European Commission

State of Health in the EU

Cyprus

Country Health Profile 2019

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European Observatory on Health Systems and Policies
a partnership hosted by WHO

The Country Health Profile series

The *State of Health in the EU*'s Country Health Profiles provide a concise and policy-relevant overview of health and health systems in the EU/European Economic Area. They emphasise the particular characteristics and challenges in each country against a backdrop of cross-country comparisons. The aim is to support policymakers and influencers with a means for mutual learning and voluntary exchange.

The 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 the Health Systems and Policy Monitor network, the OECD Health Committee and the EU Expert Group on Health Information.

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Data and information sources

The data and information in the Country Health Profiles are based mainly on national official statistics provided to Eurostat and the OECD, which were validated 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. These EU averages do not include Iceland and Norway.

This profile was completed in August 2019, based on data available in July 2019.

To download the Excel spreadsheet matching all the tables and graphs in this profile, just type the following URL into your Internet browser: http://www.oecd.org/health/Country-Health-Profiles-2019-Cyprus.xls

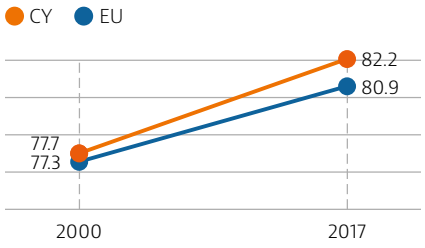
Demographic and socioeconomic context in Cyprus, 2017

Demographic factors	Cyprus	EU
Population size (mid-year estimates)	860 000	511 876 000
Share of population over age 65 (%)	15.6	19.4
Fertility rate[1]	1.3	1.6
Socioeconomic factors		
GDP per capita (EUR PPP[2])	25 500	30 000
Relative poverty rate[3] (%)	15.7	16.9
Unemployment rate (%)	11.1	7.6

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 60 % of median equivalised disposable income.
Source: Eurostat Database.

1 Highlights

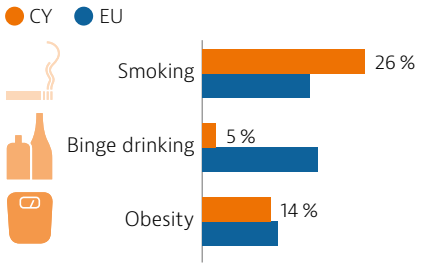
Overall, the Cypriot population is among the healthiest in Europe. Up until recently, health services were delivered through a publicly funded health system, which entitled three quarters of the population to access care free at the point of use and a private health sector that was unregulated and contributed to high out-of-pocket payments. A new General Healthcare System was voted for in 2017 and is currently being implemented (as of June 2019). It aims to provide universal population coverage, improve accessibility and address inefficiencies in service delivery.



Life expectancy at birth, years

Health status

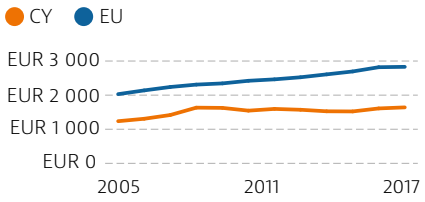
At 82.2 years, life expectancy at birth in Cyprus is among the highest in the EU. Decreases of more than 20 % in mortality rates from ischaemic heart disease, stroke and diabetes since 2004 have contributed to large life expectancy gains. However, the leading cause of preventable mortality is deaths from lung cancer and mortality from diabetes is the highest in the EU. Overall, more than three quarters of the Cypriot population reports being in good health, but as in other EU countries, those on lower income report a lower rate.



% of adults

Risk factors

More than one in four adults in Cyprus are daily smokers, which is among the highest in the EU. While adult obesity is consistent with EU levels, the overweight and obesity level among six- to nine-year-olds is extremely high, with about 43 % of children in this category. Adults consume around the same amount of alcohol as the EU average but binge drinking in Cyprus is the lowest in the EU. Behavioural risk factors are more prevalent among people with low income and education, resulting in worse health outcomes.



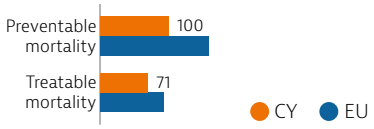
Per capita spending (EUR PPP)

Health system

Cyprus spent EUR 1 674 per person (or 6.7 % of GDP) on health in 2017 compared to the EU average of EUR 2 884 (9.8 % of GDP). At 43 %, the public share of health expenditure is the lowest in the EU and contrasts with the EU-wide average of 79 %. Conversely, private health expenditure, which primarily consists of direct out-of-pocket payments, reached 56 % of total spending, the highest in the EU. Pharmaceuticals make up the largest component of out-of-pocket spending, followed by outpatient (or ambulatory) care, such as specialist visits and diagnostics.

Effectiveness

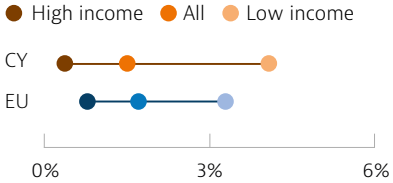
Cyprus has the lowest preventable mortality rate in the EU and low mortality from treatable causes, reflecting lower risk factor impacts among adults (except for smoking).



Age-standardised mortality rate per 100 000 population, 2016

Accessibility

Overall, reported unmet needs for medical care, fuelled mainly by long waiting times, are low in Cyprus but are ten times higher for low-income groups than high-income groups.



% reporting unmet medical needs, 2017

Resilience

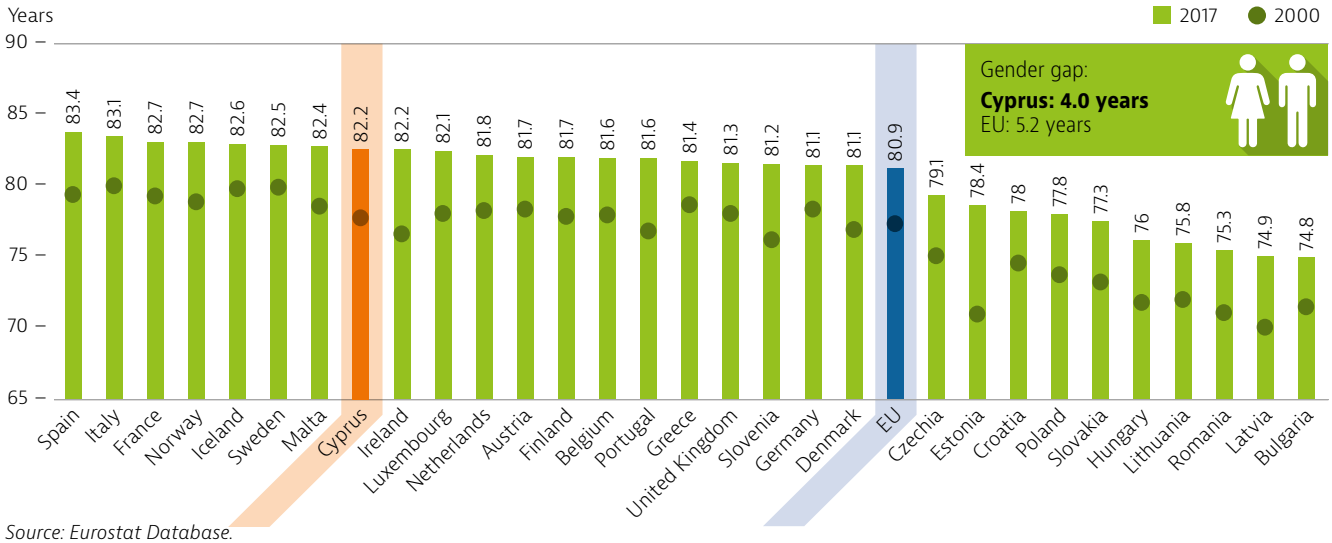
The financial crisis highlighted the need for long-debated health system reforms. Apart from universal health coverage, the new General Healthcare System will reorganise the provision and financing of health services and grant greater autonomy to public hospitals.

2 Health in Cyprus

Cypriots have among the longest lifespans in the EU

At 82.2 years, life expectancy at birth in Cyprus is among the highest in the EU and higher than the EU average of 80.9 years (Figure 1). Life expectancy has increased by five years since 2000, more rapidly than in the EU as a whole. Women in Cyprus can expect to live about 84.2 years, compared to 80.2 years for men. This four-year gender gap is slightly narrower than the EU average (five years).

Figure 1. Life expectancy in Cyprus is among the highest in the EU



Source: Eurostat Database.

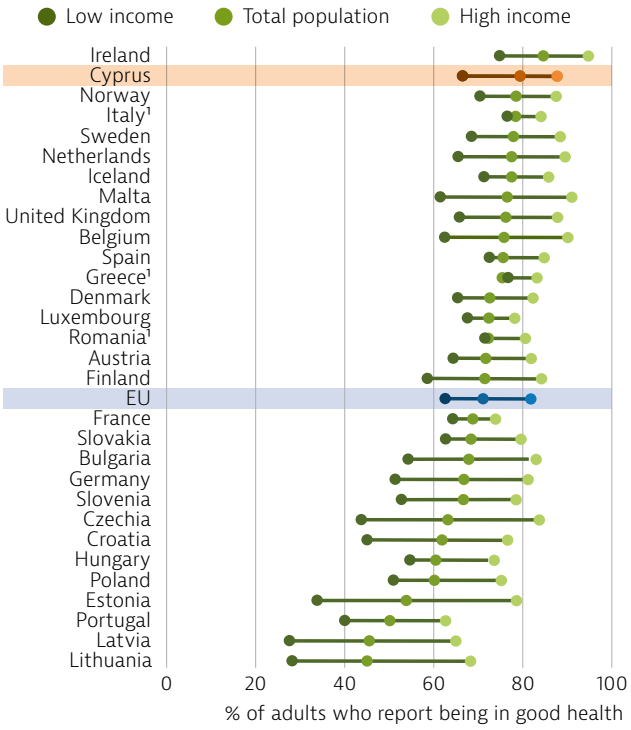
Most Cypriots report being in good health, but with disparities by income and age group

In addition to leading long lives, Cypriots are overwhelmingly in good health. Overall, 78 % of the Cypriot population report being in good health, compared to approximately 70 % in the EU (Figure 2). However, as in other countries, people on lower incomes are less likely to report being in good health: with only 65 % of people in low-income groups doing so in 2017, compared to 86 % of people in high-income groups.

Deaths rates from diabetes are the highest in the EU

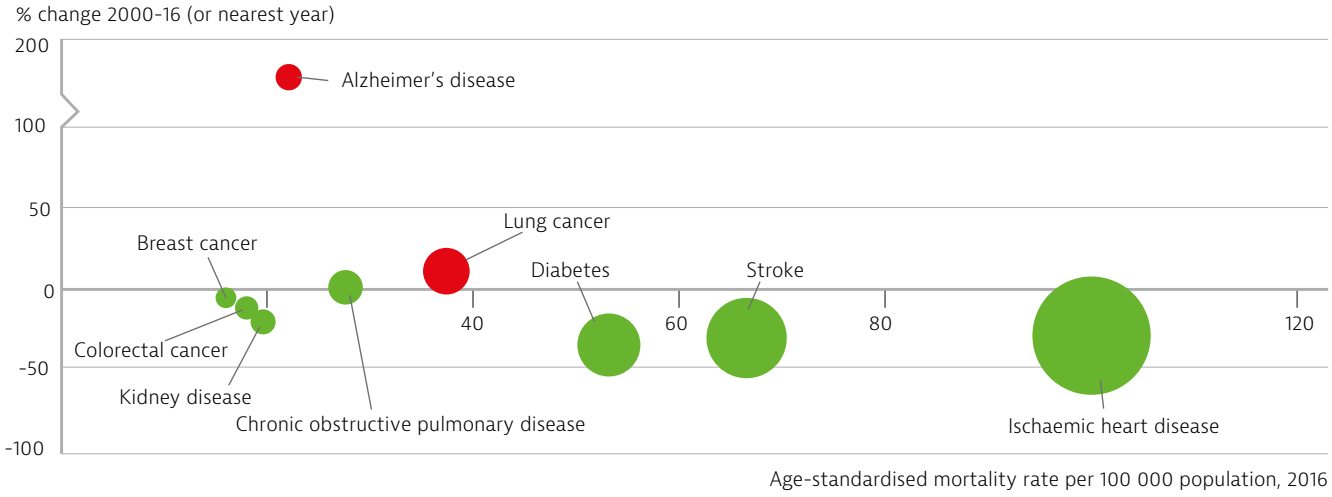
The leading causes of death in Cyprus are ischaemic heart disease, stroke and diabetes, with the mortality rate for diabetes being the highest in the EU (53 per 100 000 in 2016 compared to 22 in the EU on average) (Figure 3). Nevertheless, the death rate has fallen since 2004 for ischaemic heart disease (by 31 %), stroke (31 %) and diabetes (36 %). The increase in deaths from lung cancer reflects the legacy of high smoking rates, whereas dementia mortality rates have increased partly due to changes in diagnostic and coding practices, as well as population ageing.

Figure 2. Lower-income groups are less likely to report that they are in good health



Note: 1. The shares for the total population and the population on low incomes are roughly the same.
Source: Eurostat Database, based on EU-SILC (data refer to 2017).

Figure 3. Deaths from many diseases have decreased, with the stark exceptions of Alzheimer's disease and lung cancer



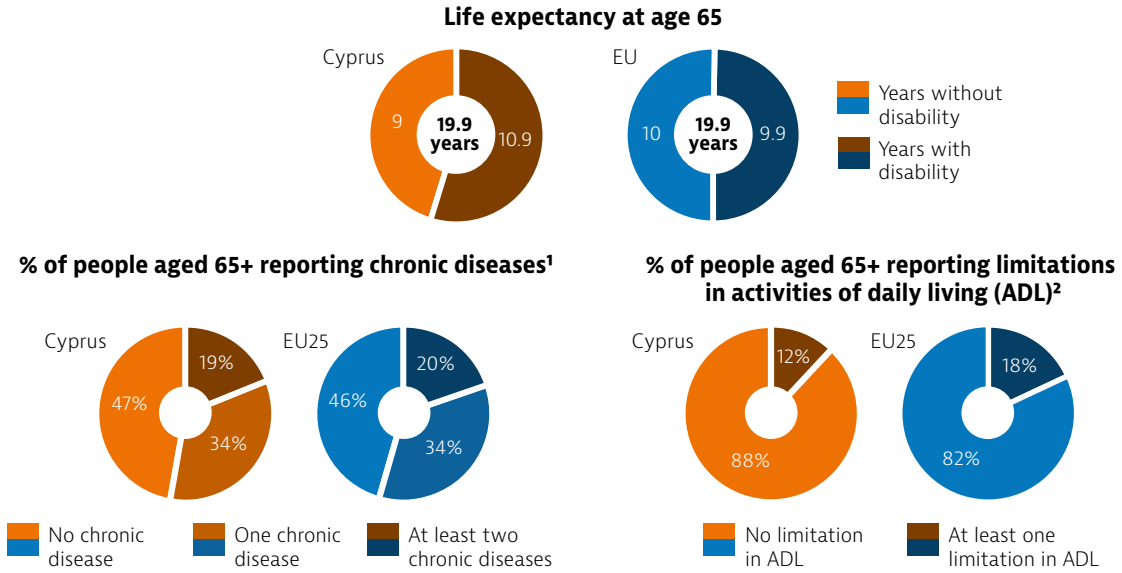
Note: The size of the bubbles is proportional to the mortality rates in 2016. The increase in mortality rates from Alzheimer's disease only covers the period 2006-16. It is largely due to changes in diagnostic and death registration practices.
Source: Eurostat Database.

More than 10 years of life after age 65 is lived without chronic diseases and disabilities

Because of increasing life expectancy and reductions in fertility rates, the share of people aged 65 and over has increased steadily over the last few decades: one in six Cypriots in 2017 were over 65 and this is expected to reach one in four people by 2050. Life expectancy of those at age 65 is almost 20 years in Cyprus, and less than half of these 20 years are spent without disability, a slightly lower proportion than the average across EU countries (Figure 4). Healthy life years[1] at 65 is 9.5 for men and 8.5 for women; therefore, while Cypriot women can expect to live around three years longer than men once they reach the age of 65, a much greater proportion of these years are lived with some chronic diseases and disabilities.

Nearly half (47 %) of people aged 65 years and over in Cyprus report having no chronic conditions. Among those who do, around one third (33 %) report having one chronic disease and a further 19 % state that they have at least two. These rates are on a par with the averages across all EU countries. In contrast, fewer Cypriots over 65 report that they experience limitations with basic activities of daily living (12 % compared with an EU average of 18 %, Figure 4).

Figure 4. Just over half of people in Cyprus report having at least one chronic disease after the age of 65



Notes: 1. Chronic diseases include heart attack, stroke, diabetes, Parkinson's disease, Alzheimer's disease and rheumatoid arthritis or ostheoarthitis. 2. Basic activities of daily living include dressing, walking across a room, bathing or showering, eating, getting in or out of bed and using the toilet.
Source: Eurostat Database for life expectancy and healthy life years (data refer to 2017); SHARE survey for other indicators (data refer to 2017).

1: *'Healthy life years' measure the number of years that people can expect to live free of disability at different ages.*

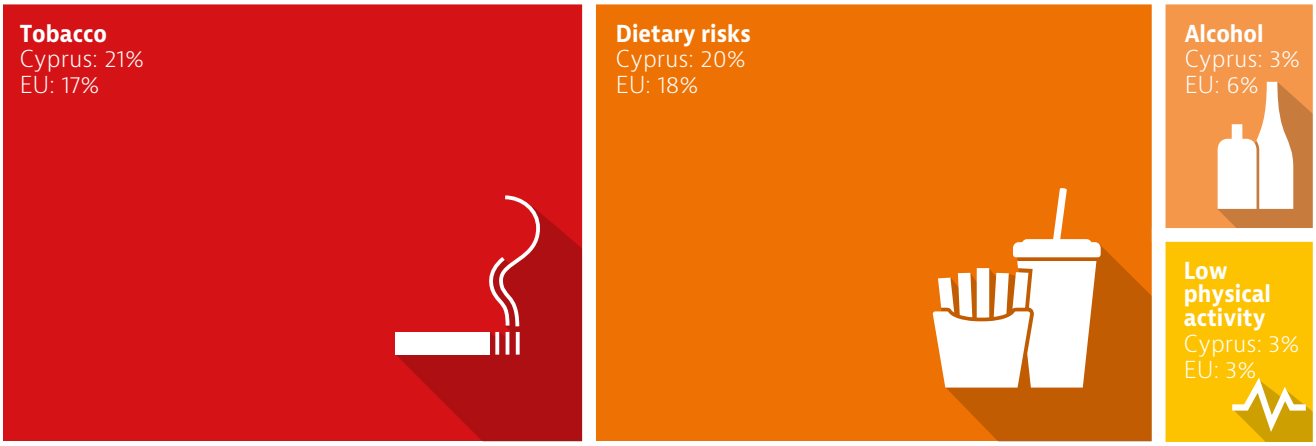
3 Risk factors

A large proportion of deaths can be attributed to behavioural risk factors

Estimates show that two out of every five deaths in Cyprus can be attributed to behavioural risk factors, including tobacco smoking, dietary risks, alcohol consumption and low physical activity (Figure 5). This figure is comparable to the EU average of 39 %. More than a fifth of all deaths in 2017 were due to tobacco smoking (including direct and second-hand smoking), significantly higher than the EU's 17 %.

Dietary risks (including low fruit and vegetable intake, as well as high sugar and salt consumption) are estimated to account for about another 20 % of all deaths in Cyprus, as compared to the EU average of 18 %. About 3 % of deaths can be attributed to alcohol consumption, which is half the rate in the EU while 3 % can be related to low physical activity. Mortality due to behavioural risk factors has not changed much since 2000.

Figure 5. Tobacco consumption and dietary risks are major contributors to mortality



Note: The overall number of deaths related to these risk factors (3 000) is lower than the sum of each taken individually (3 500) because the same death can be attributed to more than one risk factor. Dietary risks include 14 components, such as low fruit and vegetable consumption and high sugar-sweetened beverages consumption.
Source: IHME (2018), Global Health Data Exchange (estimates refer to 2017).

Smoking remains a major public health issue, especially for men

Tobacco consumption remains a major public health concern in Cyprus (Figure 6). The proportion of adults who reported that they smoked every day was 26 % in 2014, among the highest across EU countries and much higher than the EU average of 19 %. This high rate is mainly due to high smoking rates among men, with 38 % of them reporting that they smoked daily, compared to only 14 % of women. The share has remained fairly stable since at least 2008 for both men and women. Although some tobacco control policies are in place they are relatively weak and poorly enforced (Section 5.1).

Obesity is a growing concern for children and adolescents

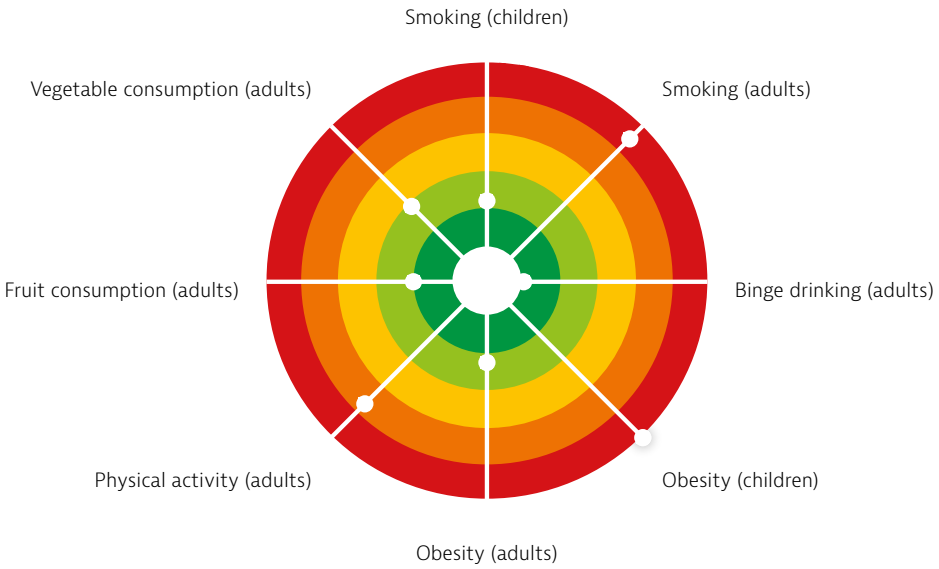
One in seven adults (about 14 %) were obese in 2017 – a share that is similar to the EU average. The majority of adults report eating fruit and vegetables every day in Cyprus, although more than 30 % say that they do not follow this healthy habit. When it comes to physical activity, less than half of Cypriot adults (47 %) report engaging in some physical activity for 60 minutes or more every week, a lower share than in most other EU countries and the EU average of 62 %.

Very high overweight and obesity levels among Cypriot children are much more concerning, with data showing that among six- to nine-year-olds about 20 % of children were obese in 2015-17, and 43 % were obese or overweight (these figures apply to both boys and girls) (WHO Regional Office for Europe, 2018). The government has responded with a plan to introduce healthy eating courses for school-aged children (Section 5.1).

On the whole, alcohol consumption among adults in Cyprus (9.6 litres per person) is similar to the EU average (9.8 litres), while only 5.2 % of people report binge drinking[2] at least monthly, the lowest among all EU countries (19.9 % average).

2: Binge drinking is defined as consuming six or more alcoholic drinks on a single occasion for adults.

Figure 6. Cyprus compares well with the EU on some risk factors, but smoking remains a major public health problem



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.
Sources: OECD calculations based on ESPAD survey 2015 and HBSC survey 2013–14 for children indicators; and EU-SILC 2017, EHIS 2014 and OECD Health Statistics 2019 for adults indicators.

Socioeconomic inequalities, particularly education, impact on health risks

Many behavioural risk factors in Cyprus are more common among people with lower education[3] or income. In 2014, more than one quarter of adults (27 %) in the lowest income quintile smoked daily, compared to 22 % among those in the highest income quintile. Similarly, in 2017, the obesity rate among people without a secondary education (19 %) was substantially greater than among those with a higher education (9 %). This higher prevalence of risk factors among socially disadvantaged groups contributes to inequalities in health and life expectancy.

4 The health system

The fragmented health system is expected to be unified through reforms that are in progress

The health system in Cyprus was for many decades divided between a centrally controlled public sector that was financed by taxes, and an unregulated private sector that was financed via out-of-pocket (OOP) payments and to a lesser extent private health insurance schemes. There was very poor coordination between the public and private sectors and the fragmentation led to serious problems, including an imbalance of resources between public and private providers, high OOP payments, large inequalities in access, long waiting lists and inefficiency of the health system overall (see Section 5.3).

The fragmented organisation of the health system is expected to change with the ongoing implementation of a long-awaited General Healthcare System (Box 1), which has been under discussion for more than two decades and started operating for outpatient services in June 2019. Under the new General Healthcare System, some responsibilities of the Ministry of Health are shifting to the Health Insurance Organisation, which serves as the single purchaser of services from both public and private providers. Some of the Ministry's other responsibilities are moving to the new State Health Services Organisation, which will be tasked with the development, management, control and supervision of autonomous public hospitals and health centres. Efforts are continuing to ensure that the new health system becomes fully operational in 2020, as planned, while preserving its long-term sustainability (Council of the European Union, 2019).

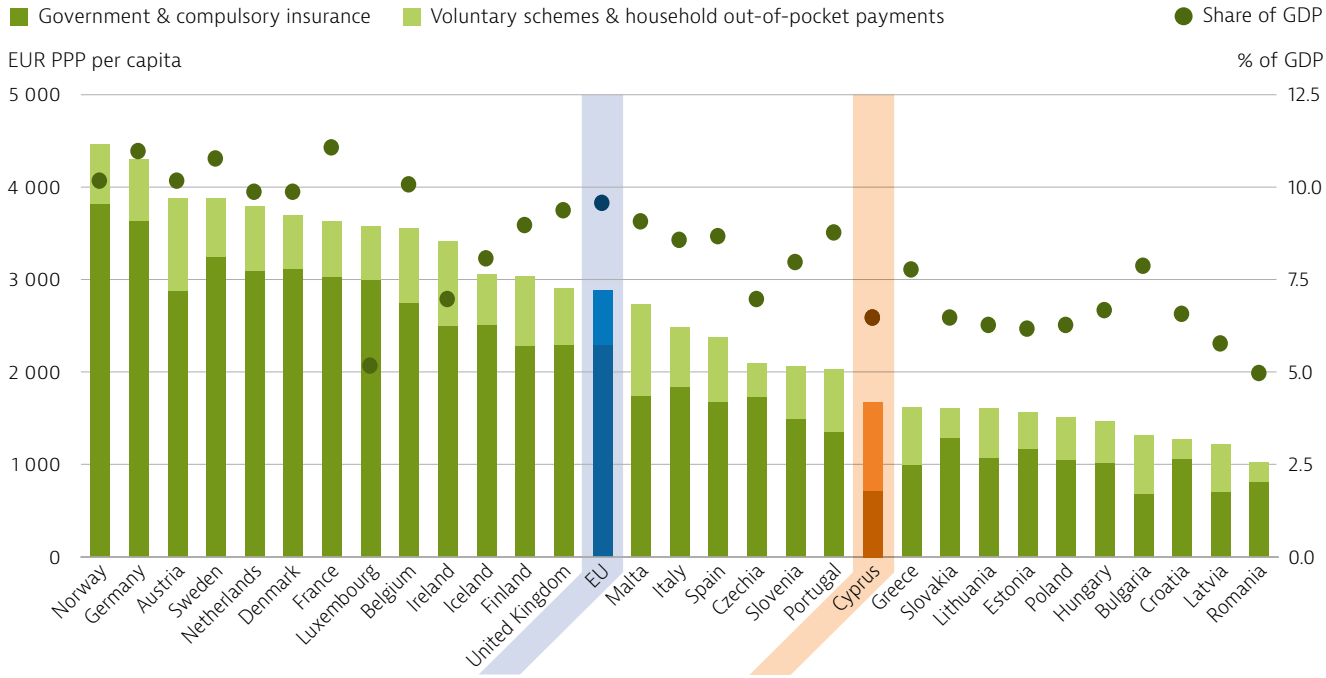
3: Lower education levels refer to people with less than primary, primary or lower secondary education (International Standard Classification of Education (ISCED) levels 0-2), while higher education levels refer to people with tertiary education (ISCED levels 5-8).

Funding is characterised by low public spending and high out-of-pocket payments

Cyprus has been spending less of its resources on health than the majority of EU countries. In 2017, EUR 1 674 per capita went towards health (adjusted for differences in purchasing power), which is less than two-thirds of the EU average of EUR 2 884. This amount translates to 6.7 % of GDP (Figure 7). Expenditure has increased over the past decade, from 5.3 % of GDP in 2007, but Cyprus remains far from converging with most EU countries – the average across the EU is 9.8 %. In addition, only 7.6 % of the government budget was spent on health, the lowest priority for health among EU countries.

Almost 45 % of health spending comes from OOP payments, the second highest share in the EU after Bulgaria and far higher than the EU average of 15.8 %. Combined with voluntary health insurance (11.6 % of spending), total private health expenditure reached 56.2 % of health spending in 2017, the highest in the EU. Conversely, at 43 %, the public share of health spending is smaller than in any other EU country and is significantly below the EU average of 79 %.

Figure 7. Cyprus spends 3 % less of its GDP on health than the EU average

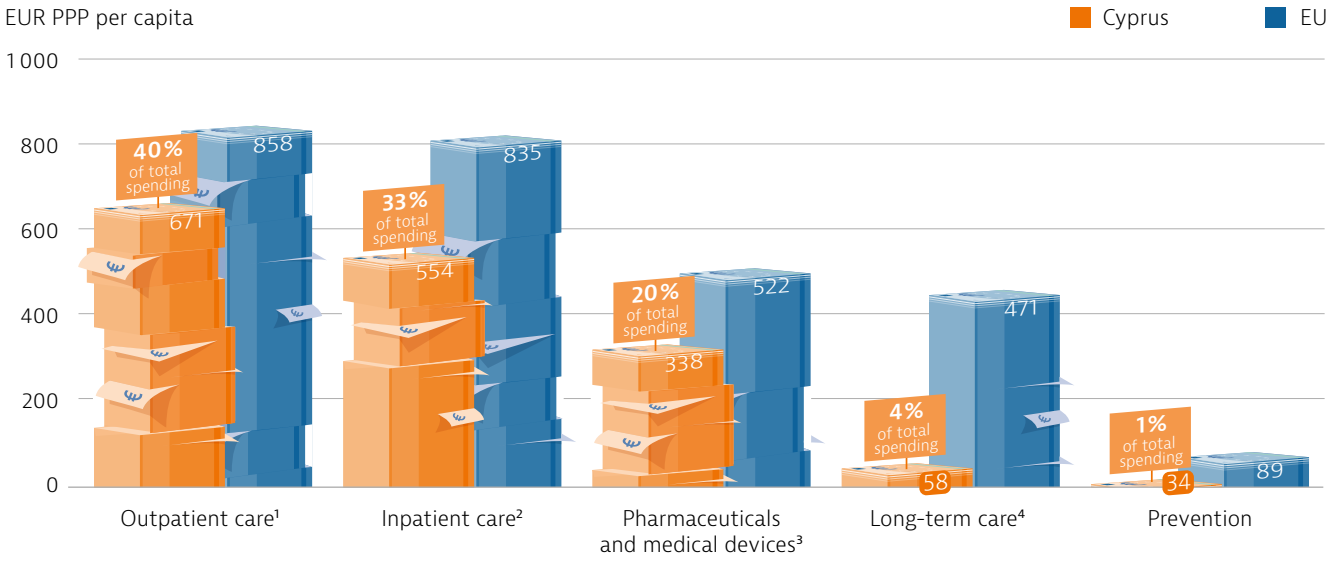


Source: OECD Health Statistics 2019 (data refer to 2017).

Spending on outpatient services is the third highest in the EU

Cyprus spends less per person on inpatient, outpatient and long-term care when compared to the EU averages (Figure 8). However, taken as a proportion of current health spending, around 40 % goes to outpatient care, which is among the highest in the EU (the EU average is 29.7 %). About one fifth of funds is spent on medical goods, mainly pharmaceuticals, which is slightly higher than the average in the EU (18.1 %), but in absolute terms this translates to just under EUR 340 per person, much lower than the EU average. At EUR 21 per person, spending on preventive services is far below the EU average of EUR 89 per capita, with only two other EU countries (Romania and Slovakia) spending less. This amounts to only 1.2 % of health spending (compared to 3.1 % across the EU). Long-term care also attracts low levels of funding, 3.5 % of current health spending as opposed to a much higher average of 16.3 % in the EU.

Figure 8. Cyprus has been spending less per person on inpatient, outpatient and long-term care compared to the EU



Notes: Administration costs are not included. 1. Includes home care; 2. Includes curative–rehabilitative care in hospital and other settings; 3. Includes only the outpatient market; 4. Includes only the health component.
Sources: OECD Health Statistics 2019, Eurostat Database (data refer to 2017).

Most doctors work in the private sector, while most nurses are in the public sector

In Cyprus, the density of doctors (close to 4 per 1 000 population) is slightly above the EU average while the density of nurses (around 5 per 1 000 population) is well below the average (Figure 9). This statistic does not reflect the wider imbalances in the broader workforce between the public and private sectors, as doctors primarily work in the private sector and nurses in the public sector. This means that the public system is most affected by low number of both doctors and nurses. In addition, more than half of doctors in Cyprus are over 50 years old (European Commission, 2019). Three medical schools were established in Cyprus in recent years, in the hope of providing more doctors to fill local vacant posts. Previously, the system has been reliant on medical graduates who studied abroad returning to practice in Cyprus.

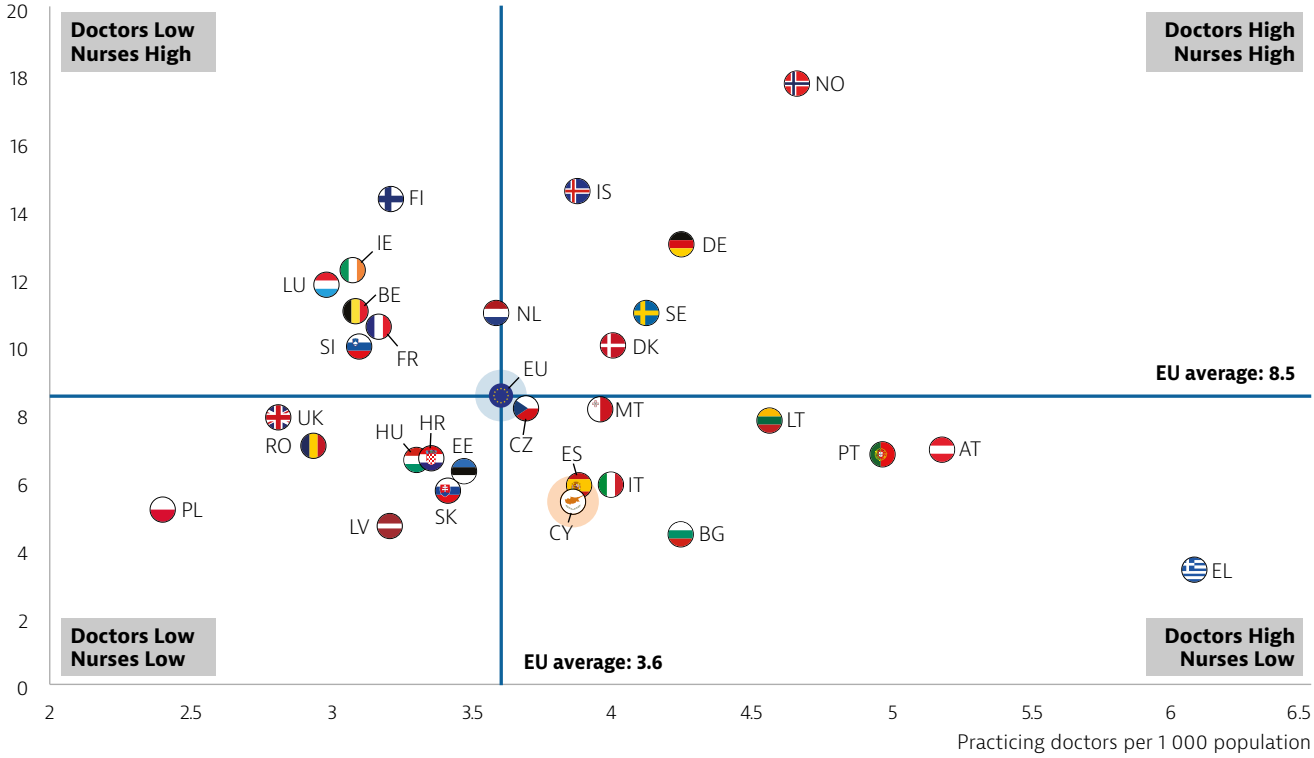
Box 1. Cyprus is implementing the first phase of the new General Healthcare System

After more than two decades of delays, competing stakeholder interests, and the impact of the financial crisis, a tangible milestone in establishing Cyprus's new General Healthcare System was reached in 2017. Legislative components and timelines were put in place for the implementation of universal health coverage and the reorganisation and autonomy of public hospitals.

In the lead up to the implementation of the first phase of the General Healthcare System, many specialists and paediatricians in the private sector, as well as private clinics, expressed their reservations over joining the new system, largely due to concerns over lower than expected remuneration (Theodorou, 2019). Despite these concerns, as of 23 August 2019, 391 providers registered as general practitioners (GPs), 128 as paediatricians and 774 as specialists in the new General Healthcare System. Around 500 pharmacies and clinical laboratories have joined the new system. It is also worth noting that just over 80 % of the population (687 000 people) have registered as beneficiaries of the new system. Beneficiaries have access to contracted providers, although the entire population – registered or not— are in fact covered by the new system and people become registered once they seek care. Measures to grant more autonomy to public hospitals were scheduled to start in January 2019 (see also Section 5.3). However, some delays are occurring due to changes in the State Health Services Organisation's governance structure and in negotiating contract agreements with public providers.

Figure 9. The number of doctors is above the EU average, while the number of nurses is well below

Practicing nurses per 1 000 population



Note: In Portugal and Greece, data refer to all doctors licensed to practise, resulting in a large overestimation (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 (data refer to 2017 or nearest year).

Primary care is set to play an important role in the new health system

As already mentioned, prior to the implementation of the new General Healthcare System, Cyprus's health system consisted of two parallel systems, with public and private health service providers operating independently and with little coordination between them. Public primary care services were provided in health centres and in hospital outpatient departments, with about one quarter of the doctors in Cyprus reporting that they provide GP services. There was no gatekeeping or a formal referral system to direct patients from primary care to specialist care prior to June 2019. However, gatekeeping will become the backbone of the new General Healthcare System, and efforts are under way to recruit additional GPs and paediatricians to work within the public system.

5 Performance of the health system

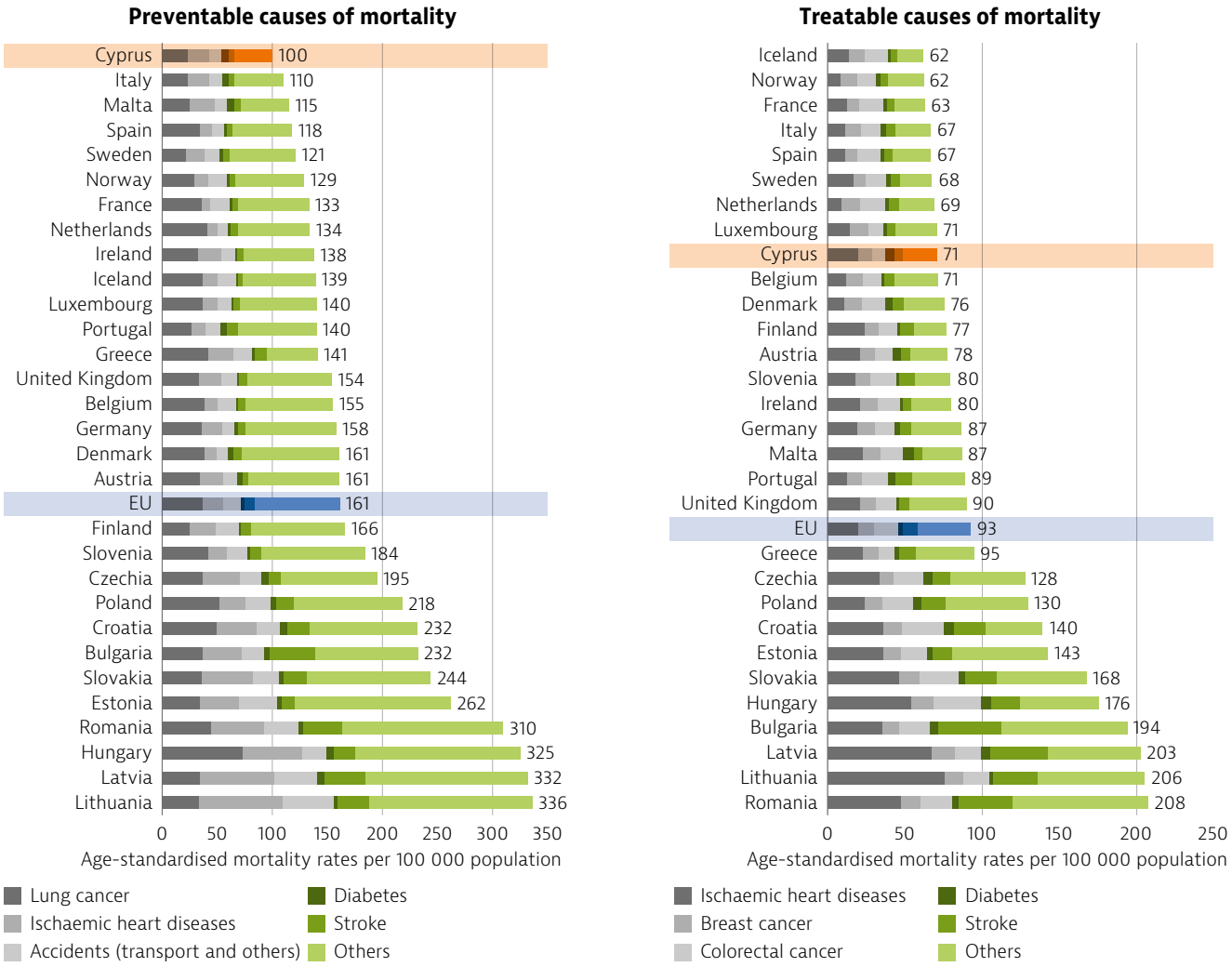
5.1. Effectiveness

Preventable mortality is the lowest in the EU

Cyprus has the lowest preventable mortality rate among EU Member States (Figure 10). The leading cause of preventable mortality is deaths from lung cancer, with ischaemic heart disease and accidents also being major contributors. All preventable deaths for the leading causes are substantially lower than the EU average. These low preventable death rates might be explained in part by lower exposure to some risk factors such as poor diet and alcohol consumption among adults, although smoking and obesity rates remain comparatively high by EU standards (see Section 3).

A few prevention initiatives have been launched in recent years. In an effort to reduce the number of deaths from traffic accidents, campaigns have been organised to enforce the use of car seat belts, helmets for motorcyclists, and to combat drink-driving. Following the alarming Childhood Obesity Surveillance Initiative (COSI) results on child obesity in Cyprus (WHO Regional Office for Europe, 2018), the Ministry of Health and the Ministry of Education are looking to introduce healthy eating and food preparation classes, starting from primary school.

Figure 10. Cyprus records the lowest rate of preventable mortality, while mortality from treatable causes is also comparatively low



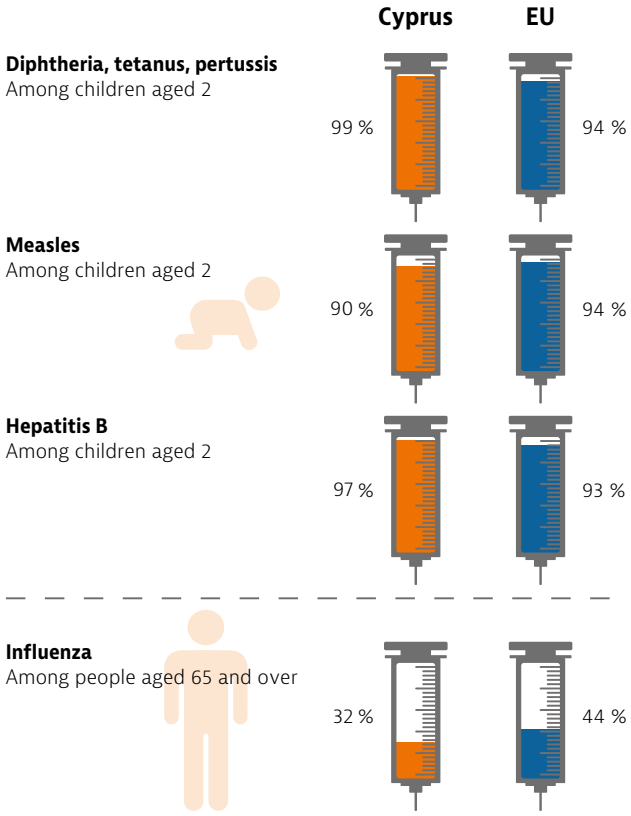
Note: Preventable mortality is defined as death that can be mainly avoided through public health and primary preventive interventions. Mortality from treatable (or amenable) causes is defined as death that can be mainly avoided through health care interventions, including screening and treatment. Both indicators refer to premature mortality (under age 75). The data are based on the revised OECD/Eurostat lists.
Source: Eurostat Database (data refer to 2016).

Policies aimed at curbing Cyprus' high smoking rates have not been very successful. In 2017 a new law was introduced banning smoking in all public places, including bars, cafes and restaurants with heavy fines for proprietors and smokers. This legislation replaces the previous law from 2010, which was poorly enforced. However, the ban only applies to fully enclosed indoor spaces and therefore allows for loopholes to be exploited (e.g. rooms that open up to a terrace would be excluded). Adequate enforcement is still a problem.

Child vaccination rates are generally higher than EU averages except for measles

Vaccination is not compulsory in Cyprus but is provided free of charge to all children in health centres or public hospitals, as well as by the private sector with co-payments. In addition, at the beginning of each school year, health visitors check whether pupils are up to date with their vaccinations. Vaccination for diphtheria, tetanus, pertussis and hepatitis B among children compares well to EU levels (99 % and 97 % of children are covered, respectively) but vaccination levels for measles are below the EU average (Figure 11) as well as below the target of 95 % recommended by WHO to maintain herd immunity. The human papillomavirus vaccine is available to all girls free of charge when they go to secondary school (11- to 12-year-olds) (Rechel, Richardson & McKee, 2018). For adults, uptake of the influenza vaccine among people over 65 is only 32 %, well below the EU average of 44 % and even further from the WHO target of 75 %.

Figure 11. Only about one-third of people over 65 are vaccinated for influenza



Note: Data refer to the third dose for diphtheria, tetanus, pertussis and hepatitis B, and the first dose for measles.
Sources: WHO/UNICEF Global Health Observatory Data Repository for children (data refer to 2018); OECD Health Statistics 2019 and Eurostat Database for people aged 65 and over (data refer to 2017 or nearest year).

Cyprus also has low rates of avoidable death from treatable causes

Deaths in Cyprus that should not have occurred in the presence of timely and effective health care interventions were well below the EU rate in 2016 (see Figure 10). In 2016, the mortality rate from treatable causes was about 71 per 100 000 population, compared to the EU average of 93. The main causes of this mortality include ischaemic heart disease, breast and colorectal cancer, diabetes and stroke.

In 2016, the Ministry of Health responded to the rising threat of diabetes by launching a diabetes strategic plan. The plan, which covers the period 2016-20, is based on five pillars, including primary prevention and health promotion activities through school health services and community-based programmes, targeting specific populations at risk. The plan also introduces nationwide screening programmes for pregnant women. The pillar on diagnosis and treatment focuses on establishing and training multidisciplinary teams to treat diabetes and implementing treatment protocols and guidelines.

National screening programmes are in place for some cancers

In 2014, 65 % of women aged 20 to 60 had been screened for cervical cancer at some point in the previous two years; this is comparable to 66 % for the EU based on the most recently available data.

In contrast, only about 35 % of women aged 50-69 were screened for breast cancer in the previous two years, far below the EU average of 61 %. As of 2007, Cyprus has had a national screening programme for breast cancer in women aged 50-69, offered free of charge every two years, with a screening centre operating in each of the major cities. However, there is no national screening programme for cervical cancer.

One of the possible reasons for some of the low reported rates of cancer screening might be that gynaecologists unofficially perform a breast exam when patients seek cervical cancer screening, so patients do not officially seek breast cancer screening unless recommended. In addition, it is likely that women choose to have a mammography in the private sector, for which data are not available. In any case, the low overall screening rate is a reflection of the lack of a robust primary care system, as well as low investment in primary care.

More data are needed to gauge the quality of care

While data on mortality from treatable causes suggest that Cyprus provides a good level of health care overall compared with the EU, the performance of specific sectors such as primary care or hospital care cannot be evaluated as data on quality of care are not systematically collected by either the public or private sectors. This lack of data makes it difficult to assess the quality and effectiveness of the health system in greater detail, stifling efforts to strengthen service delivery. One reason for the lack of data is that there is neither an accreditation system nor a quality monitoring system of either public or private clinics.

One exception is that information on health care-associated infections (HAI) in acute care hospitals is collected. According to these data, 8.2 % of patients were diagnosed with at least one HAI in acute care hospitals in Cyprus, which is among the highest rates in participating EU/EEA countries, where the average share of patients with at least one HAI was 5.5 % (Suetens et al. 2018). Importantly, Cyprus records 51 % for a composite measure of the share of resistant isolates from HAI, indicating high levels of antibiotic resistant bacteria compared with 31.6 % across EU/EEA countries. It is unclear whether actions taken as a result of the 2012 Antimicrobial Resistance (AMR) National Strategy have been effective to address this challenge.

5.2. Accessibility

The public system has been providing coverage to only three quarters of residents

While all Cypriot residents could access the public health service under the old system, only around 76 % were technically considered to be covered free of charge (Box 2). The rest of the population, who were not considered beneficiaries, had to pay per service according to the price list set by the Ministry of Health if they chose to visit the public sector. However, in practice, both beneficiaries and non-beneficiaries often chose to use the private sector, mostly due to long waiting times for public services as well as some perceptions of low service quality in the public sector. The new General Healthcare System aims to provide health coverage for primary, outpatient and inpatient care for all Cypriot citizens, EU citizens, third country nationals with legal residence and documented asylum seekers.

Unmet needs are low but ten times higher for low-income groups

The proportion of the population reporting unmet needs for medical care in 2017 (1.5 %) was slightly lower than the EU average (1.8 %) and much lower than in Greece. Despite being low, unmet needs in Cyprus do vary considerably by income: only 0.4 % of those on high-incomes report unmet needs compared with 4.1 % of people with low incomes (Figure 12).

Unmet needs are mainly due to long waiting times for some public sector services and perceptions that the quality of care in the public sector is subpar. The high cost of visiting the private sector is an additional barrier, especially for comparatively lower income households.

In an attempt to decrease waiting times for health services in the public sector, the government has allowed surgical interventions in public hospitals to take place outside normal working hours. It has also been contracting with the private sector to deliver some services that have been experiencing particularly long waiting times over the past five years. These measures have temporarily improved the situation by decreasing the waiting times for some services but waiting times continue to be an issue for a range of services in the public sector.

Unmet needs for dental care are higher than for health care and are mainly due to financial reasons: 8.3 % of people on low incomes reported unmet needs for dental care compared with only 0.8 % of people on high incomes, reflecting a ten-fold difference (Figure 12).

Box 2. Coverage gaps linked to minimum social insurance contributions periods are changing

Prior to 2019, the right to access public health services in Cyprus had been restricted to Cypriot or EU citizens who had permanently resided in the country and had contributed to the social insurance fund[4] for at least three years. This precondition adversely affected the unemployed, particularly young people as the unemployment rate for this group is around 20 %. Many of them were living on relatively low incomes but did not have three years of social insurance contributions in order to qualify to have access to free health care. Universal health coverage under the new General Healthcare System guarantees all citizens residing in the areas controlled by the Republic of Cyprus the right to free health services regardless of social insurance contributions.

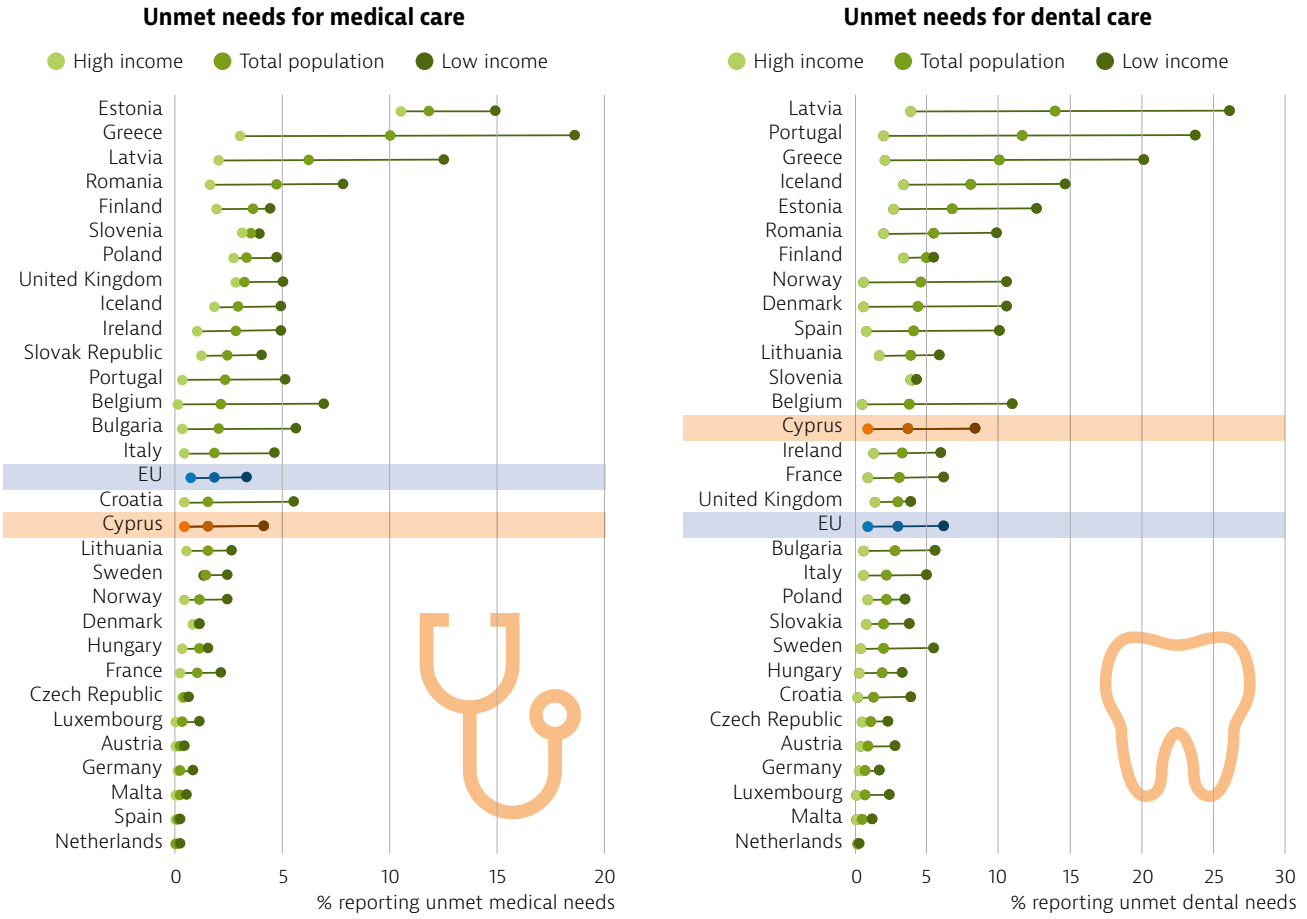
Pharmaceuticals take the largest share of out-of-pocket spending

The high percentage of total health spending financed by OOP payments in Cyprus is mainly due to paying for services directly in the private sector. Payments for pharmaceuticals account for the highest share of OOP payments, making up 14.1 % of total health spending compared to just 5.5 % for the EU (Figure 13). Cyprus has the highest pharmaceutical prices in the EU when prices are adjusted for per person income (Petrou & Vandoros, 2016). To ensure access to medicines, from June 2019, under the new General Healthcare System, beneficiaries pay a flat co-payment of only EUR 1 for the cheapest generic equivalent of a prescribed medicine. The current list of covered medicines includes 741 products. In the event that patients wish to obtain the brand-name medicine, they need to pay the price difference between the generic and the branded product. Cyprus is also a member of the southern EU Member States alliance (La Valletta), a regional cooperation group formed in 2017 to explore ways to jointly negotiate prices with the pharmaceutical industry in order to keep medicines affordable.

Outpatient care comprises the second largest share of OOP spending in Cyprus, at 12.5 % of total spending, compared to the EU average of 3.1 %. OOP spending on inpatient care accounts for 6.3 % of health spending, higher than the EU average of 1.4 % (Figure 13).

4: The Fund itself is not used to finance health care services.

Figure 12. Lower income groups have higher levels of unmet needs for both medical and dental care



Note: Data refer to unmet needs for a medical and dental 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 2017).

The incidence of catastrophic spending is low despite the high reliance on out-of-pocket payments

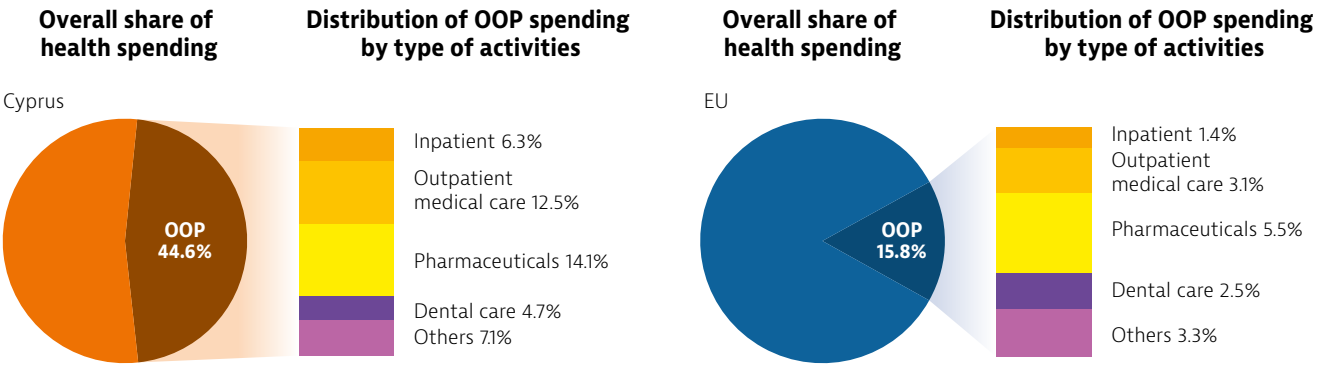
While OOP spending as a share of total health expenditure is almost triple the EU average, only 5 % of households experienced catastrophic health spending[5] in 2015. The incidence of catastrophic spending is very close to average EU levels (5.6 %) and much lower than in some eastern European countries which also rely comparatively heavily on OOP payments to finance health care (Figure 14; Thomson Cylus & Evetovits, 2019). One possible explanation for the lower than expected incidence of catastrophic spending is that the public system has acted as a safety net, i.e. the majority of people who cannot afford to pay for private services are eligible for, and choose to, obtain public sector services at minimal or no charge.

Generating enough general practitioners and nurses is necessary to meet care needs

As mentioned in Section 4, the number of doctors per 1 000 population is above the EU average while the number of nurses is well below the EU average (see Figure 9), with doctors choosing to work mainly as specialists in the private sector and nurses generally working in the public sector. Currently, around 25 % of Cyprus's doctors are registered as GPs, though many do not have formal GP qualifications. Given the crucial role of GPs and primary care in the new health system, there have been some concerns early in the implementation of the General Healthcare System about whether there would be enough of them to meet needs. More generally, the major challenge for implementing the first phase of the new General Healthcare System is to have adequate numbers of medical personnel, particularly doctors of all sorts of specialties, to provide contracted services.

5: *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 13. Outpatient medical care and pharmaceuticals take the highest shares of out-of-pocket spending

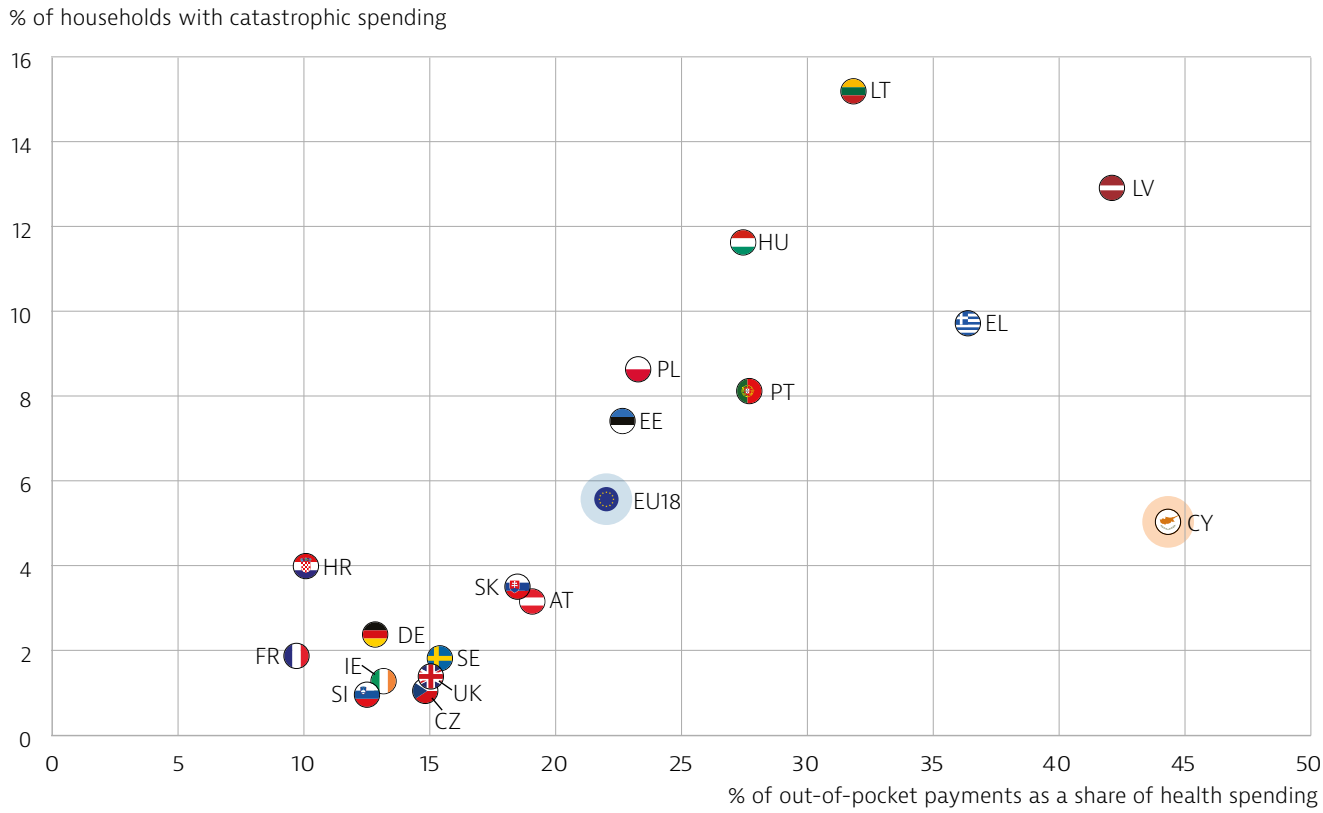


Sources: OECD Health Statistics 2019 (data refer to 2017).

High-cost diagnostics are mostly available in the private sector

Cyprus is reported to have relatively high numbers of magnetic resonance imaging (MRI) and computed tomography (CT) scanners per 100 000 inhabitants (2.1 MRI and 3.4 CT scanners compared to 1.2 and 2.2 in the EU, respectively). However, these diagnostic devices are mainly available in the private sector: the public sector has only 1 MRI scanner (resulting in very long waiting times) and 6 CT scanners, while the private sector has 17 MRI scanners and 23 CT scanners. There are approximately 50 000 MRI examinations per year with 89 % of these conducted in the private sector. In contrast, while there is a much higher concentration of CT scanners in the private sector, only 23 % of the approximately 123 000 scans conducted annually are private, possibly suggesting the underutilisation or under-reporting of CT scans in the private sector (Theodorou et al., 2016).

Figure 14. Very high out-of-pocket spending does not lead to high catastrophic spending in Cyprus



Sources: WHO Regional Office for Europe 2019; OECD Health Statistics 2019.

5.3. Resilience[6]

There has been no progress towards increasing public funding for health care

Public spending on health care is very low in Cyprus, just 2.8 % of GDP, compared to the EU average of 6.8 %. Underfunding is not a new issue for the public health system. It leads to long waiting times in the public system for some procedures and contributes to the general perception that public sector services are of lower quality, thus pushing people to seek care in the private sector.

While the public system was solely funded by taxation prior to June 2019, financing for the new General Healthcare System will be more diversified through predefined contributions from employees, pensioners and rentiers (1.7 % of income for the first year of implementation, rising to 2.6 % of income in March 2020) and the self-employed (2.5 % of income, rising to 4.0 %) as well as employers (1.8 % of income, rising to 2.9 %) and the state budget (1.6 % of income, rising to 4.7 %). Notably, the contribution calculation is based not only on wages and pensions but also on total annual income. It is not clear, however, whether the change in the financing formula will lead to large increases in total health expenditure in the short term. Moreover, since income-based contributions are still heavily linked to the labour market, the health system's finances could be susceptible to future fluctuations in employment.

New governance arrangements for public hospitals will give them more autonomy

Along with the legislation for the new General Healthcare System, Parliament also voted to grant autonomy to public hospitals in 2017.

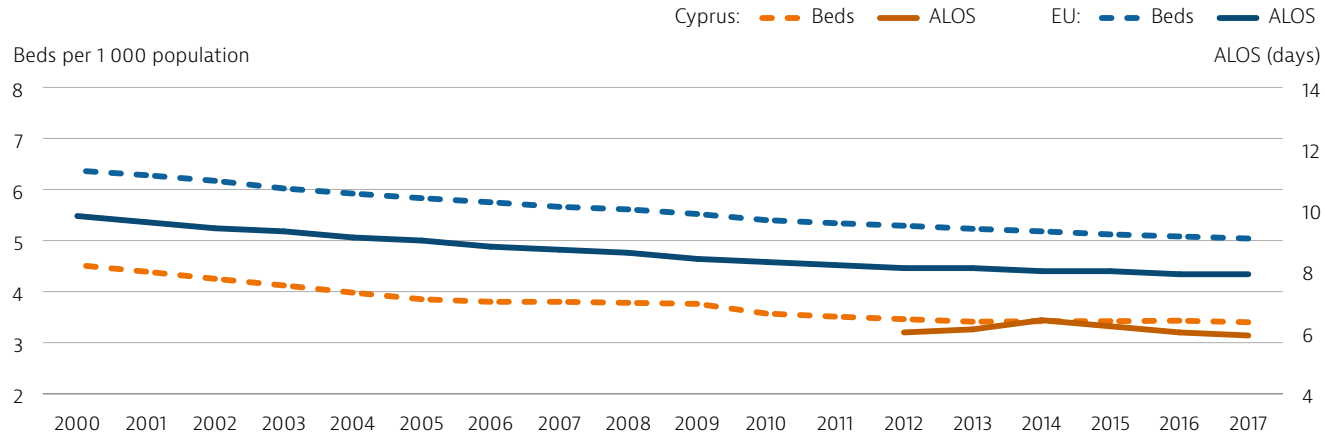
Under the General Healthcare System, the Ministry of Health will transfer its current governance role with respect to public hospitals to the State Health Services Organisation, which will be tasked with the development, upgrading, management and supervision of autonomous public hospitals, preparing them to compete with private clinics on the basis of efficiency, quality and effectiveness.

An important additional consideration is the potential for financial pressure that may arise from this reform of public hospitals' legal status. The legislation stipulates that the state is responsible for subsidising any deficits incurred by health care providers operating in public hospitals during the first five years of the new system, beginning in June 2019, to allow them some flexibility. However, this does create some uncertainty on the financial impact of the reform (Council of the European Union, 2019).

Public hospitals are poorly resourced but there is some evidence of efficient practices

Despite being underfunded in the previous health system, public hospitals seem to put their limited resources to good use. Bed occupancy rates are 71.8 % compared to 77 % in the EU as a whole while average length of stay (ALOS), which is often used as an indicator for hospital efficiency, is six days compared to the EU average of eight days (Figure 15). As length of stay data are available for only the last few years, it will be important to observe how ALOS changes over time, particularly after the introduction of hospital payment reforms. Under the new General Healthcare System, diagnostic-related groups (DRGs) will be introduced to remunerate all hospitals, with the intention that this will incentivise hospitals to operate more efficiently.

Figure 15. The number of hospital beds and average length of stay in Cyprus are lower than the EU average

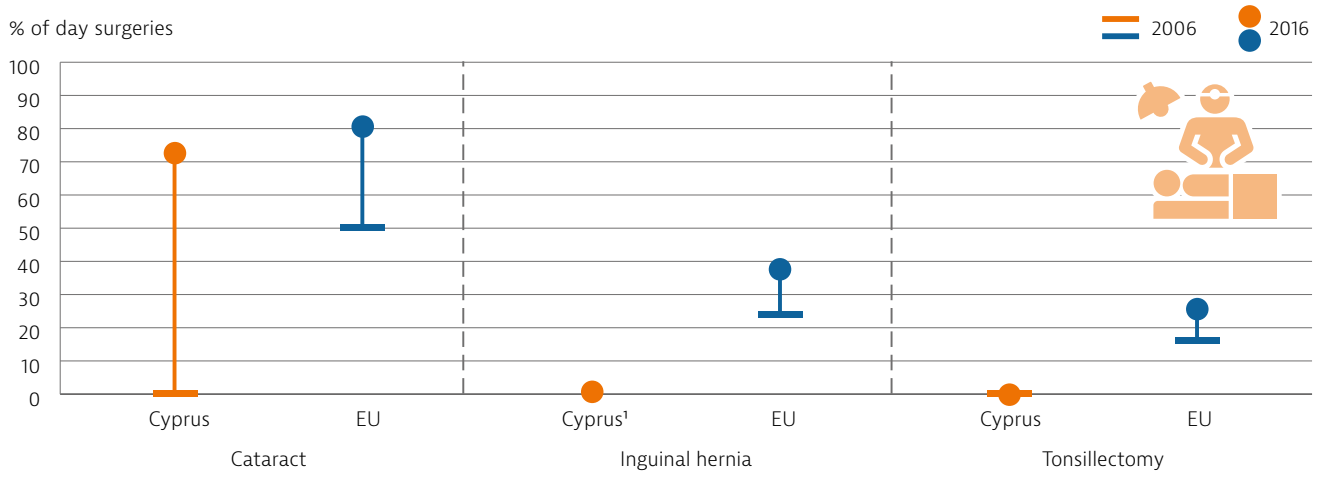


Source: Eurostat Database.

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

Data on day surgery as an indicator of efficiency shows that 76 % of cataract surgery is performed in outpatient settings in Cyprus compared to an average of 84 % in the EU. In contrast, in 2016, all tonsillectomy cases in Cyprus were treated as inpatient surgeries, while about 30 % of these interventions were performed as day surgery across the EU. The available data show the same pattern for inguinal hernia (Figure 16). It is also worth mentioning that since 2015 Cyprus has had a very high rate of caesarean sections (over 50 % of all births). This could be a result of parental choice to avoid painful labour but may also be the result of physician-induced demand for this type of delivery.

Figure 16. The use of day surgery is underdeveloped in Cyprus except for cataract surgery



Note: 1. No data available for Cyprus for 2006.
Source: OECD Health Statistics 2018; Eurostat Database (data refer to 2006 and 2016, or nearest year).

Changes in payment methods for doctors could improve efficiency and quality of care

Payment mechanisms for doctors are high on the policy agenda in Cyprus. Under the previous health system, public sector doctors were salaried civil servants, while private providers were independent and paid on a fee-for-service basis, usually out of pocket by patients. Incentives for improving performance or increasing the quality of care were lacking in both cases.

In the new General Healthcare System, the main method for paying for contracted private GP services will be capitation for each beneficiary enrolled in a GP's patient list. Capitation rates will be risk-adjusted depending on the age of each enrolled beneficiary. In addition, fee-for-service payments will be used to remunerate specialist providers, dentists, laboratory, ambulance as well as emergency department services. Global budgets will be used to ensure that expenditure does not exceed available funds, meaning that provider payments may be adjusted downwards if volumes increase beyond expected levels. At least for the time being, existing public sector providers have retained their civil servant status.

It is believed that these changes in payment mechanisms will act as an incentive for physicians to increase efficiency and effectiveness through reducing waiting times and delivering high quality care and health outcomes. The actual impacts of these new measures will need to be closely monitored. This will be supported by a new integrated IT system, which has the potential to both improve coordination and reduce provider-induced demand.

Winning the support of stakeholders is key to implementing the new General Healthcare System

A lack of consensus among different stakeholders and political parties in government delayed the introduction of the new General Healthcare System for 18 years, ever since the first national health insurance law was introduced into parliament in 2001. These stakeholders included private-sector doctors and private hospitals, which would be subject to more regulation under the new system in terms of the income they earn from contracted services and also with regard to the quality of care that they would be expected to provide. Other important stakeholders included private health insurance companies, which finance a relatively small share of health expenditure but have grown in number and revenue over time, public sector doctors who feared losing the stability of their civil servant status, and employers who have been resisting the call to make health coverage contributions for their employees. To a large degree, the success of the new General Healthcare System depends on the government's ability to manage these different stakeholders going forward.

6 Key findings

- The Cypriot population enjoys good health overall, with one of the highest life expectancies in the EU. While the mortality rates from the leading causes of death - ischaemic heart disease, stroke and diabetes - has decreased by more than 20 % over the last two decades, the death rate from diabetes is the highest in the EU, which prompted the government to issue a national diabetes strategy in 2016.

- Adult obesity reflects EU levels, but the overweight and obesity rate among six- to nine-year-old children in Cyprus is very high, at about 43 %. Smoking is also a major public health issue and one in five deaths is attributable to direct and second-hand smoking. Reinforced legislation banning smoking in public places is a step in the right direction; however, loopholes exist and enforcement will need to be strengthened if it is to have an impact.

- The greatest challenge by far for the Cypriot health system is the phased implementation of the new General Healthcare System, which began in June 2019. Reforms are designed to expand coverage (in practice only 76 % of the population had access to public services until recently), raise the quality of publicly provided care, and reduce the fragmentation of services delivered by state-run health centres and hospitals, alongside a largely unregulated but widely used private sector.

- A major objective is to ensure that a sufficient number of general practitioners and specialists enter into contracts with the Health Insurance Organisation, to enable the General Healthcare System to build capacity, reduce long waiting times and, in particular, strengthen the provision of primary care. The new system is expected to improve coordination across and among public and private providers through gatekeeping and an electronic medical records system. The current level of service fragmentation has been a challenge for the effective allocation of doctors and nurses, health workforce planning and strategic purchasing of medical technology.

- The new General Healthcare System also aims to reorganise the way public hospitals are managed, granting them more autonomy. However, some delays are being experienced in operationalising the new governance arrangements and in negotiating contractual agreements with public providers. The planned introduction of a new case-based payment system for inpatient care is designed to rationalise reimbursement and improve resource use.

- Although mortality rates from preventable and treatable causes are low, there are variations in access to different services that affect health outcomes. For example, although cervical cancer screening rates compares well with the EU average, despite the existence of a national screening programme only about 35 % of women aged 50-69 have been screened for breast cancer in the past two years, far below the 60 % screening rate in the EU.

- Just over half of all health spending in Cyprus comes from private sources, primarily out-of-pocket payments, which is the highest share in the EU. The extensive use of private services, especially for specialist visits and diagnostics, also leads to very high out-of-pocket payments, almost 45 % of health spending, far higher than the EU average (16 %) and second only to Bulgaria. Although the level of reported unmet medical needs in Cyprus is slightly lower than the EU average, it is ten times higher for low-income groups than high-income groups, indicating financial barriers to access and problems with affordability.

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Country abbreviations

Austria	AT	Denmark	DK	Hungary	HU	Luxembourg	LU	Romania	RO
Belgium	BE	Estonia	EE	Iceland	IS	Malta	MT	Slovakia	SK
Bulgaria	BG	Finland	FI	Ireland	IE	Netherlands	NL	Slovenia	SI
Croatia	HR	France	FR	Italy	IT	Norway	NO	Spain	ES
Cyprus	CY	Germany	DE	Latvia	LV	Poland	PL	Sweden	SE
Czechia	CZ	Greece	EL	Lithuania	LT	Portugal	PT	United Kingdom	UK

European Commission

State of Health in the EU
Country Health Profile 2019

The Country Health Profiles are an important step in the European Commission's ongoing *State of Health in the EU* cycle of knowledge brokering, produced with the financial assistance of the European Union. The profiles 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, in cooperation with the European Commission.

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/EEA country. The aim is to create a means for mutual learning and voluntary exchange that can be used by policymakers and policy influencers alike.

Each country profile provides a short synthesis of:

- health status in the country
- the determinants of health, focussing on behavioural risk factors
- the organisation of the health system
- the effectiveness, accessibility and resilience of the health system

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