

Drug-induced deaths situation (FAQ drug-induced deaths in Europe)

Introduction

This section presents the definitions used across Europe. It also presents the most recent data available, together with graphics and maps on the number and the rates of drug-induced deaths in Europe.



This page is part of the [Frequently asked questions \(FAQ\): drug-induced deaths in Europe](#).

What is a drug-induced death?

Overdose or drug-induced deaths are monitored by the EUDA under the 'Drug-related deaths and mortality (DRD)' epidemiological indicator. This has two complementary components:

- drug-induced deaths: regular, national, population-based statistics on deaths directly attributable to the use of drugs (also known as poisonings or overdoses) ⁽¹⁾;
- drug-related mortality: estimations of the overall and cause-specific mortality among people who use drugs, based on follow-up longitudinal ad-hoc studies.

Case definition

For the purpose of the EUDA regular national statistics, drug-induced deaths are those 'happening shortly after consumption of one or more illicit psychoactive drugs and directly related to this consumption, although they may often happen when such substances are taken in combination with other substances, such as alcohol or psychoactive medicines'.

Exclusion criteria

Deaths for which a drug has been found in the toxicological analysis but in which this drug did not have a causal or determinant role in the death are not included in the EUDA statistics. This may happen when a toxicological analysis is undertaken in certain investigations (e.g. traffic accidents, suicides and violence). Deaths that are indirectly related to drug use are also excluded from the regular national statistics of 'drug-induced' or 'overdose' deaths (e.g. deaths related to HIV/AIDS acquired through injecting drugs).

More information

More information is presented in the [Methodology — FAQ drug-induced deaths in Europe](#), and also in the methods pages of the EUDA Statistical Bulletin, and in the [European DRD protocol \(EMCDDA, 2010\)](#). The protocol establishes harmonised criteria to collect [data](#) and report figures, based on the information available in different mortality registries, at the end point of the chain of certification/ascertainment procedures.

⁽¹⁾ In many publications and documents, the term 'drug-related deaths' is used, although strictly speaking this term may include deaths indirectly caused by drug use.

How many people die from drug-induced deaths each year in the European Union, Norway and Türkiye?

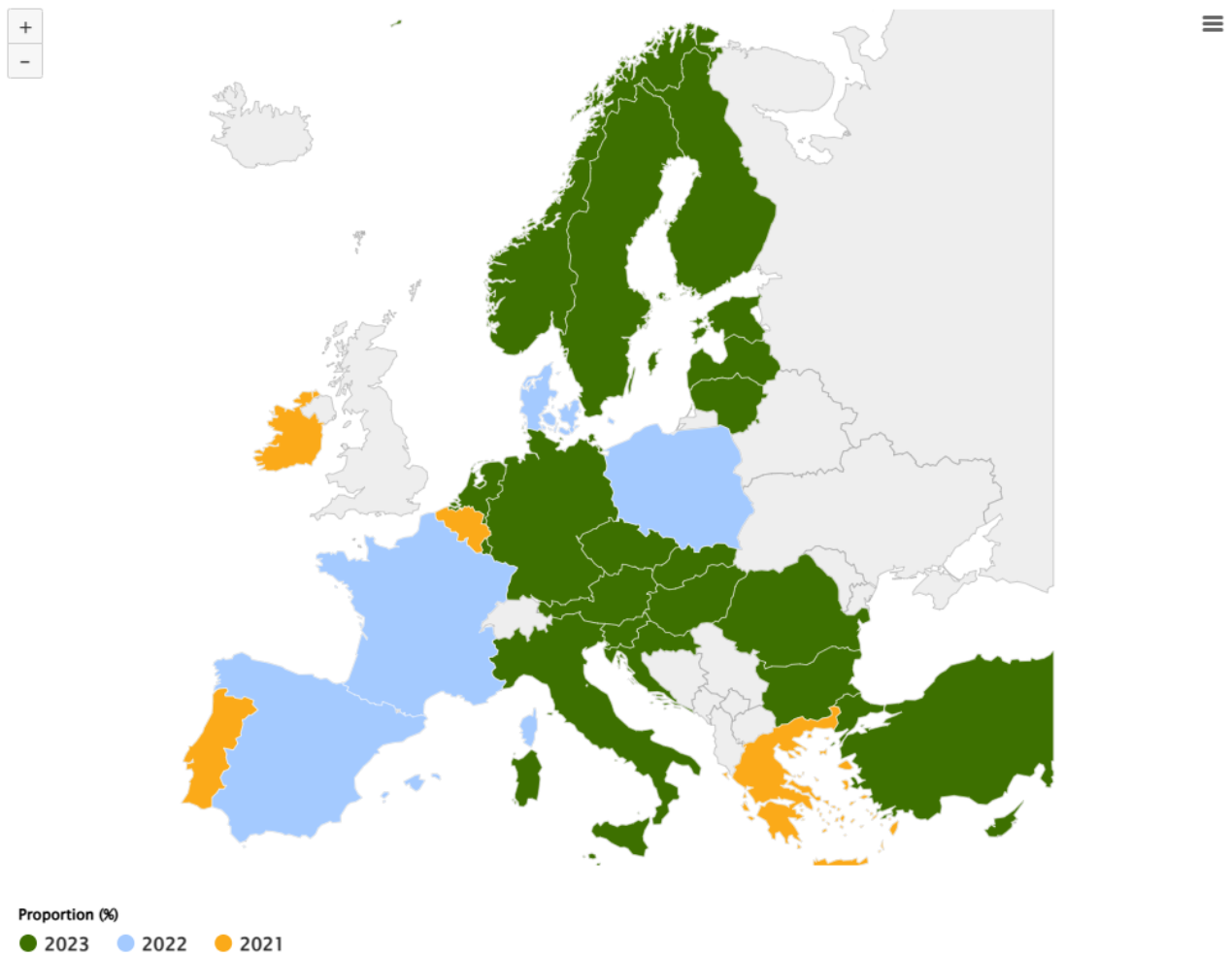
It is estimated that at least 7 400 overdose deaths occurred in the European Union in 2023. This rises to an estimated around 8 100 deaths if Norway and Türkiye are included. These overall numbers must be understood as underestimations, as there are limitations to drug-induced deaths data as some countries report that their monitoring system is missing some cases. For example, a cross-validation of the 2022 data from the different registers (general and special registers) in Spain suggested that, when based solely on the general register, only 4 out of 5 cases might be reported. In Germany and Italy, the mortality register only contains cases that have come to the attention of the police. Thus, cases outside of police focus may be under-reported. However, the extent of the underestimation is unknown.

Data for 2023 are not available for all countries, and for those cases (8 of the 27 EU countries), the most recent available data may be used to estimate the overall EU figure.

What is the most recent year for which data on drug-induced deaths are available?

In 21 of the 29 countries (EU, Norway and Türkiye), 2023 data from the preferred source are available. For the other countries, the most recent data are from 2022 for Denmark, France, Poland and Spain; from 2021 for Belgium, Greece, Ireland and Portugal.

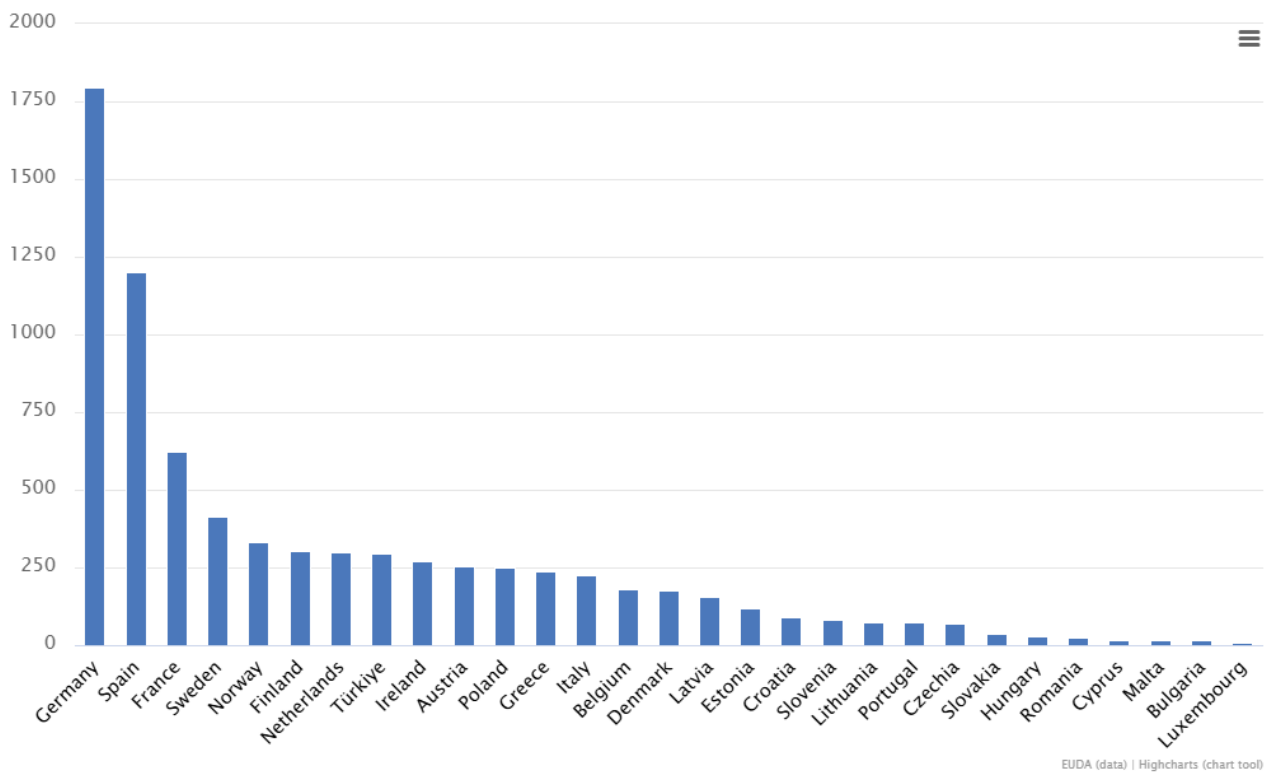
Figure 1.1. Year of most recent drug-induced deaths data, in the European Union, Norway and Türkiye, 2023 (or most recent data available)



Are the numbers of drug-induced deaths and estimated mortality rates similar between countries?

Germany, Spain and France together account for over half (51%) of the estimated number of drug-induced deaths among people aged 15-64 in 2023 in the European Union. This finding is influenced partly by the size of the at-risk populations in these countries, but also by under-reporting in certain other countries. Following these three countries, the following highest numbers of deaths among people aged 15-64 were reported by Sweden, Norway, Finland and the Netherlands (see the figure below).

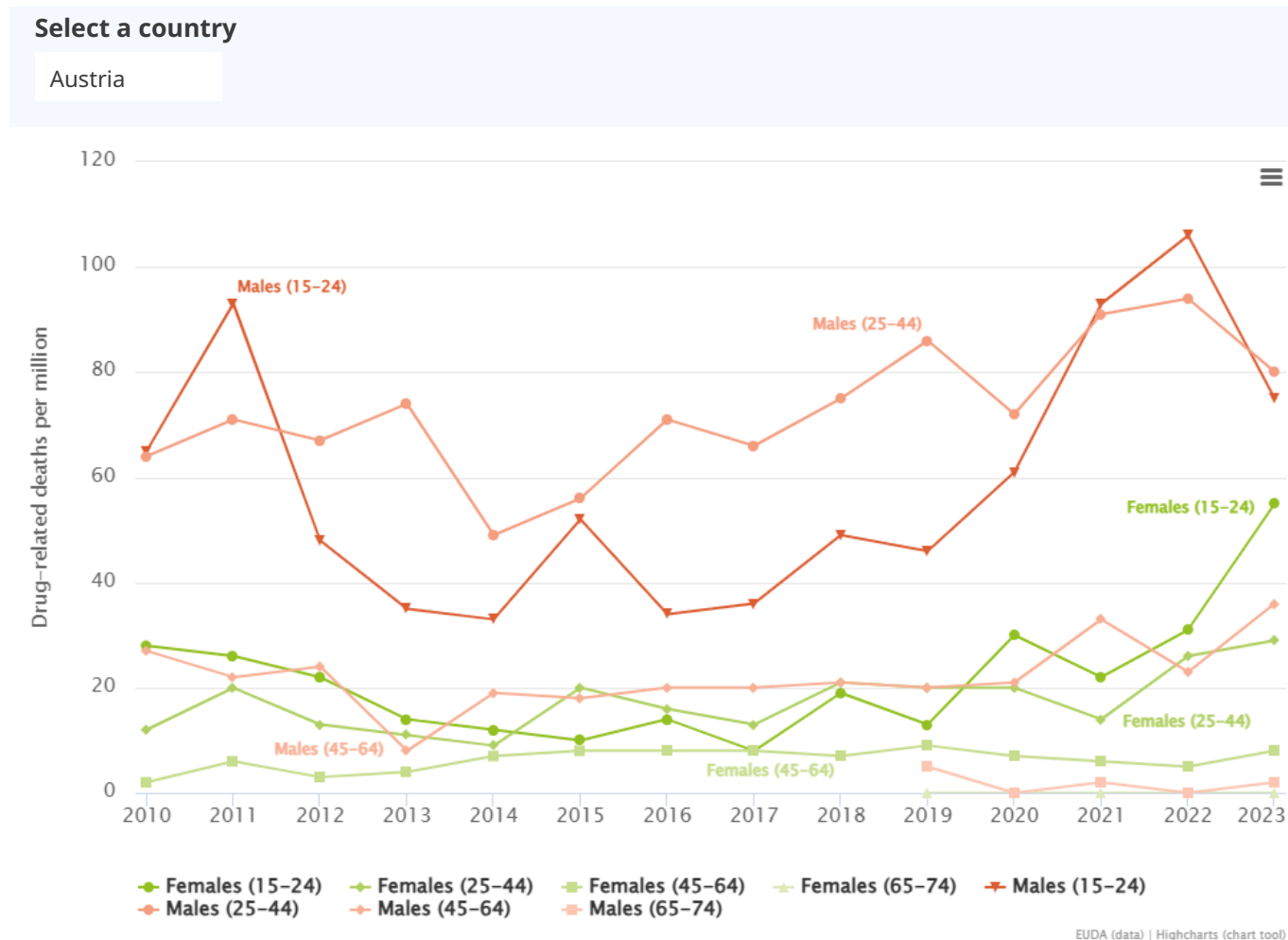
Figure 1.2. Drug-induced deaths among adults (15-64) in the European Union, Norway and Türkiye, 2023 (or most recent data available)



Our analysis shows that drug-induced mortality rates are typically 3 to 4 times higher among males compared with females. Among males, the highest mortality rates are often among those aged 25-44. Overdose mortality rates in this age group are higher than for the male general population overall (adults aged 15-64 years).

Figure 1.3. Drug-induced mortality rates stratified by age and sex (deaths per million population), in the European Union, Norway and Türkiye, 2010-2023 (or most recent data available)

Use the drop-down list below to select a country



The estimated drug-induced mortality rates must be interpreted with caution. In particular, only age-standardised mortality can be compared across countries. Methodological differences should be considered when comparing between countries (see [Methodology — FAQ drug-induced deaths in Europe](#)).

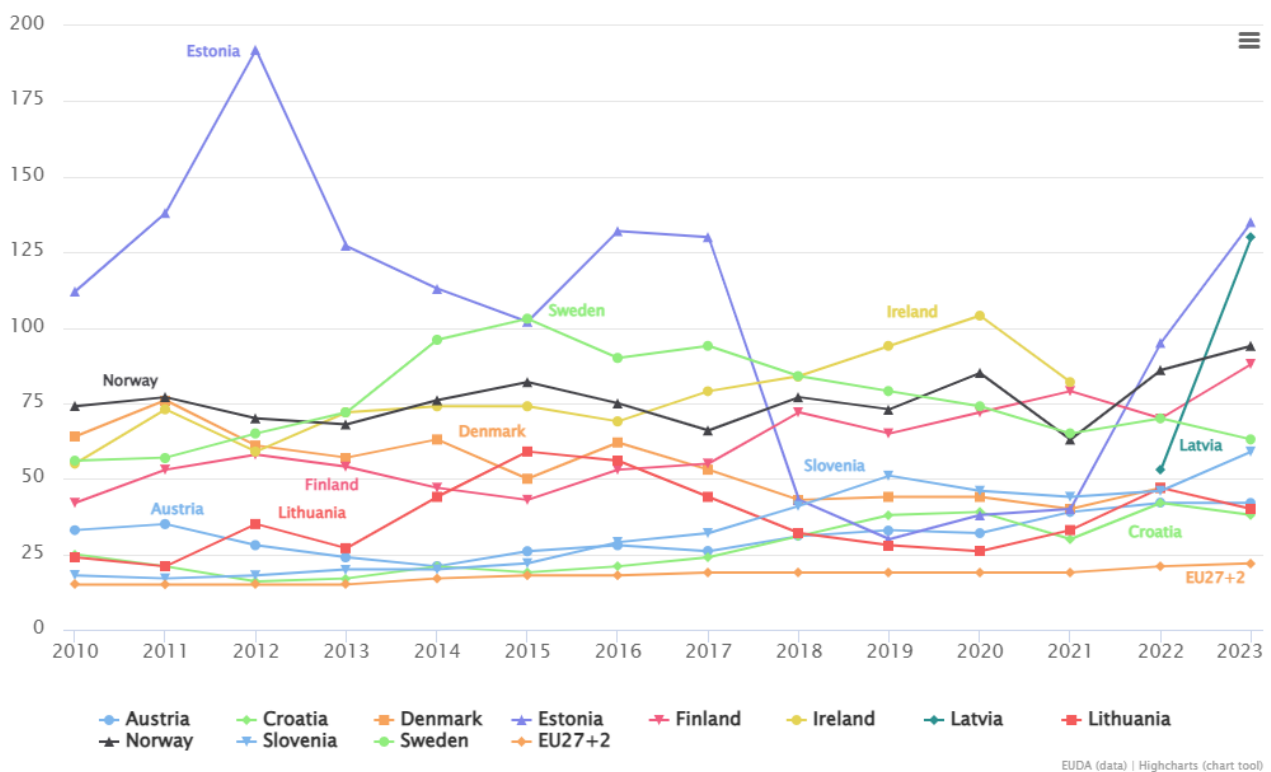
In some countries the data were not fully available for some years or age-bands. For more information see the [drug-induced deaths section of the 2025 Statistical Bulletin](#).

What are the drug-induced deaths rates (deaths/population) in the European Union, Norway and Türkiye?

The drug-induced mortality rate in the European Union in 2023 is estimated to be 24.7 deaths per million of the population aged 15-64 years. The estimated rate varies from 2 to 135 deaths per million; 8 countries have less than half the EU average and 6 have more than twice the EU average (see the trend chart and map below).

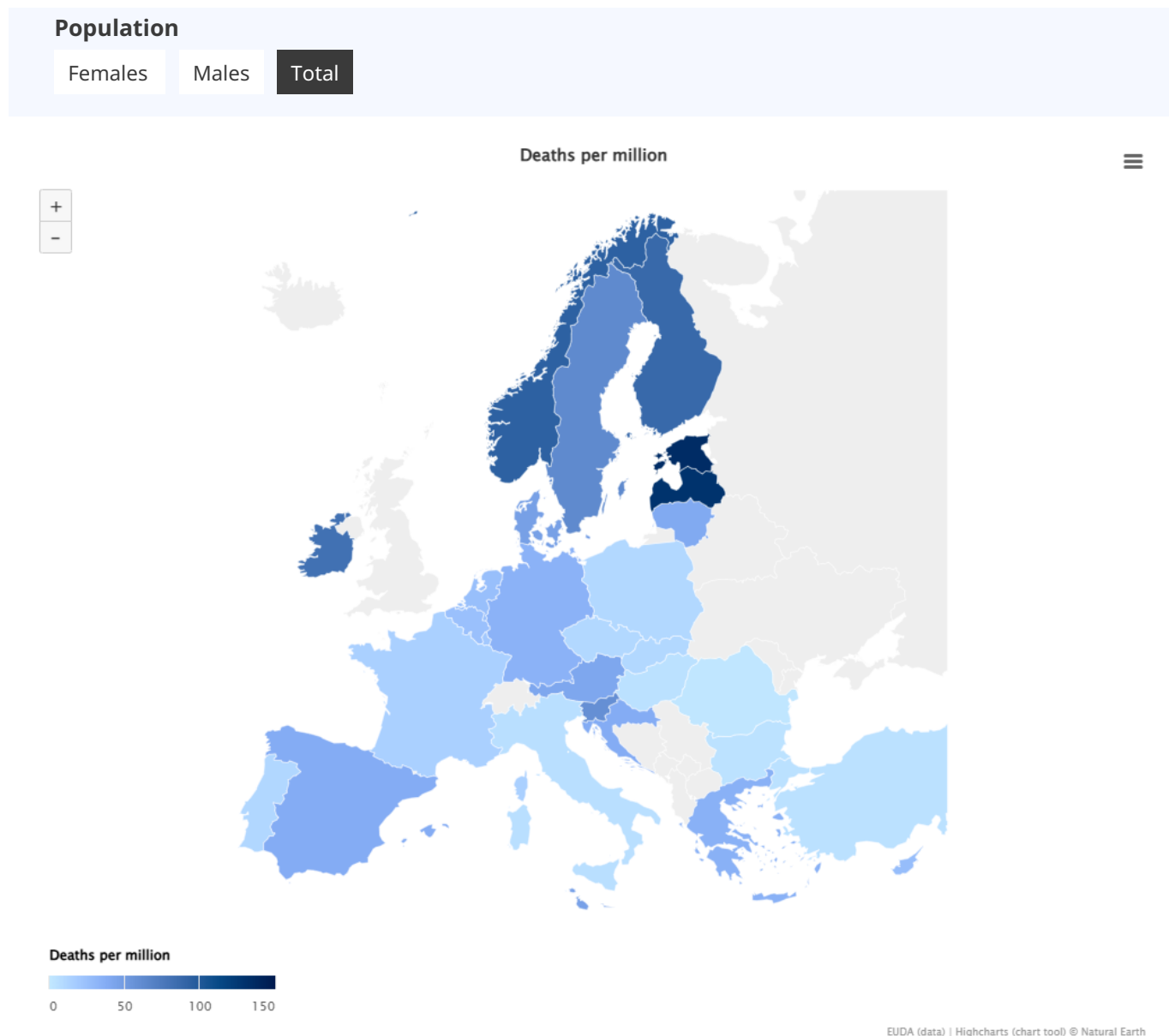
It is important to note that these are crude drug-induced mortality rates and that only age-standardised mortality can be compared across countries. Further, comparisons between countries should be made with caution, because of under-reporting in some countries (see [Methodology – FAQ drug-induced deaths in Europe](#)).

Figure 1.4. Drug-induced mortality rates per million among adults (15-64) in the European Union, Norway and Türkiye: selected trends



This figure presents crude mortality rates. In some countries the data were not fully available for some years or age-bands. For more information, see the [drug-induced deaths section of the 2025 Statistical Bulletin](#).

Figure 1.5. Drug-induced mortality rates per million among adults (15-64), females, males and total, in the European Union, Norway and Türkiye, 2023 (or most recent data available)



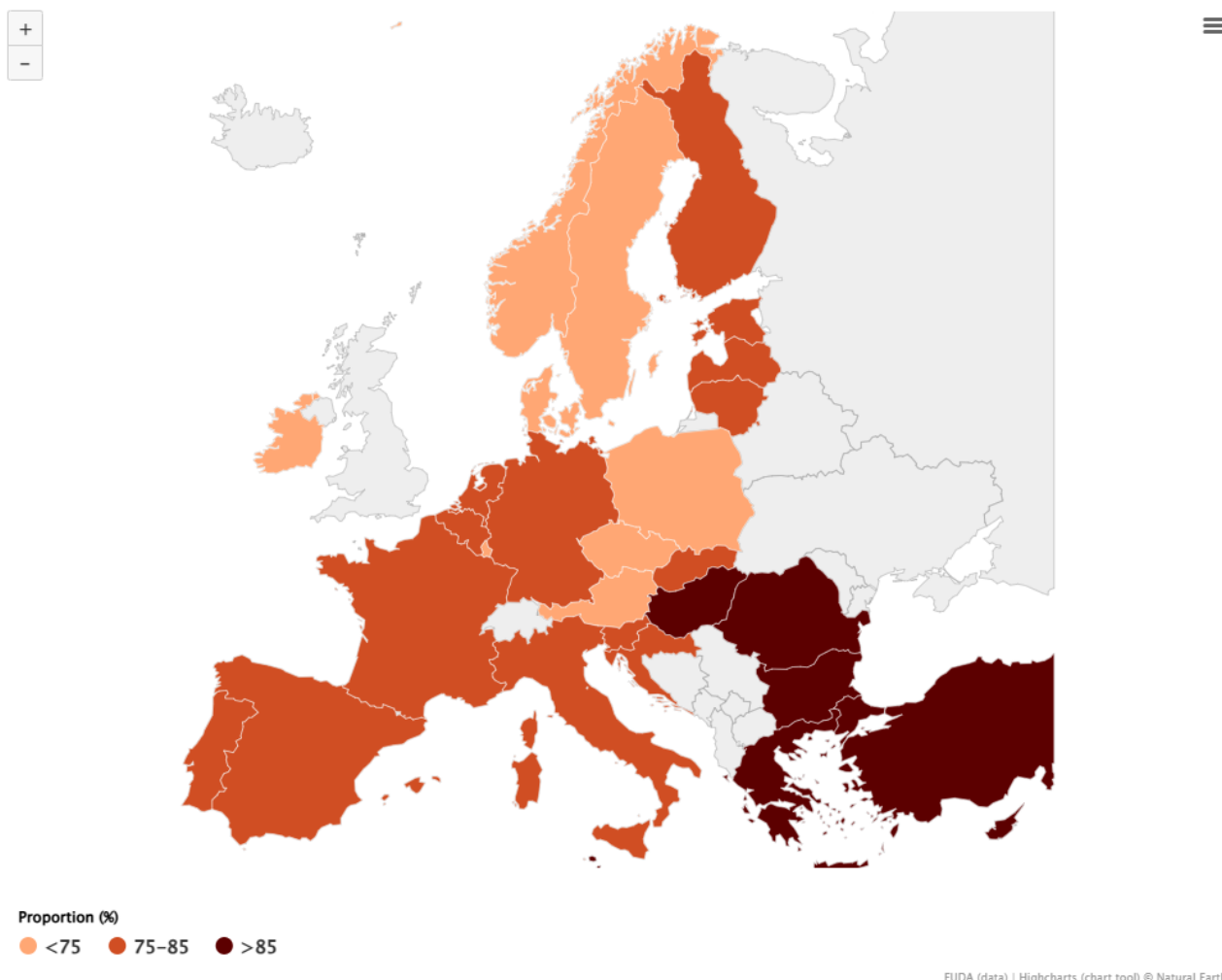
This figure presents crude mortality rates. For Germany, from the year 2021, the data fully comply with the European protocol ([EMCDDA, 2010](#)) defining cases to be extracted from special mortality registers, such as those of police and forensic services. Comparable data for the previous years are not available. For this series and graph, the previous years were filled in with the first available datapoint (2021) in order to avoid mixing different data series with different methods. However, it should be noted that drug-induced deaths, according to the national definition, have increased in Germany since 2011.

Is the sex difference in drug-induced deaths similar between countries?

The majority of drug-induced deaths in Europe (78%) are among males. This proportion varies between countries and is higher in the south and east of Europe, compared with the north and west of Europe (see the figure below). The observed difference in the proportion of males and females might be related to a range of factors, including the number of males and females who are using drugs and the drug use behaviour risk (e.g. polydrug use, alcohol use disorder, drug injection, which might be more frequent among males compared with females who use drugs). Drug-induced mortality rates are higher for males than for females.

Drug-induced mortality rates also differ between age groups and sex. Drug-induced mortality rates allow comparisons to be made between the sexes and between age groups, in order to identify what segments of the population are most at risk and should be targeted for drug-induced deaths prevention.

Figure 1.6. Proportion of males among drug-induced deaths in the European Union, Norway and Türkiye, 2023 (or most recent data available)



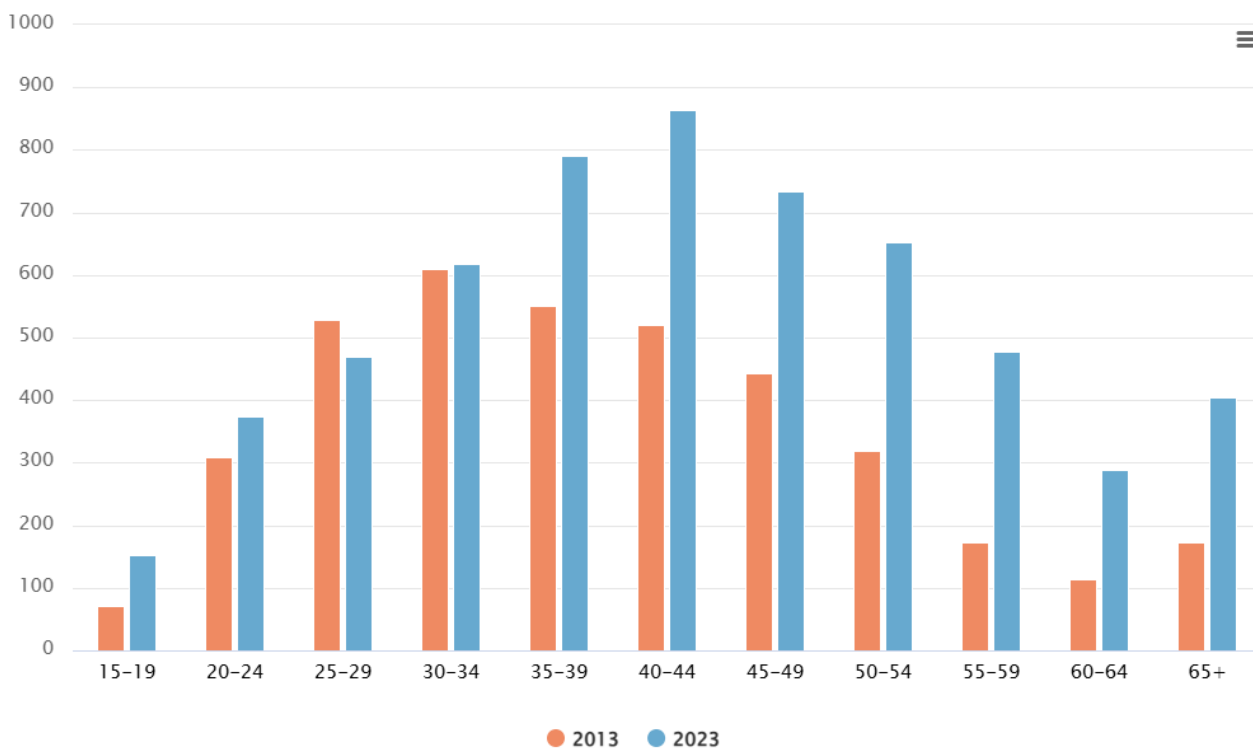
How has the distribution of drug-induced deaths among age groups changed in recent years?

Based on 24 EU countries for which we have data for both 2013 and 2023, the number of drug-induced deaths in the European Union has been increasing since 2013, overall and among teenagers and all age categories above 35 (see the figure below). There was a particularly high increase (134%) among the 50-64 age group (by 76% among females and by 159% among males). This reflects the ageing nature of Europe's opioid-using population in most countries.

In 2023, the overall mean age at drug-induced death was 43 years for females and 42 years for males. A noticeable shift in the age distribution for both females and males has been observed

over the past decade (see the figure below).

Figure 1.7 Distribution of drug-induced deaths by age band in the European Union in 2013 and 2023

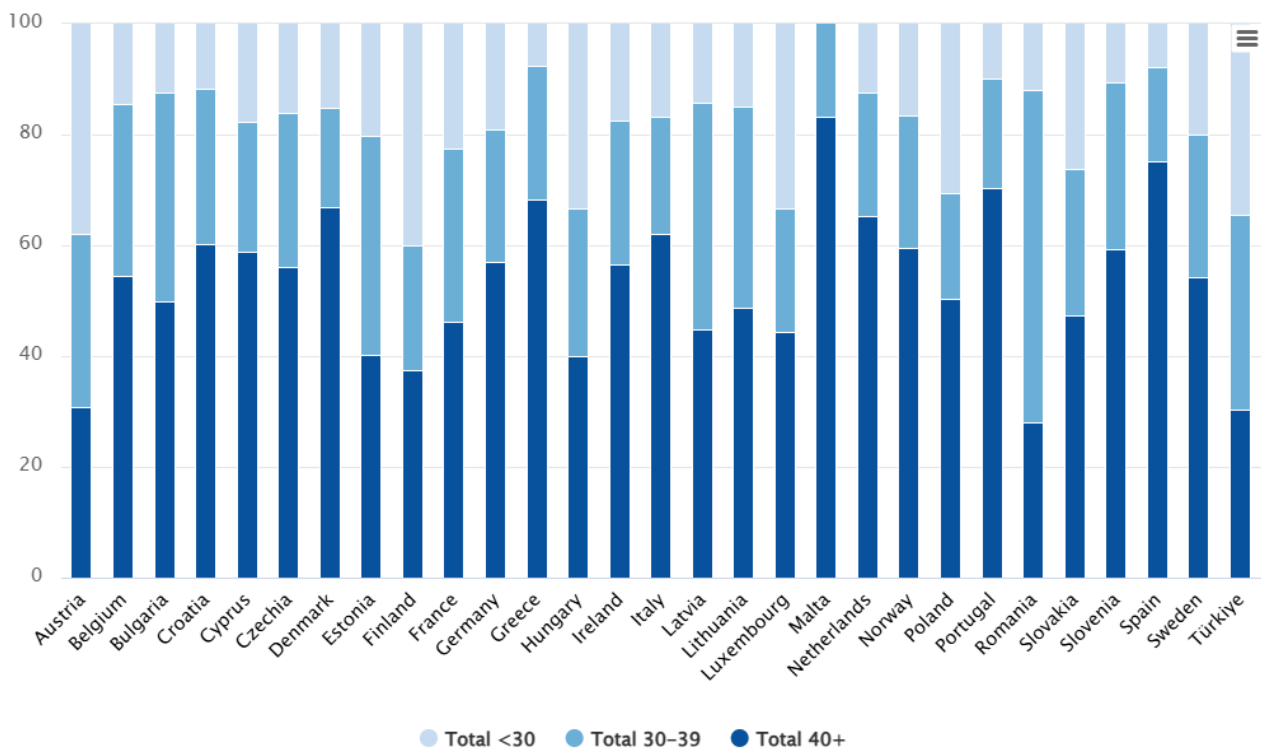


EUDA (data) | Highcharts (chart tool)

Is the age distribution of drug-induced deaths similar between countries?

There are differences between countries in the age distribution of drug-induced deaths (see the bar chart below). Countries in the west of Europe tend to have an older age profile among overdose deaths than countries in the east (see the maps below). This mirrors, in part, the ageing populations of people who use opioids, typically heroin. It can also be related to an increase in the use of prescription opioids, such as oxycodone, and new potent synthetic opioids.

Figure 1.8. Number of drug-induced deaths by age group and sex in the European Union, Norway and Türkiye, 2023 (or most recent data available)



EUDA (data) | Highcharts (chart tool)

Figure 1.9. Proportion of drug-induced deaths among older (40+ years) people in the European Union, Norway and Türkiye, 2023 (or most recent data available)

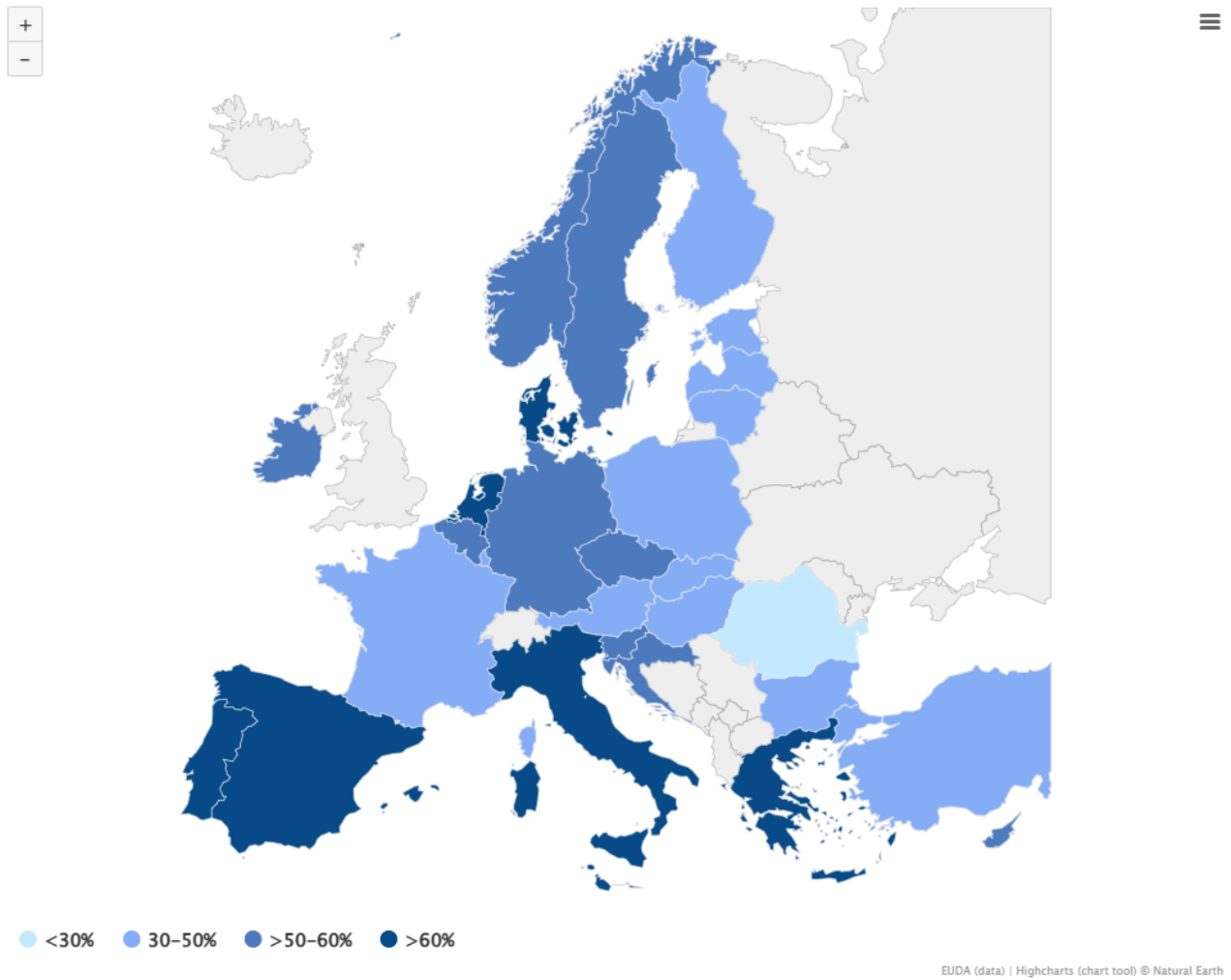
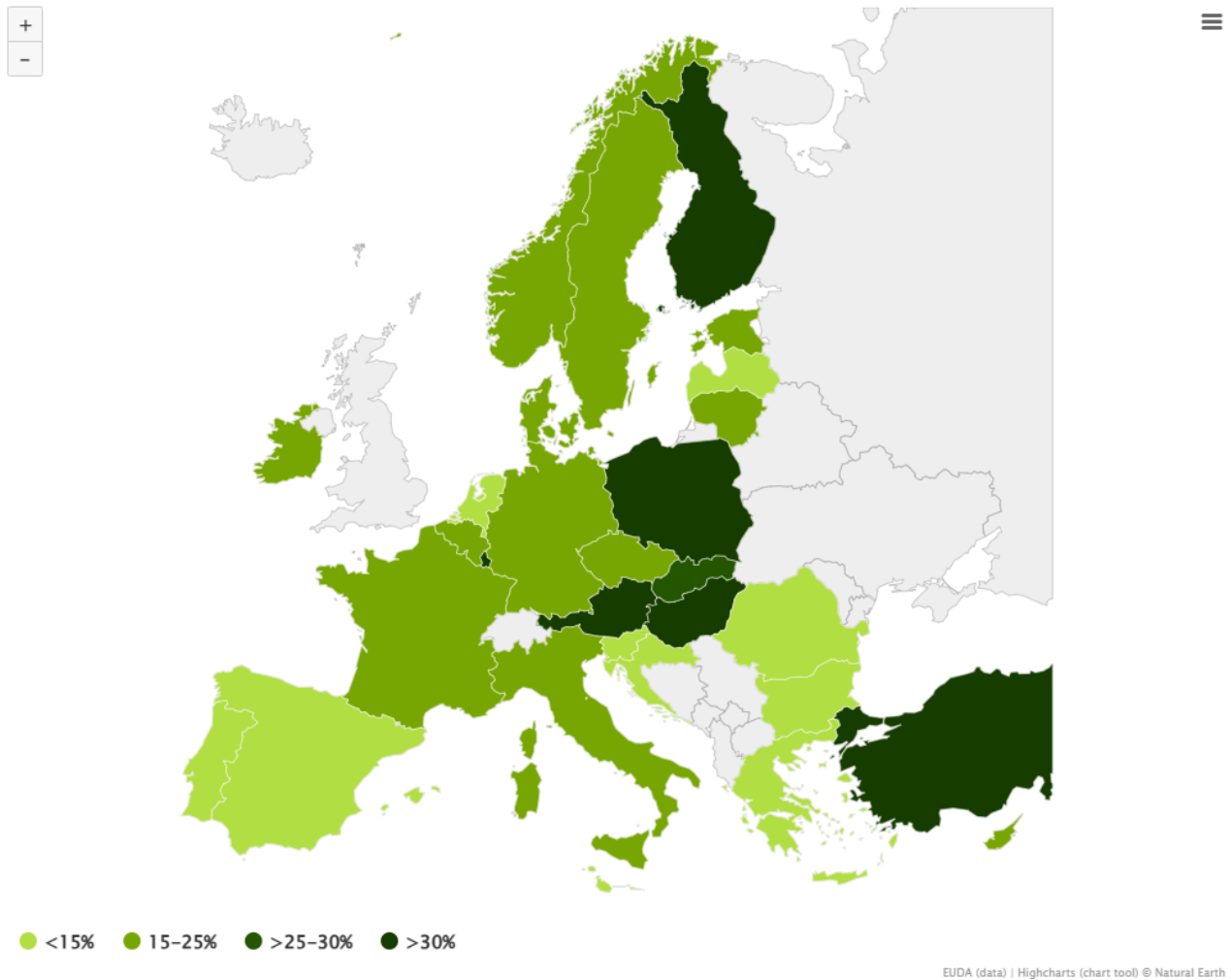


Figure 1.10. Proportion of drug-induced deaths among younger (under 30 years) people in the European Union, Norway and Türkiye, 2023 (or most recent data available)



What substances are involved in drug-induced deaths?

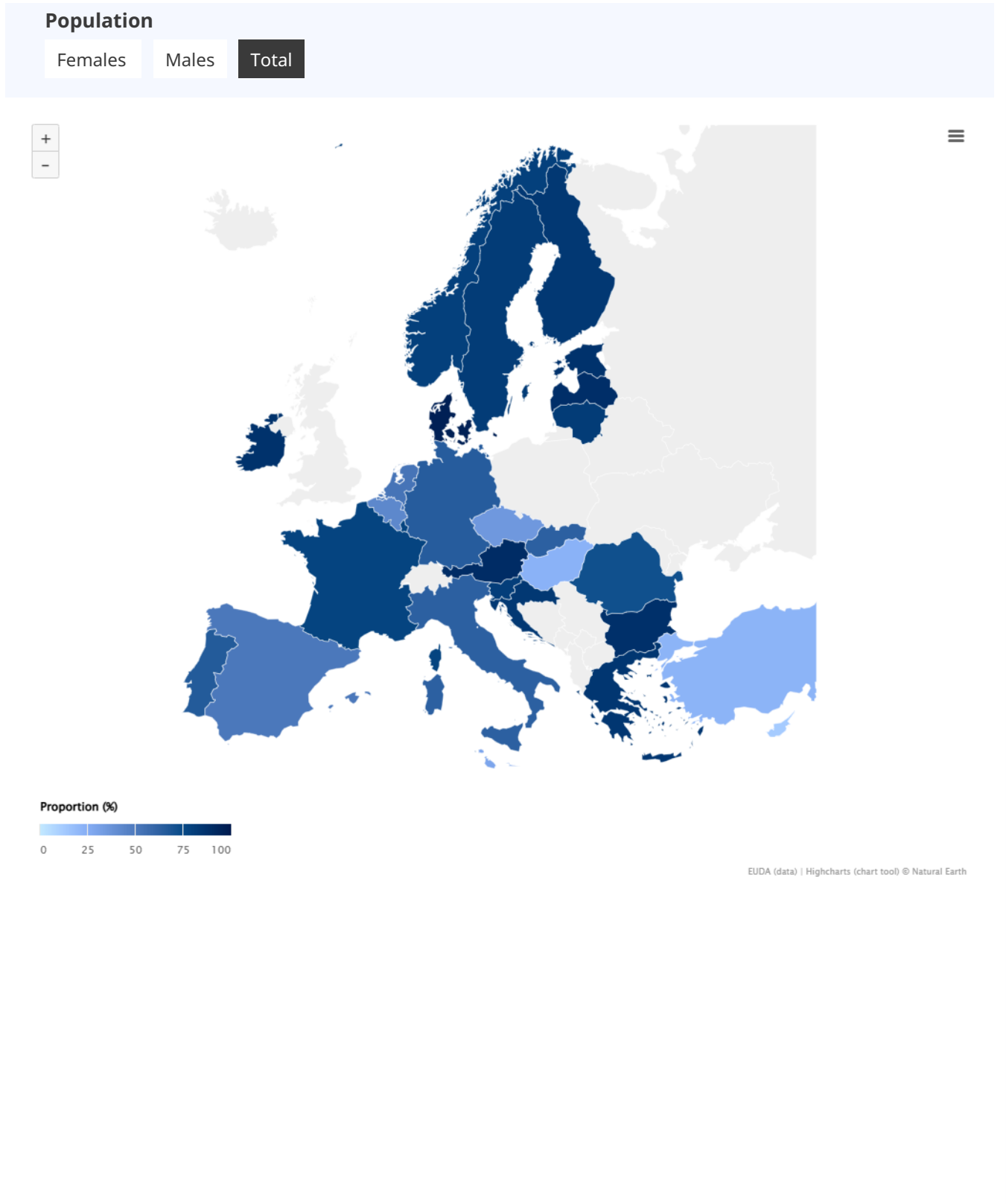
Opioids, including heroin and its metabolites, often in combination with other substances, are present in the majority of drug-induced deaths reported in Europe. In most drug-induced deaths, more than one substance is detected, indicating polydrug use (2). See examples for some countries: [Distribution of the cases with heroin mentioned in Austria, Slovenia and Norway in 2023](#), in European Drug Report 2025.

Overall, opioids are involved in 69% of drug-induced deaths cases reported in the European Union, with large differences across countries (see the map below). Countries where opioids are involved in more than 8 in 10 overdose deaths are located mainly in the north and west of Europe (Denmark, Estonia, Finland, Luxembourg, Norway), but also include Austria, Bulgaria and Slovenia.

In some countries, no or limited post-mortem toxicology data are reported. Furthermore, in several countries, some cases are reported with 'unknown or unspecified' toxicology, in particular when there are several drugs involved or with mixed poisoning, when no information is available on the individual drugs and their implication in the death. Most of these cases involve at least one opioid. The proportion of cases with opioids involved shown here is a minimum estimate.

In Cyprus, Czechia, Hungary, Slovakia and Türkiye, less than half of the cases involved opioids. Although limited information is reported in some countries, most cases appear to involve polydrug drug use.

Figure 1.11. Proportion of drug-induced deaths with opioids involved in the European Union, Norway and Türkiye, 2023 (or most recent data available)



Stimulants such as cocaine, MDMA, amphetamines and synthetic cathinones are implicated in overdose deaths in Europe, although their significance varies by country. More information is available for some countries in the respective chapters of the latest [European Drug Report \(EUDA, 2025a\)](#).

A review of MDMA-related deaths showed that against a background of 'increased purity and availability of MDMA', deaths related to the drug increased in Australia, Finland, Portugal and Türkiye between 2011 and 2017 ([Roxburgh et al., 2021](#)).

Deaths associated with new psychoactive substances are a cause of concern. A review published in 2021, and based on the reports to the EUDA of drug-induced deaths from the EU countries as well as Norway, Türkiye and the United Kingdom, found that in 2017, 1 in 6 drug-induced deaths in these countries involved new psychoactive substances, and the proportion and numbers increased from 2016 levels ([López-Pelayo et al., 2021](#)). However, three quarters of the cases were concentrated in only two countries and involved a small number of substances. In 2016 and 2017, 73 % and 77 % of the cases were concentrated in the United Kingdom and Türkiye, related mainly to etizolam – a 'new benzodiazepine' – generally used together with opioids and synthetic cannabinoids, respectively. In Türkiye, there has been a decrease in the number of drug-induced deaths from the peak reached in 2017.

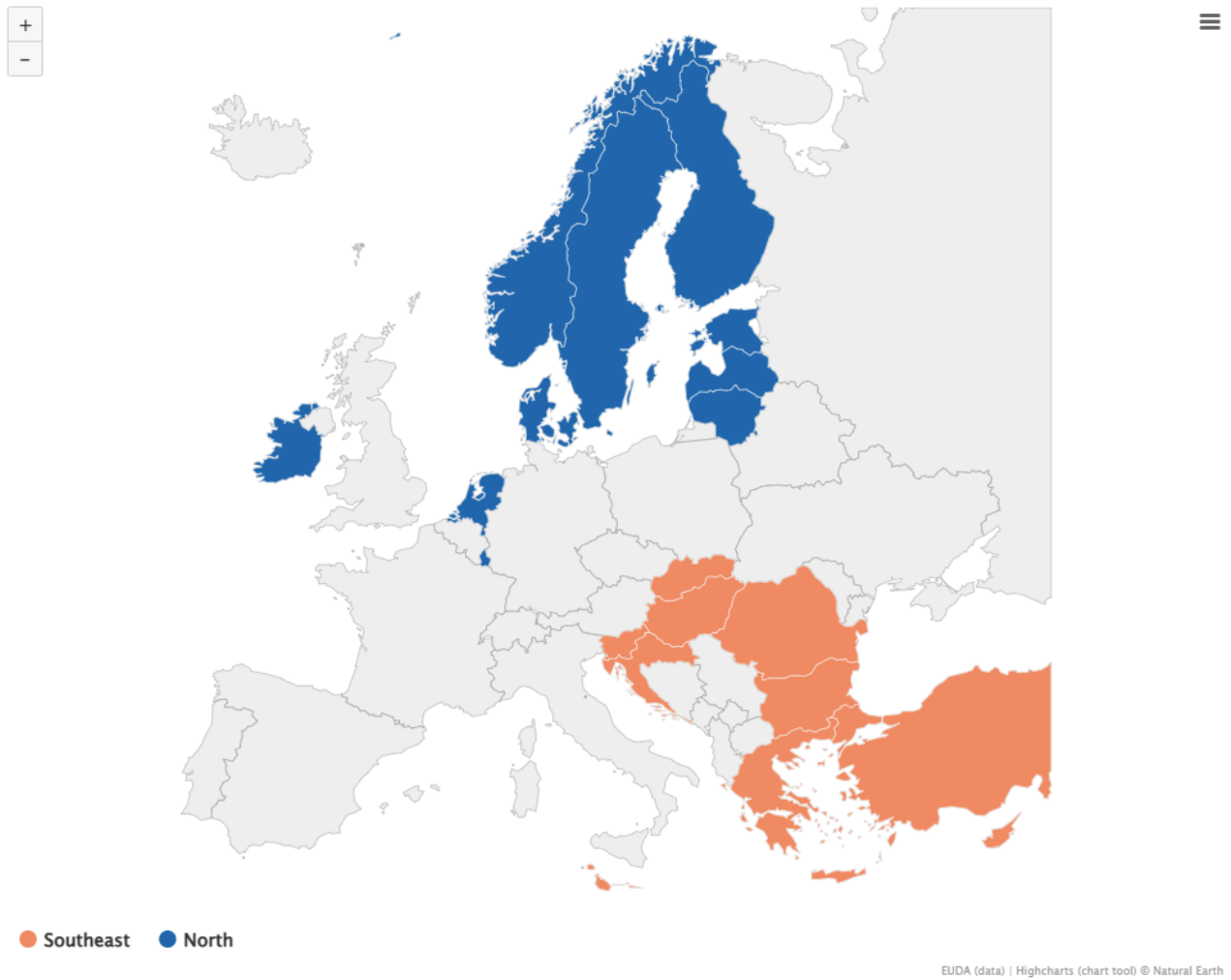
⁽²⁾ 'Polysubstance use' is a term to describe the use of more than one drug or type of drug by an individual, either at the same time or sequentially. It encompasses use of both illicit drugs and legal substances, such as alcohol and medicines ([EMCDDA, 2021](#)).

Where have numbers of drug-induced deaths increased over the last 10 years?

Data on fatal overdoses, especially the European cumulative total, must be interpreted with caution. Among the reasons for this are systematic under-reporting in some countries, differences in the ways toxicological examinations are conducted and registration processes that can result in reporting delays. In the event of a delay, the most recent data are carried over. Annual estimates therefore represent a provisional value.

Country numbers and trends vary across Europe, but they should also be interpreted with caution. The section below presents selected countries. Countries from the southeast and from the north of Europe are presented separately (as indicated in the map below).

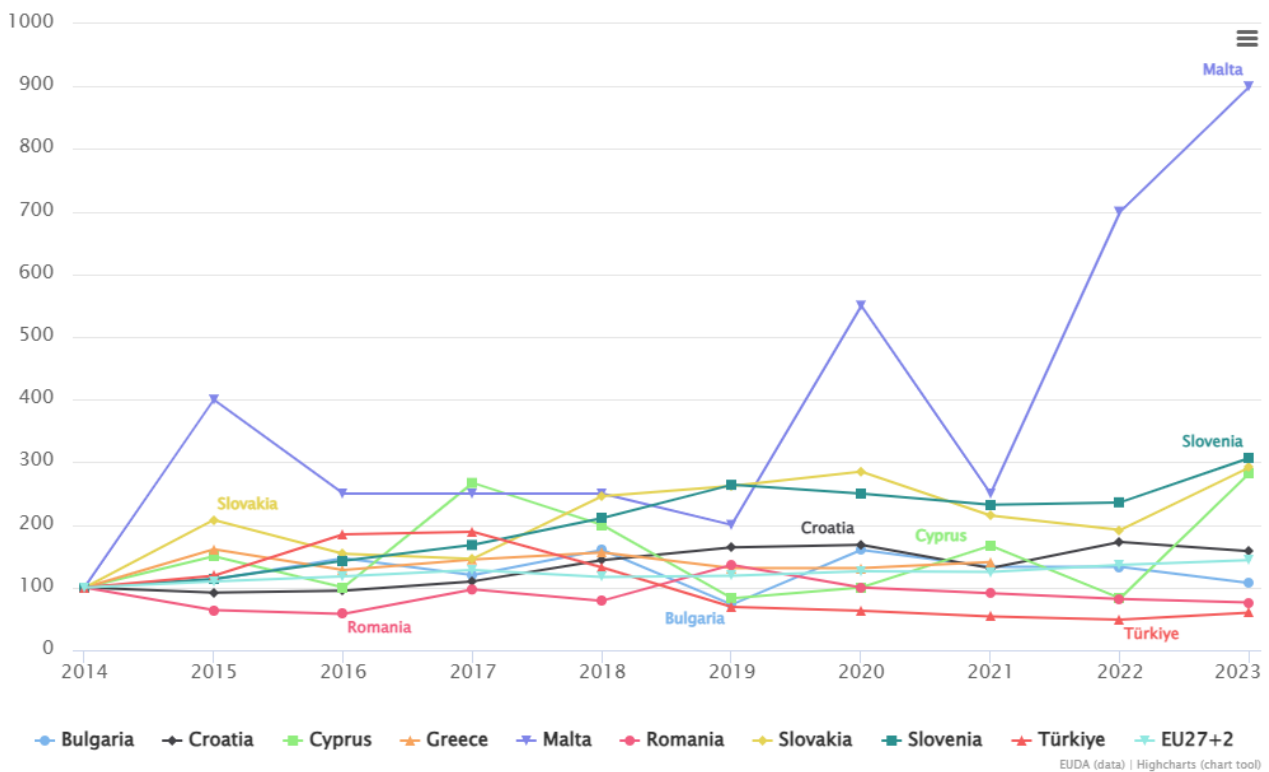
Figure 1.12. Countries included in the south-east and north of Europe for this trend analysis



The south-east of Europe

Compared with 2014, the number of drug-induced deaths has increased in 8 out of 9 countries in the south-east of Europe (see the figure below). In Türkiye, the peak of drug-induced deaths observed in 2016-2017 was mainly related to deaths involving synthetic cannabinoids. These drugs were often found together with stimulants (amphetamines, cocaine, MDMA) and other drugs, including heroin. Most drug-induced deaths during this outbreak occurred among young males in their twenties and early thirties.

Figure 1.13. Indexed trends in the number of deaths in selected countries in the south-east of Europe, 2014-2023 (or most recent data available)



2014 = 100

Some countries in the south-east of Europe report small numbers of cases and the interpretation of the index trends should be cautious (in 2023, fewer than 20 cases were reported in Bulgaria, Cyprus and Malta). When a national data point was missing for the computation of the European index trend, it was replaced by the value of the preceding year.

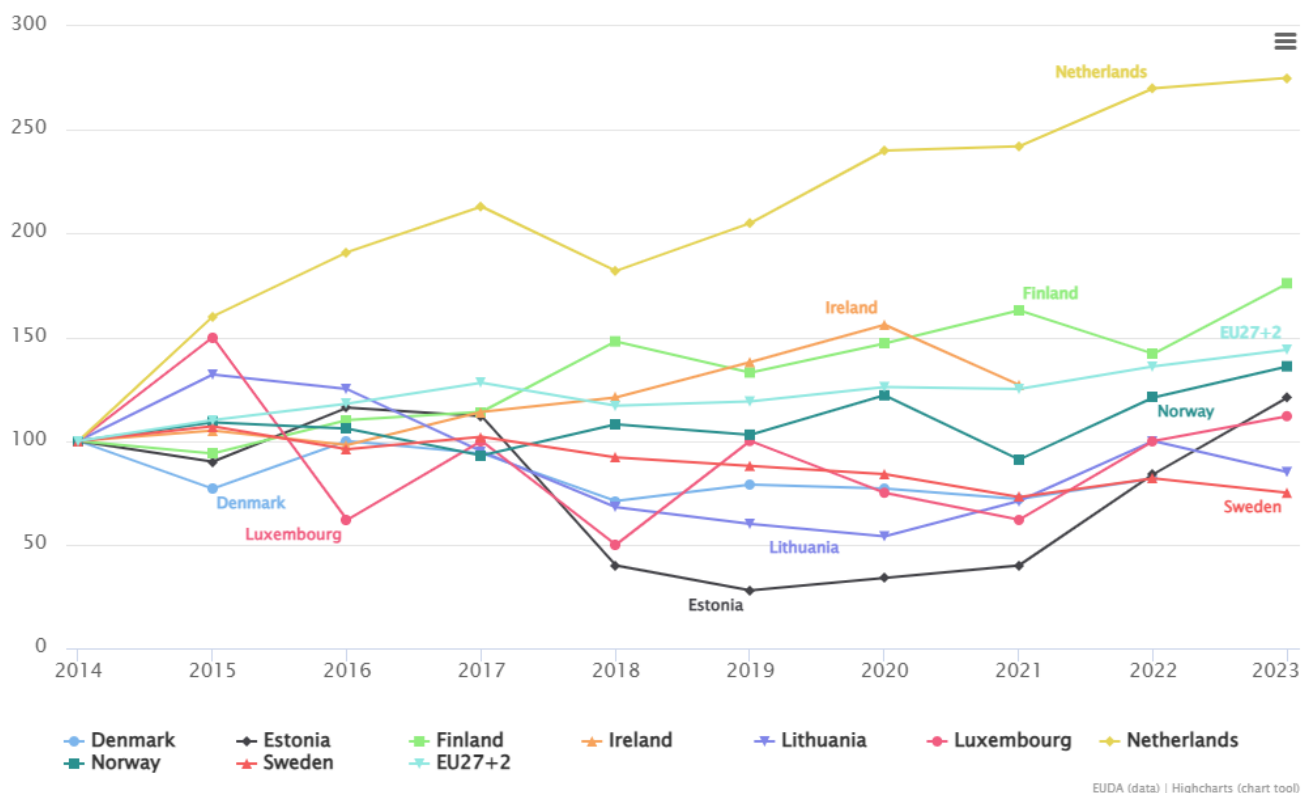
The north of Europe

The largest increases in 2023 – or the last year with available data – compared to 2014 are reported in the Netherlands, Finland, Norway and Estonia (see the figure below). In these countries, overdose deaths are mostly related to opioids and polydrug use. In Sweden, part of the peak in the number of deaths reported in 2015-2017 was due to an increase in the number of deaths associated with fentanyl. In Lithuania, most of the increase observed in the same period was due to deaths associated with opioids.

In Estonia, an outbreak of drug-induced deaths, which peaked in 2011-2012, was associated with fentanyl and fentanyl derivatives. After years of police intervention, along with the implementation of treatment and new harm reduction measures (namely take-home naloxone programmes), the country observed a marked reduction in overdose deaths in the period up to 2019, to levels well below those reported 10 years previously. Meanwhile nitazenes have been driving a large increase in the number of deaths in 2022 with a peak in the numbers of deaths reported in 2023 (see What are the emerging concerns and threats?). The Netherlands reported the largest increase in 2023 compared to 2014. Most of the deaths were related to opioids, although limited information was

available on the drugs identified.

Figure 1.14. Indexed trends in the number of deaths in selected countries in the north of Europe, 2014-2023 (or most recent data available)



2014 = 100

When a national data point was missing for the computation of the European index trend, it was replaced by the value of the preceding year.

Resources and references

Consult the methodological information and list of references on the [Frequently asked questions \(FAQ\): drug-induced deaths in Europe](#) main page.

The data used to generate data visualisations on this page may be found below, as well as in our [Data catalogue](#). This data set is covered by a *Creative Commons Attribution 4.0 International (CC BY 4.0)* licence.

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- [Table DRD-FAQ-1-1. Year of most recent drug-induced data, in the European Union, Norway and Türkiye, 2023](#)
- [Table DRD-FAQ-1-2. Drug-induced deaths among adults \(15-64\) in the European Union, Norway and Türkiye, 2023 or most recent year](#)
- [Table DRD-FAQ-1-3. Drug-induced mortality rates stratified by age and sex \(deaths per million population\), in the European Union, Norway and Türkiye, 2010-2023 or more recent data available](#)
- [Table DRD-FAQ-1-4. Drug-induced mortality rates per million among adults \(15-64\) in the European Union, Norway and Türkiye: selected trends.](#)
- [Table DRD-FAQ-1-5. Drug-induced mortality rates per million among adults \(15-64\), females, males and total and total, in the European Union, Norway and Türkiye, 2023 \(or most recent data available\)](#)
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