



# State of Health in the EU

# Hungary

## 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.

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## 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/10.1787/888933593589>

## Demographic and socioeconomic context in Hungary, 2015

	Hungary	EU
<b>Demographic factors</b>	Population size (thousands)	9 843
	Share of population over age 65 (%)	17.9
	Fertility rate <sup>1</sup>	1.4
<b>Socioeconomic factors</b>	GDP per capita (EUR PPP <sup>2</sup> )	19 700
	Relative poverty rate <sup>3</sup> (%)	9.0
	Unemployment rate (%)	6.8

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.

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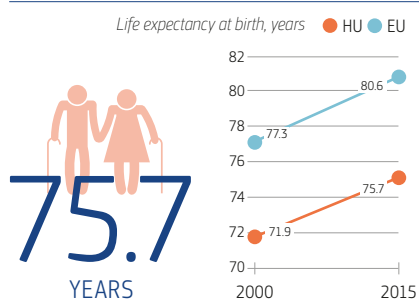
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# 1 Highlights

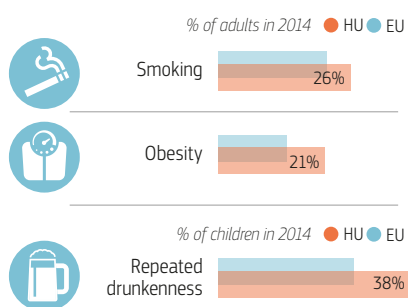
Despite improvement over the past 15 years, life expectancy in Hungary continues to lag several years behind most EU countries. Large disparities exist in health status across socioeconomic groups, driven by greater exposure to risk factors and inequalities in access to health care. The Hungarian health system is underfunded, with health spending per capita only about half of the EU average.

## Health status



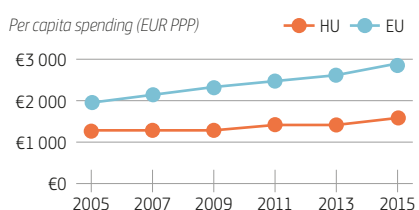
Life expectancy at birth in Hungary was 75.7 years in 2015, up from 71.9 years in 2000, but still nearly five years below the EU average. The gap by gender and socioeconomic group is large: Hungarian men with the lowest level of education live on average nine years less than the most educated men. This gap is mainly due to higher death rates from cardiovascular diseases and cancer among people in lower socioeconomic groups.

## Risk factors



In 2014, more than one in four Hungarian adults smoked daily. Smoking among people with a low level of education is more than two times greater than among the most educated. Obesity increased, and more than one in five Hungarian adults were obese in 2014. Harmful alcohol consumption among adolescents is another important risk factor: 38% of Hungarian 15-year-olds have been drunk on several occasions in their life (compared with an EU average of 25%).

## Health system

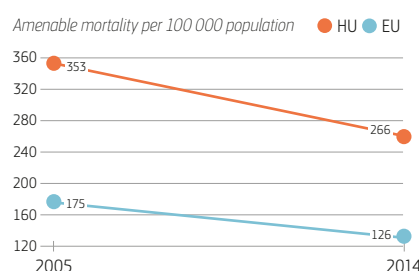


Health spending in Hungary is well below the EU average and the gap widened over the past decade. In 2015, Hungary spent EUR 1 428 per capita (7.2% of GDP) on health care, about half the EU average of EUR 2 797 (9.9% of GDP). Only two-thirds of health spending comes from public sources. The high level of out-of-pocket spending contributes to a comparatively high share of households facing catastrophic health expenditure.

## Health system performance

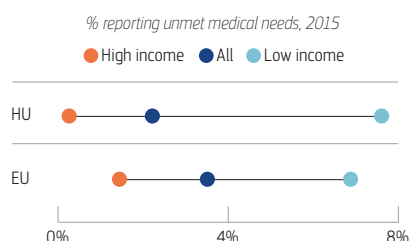
### Effectiveness

Despite some reductions, Hungary has among the highest rates of amenable mortality in the EU, suggesting large scope to improve access to timely and effective health care for life-threatening conditions.



### Access

Equity of access to health care in Hungary is hampered by the high level of out-of-pocket spending. A relatively large number of low-income Hungarian households report unmet needs for medical care.



### Resilience

Addressing the persistent underfunding of the health system is a prerequisite for improving access to good-quality care for all the population. Strengthening primary care, and prevention is are key challenges to improve population health and reduce health inequalities.



## 2 Health in Hungary

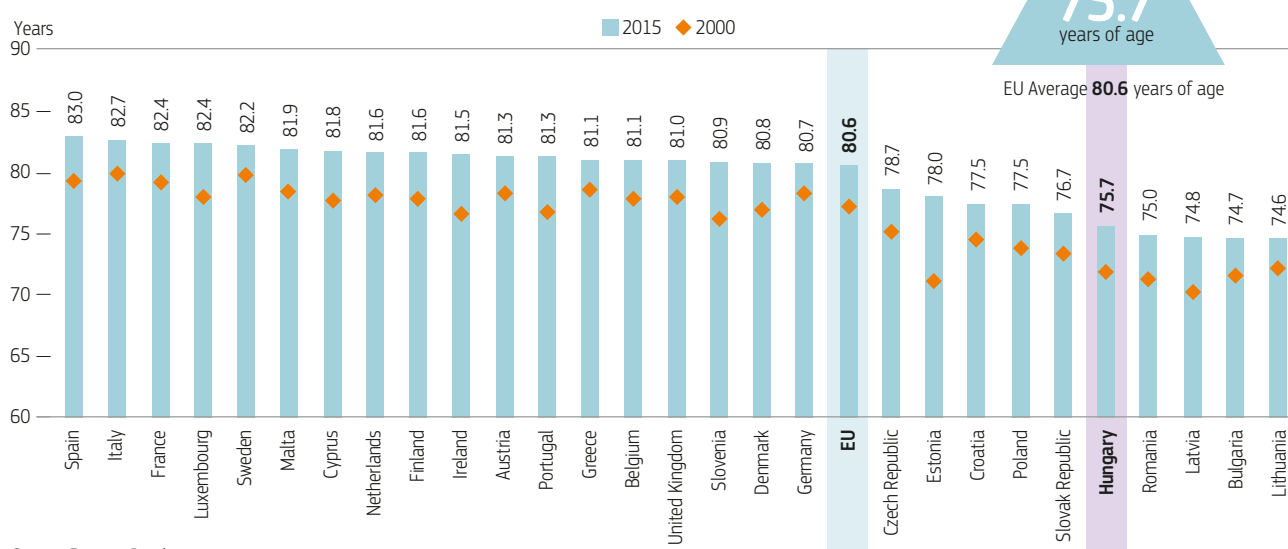
### Despite some progress, life expectancy in Hungary lags behind most other EU countries

Life expectancy at birth in Hungary increased by nearly four years between 2000 and 2015, to 75.7 years, but still remains almost five years below the EU average of 80.6 years (Figure 1). A substantial gender gap still remains in life expectancy. The life expectancy at birth of Hungarian men is almost seven years shorter than that of women (72.3 years compared to 79.0 years).

Considerable differences in life expectancy are observed between different socioeconomic groups. Life expectancy at age 25 among men and women who have not completed their secondary education is more than 10 years less than that of those who have completed tertiary (university) education.<sup>1</sup> This is mainly due to a higher prevalence of risk factors, such as smoking, alcohol consumption and obesity, resulting in higher death rates from cardiovascular diseases and different types of cancer (Murtin et al., 2017).

1. 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).

**Figure 1. Life expectancy in Hungary is still nearly five years below the EU average**



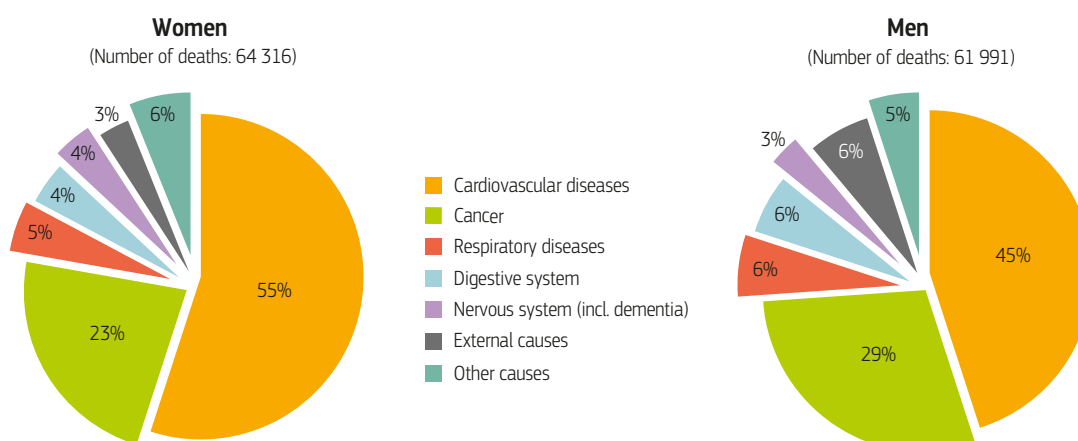
Source: Eurostat Database.

### Cardiovascular diseases and cancer continue to be the leading causes of death

Cardiovascular diseases remain the leading cause of death for both women and men in Hungary. In 2014, they accounted for the deaths of 35 000 women (55% of all deaths) and over 27 000 men (45% of all deaths). Death rates (age-standardised) from cardiovascular diseases in Hungary were more than double the EU average in 2014, mainly due to the greater prevalence of smoking and obesity as well as higher mortality rates following hospitalisations for these conditions (Section 5.1). The second leading cause of death among women and men in Hungary is cancer. Nearly 15 000 women and 18 000 men died from cancer in 2014 (accounting for 23% and 29% of all deaths, respectively).

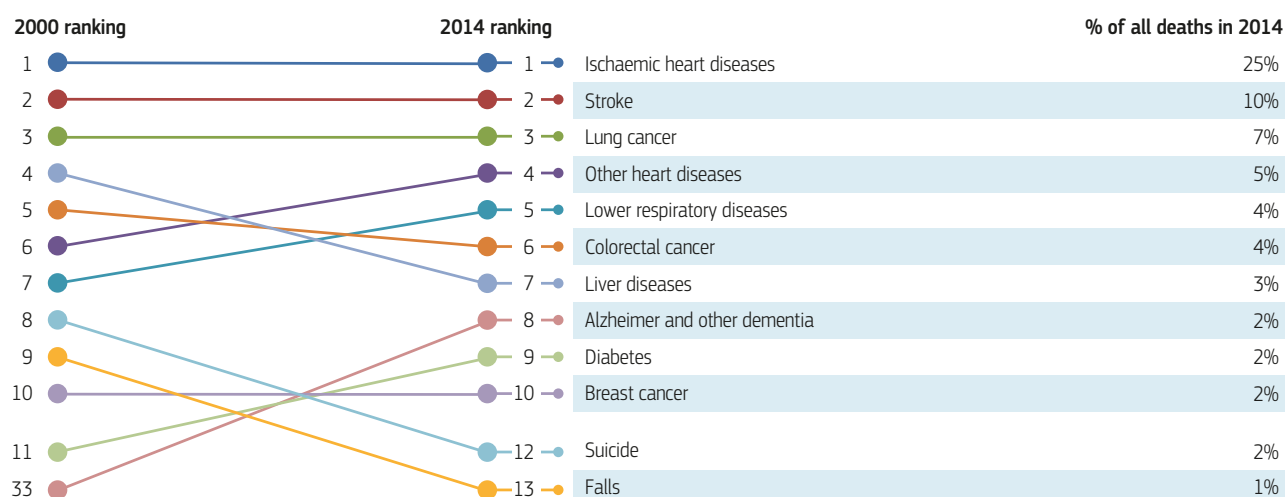
Looking at the more specific causes of death, a large number of deaths in Hungary are related to modifiable lifestyle risk factors (Section 3). Ischaemic heart diseases caused by far the most deaths in 2014, followed by stroke and lung cancer (Figure 3). Hungary has the third highest death rate from lung cancer in the EU, clearly demonstrating the impact of persistently high smoking rates.

The number of deaths due to Alzheimer's disease and other dementias has also risen rapidly in Hungary, reflecting an ageing population, better diagnosis, lack of effective treatments and more precise coding. On the other hand, the observed drop in deaths due to suicide and falls since 2000 suggests positive developments in addressing these particular public health issues.

**Figure 2. Cardiovascular diseases and cancer account for three-quarters of all deaths**

**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). There were 10% more women than men alive in Hungary in 2014.

**Source:** Eurostat Database (data refer to 2014).

**Figure 3. Ischaemic heart diseases, stroke and lung cancer take the most lives in Hungary**

**Source:** Eurostat Database.

## Musculoskeletal and mental health problems are the leading determinants of poor health

In addition to cardiovascular diseases and cancers, musculoskeletal problems, mental health problems and diabetes have the greatest impact on disability-adjusted life years<sup>2</sup> (DALYs) in Hungary (IHME, 2016). The ageing population also contributed to an increase in the burden of dementias in recent years.

Based on self-reported data from the European Health Interview Survey (EHIS), nearly one in three Hungarians lives with hypertension and one in twenty lives with asthma. On the other hand, the self-reported prevalence of chronic depression is only

about 5%, which is less than the EU average (7%), but this may be due to lower recognition of the condition.

## The number of new cases of HIV and AIDS doubled over the past decade

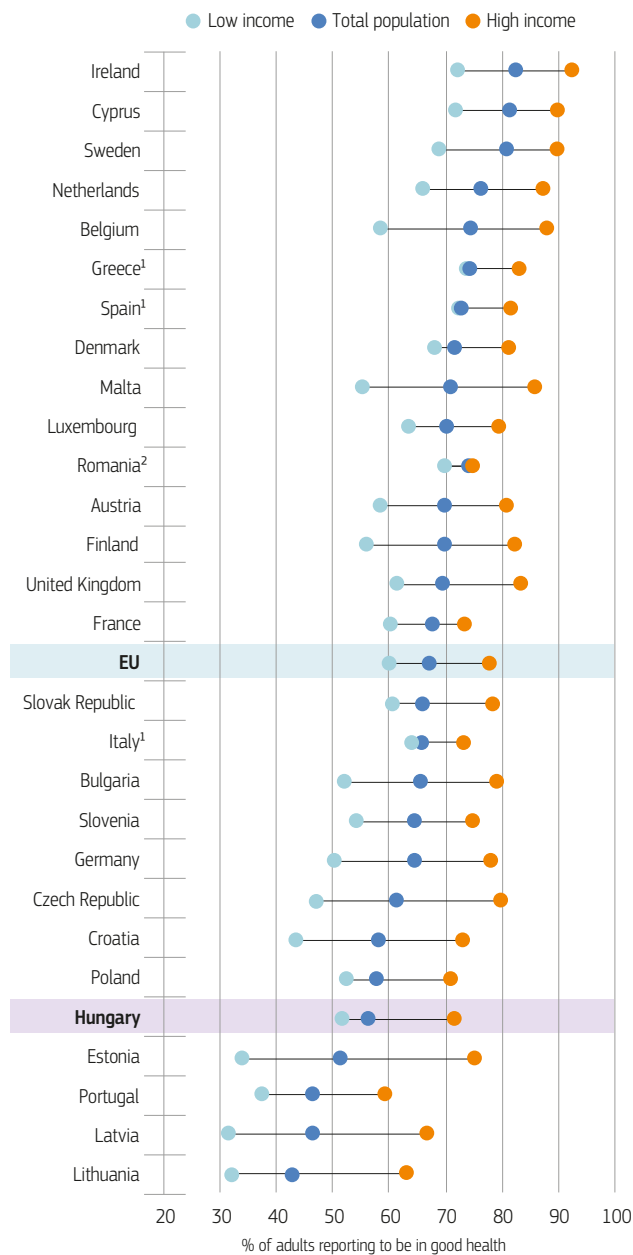
Although new reported cases of HIV in Hungary remain below the EU average, it is a concern that they increased by more than two-and-a-half times over the past decade (rising from a rate of 1.0 per 100 000 population in 2005 to 2.7 in 2015) (ECDC/WHO, 2016). New cases are mainly detected among adults aged 20–49 years, with the predominant mode of transmission being sex between men, calling for greater efforts to promote prevention measures. This increase in new cases of HIV also led to a rise in new cases of AIDS.

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).

## The share of Hungarians reporting being in good health is the fifth lowest in the EU

Only slightly more than half (56%) of Hungarians consider themselves to be in good health, one of the lowest rates in the EU (Figure 4). Men are more likely to consider themselves healthy, with 60% reporting being in good health compared to only 54% of women. A wider gap is observed between socioeconomic groups, with almost three-quarters (72%) of people in the highest income quintile reporting being in good health, compared with only about half (52%) among those in the lowest income quintile.

**Figure 4. Only slightly more than half of all Hungarians consider themselves healthy**



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).

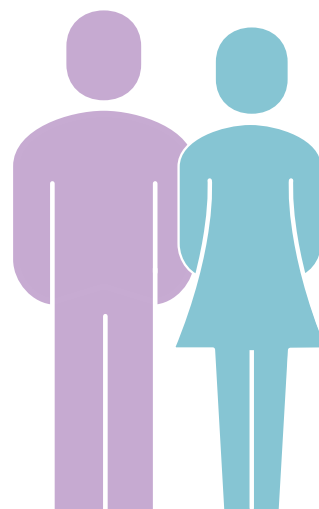
## 3 Risk factors

### Social deprivation increases exposure to risk factors

The persistent gap in life expectancy and self-perceived health is partly explained by growing socioeconomic inequalities in Hungary. Income inequality and (relative) poverty rates have increased since 2007 (OECD, 2016). Social deprivation has increased, with 35% of Hungarians defined as materially deprived, of which 19% are severely deprived<sup>3</sup>, compared to the EU averages of 17% and 10%, respectively. These people in lower socioeconomic groups are more likely to be exposed to harmful risks through poorer living and working environments, greater stress and unhealthy lifestyles.

### Unhealthy lifestyles contribute greatly to poor health outcomes in Hungary

Nearly 40% of the overall disease burden in Hungary, as measured by DALYs in 2015, can be attributed to unhealthy lifestyles (IHME, 2016). This is the fourth highest share in the EU after Romania, Bulgaria and Lithuania. Dietary risks, tobacco, alcohol consumption and lack of physical activity are the leading behavioural risk factors contributing to DALYs lost in Hungary.



3. Material deprivation rate is defined as the inability to afford some items considered by most people desirable or even necessary to lead an adequate life measured by nine indicators. Severe material deprivation is defined as the inability to pay for at least four of those nine indicators.

## Hungarians are among the heaviest smokers in Europe

More than one-fourth (26%) of Hungarian adults are daily smokers, down from 30% in 2000, but still the third highest rate among all EU countries (Figure 5). Nearly one in three men smoke daily, compared with one in five women, a gap which is further reflected in the high death rates from lung cancer (Section 5.1). Furthermore, smoking is more common among the lowest-educated in Hungary, with smoking rates more than double those of the highest-educated population. Regular smoking among 15-year-old adolescents in Hungary is also higher than the EU average (20% compared to 14%), with the rate being more or less equivalent between Hungarian girls and boys.

## Alcohol consumption among adults is slowly declining, but binge drinking among adolescents is worrisome

Recorded alcohol consumption per adult (as measured by sales) has slowly declined since 2000, but remains higher than in most EU countries and about 10% higher than the EU average in 2014 (10.9 litres per adult compared to 10.0 litres). Excessive alcohol consumption among adolescents is a

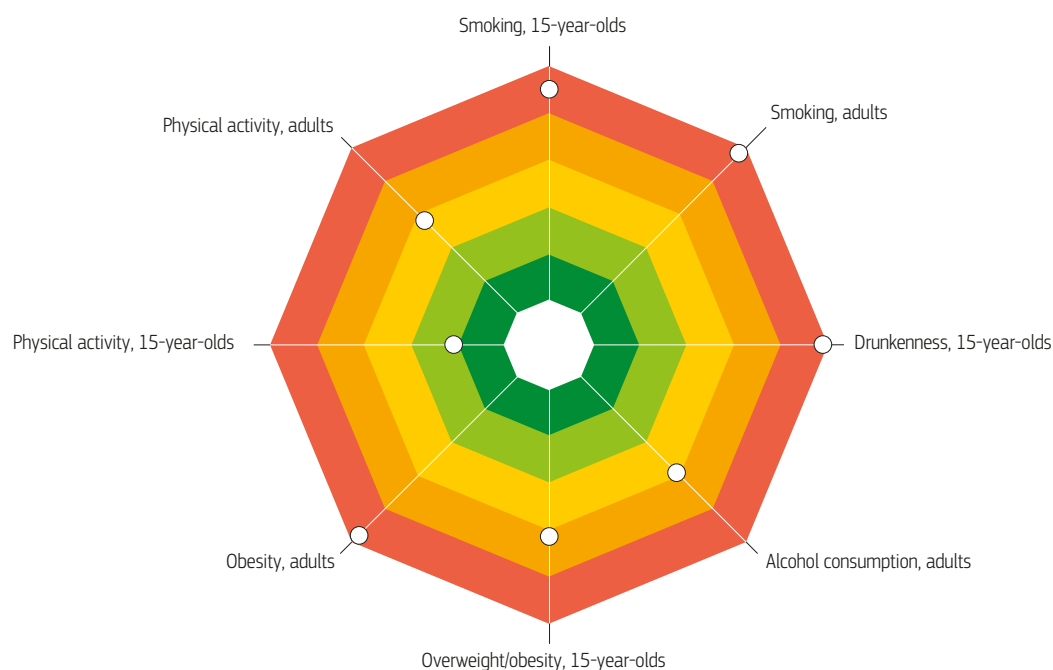
growing public health issue. In 2013–14, nearly four out of ten 15-year-olds in Hungary reported having been drunk at least twice in their life, the second highest rate in the EU (after Denmark) and well above the EU average (25%).

## More than one in five Hungarian adults are obese

The prevalence of obesity among adults increased from 18% in 2000 to 21% in 2014, the third highest rate in the EU after Malta and Latvia.<sup>4</sup> One in four adults in the lowest income group are obese, compared with one in six among those in the highest income group. Overweight and obesity among 15-year-olds is also above the EU average, and has increased by more than 50% since 2001–02 (from 12% to 19% in 2013–14).

On the other hand, Hungary performs relatively better compared with other countries in terms of physical activity for both adults and adolescents. Nearly two out of three adults report doing at least moderate physical activity on a weekly basis, which is close to the EU average. More men report doing weekly physical activity than women (69% versus 58%). This gap is also observed among 15-year-old adolescents. While nearly one in four 15-year-old boys report exercising regularly, this figure comes down to only one in ten for girls.

**Figure 5. Reducing smoking and obesity are important public health issues in Hungary**



**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).

<sup>4</sup> Based on actual measures of height and weight (which provide a more precise measure of obesity than self-reported data), 30% of adults were obese in Hungary in 2014.

## 4 The health system

### Hungary's single-payer system has a strong centralised role

Hungary has a single-payer system, with the central government playing a dominant role. The central government has almost exclusive power to formulate strategic direction and to issue and enforce regulations. It exercises strict control over revenue collection, determines the benefit package, sets budgets, allocates financial resources and engages in contracting and payment. The Health Insurance Fund (HIF), administered by the National Health Insurance Fund Administration (NHIFA) since 1993, is the most important national pool of financing in health care. In 2017, the NHIFA was integrated into the Ministry of Human Capacities and renamed the National Institute of Health Insurance Fund Management as part of the ongoing centralisation process (Box 1).

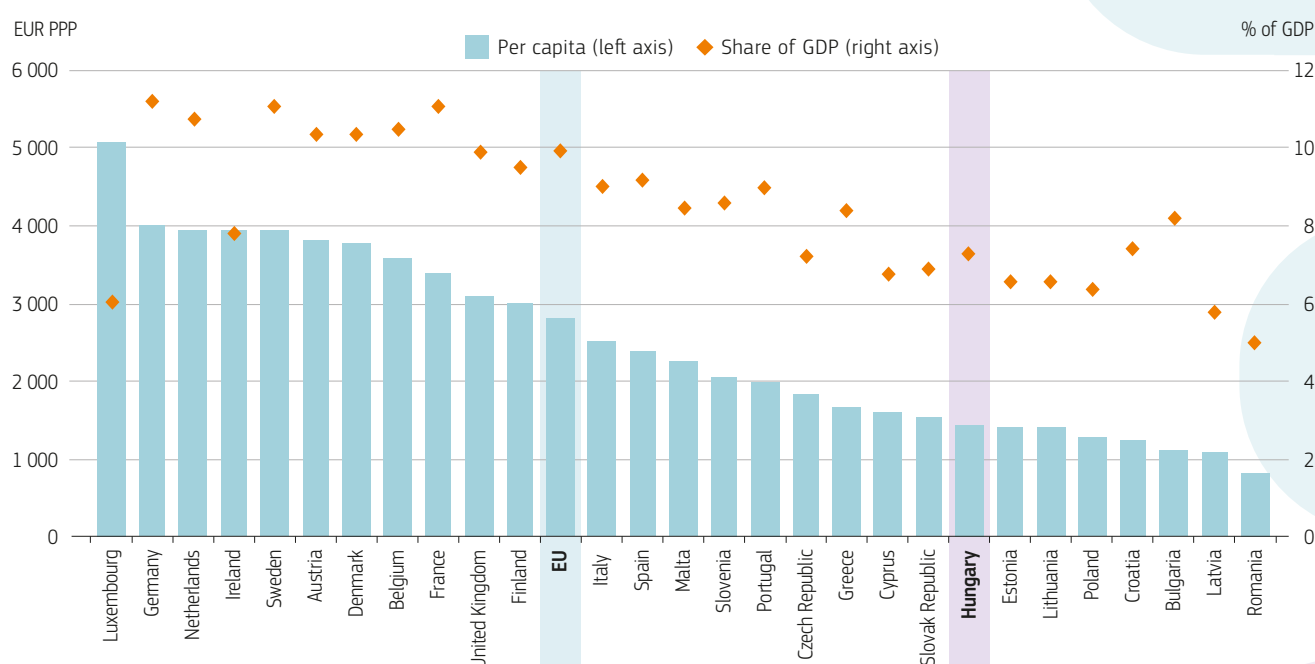
### Hungary spends comparatively little on health

In 2015, Hungary spent EUR 1 428 per capita on health (adjusted for differences in purchasing power), which is only about half the EU average (Figure 6). Health spending as a share of GDP was only 7.2%, down from 8.0% in 2005. This is a much lower share than the EU average of 9.9%.

#### BOX 1. THE CENTRALISATION OF HUNGARY'S HEALTH CARE SYSTEM HAS BEEN ONGOING SINCE 2012

As part of a broader movement towards centralisation of the Hungarian public administration and partly prompted by a perception of excessive bureaucracy and regional inequities, the health system's major agencies and services have undergone an almost continuous process of (re)centralisation since 2012, when ownership of hospitals was transferred back from local to central government. Further mergers and reorganisation in 2015 made the National Healthcare Service Centre the umbrella organisation for other formerly independent authorities. It is now the leading organisation for health provision. Its tasks range from hospital planning, care coordination, licensing of medical professionals and management of external funding to implementation of national strategies and communication with international research organisations (e.g. on the introduction of eHealth). Likewise, formerly independent financing and governance organisations such as the NHIFA, the National Public Health and Medical Officer Service, and the National Centre for Patients' Rights and Documentation were integrated into the Ministry of Human Capacities during the first half of 2017.

Figure 6. Hungarian health spending per capita is about half the EU average



Sources: OECD Health Statistics, Eurostat Database, WHO Global Health Expenditure Database (data refer to 2015).



The slow growth in health spending per capita over the past decade was driven mainly by tight control of public spending. The public share of health expenditure has decreased by four percentage points since 2005 to 67% in 2015, and now the sixth lowest in the EU. The remaining third of health spending is paid mainly by households' out-of-pocket payments.

The HIF budget mainly includes: a) health insurance contributions and an earmarked health care tax (72% of total public spending on health in 2016); b) direct government transfers (21%); and c) other incomes (7%, out of which the Public Health Tax described in Section 5.1 accounts for 1.5%) (European Commission, 2016). HIF expenditure is further organised along several sub-budgets (e.g. outpatient, acute inpatient services) that are fully controlled by the government. These sub-budgets are capped for curative and preventive services, and the corresponding provider payment methods should ensure that the predetermined budget ceilings are not exceeded. Nevertheless, the inability to meet budget constraints, persistent hospital debts and difficulties in paying suppliers point towards problems with structural underfunding of the health system coupled with system inefficiencies (Section 5.3).

## Health care coverage is in practice universal

According to the legislative framework, the entire Hungarian population should be covered for health care. However, after significant budget cuts in 2007 and the economic crisis the following year, a systematic assessment of the population's entitlement to health coverage was undertaken. In 2015, about 5% of the population had unclear health insurance status. In large part, this is because these people have not paid their health insurance contributions. Still, necessary care cannot be denied to patients who have not paid their contributions.

## The publicly funded benefit package is broad, but not exhaustive

The benefit package is decided at the central level, defined by a positive list for pharmaceuticals and a negative list for medical procedures. People seeking care from providers outside the social health insurance system or for services outside of the defined limits of the benefit package, such as psychotherapy provided by a non-physician, must pay this out of pocket.

Significant efforts have been made to base the inclusion of new technologies (pharmaceuticals, procedures and medical devices) on the best available evidence with particular focus on health technology assessments (HTA). Although the benefit basket is rarely subject to downward adjustments, few technologies were included in the benefit basket after the economic crisis. Notably,

despite high smoking rates, Hungarian authorities declined coverage for smoking cessation products following an HTA, because of the additional cost as well as authorities wanting to avoid creating precedence (Auraaen et al., 2016).

## Health care provision in Hungary is still highly hospital-centred

Although efforts have been made to reduce hospital activities, health care provision is still highly hospital-centred. While the number of acute care hospital beds has decreased by 30% since 2000, the total number of hospital beds remains above the EU average (699 compared to 515 beds per 100 000 population in 2015).

Hungarian patients spent on average 9.5 days in hospital in 2015, which is among the longest in the EU. Hospital discharges are also above the EU average, with 200 discharges per 1 000 population in 2015 compared with an EU average of 173. Given that most hospitals are publicly owned, potential exists for further central-led efforts to achieve efficiency gains in the Hungarian hospital system (Section 5.3).

## The health workforce is ageing, while young doctors and nurses are increasingly mobile

The number of doctors in Hungary is lower than the EU average (3.1 per 1 000 population compared to 3.6), and so is the number of nurses (6.5 per 1 000 population compared to 8.4). Only a small proportion of doctors are general practitioners (GPs) (about 12% only in 2010, the latest year available), with most doctors being specialists. Furthermore, nearly half of GPs are over 60 years old, while only 10% are younger than 40 years, a factor that is expected to further reduce access to primary care when the older generation of GPs retire.

The geographical concentration of hospitals and other health infrastructures also affects access to care, particularly specialist services, but also to primary care providers. The recruitment of GPs to rural areas is already challenges, and it will become even more difficult replacing the many GPs currently providing services in these areas when they retire in the coming years.

Hungary's accession to the EU in 2004 also led to an increased mobility of Hungarian doctors, who have left in large numbers to work abroad. This mainly affected the public sector, resulting in a shortage of health professionals exacerbated by the growing private sector, which is attracting an increasing number of doctors and nurses.

## The role of general practitioners has been redefined through recent reforms

Primary care provision is under the responsibility of municipalities, and includes family doctor services, maternal and child health nurses, school health services and out-of-hours surgery services. Primary care is mainly provided by a GP, and patients can freely choose their preferred GP as well as change their GP once per year. GPs with a territorial obligation cannot refuse patients in their catchment area and in theory act as gatekeepers to specialist care. However, the lack of incentives to provide definitive care in

primary care settings has resulted in a weak gatekeeper role and frequent unnecessary referrals to specialist care.

In 2009, a pay-for-performance system was introduced to incentivise 'good' primary care. More recent legislation in 2015 also tried to strengthen primary care by redefining GPs' tasks (including an emphasis on disease prevention), promoting community practices and Health Promoting Offices, and revising payment schemes. Despite these reforms, primary care is still mainly financed by capitation and fixed budget.

# 5 Performance of the health system

## 5.1 EFFECTIVENESS

### High levels of amenable mortality point to shortcomings in the provision of timely and quality care

Hungary reports the fifth highest rate of amenable mortality<sup>5</sup> in the EU, after Bulgaria, Latvia, Lithuania and Romania. Despite some improvement over the past decade, amenable mortality rates among both Hungarian men and women are around double the EU average (Figure 7). Ischaemic heart disease accounted for 43% of all amenable deaths, followed by stroke (17%) and colorectal cancer (11%).

### The quality of acute care for cardiovascular diseases is lower than in other EU countries

Deaths following hospitalisation due to heart attack (acute myocardial infarction, AMI) or stroke provide a general indication of the quality of acute care. More than 15% of patients admitted to the hospital for a heart attack died within 30 days in the second half of 2014 in Hungary. This is the third highest rate in the EU (Gyenes et al., 2016). On the other hand, the survival rate following a hospital admission for stroke improved and is closer to the EU average.

### Poor screening coverage and cancer outcomes raise questions over quality of cancer care

Hungary has the highest cancer mortality rates in the EU, raising questions about prevention, early detection, and access to quality cancer care. Some types of cancers, such as cervical, breast and colorectal cancer, can be detected at an early stage if appropriate

screening programmes are in place, thereby increasing chances for survival. National-level screening programmes already exist for breast cancer and cervical cancer, and a national colorectal screening programme is about to be launched (Box 2).

Despite existing programmes, considerable inequalities in access to screening across regions and socioeconomic groups are observed and the screening rates for breast cancer and cervical cancer

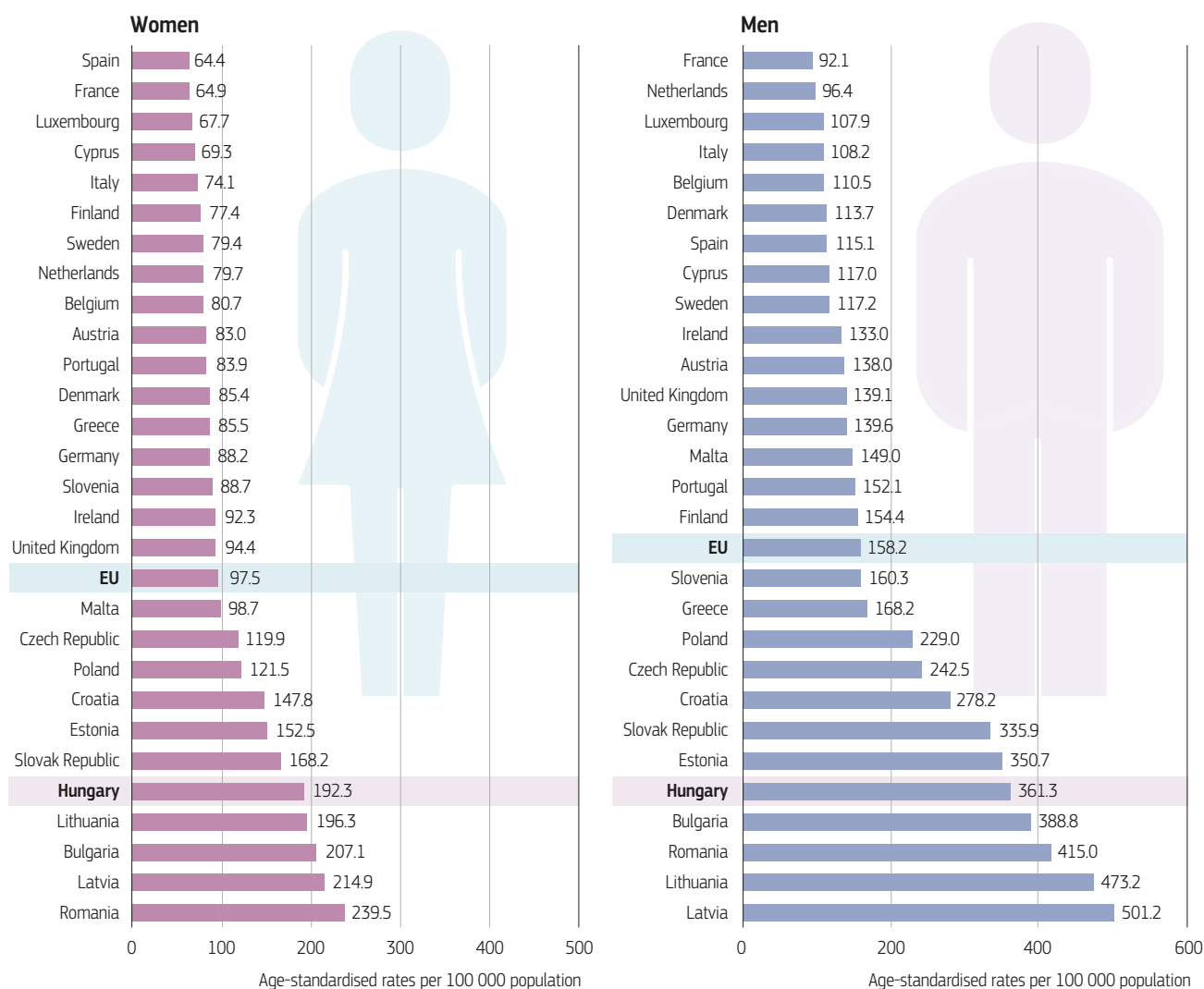
#### BOX 2. PROGRESS TOWARDS A NATIONWIDE COLORECTAL SCREENING PROGRAMME

The incidence and mortality from colorectal cancer in Hungary were among the highest in the EU for many years. Yet a national colorectal cancer screening programme is notably absent, due to several reasons. First, no professional consensus existed on the preferred methods for colorectal screening in Hungary. Second, a shortage of health professionals made it difficult to launch a colorectal cancer screening programme for large segments of the population. Third, investment in the necessary equipment and the overall cost of this programme were considered prohibitive during a period of tight budget constraints.

Nonetheless, several pilot projects were carried out across the country in recent years. From these pilot projects, the decision was made to establish a nationwide voluntary screening programme for colorectal cancer based on the detection of faecal blood coupled with a follow-up colonoscopy for those who tested positive. With the support of EU funding, the necessary equipment was provided and the nationwide screening programme for colorectal cancer will be launched later in 2017.

5. Amenable mortality is defined as premature deaths that could have been avoided through timely and effective health care.

Figure 7. Hungary lags behind other EU countries in amenable mortality rates



Source: Eurostat Database (data refer to 2014).

remain relatively low. In 2015, less than half (47%) of Hungarian women in the target age group (45 to 65) were screened for breast cancer during the past two years.<sup>6</sup> Coverage of cervical cancer screening was even lower. Over the past decade, the percentage of women regularly screened for cervical cancer remained flat, at around only 40%, among the lowest rates in the EU.

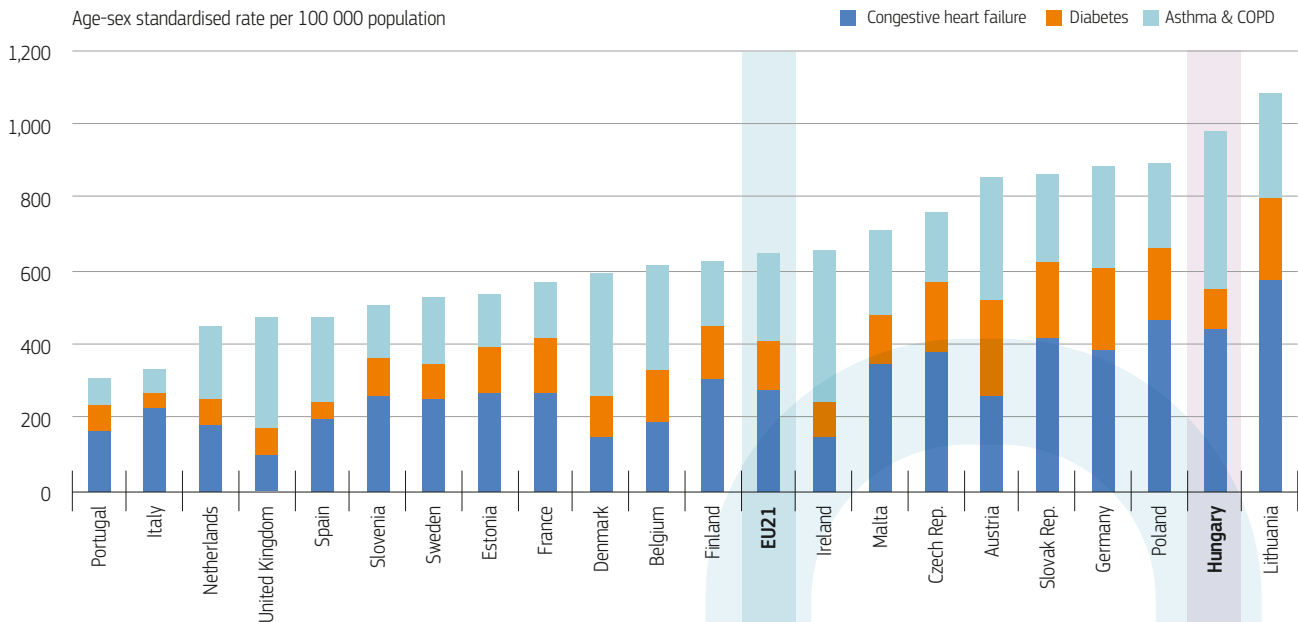
### High levels of avoidable hospitalisations suggest room for improvement in primary care

Despite efforts to reduce the hospital sector and shift activities to primary and ambulatory (or outpatient) care settings, the Hungarian health care system remains highly hospital-centred (Section 5.3). The predominance of solo practices of GPs in

primary care, coupled with GPs' weak gatekeeping function and lack of incentives to provide definitive care outside hospitals, have limited the development of an effective primary care sector.

Hospitalisations due to ambulatory care-sensitive conditions, such as asthma and chronic obstructive pulmonary disease (COPD), congestive heart failure and diabetes, provide an indication of the quality of primary care, as these hospitalisations may be prevented if well-managed in primary care settings. The Hungarian data point towards opportunities to strengthen primary care to better manage patients outside of hospitals. Overall, Hungary has the second highest hospitalisation rates for ambulatory care-sensitive conditions in the EU, largely due to frequent hospitalisations of patients with congestive heart failure, COPD and asthma. Hungary fares comparatively better countries when it comes to managing patients with diabetes outside of hospitals, with hospitalisation rates about half the EU average (Figure 8).

6. Self-reported data from the 2014 Health Interview Survey show higher rates: 65% for breast cancer screening and 60% for cervical cancer screening in 2014.

**Figure 8. Hungary's hospitalisation rate for ambulatory care-sensitive conditions is second highest in the EU**

**Note:** Rates are not adjusted by health care needs or health risk factors.

**Source:** OECD Health Statistics (data refer to 2015 or latest year).

## Preventable deaths are among the highest in the EU, particularly for men

Preventable mortality, such as deaths from lung cancer, alcohol-related conditions and traffic accidents, shows that Hungary is still struggling to reduce the number of premature deaths. Since 2000, Hungary has had by far the highest mortality from lung cancer for both men and women compared to the rest of the EU, reflecting high smoking rates. Twice as many men as women died from lung cancer in 2014. Alcohol-related deaths in Hungary are the third highest in the EU, and death rates from road traffic accidents are well above the EU average.

## The impact of prevention policies has been limited

Hungary has reduced prevention spending as a share of all health spending by nearly half since 2005, allocating only 2.6% of overall spending to prevention programmes in 2015. Past public health programmes, which were often ambitious in their stated goals, largely remained unimplemented in practice. These programmes often failed because of a lack of proper coordination mechanisms between sectors, between national and local levels,

and between professional groups, or sometimes even failed to materialise altogether (Gyebnár and Vokó, 2011). Moreover, public health programmes adopted since the political transition that emphasised the need to tackle health inequalities did not sufficiently analyse their causes or formulate adequate strategies to address them successfully.

On a more positive note, to incentivise healthy diets Hungary introduced in 2011 a Public Health Tax as part of the National Reform Programme. The regulation aimed to limit the maximum trans fatty acid content of foodstuff and redefine nutritional health rules for public catering. Impact assessments indicate that consumers responded to the tax by choosing cheaper, often healthier products and reduced their intake of unhealthy foods. The Public Health Tax generated funds to support various public initiatives to strengthen the Hungarian health system, including a salary increase for health professionals (Section 5.3).

Over the past 15 years, Hungary strengthened its national strategies to fight antimicrobial resistance (AMR) (Box 3).

**BOX 3. ANTIMICROBIAL RESISTANCE IS A NATIONAL PUBLIC HEALTH PRIORITY IN HUNGARY**

Hungary has a high level of resistant infections for most pathogens under surveillance by the European Centre for Disease Prevention and Control (ECDC, 2017). A National Bacteriological Surveillance System (NBS), based on a network of national reference laboratories, was established in 2001 to monitor the most dangerous pathogens in human medicine. A web-based National Nosocomial Surveillance System (NNSR) was introduced in 2004 with the objective to monitor health care-associated infections. In 2009, the Ministry of Health published a decree providing a legal framework to all existing infections and AMR control activities in the country and

broadening their scope in terms of pathogens and infections under surveillance as well as the number of hospital and laboratories providing surveillance data. In 2011, the Hungarian Presidency of the Council of the EU hosted the second meeting of the Transatlantic Task Force on Antimicrobial Resistance in Budapest. Today, AMR is a national public health priority for the Hungarian government and the country is working to develop and implement a comprehensive national strategic action plan for AMR as recommended by the European Commission.

Source: ECDC, 2017.

**5.2 ACCESSIBILITY****Relatively low levels of unmet medical care needs are reported, but large disparities by income group**

Based on data from EU-SILC, a relatively small proportion of Hungarian people report unmet needs for a medical examination and treatment, less than 3% overall in 2015 (lower than the EU average). However, barriers to accessing care mainly affect the lowest income group: 6.8% of people with low income reported unmet needs for medical care, compared with only 0.8% among the highest income group (Figure 9), with financial barriers being the most important reason for such unmet medical care needs.

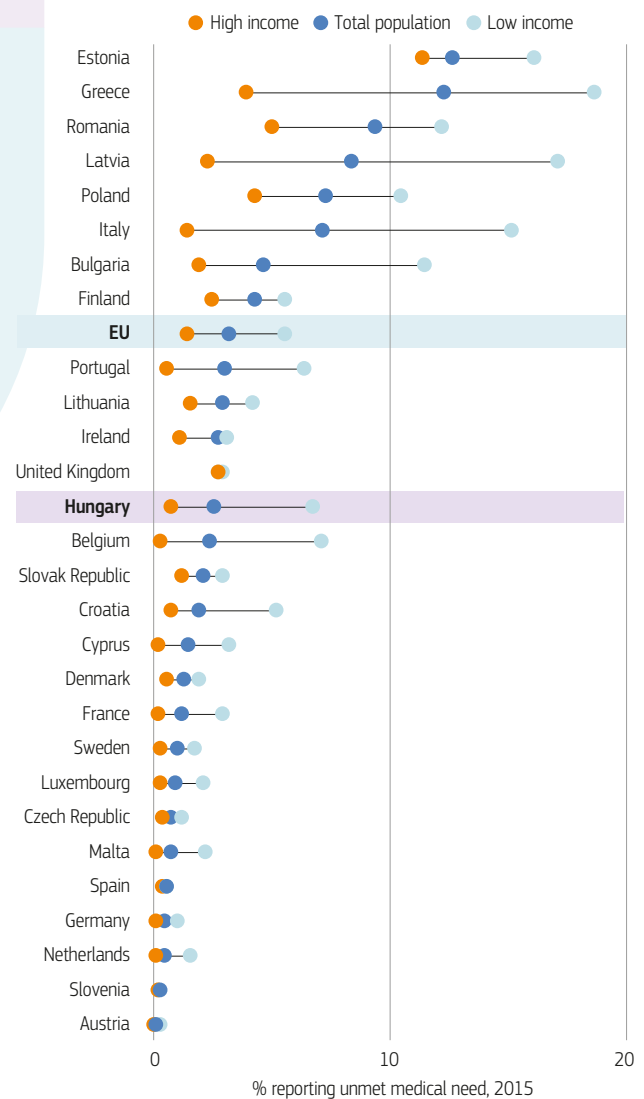
Waiting times for elective surgery, such as cataract surgery and knee and hip replacement, were generally reduced in recent years. However, there are large geographical differences in waiting times for these procedures, with over a three-fold difference between regions with the longest and shortest waiting times.

**Affordability of health services and pharmaceuticals is limited by high out-of-pocket payments**

Access to care is hampered by the large shares of private spending, both formal and informal. Out-of-pocket payments, which include direct payments, cost-sharing for services outside the benefit package, as well as informal payments, account for 29% of all health spending in Hungary, nearly twice as high as the EU average at 15% (Figure 10).

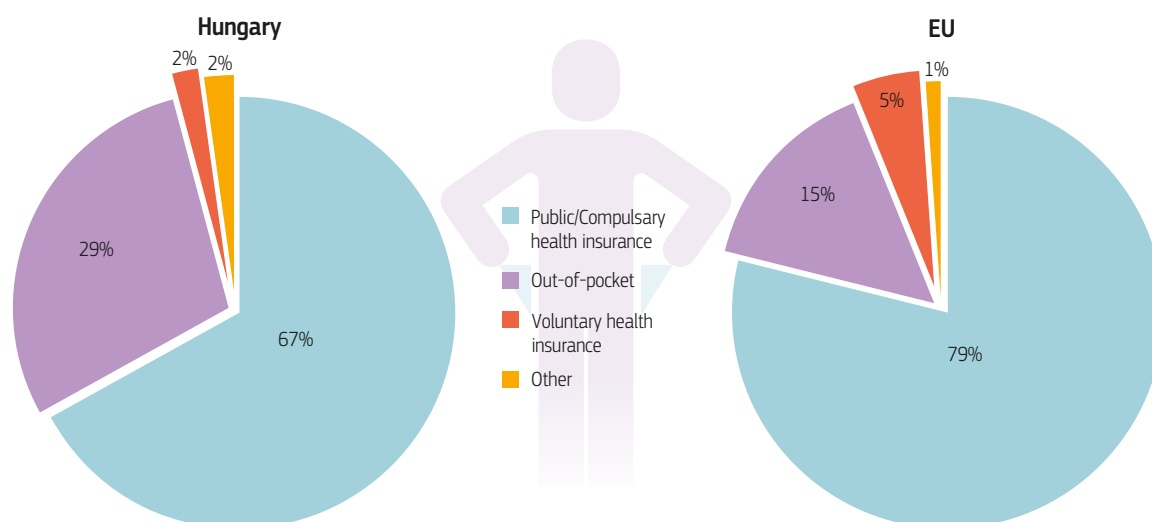
About half of all out-of-pocket payments in Hungary are used to pay for pharmaceuticals. This is a much higher share than in most other EU countries. According to the Hungarian Household Survey, the share of medicines in total out-of-pocket payments has been

**Figure 9. Low-income households report comparatively high levels of unmet medical care needs**



**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 10. Out-of-pocket spending in Hungary is double the EU average**

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

over 70% since 2004, suggesting challenges in terms of both accessibility to and affordability of pharmaceuticals (Section 5.3).

Informal payments have also long played an important role in health care delivery in Hungary and are estimated to make up at least 2.1% of total health expenditure – a much higher share than in most EU countries. The practice of making informal payments is rooted in the early 1950s and remains deeply embedded in the Hungarian health care system as an informal method to get quicker access to and better-quality care. Moreover, informal payments have been used indirectly as an argument for governments to keep the official income of health care professionals persistently low. The lack of a clear and consistent legal framework leaves room for acceptance of informal payments and keeps this practice alive.

Many Hungarian households struggle to overcome the financial barriers to care, resulting in a considerably larger share of Hungarians households facing catastrophic out-of-pocket payments<sup>6</sup> than in most other EU countries for which data are available. In 2014, 7.4% of all Hungarian households faced catastrophic out-of-pocket payments. This percentage reached more than 25% among low-income households (Figure 11). It is also important to bear in mind that these data do not take into account all those people who decide to forego care for financial reasons.

### Substantial salary increases appear to have reduced the emigration of health workers

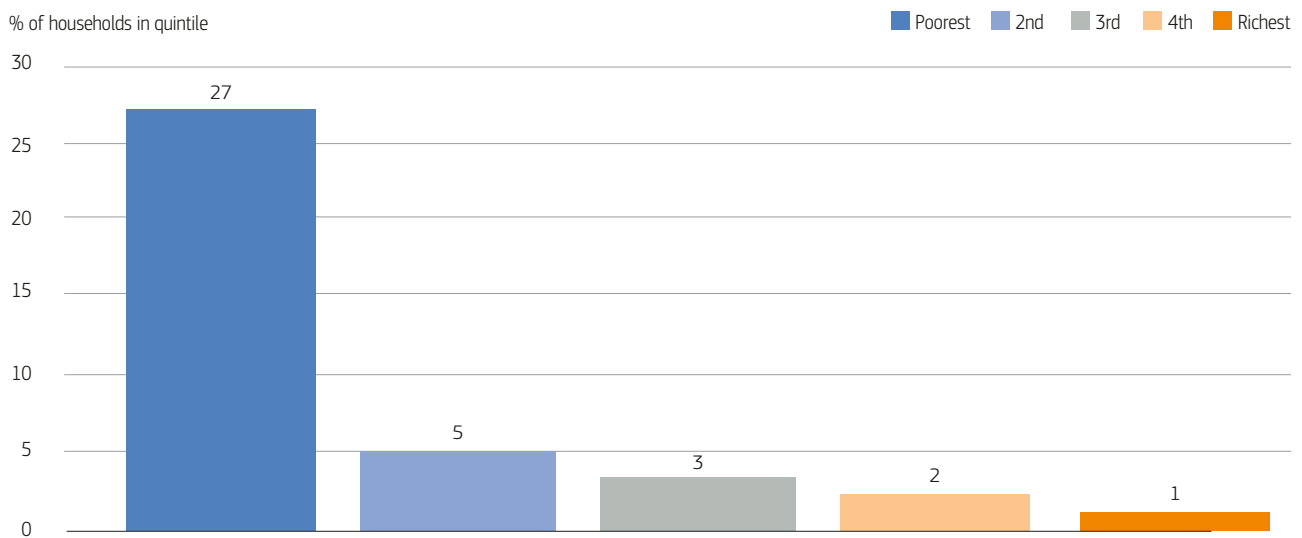
The shortage of health professionals continues to restrict access to care, particularly in the public health care sector and in rural areas. In 2011, the Hungarian government introduced the residence scholarship programme, which offered a monthly raise to medical resident doctors who made a commitment to work in the public sector while obtaining their specialisation. A staged increase of 20% in the salaries of medical doctors and nurses already working in the system was also introduced in 2012, phased over a three-year period.

Since then the programme has been extended to cover almost all professionals and medical specialities, including those that are deemed to be in shortage now or in the near future. During the past five to six years, there have been periodic salary increases for health workers in publicly financed establishments, particularly for medical doctors, and it is expected that salaries will be increased again in the autumn of 2017.

In combination with other policy efforts, the salary increases and residence scholarship programme have contributed to a growth in the health workforce since 2011. To finance these measures, the government introduced a few earmarked taxes, such as the Public Health Tax on foods and beverages deemed harmful (Section 5.1). Although it is difficult to measure the full impact of these retention measures on the emigration of all health professionals, the efforts to improve working conditions for doctors in Hungary has led to fewer doctors leaving.

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).



**Figure 11. More than one-quarter of low-income households face catastrophic out-of-pocket payments**

**Note:** Data refer to 2014.

**Source:** Gaál and Lindeisz, 2017 (forthcoming).

### 5.3 RESILIENCE<sup>8</sup>

#### Some steps have been taken to improve efficiency in the hospital sector, but challenges remain

Since the early 1990s, Hungarian experts have agreed that out of the about 140 hospitals in Hungary at the time, at least 30–40 smaller hospitals should be closed to improve quality of care and efficiency. Despite efforts to reduce the size of the Hungarian hospital sector, the health system remains too hospital-centred. Partly, this may be due to the actual implementation of all the repeated government reforms in this direction has been blocked by political lobbying to avoid closing entire hospitals.

In 2006, a reorganisation of the hospital sector led to the reduction of acute care capacity in 14 hospitals across the country and to a reduction of around 10 000 hospital beds overall (Figure 12). Yet beyond a reduction in the number of hospital beds, the impact of this reorganisation was limited. Hungary continues to report among the highest hospital activity levels in the EU, with discharge rates well above the EU average and average length of stay going up (not down) over the past decade.

Efficiency gains may be achieved through a greater use of day surgery for some interventions, such as cataract surgery and tonsillectomy. Hungary lags behind most EU countries in this regard. Less than half (46%) of interventions that national experts have said could be performed as day surgeries were actually

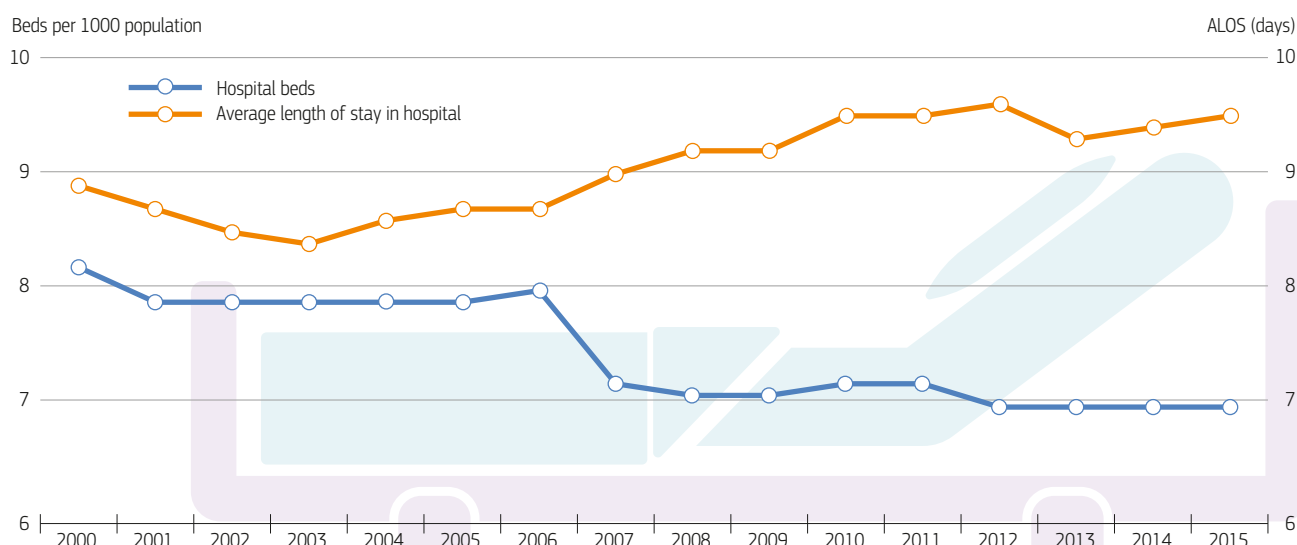
carried out on a same-day basis in 2015 (Gyenes et al., 2016). While nearly all cataract surgeries are now performed as day surgeries in many EU countries, the share in Hungary is still only 54%. Partly, this may be due to the upfront investments required to support a shift towards day surgeries, and constrained health budgets have often led to delays in these investments.

#### Both public and out-of-pocket spending on pharmaceuticals are high

Controlling pharmaceutical spending represents a fundamental challenge to the Hungarian health budget as well as the budgets of Hungarian households. In 2015, Hungary spent 29% of its health budget on pharmaceuticals, more than twice the EU average. According to the Hungarian Household Survey, 70% of Hungarians' out-of-pocket payments were spent on pharmaceuticals in 2014.

Improvements in public procurement practices could potentially lower the prices of pharmaceuticals. Potential also exists to more fully exploit the development of the generic market. Although pharmaceutical policies have encouraged the prescription and use of generics in recent years, the share of the generic market seems to be low (although this is difficult to assess because of a lack of recent and internationally comparable data).

<sup>8</sup> Resilience refers to health systems' capacity to adapt effectively to changing environments, sudden shocks or crises.

**Figure 12. The number of hospital beds and average length of stay declined**

Source: OECD Health Statistics 2017.

## Care coordination for chronic disease patients remains underdeveloped

Improving care coordination, particularly for chronic diseases, represents a potential for further efficiency gains for the Hungarian health system. Currently, the necessary capacities to provide person-centred care for a rapidly growing share of the population suffering from chronic diseases remain underdeveloped. As a result, chronic disease patients are frequently hospitalised in situations where their conditions could be managed in a primary care setting (Section 5.1). By defining clear care guidelines and streamlining the pathway for patients with complex needs, both the quality of care and efficiency of care delivery may be improved. Some of the tools to do so have already been developed in Hungary, such as plans to integrate care and use polyclinics to follow up patients with complex needs, but have not yet been implemented to their full potential (Box 4).

Hungary began to strengthen its information infrastructure in recent years and the implementation of eHealth is expected to support care coordination between different providers when the information system is fully operational in the autumn of 2017.

### BOX 4. REFORMS TO STRENGTHEN PRIMARY CARE HAVE FALLEN SHORT OF WIDESPREAD IMPLEMENTATION

Various attempts to strengthen the primary care sector in Hungary have so far fallen short. A promising care coordination pilot, launched in 1999, was abolished in 2008. A central element of the *Semmelweis* plan, the sector-wide reform of 2011, was the reinforcement of primary care, with improved care coordination between providers, use of multidisciplinary polyclinics and the standardisation of patient pathways for chronic disease management. However, the reform process focussed on the hospital sector, leaving the primary care reform as a secondary priority, so the latter was not fully developed when the reform period came to an end. Other pilot projects, for example the Primary Care Development Pilot supported by a Swiss Contribution Grant, targeted socially disadvantaged populations in underserved areas in northern and eastern Hungary, and may provide valuable input for the future strengthening of primary care.



The adoption of eHealth among GPs in Hungary is close to the EU average and among the highest in neighbouring countries.<sup>9</sup> As a result, GPs can more easily access their patients' electronic health care record, be notified of discharges, follow up with patients and issue e-prescriptions. However, the extent to which this information is used for system performance monitoring to inform policy making is yet to be determined.

### Providing the right incentives to train and retain the sufficient number and mix of health workers is critical

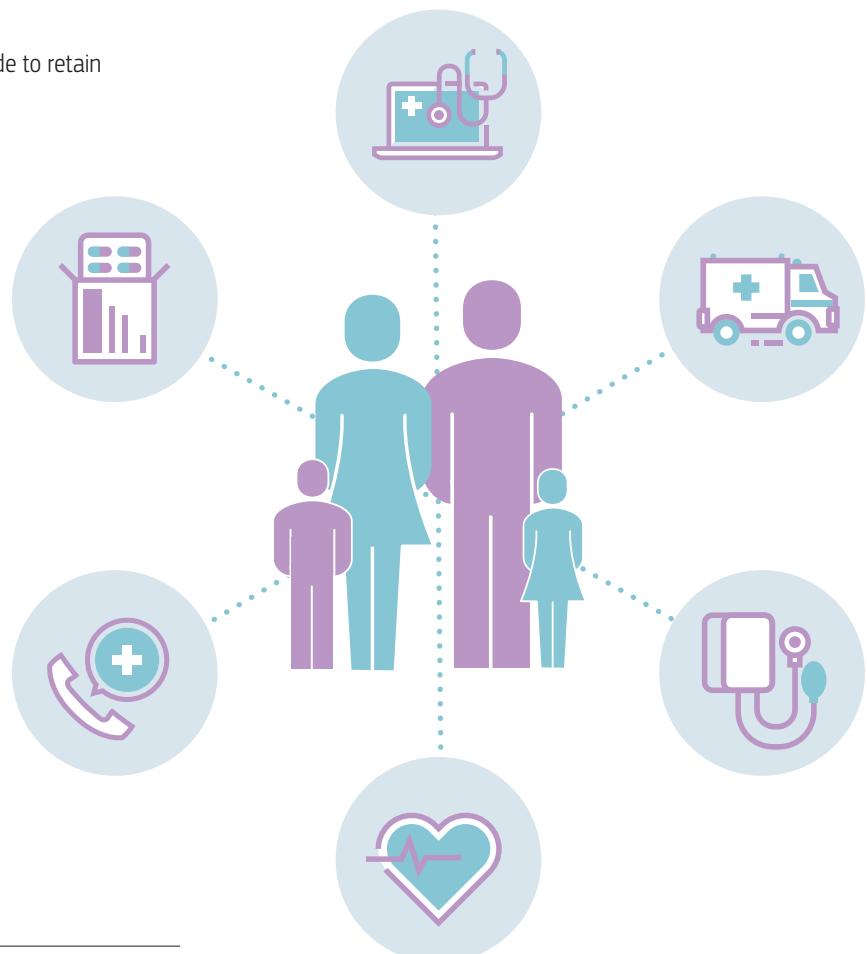
Continued emigration of health workers to other EU countries or movement to the private sector will hamper access to care in public sector facilities. Therefore, there is a need to ensure a sufficient number of new nurses and doctors to replace those who are expected to retire in the coming years. The number of new nurse graduates in Hungary has increased by more than two-thirds since 2011. Although of less magnitude, the number of medical graduates also increased over the past five years. This growing education and training effort should contribute to fill the replacement needs if these new graduates choose to practice and pursue their careers in Hungary.

Some successful efforts have already been made to retain health professionals by improving their working conditions and salaries. In addition, incentives targeting primary care providers to improve accessibility to services, for example by strengthening the provision of out-of-hours care, have also been put in place. Nevertheless, a comprehensive human resource strategy, focusing on primary care staff and taking into account regional disparities, has not yet been established to ensure an adequate workforce (European Commission and Economic Policy Committee, 2015).

### Health system performance assessment is a valuable tool for future planning

Hungary started monitoring its health system performance in 2013 by collecting system-level information along 76 key indicators. The overall objective of this health system performance assessment is to enable Hungarian authorities to identify key priority areas for which improvement is needed in terms of access, responsiveness and quality of care for the population's care needs.

The first comprehensive report published covers the period between 2013 and 2015 and represents an important step in improving health system performance monitoring of the Hungarian health system (Gyenes et al., 2016). In addition to giving a snapshot of the performance of the health system today, it can be used as a valuable source of information for identifying key challenges in the future.



9. Composite measures were created for four dimensions: a) Electronic health care records; b) Health information exchange; c) TeleHealth; and d) Patients' electronic access to own health information.

## 6 Key findings

- Life expectancy in Hungary has increased by almost four years since 2000 to 75.7 years in 2015, but still lags almost five years below the EU average. Large gaps exist in life expectancy between men and women, with men living on average nearly seven years less than women. The gap in life expectancy by socioeconomic status is even larger: Hungarian men with the lowest level of education live on average about nine years less than men with the highest level of education.
- These large gaps in life expectancy by gender and socioeconomic status are not new. They continue to be driven mainly by greater exposure of men to risk factors to health, such as smoking, harmful alcohol consumption and obesity.
- The Hungarian health system is underfunded. Health spending per capita is among the lowest across the EU, and only about half the EU average (EUR 1 428 per capita in Hungary compared to the EU average of EUR 2 797). Only two-thirds of health spending in Hungary is publicly funded (compared to nearly 80% across the EU), leaving the system highly reliant on direct out-of-pocket spending. Consequently, a relatively high share of low-income households reports unmet medical care needs due to financial reasons. More than 25% of such households face catastrophic out-of-pocket expenditure for health care, a higher share than in most other EU countries.
- Pharmaceuticals account for substantial shares of both public spending and out-of-pocket spending by households. Pharmaceutical spending may be reduced by making more effective use of public procurement practices and encouraging the prescription of generics.
- Cancer care and outcomes in Hungary may be improved through greater prevention, early detection and timely access to quality care for different types of cancer. Hungary reports among the highest mortality rates for both preventable cancers (e.g. lung cancer) and treatable cancers (e.g. breast, cervical and colon cancers). National programmes are in place to promote regular breast and cervical cancer screening, but the screening rates among women in the target age group remain low. A new national screening programme for colorectal cancer will be implemented in autumn of 2017. Greater public spending on cancer care would help achieve further progress in early detection and treatment, thereby increasing survival rates.
- The Hungarian health system remains highly hospital-centred, as shown by above-EU average rates of hospital discharges, length of stay and avoidable hospitalisations for chronic conditions. Not only does this point towards a weak gatekeeping system of primary care providers, but incentives and capacities to provide the appropriate care outside of hospitals are also lacking. Shifting care towards the community while simultaneously strengthening primary care delivery can promote more equal access to care, drive further efficiency gains and improve quality.



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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
- the effectiveness, accessibility and resilience of the health system

This is the first series of biennial country health profiles, published in November 2017. The Commission is complementing the key findings of these country health profiles with a Companion Report.

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