	% of total
Central government	431	9%	431	8%	439	8%	485	8%	599	9%
Municipalities	107	2%	105	2%	140	3%	151	3%	99	1%
Social insurance	3 263	66%	3 396	66%	3 587	67%	3 910	66%	4 456	65%
Out-of-pocket	693	14%	1 015	20%	1 006	19%	1 184	20%	1 416	21%
Other private	278	6%	182	4%	182	3%	227	4%	256	4%
External sources	175	4%	16	0%	0	0%	0	0%	4	0%

Source: Ministry of Social Affairs (2000, 2001, 2002, 2003, 2004)

The main source of public revenue is a 13% social health insurance contribution paid entirely by salaried workers and self-employed people. The general Tax Office collects this contribution

from employers on behalf of employees. In 2003, social insurance accounted for 87% of health expenditure in the public sector and 65% of total health expenditure (both shares have been stable since 1999).

The second major public source of financing is the central government. In 2003, central government expenditure accounted for 12% of health expenditure in the public sector and 9% of total health expenditure. The budget of the Ministry of Social Affairs comes from general taxation revenue and mostly finances ambulance services and emergency health care services for uninsured people (see the more detailed description in the section on pooling).

Local municipalities only funded about 2% of health expenditure in the public sector and 1% of total health expenditure in 2003 from their own budgets. The level of municipal expenditure has remained low and roughly stable (even in nominal terms) since 1999. This situation in part reflects the fact that municipalities' responsibilities in health financing are not clearly defined. Nevertheless, this kind of spending on health is difficult to gauge given the lack of accuracy of cost reporting at the municipal level.

## **External sources**

External funding is currently not very substantial in Estonia. In 1999, it accounted for 4% of total health expenditure, but in 2003 external funding was close to zero. External funding was expected to increase as of 2004 (see below).

## **Private sources**

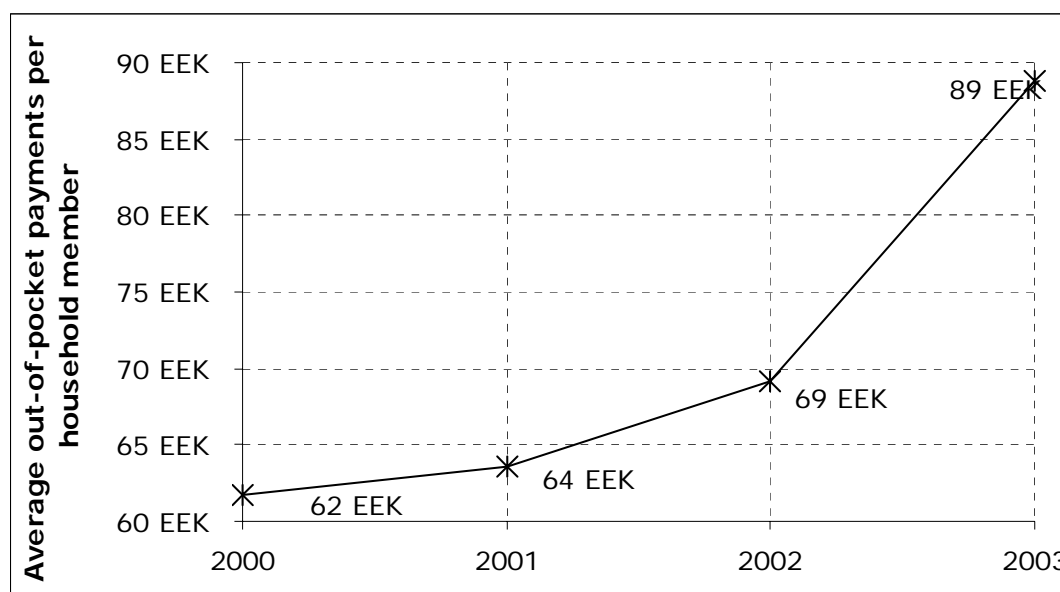
The private share of total health expenditure was 25% in 2003. The main source of private financing is out-of-pocket payments, which accounted for 85% of private financing and 21% of total health expenditure in 2003. Out-of-pocket payments comprise statutory cost-sharing for EHIF benefits, direct payments to providers for services outside the EHIF benefits package or from non-EHIF-contracted providers and informal payments.

Other private expenditure includes employer-paid health care travel insurance, employer-paid health check-ups and pharmaceuticals (mainly bought by foreign visitors but also by corporations).

Out-of-pocket payments have increased gradually since the early 1990s to an average out-of-pocket expense per capita in 2003 of €5.7 per month (Fig. 6). In particular, the 2003 household budget survey (Statistical Office of Estonia, 2004) shows a remarkable 30% increase in monthly per capita out-of-pocket payments from €4.4 in 2002 to €5.7 in 2003.

During that year, changes in the regulatory environment such as the establishment of maximum co-payments for specialist visits, the introduction of an out-of-pocket per diem for inpatient care and that of reference prices for pharmaceuticals, were expected to have a large impact on out-of-pocket payments (the section on the benefit package and cost-sharing provides a more detailed overview). These regulatory changes might therefore explain in part the sharp increase in out-of-pocket payments.

**Figure 6.** Monthly out-of-pocket payments (in EEK) for health care per household member in Estonia, 2000–2003



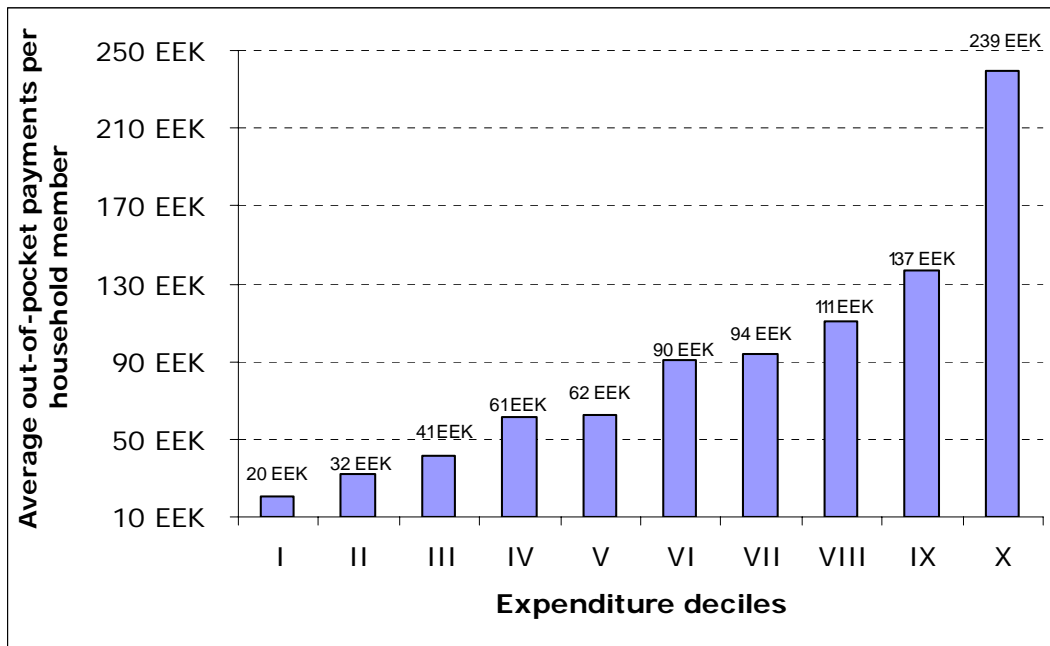
Source: Statistical Office of Estonia (2001-2004)

Income is very unequally distributed in Estonia: in 2003, the average income in the lowest decile was one tenth that in the highest decile. The pattern is similar for health expenditure: the average monthly out-of-pocket payment (including drugs) is €15.3 in the highest decile versus €1.3 in the lowest decile (Fig. 7).

The low level of private expenditure for the poorest individuals probably reflects financial barriers in access to care: for instance, the usual co-payment for a specialist visit is €3.2, which represents 7% of the monthly income in the lowest decile. This assumption is supported by empirical research correlating health care utilization with socioeconomic status (Kunst et al., 2002; Habicht & Kunst, 2005). Controlling for health status, lower-income individuals utilize fewer general practitioner (GP) and specialist services as well as dental care. In 2002, nearly 1.5% of the population fell under the poverty line because of out-of-pocket payments for health care and more than 7% of the population, concentrated among the people with low income, spent more than 20% of their non-subsistence income on health (Habicht et al., 2005).

Thus, although the public share of spending remains high in Estonia, the distribution of out-of-pocket payments in the population raises concern. The financial impact of the recent increase in out-of-pocket payments for poor people has not yet been evaluated, but their situation is likely to have worsened.

**Figure 7.** Monthly out-of-pocket payments for health care per household member in 2003 by income deciles



Source: Statistical Office of Estonia (2004)

Most out-of-pocket payments go to pharmaceuticals (56% of out-of-pocket payments) and dental care (27% of out-of-pocket payments). According to the 2002 national health accounts (Ministry of Social Affairs, 2003), households paid 40% of total pharmaceutical expenditure and 56% of dental care expenditure out of their pockets. In 2003, both shares are expected to have increased because of the introduction of a reference price system and changes in the dental care reimbursement system.

Table 2 and Fig. 8 present information about the co-payment structure and its evolution between 2002 and 2003 based on the household surveys of these two years.

Out-of-pocket payments in outpatient care had the highest increase from 2002 to 2003 (52%), but since the level of outpatient care expenditure is relatively low in absolute terms, this increase only amounted to €0.1 per month. Pharmaceutical and dental care expenditure rose respectively by 21% (€0.5) and 24% (€0.3).

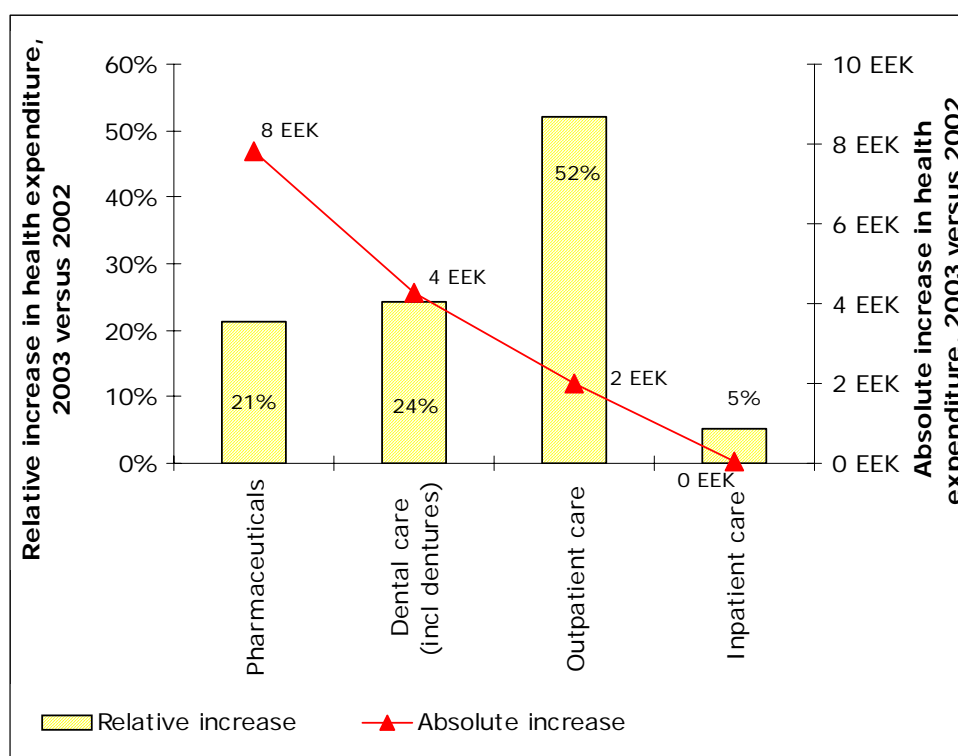
Despite reference pricing and a policy aimed at encouraging the use of generics, the out-of-pocket payments on pharmaceutical products is still increasing rapidly.

**Table 2.** Out-of-pocket expenditure for health care according to type in Estonia, 2003

Type of expenditure	Proportion
Pharmaceuticals	56.0%
Dental care (including dentures)	27.3%
Outpatient care	7.3%
Inpatient care	0.8%
Other	8.6%

Source: Statistical Office of Estonia (2004)

**Figure 8.** Relative and absolute increase in out-of-pocket payments for health care in Estonia according to category



Source: Statistical Office of Estonia (2003, 2004)

In the 2003 survey of public satisfaction with health care in Estonia (EMOR, 2003) 11% of the respondents said that the most troubling characteristic of the health system is the high prices of health services (including consultation fees), and 7% of respondents seem primarily concerned by the high prices of pharmaceuticals. The survey also asked specific questions about the price sensitivity of primary care visits. Sixty-five percent of the population declared that a consultation fee of €3.2 would limit their access to primary care; if this amount were to be charged only for home visits, 51% still declared that €3.2 would limit their access to primary care. The response varies greatly depending on the individuals' income levels; the financial barriers to access are highest among people with lower income. For instance, 74% of the individuals with less than

€64 per month per household member (comparable to the first and second deciles in Fig. 7) report that such a fee would restrict their access to care.

Available information suggests that informal payments are not very common in Estonia. A survey financed by the Organisation for Economic Co-operation and Development (OECD) (CIET International, 2002) found that unofficial payments are rare and that such payments are mainly driven by patients' own initiative. In a more recent study conducted by the Estonian Institute of Market Research in 2004 (Josin, 2004), 3.4% of respondents reported that health care personnel had asked for some kind of payoff (the only higher frequency, 3.6%, was reported for traffic police officers). Overall, although some evidence indicates that informal payments do exist in the health sector, they do not appear to be widespread or large in magnitude.

### **Long-term financial sustainability**

The long-term financial sustainability of health financing in Estonia has not been analysed. In 2003, the proportion of GDP spent on health increased after statutory user charges were introduced for additional EHIF benefits. In addition, in 2003, the EHIF fulfilled its reserve requirements (see the section on pooling for more detail) and can allocate more funds to services

Nevertheless, even if the economy is forecast to grow strongly in the next few years (real GDP growth of 5–6%), the government's fiscal policy and its potential impact on health expenditure in the public sector are more difficult to predict. The current government (elected in 2003 for four years) has set to reduce taxes:

- by increasing the non-taxable share of wages: until recently, the first monthly €64 was exempt from income tax, but in 2004 the threshold was raised to €89 and will reach €109 in 2005; and
- by progressively reducing the income-tax rate from 26% in 2005 to 20% in 2007.

These measures could slow down the growth rate of pre-tax wages, which are the basis of social insurance contributions. Already, during the first quarter of 2004, increases in social insurance revenue were mainly related to the increase in employment rates and not increases in wages (Ministry of Finance and Ministry of Economy and Communication, 2004). On the other hand, the lower tax burden could lead to a decrease in the informal economy and thereby improve tax collection. In 2003, an estimated 15% of employees received informal pay, and the total loss for the health insurance budget was about €22.4 million, about 5% of its budget (Josin, 2004).

The reduction in individual income tax is expected to affect the revenue of the state budget. Starting from 2005, a reduction in corporate income taxes will further reinforce this trend. Current forecasts indicate that the state budget increase will mainly be guaranteed by single-purpose external sources (such as the European Union structural Funds) and that, as a consequence, the negotiable state budget share will remain the same in the near future (Ministry of Finance and Ministry of Economy and Communication, 2004). As relatively fewer resources will become available, this could eventually put some pressure on the contributions of the central government and local municipalities to health system financing.

Nevertheless, external funding of health care is expected to increase. This is in part related to the enlargement of the European Union, which enabled Estonia to apply for funding through the European Regional Development Fund. Estonia expects to receive about €24.8 million for capital investments in five regional centre hospitals. Another important source of external funding is related to HIV/AIDS: Estonia applied for and received financial assistance (from 2003



to 2007) of about US\$ 10 million from the Global Fund to Fight AIDS, Tuberculosis and Malaria.

In the current context, the most critical issue related to collecting revenue will be to monitor the impact of the overall cost containment measures on the access to care of the most vulnerable households. For instance, the introduction of reference prices for pharmaceuticals slowed down the increase of overall pharmaceutical expenditure for the EHIF. At the same time, out-of-pocket payments increased considerably in 2003 in the same sector, suggesting that more active support to introduce generics might be needed. This type of cost-shifting could lead to a situation in which households with scarce resources face considerable barriers to access.

## **Pooling**

Pooling is the accumulation of prepaid revenue on behalf of the population. Out-of-pocket payments and international aid (such as loans or grants) are therefore not discussed here. This section focuses mainly on personal health care services; non-personal and community-based services (as part of public health) are only briefly described.

In Estonia, the EHIF pools most funds, being responsible for the insured people (about 94% of the population). Other public funds are channelled through the Ministry of Social Affairs and allocated to areas such as emergency care for uninsured people for whom only “unavoidable services” are provided and services delivered by ambulances. In addition, municipalities allocate some funds. The role of voluntary health insurance in pooling funds is very small.

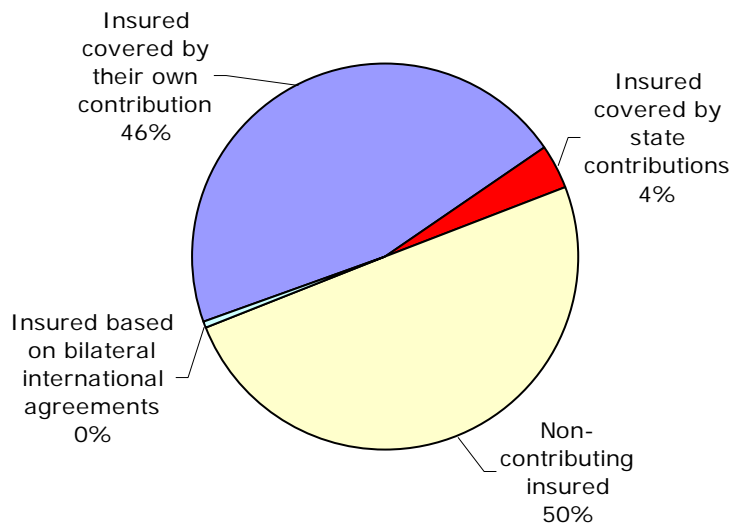
## **Social health insurance**

In Estonia, public health insurance is administered by the EHIF, which has been a public independent agency since 2001.

### ***Eligibility and the uninsured***

EHIF coverage is mandatory and aimed at the whole population. Entitlement to EHIF coverage is based on residence in Estonia and membership of specific groups defined by law. In 2003, the EHIF covered 94% of the population in four main categories: (a) those who pay their own contributions, (b) those eligible for coverage without contributing, in particular children and pensioners, (c) those covered by contributions from the state and (d) those covered by bilateral international agreements.

**Figure 9.** Share of different insured groups by entitlement criteria in Estonia, 2003

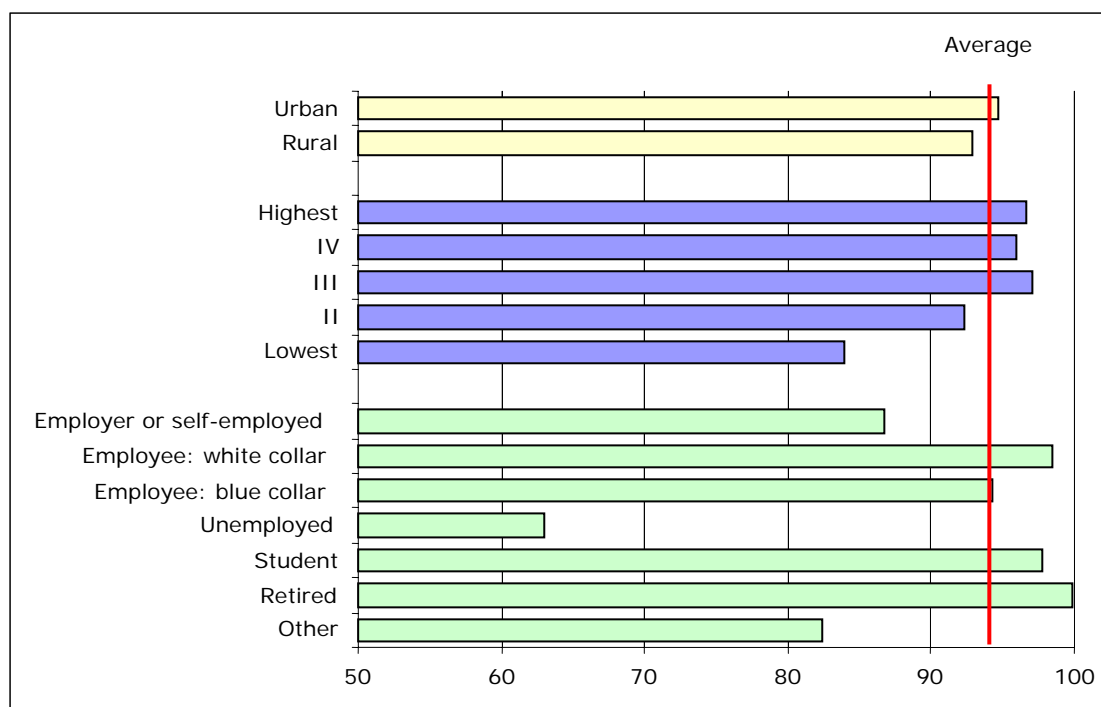


Source: personal communication, Estonian Health Insurance Fund, 2004

As Fig. 9 shows, the non-contributing individuals represent about half the insured population and their expenses are implicitly subsidized by the other categories. The state officially contributes for only a small proportion of the population, mostly people on parental leave and some registered unemployed people. People are covered by one of the four regional branches of the EHIF depending on their area of residence, but their access is not restricted to the providers in that region (see the section on contracting for more detail

Uninsured people, who represent about 6% of the population, do not explicitly fall in the categories defined above. They are overrepresented among low-income men who are either long-term unemployed or who work in the informal sector (Fig. 10).

**Figure 10.** Distribution of insured people in the adult population in Estonia according to urban or rural area, income quintiles and employment status, 1999



Source: Marksoo et al. (2000)

### ***Financial management of the Health Insurance Fund***

The financial regulation that governs the EHIF activities is strict and responsibly enforced, which affects the structure of health expenditure in the public sector.

The EHIF is legally bound to balance its revenue and expenditure in any given financial year. To ensure that it can meet these requirements, the EHIF must constitute two types of reserves: a cash reserve and a legal reserve. The cash reserve amounts to at least 5% of the yearly budget, and the management board can use this in case of a temporary cash squeeze. If the cash reserve falls below 5%, then the supervisory board has to give consent to funding all additional expenditure. The legal reserve is constituted to reduce the macroeconomic risk and can only be used by the order of the government. Until recently, it was set at 8% of the EHIF budget but was reduced to 6% in 2005. This decision will enable the EHIF to face the immediate financial effects of a decision taken in 2004 to raise the minimum wage of health care personnel.

The largest share (almost 99%) of the EHIF budget comes from contributions that have been administered by the state Tax Office since 1999. Once collected, the money is kept by the Treasury, and daily payments are made to providers according to orders issued by the EHIF. So these funds are virtually pooled together and then allocated to different services. The expected size of the pool is assessed based on estimates of the contributions collected.

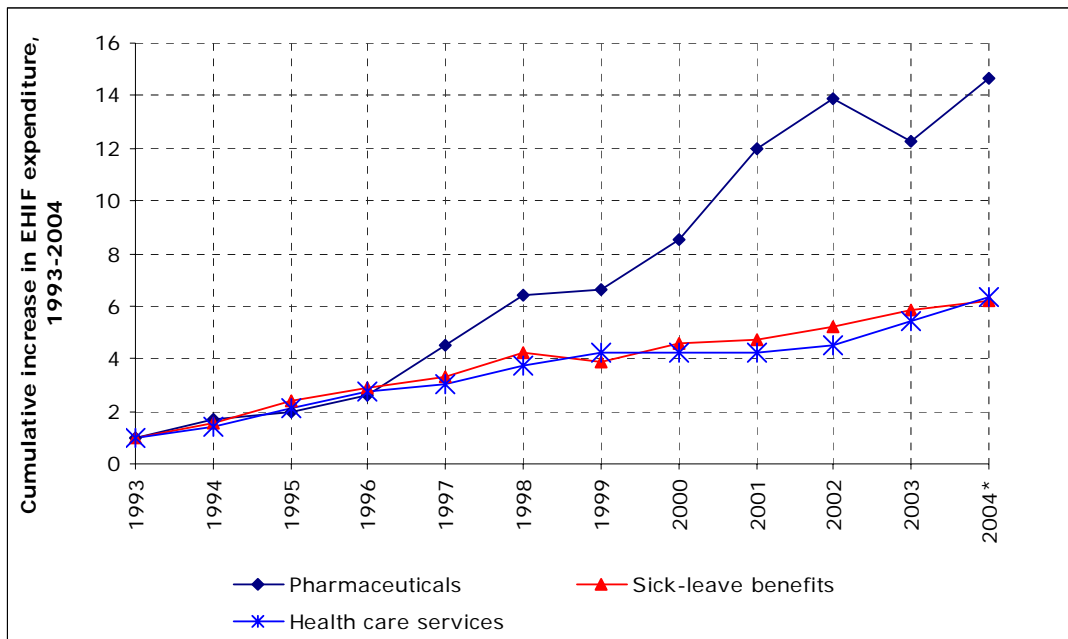
The expenditure of the EHIF results from a mix of open-ended and legal obligations (such as reimbursing drugs, paying sick leave and constituting reserves) and other commitments, which mostly pertain to funding health care services. The level of funding available for health care services essentially depends on the amount left once other obligations have been met. This

means that the expenditure on health services serves as a buffer, and its level results in part from external factors such as the state of the economy.

Fig. 11 illustrates the impact of this situation over the years. Between 1993 and 2004, EHIF expenditure increased seven times, but the greatest increase (about 15 times) was for pharmaceutical expenditure, which represented more than 12% of total EHIF expenditure in 2003. The other open-ended commitment of the EHIF, sick leave benefits, represents more than 16% of EHIF expenditure. Even if they are not included in the national health accounts and they have grown in pace with overall expenditure in the past decade, the fact that the EHIF is responsible for them increases its financial vulnerability to changes in the economic situation and limits its capacity to strategically allocate funds.

Around 1999, the Health Insurance Fund was allowed to use its legal reserves to temper the impact of the macro-economic crisis. During the following two years, reconstituting these reserves became a priority and the amount available for health services, which represent nearly 65% of the funds expenditure, stagnated. Once these requirements were met, in 2003 and 2004, the amount allocated to services could grow faster again.

**Figure 11.** Cumulative increase in EHIF expenditure, 1993-2004



\*Data for 2004 are preliminary

Source: personal communication, Estonian Health Insurance Fund, 2004

### ***Organization and allocation of funds***

Most EHIF funds are allocated to four EHIF regional branches (each covering 2–6 counties). The number of EHIF regional branches decreased over time, starting from 22 regional sickness funds and one central sickness fund in 1994.

Starting in 1997, when the responsibility for collecting revenue was shifted from regional administrations to the Tax Office, a form of regional allocation of resources was put in place.

Most of the allocation is driven by crude capitation, but more complex methods are also used for primary care (see the next paragraph). Consideration has been given to using different demographic variables to allocate funds between regions, but EHIF (personal communication, 2004) calculations have shown that crude capitation is sufficient to allocate funds to regions, especially for specialized outpatient care and hospital care. Since regions can refine the allocation at the subregional level through contracting (see below), this issue is currently given little attention.

More precisely, for primary care, the funds are allocated to the regions to reflect the methods of paying GPs rather than using the crude capitation. In essence, the funds allocated to primary care depend on the number of general practices and the age structure of the population in the GP lists (see a more detailed overview in the section on payment methods). For other outpatient and inpatient services, crude capitation is used to allocate funds to regions. Finally, for long-term care, capitation is allocated to the regions depending on the size of the population older than 65 years.

The allocation of funds is further refined during the contracting process. In fact, the purchasing of services from providers is organized at the regional level, which enables the branches:

- to contract with providers outside their region depending on the need of the patients they cover; and
- to reallocate funds within categories of specialist care and between long-term and specialist care.

Thus, the branches have some flexibility and can adjust their purchasing decisions based on historical patterns of service utilization and the current health needs of the population in the region they cover. In fact, the variation in need across the four regions is much lower than that within regions, such as between rural and urban counties. Thus, the contracting and strategic purchasing processes at the regional level are crucial to ensuring that ability to provide services is matched to needs.

Overall, 98% of the EHIF funds are allocated to the regional branches. The rest remain centrally managed for a small range of expensive or infrequent procedures for which regional allocation would not be feasible. These include bone marrow transplants, peritoneal dialysis, some areas of oncology and haematological treatment.

The allocation of funds between the different types of care at the regional level, in part driven by the financial constraints mentioned above, is also strategically oriented to reflect government priorities.

As mentioned earlier, the funding of pharmaceuticals is an open-ended responsibility that depends on the actual utilization of drugs on the positive list. In its yearly planning process, the EHIF bases its forecast on prior utilization and takes into account changes in the legal environment.

Within the EHIF budget for health care services, priority is currently given to primary care and long-term nursing care, and the latter will remain a high level priority for at least one year, according to the 2004 planned budget (Table 3). This reflects the current health policy agenda, which emphasizes ensuring good access to a first contact within the health system and also to developing long-term care, which has been underfunded. Within specialist care, higher priority is currently being given to outpatient services.

**Table 3.** Health care service benefits paid by the EIHF in 2001-2004, millions of EEK

Type of care	2001	2002	2003	2004*	Increase, 2001-2003	Increase, 2003-2004
General medical care	336	400	455	502	35%	10%
Specialized medical care						
Out-patient care	557	655	795	881	43%	11%
In-patient care	1 509	1 577	1 915	2 175	27%	14%
Rehabilitation	32	35	46	56	43%	21%
Centrally purchased medical services	80	44	85	120	7%	41%
Long-term nursing care	48	49	69	96	43%	40%
Disease prevention	45	42	46	64	2%	41%
Dental care	225	223	233	175	4%	-25%
<b>Total</b>	<b>2 832</b>	<b>3 026</b>	<b>3 643</b>	<b>4 068</b>	<b>29%</b>	<b>12%</b>

Source: Estonian Health Insurance Fund (2002-2004)

***Does the EHIF contribute to achieving equity in the Estonian health care system?***

One of the objectives of social health insurance in Estonia is to ensure solidarity between rich and poor people, people who are active and inactive on the labour market and people with poor and good health.

Proving that these objectives are met would require detailed analysis, but the above analysis provides some elements of response. First, the system's regulation is clearly aimed at achieving these objectives: contributions are proportional to the ability to pay, and treatment is provided equally to all insured people regardless of their contribution.

On the contribution side, however, a vast part of the population is exempted from paying contributions, and the benefits of an implicit redistribution on the overall vertical equity of the system have not been documented. Other important objectives of the EHIF are to provide care according to need and to protect health care users from the consequences of having high personal expenses in case of illness.

**Table 4.** Relationship between the percentage of users and the cumulative percentage of health care costs in Estonia, 2003

% of users	Cumulative % of cost to health care services	Cumulative % of cost of prescription drugs (share paid by EHIF)	Cumulative % of health care services and prescription drugs
1	29,1%	10,3%	25,7%
5	54,3%	34,4%	50,8%
10	68,3%	50,3%	65,1%
50	95,9%	94,9%	95,7%

Source: personal communication, Estonian Health Insurance Fund, 2004

Do the people in need receive adequate care? The question is highly normative, and even if there were a response, researching this would be beyond the scope of this document. Nevertheless, a

crude analysis of the distribution of EHIF expenditure shows that this is heavily skewed and does not contradict the assumption that those with greater need receive more resources from the insurance system. Indeed, as Table 4 shows, in 2003, 1% of the insured people account for 29% of the total cost of health care services, and 50% of the population consume 96% of the resources. Thus, the distribution of expenditure is similar to that observed in western European countries.

Finally, the question of financial protection remains open in part. Some low-income individuals fall into poverty due to the cost of care and face high out-of-pocket payments relative to their income (Habicht et al., 2005). Nevertheless, the most recent data used in that study are from 2002, and in addition, they do not contain information about insurance status. This issue should probably draw more attention in view of the changes in co-payments since then. In addition, the kind of implications these reforms have had for the whole health financing system remain to be seen.

## State budget

The state budget accounted for 9% of all health expenditure in 2003 (Table 1). The Ministry of Social Affairs administered 85% of the state budget funds to the health system in 2002. Other stakeholders are the Ministry of Justice (10% of the government allocations to health – mostly prison health care), the Ministry of Defence (3%) and the Ministry of Internal Affairs (1%).

In 2002, most of the state budget was allocated to ambulance services (29.8%), treatment for uninsured people (15.7%), medical devices and medicines (10.8%) and health promotion and population health through public health programmes (7.1%). A considerable 21.0% was allocated to administrative costs and 11.2% to capital costs.

The funding of treatment costs for uninsured people is fragmented, and providers are somewhat unevenly paid according to the services delivered. Since 2003, the EHIF has administered state funds, but they are not pooled with other funds administered by the EHIF. Most funds are channelled to hospitals, but a small share of emergency services is delivered to uninsured people in primary care (since 2003, the whole population has been enrolled with a GP). In addition, health care providers that treat uninsured people get some funds from local municipalities, in varying amounts depending on the municipality. Funds from the municipalities and the state budget are not pooled. The overall level of funds dedicated to treating uninsured people is not sufficient, and some degree of cross-subsidization is taking place, especially within hospitals.

The state budget also covers ambulance services, and strategic administration is exercised by the Health Care Board, a specialized agency of the Ministry of Social Affairs that deals with health care providers. A costing model is used based on the number of nurses and physicians per ambulance team, but the final amounts are decided through budget negotiations. The yearly budget is pooled and allocated to different providers according to the number of ambulances and teams. Some additional payments (from a supplementary public budget) are transferred passively, and the overall payment system is not related to actual performance.

The state budget also funds medical devices for disabled people and some medicines. Even if the EHIF reimburses most medicine, some medicines (such as for tuberculosis and HIV treatment) and vaccines are bought centrally through public tenders. This helps keep the cost lower but also secures equal access to these treatments for insured and uninsured people.

The Ministry's public health budget mainly funds large-scale health and promotion and disease prevention activities. There are six national health programmes: the National Health Programme for Children and Adolescents (through 2005), National Tuberculosis Prevention Programme (through 2007), Strategy on the Prevention of Drug Dependence (2004–2012), National HIV/AIDS Prevention Programme (through 2006) and Public Health Research and Development Programme (through 2009). The total budget allocated to national public health programmes was about €1.9 million in 2002. In 2005, the National Strategy for the Prevention of Cardiovascular Diseases (through 2020) was launched. The National Institute for Health Development (a specialized agency of the Ministry of Social Affairs) manages the national programmes. The EHIF allocates additional funds to health promotion (€0.90 million in 2002) and disease prevention (€2.7 million in 2002 and planned to increase to €4.1 million in 2004). The disease prevention services are delivered like other health care services and are therefore only available to the insured population.

Additional funds have been allocated to public health since 2001, collected through a tax on gambling. In addition, other ministries fund some specific activities. Some municipalities also allocate funds to public health activities, but little information is available about this. In the end, the funds available for public health activities are not centrally coordinated, and activities may therefore be duplicated.

Finally, capital costs were funded from the Ministry's budget until 2003 but have since been included in service prices (see below) and are mainly paid through the EHIF. The Ministry retains some limited grants to fund investment in specific hospitals, but the total amount is decreasing, and in 2003 the capital costs financed through the state budget were half of those in 2002.

## **Local municipalities**

Estonia has almost 250 municipalities of highly varying size. The level of funds available to a municipality is proportional to the income tax collected. More people and higher income means more revenue for the municipality. Some equalization funds are available to smaller municipalities, along with transfers from the state budget to support government responsibilities delegated to them. Overall, this system leaves smaller municipalities in a difficult position, and they tend to allocate funds to other priorities than health.

At the municipal level, the rules governing the allocation of funds to the health sector are variable. According to the national health accounts (Ministry of Social Affairs, 2004), municipalities funded 1% of all health expenditure in 2003. Most municipalities spend less than 1% of their budget on health, but municipalities vary greatly. At the county level (Estonia has 15 counties comprising 5–25 municipalities each), only the municipalities in Harjumaa County invest more than 2% on average in health (this represents three fourths of the overall budget invested by municipalities in health). The municipalities in four other counties (Raplamaa, Pärnumaa, Läänemaa and Järvamaa) invest about 1% in health, and the municipalities in the other 10 counties invest less than 1% of their budget on average.

In 2002, almost 57% of municipal funds were allocated to capital costs, 20% to health care services and 21% to administration. The use of funds by municipalities therefore appears to be largely driven by the fact that they own most hospitals and are responsible for their maintenance.



Some municipalities (such as in Harjumaa in the capital Tallinn) also support primary care facilities and cover their capital costs.

Municipalities also fund the care provided to uninsured people. In the past, they were responsible for funding both emergency care and other types of care. In practice, since there were no general guidelines as to how this responsibility should be exercised and since the available funds were unequal, this resulted in considerable variation across regions. Now the funding for emergency care for uninsured people comes from the state budget, and the responsibility of local municipalities is limited to providing other types of care for uninsured people. This area is clearly not a priority: funding was halved between 2001 and 2002).

Most of the remaining resources are allocated to administration, which covers various areas of work, including local public health activities such as health promotion and environmental health.

The management of international aid poses a challenge to the pooling of public funds. Funds from the Global Fund to Fight AIDS, Tuberculosis and Malaria for HIV/AIDS and from the European Regional Development Fund for capital investment will have to be pooled coherently with other resources. For instance, the European Union will mainly fund capital investment in the hospital sector. Coordinating this investment with that of the state and the municipalities and the coverage of capital costs by the EHIF will be crucial to guarantee an equitable environment to providers, as well as, ultimately, to users of the health care system.

## **Private insurance**

Private insurance currently plays a very small part in funding care in Estonia. There is only one commercial insurer, which entered the market in 2002. Nevertheless, describing the scope for private or voluntary insurance is interesting.

Until recently, most of the private insurance market comprised employer-paid health care travel insurance, a market whose importance decreased greatly due to the enlargement of the European Union: since May 2004, public health insurance has been expanded to cover insured people who travel in Europe.

As explained earlier, some people in Estonia are not covered by the EHIF. Since 2002, two options have been open to them: purchasing private insurance or joining a specific EHIF scheme. Currently, about 400 people have chosen one of these options, in roughly equal proportions.

The EHIF scheme enables people who otherwise would remain uninsured to enrol in the public health insurance scheme. Eligibility for voluntary coverage is restricted to residents of Estonia who receive a pension from another country or people who are not currently eligible for membership but who have been members for at least 12 months during the last two years prior to applying for voluntary membership. The voluntary members pay a contribution based on the previous year's average national salary and benefit from the same coverage as other insured people. The funds are pooled together with those who cover the rest of the insured people.

Pure private insurance entered the health insurance market in 2002. The single commercial insurer so far also provides some basic insurance to uninsured people. To limit adverse selection, it uses a range of screening techniques: subscription is limited to certain age groups (3–60 years and, for children, only if the parents are also covered), and the coverage is restricted both in

terms of pre-existing conditions and in financial terms (a yearly upper limit). The main group of people who subscribe to this insurance are non-Estonian citizens in the process of applying for residence in Estonia.

Finally, the commercial insurer also proposes supplementary coverage that provides faster access to a range of services. This feature is meant to attract those who are compulsorily insured by the EHIF and are not allowed to opt out, but very few people insured by the EHIF actually seem to take up the contract.

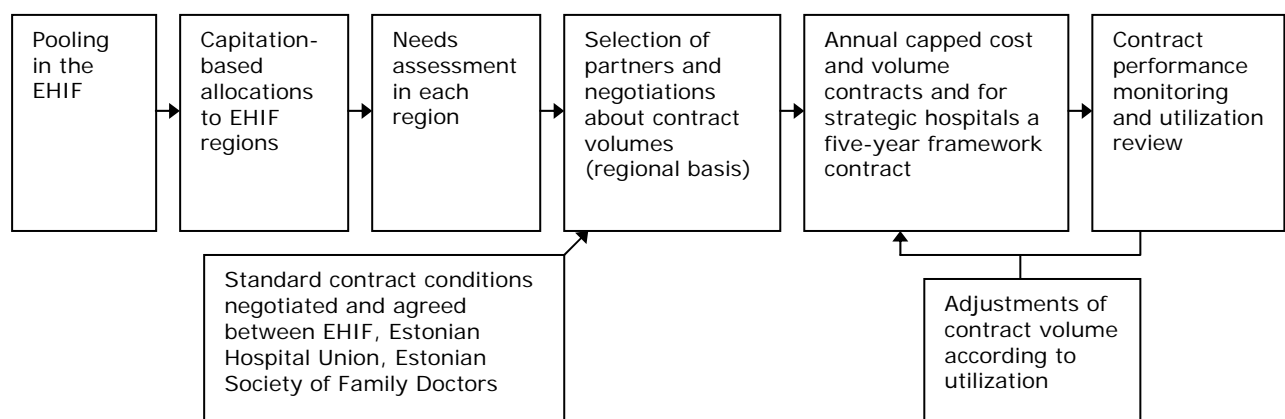
## Purchasing

### Contracting

This section discusses four types of contracting. The EHIF makes contracts to purchase health care services for the insured population. Other contracts are used to purchase care for uninsured people, ambulance services and public health services.

The EHIF is contracting with providers for all types of care such as primary care, specialist care (outpatient and inpatient), and all other services in the benefit package. Fig. 12 shows the contracting process. The first two steps, which were described earlier, are not detailed in this section.

**Figure 12.** Contracting process for primary and specialized care by the Estonian Health Insurance Fund



Source: adapted from Jesse et al. (2004)

The EHIF recently introduced the third step, need assessment. It is used in part for allocating resources to each region but mostly as an input for contract negotiations. It serves as a basis for rationing between different types of care and benefits – primary versus specialist and cash versus in-kind services (see the section on the benefits package). Need assessment is based on historical data on health care utilization but includes additional data about waiting times and accessibility and information about local need in each region. This is one step further away from the fully

historical analysis based on service utilization, which is influenced by providers' capacity to provide services. There are further plans to use more sophisticated need assessment tools based on epidemiological data to achieve better understanding of population needs.

The contracts must be concluded to ensure that a set of standard conditions negotiated at the macro level are met.

For hospital services, these conditions concern variation in service levels and access to services. For instance, waiting time should not exceed four weeks for outpatient care and six months for inpatient care. Other specific waiting times are monitored centrally, and priority is given according to need, such as cataract surgery, endoprosthesis, cardiovascular surgery and cochlear implantation. Waiting times are negotiated with the Estonian Hospital Union, which represents hospitals and includes the hospitals listed in the Hospital Master Plan: a strategic plan that outlines the restructuring of the hospital sector and downsizing of acute-care hospitals. The contracts are prepared in detail annually, but for the strategic hospitals listed in the Hospital Master Plan, a five-year framework contract is also agreed, which enables them to better organize their mid-term strategy.

For primary care, contracts are negotiated with individual GPs after the general conditions have been negotiated and agreed with the Estonian Society of Family Doctors. The Ministry of Social Affairs determines the location of providers' practices at the macro level by limiting GPs in each county. Local counties are responsible for ensuring that the general practices are in place according to the plan.

The contracting process also involves deciding which providers are to be contracted. Contracts are only made with providers who are licensed to work in Estonia. The providers are accredited against minimum standards set by the Ministry of Social Affairs. The licensing itself is performed by the Health Care Board.

Even if the contracting process adjusts the volume that will be purchased from each provider (see below), the EHIF has very little room for genuine selective contracting (choosing not to contract with a given provider). For instance, the branches are required to contract with all GPs and, although perhaps more implicitly, with all Hospital Master Plan hospitals in their region. The main exception is dentists, who do not systematically have a contract with the EHIF and provide services privately. Another form of selective contracting takes place between regions: to ensure access to specific services, some branches contract with selected providers in other areas. In that case, they commission the branch of the relevant region to include the volume they need in the contract negotiated with that provider. Overall, legally, it is not clear whether the EHIF can choose not to enter into any contract with a given provider. This ambiguity might be resolved in the near future, pending the results of a court case, but so far, selective contracting, such as that based on quality, has not really been used in Estonia.

During 2003, the EHIF had contracts with more than 215 providers for specialized outpatient care, about 50 providers for inpatient care and a similar number of providers of long-term care. Dental care provided to children (according to the benefit package) was the object of 360 contracts, and about 530 contracts in primary care were signed. This last number is smaller than the actual number of primary care practices because some practices enter into group contracts with the EHIF.

Once standard contract conditions have been met (enough providers are selected to meet the population's needs and the minimal conditions in each contract are respected), further negotiations with selected providers in specialist and long-term care continue to determine the volume of services as well as average case prices by specialty. These negotiations do not determine the actual payment method but rather constitute a planning element aimed at, among other things, containing costs for each case. In this process, for instance, prices can only be negotiated downward from the health care service list, even if this rarely happens.

In order to encourage this, the contracting process in 2003 introduced more explicit elements of competition between providers. The principle is that the EHIF opens for tender a part of its budget. Providers can then bid for the funds according to criteria set beforehand: for instance, to get a larger volume. The EHIF (Estonian Health Insurance Fund, 2004) states that, in 2004, about 20% of outpatient care cases were subject to competition in Estonia. The competition targets outpatient care, nursing care and dental care.

Finally, the individual contracts can list services that should not be provided by certain providers or assign them specific responsibilities to ensure access to outpatient care in remote areas.

The contracts are thus multifunctional and deal with a broad range of issues, including obligations for providers and the EHIF, the provision of access, the quality of services and financial conditions.

The four regional insurance funds monitor contract performance. This is organized by specialty. If services are over- or underutilized, the reasons are determined (barriers to access, need greater than expected, etc.). If needed, the contracts are renegotiated between the provider and the EHIF during the fiscal year.

The state budget funds health care services for uninsured people. Since 2003, the EHIF has administered this according to a contract with the Ministry. According to this contract, providers are allowed to provide unavoidable (emergency) care to uninsured people, and the EHIF will control the relevance of treatments and that payment is made according to rules similar to those that apply to insured individuals (such as a price list: see below). Basically, all providers are liable to provide care to uninsured people, and if it is classified as unavoidable, the invoice is sent to the EHIF. Emergency care should be provided to everybody, not solely to Estonian citizens. The whole budget is planned based on a historical utilization pattern and based on rough estimates that every second uninsured person would need emergency care each year.

The Health Care Board contracts ambulance services with ambulance service providers. These contracts are very general and ambulance services are therefore purchased rather passively.

The practice of contracting for public health services varies. The National Institute for Health Development manages national programmes by carrying out the tasks through its structure or outsourcing the services. In fact, many nongovernmental organizations and other institutions are involved in this process. This also includes health care providers in such areas as tuberculosis and HIV/AIDS for which some work is conducted through primary care and the hospital sector.

The EHIF budget also finances public health activities: disease prevention and health promotion. Disease prevention is carried out by health care providers and agreed as part of their contract (see above). This contract defines the target population, the minimum levels of service that should be provided and the total budget for each disease prevention programme. For health

promotion, the EHIF has defined priority areas taking into account the cost and the burden of diseases (currently cardiovascular diseases, cancer, mental health etc.). Given these priorities, all interested parties can make proposals once a year to tackle specific public health problems. This area will change considerably as of 2005: a new public tendering system will be introduced in which public health institutions, nongovernmental organizations and others will be allowed to participate. Until now, detailed contracts outlined all financial, technical and other conditions. The main challenge for purchasing health promotion will be to target outcomes rather than activities.

## Payment methods

All payment methods are regulated by health care service lists (see the section on pricing). All payment units are called health services, but the aggregation level of these services is very different. This section discusses the methods of paying providers, first for providers of specialist care (outpatient and inpatient) and then for primary care providers. The payment of ambulance services is discussed at the end of the section.

### *Specialist care*

Inpatient and outpatient providers of specialized care are paid using a range of payment methods that depend on the type of services provided: fees for services, visit fees, per diem, DRG-based and case-based complex prices. In addition, lump-sum payments are made to strategic hospitals to ensure emergency preparedness (24 hours) and for some specialties depending on the hospital characteristics (regional, central etc).

For inpatient care, the main payment method in 2001 was per diem, and 48% of total resources were transferred to providers based on that payment method (Table 5). For outpatient care, fee-for-service payments represented 52% of reimbursement. We discuss per diem, fees for services and DRGs in turn.

**Table 5.** Proportion of health care expenditure funded by various payment methods for different types of care in Estonia, 2001

Payment method	Outpatient care (% of total)	Inpatient care (% of total)	Inpatient and outpatient care (% of total)
Fee for services	52	38	42
Complex prices	9	14	13
Per diem	0	48	34
Consultation fees	39	0	11

Source: personal communication, Estonian Health Insurance Fund, 2004

### *Per diem*

In Estonia, hospital per diem rates cover the cost of basic examinations, diagnosis and treatment planning, nursing, meals, simple medical procedures, laboratory tests and drugs. The per diem rates vary across specialties. This payment method creates an incentive to keep patients in the hospital longer than necessary. This incentive was reinforced in 2003, when capital costs became included in bed-day prices, even though, to compensate for this, the per diem rates were increased on average by 36%.

A first effort to offset this incentive was made in the 1990s. Since then, for each specialty, the number of days during which a given per diem rate is paid is limited. If the patient stays in the hospital beyond that limit, the hospital receives a lower per diem rate (called the post-acute care per diem rate). This reduced the average length of stay, which fell from 11 days in 1994 to 7 days in 2002 (Fig. 13). Care practices changed, and the length of stay in many specialties decreased even below the limits. The EHIF attempted several times to negotiate lower maximum day limits with the Estonian Hospital Association, but no agreement has been reached.

Overall, the system encourages unnecessary hospitalization, since less serious patients are less costly to treat and the provider's profit is therefore higher. It also inflated length of stay: since most tests and procedures are conducted in the beginning of the stay, providers have an incentive to keep the patient beyond that stage to increase their profit. Because including capital costs in the per diem rates changed prices, relatively more funds flow to hospitals based on this payment method compared with the past few years. This trend could continue, as some experts even expect the average length of stay to increase in the wake of this reform.

### ***Fee-for-service***

Fees for services is the second common payment method used for hospitals in Estonia. Services not included in the per diem rates are categorized into groups such as surgical procedures, laboratory tests and diagnosis. A system of electronic data transmission has been in place since 2000, which has kept the administrative cost of managing the fee-for-service payment system under control.

Not surprisingly, the regulator and the providers are debating the scope that fee-for-service payments should have in Estonia. Providers favor detailed lists of services, as it gives them more room to identify the ones that are more or less profitable and to adjust their activity or the representation of their activity accordingly.

The debate is also confusing because providers in Estonia are reluctant to discuss separately the issue of recording detailed information and paying for each service separately. In some specialties, the fee-for-service list is very detailed and used as a tool for monitoring activity (such as for laboratory tests). The providers currently use the invoicing system based on fees for services to manage their own activity but also centrally to monitor clinical practices through the electronic database. This has created some confusion. On the one hand, some providers have resisted the introduction of more grouped payments because it would limit their capacity to compare their activity over the years. On the other hand, there is a consensus, including among some providers, that the fee-for-service list may not be detailed enough for the electronic database to become a good management and monitoring tool. In addition, the planned introduction of an electronic patient card system will reinforce the need for more detailed recording of information. But again, addressing separately this issue and that of the scope of the fee-for-service payments has proven difficult.

Fee-for-service payment systems are known to pose less threat to the quality of care than grouped payment methods but also to tend to inflate volume. To offset this incentive in Estonia, each provider contract sets a yearly cap on the number of procedures that can be delivered (close-ended case volume). This is believed to curb the increase of the average cost per case.

Another limit of the fee-for-service system is that it creates no room and incentives to increase technical efficiency (doing less to get the desirable outcome) for a given patient. The

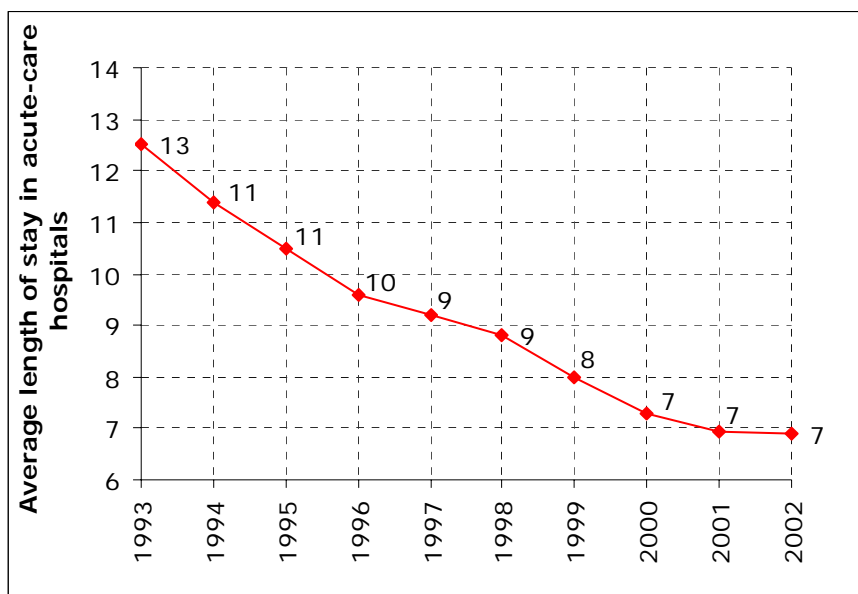
development of the pricing model (in 2003–2004) showed that no hospital in Estonia had a proper cost accounting system that would enable it to manage costs. This is largely explained by the traditionally low accountability of hospitals but also by the fact that payment systems based on fees for services and per diem rates did not give them enough incentives to build up a cost management system.

### *Case-based payment*

During the late 1990s, a decision was made to move away from detailed fee-for-service payments and their perverse incentives and to increase case payments. This was motivated by the fact that the average length of stay was stagnant and remained well above the proclaimed objective of 4.5 days for acute-care cases (Fig. 13). In addition, the bed occupancy rate in acute-care hospitals decreased from 80% to 65% during the 1990s, which indicated that hospital capacity was being inefficiently used (Fig. 14).

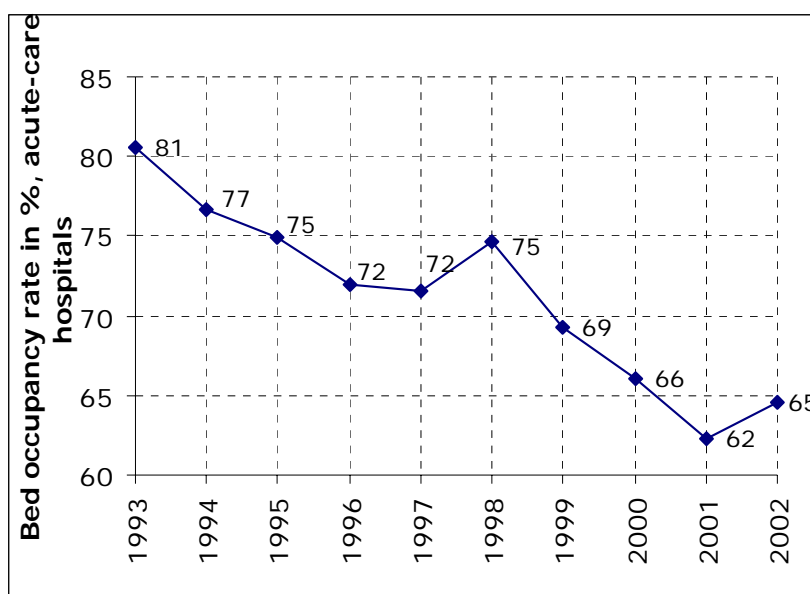
Case payments are expected to give providers more opportunities to use their resources efficiently and to create incentives for them to set up clinical and cost management systems. Another perceived advantage of DRGs is that they improve the system’s transparency by improving knowledge on providers’ activity.

**Figure 13.** Average length of stay (days) in acute-care hospitals in Estonia, 1993-2002



Source: WHO Regional Office for Europe (2005)

**Figure 14.** Bed occupancy rate (%) in acute-care hospitals in Estonia, 1993-2002



Source: WHO Regional Office for Europe (2005)

Complex prices were introduced in 1998 for several well-defined surgical diagnoses such as appendectomy, hip and knee replacements and normal births. In 2004, there were about 50 complex prices, although the share of complex prices in terms of total inpatient reimbursement is still small compared with per diem and individual fee-for-service payment (Table 5). In addition, the whole system is moving towards a more extensive DRG system. The DRG implementation plan was prepared in 2001. Two alternative strategies were considered: developing a specific DRG system based on historical case-based data in Estonia (in a sense, expanding the complex-price system) or using an already functioning DRG system.

In 2001, it became possible to compile the FFS information on a per case basis using the EHIF invoicing data, so the possibility of creating an Estonia specific DRG system was seriously considered. Preliminary analyses and comparisons with Nordic countries showed that it would be too difficult to develop a comprehensive system, in particular because there was not enough information available to ensure accurate DRG grouping.

The decision was therefore made to adopt the Nordic DRG system, an adapted HCFA-DRG system (NordDRG) used by Nordic countries for various purposes (benchmarking, planning, contracting and payment).

The system is suitable to Estonia for several reasons. A very important precondition for implementing a DRG system is to have a classification that can be used as input for DRG grouping. The NordDRG system requires using the 10th version of the International Classification of Diseases (ICD-10) and of the Nordic Classification of Surgical Procedures. Estonia has been using the ICD-10 since 1997 and adopted the Nordic Classification of Surgical Procedures in 2003. The adoption of the NordDRG system was also preferred because technical support from the Nordic countries was available throughout the implementation process and, finally, the NordDRG system was not a commercial product, which makes implementing and maintaining the system less costly.



The DRG system started to be implemented in April 2004, and it is planned to be gradual. The change is strongly opposed by providers, who are afraid that the DRG prices might be incorrect (see the section on pricing). Nevertheless, several protection mechanisms have been put in place.

First, the proportion of DRG payment for each case was initially set at a low 10%; in 2005, it was raised to 50%. The full implementation will come at a later stage, in particular, when the existing fee-for-service lists have been replaced by alternative classifications of health care services.

Second, a different reimbursement system is set for outliers, which are reimbursed based on fees for services and per diem rates. The method for identifying outliers is the following: low-cost outliers are cases for which the total cost is less than the lowest per diem rate in the price-list. High-cost outliers are calculated for each DRG using standard deviation-based cutting.

Finally, psychiatric and post-acute care are excluded from the DRG system, which is used to pay for acute inpatient care. In addition, if a DRG patient stays in the hospital for more than two months, the subsequent invoices are paid separately by fees for services and per diem rates.

Overall, the margin for error is considered to be acceptable. The providers' opposition is generally believed to reflect reluctance to change rather than justified concern. The impact of the DRG system is expected to remain minor while the proportion of DRG-based payment is low. In any case, the system contains a strong incentive to shift towards outpatient surgery, as the prices are identical for inpatient and outpatient settings.

### ***General practitioners practices***

GPs are paid through a combination of capitation and three other types of payment that make up the practice budget (Table 6 shows the share of these various types of payments in the budget). Practices receive monthly pre-payments, which are recalculated twice a year to reflect changes in the patient list (patients can change GPs).

**Table 6.** Structure of the average GP budget by type of remuneration in 2004

<b>Payment type</b>	<b>2004</b>
Capitation	70.6%
Fees for services	14.5%
Basic allowance	12.7%
Distance fees	0.4%
GP diploma	1.9%

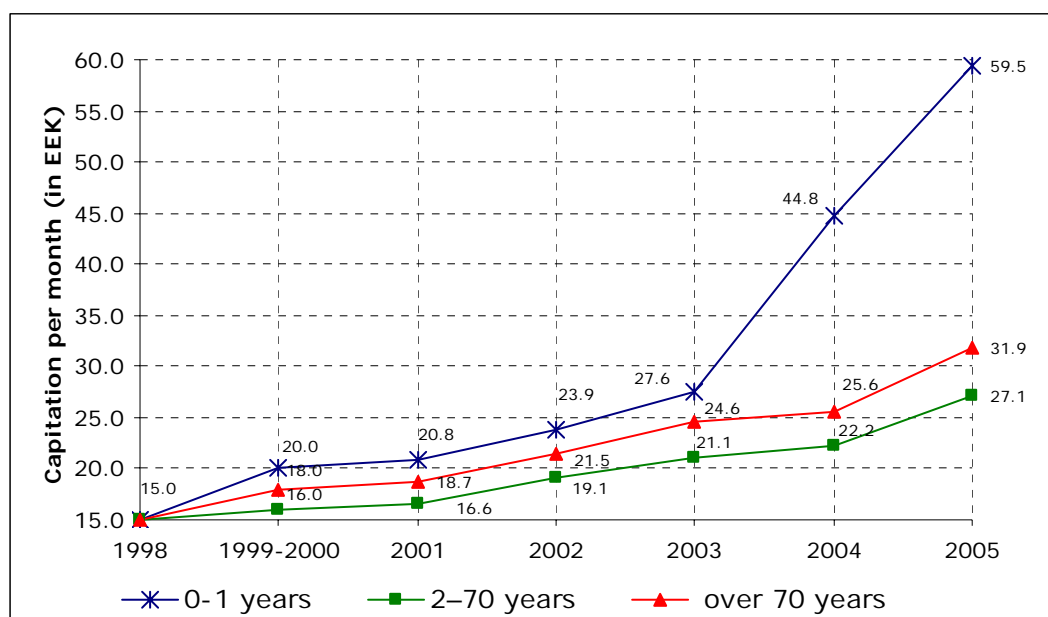
Source: personal communication, Estonian Health Insurance Fund, 2004

The capitation payment for GPs is adjusted for the age of the patients using three groups (<2, 2–69 and ≥70 years). If a GP's roster has less than 1000 people, he or she still receives capitation for 1000 people to cover the fixed costs. An upper ceiling is also set, and if the list has more than 2300 people, an additional physician should be recruited to ensure access to services.

Capitation payments have evolved over time. In the beginning, in 1998, the capitation rates were equal for all age groups (Fig. 15), but adjustments for age were introduced in 1999. In 2003, the

EHIF introduced a GP cost model, and this increased the difference in capitation across age groups, as the capitation rate of children under two years of age rose by more than 50%. This increase reflects the much higher consultation rate of young children compared with the general population (GPs are responsible for following up children).

**Figure 15.** GP capitation rates according to age groups in Estonia, 1998-2005



Source :personal communication, Estonian Health Insurance Fund, 2004

GPs can also receive separate fee-for-service payments up to a maximum of 23% (before 2005 the maximum was 20.5%) of the total amount received in the form of capitation payments. The EHIF and the Association of Family Doctors agree on the procedures reimbursed by fees for services. The procedure list has been expanded over time (including more services such as laboratory tests and ultrasound tests), as GPs were becoming more experienced in providing these types of care. The objective is to create an incentive for providers to manage and provide more at the primary level.

Practices also receive a basic monthly allowance for investment costs. During the early stages of the reform in the late 1990s, this allowance was aimed at supporting the GP reform and to help GPs in establishing their private practices. Since the reform was completed, the monthly allowance has been maintained and covers fixed costs not related to practice size.

Additional and more marginal payments are made to compensate GPs who are working more than a specified distance from the nearest hospital and to reward physicians with a diploma in family medicine. The justification for that second payment has been eliminated: since 2003, having a diploma in family medicine is a precondition to entering into a contract with the EHIF. The next step will most likely be a higher focus on performance and quality of care, in the form of quality bonuses for family doctors. This project is now being negotiated between providers and the EHIF and is strongly supported by Association of Family Doctors.

The GP remuneration system leads them to manage two aspects of their practices: the clinical one (avoiding unnecessary diagnoses and treatment among those for whom they provide services) as well as the economic one. For instance, they are responsible for hiring personnel (nurses) or determining the remuneration of all staff, including themselves. Family doctors' income depends on the size of their patient list but also on their performance: any money spent on unnecessary analyses and procedures will diminish their income. Overall, this payment system is designed to provide incentives to take more responsibility for diagnostic services and treatment, to provide continuity of care and to compensate physicians for the financial risk of caring for children and older people or working in more remote areas. A weakness of the GP remuneration system is the capitation payment, which creates an incentive to provide less services and perhaps a lower quality of care. Still, this risk can be managed with outcome-related incentives, such as the above-mentioned quality-bonus system. The second weakness of the system is that physicians are not accountable for the cost of the drugs they prescribe. This is all the more a concern, as capitation payments generate an incentive to use treatments with lower time input (prescription rather than counselling).

### ***Ambulance services***

Ambulance services are paid from the state budget using a global budget payment method. The Ministry of Social Affairs applies yearly for resources from the state budget and usually receives a lower amount than it asked for. Once the amount is known, it is split between ambulance teams. Teams that include physicians receive higher budgets than those staffed with nurses. Purchasing of ambulance services is rather passive, and there are few incentives for providers to improve their performance.

## **Pricing**

### ***Background***

The levels and prices of payments for health care services are outlined in the health services list (known also as the price list), which is approved by the government. All prices are maximum prices. Providers and the EHIF can agree on lower prices for the contracts. This, in theory, leaves room for price competition between providers, but this possibility is rarely exercised in practice. Prices are identical for all providers, and there are no adjustments for region or hospital characteristics (such as teaching status). In principle, health service prices cover all costs related to providing services except those related to scientific and teaching activities, which are funded separately.

The health care service list also sets a maximum ceiling for co-insurance per type of service, which can be up to 50%. Most services have no user charges except for in vitro fertilization (30% co-insurance), abortion without medical indication (30%) and rehabilitation per diem for some illnesses (20%). The co-insurance rates for listed services are decided during the price-setting negotiations and are considered when there are more effective services available or when the service has other than health-related implications, such as social care (see the section on the benefit package).

During recent years, substantial attention has been paid to service prices. Providers claim that service prices are too low and that there are some distortions between prices. Neither argument is

based on actual calculations at the provider level but rather reflect experts' opinions. Since most prices cover labour costs (about 60%), the focus of the dissatisfaction can be safely assumed to be wage levels. The perceived threat related to European Union accession and its possible impact on mobility, recently confirmed by a survey in which professionals declared they were willing to migrate, gives more weight to this issue.

Discussions about possibly increasing physicians' minimum salary take place every year. There is also a public debate on what a fair minimum salary for physicians should be, as physicians argue that twice the national average salary should be set as a minimum. This issue, as in all countries, is politically delicate given the singularity of the medical profession. But it is also important to remember that setting a high minimum salary decreases labour market flexibility and makes employers more willing to substitute input (physicians versus nurses and physicians versus technology). From a more general macroeconomic perspective, increases in minimum salaries not accompanied by gains in productivity adversely affect the competitiveness of the economy, an impact that could be reinforced if salary increases in this sector signal others to follow suit. The government's concern with the competitiveness of the economy will probably prevail. Increases in remuneration for the sector are more likely to be performance-related and in part implemented by providers themselves, as they are responsible for paying the salaries of their employees rather than coming in the form of high minimum salaries guaranteed by the state.

### ***Pricing methodology***

Health care service prices are calculated according to a method applied by the Minister of Social Affairs and administered by the EHIF. The pricing method is applied to new services included on the service list and if providers or specialty associations propose revising service prices.

The pricing method aims at establishing the cost of a service produced with optimal resource utilization. The main cost components are labour costs (direct costs related to providing services), one-time use devices, reusable medical devices with a serviceable life of less than one year and above one year, home-visit transport costs, operating costs of rooms, overhead and capital costs.

A ceiling is set for each cost component. Labour costs are calculated based on the time needed to provide a service and an average hourly salary (the average salary in the past year by occupation adjusted for inflation in the past year). The maximum limits for medical devices are set using average wholesale prices. The costs of medical devices are allocated to service prices according to an optimal time of using that medical device for providing services, taking into account optimal service volume. The costs of maintaining medical devices may not exceed 6% of the cost of acquisition per year. Overhead may not represent more than 24% of the direct labour costs of providing services.

The method seems to provide very clear rules for calculating service prices but has several limitations. First, optimal resource utilization is mostly based on expert opinions, and because of the asymmetry of information, the EHIF has great difficulty in challenging them. During the negotiations between the EHIF and providers, they discuss the optimal resource utilization by cost category, and the experience of the past year shows that providers are more likely to estimate the maximum costs of providing services than the average costs, let alone optimal costs.

Second, the pricing method is only applied to new services and to services for which providers submit proposals for revision. This creates some distortion, as proposals are usually meant to lead to price increases and do not take into account the overall balance of all services in the specialty. One exception is mental health, where the method was applied to a wide range of services with the objective of shifting care to outpatient care settings using the same budget. In an effort to limit the escalation of costs, new services and price changes are only added to the service list if the corresponding financial resources are available in the EHIF budget (budget surplus”.

Third, all price increases are not based on this method. The usual practice is to increase prices by some percentage point, taking into account the available surplus in the EHIF budget.

To transcend these limitations, in 2003 the EHIF started developing a more general cost model for specialist care aiming to achieve a standardized overview of all prices in the service list. Costs are first computed using experts’ opinions and are later controlled by using the actual costs for broad categories of care that can be estimated using hospitals’ accounting system. This process has the advantage of giving a complete overview of the various service costs divided by cost category. Even if this system limits the role of experts’ opinion, an arbitrary component remains.

In addition, prices are not just aimed at covering costs but are an important source of incentives. Service prices that are higher than actual costs give providers incentives to provide these services and vice versa. For instance, for several years the incentives embedded in the pricing list undermined providing services in an outpatient setting, which corresponded to a proclaimed objective. In particular, the per diem payment for outpatient surgery was much lower than the general per diem rate, and there was therefore no economic incentive to perform outpatient surgery.

### ***Capital costs***

A very critical aspect of service prices has been covering capital costs. The owners of the facilities, the municipalities, are mainly responsible for this. The funding of capital costs by municipalities has been scarce and unsystematic and so have been state budget allocations that are supposed to cover capital costs. Since July 2003, all costs related to providing services (except training) are meant to be included in prices, including capital costs, which means that the EHIF budget now effectively covers capital costs. The objective of this change was to improve geographical consistency and fairness in infrastructure development and to relate covering capital costs to activities.

Capital costs are added to service prices such as ambulatory specialist visits, operations, the per diem payment and complex prices. The mark-up was calculated according to all providers’ average bed capacity taking into account the market value of replacement costs and a 36-year amortization period. Capital costs were also added to primary and long-term care prices to secure equal treatment between specialist, primary and long-term care.

As mentioned before, the number of sources for funding capital costs has increased since 2003: service prices were increased to account for capital investment by municipalities and the state. In addition, starting in 2004, funds related to the European Union are available to cover investment in infrastructure (see the section on collection of revenue).

The inclusion of capital costs into service prices was only one of the planned steps for the years to come. In addition, there was a plan to use prices for covering capital charges. The objective was to reduce inequity between providers, as providers started with infrastructure in varying conditions during privatization. The ultimate objective was to stimulate private funding in the hospital sector and to undermine the comparative advantage of the hospitals that had received large public funding for investment in infrastructure. For several reasons, capital charges were not introduced and a halfway solution was chosen.

## **Benefit package and user charges**

The EHIF provides in-kind and cash health care benefits. The first group includes a wide range of health services in primary, outpatient and inpatient care as well long-term care. This group also includes pharmaceuticals and medical devices, which are subject to different varying user charges. The cash benefits (reimbursement for services) include the costs of dental care for adults and some reimbursement in case of high pharmaceutical expenditure: insured people who spend more than a given amount out of pocket on listed drugs during a given year can claim partial reimbursement. Since 2003, additional financial protection has been provided to those who face high pharmaceutical expenditure: the EHIF reimburses 50% of a yearly cost between €383.40 and €639.00, and 75% beyond, up to a limit of €1278.00. Any additional cost is not covered.

The EHIF covers a broad range of health care benefits. This feature is in part inherited from the old system in which the state funded and provided universal, comprehensive health care. A few services are excluded from the benefit package: cosmetic surgery, alternative therapies and opticians' services. During recent years, clear and explicit rules for adding new services to the benefit package and establishing the appropriate level of user charges have been introduced. Nevertheless, this has only applied to new services or services whose content changed, but all services delivered previously were included in the current service list without evaluation.

Dental care benefits included in the benefit package differ for children and adults. Since 2002, the EHIF has guaranteed dental care free of user charges to children and adolescents up to 19 years of age, including preventive and curative services. The cost of dental care for adults must be paid for out-of-pocket but is subject to partial reimbursement by the EHIF (in general, most people can expect to be reimbursed €9.6 per year). The reimbursement rate is higher for some population groups with greater needs, such as pregnant women, mothers in the first year after childbirth and people suffering from certain diseases that affect their need for dental care.

The applications for including new services (or excluding current ones) in the benefit package are assessed using four criteria: medical efficacy, cost-effectiveness, appropriateness and compliance with national health policy. The availability of financial resources is also taken into account. Rules are set about the information needed to assess each criterion and the institutions and specialists that should conduct these assessments, but the weighting of the various criteria is not explicit. In practice, the availability of financial resources has been the predominant factor.

For insured people, the EHIF covers all services included in the benefit package, and a co-insurance percentage is explicitly introduced for some of the services that cannot exceed 50% (see above). For services not included in the benefit package, the user pays the full cost and the providers are free to set prices. Uninsured people are in a similar position, unless care is deemed unavoidable. In practice, however, the price charged to uninsured people is based on the price list.

The pharmaceuticals covered by the EHIF are defined by a positive list. During recent years, clearer guidelines were developed for adding new pharmaceuticals to the positive list and reference prices were introduced. In addition, efforts were made to introduce more generics on the market and to promote their utilization. Medical devices for certain diseases are also included as in-kind benefits and are subject to a co-insurance rate of 90% up to a yearly ceiling of €1278.

### ***Co-insurance***

Co-insurance comprises the biggest share of out-of-pocket payments, especially for pharmaceuticals (see the section on the collection of revenue), but the importance of other services is increasing (Fig. 7). The co-insurance applies to pharmaceuticals and to some services included in the service list, mainly for interventions considered to be less cost-effective than other services available in the package. There is no comprehensive cap on annual out-of-pocket payments, but for pharmaceuticals, a model has been developed to reimburse part of the expenses of those with a high annual cost.

### ***Co-payment***

Flat co-payments are charged for primary care physician home visits, outpatient care visits, hospital bed-days, and also in the form of a deductible for prescribed pharmaceuticals.

Primary care office visits are free of charge to ensure access to primary care. Since 2002, family doctors have been allowed to charge a €3.2 home visit fee. For outpatient specialist care, the consultation fee is the same but also applies to office visits. These fees are defined as maximum, but the provider can decide the actual amount between zero and €3.2. For specialist care, patients can benefit from exemptions: for instance, if they are referred to the same specialty or the same institutions, they are not charged an additional fee. Since 2004, children younger than two years of age and pregnant women have been exempted from the consultation fee. Even though the current system already limits access to the specialist care level and primary care home visits for some groups, primary care physicians are lobbying for the introduction of a co-payment for all primary care consultations. This could create considerable access barriers to primary care, especially among lower-income groups, which consider this to be a significant restriction (described in more detail in the section on collection of revenue). If such co-payments were to be introduced, attention should be given to the financially vulnerable people, and perhaps some targeted exemptions should be considered.

Inpatient care providers can charge patients a per diem rate for up to 10 days with a limit of €1.6 per day. Children, pregnancy or delivery-related conditions and emergency care are exempt. Again, the amount was set as a maximum fee, but most hospitals are charging the full amount. But on the other hand, there are no empirical data on the number of providers that actually charge the fees. All the rules described in this section apply to providers contracted that have contracts with the EHIF and for the insured people. In all other cases (not including uninsured people), the providers negotiate prices with the patients.

Prescription drugs are generally subject to a €3.2 deductible, and a further co-insurance percentage usually applies (50% up to €12.8). Beyond this ceiling, the user covers all costs. Additional measures aim at limiting the burden for some categories of patients: a positive list of

drugs for chronic conditions with 75% and 100% co-insurance rates and a lower deductible of €1.3. Additional exemptions apply for young and retired people.

### ***Other***

The rest of households' private expenditure consists of services not included in the benefit package, services provided by private providers for which patients bear all the cost as well as payments for over-the-counter drugs. Unfortunately, no reliable statistics are available to distinguish this from other household expenditure.



## References

- Busse R, Saltman RB, Dubois H (2004). Organization and financing of social health insurance systems – current status and recent policy developments. In: Saltman RB, Busse R, Figueras J, eds. *Social health insurance in western Europe*. Buckingham, Open University Press;33–80.
- CIET International (2002). *Curbing system leakages: the health sector and licensing in Estonia*. Tallinn, Community Information, Empowerment and Transparency (CIET) International.
- EMOR (2003). *Elanike rahulolu arstiabiga 2003 [Public satisfaction with health care in 2003]*. Tallinn, Estonian Health Insurance Fund (EHIF).
- Estonian Health Insurance Fund (2002). *Eesti Haigekassa aastaaruanne 2002 [Estonian Health Insurance Fund Annual Report 2002]*. Tallinn, Estonian Health Insurance Fund.
- Estonian Health Insurance Fund (2003). *Eesti Haigekassa aastaaruanne 2003 [Estonian Health Insurance Fund Annual Report 2003]*. Tallinn, Estonian Health Insurance Fund.
- Estonian Health Insurance Fund (2004). *Eesti Haigekassa eelarve 2004 [Estonian Health Insurance Fund Budget 2004]*. Tallinn, Estonian Health Insurance Fund.
- Figueras J, Robinson R, Jakubowski E, eds. (2005). *Purchasing to improve health systems performance*. Buckingham, Open University Press.
- Grignon M et al. (2004). The influence of physician payment methods on the efficiency of the health care system. In: Forrest P-G, Marchildon G, McIntosh T, eds. *Changing health care in Canada*. Romanow Papers, Vol. 2. Toronto, University of Toronto Press;207–239.
- Habicht J, Kunst A (2005). Social inequalities in health care services utilisation after eight years of health care reforms: a cross-sectional study of Estonia, 1999. *Social Science & Medicine*, 60:777–787 .
- Habicht J et al. (2005). *Out-of-pocket payments in Estonia: an object for concern?* Copenhagen, WHO Regional Office for Europe (HSF Working Document, Health Systems Financing).
- Jesse M et al. (2004). *Health care systems in transition – Estonia*. Brussels, European Observatory for Health Systems and Policies.
- Josin M (2004). *Korruptsiooni ja varimajanduse levik Eestis [Corruption and the black market in Estonia]*. Tallinn, Estonian Institute of Market Research.

Kunst A et al. (2002). *Social inequalities in health in Estonia: main report*. Tallinn, Ministry of Social Affairs of Estonia.

Kutzin J (2001). A descriptive framework for country-level analysis of health care financing arrangements. *Health Policy*, 56:171–204.

Marksoo U et al., eds. (2000). *Living conditions study in Estonia 1999. Baseline report*. Tartu, Ministry of Social Affairs, Statistical Office of Estonia, University of Tartu and FAFO.

Ministry of Finance and Ministry of Economy and Communication (2004). *Eesti majandusülevaade 2003 [Estonian economy review 2003]*. Tallinn, Ministry of Finance and Ministry of Economy and Communication.

Ministry of Social Affairs (2001). *Vabariigi tervishoiu kogukulud 2000. aastal [National health accounts 2000]*. Tallinn, Ministry of Social Affairs.

Ministry of Social Affairs (2002). *Vabariigi tervishoiu kogukulud 2001. aastal [National health accounts 2001]*. Tallinn, Ministry of Social Affairs.

Ministry of Social Affairs (2003). *Vabariigi tervishoiu kogukulud 2002. aastal [National health accounts 2002]*. Tallinn, Ministry of Social Affairs.

Ministry of Social Affairs (2004). *Vabariigi tervishoiu kogukulud 2003. aastal [National health accounts 2003]*. Tallinn, Ministry of Social Affairs.

Normand C, Busse R (2002). Social health insurance financing. In: Mossialos E et al., eds. *Funding health care – options for Europe*. Buckingham, Open University Press;59–79.

Statistical Office of Estonia (2000). *Leibkonna elujärg 2000 [Household standard of living in 2000]*. Tallinn, Statistical Office of Estonia.

Statistical Office of Estonia (2002). *Leibkonna elujärg 2001 [Household standard of living in 2001]*. Tallinn, Statistical Office of Estonia.

Statistical Office of Estonia (2003). *Leibkonna elujärg 2002 [Household standard of living in 2002]*. Tallinn, Statistical Office of Estonia.

Statistical Office of Estonia (2004). *Leibkonna elujärg 2003 [Household standard of living in 2003]*. Tallinn, Statistical Office of Estonia.

Suhrcke M (2004). *What can health do for the Estonian economy?* Venice, WHO European Office for Investment for Health and Development.

WHO (2000). *The world health report 2000 – health systems: improving performance*. Geneva, World Health Organization (<http://www.who.int/whr/2000/en/report.htm>, accessed 12 April 2005).

WHO (2005). National health accounts: country information [web site]. Geneva, World Health Organization (<http://www.who.int/nha/country/en>, accessed 12 April 2005).

WHO Regional Office for Europe. European health for all database (HFA-DB) [database online]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/hfadb>, accessed 12 April 2005).