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HEALTH CARE SYSTEM IN LITHUANIA:

Short Description, Main Indicators and Distribution of Health Care Costs by Age Groups

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// SUMMARY

This paper describes main features of Lithuania health care system, its development and future challenges. As the personal health care comprises the main part of the system, the paper concentrates on this sector of health care provision. Since 1996 Lithuania is moving from the health care provision model inherited from soviet planned economy to the model based on statutory health insurance. The health insurance has changed the method of financing and payment for the services. In Lithuania a mix model of financing was chosen, therefore a major part of means comes from the state budget in form of a part of personal income tax. The benefit side of the insurance scheme also does not follow the strict insurance principles, as almost all inhabitants have an access to health services regardless the contribution payment.

In provision of health care services the major focus is being placed on primary health care, which used not to be the case in soviet time. Still services provided in hospitals tend to dominate as there is a significant oversupply of hospital beds inherited. The numbers of doctors are very high as well. While some improvements are being noticed, efficiency of the system still is a challenge.

The health care sector is underfinanced. Taking in mind that there is no clear co-payment system and health care providers are in poor financial situation, there is a widespread practise of unofficial payments both in forms of payments for pharmaceuticals and medical supplies in hospitals, which supposed to be free of charge, and gratitude payments to medical personnel. Private expenditure on health care is on rise mainly due to increased prices of pharmaceuticals.

This study attempted to make a health care costs distribution to age groups. This was a first exercise of such type ever done in Lithuania. However, we had to restrict ourselves only to public expenditures, as the structure of information on private costs does not enable to make distribution to 5 years groups. The results are somewhat specific to Lithuania as the costs of the very old population groups show a rapid decline which is an usual pattern in other countries. However, one can expect that Lithuanian health care costs will follow international trends in the nearest future.

Lithuanian health care system has maintained to be stable during the time of considerable social and economic transformation. One can notice that the main health indicators, such as infant mortality and other, even improved in recent years. Now it is the time for the second stage of the reform as the background of the new system is already created.

1 INTRODUCTION

Lithuania inherited a model of health care provision typical for the former USSR. This was over-centralised, had a little room for patient choice or respect for patient rights. All health care facilities were owned by the state. Shortages of drugs and little attention to primary and social care were usual to this system.

On the other hand, medical facilities were quite evenly distributed throughout the country, and financial barriers to health services (even including under-the-table payment, which were widespread) were low. The high coverage and emphasis on prevention ensured that each person had contact with medical practitioner on a regular basis. In the terms of health status and services provision Lithuania compared favourably with the rest of the USSR.

Since 1996 the health care system in Lithuania has been in the process of moving away from an integrated model towards a contract model. Significant changes in the system have been prompted by two major factors: the appearance of a third party payer in the form of a statutory health insurance system; and the enforcement of legislation redefining property rights and the status of health care institutions. Nowadays the vast majority of Lithuanian health care institutions are non-profit-making enterprises.

Health care system in Lithuania as in other countries could be divided into personal health care and public health care services. Personal health care is based on the statutory health insurance. Public care (prevention of communicable diseases, health education) is provided through public institutions and is financed from the general state budget. Regulation and control of safety at work conditions is responsibility of the Ministry of Social Security and Labour.

As personal health care comprises the main part of health care system and major reforms have been conducted there, in this report we will focus on this sector of health care provision.

2 STATUTORY HEALTH INSURANCE

Since 1997 the main part of health care system in Lithuania was placed on the mandatory public insurance principles. While it is already for four years in place, health insurance is still developing and not all parts of the state personal health care system operate on the insurance principle purely.

3 COVERAGE AND FINANCING

Health insurance is mandatory as other types of social insurance for all permanent residents of Lithuania. Social insurance contribution rate is set at 34%[3], out of them 3 percentage points go to the mandatory health insurance.

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[3] This contribution rate covers old age and disability pension insurance, sickness and maternity leave benefits, labour accident and professional diseases payments, and unemployment insurance. 3% of payroll are payable by employees and 31% by employers.

Lithuania has chosen a mixed model of health care financing – partly by payroll tax as a kind of social insurance, and partly by income tax. One third of the personal income tax amount goes to the health insurance. A main body administering mandatory health insurance is State Sickness Fund separate form both general and municipal budgets.

For salaried workers or workers earning wages the health insurance contribution rate is set at 3 per cent of payroll and is paid by employer only. This contribution together with other social insurance contributions is collected by state social insurance agency SoDra. Employer also withdraws a personal income tax and transfers it to the State Tax Inspectorate. Both agencies transfer due collections to the State Sickness Fund. In this way health insurance contribution collection is subsidized by other state authorities.

Self-employed persons in Lithuania are obligated to insure themselves only to one kind of social insurance, namely pensions, therefore they pay only income tax part of health insurance contribution. Self-employed pay 30% of personal income tax, but not less than 1/12 of so-called state contribution (see below) per month. For persons working under lump sum tax licenses one third of this lump sum goes to the health insurance as well and it should be not less than 5% of minimum wage (LTL 21.5 or EURO 6.23). Farmers do not pay any income taxes, therefore their contribution is set as a fixed amount - 3.5% of minimum wage monthly (LTL 15.05 or EURO 4.36). They pay for themselves and members of their family directly to the Sickness Fund and this is the only group which contributions are collected by the Sickness Fund itself. Farmers possessing up to 3 ha land pay even less: 1,5% of minimum wage (LTL 6.45 or EURO 1.87) per month.

Other persons not belonging to any of above-mentioned groups pay 10% of average wage in economy (approx. LTL 100 or EURO 29) per month. This is considered to be rather high rate. Therefore there is quite high evasion of such payments.

For some population groups health insurance contribution is paid by the state. The list of such groups is rather comprehensive. It includes persons entitled to any kind of pension, unemployed people and non-working members of their families, pregnant women in maternity leave, mothers bringing up children up to 8 years old and mothers bringing up two or more children up to 18 years old, persons up to 18 years old, students of all kind of institutions, social assistance beneficiaries, disabled persons, people suffering from the illnesses included in the list approved by the Ministry of Health, victims of resistance movement during 1939-1990.

Every year considering the state budget the Ministry of Finance sets up a state contribution rate as a nominal sum per capita of average number of insured by state means. The state contribution rate was LTL 201.7 (or EURO 58.46) in 2001. The average sum is transferred to the Sickness Fund quarterly.

One can observe that more than a half of Lithuanian population falls into the list of insured by the state means. In 2000 the number of such persons was 2.07 million, while in 2001 it was 2.16 million or 58% of Lithuanian population. As the number of the receivers of state aid is increasing, the contribution rate falls accordingly. In 2001 the contribution rate for state insured was only LTL 187.2 (or EURO 54.26) comprising the total transfer sum of LTL 405.6 thousand (in 2000 it was LTL 417.8 thousand). Being insured by the state means that no compliance of contribution payment is being checked. This weakens the application of the insurance principles in the system.

The Ministry of Health seeks to establish a special methodology for calculation of the state contribution in order to have more stability and perhaps more funding. Now it mostly depends on the negotiations with the Ministry of Finance and what is cared about is the total sum of transfers from the state budget not the real coverage by the contribution of the services provision.

The most severe problem with contribution compliance lies with farmers. Even though their contribution rate is extremely low, they tend not to pay it. For other insured groups the income tax withdrawals for health insurance are done automatically then person pays taxes or employer transfers payroll contributions. Persons neither working under labour contracts, nor self-employed tend to register with labour exchange to become eligible to the state provided health insurance contributions as unemployed. So the amount of "other persons" paying the 10% of average wage contribution is negligible (see the Table 1 below).

Briefly speaking, the Sickness Fund resources are mostly collected through general taxation and vast majority of Lithuanian population is compulsorily insured for health care[4].

In the table one can see the structure of the Sickness Fund revenue in last years. It shows that the main payer to the Fund is the state budget either in form of share of income tax or transfers or contributions.

Table 1. State Sickness Fund budget revenue

	In thousand litas		In per cent	
	1999	**2000**	**1999**	**2000**
Revenue	1756406	1806044	100.0	100.0
Employer's compulsory health insurance contributions	303495	256271	17.3	19.7
Deduction out of tax on individual income	1033549	1019170	58.8	56.4
Farmer's contributions	166	1430	0.1	0.1
Uninsured persons' contributions	227	210	0.0	0.0
Transfers from the state budget	409156	423003	23.3	23.4
Contributions for insured by the state	403532	417760	23.0	23.1
Other transfers from the budget	950	940	0.1	0.1
Compensations for donors	4674	4303	0.3	0.2
Revenue from activities of compulsory health insurance institutions	446	307	0.0	0.0
Voluntary contributions of enterprises and households	2596	2130	0.1	0.1
Other revenue	5249	3523	0.4	0.2

Source: (7)

[4] In absence of precise personal insurance accounting, a fact of the broad population coverage could be argued by the population registration data (registration is conducted by the primary health care providers) – 96.8 % of the total population as in April 2001.

The health care system clearly suffers from the underfinancing. The health insurance scheme was introduced to boost the financing for the system. It was believed that clear linkage between contribution payment and services provision would encourage the compliance. However, it occurred that these measures needed to have some quite strong prerequisites in order to be implemented properly. First of all, good tax and social insurance administration had to be in place in order to prevent evasion. On the other hand, the readiness of health care facilities to manage the new system was far from the required level – there were both lack of administrative skills and computer equipment. Now things are improving step by step. The Government of Lithuania is considering the introduction of the blue-chip social card, which is expected to help to fix the problem.

Of course, boosting the finances going to the health care sector alone do not solve problems. To improve the situation radical reforms are needed as well. They started in Lithuania, however, one could notice that their pace and deepness is inadequate.

On the other hand, some implementation problems were unavoidable. Actually Lithuania as other transition economies, which convert their health care systems from the supply-side to the demand-side dominated, in several years tries to implement reforms, which took several decades in developed countries. One should admit that solution of some problems in health care is related to the performance of other sectors as well.

4 HEALTH CARE SERVICES

Insured persons that means those who paid or on behalf of whom were paid contributions are eligible for almost all type of personal health care services for free. Only extra comfort services in hospitals have to be covered by patients themselves. However, due to large underfinancing of public health care providers (hospitals and ambulatories) there is a trend to shift more and more costs of the health care services to the clients. It mostly regards tests and special examinations provided in ambulatories.

Non-insured people are eligible to receive a prompt and necessary medical help. However, there is no clear distinction between services provided to the first and the second group, because there is no clear determination what is included into the prompt and necessary services. This drawback weakens very much incentive to pay insurance contributions as insured and non-insured receive almost the same services in fact. In public opinion the type of health care provision resembles very much one used in soviet time, when everybody had a right to free of charge medical care. The problem becomes even more severe as health care institutions not always are able to check the compliance of contribution payment promptly. While things are improving step by step, a lot of work to develop an administration of health insurance system is still needed.

According to the law, health services are divided into four levels: necessary, first level, second level and third one depending on the complexity of the service. However, in practice not services are levelled but health care providers. There are primary health care institutions, which are ambulatories, health care centres, ambulance service stations, cabinets of general practitioners, nursing hospitals; secondary health care institutions, which are polyclinics and hospitals; and tertiary health care institutions, which are university hospitals. Fees for services in these institutions are levelled accordingly.

The Ministry of Health plans to turn to the original idea and to change the levelling into the services one not institutions. However, it is not an easy task. Some formal records of medical treatment procedures should be created in order to evaluate the services, as within one institution different levels of the services could be provided.

The State Sickness Fund reimburses outpatient as well as inpatient care costs and drugs consumption. The sickness leave benefits are financed from the separate contributions (3.5 percentage points out of 34%) through different social insurance fund and paid by the state social insurance agency SoDra.

5 CO-PAYMENT IN THE HEALTH CARE SYSTEM

In Lithuania there is no clear co-payment system of health care services. Co-payment by clients is based on occasions and shortage of money rather than on the concept.

The major share of co-payment within the mandatory health insurance exists in pharmaceutical sector and sanatorium treatment.

As legally set, pharmaceuticals consumed during the hospital treatment courses should be provided for patients free of charge, as the relevant costs are included in the "treatment profile" prices. The only exception is cases when patient chooses to be treated by more expensive medicaments. However, in practise in much more cases patient pays for the drugs and medical supplies. The latest survey (4) shows that out of patients treated in hospitals 59.1% paid for medicines.

The costs of pharmaceuticals prescribed for outpatient treatment course are compensated only for certain groups of insured and on so-called basic price. The basic price is set up as an average cost of all generic versions of drug registered with Lithuanian Pharmacy Department. The reimbursement is made on the basis of the positive list of medicines and the list of selected diseases approved by the Ministry of Health.

100 % of compensation is provided to children of insured persons up to 3 years old, disabled of I (the most severe) group, victims of resistance movement of 1939-1990, disabled children up to 16 years old, insured suffering from the diseases included in the special list.

Pensioners, disabled of II and III group, children from 3 to 16 years old, and persons with illnesses included in the list receive 80 percent of compensation for drugs. There is still another list of illnesses, which entitles patients to half price compensations. Insured of working age have to pay the full price in most cases.

The compensation for drugs has become a very though issue as the amounts spent on that are increasing year by year. Opening the market for the pharmaceuticals imported from Western countries improved the treatment significantly, however, it has increased costs dramatically as well. The Sickness Fund has indebted to the pharmacy firms and shops as the expenditures on these compensations exceeded the planned by almost EURO 100 million in 2001. The Ministry of Health several times has tightened the generosity of the list of drugs to be compensated, however, it brought a marginal effect. There are plans to in-

troduce more co-payment into the system and to provide compensations according to the illnesses not social groups. There are ideas to tighten the co-payment to the income level of patients but they are not realistic until the income declaration system would be totally implemented.

Another part of co-payment system but not so generous is sanatorium treatment. Lithuania has an extensive system of sanatoria inherited from the soviet times. Free sanatorium treatment used to be a part of soviet low wage package. It involved not only rehabilitation but also some resort activities. The structure served not only for health care but also solved social problems (first of all, employment and job creation) in specific regions. This complicates the restructuring the sanatorium treatment provision very much.

In nowadays rehabilitation costs at sanatoria are fully covered by the Sickness Fund means for children up to 16 years old, disabled of group I, persons recovering from serious diseases included in the special list. Sanatorium treatment is 90% compensated for children up to 7 years old and disabled children up to 16 years old. Pensioners are entitled to 80% compensation. Other insured pay half price of the sanatorium treatment provided they suffer from the illnesses included in the list adopted by the Ministry of Health and have a referral from the primary health care physician. The Ministry plans to abandon all sanatorium compensations leaving only the coverage of rehabilitation treatment.

6 PERSONAL HEALTH CARE INSTITUTIONS AND MEDICAL PERSONNEL

Primary health care is delivered in primary health care centres, by general practitioners or so called “primary health care physicians teams”, school medical posts, ambulatories, and women’s consultancies, nursing hospitals as well as ambulance services. Services of district dentists and mental health specialists for the registered population are regarded as the primary health care as well. All primary care institutions are owned and administered by municipalities. However, these institutions are financed through the State Sickness Fund, not from local budgets. Primary health care is also provided by private physicians.

In recent years more focus is placed on the primary health care, establishing the general practitioners cabinets and providing retraining to physicians. One of the aims of health care reform was to shift emphasis from the dominated inpatient provisions in the structure of services to the outpatient care.

Inpatient services are delivered in hospitals (of general and mono-profiles) and in nursing (long-term) facilities established as freestanding hospitals or primary health care centre units. Some hospitals are owned by the municipalities, others by counties administration.

The Ministry of Health Care still owns two major hospitals of Universities Vilnius and Kaunas, and 13 tertiary health care institutions.

One of the reform tasks was to decentralise the health care system in order to make the management system more democratic and more effective. The decentralisation process defining the health care facilities’ subordination to the county or municipality was launched four years ago. This has not yet been completed, as there are still discussions on who

(counties or municipalities) should be responsible for medium-sized hospitals, and how administrative responsibilities should be allocated between the different levels.

Decentralisation aimed at the addressing the oversupply and inefficiency of the hospitals as well. However, local governments, which own them now, are in no better position to deal with the excess staff and facilities. They do not have better managerial skill or recourses as well.

Under soviet planned economy the health care system was supplier dominated, supply exceeded demand for hospital beds, physicians, nurses and other medical staff. Funding was provided to health facilities based on fixed norms. Management had little control over the activities and inputs. With the focus on the input indicators there were too many beds and doctors. In time these became disconnected from indicators of need such as size of population.

Some reforms aiming at rationalizing the network of the hospitals has begun. One of the first tasks of it is to reprofile the hospitals and to strengthen their facilities and staff.

Table 2. Main indicators of hospital activity

	1995	**1996**	**1997**	**1998**	**1999**	**2000**
Hospitals	195	197	187	187	186	187
Number of patients treated in hospitals:						
Adults and teenagers	614995	620654	644971	715435	722865	694612
Per 1000 adults	*211.6*	*212.6*	*220.4*	*243.3*	*245.9*	*234.3*
Children (under 15 years)	128893	131365	139568	151622	155660	139881
Per 1000 children	*159.5*	*165.3*	*179.1*	*198.9*	*209.7*	*191.4*
Average stay, in days	14.7	14.0	12.9	11.7	11.3	11.2
Beds in hospitals	40262	39182	36442	35612	34714	34145
Bed turnover, in days	19.1	19.7	21.8	25.1	26.0	25.1

Source: (7)

Even though some restructuring took place, still there is a significant overcapacity of the inpatient facilities – while the length of stay decreased, it is still rather long and occupancy indices are rather low.

The number of beds per 1000 population has decreased during 1990-1998. In spite of the drop it still corresponds to one of the highest figures in the Central and Eastern Europe.

The access to hospital care is quite good. About 95% of population live within 20 km of the nearest general hospital and within 120 km of the nearest regional or university hospital. However, there are number of concerns regarding the quality of care in hospitals and financial resources to maintain such a network.

Most of secondary health care facilities were constructed between 1965 and 1990. They were of rather good quality at that time. However, there were few investments made for the maintenance since that. As most of resources to be come from the municipal budgets which constantly lack money this problem become quite acute. Noticeably, there is a lack of planning and co-ordination in the investment processes in the health care. Some purchases of very modern sophisticated equipment are often in prejudice of more efficient investments, which could serve more broadly.

There are no queues for most hospital services. However, there is a widespread practice for payment for medicines in hospitals, which is a natural consequence of poor financing.

Starting health insurance in 1997, all residents of Lithuania were asked to register with their preferable primary health care institution and most of them did that. Now they can choose physician not only facility. They also can register with private general practitioners not only public institutions.

Table 3. Number of health care personnel and visits to physicians

	1995	1996	1997	1998	1999	2000
Physicians	14737	14763	14757	14622	14778	14034
Dentists	1742	1709	2153	2259	2306	2446
Nurses	-	-	-	-	29450	28017
Pharmacists	2055	2171	2146	2140	2159	2114
Per 10000 population						
Physicians	39.7	39.8	39.8	39.5	39.4	38.0
Dentists	4.7	4.6	5.8	6.1	6.2	6.6
Nurses	-	-	-	-	79.6	75.9
Pharmacists	5.5	5.9	5.8	5.8	5.8	5.7
Number of visits to physicians in thous.	26356.8	25314.4	26743.4	24506.5	24466.1	22155.5
Per capita, times	7.1	6.8	7.2	6.6	6.6	6.0
Visits to dentists, in thous.	4481.0	4346.6	5224.1	4438.3	4274.4	4052.6
Per capita, times	1.2	1.2	1.4	1.2	1.2	1.1

Source: (7)

The long term upward trend in number of medical personnel ceased in 1990. Since that time the number of persons employed in health care sector has changed only a little. Still the number of physicians per 1000 population (3.9) is among highest in the Europe.

Not only the number of personnel causes the problem but also very unequal its distribution – there are regions with lack of doctors while most of larger cities have their redundancy.

Since 1977 there is no nation-wide regulation of salaries for doctors and other medical personnel. Wage policy is at the discretion of the management of the health care institution, with exception that a government-set minimum monthly wage has to be preserved. Institu-

tions are allowed to introduce internal payment systems based on the elements of fee-for-service or capitation. Still salaries remain the key element of the system, which are set low in order to keep costs.

Partly due to low salaries, partly due to not forgotten soviet practise unofficial or gratitude payments to medical personnel are widespread. Especially they are common in hospitals. While the access to the treatment is almost free, people are concerned about the quality of the services.

The latest survey (4) shows that 22.5% of all treated in outpatient facilities paid unofficial payments to medical personnel. Out of patients treated in hospitals 35.2% made unofficial payments to doctors and other medical personnel. This phenomenon is not unique for Lithuania, it is quite widespread in the former planned economies. For example, the surveys show that in Poland only 38% of doctors' income came from official sources, and 62% from "gratitudes", in Bulgaria 49% of patients paid unofficially for services (8).

7 PRIVATE HEALTH CARE PROVISIONS

Up to now most of health care providers are public entities. Private medicine exists only at primary level. It mainly focuses on the dental care, cosmetic surgery, psychotherapy and gynaecology. As state health care policy aims at strengthening of general practitioner institution and provides some aid, the establishment of private general practitioners cabinets started as well. There are no private hospitals established. None of the hospitals was privatised or neither polyclinics nor are plans to privatise them. However, all pharmacy shops are private.

There is no exact data on the scope of private services provided, as information about activities of private providers is not collected once they have licensed. Some crude assessments could be made on the basis of surveys. 1995 about 80% of cosmetic surgery and psychotherapy services, about 20% gynaecology services were provided privately (3). In 1999 51.4% of all visits to dentists were to private ones (4).

Private medical insurance is in embryo stage in Lithuania. It practically has no space to develop due to unclear determination of the necessary health care package and non-existence of co-payment for health services. Otherwise, private insurance could cover costs of additional services or additional payments. Now private insurance companies provide for voluntary insurance of the medical treatment abroad for travelling Lithuanians. The Ministry of Health plans to draw some concept on the tentative place of private health insurance only in the fall of 2004.

8 PRICING OF HEALTH CARE SERVICES

Lithuanian health care scheme is predominantly a public one. Central Government and its regional branches as well as Municipalities are the founders of vast majority of health care providers. Private health care providers are mostly paid out of pocket with minor exclu-

sion while certain contracted services (i.e. those rendered by general practitioners and outpatient specialists) are paid through the Sickness Fund.

The main part of health care system is financed through the mandatory public health insurance administered by the State Sickness Fund. It is centralized administration. The State Sickness Fund has ten territorial branches.

Territorial Sickness Funds make contracts with local health services providers, pay for service delivery, and reimburse expenses for the purchase of pharmaceuticals. However, they do not accomplish well their role as purchasers. In order to buy services for the whole population Sickness Funds should know the needs of it rather than those of providers. This is still far from the case. Despite a lot of information is gathered, very little analyse is done based on it.

The payment principles applied for primary and secondary services differ. Primary health care is paid on capitation basis with adjustment for 4 population age groups. The bonus per every rural area inhabitant is added. Dentists and mental health specialists are paid according to the pure capitation rules. Discounts are applied while more than a set number of inhabitants are served. The ambulance services are paid according to the hours on duty assured by ambulance crews.

Secondary outpatient services are reimbursed mainly on a per case basis. The case is defined as all visits to a specialist related to the same illness and is called a consultation. The payments per consultation (covering up to 4 visits related to disease episode examination and treatment) are of two (secondary and tertiary) levels. All recurrent costs of outpatient institutions are financed from the prices of consultations.

Notably, the consultations are covered from the Sickness Fund only if there is a referral from the primary health care specialist. Otherwise, the consultation should be paid by the patient himself/herself. This led to the increase in formal visits to primary health care specialists. The latest opinion survey (4) shows that almost half of the total number of outpatient visits was due to the reason to get referral or statements of health.

Hospitals are reimbursed based on annual contracts and on the cost per case with cases classified according to 50 groups of so called “treatment profiles”. The price per case is calculated multiplying the cost per day by normative length of stay in hospitals, which in turn is based on the average length of stay during three last years. The number of cases treated is agreed between the health facility and the Territorial Sickness Fund.

The price per case is fixed by the Ministry of Health and is uniformly applied through the country. Adjustment is made for higher costs of treatment in tertiary institutions. Public providers have no right to charge larger prices than these.

Certain health care services are paid out of pocket. These services include therapeutically abortion, certification of health status, acupuncture, treatment of alcohol abuse, cosmetic procedures. The price list is determined by the Ministry of Health.

Long-term nursing hospitals are reimbursed on a bed-day basis according to actual number of the stay. However, patients may be treated in such hospitals up to 120 days, afterwards they should be transferred to the homes for elderly. There is a co-payment in these institu-

tions – up to 80% of individual's pension could be withdrawn to cover the maintenance expenses.

The relative share of out of pocket payments in heath sector is increasing. Household surveys show that it was just 10% in 1990 while in reached 20% in recent years. Population indicates these payments as a serious problem. About of the half of private health care expenditures comprise the costs of pharmaceuticals.

The survey (4) found that 46.8% of patients paid for the medicines in outpatient service institutions, 20.7% for other supplies. Out of patients treated in hospitals 59.1% paid for medicines. Not to be forgotten, there is still widespread practise of "gratitude" payments to the medical personnel as well.

There are debates in Lithuania whether these payments should be converted into official user fees or co-payments. Still there are some concerns that this could aggravate the situation of the most disadvantaged groups of population. If these fees would be very small, it may not lever out unofficial payments but just increase the costs to the population.

As it was mentioned above, the primary health care institution is remunerated based on the number of registered insured on age-adjusted basis. However, this system does not create initiatives to increase productivity. The increase in referrals to hospitals also follows this remuneration system.

Currently, inpatient rehabilitation services are provided both in hospitals and in specialized rehabilitation institutions as, for instance, sanatorium or rehabilitation clinics. Rehabilitation in hospitals is paid on a "treatment profile" basis and the relevant costs are included in the total services expenditure. They are covered by the Sickness Fund on the same grounds as other inpatient services.

9 EXPENDITURES OF THE STATE HEALTH CARE AND THEIR DISTRIBUTION TO AGE GROUPS

The Law on The Health System stipulates that expenditures on health care should be not less than 5% of GDP each year. However, this target was never actually met. Since sickness and maternity leave benefits are financed form the separate social insurance budget, they are not included in the expenditures of health sector.

The table below shows the share of public health care expenditures in GDP (%). If private expenditure were included as well, the total expenditure would be higher. However, the share perhaps would remain the same, because in this case the value of GDP had to include the informal economy as well.

Table 4. Expenditure on health care as % of GDP

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
%	3.1	3.4	3.8	3.7	4.4	4.5	4.2	4.9	4.9	4.6	4.4

Source: (3, 7)

Private health care expenditure in Lithuania constitutes a significant share of the total health care expenditure. Moreover, the growing trend is observed during last years as regards the private expenditure. According to the national accounts data, private health care expenditure amounted up to LTL 1 424 million in 2000 while in 1998 the private expenditure were estimated in total of LTL 658 million.

The major portion of private expenditure relates to the payments for pharmaceuticals covering both co-payments for partially reimbursed prescribed medicines and the out-of-pocket paid pharmaceuticals. In the latter case not only expenses on outpatient care pharmaceuticals should be considered. As hospitals are in the poor financial situation, the patients buy the drugs for inpatient treatment quite often. Furthermore, the services rendered by private health care providers are charged to the patients (mostly outpatient specialists sector and dentistry). The legally set user-charges for certain listed services delivered in public health care facilities could be considered as well.

Nevertheless, the major part of health care costs (recurrent costs) in public entities is covered by the Sickness Fund. National budget including state and municipal budgets is a source for financing of the capital costs[5].

Table 5. Expenditure of the State Sickness Fund in 2001

	In thous. LTL	In %
Personal health care, out of this:	1358741	72.5
Primary health care	281345	15.0
Ambulance services	72935	3.9
Nursing	39504	2.1
Secondary outpatient care	141239	7.5
Secondary and tertiary inpatient care	823717	43.9
Compensations for pharmaceuticals and medical supplies	302337	16.1
Compensations for blood donors	3792	0.2
Compensations for rehabilitation and sanatorium treatment	81107	4.3
Compensations for prosthesis means	71293	3.8
Financing of health care programs	14056	0.7
Expenses of Statutory health care institutions	14597	0.8
Cash	20000	1.0
Reserve of Sickness Fund	8729	0.4
TOTAL	1874652	100

Source: (1)

Within the scope of this study the health care costs allocation to 5 year age groups was done (for the methods of calculation and allocation see the Annex 1). It was the first attempt to make such calculation ever done in Lithuania. The results were used for forecasting future expenses path and analysing the costs related to ageing population as it well known that health care consumption is highly dependent on the age.

[5] Health care system is financed not only through the Sickness fund. The public health care activities are covered mainly by the state budget means with some part coming form the municipal budgets as well.

While the private expenditures comprise a significant share, the study focused on assessment of the public expenditure for health care provision. This was due to structure of the information, which did not enable to make allocations of private costs to age groups of 5 years. Any artificial assumption could be not reasonable and therefore very distortional to the costs distribution.

The results show that health care costs distribution to age groups resembles the one in other countries with exception to the very old age group (80 and above). (For the comparison see the graph in the Annex 2). This could be explained by some underreporting but it might be objective reasons as well. First of all, still there is no tradition of long-term care in special institutions in Lithuania. Usually the very old people for the long-term care are transferred to their homes and families take care of them. The very modern and therefore expensive technologies are rarely applied to the people of such ages. Besides that, one can notice that mortality rates in early retirement ages (60-70) are quite high in Lithuania, so probability that people surviving to 80 and older are healthier is very likely. Anyway, one can say that such situation will not last, as development of Lithuania society will catch the pattern usual in other modern countries. So the press of the ageing population could be even more hard, when costs of care for elderly will resemble international trends.

As one of the outcomes of this exercise one can conclude that data quality of the Sickness Fund is reasonable good and it is possible to use it for age related costs allocation. However, data collected on the primary health care and ambulance services level need to improved - there is a lack of regular data concerning performance indicators. There is a need in longitude studies on utilization patterns as well.

10 REFORMS CONDUCTED

Reforms in Lithuania were motivated by a desire to address issues of equity, health gain, consumer choice and quality of care. Being tax financed, the financial burden of health care provision was relatively equitably distributed. Much of this equity in financing was preserved, even as financing since 1997 has progressively switched to a statutory health insurance system based on contributions. This has been due to the compromise agreement to finance the statutory health insurance through a combination of insurance contributions and tax revenues, with a larger share of the latter. While there are co-payment on pharmaceuticals, there is evidence that unofficial payments are declining. However, difficulties still remain in connection with inequities in regional allocation of resources. In addition, there are indications that private expenditure on the health care are in rise.

The effect of the reform on the efficiency appears to be mixed. Lithuania historically has had a large number of hospital beds per capita and one of the highest numbers of doctors per capita in Europe. Both of these show declining trends. Average length of stay in hospitals has been substantially reduced as a result of the introduction of new payment methods, and occupancy rates have increased, however admissions per population are on rise.

Improved health status is one of the most positive developments of recent years. In 1998 life expectancy at birth exceeded the highest figures ever achieved in pre-reform period. The table below provides some European comparisons to the health status in Lithuania.

Table 6. Main Health Status Indicators

	Lithuania	EU average	European average
Birth rate *(per 1,000 population)*	9.2	10.7	10.9
Mortality rate *(per 1,000 population)*	10.5	9.9	11.1
People 65 and over (%)	13.4	16.0	13.8
Life expectancy at birth, *in years*	72.9	74.9	73.5
Life expectancy at birth, males, *in years*	67.6	75	69.5
Life expectancy at birth, females, *in years*	77.9	81.3	77.6
Standartised mortality from cardio-vascular diseases *(age 0-64, per 100,000 population)*	116.0	49.4	119.6
Standartised mortality from injuries and poisoning *(per 100,000 population)*	138.3	40.6	86.7
Standartised mortality from suicide *(per 100,000 population)*	44.3	10.9	18.5
Infant mortality rate, *per 1,000 live births*	8.6	5.1	10.6
Incidence of tuberculosis *(per 100,000 population)*	63.0	10.1	43.0
Incidence of AIDS *(per 100,000 population)*	0.2	2.2	1.3
Incidence of viral hepatitis *(per 100,000 population)*	14.3	20.7	54.6
Incidence of syphilis *(per 100,000 population)*	31.7	1.1	54.6

Source (6)

For more health care indicators of Lithuania see the Annex 3.

In the area of patient choice a number of improvements have occurred. All citizens are free to choose their primary health care institution and primary health care physician within that institution, and are also free to change physician once a year. In addition, patients are free to choose their hospital provider, hereby encouraging the competition between hospitals.

The Lithuanian health care system has maintained to remain stable at a time of considerable social and economic upheaval. Universal coverage has been maintained. Nevertheless high fixed costs, due to large numbers of physicians and hospital beds and low productivity, are competing with relatively low levels of funding. This situation is aggravated by the relatively high proportion of expenditure on pharmaceuticals.

The major problems of health care system are lack of funds for health care, and the orientation of health care services to specialised and hospital services. The current Lithuanian health care policy aims at shift of health care expenses from the hospitals to the primary health care, to reduce number of beds and hospitals, retrain more physicians to the general practitioners, and to restructure some hospitals toward more nurse oriented institutions. The reduction should be achieved in the process of integration and profile change of hospitals.

The administrative capacity of medical care institutions is underdeveloped and this comprises another serious challenge. The task for the future is to strengthen the public governance of the system and to develop the main features on the statutory health insurance in

order to have the system fully functional. As the background of the new health care provision system is already done, now it is a time for calibration and improvement of the model, and that is a challenge for second stage of the reform.

Sources:

1. Data of the State Sickness Fund
2. Database of the Lithuanian Health Information Centre
3. Health Care Systems in Transition, Lithuania, European Observatory on Health Care Systems 2000
4. Estimation of the Socio-Economic Impact of the Health Care Financing and Services Restructuring Reforms, Report by Health Economic Centre, 2001, Vilnius
5. Law on the Health Insurance of the Republic of Lithuania
6. Lithuania offers, Health in Lithuania, 2002.
7. Social Protection in Lithuania, 2000, Department of Statistics of Lithuania
8. Sophie Witter. Heath financing in developing and transitional countries, University of York
9. ECP (2001): Budgetary challenges posed by ageing populations. ECP/ECFIN/655/01-EN final.

Annex 1.

The Distribution of Public Health Care Costs by Age Groups

Data and information sources

The estimation is done on the basis of the following information/data sources:
- Lithuanian legal acts;
- data of the Department of Statistics of the Republic of Lithuania;
- data of the Health Information Center (Ministry of Health);
- database of the Statutory Health Insurance Fund SVEIDRA;
- 2001 representative population survey conducted by the Health Economics Center and VILMORUS Company data;
- Interviews with officers of the Ministry of Health (MoH) and the Statutory Health Insurance Fund .

Applied methods and major assumptions

The methods of document analysis, statistics analysis and simulation were applied.
The estimations were made using Lithuanian demographic data by 5 years age groups as at the beginning of 2001.
Financial data of 2001 was used as regards the Statutory Health Insurance Fund financing. Since 2001 national budget data is not available yet, the scope and structure of these expenditures in 2000 were considered as proxies for 2001 financing estimation.

Commonly, regarding the reimbursement of health care providers the actual payment data was counted. It led to deviations from the reported expenditure of the Statutory Health Insurance Fund mostly due to the ceilings on contracted volume of the services (while, for instance, overproduction in inpatient sector is a common phenomena) and the differences in accounting rules (the providers send to Territorial Sickness Funds invoices based on accrual costs accounting, State Sickness Fund operates applying cash accounting).

The total financing per capita in 5-year age population groups was counted in steps described below:
1. The costs of major types of service delivery under mandatory health insurance scheme (primary health care, ambulance, outpatient specialists' services, inpatient services, reimbursement of the costs of pharmaceuticals, reimbursement of the costs of inpatient rehabilitation) were calculated and aggregated;
2. Miscellaneous and administration costs experienced by the State Sickness Fund were allocated towards population groups (the principles of allocation are described below);
3. Relevant national budget expenditure was allocated towards population groups (the principles of allocation are described below).

There was not possible to allocate private expenditures on health care to 5-year age population groups. The data on private consumption is available only from the household surveys. As they indicate quite reasonable levels of expenditure on health care, such allocation based on any artificial assumptions might contort the outcomes of previous calculation significantly.

Primary health care costs

In Appendix, Table 1, three variants of the costs calculations are presented:
I variant – "normative" payment according to the enforced payment rules;
II variant – actual payment according to the payment rules as adjusted according to the actual providers network (using the State Sickness Fund 2001 database);
III variant – the II variant figures are adjusted by utilization coefficients.

Utilization coefficients were constructed on the basis of the pattern of primary health care utilization data collected through the 2001 representative population survey while square roots of ratio of visits per capita in relevant age groups have been calculated[6].

The survey data was used in absence of valid regular statistics on primary health care visits.

In total, 266 mill. LTL were allocated as financial means devoted to primary health care. For the total costs calculation III variant was selected (Table 1, Column 2).

Ambulance care

Similarly to primary health care costs calculation, the pattern of ambulance care utilization was gained from the 2001 population survey[7], since the data on ambulance care service including a number of outgoings is collected only for 0-1 years age, 0-15 years age and 16+ years age population groups.

Two variants of the costs allocation are presented in Appendix, Table 2. Variant I was calculated according to the available data (the outgoings per 3 age groups) and the "normative" payment according to the enforced payment rules. Under II variant the coefficients reflecting the pattern of utilization (a square root of ratio of outgoings per capita in 5 years age groups) has been applied. The adjustment as regards the 2001 actual expenditure was made as well.

In total, 73 mill. LTL were allocated as financial means devoted to ambulance care. For the total costs calculation II variant was selected (Table 1, Column 3).

Outpatient specialist's services

The State Sickness Fund expenditure in 2001 for outpatient specialists' services (125 mill. LTL) was allocated according to the age groups using the regular data collected in SVEIDRA. Initially, 3.5% of the total expenditure for outpatient specialists' services had not been allocated to the age groups due to the age data failures. However, this expenditure was added proportionally (according to the distribution of the major share of expenditure).

The outcomes of the calculation are presented in Table 1, Column 4.

Inpatient services

The State Sickness Fund expenditure in 2001 for inpatient nursing services (LTL 36 mill.) was allocated according to the age groups using the regular data collected in SVEIDRA.

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6 The data only for adults is available.
7 The data only for adults is available.

Initially, 2.6 % of expenditure had not been allocated to the age groups due to data failures. Later this expenditure was added proportionally (according to the distribution of the major share of expenditure).

The outcomes of the calculation are presented in Table 1, Column 5.

The State Sickness Fund expenditure in 2001 for acute inpatient services (LTL 854 mill.) was allocated according to the age groups using the regular data collected in SVEIDRA. Initially, 3.4 % of expenditure had not been allocated to the age groups due to the data failures. Later this expenditure was added proportionally (according to the distribution of the major share of expenditure).

The outcomes of the calculation are presented in Appendix, Table 3 (Step I).

Under the step II of costs allocation (Appendix, Table 3) certain expenditure of the State Sickness Fund were added to the inpatient services costs. The allocation was done taking into consideration the nature of the spending and the final points of consumption. The supplements to inpatient costs (LTL 27 mill.) included spending on prosthesis procurement (LTL 14 mill.), expenditure for transplantation (LTL 5 mill.), costs of the urgent consultation services provided by a few university hospitals (LTL 5 mill.), and the relevant share of expenditure of the services restructuring program (LTL 3 mill., constituting 86% of the total services restructuring program's costs).

Acute inpatient care costs calculation was included into total health care costs counting taking into account above mentioned supplements (Table 1, Column 6).

<u>Reimbursement of the costs of inpatient rehabilitation services</u>

2001 SHIF expenditure for inpatient rehabilitation services (LTL 81 mill.) was allocated according to the age groups using the regular data collected in SVEIDRA.
Rehabilitation in hospitals is paid on "treatment profile" basis and the relevant costs are have been included in the total inpatient services expenditure counting.

The outcomes of the calculation are presented in Table 1, Column 7.

<u>Reimbursement of the costs of pharmaceuticals</u>

2001 State Sickness Fund expenditure (LTL 419 mill.) for the reimbursement[8] of medicines costs was allocated according to the age groups using the regular data collected in SVEIDRA. Initially, 0.6 % of expenditure had not been allocated to the age groups due to the data failures. Later this expenditure was added proportionally (according to the distribution of the major share of expenditure).

The outcomes of the calculation are presented in Table 1, Column 8.

<u>Administration costs of the State Sickness Fund</u>

Actual 2001 State Sickness Fund administration expenditure (app. LTL 15 mill. or 0.82% of the total SSF expenditure) were allocated to the expenditure in population age groups in

[8] The money spent for the pharmaceuticals procurement are included.

proportion to the distribution of the major share of spending for medical care and reimbursement of the patients' expenses. As a result, the allocation of the total SSF costs (LTL 1896 mill.) was made. It is presented in Table 1, Column 9.

National budget expenditure for health care

Currently, data of 2001 national budget expenditure for health care is not available. So the simulation was made with assumption that the relevant annual expenditure[9] was about LTL 150 mill. The national budget spending for health care amounted to LTL 152 mill. in 1998, LTL 185 mill. in 1999 and LTL 151 mill. in 2000. Another assumption applied was that the ratio of recurrent and capital costs was 2/1.

The capital costs (LTL 50 mill.) were allocated to the expenditure in population age groups proportionally to the distribution of medical care costs.

Finally, recurrent costs of national budget (LTL 100 mill. as the major part of that costs constitute public health and the system governing expenditure) were allocated to the expenditure in population age groups proportionally to the distribution of all previously aggregated costs (State Sickness Fund and national budget capital expenditure).

Observations and conclusions

1. The outcomes of the gradual health care costs allocation described above are presented in Table 1, Column 10, and on Chart 1. Total health care costs in Lithuania were allocated to 5 year population groups. That costs amount to LTL 2 046 mill. (EURO 593 mill.).

2. As regards the State Sickness Fund information system, the major share of actual costs (inpatient care including nursing care, rehabilitation, outpatient specialists' services and reimbursement of pharmaceuticals costs) can be allocated to the age groups. The data quality is reasonable good.

In the field of primary health care and ambulance care provision there is a lack of regular data concerning performance indicators. Some improvements could be done in future particularly due to the intended changes in payment systems. Alternatively, there is a need in longitude studies on utilization patterns.

Methods of the costs allocation in areas of primary health care and ambulance care ought to be discussed.

3. The State Sickness Fund data used for the costs allocation reflect actual expenditure in 2001. It differs from the SSF budget report presenting just the actual money transfers.

4. Reporting on the national budget expenditure for health care (both timing and formats) does not allow allocating the costs directly. Correspondingly, the assumptions for the exercise ought to be discussed in more details.

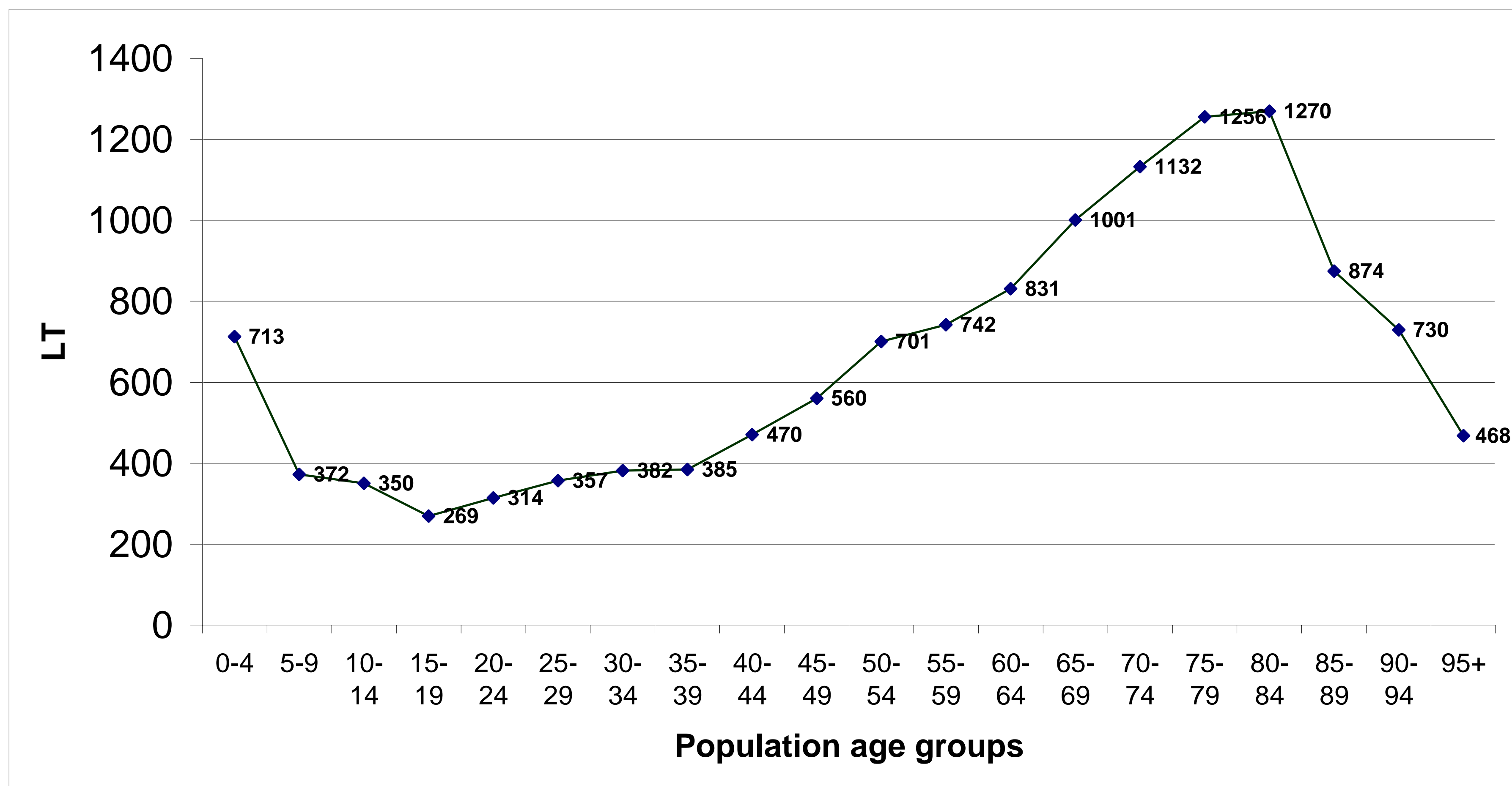
[9] National budget health insurance contribution to SHIF is excluded.

5. Currently, some estimations of the scope and structure of private health care expenditure are available. However, any valid allocation of the private costs could not be made due to the limited data collection in the field. Particular studies are needed to reach such a purpose.

Table 1. Annual health care costs per capita (in Litas)

								Sub- total	TOTAL
	PHC	Ambulance	Outpatient specialists	Inpatient nursing	Acute inpa-tient care	Rehabilitation services' costs reimbursement	Medicines costs reimbursement	The SHIF costs	Health care costs
Age group	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
ag0-4	91	25	35	0	398	8	97	658	713
ag5-9	84	17	32	0	145	13	49	344	372
ag10-14	84	17	34	0	143	19	23	323	350
ag15-19	23	19	31	0	130	10	31	249	269
ag20-24	46	21	22	0	163	5	29	290	314
ag25-29	84	18	20	0	160	6	36	329	357
ag30-34	94	19	22	1	158	8	47	353	382
ag35-39	90	17	23	1	155	10	57	356	385
ag40-44	87	19	30	1	195	15	83	435	470
ag45-49	78	21	36	3	242	22	113	519	560
ag50-54	68	20	48	5	307	35	161	650	701
ag55-59	46	19	49	8	318	44	203	773	742
ag60-64	59	19	49	13	334	48	248	931	831
ag65-69	84	21	52	23	395	58	295	1054	1001
ag70-74	57	23	53	39	473	63	342	1168	1132
ag75-79	62	25	48	76	529	57	336	1179	1256
ag80-84	58	30	36	136	525	41	348	810	1270
ag85-89	72	20	17	149	338	17	194	675	874
ag90-94	72	20	11	144	266	9	150	434	730
ag95+	72	19	7	90	135	5	102	414	468

Chart A1.1 Health care costs per capita in Lithuania in 2001, in Litas



Appendix

Table 1. Annual costs of primary health care per capita (in Litas)

Age group	Variants		
	I	II	III
ag0-4	99	91	91
ag5-9	90	84	84
ag10-14	90	84	84
ag15-19	75	65	23
ag20-24	72	65	46
ag25-29	72	65	84
ag30-34	72	65	94
ag35-39	72	65	90
ag40-44	72	65	87
ag45-49	72	65	78
ag50-54	72	65	68
ag55-59	72	65	46
ag60-64	72	65	59
ag65-69	85	72	84
ag70-74	89	72	57
ag75-79	89	72	62
ag80-84	89	72	58
ag85-89	89	72	72
ag90-94	89	72	72
ag95+	89	72	72

Table 2. Annual costs of ambulance care per capita (in Litas)

Age group	Variants	
	I	II
ag0-4	21	25
ag5-9	13	17
ag10-14	13	17
ag15-19	20	19
ag20-24	21	21
ag25-29	21	18
ag30-34	21	19
ag35-39	21	17
ag40-44	21	19
ag45-49	21	21
ag50-54	21	20
ag55-59	21	19
ag60-64	21	19
ag65-69	21	21
ag70-74	21	23
ag75-79	21	25
ag80-84	21	30
ag85-89	21	20
ag90-94	21	20
ag95+	21	19

Table 3. Annual costs of inpatient care per capita (in Litas)

Age group	Allocation steps	
	I	II
ag0-4	386	398
ag5-9	140	145
ag10-14	138	143
ag15-19	126	130
ag20-24	158	163
ag25-29	155	160
ag30-34	153	158
ag35-39	150	155
ag40-44	189	195
ag45-49	234	242
ag50-54	298	307
ag55-59	308	318
ag60-64	323	334
ag65-69	383	395
ag70-74	459	473
ag75-79	513	529
ag80-84	509	525
ag85-89	327	338
ag90-94	258	266
ag95-99	131	135

Annex 2.

Chart A2.1. Age profiles for public expenditure on health care in Belgium, Sweden and Lithuania (source EPC 2001 and own data)

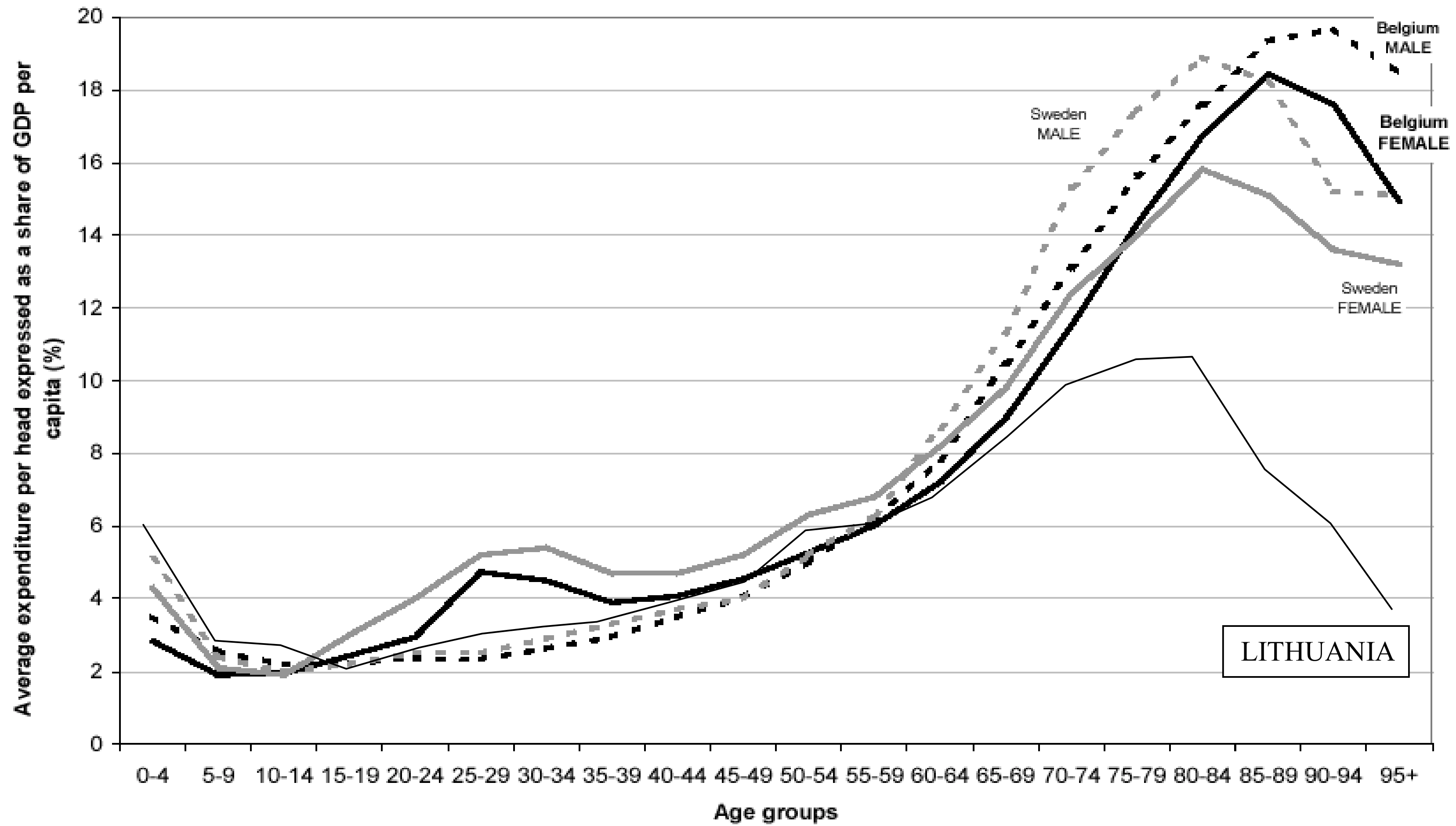


Chart A2.2. Age profiles for public expenditure on health care in EU countries (source EPC 2001)

Chart A2.3. Age profiles for public expenditure on long-term care (source EPC 2001)