

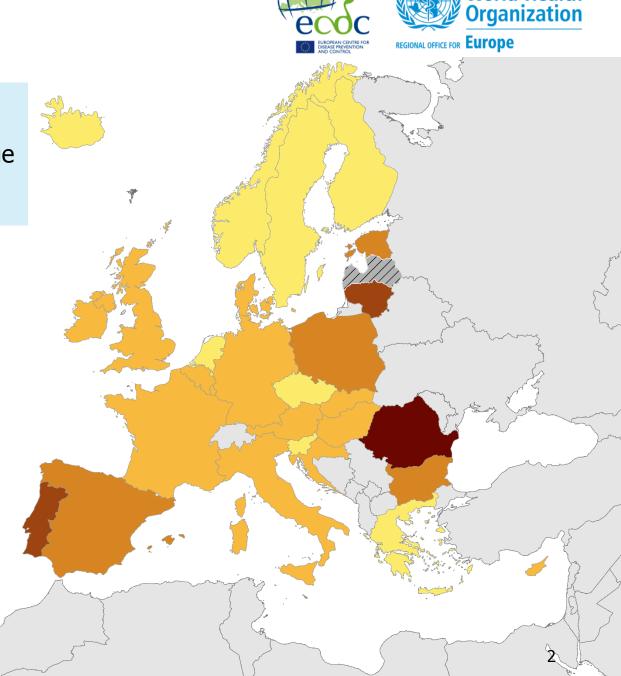


# Tuberculosis situation in the EU/EEA, 2018

Findings from the joint report Tuberculosis surveillance and monitoring in Europe by ECDC and WHO Regional Office for Europe

Stockholm, 24 March 2020

### TB notifications, EU/EEA, 2018 **52 862** TB cases notified in 30 EU/EEA countries Notification rate **10.2** per 100 000 population (range 2.3-62.5) Cases per 100 000 population < 5.0 5.0 to 9.9 10.0 to 19.9 20.0 to 49.9 ≥ 50.0 //// No data reported Countries not visible in the main map Liechtenstein Malta



**World Health** 

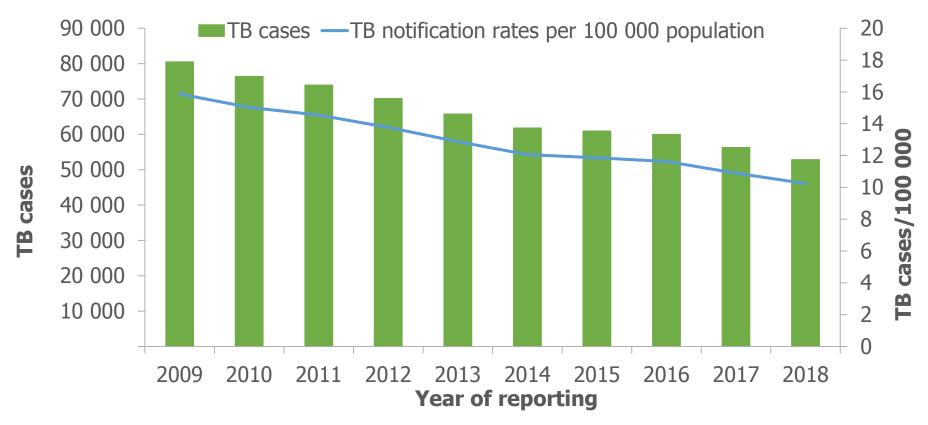
#### Notified TB cases, EU/EEA, 2009–2018\*





#### Continuous decline between 2009 and 2018:

- number of TB cases decreased by 34%
- notification rate decreased by 35%



<sup>\*</sup> Latvia did not report data for 2018

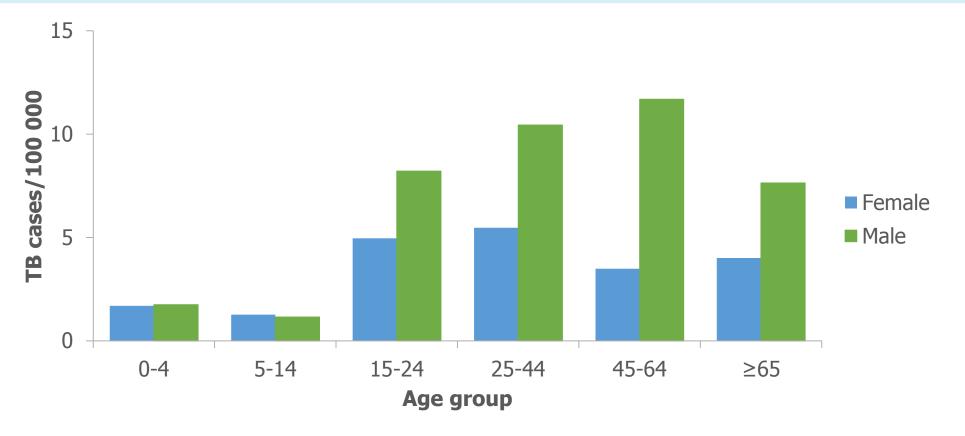
### TB notification rate by sex and age group, EU/EEA, 2018\*





The highest notification rate was observed in the age group **25–44 years** (8 per 100 000)

Males were over-represented in all age groups over 14 years



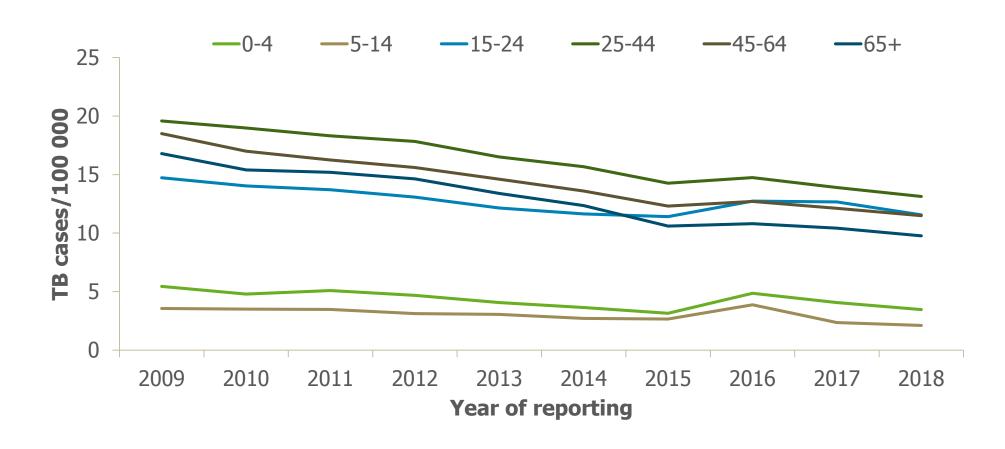
<sup>\*</sup> Latvia did not report data for 2018

### TB notification rate by age group, EU/EEA, 2009–2018\*





#### Annual average decrease by **2–6%** in all age groups



<sup>\*</sup> Croatia started reporting data as of 2010 and is not included for the years prior to 2010. Latvia did not report data for 2018

#### TB in children under 15 years, EU/EEA, 2018





**2 060** TB cases notified in children under 15 years

**3.9%** of all TB cases (range 0–14.2%)

**2.6** per 100 000 child population (range 0–17.8)

#### Cases per 100 000 children

<:

1 to 1.9

2 to 3.9

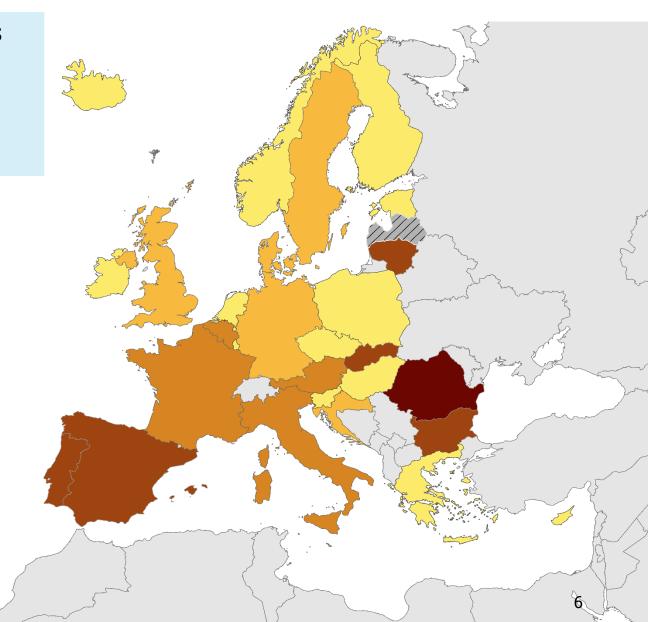
4 to 9.9

≥10

//// No data reported

Countries not visible in the main map

Liechtenstein



#### Confirmed TB cases\*, EU/EEA, 2018





**36 047** TB cases were confirmed

**68.2%** of all TB cases (range 25–100%)

#### **Proportion of confirmed cases**

25 to 59

60 to 69

70 to 79

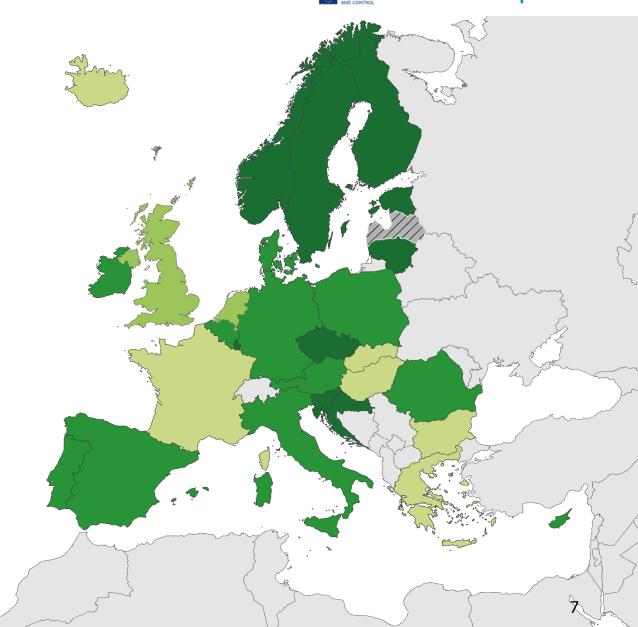
80 to 100

//// No data reported

Countries not visible in the main map

Liechtenstein

Malta



Source: ECDC/WHO (2020). Tuberculosis surveillance and monitoring in Europe 2020–2018 data

<sup>\*</sup> Confirmation by culture, or by microscopy and *Mycobacterium tuberculosis* nucleic acid amplification test

#### Extrapulmonary TB, EU/EEA, 2018





**11 857** notified cases had extrapulmonary TB

**22.4%** of all TB cases (range 0–42.2%)

#### **Proportion of extrapulmonary TB cases**

0 to 9.9%

10 to 19.9%

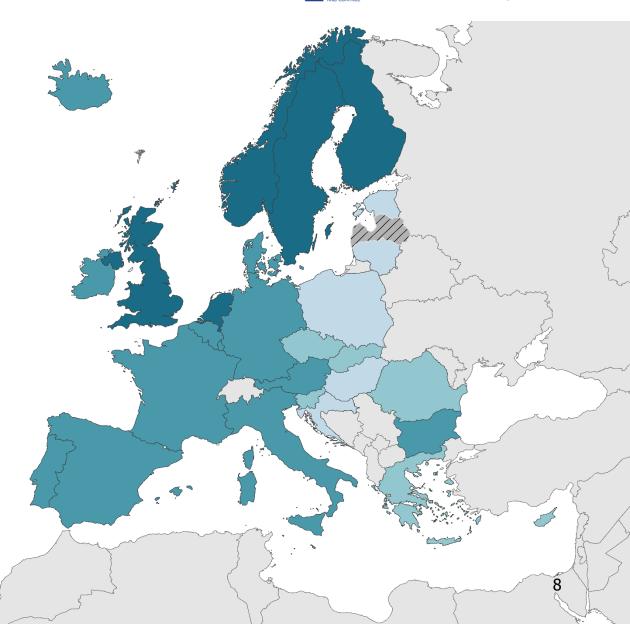
20 to 29.9%

≥30%

//// No data reported

Countries not visible in the main map

Liechtenstein



#### TB in persons of foreign origin, EU/EEA, 2018





**18 246** TB cases of foreign\* origin

**34.5%** of all TB cases (range 0.3–100%)

#### **Proportion of TB cases of foreign origin**

<1%

1 to 9.9%

10 to 49.9%

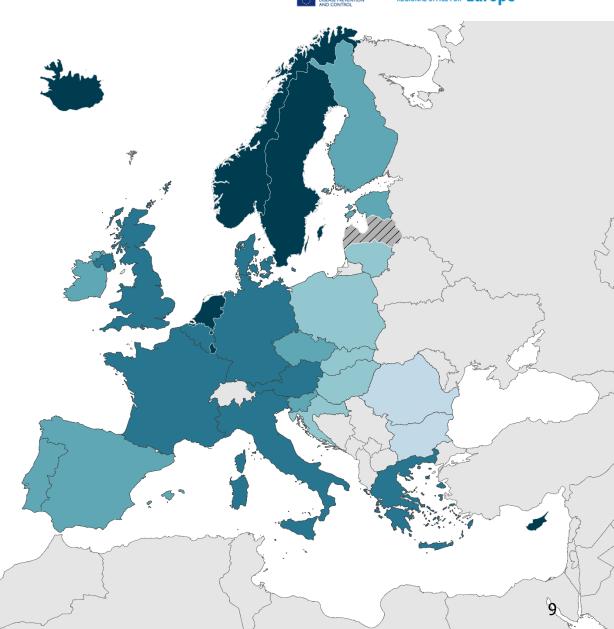
50 to 74.9%

≥75%

//// No data reported

Countries not visible in the main map

Liechtenstein



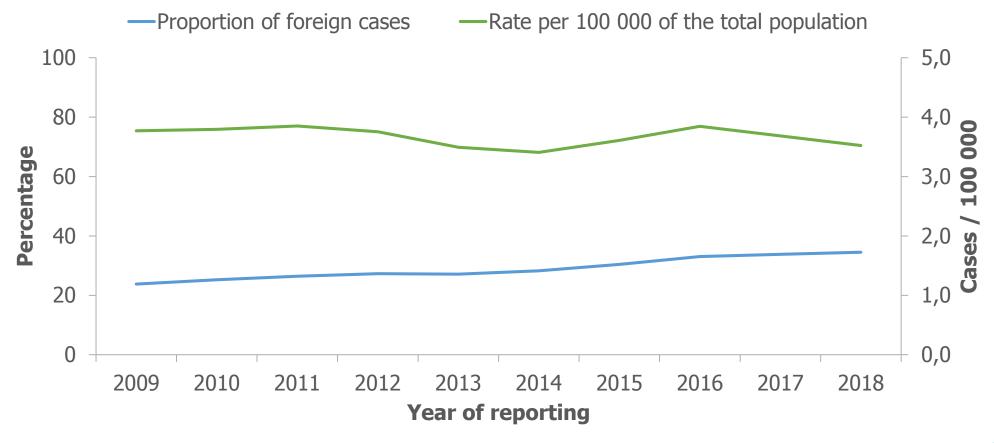
<sup>\*</sup> Notified in persons originating from other countries than the reporting country

### TB cases in persons of foreign origin, EU/EEA, 2009–2018\*





The proportion of cases in persons of foreign origin increased from **23.8%** in 2009 to **34.5%** in 2018 The rate of TB cases of foreign origin per 100 000 of the total population varied between **3.4** and **3.9** 



<sup>\*</sup> Croatia started reporting data as of 2010 and is not included for the years prior to 2010. Latvia did not report data in 2018

#### Multidrug-resistant TB (MDR TB), EU/EEA, 2018





**1 052** MDR TB cases notified by 30 EU/EEA countries

**3.6%** of all TB cases with available DST\* results had MDR TB (range 0–100%)

#### Proportion of MDR TB cases among TB cases with available DST results

Zero cases

<1%

1 to 1.9%

2 to 4.9%

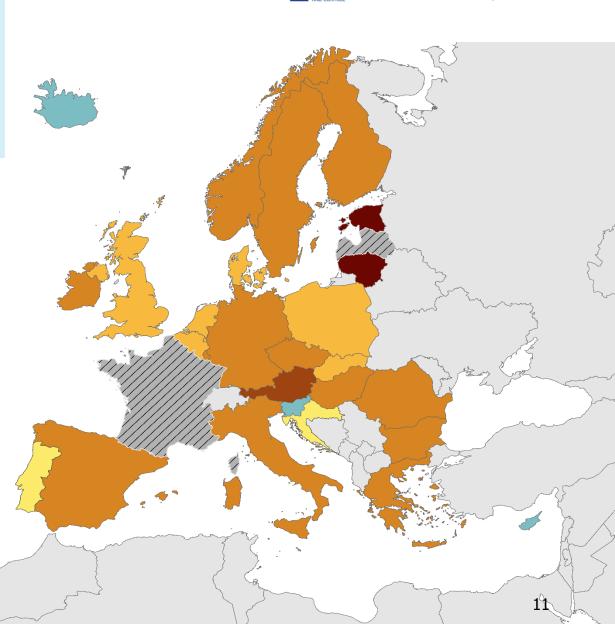
5 to 9.9%

≥10%

//// No data reported

Countries not visible in the main map

Liechtenstein



<sup>\*</sup> DST – drug susceptibility test

<sup>\*</sup> France only reported data for rifampicin resistant TB cases; MDR TB data from France are not included in the map

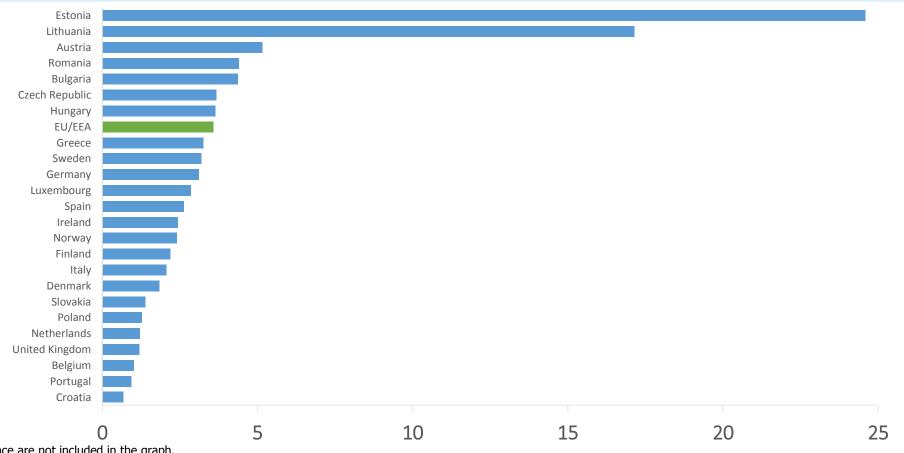
### Proportion of multidrug-resistant TB (MDR TB), EU/EEA, 2018\*





1 052 MDR TB cases notified by 30 EU/EEA countries

**3.6%** of all bacteriologically-confirmed TB cases with available DST results had MDR TB (range 0–24.6%)



<sup>\*</sup> MDR TB data from France are not included in the graph.

Cyprus, Iceland, Liechtenstein, Malta and Slovenia reported zero MDR TB cases for 2018. Latvia did not report data for 2018.

**Percentage of MDR TB cases** 

<sup>\*</sup> DST - drug susceptibility test

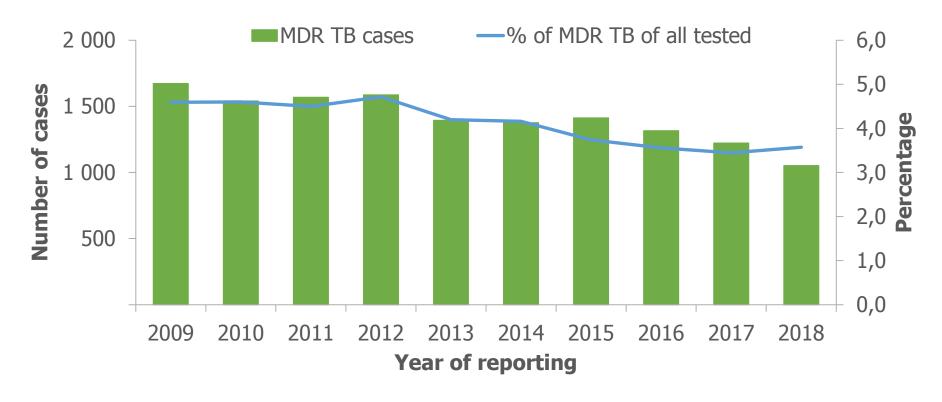
### MDR TB cases and proportions of all TB cases tested for drug resistance, EU/EEA, 2009–2018\*





The total number of notified MDR TB cases decreased from 1 673 in 2009 to 1 052 in 2018

Proportion of MDR TB cases among all TB cases tested for drug resistance decreased from **4.6%** in 2009 to **3.6%** in 2018



<sup>\*</sup> Three countries are not included due to reporting discrepancies for the years indicated in brackets: Croatia (2010), France (2012, 2015, 2017), Latvia (2018)

## Extensively drug-resistant TB (XDR TB), EU/EEA, 2018





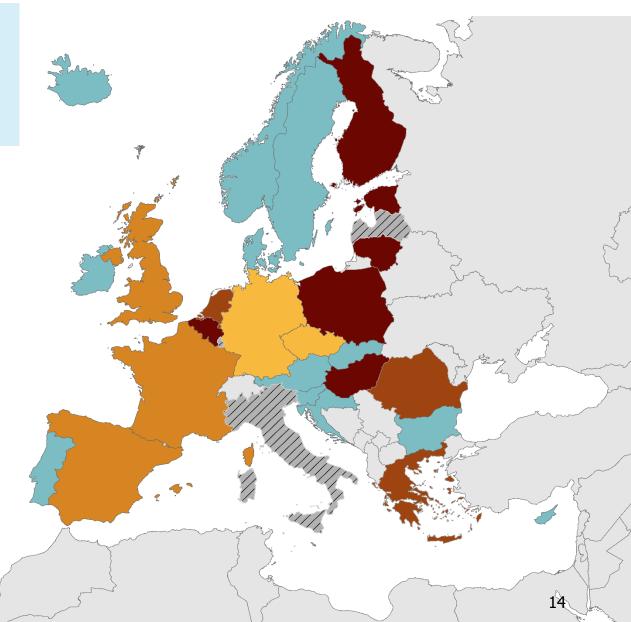
**19.6%** of MDR TB cases with second-line DST\* results were extensively drug-resistant (range 0–42.9% and 8.9–34.1% for countries reporting more than five XDR TB cases)

#### Proportion of XDR TB cases among MDR TB cases with second-line DST results

- Zero cases
- <1%
- 1 to 9.9%
- 10 to 14.9%
- 15 to 24.9%
- ≥25%
- //// No data reported

Countries not visible in the main map

- Liechtenstein
- Malta



<sup>\*</sup> DST – drug susceptibility test

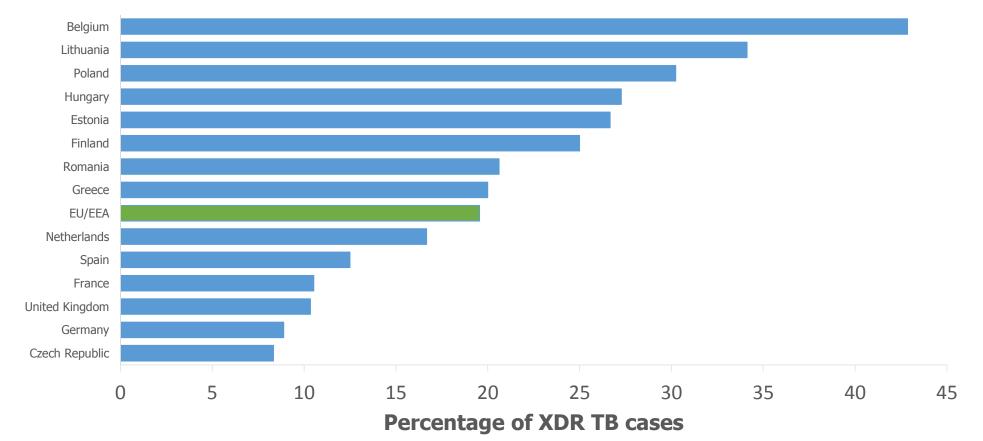
## Proportion of extensively drug-resistant TB (XDR TB), EU/EEA, 2018





**158** XDR TB cases notified in 14 EU/EEA countries\*

**19.6%** of all MDR TB cases with second-line drug susceptibility test results (range 0–42.9%)



<sup>\*</sup> The graph shows countries that reported XDR TB cases. Cyprus, Iceland, Liechtenstein, Luxembourg, Malta and Slovenia reported no MDR or XDR cases in 2018. MDR or XDR data was not available for Italy and Latvia.

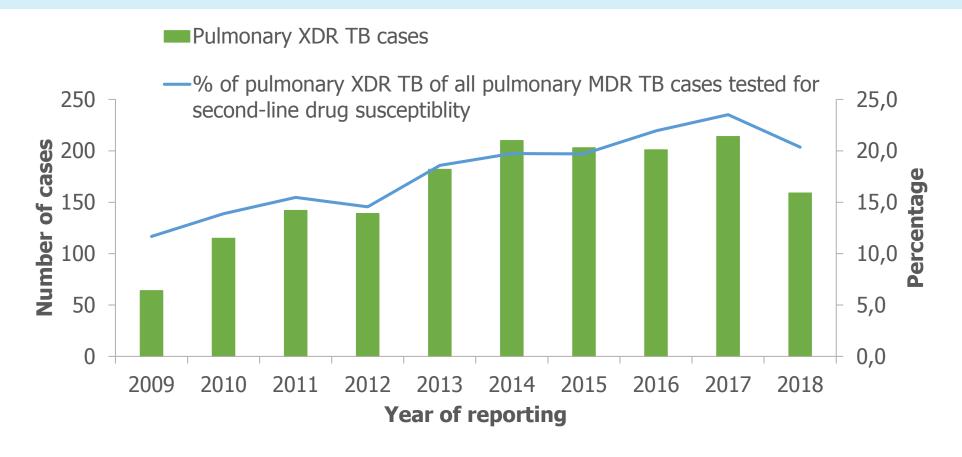
## Pulmonary XDR TB cases and proportions of all pulmonary MDR TB cases tested for second-line drug resistance, EU/EEA, 2009–2018\*





The total number of pulmonary XDR TB cases increased from **64** in 2009 to **159** in 2018

The proportion of XDR TB cases among pulmonary MDR TB cases was **11.7%** in 2009 and **20.4%** in 2018



<sup>\*</sup> Countries and the years for which they are not included due to reporting discrepancies or no data: Croatia (2009-2012), France (2009-2012, 2017), Latvia (2018), Luxembourg, Italy (2009-2012), Spain (2009-2012)

#### TB/HIV co-infection, EU/EEA, 2018





**991** HIV-positive TB cases were notified by 21 EU/EEA countries in 2018

**4.2%** of TB cases with known HIV status were HIV-positive (range 0–13%)

### Proportion of co-infected TB cases among TB cases with known HIV status

<1%

1 to 9.9%

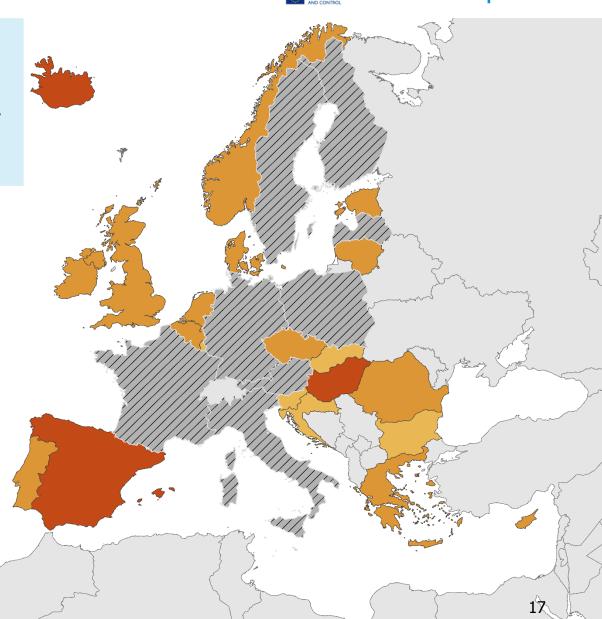
10 to 14.9%

≥15%

//// No data reported

Countries not visible in the main map

Liechtenstein



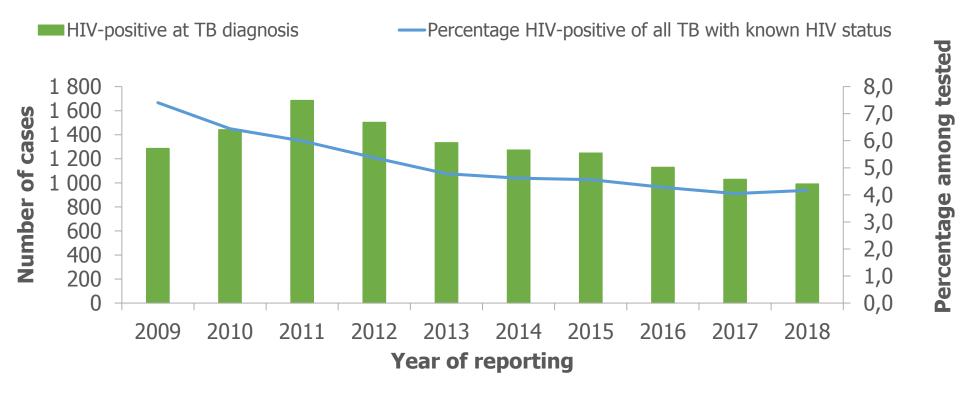
### HIV-positive TB cases and proportions among all those tested, EU/EEA, 2009–2018\*





The total number of HIV-positive TB cases decreased from **1 287** in 2009 to **991** in 2018

The proportion of HIV-positive TB cases among those tested decreased from **7.4%** in 2009 to **4.2%** in 2018



<sup>\*</sup> Countries and the years for which they are not included due to reporting discrepancies or no data: Austria (2009-2018), Croatia (2009-2015), Cyprus (2009-2010, 2013), Finland (2009, 2012-2018), France (2009-2012, 2018), Germany (2009-2018), Greece (2009-2012), Hungary (2009, 2012-2013), Italy (2009-2018), Latvia (2018), Liechtenstein (2009-2018), Lithuania (2009), Luxembourg (2009, 2015), Malta (2018), Norway (2009-2011), Poland (2009, 2012-2018), Sweden (2009-2018)

## Treatment success as of 2018 in all TB cases notified in 2017, EU/EEA





**67.7%** of all TB cases\* had a successful treatment outcome after 12 months (range 0–100%)

#### **Proportion of treatment success**

<60%

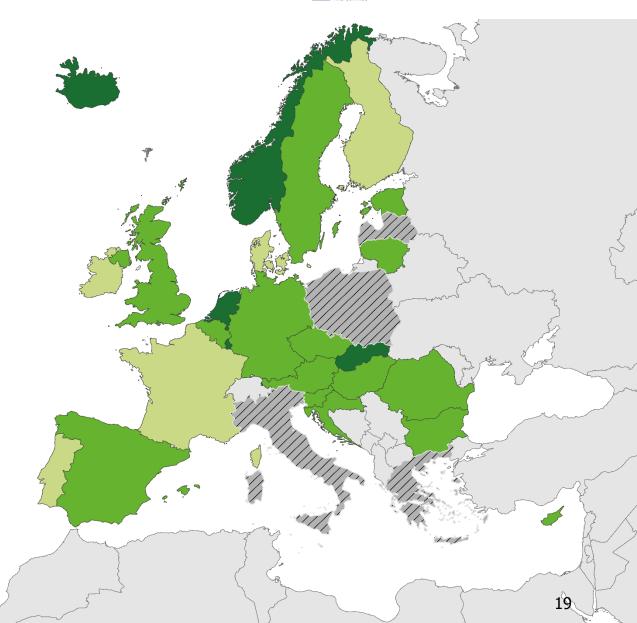
60 to 84.9%

≥85%

//// No data reported

Countries not visible in the main map

Liechtenstein

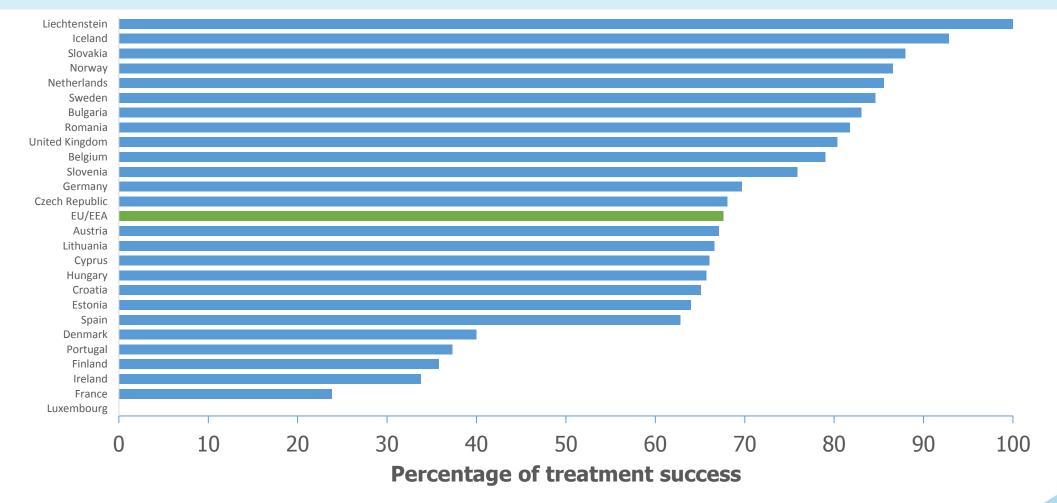


## Treatment success as of 2018 in all TB cases notified in 2017, EU/EEA





**67.6%** of all TB cases\* had a successful treatment outcome after 12 months (range 0–100%)



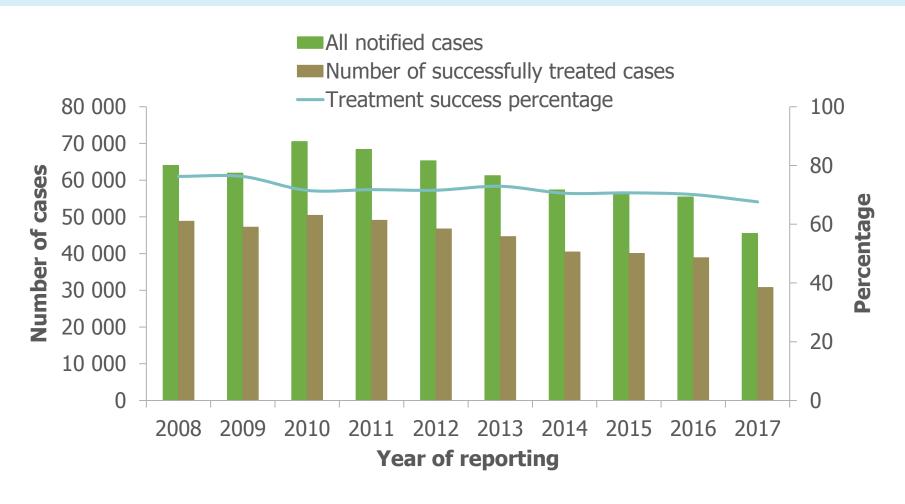
<sup>\*</sup> Treatment outcome data not available for Greece, Italy, Latvia, Malta and Poland

## Treatment success of all notified TB cases after 12 months, EU/EEA, 2008–2017





Proportion of successfully treated cases decreased from **76.3%** in 2008 to **67.6%** in 2017\*



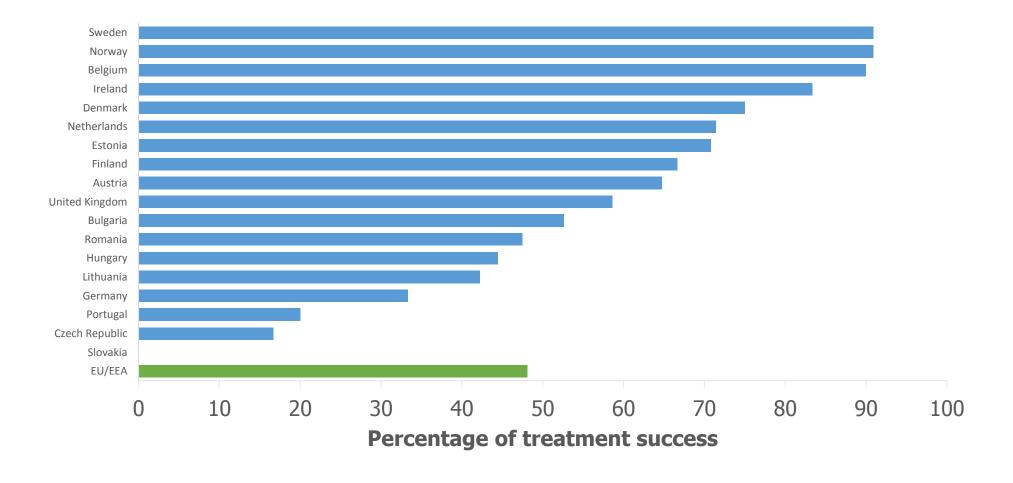
<sup>\*</sup> Over the years the number of countries reporting treatment outcome data varied between 24 and 28

## Treatment success after 24 months in MDR TB cases\*, EU/EEA, 2018





**48.1%** of all MDR TB cases notified in 2016 were successfully treated (range 20–91%)



<sup>\*</sup> Croatia, Iceland, Liechtenstein, Malta and Slovenia reported zero MDR TB cases in 2016. Treatment outcome and/or DST data were not available for Cyprus, France, Greece, Italy, Latvia, Luxembourg, Poland and Spain.

## Treatment success as of 2018 in MDR TB cases notified in 2016\*, EU/EEA





**48.1%** of all MDR TB cases notified in 2016 were successfully treated (range 20–91%)

### **Proportion of treatment success among MDR TB cases**

Zero cases

<40%

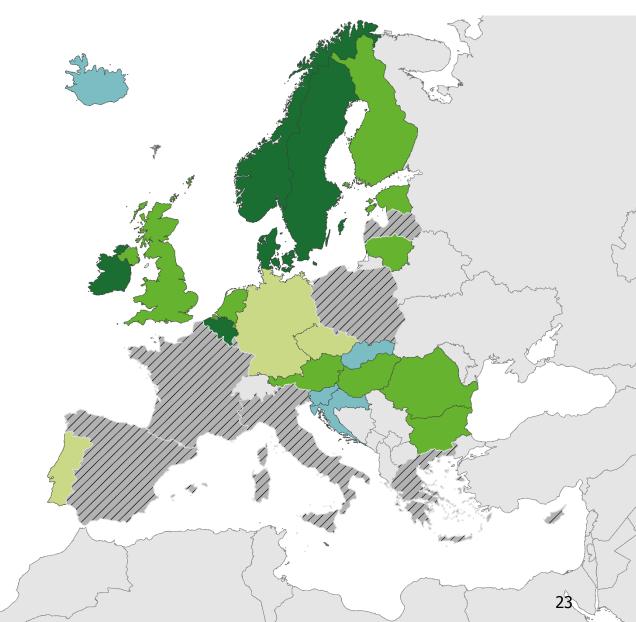
40 to 74.9%

≥75

/// No data reported

Countries not visible in the main map

Liechtenstein

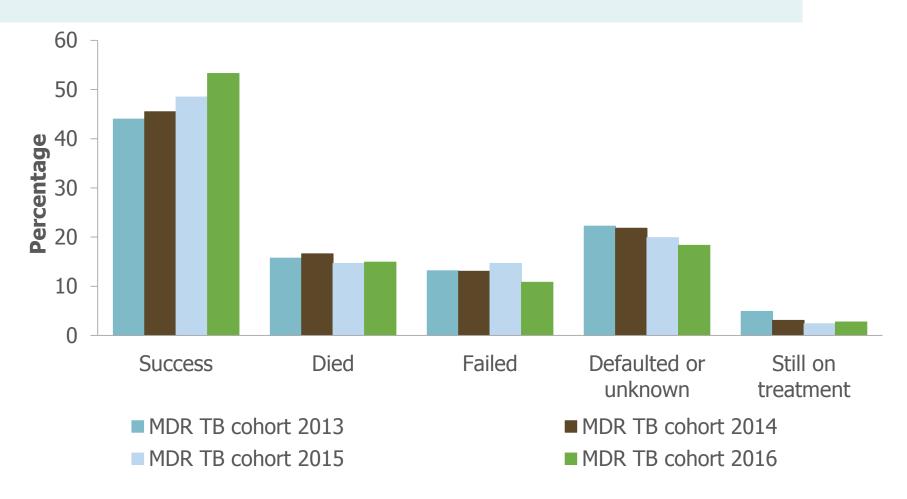


## Treatment outcomes of MDR TB cases notified in 2013–2016, EU/EEA, 2018





The treatment success rate increased from **44%** in 2013 to **53.2%** in 2016\*

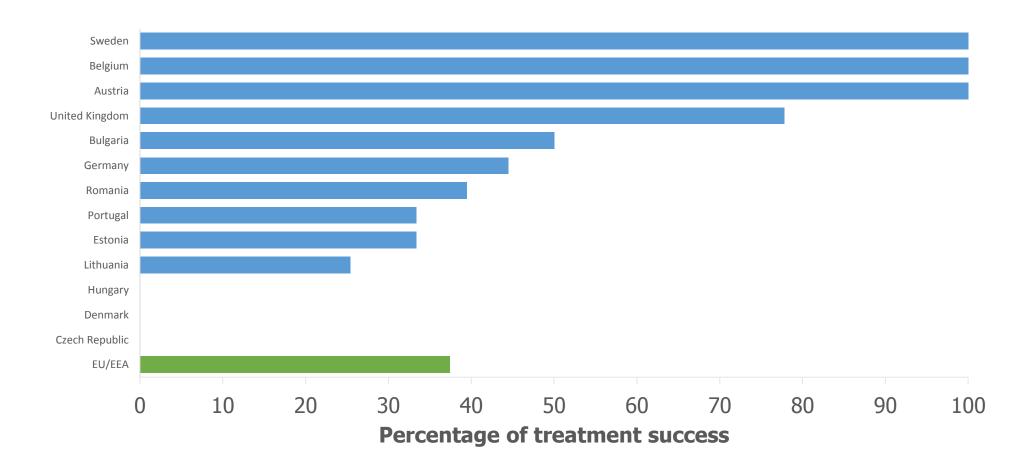


## Treatment success after 36 months in XDR TB cases, EU/EEA, 2018





**37.4%** of the XDR TB cases notified in 2015 were treated successfully (range 0–100%)\*



<sup>\*</sup> Croatia, Cyprus, Greece, Iceland, Ireland, Liechtenstein, Luxembourg, Malta, Netherlands, Norway, Slovakia, Slovenia and Spain reported zero MDR TB cases in 2015. Treatment outcome data was not available for Finland, France, Italy, Latvia or Poland.

## Treatment success as of 2018 in XDR TB cases notified in 2015\*, EU/EEA





**37.4%** of all XDR TB cases notified in 2015 were successfully treated (range 0–100%)

### **Proportion of treatment success among XDR TB cases**

Zero cases

<40%

40 to 69.9%

≥70%

//// No data reported

Countries not visible in the main map

Liechtenstein

