State of Health in the EU
Lithuania
Country Health Profile 2017

The Country Health Profile series

The *State of Health in the EU* profiles provide a concise and policy-relevant overview of health and health systems in the EU Member States, emphasising the particular characteristics and challenges in each country. They are designed to support the efforts of Member States in their evidence-based policy making.

The Country Health Profiles are the joint work of the OECD and the European Observatory on Health Systems and Policies, in cooperation with the European Commission. The team is grateful for the valuable comments and suggestions provided by Member States and the Health Systems and Policy Monitor network.

Contents

Data and information sources

The data and information in these Country Health Profiles are based mainly on national official statistics provided to Eurostat and the OECD, which were validated in June 2017 to ensure the highest standards of data comparability. The sources and methods underlying these data are available in the Eurostat Database and the OECD health database. Some additional data also come from the Institute for Health Metrics and Evaluation (IHME), the European Centre for Disease Prevention and Control (ECDC), the Health Behaviour in School-Aged Children (HBSC) surveys and the World Health Organization (WHO), as well as other national sources.

The calculated EU averages are weighted averages of the 28 Member States unless otherwise noted.

To download the Excel spreadsheet matching all the tables and graphs in this profile, just type the following StatLinks into your Internet browser:
http://dx.doi.org/10.1787/888933593665

Demographic and socioeconomic context in Lithuania, 2015

		Lithuania	EU
Demographic factors	Population size (thousands)	2 905	509 394
	Share of population over age 65 (%)	18.7	18.9
	Fertility rate[1]	1.7	1.6
Socioeconomic factors	GDP per capita (EUR PPP[2])	21 600	28 900
	Relative poverty rate[3] (%)	14.4	10.8
	Unemployment rate (%)	9.1	9.4

1. Number of children born per woman aged 15–49.
2. Purchasing power parity (PPP) is defined as the rate of currency conversion that equalises the purchasing power of different currencies by eliminating the differences in price levels between countries.
3. Percentage of persons living with less than 50% of median equivalised disposable income.

Source: Eurostat Database.

1 Highlights

Even though the health status of the Lithuanian people has improved over the past ten years, it still remains well below most EU countries, and the difference between men and women is large. Continuous reform has reshaped the Lithuanian health system to meet health care needs more effectively and deliver health services more efficiently.

Health status

Life expectancy at birth, years ● LT ● EU

74.6
YEARS
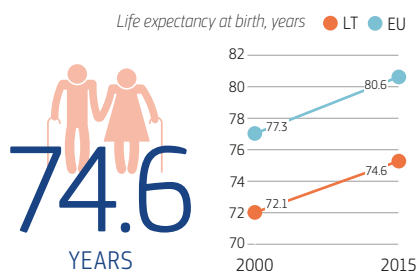
Although life expectancy in Lithuania is increasing (74.6 years in 2015), it is six years lower than the EU average (80.6), a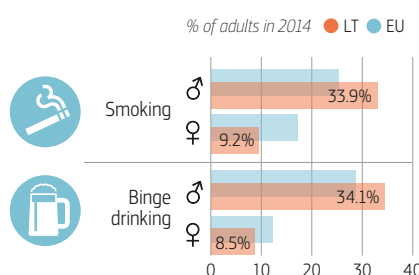nd the lowest in the EU. In addition, the gap between men and women is exceptionally large, with life expectancy for Lithuanian men (69.2 years) more than 10 years lower than for women (79.7 years), the largest gender gap in the EU.

Risk factors

% of adults in 2014 ● LT ● EU

Smoking ♂ 33.9%
♀ 9.2%

Binge drinking ♂ 34.1%
♀ 8.5%

The proportion of adults who smoke in Lithuania has dropped sharply to below the EU average (from 32% in 2000 to 20% in 2014), due to tighter tobacco control policies, but more than one in three men still smoke every day. Lithuania has the highest level of alcohol consumption in the EU (50% higher than the EU average) and more than one in three men report heavy alcohol consumption on a regular basis. Obesity is relatively low but increasing, particularly among adolescents.

Health system

*Per capita spending (EUR PPP)* ●— LT ●— EU
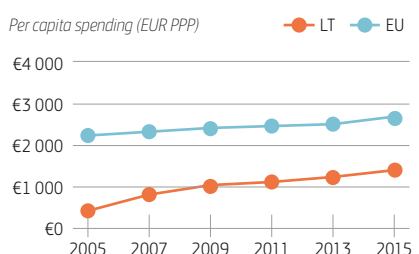
Health expenditure per capita in Lithuania (EUR 1 406) is half the EU average (EUR 2 797). As a share of GDP, health spending has increased from 5.6% in 2005 to 6.5% in 2015 but is the sixth lowest in the EU. Some 32% of health spending is paid out-of-pocket, compared to the 15% EU average. This high level is largely due to pharmaceutical expenditure.

Health system performance

Effectiveness
Hospital mortality rates are considerably higher than EU averages but Lithuania has recently implemented reforms to raise quality.

Amenable mortality per 100 000 population ● LT ● EU
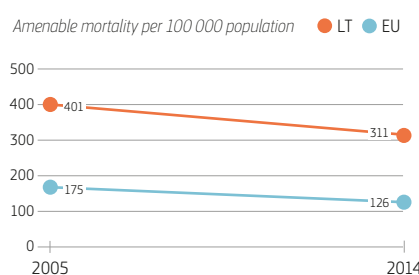
Access
Although Lithuania has moderate levels of unmet needs for medical care and little difference between income groups, affordability is a challenge because of high out-of-pocket payments for pharmaceutical drugs, especially for older and poor people.

% reporting unmet medical needs, 2015
● High income ● All ● Low income
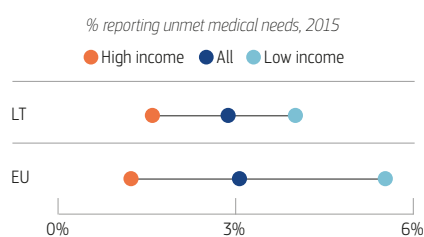
Resilience
Lithuania has fostered several reforms to increase efficiency by expanding the role of primary care and shifting hospital services to outpatient settings. But the hospital sector still is extensive and one of the challenges is to contain the large pharmaceutical spending.

2 Health in Lithuania

Life expectancy is increasing but is six years below the EU average

After a long period of stagnation and even decline, life expectancy at birth in Lithuania started to rise again in 2007, and reached 74.6 years in 2015, almost three years above the 2000 level (Figure 1). Nonetheless, life expectancy is six years below the EU average and the lowest of all member states. Life expectancy for women is more than 10 years higher than for men, which is the largest gender gap in the EU.

About half of the life expectancy gains in Lithuania since 2000 have been driven by reduced mortality rates after the age of 65. Lithuanian women at this age could expect to live another 19.2 years in 2015 (up from 17.8 years in 2000), while men could expect to live another 14.1 years (up from 13.6 years in 2000). However, compared to most other EU countries, relatively few years of life after 65 are lived in good health. At age 65, the remaining years free of disability are five and a half for women and five for men.[1]
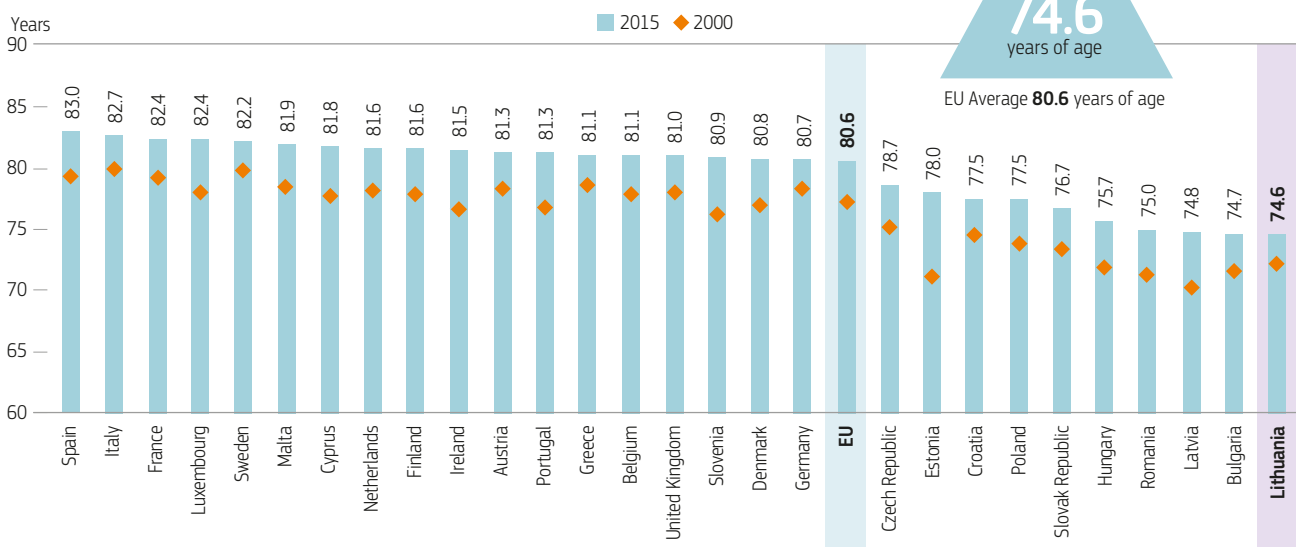
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1. These values are based on the indicator of 'healthy life years,' which measures the number of years that people can expect to live free of disability at different

Cardiovascular diseases and cancer are the largest contributors to mortality

Cardiovascular diseases are the leading cause of death among women and men in Lithuania (Figure 2). In 2014, some 22 500 people died from cardiovascular diseases, accounting for 65% of deaths among women and 48% among men. Cancer is the second largest cause with 8 000 deaths, accounting for 17% of deaths among women and 23% of deaths among men. External causes, particularly high among men, and digestive system diseases are the third and fourth broad main causes of death.
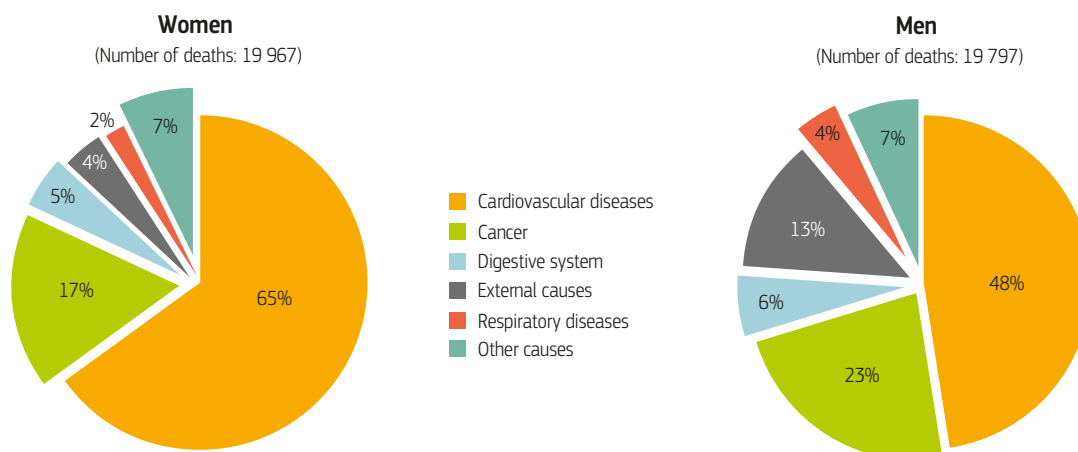
Looking at trends in more specific causes of death, ischaemic heart diseases and stroke remain the top two causes of death in Lithuania (Figure 3), with mortality rates four and two times above the EU average respectively. Lung cancer is now the third leading cause of death, a legacy of high smoking rates. Lithuania also has the highest suicide rate in the EU, which poses a serious challenge to mental health services (see Section 5.1). Colorectal and prostate cancers, as well as liver disease, have climbed in the list of leading causes of deaths between 2000 and 2014. Many of the leading causes of death – including cardiovascular diseases, liver diseases, accidental poisoning and road traffic deaths – are associated with high alcohol consumption, and Lithuania has recently introduced new alcohol control policies (see Section 5.1).

Lithuania
74.6
years of age

EU Average **80.6** years of age

Figure 1. Lithuania's life expectancy at birth is the lowest in the EU

Years

2015 ◆ 2000

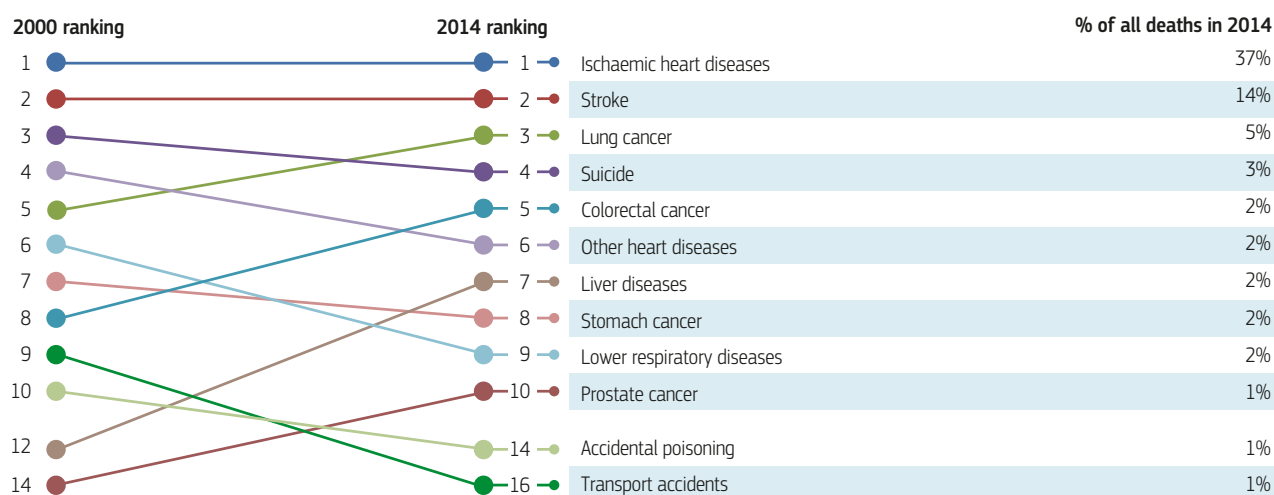|	
Spain	83.0
Italy	82.7
France	82.4
Luxembourg	82.4
Sweden	82.2
Malta	81.9
Cyprus	81.8
Netherlands	81.6
Finland	81.6
Ireland	81.5
Austria	81.3
Portugal	81.3
Greece	81.1
Belgium	81.1
United Kingdom	81.0
Slovenia	80.9
Denmark	80.8
Germany	80.7
EU	80.6
Czech Republic	78.7
Estonia	78.0
Croatia	77.5
Poland	77.5
Slovak Republic	76.7
Hungary	75.7
Romania	75.0
Latvia	74.8
Bulgaria	74.7
Lithuania	74.6

Source: Eurostat Database.

Figure 2. Cardiovascular diseases and cancer account for the majority of all deaths in Lithuania

Women
(Number of deaths: 19 967)

2% 7%
4%
5%
17%
65%

- Cardiovascular diseases
- Cancer
- Digestive system
- External causes
- Respiratory diseases
- Other causes

Men
(Number of deaths: 19 797)

4% 7%
13%
6%
48%
23%

Note: The data are presented by broad ICD chapter. Dementia was added to the nervous system diseases' chapter to include it with Alzheimer's disease (the main form of dementia).
Source: Eurostat Database (data refer to 2014).

Figure 3. Heart diseases and stroke are the leading causes of death.

2000 ranking	2014 ranking		% of all deaths in 2014
1	1	Ischaemic heart diseases	37%
2	2	Stroke	14%
3	3	Lung cancer	5%
4	4	Suicide	3%
5	5	Colorectal cancer	2%
6	6	Other heart diseases	2%
7	7	Liver diseases	2%
8	8	Stomach cancer	2%
9	9	Lower respiratory diseases	2%
10	10	Prostate cancer	1%
12	14	Accidental poisoning	1%
14	16	Transport accidents	1%

Source: Eurostat Database.

Mental health problems and other chronic conditions are leading causes of disability-adjusted life years lost

In addition to the high burden of disease caused by cardiovascular diseases and lung cancer, musculoskeletal problems (including low back and neck pain) and mental health problems including major depressive disorders are leading causes of disability-adjusted life years (DALYs)[2] lost in Lithuania (IHME, 2016).

Data from the European Health Interview Survey (EHIS) indicates that nearly three in ten people live with hypertension in Lithuania. People with the lowest level of education are two times more likely to live with hypertension than the most educated.[3]

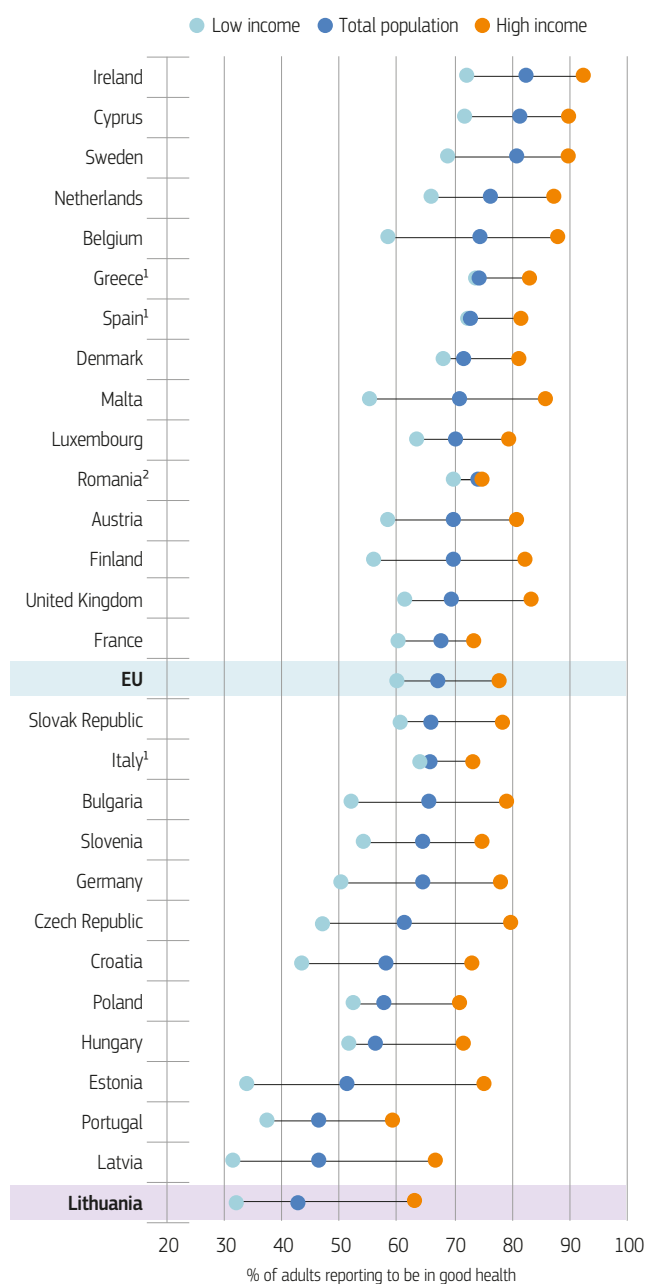## Lithuania also faces challenges with tuberculosis

Lithuania has experienced a substantial decrease in tuberculosis cases from 1 904 in 2011 to 1 507 in 2015, but this decline has been even steeper in neighbouring countries like Estonia. Lithuania still reports the second highest notification rate (new and relapse cases) of tuberculosis in the EU (after Romania) with 52 cases per 100 000 population in 2015, compared to the EU average of 12 cases (ECDC, 2017). In addition, drug resistant tuberculosis is also a challenge in the country.

2. DALY is an indicator used to estimate the total number of years lost due to specific diseases and risk factors. One DALY equals one year of healthy life lost (IHME).

3. Inequalities by education may partially be attributed to the higher proportion of older people with lower educational levels; however, this alone does not account for all socioeconomic disparities.

Lithuania

Most Lithuanians do not report being in good health and a large gap exists between income groups

Overall, the proportion of the population in Lithuania reporting to be in good health is the lowest in the EU (43% in 2015) and much lower than the EU average (67%) (Figure 4). As is the case for several neighbouring countries, the gap in self-rated health by socioeconomic status is large in Lithuania, with only 32% of people in the lowest income quintile reporting to be in good health compared to 63% of those in the highest income quintile.

Figure 4. Only 43% of people in Lithuania report being in good health, with large disparities across income groups

Low income   Total population   High income

Ireland
Cyprus
Sweden
Netherlands
Belgium
Greece[1]
Spain[1]
Denmark
Malta
Luxembourg
Romania[2]
Austria
Finland
United Kingdom
France
EU
Slovak Republic
Italy[1]
Bulgaria
Slovenia
Germany
Czech Republic
Croatia
Poland
Hungary
Estonia
Portugal
Latvia
Lithuania

20 30 40 50 60 70 80 90 100
% of adults reporting to be in good health

1. The shares for the total population and the low-income population are roughly the same.
2. The shares for the total population and the high-income population are roughly the same.
**Source:** Eurostat Database, based on EU-SILC (data refer to 2015).

3 Risk factors

Behavioural risk factors are important determinants of health in Lithuania

The health status and health inequalities of the Lithuanian population are linked to a number of health determinants, including working conditions, the physical environment in which people live and a range of behavioural risk factors. Based on IHME estimations, almost 40% of the overall burden of disease in Lithuania in 2015 (measured in terms of DALYs) could be attributed to behavioural risk factors – including smoking, alcohol use, diet and physical inactivity (IHME, 2016).

Although smoking rates have declined, both smoking and excessive alcohol consumption remain a problem

The proportion of adults who smoke in Lithuania has decreased since 2000 (from 32% to 20% in 2014), following the implementation of tighter tobacco control policies, and is now slightly below the EU average (Figure 5). However, smoking rates among men (34%) and 15-year-old boys (20%) are much higher than the EU averages (26% and 14% respectively). This is also visible in the much higher lung cancer mortality rates among men than women.
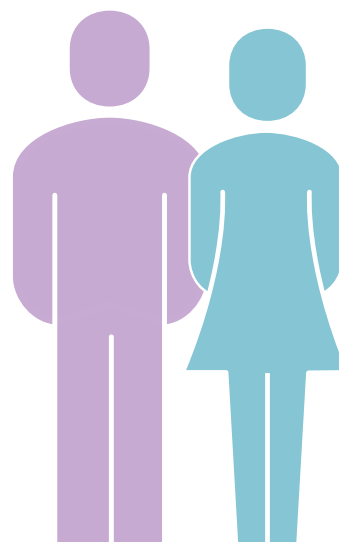
Total alcohol consumption in Lithuania is the highest in the EU with adults consuming 15.2 litres per capita in 2014, up from 9.9 litres in 2000. There is a major challenge in reducing binge drinking[4] among men and adolescents (boys and girls). In 2013–14, 41% of 15-year-old boys and 33% of girls reported having been drunk at least twice in their life, which is the highest in the EU for boys and among the highest for girls. Over one third (34%) of men in Lithuania engage in regular binge drinking, which is well above the EU average for men (28%).

Rising rates of obesity among adolescents are worrisome

Based on self-reported data (which tends to underestimate the true prevalence of obesity), around one in six adults (17%) are now obese in Lithuania, slightly above the EU average (16%). While the prevalence of overweight and obesity among 15-year-olds is the second lowest in the EU, it more than tripled (from 4% to 13%) between 2001–02 and 2013–14. This trend is of particular concern as being overweight or obese in childhood or adolescence is a strong predictor of becoming overweight or obese as an adult.

Many behavioural risk factors are higher among disadvantaged populations

Similar to other EU countries, the prevalence of behavioural risk factors is higher among groups with lower education or income. In Lithuania, obesity is 50% higher among the population with the lowest level of education than those with the highest level of education.[5] Smoking rates are also higher among Lithuanians with the lowest level of education. Regular heavy drinking is more prevalent among the lowest educated, especially among men. A higher prevalence of risk factors among disadvantaged groups contributes greatly to health inequalities.

Figure 5. Smoking and alcohol consumption is a greater problem in Lithuania than in most other EU countries

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4. Binge drinking behaviour is defined as consuming six or more alcoholic drinks on a single occasion, at least once a month over the past year.

5. Lower education levels refer to people with less than primary, primary or lower secondary education (ISCED levels 0-2) while higher education levels refer to people with tertiary education (ISCED levels 5-8).

Note: The closer the dot is to the centre the better the country performs compared to other EU countries. No country is in the white 'target area' as there is room for progress in all countries in all areas.

Source: OECD calculations based on Eurostat Database (EHIS in or around 2014), OECD Health Statistics and HBSC survey in 2013–14. (Chart design: Laboratorio MeS).

4 The health system

Lithuania has a single-payer compulsory health insurance system

The health system is mainly funded through the National Health Insurance Fund (NHIF), which virtually covers the entire resident population. The scheme is based on compulsory, largely employment-based contributions. The NHIF purchases health care services on behalf of its contributors through five regional branches. The Ministry of Health is a major player in health system regulation through formulating health policy, setting standards and requirements, licensing providers and health professionals and approving capital investments. It also governs the NHIF, which is subordinated the Ministry. Municipalities are responsible for organising the provision of primary and social care, as well as some public health activities. They also own some primary care centres, the majority of polyclinics and small- to medium-sized hospitals. The private sector is very limited in providing inpatient care, but plays a substantial role in other areas, such as primary care and dental care. Over the past decade, the NHIF has also increasingly been contracting private providers for specialist outpatient (or ambulatory) care.

Despite low spending coverage is broad, except for pharmaceuticals

Total health expenditure as a percentage of GDP has increased from 5.6% in 2005 to 6.5% in 2015 but is the sixth lowest in the EU. Total health expenditure per capita is half of the EU average (Figure 6). One third of health spending comes from private sources – largely out-of-pocket payments. Although most of the public spending on health comes from the NHIF, a substantial share (30% in 2015) of NHIF revenue comes from the state's budget (NHIF, 2017), which funds the insurance coverage for the nonworking part of the population (see Section 5.2). The continuing increase in the size of transfers per person insured by the state provides a degree of protection from economic fluctuations to the NHIF budget (see Section 5.3).

Paying for pharmaceuticals explains high out-of-pocket spending by patients

The NHIF provides coverage for a very broadly defined benefit package. Spending on pharmaceuticals forms the largest share of out-of-pocket payments, as patients pay the full cost of both prescribed and over-the-counter outpatient medications, unless they belong to exempted groups eligible for full or partial reimbursement (e.g. children, elderly, registered disabled and patients with certain diseases including tuberculosis, cancers and

Figure 6. Health expenditure per capita in Lithuania is only half the EU average
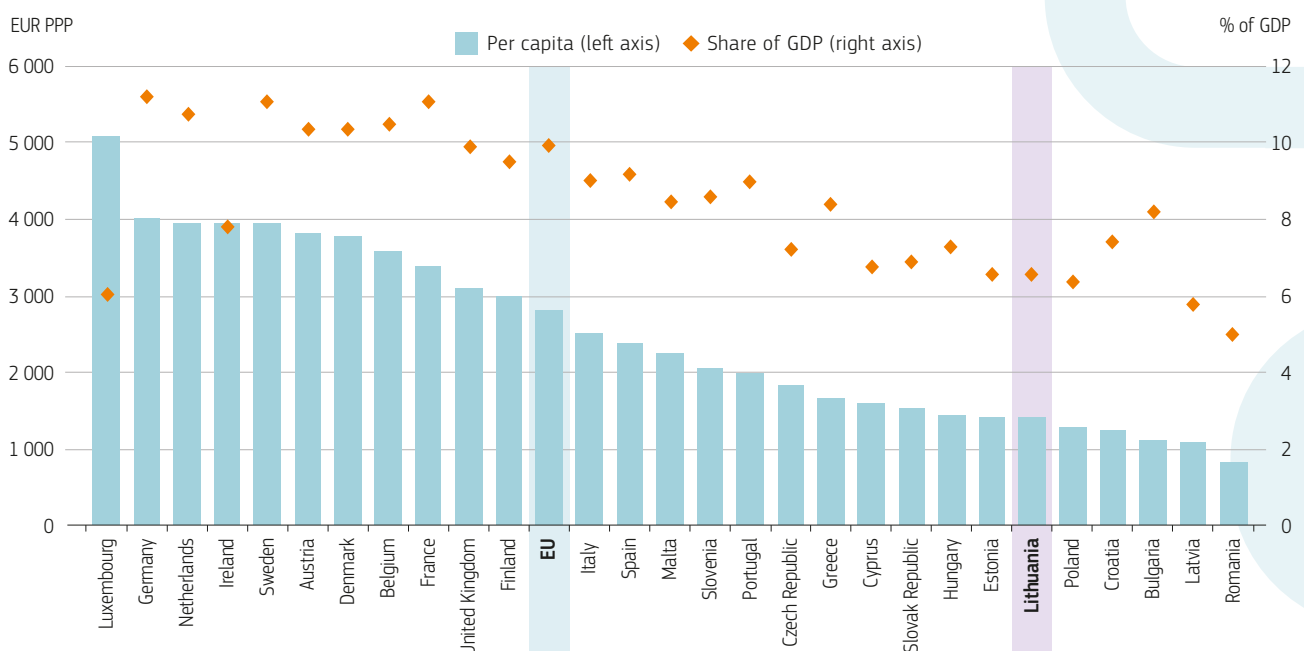
Source: OECD Health Statistics, Eurostat Database, WHO Global Health Expenditure Database (data refer to 2015).

some chronic diseases). But even in case of 100% reimbursement for medication by the NHIF, virtually all patients incur some form of copayment for outpatient pharmaceuticals when its market price is higher than the reimbursed reference price. Other out-of-pocket payments relate to direct payments for services not covered by the NHIF and specialist visits without referral. There is some evidence of informal payments, but efforts have been made to address this practice. The role of private health insurance is negligible.

Various methods are used to pay providers

Health care providers are paid through a combination of arrangements. Primary care is financed largely through capitation with adjustments for age and rural location, plus a smaller share of fee-for-service and performance-related payments for specific prioritised areas of care, in particular chronic diseases. Outpatient care is financed through case payment and fee-for-service for diagnostic tests, while inpatient care is largely financed through case-based payment (DRGs).

## Facilities have been improved but there are too many hospital beds

In terms of physical resources, there is a general oversupply of hospitals and hospital beds. The total number of hospitals has only

decreased marginally, and the number of curative care beds is the second highest in the EU (608 versus 418 per 100 000 respectively), despite a major long-term effort to shift services away from inpatient settings (see Section 5.3). Over the last 15 years, the majority of health care facilities have undergone renovations. There are several channels for capital investment: the state investment programme funded by the government, the services restructuring programme funded by the NHIF and, since 2004, the EU structural funds.

Lithuania has a high number of doctors but challenges in retaining workforce

Lithuania has a considerably higher number of physicians (4.3 per 1 000 population) than the EU average (3.6), and a slightly lower number of nurses (7.7) compared with the EU average (8.4). Since joining the EU in 2004, Lithuania has experienced a large outflow of medical staff just like its neighbouring countries. In spite of this, Lithuania has so far maintained a high number of physicians (Figure 7), mainly by increasing the number of graduates. The main challenges are the uneven distribution of doctors across the country with especially fewer GPs available in rural areas, the ageing of the health workforce and emigration.

Figure 7. Lithuania has a large number of doctors while the number of nurses is close to the EU average
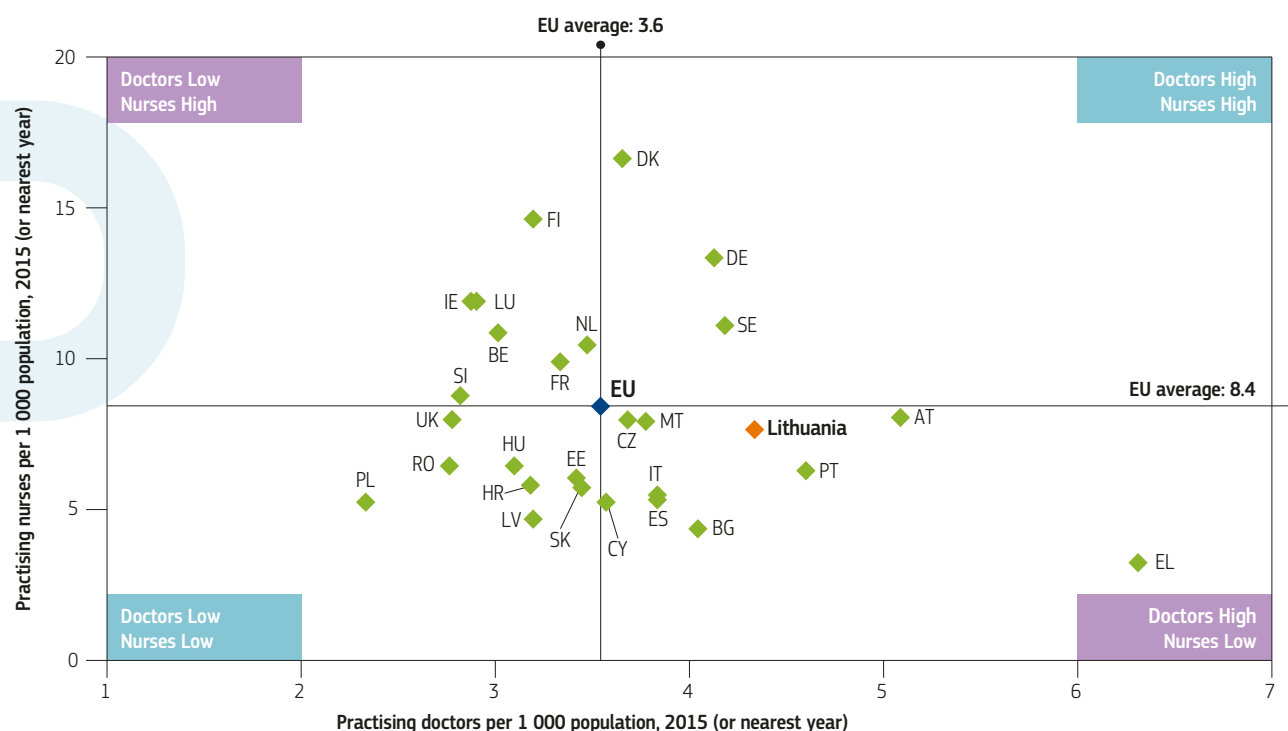
Note: In Portugal and Greece, data refer to all doctors licensed to practice, resulting in a large overestimation of the number of practising doctors (e.g. of around 30% in Portugal). In Austria and Greece, the number of nurses is underestimated as it only includes those working in hospital.

Source: Eurostat Database.

Continuing over-reliance on inpatient care

Primary care can be provided in either municipality-administered or private settings, through GPs or primary care teams that involve more specialists like paediatricians and gynaecologists. Primary care providers function as gatekeepers. Efforts to strengthen the role of primary care, particularly in disease prevention, were attempted for more than a decade, with incentivised services and programmes for prevention and treatment of major chronic diseases constantly expanding.

Specialist outpatient care is delivered through the outpatient departments of hospitals or polyclinics, as well as through private providers. Patients need a referral to access specialist services for free. However, direct access can be obtained by paying out-of-pocket. Day care, day surgery and outpatient rehabilitation services have developed markedly over the past decade, but there still is a strong reliance on the inpatient sector. Hospital admission rates are persistently high – at 24 per 100 population, compared to the EU average of 17. A major reform of health care provision and restructuring of health care facilities started in 2003, with a broad aim to improve efficiency and quality of services. The reform was extended in 2013 and is ongoing, as some key objectives have not yet been achieved (see Box 1).

BOX 1. **SERVICE PROVISION REFORMS IN LITHUANIA FOCUS ON CONSOLIDATING THE HOSPITAL SECTOR AND INCREASING OUTPATIENT SERVICES**

The reform of health service provision and consolidation of hospitals in networks started in 2003 with the broad goal of optimising health care services, restructuring health care facilities, and ultimately, improving health care quality, accessibility and population health. The reform started with expanding ambulatory services, including primary care and family medicine, introducing gatekeeping, and creating alternative treatment settings, such as day care, day surgery, as well as strengthening of nursing, long-term and palliative care services. It was followed by attempts at reducing overreliance on the inpatient sector and optimising hospitals and specialist services. The process has been delayed compared to the original plan, although progress has been made and implementation continues.

The current stage seeks to further consolidate the network of health care facilities and services. It is broadly a continuation of the previous stages as some key outcomes, including reducing the high hospitalisation rate, were not achieved. However, some other indicators have improved substantially, particularly in primary and day care: the number of GPs increased three-fold between 2001 and 2015, and day care now accounts for nearly 10% of all hospital admissions. There was also a reduction in curative care beds in hospitals, and the number of hospitals decreased substantially, mainly through mergers of specialised facilities with multi-profile hospitals (Hygiene Institute, 2017).
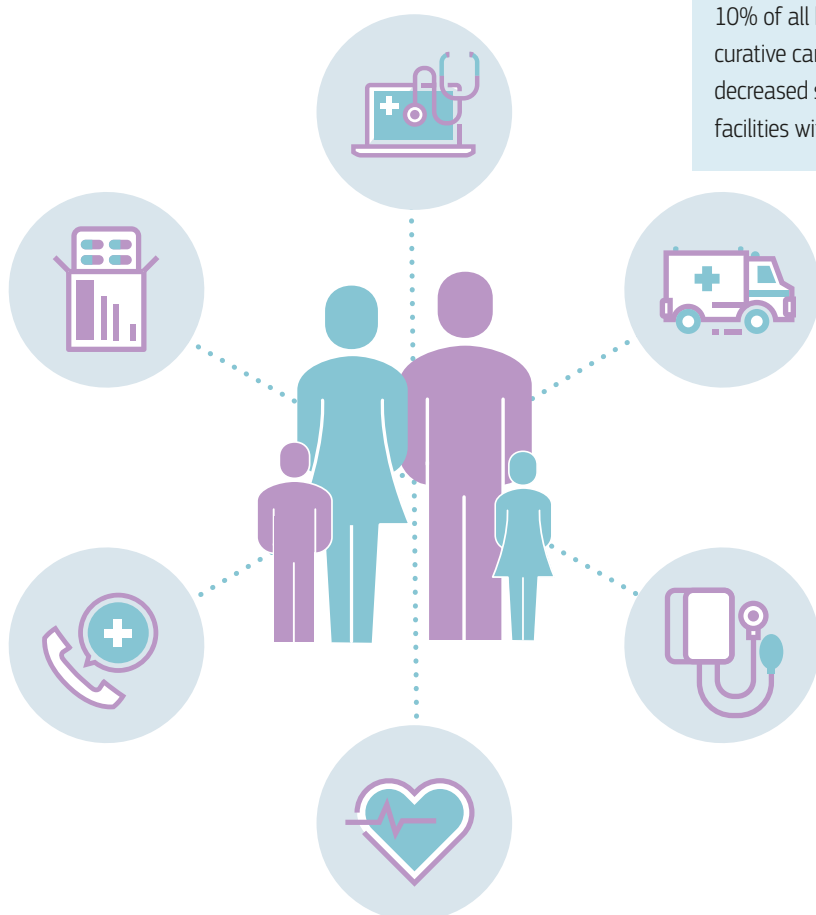
5 Assessment of the health system
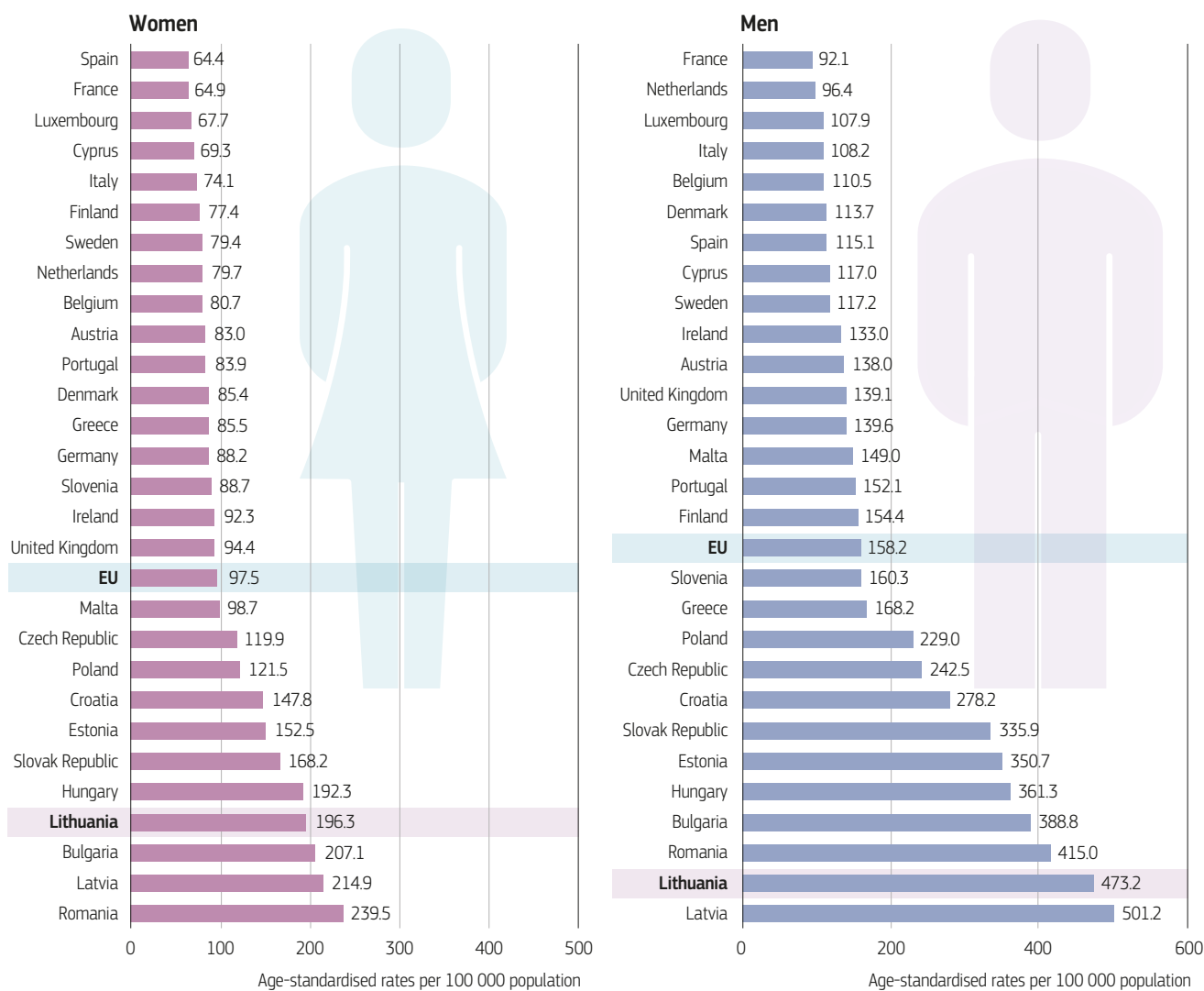
5.1 **EFFECTIVENESS**

Hospital treatment can improve in effectiveness

The high rates of mortality amenable to timely and effective health care interventions in Lithuania (Figure 8) are mainly due to very high death rates from ischaemic heart disease and stroke. Lithuania has by far the highest mortality rate from ischaemic heart disease, which is more than four times greater than EU average.

It is difficult to separate the effect of unhealthy lifestyles and other non-medical determinants of health from the quality of health care

provided to explain these high mortality rates, but the effectiveness of health care services can be improved in the treatment of cardiovascular diseases and other life-threatening conditions. Lithuania has among the highest rates of thirty-day mortality after admission to hospital for a heart attack and stroke. For heart attack (acute myocardial infarction or AMI), it has the second highest rate among member states (11.8 per 100 patients compared to 7.4 on average in the EU), and the same is also true for stroke. One of the most recent reforms to improve effectiveness in hospital services is to standardise care pathways with more centralised treatment for acute diagnoses. To this end, six stroke and five cardiology centres have been established regionally, to which the most severe cases are directed.

Figure 8. Amenable mortality rates in Lithuania are among the highest in the EU

Women	
Spain	64.4
France	64.9
Luxembourg	67.7
Cyprus	69.3
Italy	74.1
Finland	77.4
Sweden	79.4
Netherlands	79.7
Belgium	80.7
Austria	83.0
Portugal	83.9
Denmark	85.4
Greece	85.5
Germany	88.2
Slovenia	88.7
Ireland	92.3
United Kingdom	94.4
EU	97.5
Malta	98.7
Czech Republic	119.9
Poland	121.5
Croatia	147.8
Estonia	152.5
Slovak Republic	168.2
Hungary	192.3
Lithuania	196.3
Bulgaria	207.1
Latvia	214.9
Romania	239.5

Age-standardised rates per 100 000 population

Men	
France	92.1
Netherlands	96.4
Luxembourg	107.9
Italy	108.2
Belgium	110.5
Denmark	113.7
Spain	115.1
Cyprus	117.0
Sweden	117.2
Ireland	133.0
Austria	138.0
United Kingdom	139.1
Germany	139.6
Malta	149.0
Portugal	152.1
Finland	154.4
EU	158.2
Slovenia	160.3
Greece	168.2
Poland	229.0
Czech Republic	242.5
Croatia	278.2
Slovak Republic	335.9
Estonia	350.7
Hungary	361.3
Bulgaria	388.8
Romania	415.0
Lithuania	473.2
Latvia	501.2

Age-standardised rates per 100 000 population

Source: Eurostat Database (data refer to 2014).

Both early detection and treatment of cancer have improved but still lag behind most EU countries

According to CONCORD Programme data, five-year survival for several treatable cancers have increased substantially between 2000–2004 and 2010–2014, including for cervical cancer (from 53.8% to 57.2%), breast cancer (64.6% to 73.5%) and colon cancer (44.5% to 56.9%), but they remain lower than in most EU countries.

Cancer screening rates, which are incentivised by the primary care performance payment system, have improved considerably, but the uptake is still below the EU average, partly because there is no systematic invitation practice for screening. The percentage of women aged 20 to 69 who have been screened for cervical cancer over the past three years was 47.7% in 2015 (based on programme data), a lower rate than in most other EU countries. Mammography screening over the past two years among women aged 50–69 has improved considerably, rising from 12.4% in 2006 to 44.8% in 2015 (also based on programme data), but it remains lower than in most EU countries. Effective screening programmes for these cancers can aid detection at an early stage and potentially reduce mortality.

Lithuania has made strong efforts to strengthen primary care

Lithuania has taken several steps to improve primary care services and encourage primary care providers to take a larger responsibility for their listed population generally and chronic patients specifically. Specialist nursing positions in diabetes and cardiac care for chronic patient groups have also been introduced. In 2003, a list of activities for which primary care facilities are paid a small fee was introduced, which complements the primarily capitation-based reimbursement system. This scheme has since been further extended with additional quality indicators, which are used for both public benchmarking and a performance-based payment.

There are signs that the strong focus on chronic disease management in primary care has led to a reduction in avoidable hospitalisation rates with decreasing rates for congestive heart failure (CHF), asthma and chronic obstructive pulmonary disease (COPD) (Figure 9). Also, since 2013, more than a hundred new diagnostic and treatment protocols have been developed, with a focus on cardiovascular diseases, 20 types of cancers, paediatrics and trauma care, which are currently being piloted in selected hospitals.

Figure 9. Hospitalisation rates for chronic diseases have decreased recently, indicating improved primary care services

Hospitalisation per 100 000 population
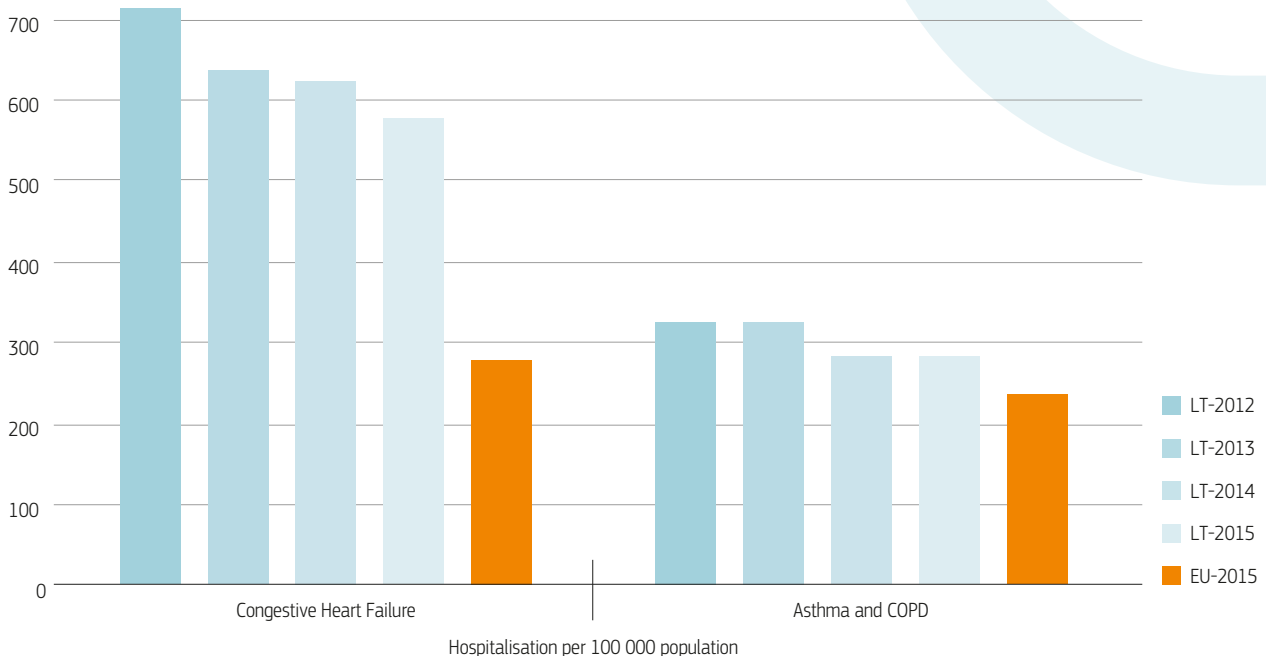
Source: OECD Health Statistics 2017.

Lithuania has strengthened preventive efforts and increased focus on inter-sectoral collaboration

Lithuania has identified the need to strengthen public health through inter-sectoral collaboration as an important area of development. A large share of the burden of disease in Lithuania is caused by factors and policies outside the direct control of the health system. An example of this is mortality from chronic liver disease, which is very high and reflects high alcohol consumption (see Section 3).

The alcohol-related mortality rate (32.6 deaths per 100 000 population) is more than double the EU average (15.7). Although the rate for women is much lower than for men, both rates are among the highest in the EU. Alcohol control policies introduced in 2007–08, including restrictions on advertising, sales and increases on taxes, resulted in partial and short-lived improvement. Alcohol policy is a focus area of the government, and new legislation is coming into effect in January 2018. This includes increasing the legal age for alcohol consumption to 20 years, restricting sales times and banning alcohol advertising.

Alcohol is also a key contributor to the high number of road traffic deaths. Transport accident mortality rates for both men (17.1 deaths per 100 000 population in 2014) and women (4.9) are almost twice the EU average, and among the highest in the EU. Large investments in road safety measures, to separate traffic lanes, create safe road junctions and expand police checks for drunk-driving, helped improve the situation in the late 2000s, but progress has stalled in recent years.

The lung cancer mortality rate (46.1 deaths per 100 000 population) is below the EU average (54.4), but this is because of a very low rate among women. For men, it is well above average and among the highest in the EU. Over the past decade, tobacco regulation has become tighter, including introduction of a smoking ban for indoor bars and restaurants, as well as public spaces, and since July 2015 it is prohibited to smoke in cars with children or pregnant women.

To tackle the high levels of antimicrobial resistance in Lithuania, there is a need to work across sectors to decrease and be more selective in the use of different antibiotics, both for humans and livestock (Box 2).

### BOX 2. ANTIMICROBIAL RESISTANCE CONSTITUTES A PARTICULAR THREAT TO LITHUANIA

Lithuania has some of the highest levels of antimicrobial resistance (AMR) in the EU for most pathogens under surveillance by the European Centre for Disease Prevention and Control (ECDC, 2017). Multi-drug resistant acinetobacter species are of particular concern as 77% of the infections caused by these pathogens are resistant to treatment. Resistant gonococcal infections are also thought to be a growing health issue in Lithuania.

In 2014, the Ministry of Health introduced a two-year plan (2015–17) to promote the rational use of drugs, in particular antibiotics. This action plan includes the creation of a regional AMR management model based on expert groups within public health centres. The expert groups, which include both human and animal health specialists, are in charge of organising and coordinating AMR monitoring and prevention activities, as well as the dissemination of information to relevant stakeholders and the public. The Lithuanian government is currently developing a comprehensive national strategic action plan for AMR based on the European Commission recommendations.

Substantial challenges in mental health call for further reforms

For many years, Lithuania has had the highest mortality rate from suicide in the EU. At 31.5 deaths per 100 000 population, it is almost three times higher than the EU average (11.3). The rate of suicide among men is extremely high, but women also have a relatively high rate, the second highest in the EU (Figure 10). Inpatient deaths from suicide among patients hospitalised with a mental disorder, as well as suicide rates one month and one year after hospitalisation, are also substantially higher than in neighbouring countries.

Lithuania has actively developed new mental health policies, including integrating services previously provided in mental health hospitals into general hospitals and primary care facilities and restructuring addiction services with the overall aim to improve accessibility to treatment. Special outpatient mental health centres have been established across the country to which patients can be referred for both prevention and treatment. A telephone helpline has been developed to strengthen preventive efforts, but capacity is limited and the service has struggled with accessibility problems (LEPTA, 2017). The very high suicide rates suggest that reform in prevention, treatment pathways and organisation of mental health services need to continue.

Figure 10. Lithuania has substantially higher suicide rates than all other EU countries
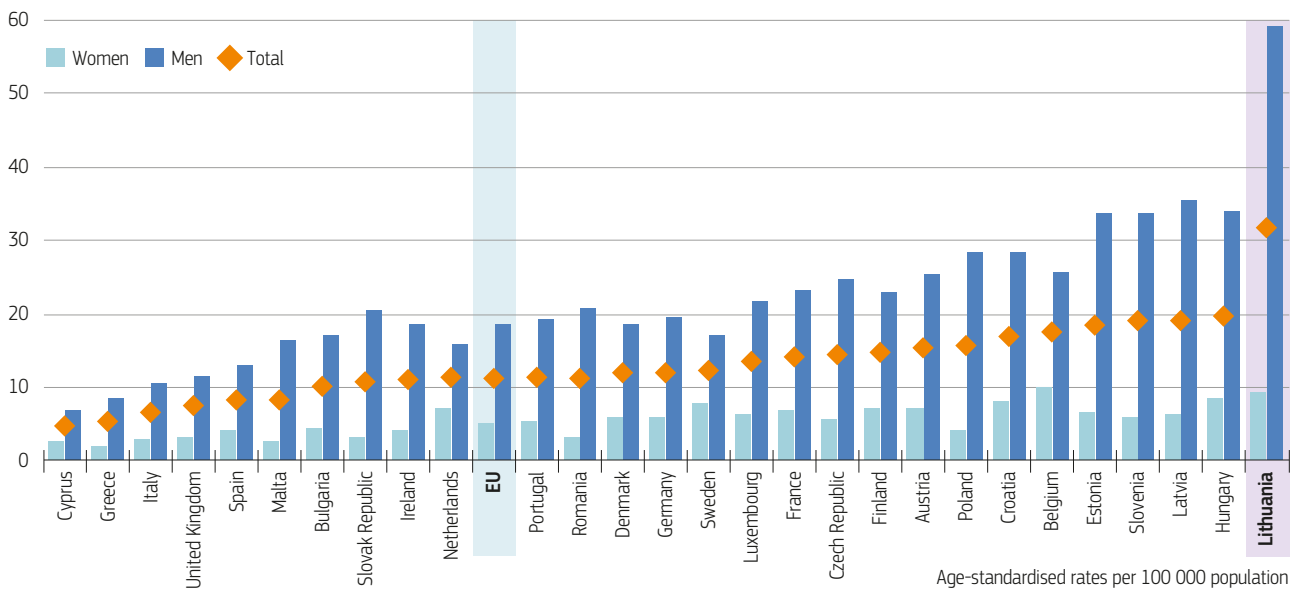
Source: Eurostat Database (data refer to 2014).

5.2 ACCESSIBILITY

Lithuania has moderate levels of unmet medical care needs with little variation between income groups

In Lithuania, 2.9% of the population reported an unmet need of medical care due to cost, waiting list or travel distance, which is below the EU average and substantially better than most neighbouring countries (Figure 11). In addition, unmet need due to cost is relatively low in the poorest income quintile – 1.0% compared to the EU average of 4.1%, which can be explained by the absence of user fees for all basic services and the relatively extensive supply of services (see below). However, there are greater income-related inequalities in access to pharmaceuticals in Lithuania, as out-of-pocket payments for pharmaceutical drugs are generally high (see below).

Population coverage is broad

Lithuanians enjoy a widespread coverage for a broad package of services. Contributions to the NHIF by the state ensure that the unemployed and economically inactive population groups (representing 56% of all the insured in 2016) are covered by health insurance. The noninsured (estimated to be around 280 000 or 8% of the population) are to a large extent people who reside and work outside the country.

Lithuania has a large number of hospitals and high levels of hospital consumption

Geographical access to care, especially hospitals, is very good in Lithuania. The country has 63 general hospitals, spread out across most of the 60 municipalities of the country. Given the relatively
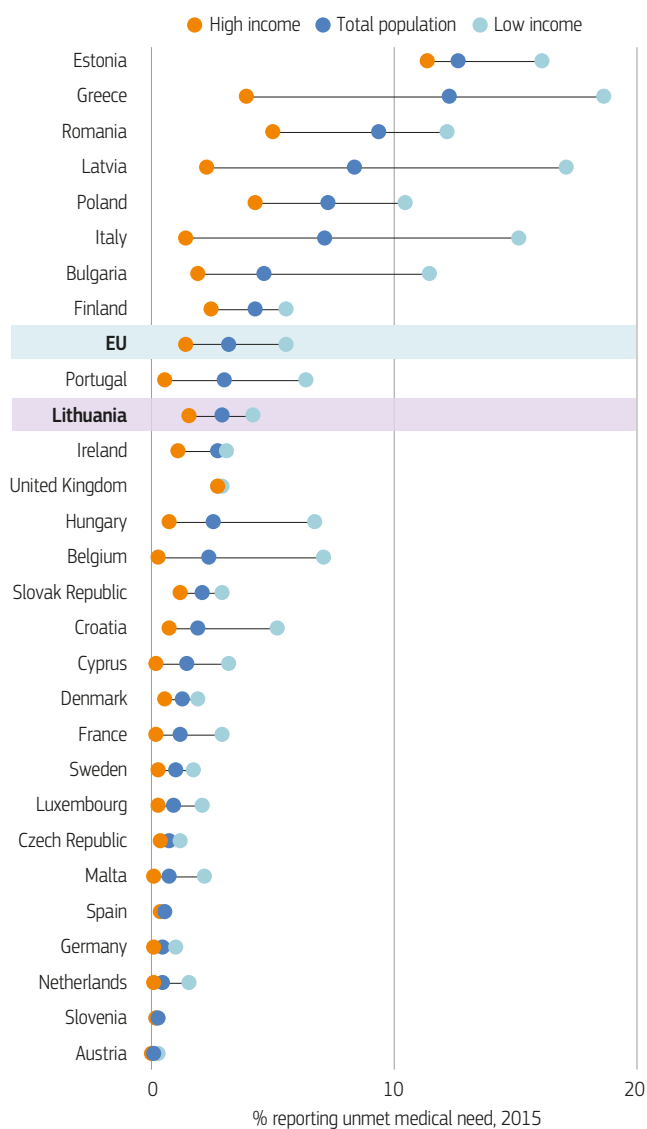
small geographical distances, these institutions provide a thin net of hospital supply since most hospitals provide a broad set of services. The relatively large hospital capacity (beds), close proximity and no user fees, contribute to excessive hospital consumption. This is true especially for circulatory diseases for which the disease burden is high (see Section 2) but also respiratory diseases (heart and lung) for which Lithuania has the second highest number of hospital discharges among EU countries, only after Bulgaria.

There are no user fees for publicly reimbursed services but high out-of-pocket payments for pharmaceuticals

The scope of covered services is large and the few defined exemptions are the same as in many EU countries, e.g. parts of dentistry, medical certificates and nonmedical cosmetics. As mentioned above, no user fees are charged for the services reimbursed by the NHIF, but coverage of pharmaceuticals and medical aids are limited. In total, 32% of health expenditure in Lithuania is funded by out-of-pocket payments, which is more than double the EU average (see Figure 12).

The large share of out-of-pocket payments is mainly due to high spending on pharmaceuticals. Figure 13 shows that Lithuania has one of the largest differences between how much of pharmaceutical costs are funded publicly compared to health services in general. There are several reasons for this. Copayments for pharmaceuticals are high. But prices are also high because there is no effective Health Technology Assessment (HTA) in place, physicians tend to prescribe unnecessarily expensive brands, and there is a low reliance on generics among the population. However, in July 2017, a new drug price list was introduced, which is expected to lower the cost of user fees paid for drugs by up to a third.
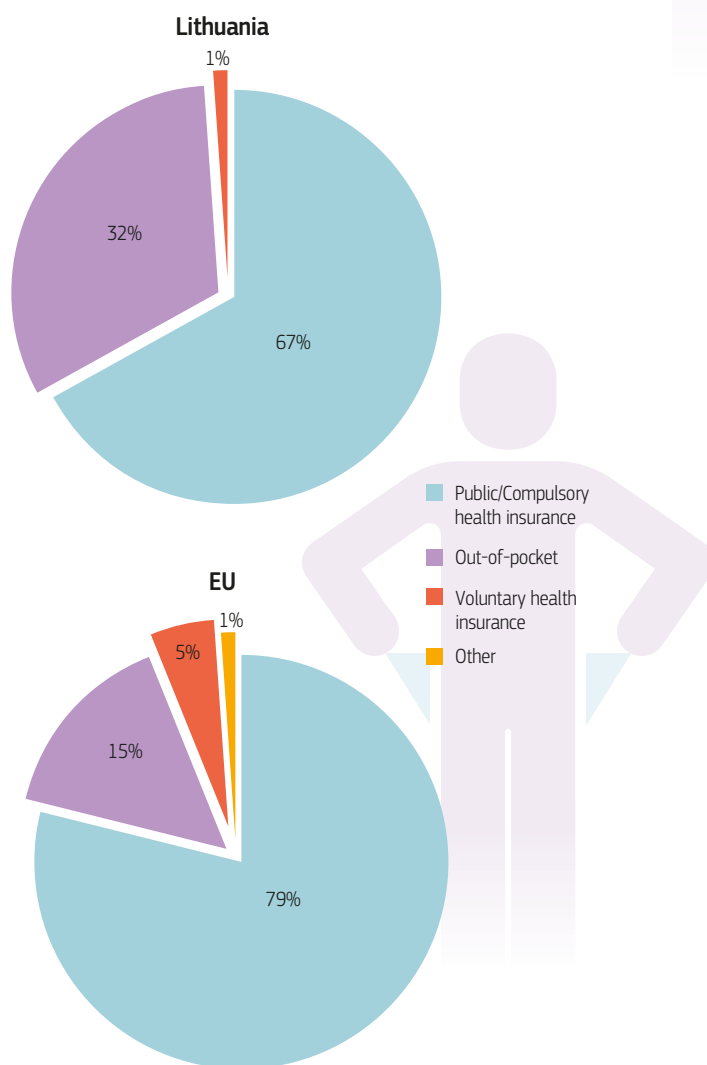
Figure 11. Lithuania has relatively small differences between income groups in reported unmet needs

● High income ● Total population ● Low income

Estonia
Greece
Romania
Latvia
Poland
Italy
Bulgaria
Finland
EU
Portugal
Lithuania
Ireland
United Kingdom
Hungary
Belgium
Slovak Republic
Croatia
Cyprus
Denmark
France
Sweden
Luxembourg
Czech Republic
Malta
Spain
Germany
Netherlands
Slovenia
Austria

0   10   20

% reporting unmet medical need, 2015

Note: The data refer to unmet needs for a medical examination or treatment due to costs, distance to travel or waiting times. Caution is required in comparing the data across countries as there are some variations in the survey instrument used.

Source: Eurostat Database, based on EU-SILC (data refer to 2015).

Figure 12. Lithuania has relatively high levels of out-of-pocket payments, mainly related to pharmaceutical costs


Lithuania

1%
32%
67%

☐ Public/Compulsory health insurance
☐ Out-of-pocket
☐ Voluntary health insurance
☐ Other

EU

5%   1%
15%
79%

Source: OECD Health Statistics, Eurostat Database (data refer to 2015).

Despite generally good accessibility, some vulnerable groups face difficulties

According to a study by WHO (Murauskiene, 2017, forthcoming), 9.4% of the population experienced financial hardship due to health spending in 2012, a higher share than in 2005 but a decrease from 2008. This problem is heavily concentrated among older people (aged 60 and over) and couples without children. Some 80% of catastrophic out-of-pocket spending[6] is due to costs of medicines, and the share is even higher among households in the lowest income quintile.

In addition to high and sometimes unnecessary expenses on pharmaceutical drugs, some studies report that informal payments are not uncommon in Lithuania, with one in three people who accessed health services in 2013 making an informal payment of some kind. This is a very high share compared to most EU countries (Transparency International, 2013). The Ministry of Health has developed a strategy to reduce the practice of informal payments, including increasing patient awareness of free services and encouraging service users to report if they were asked to pay, but its effectiveness has yet to be demonstrated.

6 .Catastrophic expenditure is defined as household out-of-pocket spending exceeding 40% of total household spending net of subsistence needs (i.e. food, housing and utilities).

Lithuania

Figure 13. Public funding is substantial for health services but low for pharmaceuticals

■ Pharmaceuticals ◆ Health services

Public share of health expenditure on pharmaceuticals and individual health services
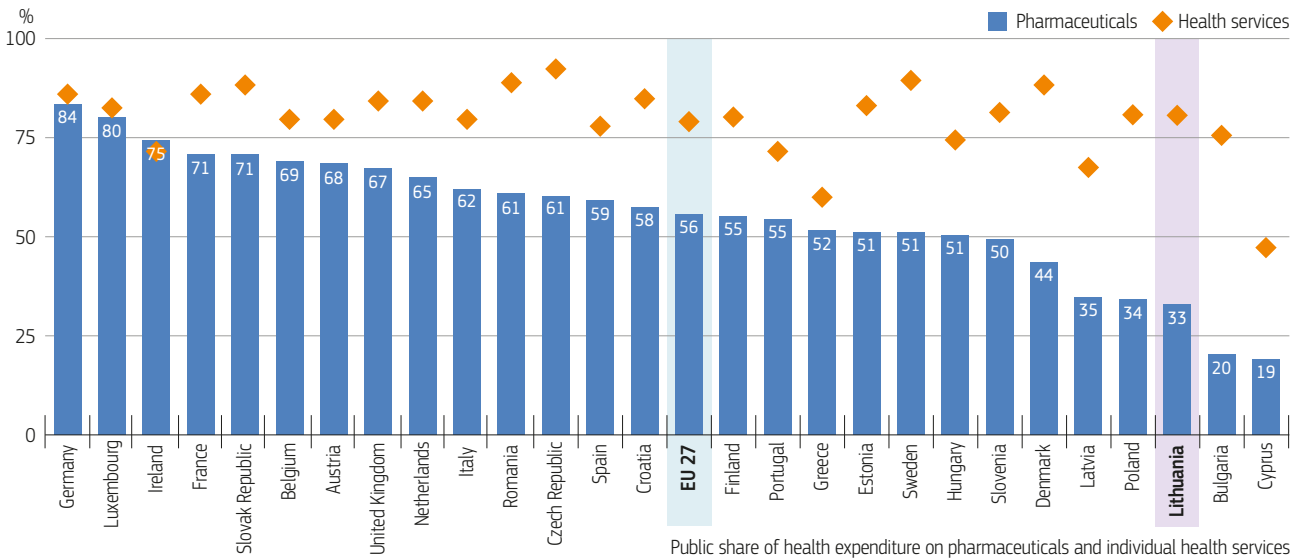
Note: Unweighted EU average, pharmaceuticals include medical non-durables. **Source:** OECD Health Statistics (data refer to 2015).

New policies are in place to increase the number of nurses and strengthen their role

The number of nurses is below the EU average, which similarly to its Baltic neighbours gives a relatively low nurse to physician ratio in Lithuania. The national health programme sets an increasing number of nurses as one of its main objectives, and several policies are in place to strengthen the nurse's role in health services, especially in primary care (see Section 5.1). For example, specialist nurse training was initiated. Specialised diabetes and cardiology nurses are two specialisations that are expected increasingly to provide services to chronic patients. Since 2015, nurses can also independently prolong prescriptions of medical aides.

5.3 RESILIENCE[7]

Lithuania has an effective countercyclical funding of health

Overall, laws, regulations and practices in the Lithuanian health sector have proven effective in maintaining public health budgets in times of financial stress. The state budget contribution for the non-working population is set as a share of the average gross monthly salary two years earlier (rising from 27% in 2007 to 37% in 2016). This mechanism helped to compensate for the decline in wage-based contributions and protect health spending in 2009 when Lithuania was severely affected by the financial crisis and unemployment rose. The NHIF cut prices paid to providers but by and large protected primary care expenditure. There is overall little debt accumulated in the system. For example, by law the NHIF has

to balance revenues and expenditures over a three-year average within a band that allows accumulating some reserves, and health providers also have little debt accumulated.

Despite several hospital sector reforms, bed capacity and hospitalisations remain very high

Despite the national reform strategy's stated goal to shift care to outpatient and primary health services, the number of hospital beds remains high. Lithuania has indeed reduced its hospital bed sector considerably since the 1990s, although not as drastically as its Baltic neighbours, and it still has the second highest ratio of curative care beds per population in the EU. In more recent years, downsizing mainly focused on mergers of hospitals as legal entities without changing the actual infrastructure. Early in the health sector reform, ownership of all small- and mid-sized hospitals was transferred to municipalities. This has hampered hospital consolidation as local governments have an interest in maintaining local services and employment opportunities. Since Lithuania is suffering from a shrinking population, the number of beds per population has, despite many efforts, only diminished slowly over the last 15 years (see Figure 14).

Lithuania is clustering hospital services to increase efficiency and quality

The large number of hospitals also means a considerable duplication of services, which leads to resources being spread out and risk of quality losses when clinical departments and medical staff provide few services. The strategy to cluster hospitals in networks, which will reduce the large overlap, is currently being implemented. Hospitals with curative care bed occupancy below 250 days a year will be reorganised, aiming for occupancy rates of at least 300 days

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7. Resilience refers to health systems' capacity to adapt effectively to changing environments, sudden shocks or crises.

per year. Excess curative care beds are expected to be re-profiled into nursing, long-term, geriatric and palliative care beds to meet the changing patients' profile. This reform will allow many local communities to keep their hospital facility, but with many of them providing a different and smaller set of services, coordinated with closely located hospitals, or specialising in rehabilitation and nursing. In addition, since 2015 as part of the drive to improve efficiency and quality of services, NHIF has restricted contracts for obstetrics and surgery departments when yearly volumes have been below 300 births and 400 complex surgeries.

Progressive policies have increased day care and outpatient services

In addition to efforts to restructure the hospital sector, Lithuania has put a lot of emphasis on expanding primary care, outpatient and day care services. The funding for primary care keeps increasing, together with performance-based payments for GPs. The reimbursement system for specialist care also favours the development of day cases and outpatient services. For example, while the yearly hospital budgets for inpatient services are decreased every year, most outpatient services have no ceiling amount in the contracts and day surgery is reimbursed at the same price as the respective service provided inpatient.

## Lithuania struggles to contain pharmaceutical costs

Another area where cost savings are being sought since the late 2000s is medicines. Driven by the need to contain spending on pharmaceuticals, a 'Drug Plan' was implemented in 2009,

consisting of 28 measures for drug producers, wholesalers, pharmacists, physicians and patients. These included the expansion of the list of reference countries and changes to setting reference prices, new requirements for generic pricing, introduction of cost and volume agreements with producers, a positive list of reimbursed medicines and patient choice of medicine with the smallest copayment. Initially, these measures lead to a decrease in pharmaceutical expenditure and some improvement in access to medicines for patients (Kacevicius & Karanikolos, 2013). However, more recently both public and private spending on pharmaceutical drugs have risen again, accounting for 28% of the total health care spending – among the highest levels in the EU. The new pharmaceutical price list from July 2017 (see Section 5.2) is expected to lower both public and private costs.

More can be done to improve accountability and transparency

Major strategies related to health are formulated in the National Health Programme, the Government programme, as well as in the health system reform plans. They identify key priorities and set out implementation plans. However, even though recent efforts have been made to include meaningful indicators to measure progress, regular monitoring and evaluation of implemented reforms is limited. Also, few independent evaluations of health system performance have taken place. There is, however, a general recognition of the need to increase transparency and accountability in the health sector, as well as eradicate corruption, which hampers efforts to improve health system performance on multiple levels.

Figure 14. Lithuania has reduced the number of beds but due to shrinking population, per capita reduction is limited
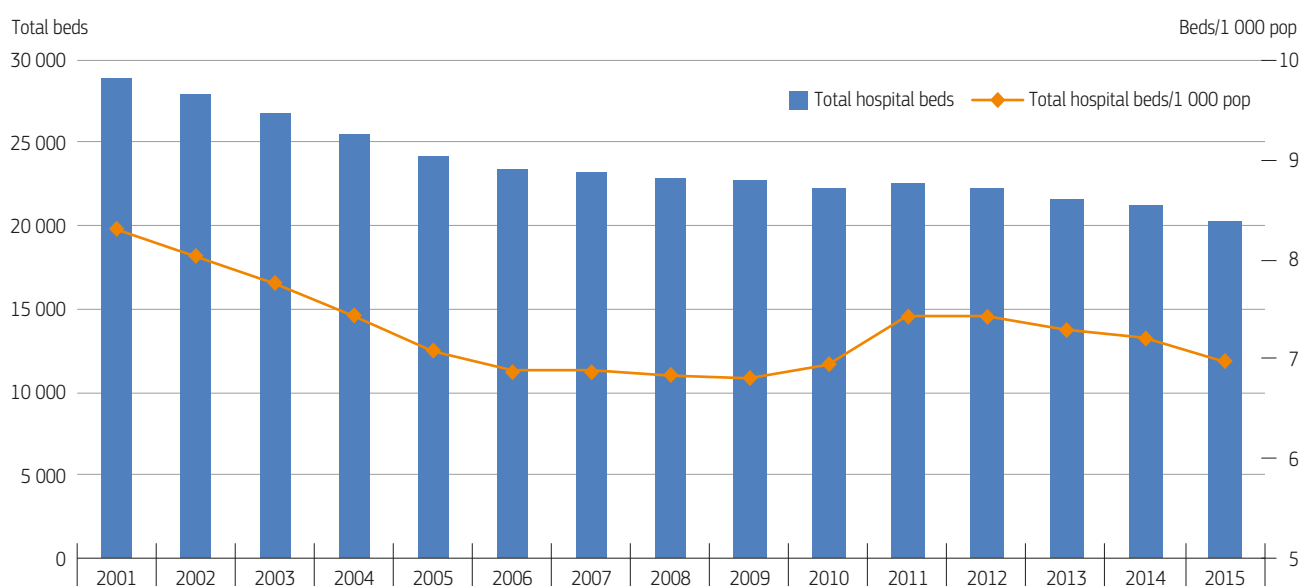
Source: Eurostat Database.

6 Key findings

- Life expectancy in Lithuania is the lowest in the EU, six years below the EU average. Life expectancy for men is more than 10 years lower than for women, the largest gender gap in the EU. Mortality rates for the two leading causes of death – ischaemic heart diseases and stroke – exceed the EU averages by four and two times respectively. The proportion of people reporting to be in good health is the lowest in the EU, and is particularly low among people in the lowest income quintile.

- Lithuanians consume more alcohol than any other people in the EU. Excessive alcohol consumption (binge drinking) is especially common among men and adolescents. Alcohol-related deaths are more than two times greater than the EU average. Strengthening alcohol control policies is high on the policy agenda in Lithuania, and a new law coming into effect in January 2018 will ban advertising of alcohol products, increase the legal age for consumption to 20 years and restrict sales hours.

- Health expenditure per capita in Lithuania is half the EU average. One-third of health spending comes from private sources – largely out-of-pocket payments. Spending on pharmaceuticals forms the largest share of these out-of-pocket payments, as many people pay the full cost of both prescribed and over-the-counter medications. This can create financial barriers to the purchase of pharmaceuticals for some vulnerable groups, especially older and low-income people. In addition, informal payments are not uncommon in Lithuania.

- The NHIF, the single purchaser of personal health services, is funded by compulsory income-related contributions and the central government for the non-working population. The Lithuanian health insurance system has an effective counter-cyclical mechanism in place and was successful in protecting public spending on health at the time of the financial crises.

- Lithuania has among the highest amenable mortality rates in the EU, indicating that the health care system can improve its effectiveness considerably. Quality indicators provide a mixed picture, but both hospital and primary care services are improving their performance. Lithuania's exceptionally high suicide rate is notable, despite mental health reform efforts. Reforms are ongoing to cluster acute care in centres with larger catchment areas, create networks of hospitals to provide each service in a more limited number of locations and implement volume thresholds to increase both efficiency and quality. The progress in primary care is following several years of reform, with modernised general practitioner and nursing services and a comprehensive reimbursement system incentivising prevention.

- Lithuania has a very large number of hospitals, spread out across most of the country's 60 municipalities. Many reforms have sought to reduce this capacity and shift care to outpatient and primary care services, but Lithuania still has one of the highest number of curative care beds per population in the EU. This is partly due to the shrinking population, which together with urbanisation has left many rural communities with a large hospital capacity.

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Country abbreviations

Austria	AT	Denmark	DK	Hungary	HU	Malta	MT	Slovenia	SI
Belgium	BE	Estonia	EE	Ireland	IE	Netherlands	NL	Spain	ES
Bulgaria	BG	Finland	FI	Italy	IT	Poland	PL	Sweden	SE
Croatia	HR	France	FR	Latvia	LV	Portugal	PT	United Kingdom	UK
Cyprus	CY	Germany	DE	Lithuania	LT	Romania	RO		
Czech Republic	CZ	Greece	EL	Luxembourg	LU	Slovak Republic	SK		

State of Health in the EU
Country Health Profile 2017

The Country Health Profiles are an important step in the European Commission's two-year *State of Health in the EU* cycle and are the result of joint work between the Organisation for Economic Co-operation and Development (OECD) and the European Observatory on Health Systems and Policies. This series was co-ordinated by the Commission and produced with the financial assistance of the European Union.

The concise, policy relevant profiles are based on a transparent, consistent methodology, using both quantitative and qualitative data, yet flexibly adapted to the context of each EU Member State. The aim is to create a means for mutual learning and voluntary exchange that supports the efforts of Member States in their evidence-based policy making.

Each Country Health Profile provides a short synthesis of:
- health status
- the determinants of health, focussing on behavioural risk factors
- the organisation of the health system
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