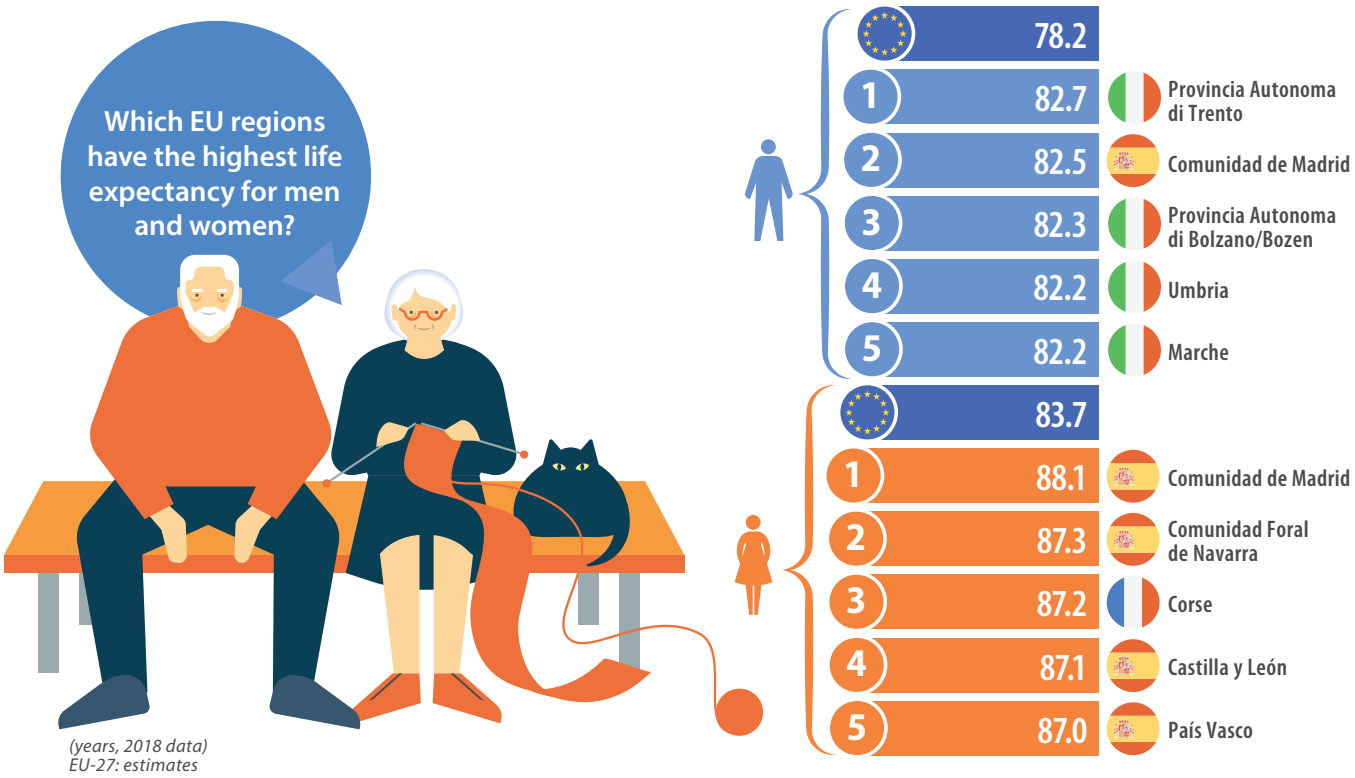
2 Health



(years, 2018 data)
EU-27: estimates

In 2018, EU-27 life expectancy at birth was 81.0 years

The health of the European Union (EU) population is closely linked to that of the planet through — among other influences — the quality of the air we breathe, the water we drink and the food we eat. Health is an important priority for most Europeans, who expect to receive efficient healthcare services — for example, if contracting a disease or being involved in an accident — alongside timely and reliable public health information. If historical precedents are followed and life expectancy across the EU continues to increase, it is likely that there will be a higher level of demand for a range of healthcare services in the future, driven by an ageing population. At the same time, reductions in the number of people of working-age could lead to staff shortages in certain health-related occupations and in specific geographical regions.

Life expectancy

Life expectancy at birth is the average number of years a newborn would live if subjected throughout his/her life to current mortality conditions. During the last two centuries, life expectancy in Europe rose at a relatively consistent pace (other than in periods of war). This increased longevity can be attributed to a range of factors, including significant advances in medical treatment and care, changes in living and environmental conditions, changes in working conditions/occupations, as well as lifestyle changes.

Recent years have seen an end to the previously steady upward progression of life expectancy in the EU-27; there was a fall in life expectancy in 2015 and no change in 2017. More generally there are a range of potential drivers that impact on inter-regional differences in life expectancy. These may include:

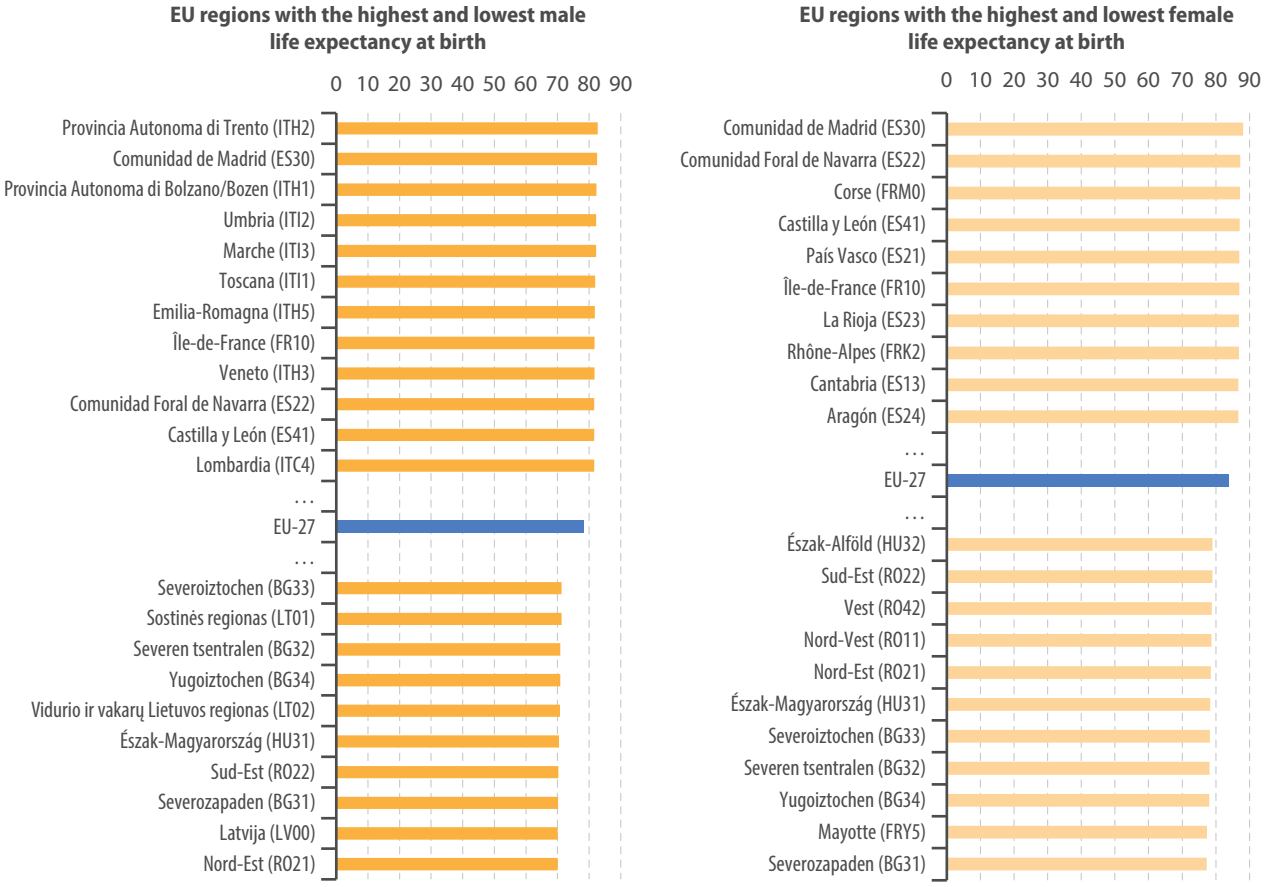
- proximity to healthcare services — capital city regions tend to have a greater number and variety of healthcare facilities compared with rural regions;
- the prosperity of a region — life expectancy is generally higher in those regions characterised by a higher standard of living and lower in regions characterised by poverty and social deprivation;
- lifestyle and cultural differences — for example, the type of work that predominates in a region, the typical diet of a region, or the incidence of smoking and alcohol consumption.

In 2018, the life expectancy of a female newborn in the EU-27 was 83.7 years, which was 5.5 years higher than the corresponding figure for a newborn male (78.2 years). Female life expectancy was higher than male life expectancy in every NUTS level 2 region for which data are available. Some of the largest gender gaps were recorded in the Baltic Member States and several Polish regions, while the difference in life expectancy between the sexes was much more closely matched in Dutch regions and in the French island region of Mayotte. The Lithuanian capital region had the highest gender gap for life expectancy at birth (9.9 years difference), while the lowest gap was recorded in the Dutch region of Flevoland (2.2 years).

Female life expectancy peaked in several regions across Spain and France

In 2018, the 10 regions in the EU with the highest levels of female life expectancy at birth were all located in Spain or France (see Figure 2.1). The Spanish capital region had the highest female life expectancy (88.1 years), while the top 10 regions were completed by six more Spanish regions and three French regions. By contrast, some of the highest levels of male life expectancy at birth were recorded in northern and central Italy, with a peak of 82.7 years in Provincia Autonoma di Trento.

Figure 2.1: Life expectancy at birth, 2018
(years, by NUTS 2 regions)



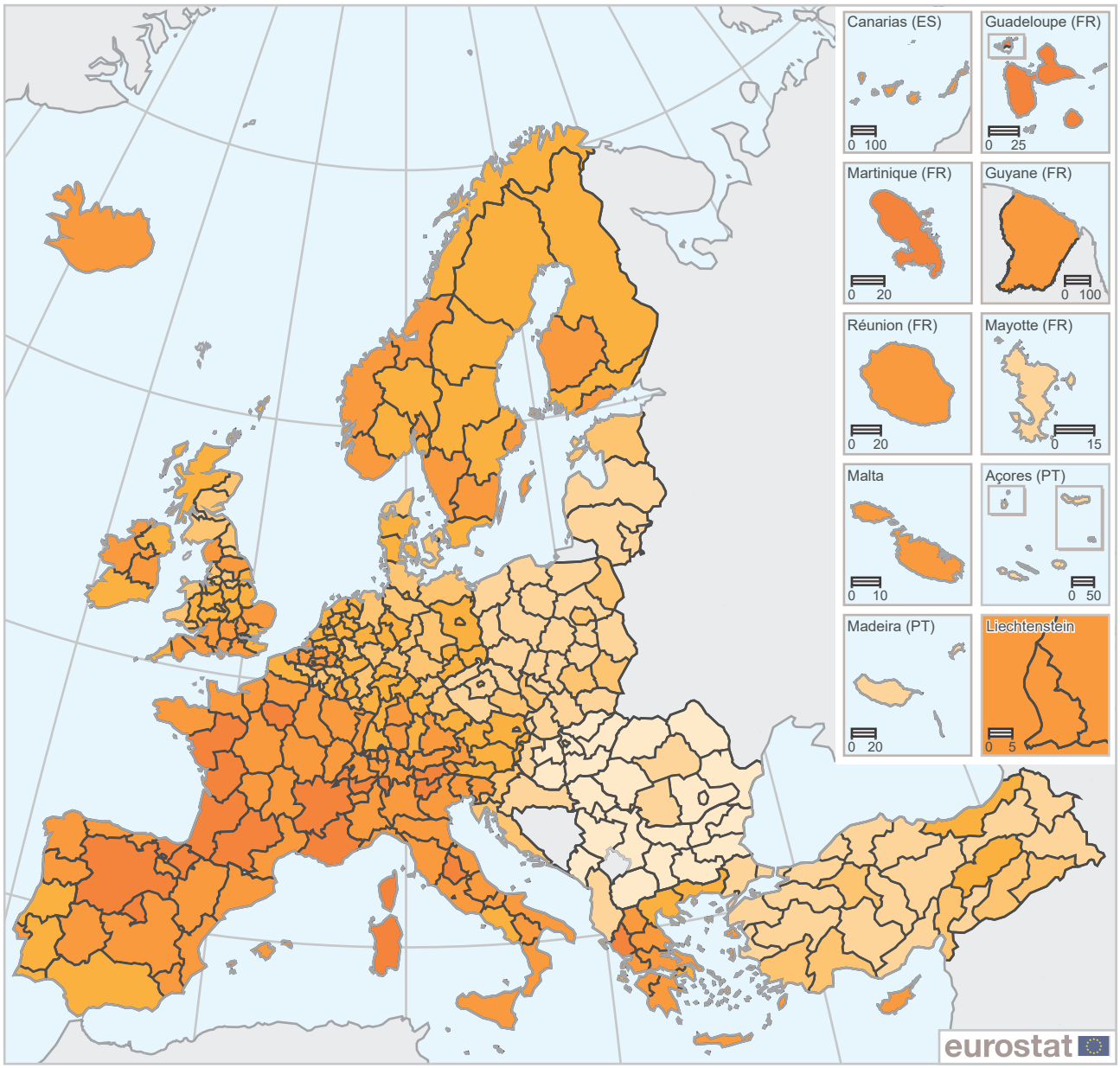
Note: EU-27, estimates. Martinique (FRY2) and Guyane (FRY3): 2017. Guadeloupe (FRY1): 2016.
Source: Eurostat (online data codes: demo_r_mlifexp and demo_mlexpec)

On average, a person aged 65 years living in the Comunidad de Madrid could expect to live a further 23.2 years

In 2018, the inhabitants of the EU-27 who had survived to the age of 65 could expect to live, on average, a further 20.0 years. The highest levels of life expectancy at this age were recorded in a band of regions running from northern Spain through much of western and southern France and into northern and central parts of Italy, as well as the north-western Greek region of Ipeiros. By contrast, life expectancy at 65 years was considerably lower in the vast majority of regions in eastern and Baltic Member States (see Map 2.1).

A more detailed analysis of NUTS level 2 regions reveals that the highest levels of life expectancy at 65 years were recorded in the Spanish and French capital regions. In 2018, a person of this age living in the Comunidad de Madrid could expect to live a further 23.2 years on average, while the corresponding figure for the Île de France was a further 23.0 years. At the other end of the range, the lowest levels of life expectancy at 65 years were recorded in two Bulgarian regions — where a 65 year-old person could expect to live, on average, a further 15.7 years.

Map 2.1: Life expectancy at 65 years, 2018
(years, by NUTS 2 regions)



EU-27 = 20.0

- < 17.0
- 17.0 - < 18.5
- 18.5 - < 19.5
- 19.5 - < 20.5
- 20.5 - < 22.0
- ≥ 22.0
- Data not available

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 06/2020

0 200 400 600 800 km

Note: Albania, national data. Ireland: estimates. France: provisional, except for Guadeloupe (FRY1), Martinique (FRY2) and Guyane (FRY3). Guadeloupe, Martinique, Guyane and Mardin, Batman, Şırnak, Siirt (TRC3): 2016.

Source: Eurostat (online data codes: demo_r_mlifexp and demo_mlexpec)

Health status and health care

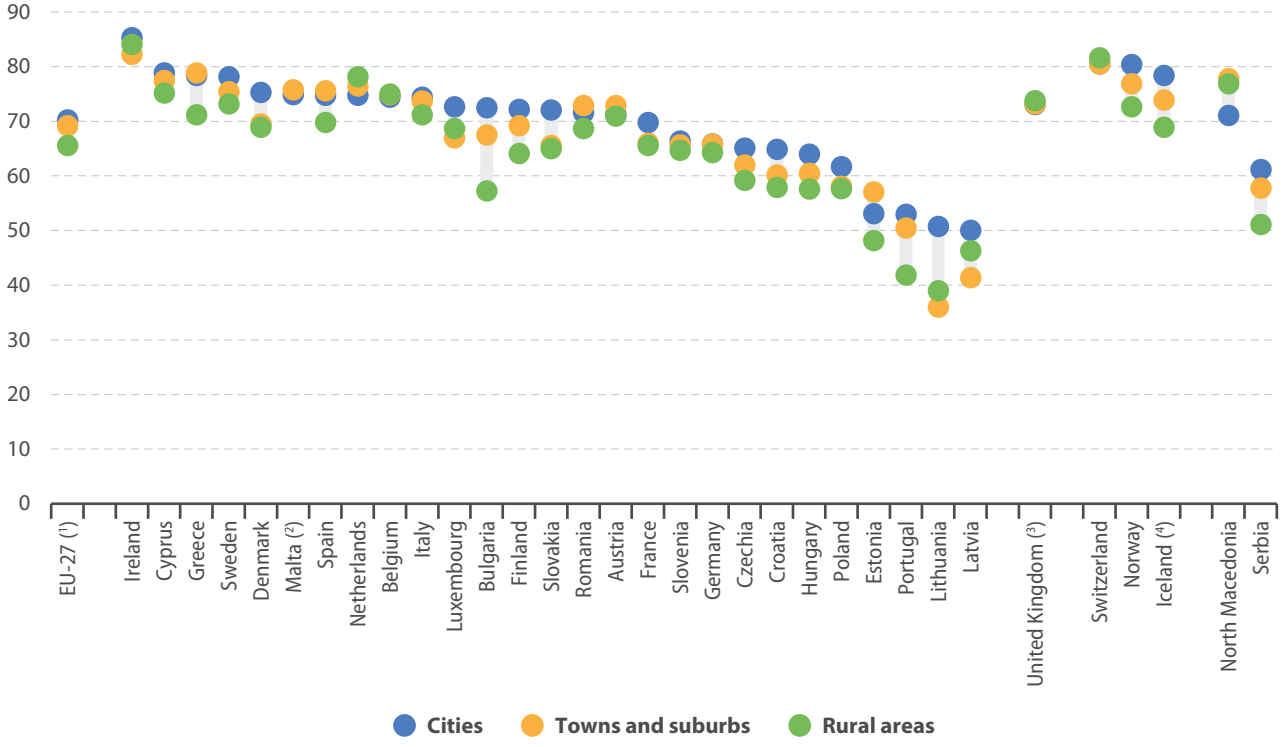
Self-perceived health refers to the population's own assessment of its health in general using a five-point scale ranging from very good to very bad. It covers the different dimensions of health, in other words, physical, social and emotional functioning and biomedical signs and symptoms.

More than two thirds of all adults in the EU perceived their own health as good or very good

Some 68.6 % of the EU-27 adult population (defined here as people aged ≥16 years) perceived their own health as good or very good in 2018. This share was higher among adults living in cities (70.3 %) than it was for the rural population (65.6 %). Such differences by degree of urbanisation may reflect, at least to some degree, the age structure of populations. Younger people (who tend to have better health) are more likely to be found living in urban area, whereas older people (who tend to have poorer health) are more likely to live in rural areas.

An analysis by degree of urbanisation shows that the proportion of adults perceiving their own health to be good or very good was generally highest among city-dwellers; in 2018, this situation was observed in 19 of the EU Member States. Adults living in the cities of Lithuania, Bulgaria and Slovakia were much more likely (than the total adult population) to perceive their own health as good or very good. By contrast, a higher (than average) proportion of adults living in the rural areas of the Benelux Member States perceived their own health as good or very good.

Figure 2.2: People who perceive their own health as good or very good, 2018
(%, share of population aged ≥16 years, by degree of urbanisation)



Note: ranked on cities.

(1) Estimates.
(2) Rural areas: low reliability, not available.
(3) Provisional.
(4) 2016.

Source: Eurostat (online data code: hlth_silc_18)

1 in 50 adults living in the rural areas of the EU had an unmet need for medical examination

There are a variety of reasons why an individual may report that they have an unmet need for a medical examination. The following are of interest with regard to illustrating equity in access to health care services:

- cost, whereby medical examinations are considered too expensive;
- distance, if patients consider it too far to travel to a clinic/hospital for an examination or there are no means of transportation available;
- time, when patients are dissuaded from having a particular type of examination because of a lengthy waiting list.

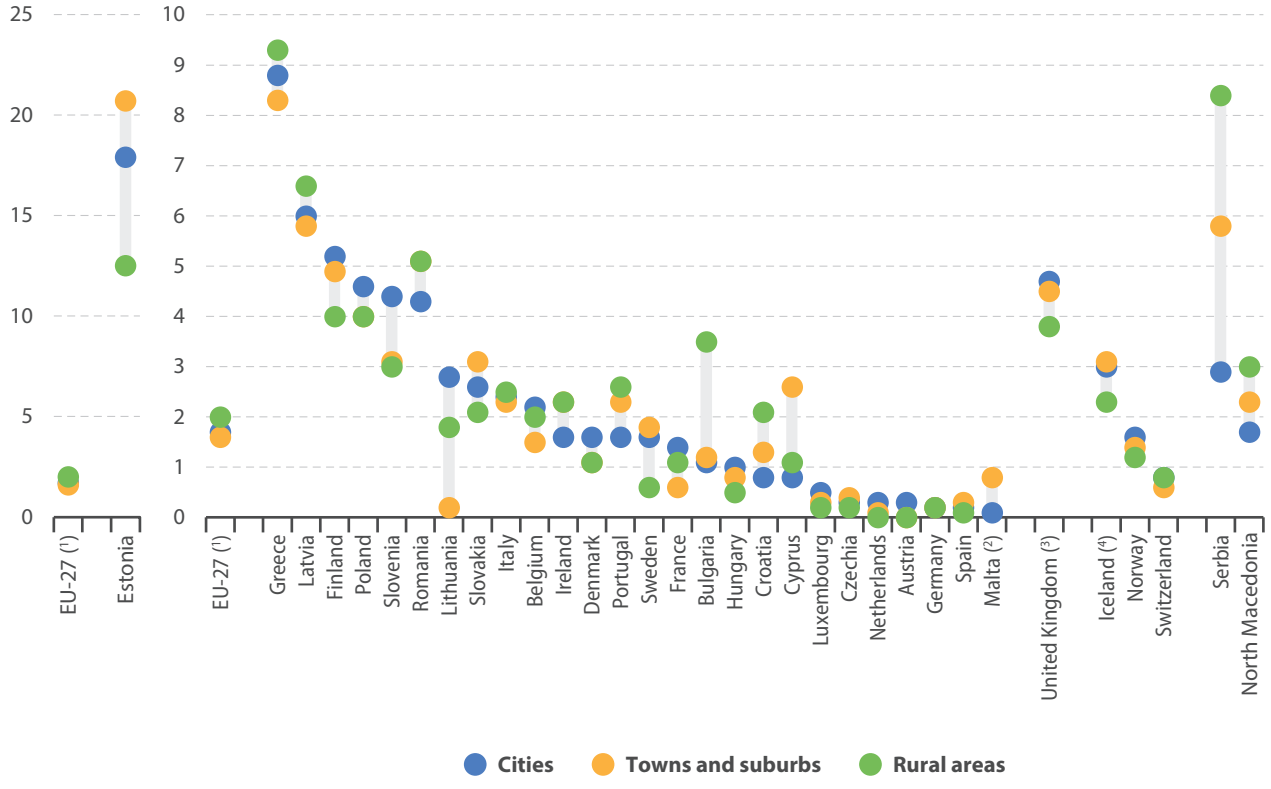
In 2018, the proportion of the EU-27 adult population with unmet needs for medical examination — due to it being too expensive, too far to travel, and/or because of waiting lists — was 1.8 %. An analysis by degree of urbanisation (see Figure 2.3) reveals that this share was slightly higher in rural areas (2.0 %) than it was either in cities (1.7 %) or in towns and suburbs (1.6 %).

The overall proportion of the adult population with unmet needs for medical examination was 0.3 % or less in 2018 in Czechia, Luxembourg, Germany, Spain, Malta, the Netherlands and Austria. By contrast, the share of adults with unmet needs for medical examination was higher than 5.0 % in Latvia (6.2 %) and Greece (8.8 %), with a peak of 16.4 % in Estonia. An analysis by degree of urbanisation shows that in 11 of the EU Member States the proportion of adults with unmet needs for medical examination was highest among people living in cities. In addition, there were seven Member States where the highest share was recorded among people living in towns and suburbs and six where the highest share was recorded among people living in rural areas. In Germany, Ireland and Romania the highest share was recorded for at least two different degrees of urbanisation. These differences within Member States may, at least in part, reflect the distribution of poverty and social exclusion, which tends to be relatively high in the cities of northern and western Member States and in the rural areas of southern and eastern Member States.

On average there were 266 inhabitants for every doctor in the EU-27

Physicians include general practitioners (GPs), medical and surgical specialists. They provide services to patients as consumers of healthcare, including: giving advice, conducting medical examinations and making

Figure 2.3: People with unmet needs for medical examination, 2018
(%, share of population aged ≥16 years, by degree of urbanisation)

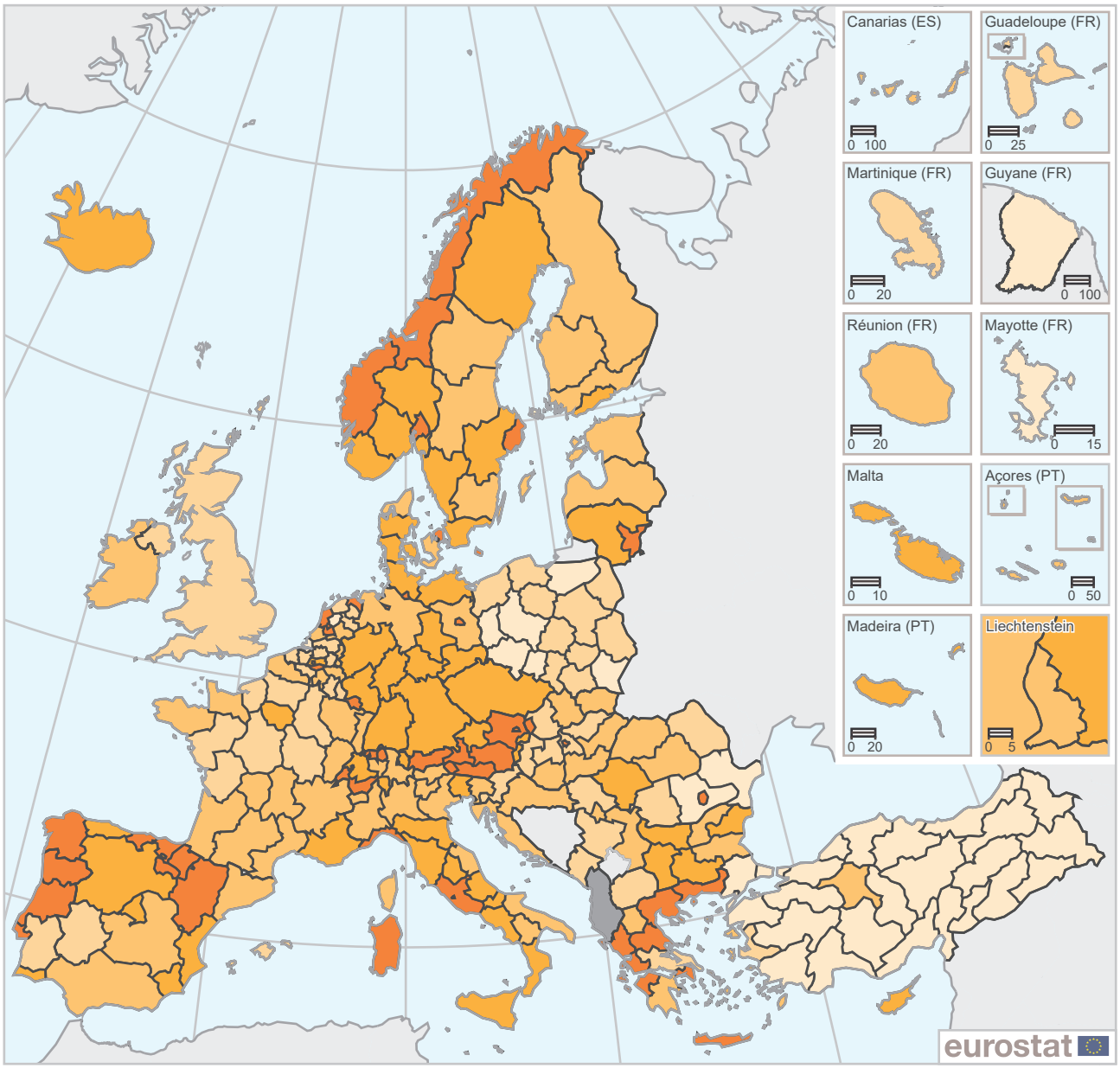


Note: the figure has two different y-axes. Ranked on cities. Unmet needs for medical examination due to it being too expensive, too far to travel, or because of waiting lists.

(1) Estimates.
(2) Rural areas: low reliability, not available.
(3) Provisional.
(4) 2016.

Source: Eurostat (online data code: hlth_silc_21)

Map 2.2: Number of (practising) physicians, 2017
(per 100 000 inhabitants, by NUTS 2 regions)



EU-27 = 375.8

- < 225
- 225 - < 300
- 300 - < 375
- 375 - < 450
- ≥ 450
- Data not available

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 04/2020

0 200 400 600 800 km

Note: Slovenia, North Macedonia and Turkey, professionally active physicians. Czechia, Greece and Portugal, physicians licensed to practice. Germany and Makroregion Województwo Mazowieckie (PL9): NUTS 1 regions. Czechia, Ireland and the United Kingdom: national data. EU-27 and the United Kingdom: estimates. Denmark, Makroregion Województwo Mazowieckie (PL9) and Sweden: 2016. Finland: 2014.

Source: Eurostat (online data codes: hlth_rs_prsrg and hlth_rs_prs1)

diagnoses; applying preventive medical methods; prescribing medication and treating diagnosed illnesses; giving specialised medical or surgical treatment.

In 2017, there were approximately 1.68 million medical doctors/physicians within the EU-27. This equated to an average of 376 physicians per 100 000 inhabitants or an average of 266 inhabitants for every physician. Map 2.2 shows the regional distribution of physicians, with:

- a very high number of physicians relative to the size of the population across several regions in Greece — note that Greek data refer to physicians licensed to practice, which is a broader measure than practising physicians (as reported by a majority of EU Member States);
- a very high number of physicians relative to population size in several capitals — this was particularly true for Attiki (Greece), Wien (Austria), Bratislavský kraj (Slovakia) and Área Metropolitana de Lisboa (Portugal) where there were in excess of 600 physicians per 100 000 inhabitants;
- a relatively high number of physicians relative to population size across a wide range of urban regions (as health care services — including those provided by physicians — are more likely to exist in regions that are characterised by relatively high population density).

The highest number of physicians relative to population size was recorded in the Greek capital of Attiki (792 physicians licensed to practice per 100 000 inhabitants in 2017). This peak value was more than 10 times as high as the lowest ratio (78 practising physicians per 100 000 inhabitants), as recorded in the French island region of Mayotte.

Causes of death

Statistics on causes of death are based on two pillars: medical information from death certificates which may be used as a basis for determining the cause of death and the coding of causes of death following the International Statistical Classification of Diseases and Related Health Problems (ICD). These data provide information about diseases (and other eventualities, such as suicide or accidents) that lead directly to death; they can be used to help plan health services. Statistics on causes of death are classified according the European shortlist for causes of death (2012) which has 86 different causes.

A wide range of factors determine regional mortality patterns, for example: age structures, gender, access to healthcare services, living/working conditions and the surrounding environment. Maps 2.3-2.5 show information for standardised death rates, whereby age-specific mortality rates are adjusted to reflect the structure of a standard population. This removes the influence of different age structures between regions (as elderly persons are more likely to die than younger persons, or are more likely to catch/contract a specific illness/disease) and results in a more comparable measure across space and/or over time.

In 2016, more than one quarter of all deaths in the EU-27 were attributed to cancer

There were 4.5 million deaths across the EU-27 in 2016. When expressed in relation to the total population, the EU-27's standardised death rate from all causes of death was 1 000 per 100 000 inhabitants.

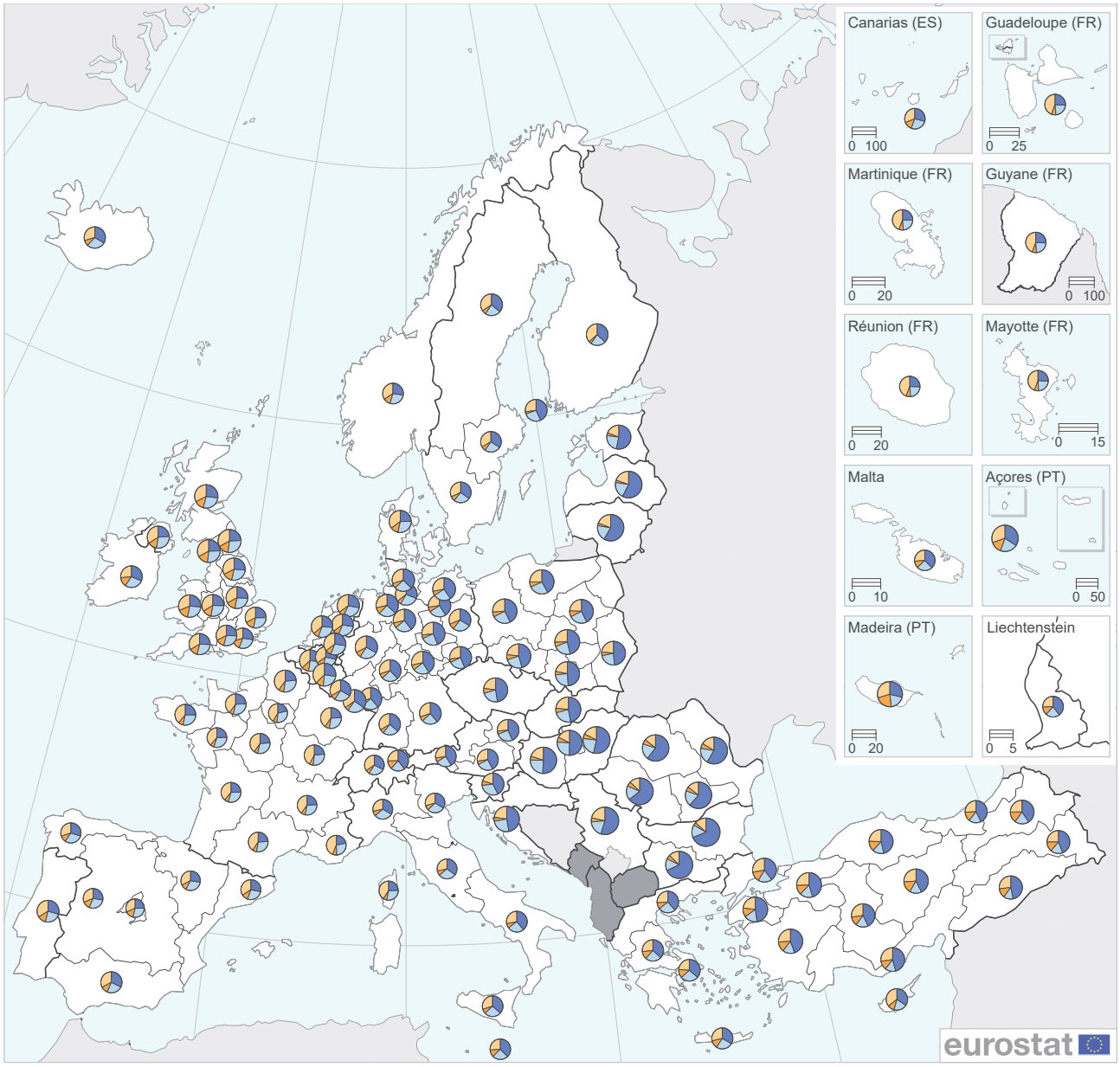
The three principal causes of death in 2016 were: diseases of the circulatory system, malignant neoplasms (hereafter referred to as cancer) and diseases of the respiratory system. Diseases of the circulatory system include ischaemic heart diseases and cerebrovascular diseases, and these accounted for more than one third (37.1 %) of all deaths in the EU-27. Cancer accounted for just over one quarter (25.7 %) of the total number of deaths; a more detailed analysis of deaths from specific cancers is provided below. The share of deaths resulting from diseases of the respiratory system was much lower, at 7.5 %, while other causes of death accounted for the remaining 29.7 %.

In 2016, more than two thirds (68.8 %) of all deaths in Severna i yugoiztochna (Bulgaria) were attributed to diseases of the circulatory system. The other NUTS level 1 regions in the EU where at least half of all deaths were due to diseases of the circulatory system were located in eastern Member States — every region of Bulgaria, Hungary and Romania — or the Baltic Member States.

There were seven NUTS level 1 regions in the EU where at least 30.0 % of all deaths were attributed to cancer in 2016. The highest share of deaths accounted for by cancer was recorded in the Italian region of Nord-Ovest (30.7 %), closely followed by Slovenia (30.6 %). Four of the five remaining regions with shares of at least 30.0 % were located in France (including the capital region of Île-de-France), while the other region was Noreste (Spain).

In 2016, the Região Autónoma da Madeira in Portugal had, by far, the highest share (21.9 %) of deaths caused by diseases of the respiratory system. The next highest share was recorded in the Spanish capital region, Comunidad De Madrid (14.3 %). Diseases of the respiratory system accounted for less than 10 % of all deaths in the vast majority of European regions.

Map 2.3: Most common causes of death, 2016
(standardised death rate and % share of all deaths, by NUTS 1 regions)



Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 06/2020

Most common cause of death
(% share of all deaths)
EU-27 = diseases of the circulatory system (37.1 %)

- **Diseases of the circulatory system**
- **Cancer (malignant neoplasms)**
- **Diseases of the respiratory system**
- **Other causes of death**

Standardised death rate
(per 100 000 inhabitants)
EU-27 = 1 000

0 200 400 600 800 km

1 660
1 000
711

Note: the information shown is based on standardised death rates and relates to all deaths of residents in or outside their home country.

Source: Eurostat (online data code: hlth_cd_asdr2)

FOCUS ON DEATHS FROM CANCER

Although significant advances have been made to combat cancer, it remains a key public health concern. Approximately two fifths of the EU's population will, at some point during their lives, face cancer. Survival rates are increasing, in part due to early detection and screening programmes. The European Commission's policy guidelines for 2019-2024 foresee the development of a plan to fight cancer and support EU Member States in improving cancer control and care. Individuals may also influence their chances of avoiding cancer by regulating, among others, their exercise, diet, consumption of alcohol and smoking behaviour.

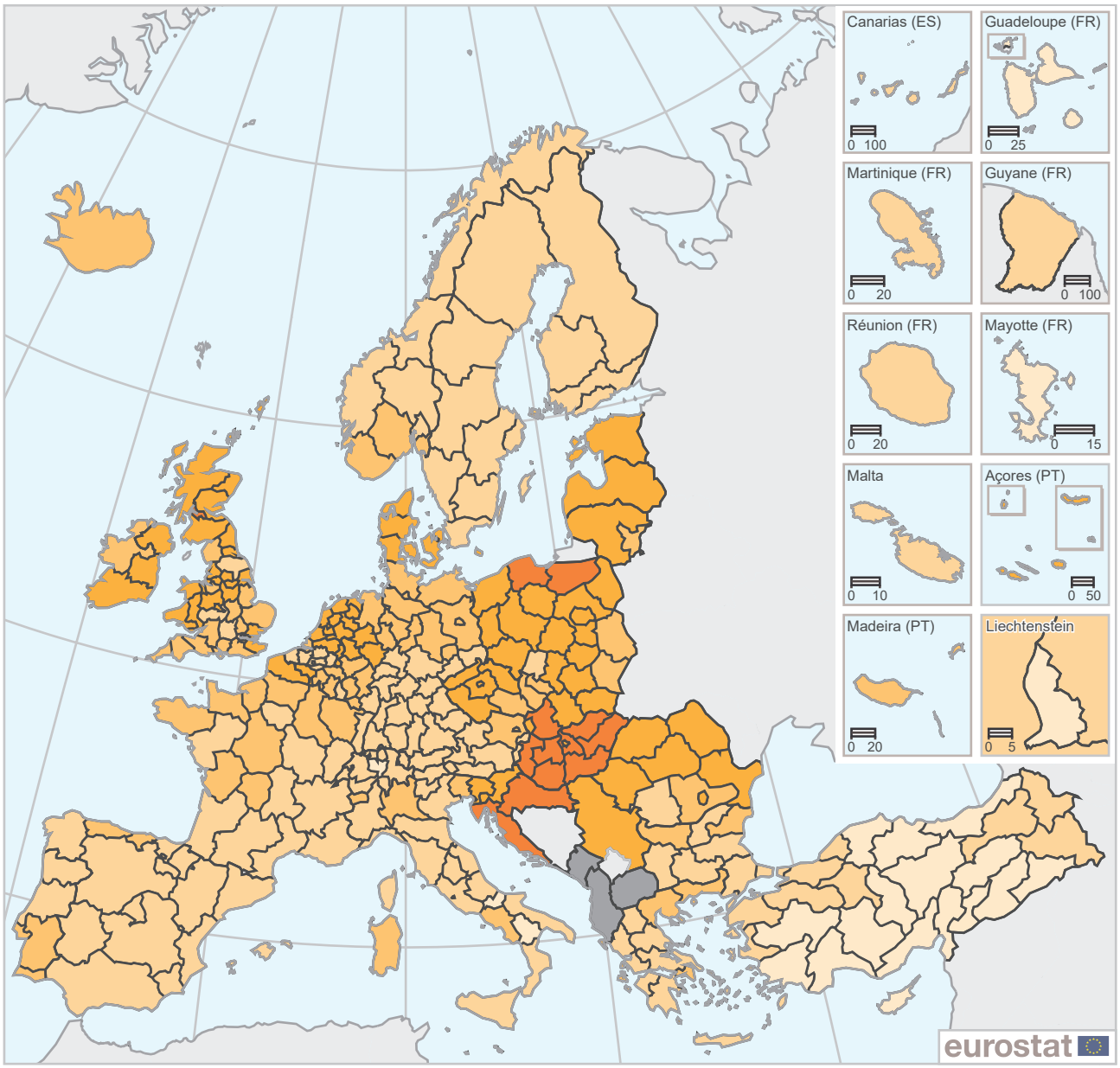
A wide range of factors determine regional mortality patterns, for example: age structures, gender, living/working conditions and the surrounding environment. Maps 2.4 and 2.5 show information for standardised death rates, whereby age-specific mortality rates are adjusted to reflect the structure of a standard population. This removes the influence of different age structures between regions (as elderly persons are more likely to die than younger persons, or are more likely to catch/contract a specific illness/disease) and results in a more comparable measure across space and/or over time.

In 2016, 1.2 million deaths across the EU were attributed to cancer

The EU-27 standardised death rate from cancer was 257 per 100 000 inhabitants in 2016. The highest death rates from cancer were concentrated in eastern Member States. For example, all of the NUTS level 2 regions of Croatia, Hungary and Slovenia had rates above 300 deaths per 100 000 inhabitants (see Map 2.4). This cluster of regions included Közép-Dunántúl in Hungary, which had the highest cancer death rate in the EU — 364 deaths per 100 000 inhabitants.

The lowest standardised death rates from cancer were quite widely dispersed across the EU. Aside from two of the French régions ultrapériphériques — Mayotte and Guadeloupe — people living in Cyprus had the lowest risk of dying from cancer (194 deaths per 100 000 inhabitants in 2016). Relatively low death rates — below 200 deaths per 100 000 inhabitants — were also recorded in the southern Italian regions of Basilicata and Molise.

Map 2.4: Standardised death rates from cancer, 2016
(per 100 000 inhabitants, by NUTS 2 regions)



EU-27 = 257.1

- < 200
- 200 - < 250
- 250 - < 275
- 275 - < 325
- ≥ 325
- Data not available

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 04/2020

0 200 400 600 800 km

Note: the information shown relates to all deaths of residents in or outside their home country. Serbia: national data.

Source: Eurostat (online data code: hlth_cd_asdr2)

Cancer was the principal cause of death for people aged less than 65 years

In 2016, cancer accounted for more than one third (37.2 %) of the total number of deaths in the EU-27 among people aged less than 65 years. Some 290 000 people under this age died from cancer in 2016; this was considerably higher than the 167 000 deaths attributed to diseases of the circulatory system, which was the second most common cause of death for this subpopulation. Despite cancer being the principal cause of death among people aged less than 65 years, the risk of mortality from cancer across the total population was more than three times as high, underlining that most cancer-related deaths continue to occur among the elderly.

Észak-Magyarország in Hungary had the highest death rate from cancer for people aged less than 65 years

Map 2.5 shows that the highest standardised death rates from cancer among people aged less than 65 years were typically found in eastern and Baltic Member States. In addition, there were some atypical/isolated regions with relatively high death rates — as shown by the darkest shade in the map — comprising Nord-Pas de Calais (France), Regiões autónomas dos Açores y da Madeira and Algarve (all in Portugal).

In 2016, the highest death rate from cancer among people aged less than 65 years was recorded in Észak-Magyarország, at 147 deaths per 100 000 inhabitants. Note this Hungarian region also recorded the fourth highest death rate from cancer for people of all ages (behind three other Hungarian regions). The death rate from cancer among people aged less than 65 years in Észak-Magyarország was more than three times as high as the rate recorded in Övre Norrland (Sweden): the latter had the lowest rate in the EU, at 45 deaths per 100 000 inhabitants aged less than 65 years.

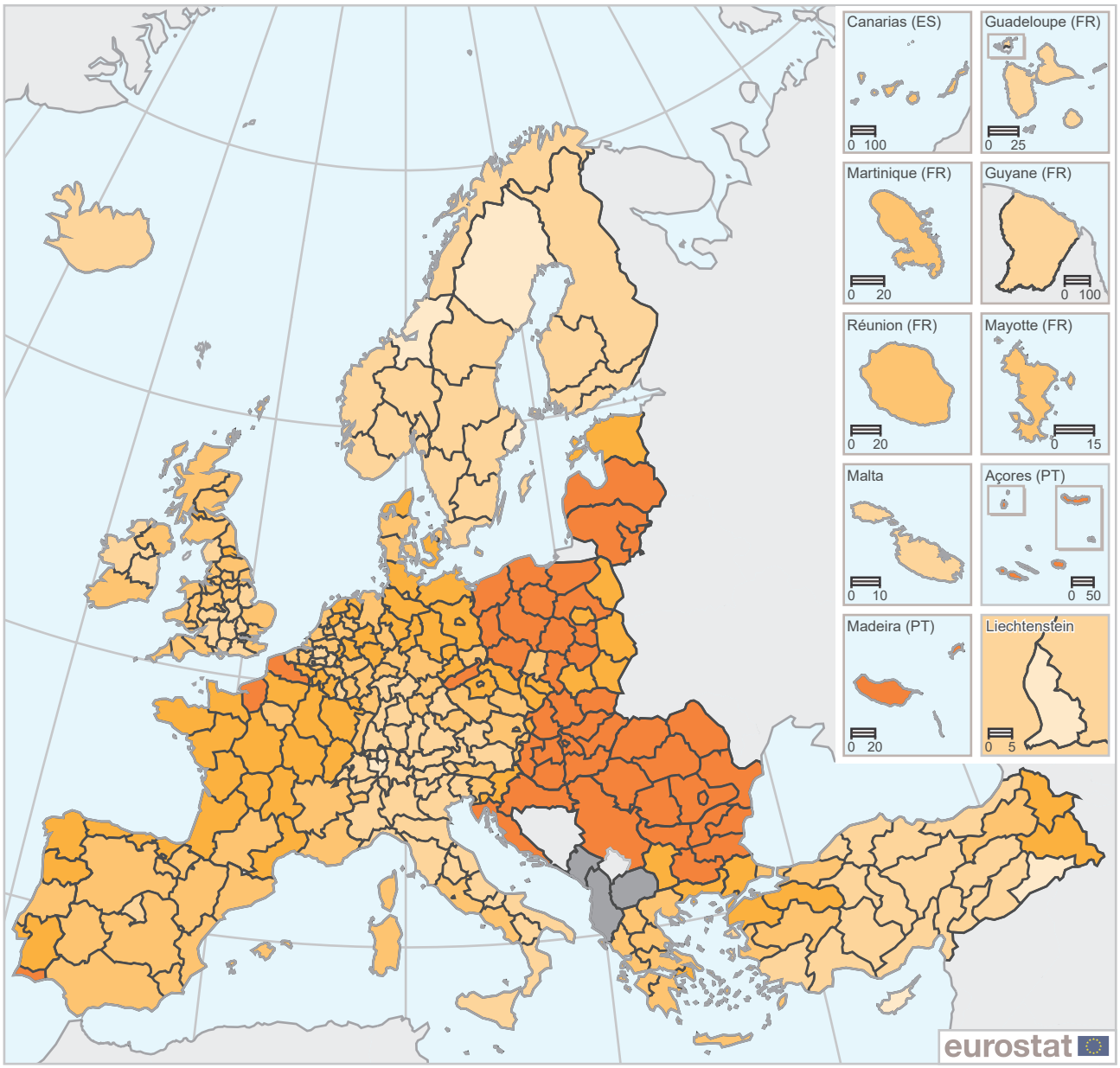
By comparing the results presented in Maps 2.4 and 2.5 it is possible to analyse where the risk of mortality from cancer was particularly high or low among people aged less than 65 years relative to the risk for people of all ages. In 2016, there were several regions in Bulgaria and Romania, where standardised death rates from cancer among people aged less than 65 years were relatively high (when compared with rates for the total population). By contrast, in several Swedish and Irish regions, death rates from cancer for people aged less than 65 years were considerably lower than those for the whole population.

Figure 2.4 confirms that the highest regional death rates from cancer were concentrated in Hungary. The capital of Budapest was the only Hungarian region that did not feature among the 10 EU regions with the highest death rates from cancer in 2016. Aside from Hungarian regions, there were several other regions in eastern Member States where death rates from cancer were at least 325 per 100 000 inhabitants (see the darkest shade in Map 2.4), including: both Croatian regions, Západné Slovensko (in Slovakia), Warmińsko-Mazurskie and Pomorskie (both in Poland).

Just over one fifth of all cancer-related deaths in the EU-27 were attributed to lung cancer

Alongside gender specific cancers — prostate cancer for men and breast cancer which is almost exclusive to women — lung cancer and colorectal cancer are two of the leading causes of death that affect people in the EU. In 2016, the EU-27 standardised death rate from lung cancer was 53 per 100 000 inhabitants, while the rate for colorectal cancer was 31 deaths per 100 000 inhabitants.

Map 2.5: Standardised death rates from cancer among people aged < 65 years, 2016
(per 100 000 inhabitants aged < 65 years, by NUTS 2 regions)



Note: the information shown relates to all deaths of residents in or outside their home country. Serbia: national data.

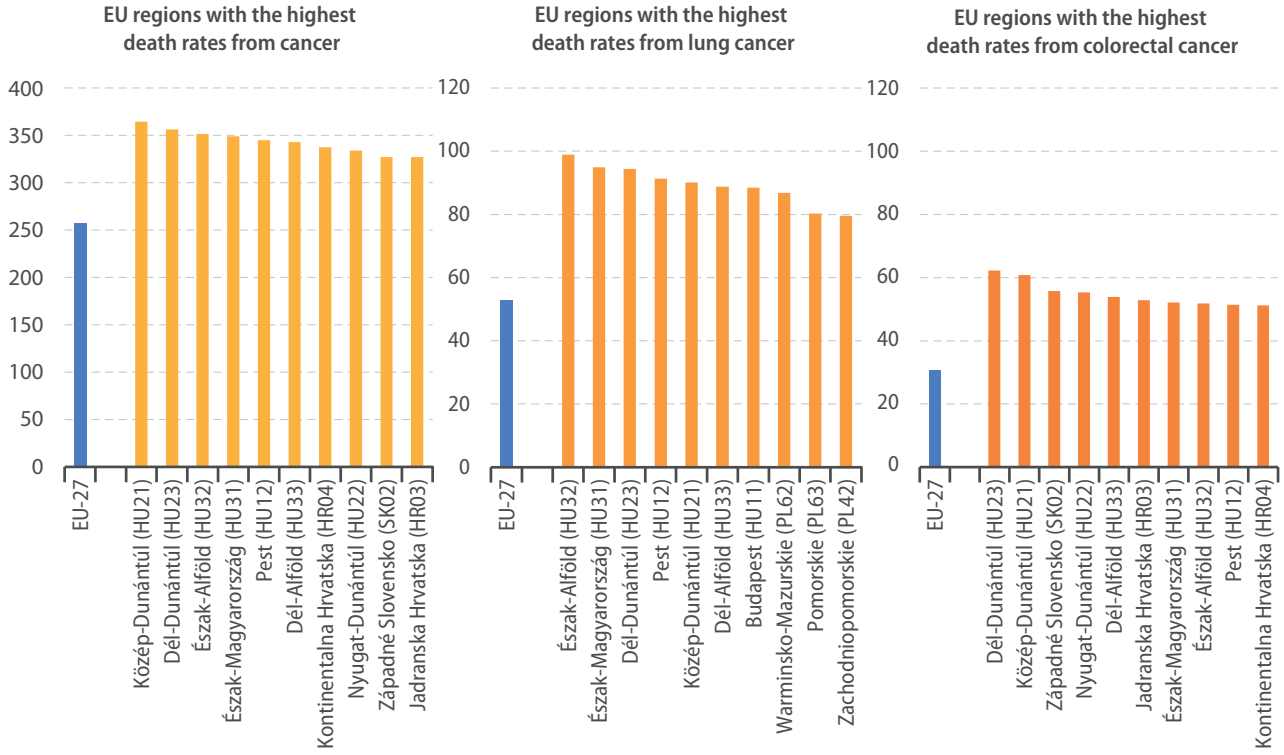
Source: Eurostat (online data code: hlth_cd_asdr2)

Észak-Alföld and Dél-Dunántúl in Hungary recorded the highest death rates from lung cancer and from colorectal cancer respectively

A closer analysis across NUTS level 2 regions reveals that the highest regional death rate for lung cancer was in Észak-Alföld (99 deaths per 100 000 inhabitants in 2016). It was followed by all but one of the remaining seven Hungarian regions (the exception being Nyugat-Dunántúl) where death rates from cancer were within the range of 88-95 deaths per 100 000 inhabitants (see the middle part of Figure 2.4). The three remaining EU regions with the highest death rates from lung cancer were all situated in the northern half of Poland.

Hungarian regions also accounted for a majority of the 10 EU regions with the highest death rates for colorectal cancer (see the final part of Figure 2.4). They included Dél-Dunántúl, which had the highest regional death rate (62 deaths per 100 000 inhabitants). People living in Dél-Dunántúl were twice as likely to die from colorectal cancer as the EU-27 average. Budapest was the only Hungarian region that did not feature in the top 10. The ranking of regions with the highest death rates from colorectal cancer was completed by the two Croatian regions and a single region from Slovakia.

Figure 2.4: Standardised death rates from cancer, 2016
(per 100 000 inhabitants, by NUTS 2 regions)



Note: the information shown relates to all deaths of residents in or outside their home country. The scale used for the first figure is different to that used for the other two figures.

Source: Eurostat (online data code: hlth_cd_asdr2)