





# **Tuberculosis surveillance** and monitoring in Europe

2025

2023 data

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This report has been published jointly by the European Centre for Disease Prevention and Control (ECDC) and the World Health Organization (WHO) Regional Office for Europe. ECDC developed the overview of the EU/EEA countries and validated the EU/EEA figures, and the WHO Regional Office for Europe developed the overview of the European Region as a whole and validated the figures of the non-member countries of the European Union (EU)/European Economic Area (EEA).

Keywords TUBERCULOSIS – EPIDEMIOLOGY TB – EPIDEMIOLOGY TB SURVEILLANCE

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Suggested citation for full report: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2025 – 2023 data. Stockholm: ECDC/WHO Regional Office for Europe; 2025.

Tables and figures should be referenced: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2025 – 2023 data. Stockholm: ECDC/WHO Regional Office for Europe; 2025.

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The WHO Regional Office for Europe is responsible for the accuracy of the translation of the Russian summary.

**Cataloguing-in-Publication (CIP) data**. CIP data are available at <a href="http://apps.who.int/iris">http://apps.who.int/iris</a>.

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ECDC PDF	ISBN 978-92-9498-780-8	ISSN 2443-5538	doi 10.2900/2650058	TQ-01-25-011-EN-N
WHO PDF	ISBN 978-92-8906-183-4			

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# **Acknowledgements**

This report has been published jointly by the European Centre for Disease Prevention and Control (ECDC) and the World Health Organization (WHO) Regional Office for Europe. The Regional Office developed the overview of the European Region as a whole and validated the figures for the non-member countries of the European Union (EU)/European Economic Area (EEA) and ECDC developed the overview of the EU/EEA countries and validated the EU/EEA figures.

Data collection, validation, analysis and overall preparation of the report was coordinated by Veronica Cristea (ECDC) and Giorgi Kuchukhidze (WHO Regional Office for Europe).

Review and production support was provided by Andrei Dadu (WHO Regional Office for Europe), Araksya Hovhannesyan (freelance consultant), Anastasia Pharris (ECDC), Marieke J. van der Werf (ECDC), Ole Heuer (ECDC) and Askar Yedilbayev (WHO Regional Office for Europe).

The report was sent for consultation and review to the operational contact points for epidemiology or national focal points for TB in the EU/EEA Member States and TB surveillance correspondents in the non-EU/EEA Member States and areas.

ECDC and the WHO Regional Office for Europe would like to thank the nominated operational contact points for TB surveillance from EU/EEA Member States and the TB surveillance focal points from the non-EU/EEA Member States and areas of the WHO European Region for providing data and valuable comments on this report:

Albania: Donika Mema; Andorra: Mariona Tuneu Valls; Armenia: Anush Khachatryan, Naira Khachatryan; Austria: Alexander Indra, Sigrid Kiermayr, Fiona Költringer; Azerbaijan: Afag Huseynova, Inna Mammadova, Mehriban Seyfaddinova; Belarus: Dzmitry Klimuk, Dmitry Zhurkin; Belgium: Wouter Arrozala de Oñate, Vinciane Sizaire; Bosnia and Herzegovina: Snježana Brčkalo; Bulgaria: Yuliana Atanasova; Croatia: Goranka Petrović; Cyprus: Costas Constantinou, Anna Papandreou; Czechia: Věra Dvořáková, Pavel Slezák, Jiří Wallenfels; Denmark: Anders Koch, Troels Lillebaek; Estonia: Piret Viiklepp; Finland: Silja Mentula, Hanna Soini; France: Jean-Paul Guthmann, Jérôme Robert, Delphine Viriot; Georgia: Mamuka Chincharauli; Germany: Lena Bös, Teresa Domaszewska, Stefan Kröger, Walter Haas; Greece: Sofia Chatzianastasiou; Hungary: Ágnes Bakos, Zsuzsa Cselkó; Iceland: Gudrun Aspelund, Kamilla Sigridur Josefsdottir; Ireland: Phil Downes, Sarah Jackson, Mary O'Meara; Israel: Tali Wagner; Italy: Daniela Maria Cirillo, Francesco Paolo Maraglino, Monica Sane Schepisi; Kazakhstan: Elena Arbuzova; Kyrgyzstan: Irina Gubankova, Gulmira Kalmambetova, Cholpon Nurgazieva; Latvia: Bormane Antra, Ieva Rimšāne; Liechtenstein: Esther Walser-Domjan; Lithuania: Jurgita Pakalniškiené, Edita Davidavičiené, Gabriela Wiktoria Hartwig, Vaiva Kumpauskaité, Kęstutis Miškinis, Jurgita Pakalniškiené,

Kestutis Rudaitis; Luxembourg: Irene Demuth, Gilles Urth; Malta: Antoinette Attard, Tanya Melillo Fenech; Monaco: Jean Lorenzi; Montenegro: Stevan Lučić; Netherlands: Annemieke van de Kamp-Mulder, Erika Slump; North Macedonia: Zorica Nanovic; Norway: Trude Margrete Arnesen, Anne Torunn Mengshoel, Karine Nordstrand; Poland: Maria Korzeniewska-Koseła, Stefan Wesołowski; Portugal: Isabel Carvalho, Raquel Duarte, Marta Gomes, Pedro Pinto Leite, Rita Macedo, André Santos Silva; Republic of Moldova: Andrei Corloteanu; Romania: Nicoleta Valentina Cioran, Odette Popovici; Russian Federation: Sergey Sterlikov; Serbia: Maja Stosic; Slovakia: Igor Porvaznik, Ivan Solovič; Slovenia: Urska Bidovec-Stojkovic, Sanja Grm Zupan, Petra Svetina; Spain: Zaida Herrador Ortiz, Carlos Peralta, Fernando Simón Soria; Sweden: Maria Axelsson, Petra Edquist, Jerker Jonsson; Switzerland: Ekkehardt Altpeter; Tajikistan: Firuza Sharipova; Türkiye: Emine Avcı; Turkmenistan: Aisoltan Charyeva; Ukraine: Lyudmila Prylepina; United Kingdom: Sharon Cox; Uzbekistan: Salihdjan Alimov, Shahnoza Usmonova; Kosovo<sup>1</sup>: Xhevat Kurhasani.

<sup>1</sup> This designation is without prejudice to positions on status and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

## **Abbreviations**

ART antiretroviral therapy
CI confidence interval

DRS drug-resistance surveillance
DST drug-susceptibility testing

**ECDC** European Centre for Disease Prevention and Control

EEA European Economic Area
EQA external quality assessment

**ERLTB-Net** European Reference Laboratory Network for TB

**EU** European Union

**EU/EEA** European Union/European Economic Area

**HPCs** high-priority countries (Armenia, Azerbaijan, Belarus, Bulgaria, Estonia,

Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, Romania, the Russian Federation, Tajikistan, Türkiye,

Turkmenistan, Ukraine and Uzbekistan)

MDR multidrug resistance

MDR-TB multidrug-resistant tuberculosis

**PLHIV** people living with HIV

pre-XDR-TB pre-extensively drug-resistant tuberculosis

RR relative risk

**RR-TB** rifampicin-resistant tuberculosis

**RR/MDR-TB** rifampicin-resistant and multidrug-resistant tuberculosis

TB tuberculosis

**TESSy** The European Surveillance System

TME (WHO) Tuberculosis Monitoring and Evaluation (platform)

**UI** uncertainty interval

WRD WHO-recommended rapid diagnostics (tests)

**XDR** extensive drug resistance

**XDR-TB** extensively drug-resistant tuberculosis



# **Executive summary**

#### The WHO European Region

#### **Tuberculosis burden**

An estimated 225000 people (95% uncertainty interval (UI): 190000–264000) fell ill with tuberculosis (TB) in 2023 in the WHO European Region, equivalent to 24 cases (95% UI: 20–28) per 100000 population [1]. At the global level, in 2023, the TB incidence rate increased for the third consecutive year, returning to the level for 2018, reflecting the shortfall in TB case detections in 2020 caused by the COVID-19 pandemic. In the WHO European Region, the decrease in the TB incidence rate, which began in 2022, continued in 2023. The net reduction of TB incidence between 2015 and 2023 was 27%, far below the WHO End TB milestone of a 50% reduction by 2025.

There were an estimated 16 000 TB deaths among HIV-negative people in the European Region in 2023, equivalent to 1.7 deaths per 100 000 population. In 2023, TB deaths continued to decrease in the WHO European Region. However, the annual rate of decline is much slower than in the pre-pandemic period, as a consequence of undiagnosed and untreated TB due to disruptions to TB services caused by the COVID-19 pandemic. Between 2015 and 2023, TB deaths at the regional level fell cumulatively by 38%, from 36 000 to 22500, reaching the halfway point in the road towards the WHO End TB Strategy milestone of a 75% reduction by 2025.

In 2023, the estimated number of people who developed rifampicin-resistant and multidrug-resistant TB (RR/MDR-TB) was 65 000 (95% uncertainty interval (UI): 48 000-82 000). Among newly notified bacteriologically confirmed pulmonary TB patients, there were an estimated 32 000 rifampicin-resistant cases. The proportion of RR/MDR-TB among new and previously treated TB cases in the Region significantly exceeds the global average (24% of new and 53% of previously treated cases, compared to 3.2% and 16%, respectively) [1].

HIV prevalence in incident TB cases was estimated to be 13% in 2023, another year of comparable stability after an unprecedented rise from 4% to 12% during the period 2007–2016. There were an estimated 29 000 HIV-positive TB cases in the Region, with around 82% of the total number estimated in the Russian Federation (48%) and Ukraine (34%).

#### TB disease notification and treatment outcomes

In 2023, 172 331 newly diagnosed TB cases were reported in 50 of the 53 countries in the Region<sup>2</sup>. This amounted to 75% of the estimated new and relapse cases, representing

a slight increase in the number of notified TB patients against 2022. The year 2023 was also the third year in which there was a recovery for TB notifications, following an unprecedented 24% drop between 2019 and 2020 due to the impact of the COVID-19 pandemic.

Among incident TB cases, 143618 patients (83.3%) were reported with pulmonary TB, 71.3% of which were laboratory-confirmed. Among all bacteriologically confirmed pulmonary TB cases, 93.1% were tested for rifampicin resistance.

Overall, 28.6% of all pulmonary TB patients who were reported as having been tested for drug susceptibility had RR/MDR-TB. The prevalence of RR/MDR-TB among new and previously treated bacteriologically confirmed pulmonary TB cases was 20.1% and 49.6%, respectively.

Data on drug-susceptibility testing (DST) to fluoroquinolones were available for 84% of all notified pulmonary RR-TB cases. Overall in 2023, 31.1% of pulmonary RR/MDR-TB cases with DST results for fluoroquinolones had pre-extensively drug-resistant TB (pre-XDR-TB). Among pre-XDR-TB patients tested for other Group A drugs, the prevalence of extensively drug-resistant TB (XDR-TB) was 12.6% at the regional level.

Among new and relapse TB patients notified from countries reporting data on HIV testing, 93.1% were tested for HIV. A total of 19 432 TB cases were detected with HIV-positive status, representing 15.4% of those tested.

A total of 15 643 (82.4%) HIV-positive patients are reported to have received antiretroviral therapy (ART). Although ART coverage has been increasing over the last five years, it is still below the WHO target of universal ART coverage for TB/HIV coinfected patients.

The treatment success rate in the Region remains far below the regional targets [2]. The successful treatment outcomes for incident TB, RR/MDR-TB, and pre-XDR/XDR cohorts were 75.5%, 59.7% and 53.9%, respectively.

#### **Conclusions**

The year 2023 marks the third year in which there was a recovery in the figures for TB diagnosis and treatment, following an unprecedented drop in 2020, due to COVID-19-related disruptions. This has reversed the damaging impact of the pandemic and resulted in reductions in the number of deaths from TB and a decrease in the TB incidence rate.

Compared to 2022, the rate of successful treatment outcomes among new and relapse TB cases improved slightly, but still remains far below the global level, indicating that countries in the Region are facing challenges with the timely diagnosis and delivery of appropriate care to TB patients. On a positive note, the treatment success

<sup>2</sup> Latvia, Monaco and San Marino did not report. Liechtenstein is a European Economic Area (EEA) country, but not a WHO Member State

rate of RR/MDR-TB, particularly among pre-XDR-TB patients, is slowly but consistently improving in the Region, most likely reflecting the scale-up of shorter, all-oral treatment regimens for drug-resistant TB patients. Nevertheless, the treatment success rates for new and relapse cases and RR/MDR-TB patients are still below regional and global targets. Similarly, notwithstanding the efforts made, the burden of RR-TB in relation to TB/HIV remains considerable, underlining the need to introduce more innovative and effective approaches to the diagnosis and treatment of TB and RR/MDR-TB.

# **European Union and European Economic Area countries**

#### **Epidemiology and treatment outcome**

In 2023, 38 993 cases of TB were reported in 29 European Union and European Economic Area (EU/EEA) countries, resulting in a notification rate of 8.6 per 100 000 population in the EU/EEA. This represented a continuation of the slight increase observed in most countries for 2022, while the overall trend has continued to decrease over the last five years. Exceptions to this trend were Cyprus, Greece, Iceland and Slovakia where an increase of 1–3% was observed in 2023 against data reported for 2019. However, the rates for 2020–2021 should be interpreted with caution, given the measures implemented to mitigate the COVID-19 pandemic and their impact on TB data collection and patient access to health services.

Of all notified TB cases, 29 054 (74.5%) were newly diagnosed and 26 687 (68.4%) were confirmed by culture, or smear and nucleic acid amplification test as per EU/EEA case definition. In 2023, adults aged between 25 and 64 years accounted for 64.1% of all new and relapse TB cases, while children under 15 years accounted for 4.5% of all new and relapse TB cases (4.3% of all TB cases). Romania reported the highest notification rates among children, with 19.7 cases per 100 000 population in those aged 0–4 years. In 2023, new and relapse TB cases were more frequently reported in males than females, with a male-to-female ratio of 2.2:1. Just over one-third (36.0%) of TB cases reported in the EU/EEA in 2023 were of foreign origin (cases born in or citizens of a country different to the reporting country).

Of 19 170 cases with DST results for at least rifampicin, 814 (4.7%) had MDR-TB. The countries with the highest proportion of MDR-TB cases among cases with DST results were Estonia (22.5%) and Lithuania (17.7%). Pre-XDR-TB was reported for 155 (27.6%) of the 561 RR/MDR-TB cases tested for fluoroquinolone susceptibility. Among the pre-XDR cases, 150 (96.8%) were tested for susceptibility to any other group A drug and, of these, 15 (10.0%) met the XDR-TB definition.

In 2023, 18 countries reported data on HIV co-infection. Of the 18 943 new and relapse TB cases reported in 2023 with known HIV status, 625 (4.3%) were reported as HIV-positive.

Of all 24901 TB cases notified in 2022 with a treatment outcome reported in 2023, 67.9% were treated successfully,

7.9% died, 0.8% experienced treatment failure, 3.6% were lost to follow-up, 2.3% were still on treatment after 12 months and for 17.5% the treatment outcome was not evaluated. Of 577 RR/MDR-TB cases notified in 2021 with a treatment outcome reported in 2023, 56.3% were treated successfully, 17.3% died, 8.0% experienced treatment failure, 8.0% were lost to follow-up, 3.6% were still on treatment after 24 months and for 6.8% treatment was not evaluated. Of 79 pre-XDR-TB cases with a treatment outcome reported in 2023, 37 (46.8%) were treated successfully, 17 (21.5%) died, 14 (17.7%) experienced treatment failure, three (3.8%) were lost to follow-up, 4 (5.1%) were still on treatment after 24 months and for four (5.1%) the treatment outcome was not evaluated.

#### **Conclusions**

In 2023, 29 EU/EEA countries reported TB notification data, resulting in a notification rate of 8.6 per 100 000 population. The slight increase in the overall TB notification rate for the COVID-19 pandemic years (2020 and 2021), observed in 2022, continued in 2023. However, the lower rates and data for 2020 and 2021 must be interpreted with caution, given the impact of measures implemented to mitigate the COVID-19 pandemic. Despite the increase in 2022 and 2023, the overall mean annual change rate between 2019 and 2023 showed a decrease of 3.8%. Across all cohorts, reported treatment success remained well below the 90% treatment success rate for WHO targets. Of all TB cases notified in 2022 with a treatment outcome reported in 2023, 67.9% were treated successfully. Treatment success was lower for RR/MDR-TB cases at 24 months (56.3%) and lower still among pre-XDR-TB cases at 24 months (46.8%), with the proportion of deaths for these cohorts reported at 17.3% and 21.5%, respectively.

Significant efforts are needed to achieve the United Nations Sustainable Development Goal 3 target and reach a notification rate of 2.4 per 100 000 population at EU/EEA level by 2030. Across the EU/EEA, TB public health programmes are continuing to deal with the challenges associated with COVID-19 pandemic years and disruptions that affected the public health response to TB. To achieve improvement in treatment outcomes it is imperative to facilitate timely TB diagnosis and provide appropriate treatment with a people-centred approach. Furthermore, better interlinkage of the surveillance systems in the EU/EEA is also required to improve reporting of HIV coinfection.

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All weblinks were accessed on 24 February 2025.

### Резюме

### Европейский регион ВОЗ

#### Бремя ТБ

По оценкам, в 2023 г. в Европейском регионе ВОЗ туберкулезом (ТБ) заболели 225 000 человек (95% интервал неопределенности (ИН): 190 000–264 000), что соответствует 24 случаям (95% ИН: 20–28) на 100 000 населения [1]. На глобальном уровне в 2023 г. третий год подряд отмечался рост показателя заболеваемости ТБ, который достиг уровня 2018 г., что является следствием обусловленных пандемией COVID-19 недостатков в выявлении случаев ТБ в 2020 г. В Европейском регионе ВОЗ начавшееся в 2022 г. снижение показателя заболеваемости ТБ продолжилось и в 2023 г. Чистое сокращение заболеваемости ТБ в период с 2015 по 2023 г. составило 27%, что значительно ниже промежуточного показателя Стратегии ВОЗ по ликвидации ТБ, который предполагает снижение заболеваемости на 50% к 2025 г.

В 2023 г. в Европейском регионе расчетное число случаев смерти от ТБ среди ВИЧ-отрицательных больных составило 16 000, что соответствует 1,7 случая смерти на 100 000 населения. В 2023 г. в Европейском регионе ВОЗ смертность от ТБ продолжала снижаться. При этом ежегодные темпы снижения были значительно ниже, чем до пандемии, что является следствием наличия недиагностированных и нелеченых случаев ТБ из-за перебоев в работе противотуберкулезных служб, вызванных пандемией COVID-19. В период с 2015 по 2023 г. совокупное снижение смертности от ТБ на региональном уровне составило 38% (с 36 000 до 22 500), что соответствует половине промежуточного показателя Стратегии ВОЗ по ликвидации ТБ, который предполагает снижение смертности на 75% к 2025.

В 2023 г. расчетное число людей, заболевших ТБ с устойчивостью возбудителя к рифампицину и множественной лекарственной устойчивостью (РУ/МЛУ-ТБ), составило 65 000 (95% интервал неопределенности (ИН): 48 000—82 000). Среди впервые зарегистрированных пациентов с бактериологически подтвержденным диагнозом ТБ легких, по оценкам, насчитывалось 32 000 случаев ТБ с устойчивостью к рифампицину. Доля РУ/МЛУ-ТБ среди новых и ранее леченных случаев ТБ в Регионе значительно превышает среднемировой показатель (24% новых и 53% ранее леченных случаев, по сравнению с 3,2% и 16% соответственно) [1].

В 2023 г. расчетная распространенность ВИЧ-инфекции среди случаев ТБ составила 13%, что ознаменовало еще один год относительной стабильности после беспрецедентного роста данного показателя с 4% до 12% в период 2007—2016 гг. Расчетное число ВИЧ-положительных случаев ТБ в Регионе составило 29 000, при этом около 82% от общего расчетного числа случаев приходятся на долю Российской Федерации (48%) и Украины (34%).

#### Регистрация случаев ТБ и результаты лечения

В 2023 г. в 50 из 53 стран Региона был зарегистрирован 172 331 впервые выявленный случай ТБ. <sup>4</sup> Это соответствовало 75% от расчетного числа новых случаев и рецидивов заболевания и представляло собой небольшое увеличение числа зарегистрированных больных ТБ по сравнению с 2022 г. В 2023 г. третий год подряд наблюдалось восстановление показателя регистрации случаев ТБ после его беспрецедентного падения на 24% в период с 2019 по 2020 г. вследствие пандемии COVID-19.

В структуре случаев заболевания ТБ 143618 (83,3%) составили случаи ТБ легких, 71,3% из которых были подтверждены лабораторно. В 93,1% всех бактериологически подтвержденных случаев ТБ легких было проведено тестирование на лекарственную чувствительность к рифампицину.

В целом у 28,6% всех больных ТБ легких, прошедших тестирование на лекарственную чувствительность, был выявлен РУ/МЛУ-ТБ. Распространенность РУ/МЛУ-ТБ среди новых и ранее леченных случаев бактериологически подтвержденного ТБ легких составила 20,1% и 49,6%, соответственно.

Данные о тестировании на лекарственную чувствительность (ТЛЧ) применительно к фторхинолонам были доступны для 84% всех зарегистрированных случаев рифампицин-устойчивого ТБ легких. В целом в 2023 г. у 31,1% больных РУ/МЛУ-ТБ легких с результатами ТЛЧ по фторхинолонам наблюдался туберкулез с предширокой лекарственной устойчивостью (пред-ШЛУ-ТБ). На региональном уровне распространенность ТБ с широкой лекарственной устойчивостью (ШЛУ-ТБ) среди пациентов с пред-ШЛУ-ТБ, прошедших ТЛЧ применительно к другим препаратам группы A, составила 12,6%.

Тестирование на ВИЧ-инфекцию прошли 93,1% впервые выявленных больных и больных с рецидивом ТБ, зарегистрированных в странах, предоставляющих данные о тестировании на ВИЧ. Всего было выявлено 19 432 больных ТБ с ВИЧ-положительным статусом, что соответствовало 15,4% от числа прошедших тестирование.

По имеющимся данным, 15 643 (82,4%) ВИЧ-положительных пациента получали антиретровирусную терапию (АРТ). Несмотря на увеличение охвата АРТ на протяжении последних пяти лет, его уровень все еще ниже целевого показателя ВОЗ по всеобщему охвату АРТ пациентов с сочетанной инфекцией ТБ/ВИЧ.

Показатель успешного лечения в Регионе по-прежнему значительно ниже региональных целевых показателей [2].

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<sup>4</sup> Латвия, Монако и Сан-Марино не представили данные. Лихтенштейн является государством-членом ЕЭЗ, но не входит в число государств-членов ВОЗ

Показатели успешного лечения в когортах больных ТБ, PУ/MЛУ-TБ и пред-ШЛУ/ШЛУ составили 75,5%, 59,7% и 53,9% соответственно.

#### Выводы

2023 г. ознаменовал третий год восстановления показателей диагностики и лечения ТБ после их беспрецедентного падения в 2020 г., обусловленного вызванными пандемией COVID-19 перебоями в работе служб. Это позволило обратить вспять разрушительные последствия пандемии и привело к сокращению числа смертей от ТБ и снижению уровня заболеваемости ТБ.

По сравнению с 2022 г. показатель успешных результатов лечения впервые выявленных больных ТБ и больных с рецидивом заболевания несколько улучшился, но по-прежнему значительно отстает от аналогичного показателя на глобальном уровне, что свидетельствует о наличии в странах Региона проблем со своевременной диагностикой и оказанием надлежащей помощи больным ТБ. Положительным моментом является медленный, но неуклонный рост показателей успешного лечения РУ/МЛУ-ТБ в Регионе, особенно среди пациентов с пред-ШЛУ-ТБ, что, вероятнее всего, отражает расширение масштабов применения укороченных безынъекционных схем лечения пациентов с лекарственно-устойчивым ТБ. Тем не менее показатели успешного лечения впервые выявленных больных, больных с рецидивом ТБ и МЛУ-ТБ все еще ниже региональных и глобальных целевых показателей. Аналогично, несмотря на предпринятые усилия, сохраняется существенное бремя РУ-ТБ среди лиц с сочетанной инфекцией ТБ/ВИЧ, что подчеркивает необходимость внедрения инновационных и более эффективных подходов к диагностике и лечению ТБ и РУ/МЛУ-ТБ.

#### Страны Европейского союза и Европейской экономической зоны

#### Эпидемиология и результаты лечения

В 2023 г. в 29 странах Европейского союза и Европейской экономической зоны (ЕС/ЕЭЗ) было зарегистрировано 38 993 случая ТБ; соответственно, показатель регистрации случаев в ЕС/ЕЭЗ составил 8,6 на 100 000 населения. Это свидетельствует о продолжении незначительного роста заболеваемости, наблюдавшегося в большинстве стран в 2022 г., несмотря на сохранение на протяжении последних пяти лет общей тенденции к ее снижению. Исключение составили Греция, Исландия, Кипр и Словакия, где в 2023 г. наблюдался рост на 1-3% по сравнению с данными за 2019 г. Однако показатели за 2020-2021 гг. следует интерпретировать с осторожностью, учитывая меры, принятые для смягчения последствий пандемии COVID-19, и их влияние на сбор данных о ТБ и доступ пациентов к медицинским услугам.

В структуре всех зарегистрированных случаев ТБ 29 054 (74,5%) составили впервые выявленные случаи ТБ;

26 687 (68,4%) случаев были подтверждены результатами культурального исследования, микроскопии мазка мокроты или теста на амплификацию нуклеиновых кислот в соответствии с определением случая, принятого в ЕС/ЕЭЗ. В возрастной структуре общего числа новых случаев и рецидивов ТБ в 2023 г. доля взрослых в возрасте от 25 до 64 лет составила 64,1%, а детей младше 15 лет - 4,5% (4,3% всех случаев туберкулеза). В Румынии отмечен самый высокий показатель регистрации случаев заболевания среди детей – 19,7 случаев на 100 000 детского населения в возрасте 0-4 лет. В 2023 г. новые случаи и рецидивы ТБ чаще регистрировались среди мужчин – соотношение мужчин и женщин составляло 2,2:1. Чуть более трети (36,0%) случаев ТБ, зарегистрированных в ЕС/ЕЭЗ в 2023 г., пришлись на долю лиц иностранного происхождения (случаи заболевания лиц, родившихся в стране/являющихся гражданами страны, отличной от страны, представившей отчетность).

У 814 (4,7%) из 19 170 больных с результатами ТЛЧ как к минимум по рифампицину был выявлен МЛУ-ТБ. Странами с наибольшей долей случаев МЛУ-ТБ среди всех больных с результатами ТЛЧ были Эстония (22,5%) и Литва (17,7%). Пред-ШЛУ-ТБ был зарегистрирован у 155 (27,6%) из 561 больного РУ/МЛУ-ТБ, прошедшего тестирование на чувствительность к фторхинолонам. Сто пятьдесят (96,8%) больных пред-ШЛУ-ТБ прошли тестирование на чувствительность к любому другому препарату группы А, и результаты 15 (10,0%) из них соответствовали определению ШЛУ-ТБ.

В 2023 г. 18 стран предоставили данные о случаях сочетанной ВИЧ-инфекции. Из 18 943 новых случаев и рецидивов ТБ с известным ВИЧ-статусом, зарегистрированных в 2023 г., 625 (4,3%) были ВИЧ-положительные.

Из 24 901 больного ТБ, зарегистрированного в 2022 г., с результатами лечения, зафиксированными в 2023 г., 67,9% были успешно пролечены, 7,9% умерли, у 0,8% лечение было неудачным, 3,6% были потеряны для последующего наблюдения, 2,3% продолжали лечение спустя 12 месяцев, а для 17,5% больных результаты лечения оценены не были. Из 577 больных РУ/МЛУ-ТБ, зарегистрированных в 2021 г., результаты лечения которых были зафиксированы в 2023 г., 56,3% были успешно пролечены, 17,3% умерли, у 8,0% лечение было неудачным, 8,0% были потеряны для последующего наблюдения, 3,6% продолжали лечение спустя 24 месяца, а для 6,8% больных результаты лечения оценены не были. Из 79 больных пред-ШЛУ-ТБ, результаты лечения которых были зарегистрированы в 2023 г., 37 (46,8%) были пролечены успешно, 17 (21,5%) умерли, у 14 (17,7%) лечение было неудачным, 3 (3,8%) были потеряны для последующего наблюдения, 4 (5,1%) продолжали лечение спустя 24 месяца, а для 4 (5,1%) результаты лечения оценены не были.

#### Выводы

В 2023 г. 29 стран ЕС/ЕЭЗ предоставили данные о регистрации случаев ТБ; таким образом, показатель регистрации случаев составил 8,6 на 100000 населения.

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Незначительное увеличение общего показателя регистрации случаев ТБ по сравнению с периодом пандемии COVID-19 (2020 и 2021 гг.), наблюдаемое в 2022 г., продолжилось и в 2023 г. Однако следует с осторожностью интерпретировать более низкие показатели и данные за 2020 и 2021 гг., учитывая влияние мер, принятых для смягчения последствий пандемии COVID-19. Несмотря на рост показателей в 2022 и 2023 гг., в целом динамика изменения среднегодовых значений в период с 2019 по 2023 г. свидетельствует об их снижении на 3,8%. Во всех когортах зарегистрированный показатель успешного лечения по-прежнему был значительно ниже предусмотренного ВОЗ целевого показателя на уровне 90%. Из всех больных ТБ, зарегистрированных в 2022 г., результаты лечения которых были зафиксированы в 2023 г., 67,9% были пролечены успешно. Показатель успешного лечения был ниже среди больных РУ/МЛУ-ТБ на 24 месяце лечения (56,3%) и еще ниже среди больных пред-ШЛУ-ТБ на 24 месяце лечения (46,8%), при этом доля смертей в этих когортах составила соответственно 17,3% и 21,5%.

Необходимо приложить значительные усилия для достижения к 2030 г. в ЕС/ЕЭЗ целевого показателя, предусмотренного поставленной Организацией Объединенных Наций Целью 3 в области устойчивого развития, и показателя регистрации случаев на уровне 2,4 на 100 000 населения. Во всех странах ЕС/ЕЭЗ программы по борьбе с ТБ продолжают решать проблемы, связанные с периодом пандемии COVID-19 и нарушениями в работе служб, которые отрицательно сказались на мерах общественного здравоохранения по борьбе с ТБ. Чтобы добиться улучшения результатов лечения, необходимо содействовать своевременной диагностике ТБ и предоставлять надлежащее лечение с применением модели оказания помощи, ориентированной на потребности людей. Кроме того, улучшение отчетности о случаях сочетанной ВИЧ-инфекции требует более тесной взаимосвязи между системами эпиднадзора в странах ЕС/ЕЭЗ.

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<sup>5</sup> Все ссылки по состоянию на 24 февраля 2025 г.

# 1. Main facts about tuberculosis

# 1. Main facts about tuberculosis

Tuberculosis (TB) is an infectious disease caused by a group of *Mycobacterium species* called the *Mycobacterium tuberculosis* (*M. tuberculosis*) complex [1]. Until the COVID-19 pandemic, TB was the leading cause of death from a single infectious agent worldwide. On the basis of data for 2023, three years after the beginning of the pandemic, it is very likely that TB has once again become the leading cause of death from a single infectious agent [2, 3]. Although TB typically affects the lungs (pulmonary TB), it can cause disease in any organ (extrapulmonary TB). TB is transmitted from person to person when an individual with pulmonary TB expels bacteria into the air by coughing.

Approximately 25% of the world's population is infected with M. tuberculosis [4], but only a small proportion of people ( $\approx$  10%) will develop TB disease during their lifetime; the risk is much higher among immunocompromised individuals (such as people with HIV).

Sputum-smear microscopy has been the most common initial TB diagnostic method worldwide, but culture remains the gold standard, while the use of rapid molecular testing is increasing.

Standard treatment of non-resistant TB consists of a sixmonth regimen of four first-line drugs (isoniazid, rifampicin, ethambutol and pyrazinamide), with success rates usually above 85% [5]. Rifampicin-resistant/multidrug-resistant TB (RR/MDR-TB), pre-extensively drug-resistant TB (pre-XDR-TB) and extensively drug-resistant TB (XDR-TB) require longer treatments with more drugs and are associated with lower success rates.

WHO has estimated that 10.8 million people developed TB disease in 2023. Most cases were thought to have occurred in the WHO South-East Asia Region (45%), the WHO African Region (24%) and the WHO Western Pacific Region (17%). Smaller proportions of cases were estimated for the WHO Eastern Mediterranean Region (8.6%) and the WHO Region of the Americas (3.2%). The WHO European Region accounted for 2.1% of all cases and 17.3% of those ooccurred in the European Union/European Economic Area (EU/EEA) countries [3]. Overall, this report shows that TB remains a public health issue in the EU/EEA countries. However, most EU/EEA countries are low-incidence countries (with a notification rate below 10 per 100 000) in which TB predominantly affects vulnerable populations such as migrants, prison inmates and people with HIV coinfections.

The overall aim of TB surveillance is to help inform public health action. The annual TB surveillance and monitoring report presents key figures and trends and provides an overview of the TB situation in the EU/EEA and the WHO European Region.

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<sup>6</sup> All weblinks were accessed on 24 February 2025.



## 2. Tuberculosis surveillance

# 2.1 Tuberculosis in the WHO European Region

# 2.1.1 TB burden estimates (incidence and mortality, HIV and RR/MDR)

An estimated 225 000 new and relapse TB cases (range 190 000–264 000) occurred in countries and areas of the WHO European Region in 2023, equivalent to an average incidence of 24 cases (range 20–28) per 100 000 population. This represents about 2.1% of the total global burden of TB (Table 1).

In 2023, the absolute number of incident TB cases in the WHO European Region decreased by 1000 compared to the previous year. Around 84% of the estimated TB cases in the Region occurred in the 18 high-priority countries (HPCs), where the estimated TB incidence was 46 cases per 100000 population, which is five times higher than the EU/EEA average. The five countries with the absolute highest number of incident TB cases (10000 and over) were the Russian Federation (55000), Ukraine (42000), Uzbekistan (20000), Kazakhstan (14000), Türkiye (12000) and Romania (10000). The number relative to population (incidence rate) was highest in Kyrgyzstan and Ukraine (112 per 100000 population each), followed by Tajikistan (79), the Republic of Moldova (76), and Kazakhstan (70) (Table 1).

During the period 2014–2023, the average annual decline in the TB incidence rate was 3.9% [1]. This decline was driven mainly by the situation in the Russian Federation, where incidence fell by 6.6% per year between 2014 and 2023. It should nevertheless be emphasised that most of the HPCs in the Region have also experienced a decline in the incidence of TB. During the period 2014–2023, the HPCs with the highest annual rate of decline were Latvia (-10.4%), Estonia (-9.9%), Armenia (-8.8%), Lithuania (-7.8%), Bulgaria (-7.4%), Georgia (7.0%) and Belarus (6.8%) (Table II).

An estimated 16 000 TB deaths occurred among HIV-negative people in the European Region in 2023, equivalent to 1.7 deaths per 100 000 population. Between 2014 and 2023, the TB mortality rate at the regional level fell cumulatively by 54%, from 3.7 to 1.7 deaths per 100 000 population, which on average is a decline of 8.3% per year (Table I). Considerable variation was seen across the Region, ranging from under one TB death per 100 000 population in EU/EEA countries to 10 per 100 000 and higher in the HPCs. The TB mortality rate was highest in Turkmenistan (10 deaths per 100 000), followed by Tajikistan (7.4) and Ukraine (7.0). Together, the 18 HPCs accounted for 81% of TB deaths in the Region.

An estimated 13% (range 9.2–17%) of incident TB cases in 2023 were coinfected with HIV (Table 2). The proportion of TB cases coinfected with HIV was highest in the Russian Federation and Ukraine (25% each), followed by

Turkmenistan (22%) and the Republic of Moldova (13%). The five countries with the highest absolute number of TB/HIV coinfection cases were the Russian Federation (14000) and Ukraine (9800), representing 83% of the total number of cases, Kazakhstan (880), Turkmenistan (810) and Uzbekistan (680).

Nine of the 30 countries with the highest RR/MDR-TB burden in the world are in the WHO European Region. In 2023, the WHO European Region had an estimated 32 000 incident cases of RR/MDR-TB among notified bacteriologically-confirmed pulmonary TB cases (Table 2). An estimated 24% (95% CI: 16–32%) of newly diagnosed patients and 53% (95% CI: 23–83%) of previously treated patients had RR/MDR-TB. Overall, it is estimated that there were 65 000 (range 48 000–82 000) incident cases of RR/MDR-TB in the Region in 2023.

#### 2.1.2 TB notification and trends

In 2023, 197553 TB patients were reported from 50 countries and areas<sup>8</sup> in the WHO European Region (Table 3). Of these, 172 331 were incident TB patients (Table III). This represents a very small (0.35%) increase in the number of notified TB patients against 2022; a third year of slight recovery following an unprecedented 24% drop in TB notifications between 2019 and 2020 due to the impact of the COVID-19 pandemic. This translates into TB treatment coverage of 75% (95% CI: 65–89%) in 2023 (approximated as notifications divided by estimated incidence), down from 87% (95% CI: 77–100%) in 2019. The trajectories in notifications vary across countries. For example, in Poland, Romania, the Republic of Moldova, Tajikistan and Ukraine, following a significant decrease in 2020 compared to 2019, there has been a continuing upward trend in TB notification over the past three years (Table III).

Despite a large drop in notifications in 2020 compared to 2019, for the third consecutive year following the pandemic the Russian Federation reported a further decline in the number of TB cases. In most HPCs (Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Lithuania, Türkiye, Turkmenistan and Uzbekistan), notifications fell at a rate above the historical trend for 2020, increased in 2021 and 2022 (probably representing a backlog from 2020) and then returned to a downward trend in 2023. For the third consecutive year since the drop in TB notifications between 2019 and 2020, Azerbaijan and Tajikistan reported largely comparable TB notification rates, without any sign of recovery.

<sup>7</sup> The nine countries from the WHO European Region included in the global list of 30 countries with highest RR/MDR-TB burden are (in alphabetical order): Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, the Republic of Moldova, the Russian Federation, Tajikistan, Ukraine and Uzbekistan.

<sup>8</sup> Latvia, San Marino and Monaco did not report in 2024.

In 2023, the notification rate for new and relapse cases varies widely among countries, from 2.2 (Belgium) to 71 (Republic of Moldova per 100 000 population (Map 1 and Table III). Twenty-eight countries, mainly located in the western and central part of the Region, had low notification rates for new and relapse cases (fewer than 10 cases per 100 000) in 2023. Nineteen countries reported new and relapse case rates of between 10 and 50 per 100 000 population, and three reported over 50 cases per 100 000 population (Republic of Moldova (70.6), Kyrgyzstan (59.1), and Ukraine (53.2)). The new and relapse case notifications from the 18 HPCs account for about 80% of the regional burden. One third of new and relapse cases (54643) come from the Russian Federation, even though the country only accounts for 15% of the Region's population.

The notification rate of new and relapse cases in the 18 HPCs is almost twice as high as for the Region overall (34 cases per 100 000, compared to 18 cases per 100 000 for the Region) and over five times higher than the rate in the EU/EEA (eight cases per 100 000 population) (Fig. 2.1.1).

#### 2.1.3 Previous treatment history

In 2023, previously treated cases represented 11.5% and 29.1% in the EU/EEA and non-EU/EEA, respectively (Table 4). The average in the 18 HPCs was 29.5%, which is above the pan-European average of 25.6%. Previously

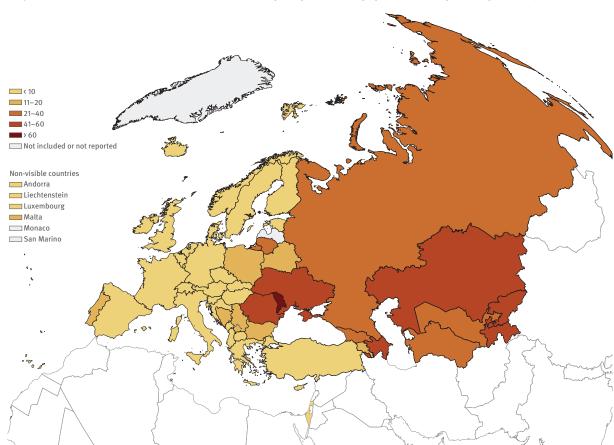
treated cases accounted for 15% or more of all TB cases in 13 countries: Belgium (70.9%), Azerbaijan (44.2%), Turkmenistan (41.0%), the Russian Federation (39.4%), Kazakhstan (27.6%), the Republic of Moldova (26.9%), Belarus (24.2%), Ukraine (23.1%), Estonia (21.2%), Georgia (21.0%), Uzbekistan (20.4%), Kyrgyzstan (19.8%) and Romania (18.8%). Reasons for the high percentage of previously treated cases include clinical failure or poor treatment adherence in previous treatment episodes, and possible reinfection and misclassification during the current treatment episode.

#### 2.1.4 Disease localisation

Pulmonary localisation was notified in 83% of the incident TB cases in the Region in 2023 (Table 6). The proportion of patients with pulmonary localisation in the non-EU/EEA countries and areas was slightly higher than in the EU/EEA. Seven countries reported more than 30% of their TB cases having extrapulmonary localisation: Finland, Ireland, Netherlands, Sweden, Türkiye, the United Kingdom and Uzbekistan.

#### 2.1.5 Bacteriological confirmation

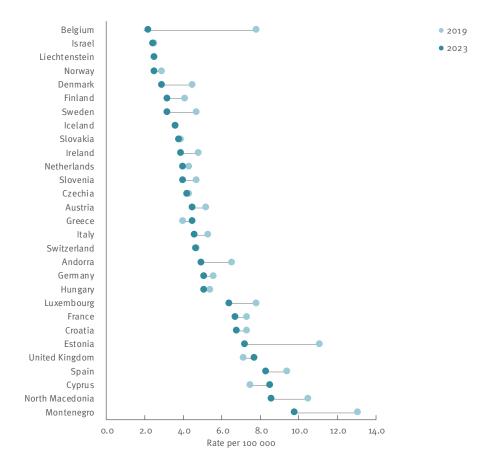
Bacteriological confirmation of TB diagnosis was reported for 102 418 (71.3%) of all 143 618 new and relapse pulmonary cases in the Region (Table 6). Although testing rates

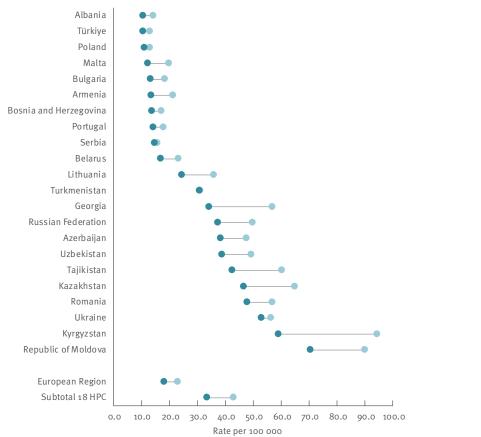


Map 1. TB notification rates of new TB cases and relapses per 100 000 population, European Region, 2023

Sources: 2023 data from the European Surveillance Systems (TESSy) and 2023 data from the WHO global TB data-collection system. Map production: ©ECDC.

Fig. 2.1.1. Trend in TB notification rate per 100 000 between 2019 and 2023 for countries with under 10 cases per 100 000 (upper panel) and 10 cases and over per 100 000 (lower panel) in the WHO European Region





with WHO-recommended rapid diagnostics tests (WRD) were much lower in the EU/EEA countries (47.5%) than in the non-EU/EEA countries and areas (90.9%), the fiveyear trend shows a continuing increase in the use of WRD across the Region, from 69.5% in 2019 to 79.3% in 2023 (Fig 2.1.2 and Table XIV). Testing also varied considerably among countries and areas, from o% in Andorra, Belgium, Bulgaria, France, Liechtenstein, Lithuania, and Malta to 100% in Montenegro. Bacteriological confirmation of new and relapse pulmonary cases was below 70% in seven countries: Turkmenistan (56.7%), the Russian Federation (56.8%), Bulgaria (60.9%), Tajikistan (62.6%), Malta (65.3%), Armenia (66.9%), and France (68.7%), underlining the need to strengthen diagnostics.

#### 2.1.6 Age and sex

There is wide variation in the distribution of age- and sex-specific notification rates across countries and areas (Table 8). Notification rates in eastern European countries are highest in young adults (25-44 years) and decline in older age groups, while in central Asia and Türkiye, the notification rates either increase with age or are relatively constant across adult age groups.

In the group of 18 HPCs, the rate of TB in children under five years was lower than the notification rate among children aged 5-14 years, indicating that detection of TB remains particularly challenging in young children.

In countries and areas with at least 100 new and relapse TB cases, the proportion of TB cases notified in children (0-14 years) varied from below 1% (Bosnia and Herzegovina, Belarus, and Greece) to 39.3% (Slovakia) of all new and relapse cases. The difference in proportions of childhood TB cases across the countries and areas may reflect differences in case-finding practices (such as contact tracing), population age structure and under-/over-diagnosis or reporting of childhood TB. The average percentage of new and relapse TB patients under 15 years in the Region is 4.3%.

There were around twice as many males as females reported among all incident TB cases. However, a closer look at the gender distribution of TB cases reveals a large variation in male predominance, ranging from almost even, to three times larger in Belarus, Belgium, Malta, the Republic of Moldova and Ukraine. In most countries and areas, gender differences in notification rates appear to be more significant among middle-aged and older adults. TB rates in males and females seem more similar in children and younger adults (0-14 and 15-24 years). This gender difference in TB case notification most probably reflects the over-representation of males in the various TB risk groups, notably homeless people, prisoners, seasonal migrant workers and people living with HIV (PLHIV).

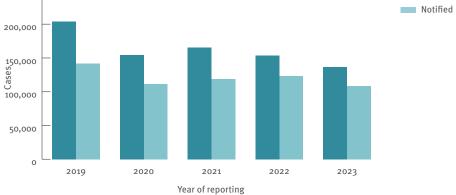
#### 2.1.7 Drug resistance

Fifty countries in the Region reported test results for rifampicin resistance in 2023. Overall, drug-susceptibility testing (DST) coverage in the Region among bacteriologically confirmed pulmonary TB cases, at least for rifampicin, was 93.1%, with 38 countries achieving coverage of 85% or higher. The percentage of confirmed RR-TB cases among 73 270 new pulmonary TB cases tested for rifampicin resistance in the Region was 20.1% (Map 2, Fig. 2.1.3, Table 11 and Table V). Although 12 countries reported no RR-TB, or less than 1% among new TB cases, in seven countries the rate was over 20% (Table 11). Overall, for EU/EEA countries, the prevalence of RR-TB cases among all confirmed new pulmonary TB cases tested for rifampicin resistance was 3.9%, while the RR-TB proportion among previously treated pulmonary cases was higher at 10.7% (Fig. 2.1.4).

Six HPCs had an RR/MDR-TB prevalence ranging from 10% to 19% among new cases tested for rifampicin resistance: Tajikistan (19.7%), Armenia (16.7%), Estonia (16.2%), Lithuania (15.3%), Uzbekistan (14.2%), and Azerbaijan (11.7%). Three HPCs had 20-29% RR/MDR-TB among new cases: the Republic of Moldova (24.3%), Ukraine (23.6%) and Kyrgyzstan (20.9%). Another three countries had an RR/MDR-TB prevalence of over 30%: Belarus (36.3%), the



Fig. 2.1.2. New and relapse TB cases tested using WHO-recommended rapid diagnostics (WRD) such as Xpert MTB/RIF, a



See: WHO (2013). Automated real-time nucleic acid amplification technology for rapid and simultaneous detection of tuberculosis and rifampicin resistance.

Russian Federation (34.9%) and Kazakhstan (31.2%). The percentage of RR/MDR-TB reported for France is misleading, as DST results are only documented for RR-TB cases.

Among 29 463 previously treated pulmonary bacteriologically confirmed TB cases for which isolates were tested for first-line DST, 49.6% had RR/MDR-TB (Fig. 2.1.3, Table 11 and Table VI).

Fourteen countries/areas had between 15% and 49% RR/MDR-TB among previously treated TB cases tested for first-line DST. However, the rate was even higher in some HPCs: Belarus (67.1%), the Russian Federation (65.0%), Estonia (64.3%) and Kazakhstan (59.1%) (Fig. 2.1.5, Table 11).

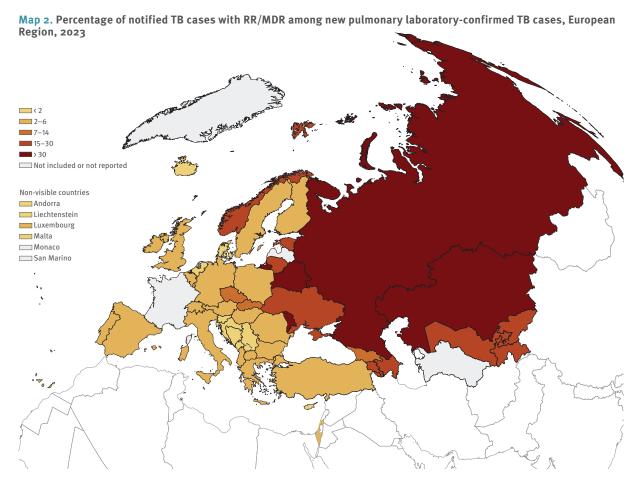
The rates of RR/MDR-TB notification among new and previously treated patients in 2023 at the regional level were 1.6 per 100 000 population (Table V, Table VI).

Trends in the rifampicin-resistant percentage among new bacteriologically confirmed pulmonary TB cases and trends in the notification rate per 100 000 population have differed by country in recent years (Table V). At the sub-regional level, the proportion of rifampicin resistance among new pulmonary TB cases increased slightly in the EU/EEA over the last five years, from 2.7% to 3.9%. Meanwhile, the rate of notified RR/MDR-TB cases remained stable at around

o.1 case per 100 000 population. The rifampicin-resistant percentage among new bacteriologically confirmed pulmonary TB cases in non-EU/EEA countries and areas decreased slightly from 26.0% to 24.4%. During the same period, the rate of RR/MDR-TB cases among new pulmonary TB cases decreased from 3.7 to 3.0 per 100 000 population.

In 2023, thirty-five countries reported data on DST to fluoroquinolones among pulmonary RR/MDR-TB patients. Data on DST to fluoroquinolones were available for about 84% of all notified pulmonary RR/MDR-TB cases. Of the 24733 pulmonary RR/MDR-TB cases tested for susceptibility to fluoroquinolones, 7692 (31.1%) were pre-XDR-TB (Table 12).

Twenty-eight countries additionally reported DST results for other Group A drugs among pre-XDR-TB patients. Of 5607 pre-XDR-TB patients tested for resistance against other Group A drugs, the prevalence of XDR-TB was 12.7% at the regional level (Table 12). In EU/EEA countries, where 90.3% of pre-XDR-TB cases were tested for Group A drugs, the prevalence of XDR among pre-XDR cases was 10.7%, while in non-EU/EEA countries and areas where DST coverage for other Group A drugs was only 65.7%, the XDR prevalence among pre-XDR patients was 12.7%. Among countries and areas reporting at least 30 pre-XDR cases with Group A DST results, four reported over 20% XDR



Sources: 2023 data from the European Surveillance Systems (TESSy) and 2023 data from the WHO global TB data-collection system. Map production: ©ECDC.

Fig. 2.1.3. Percentages of RR/MDR-TB among laboratory-confirmed pulmonary TB cases by previous treatment history, European Region, 2019–2023

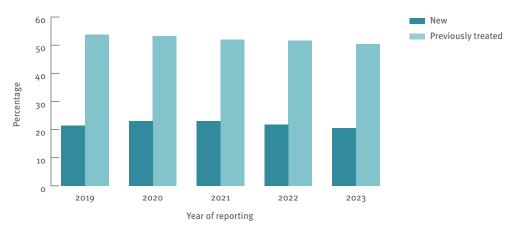


Fig. 2.1.4. Percentages of RR/MDR-TB among laboratory-confirmed pulmonary TB cases by previous treatment history, EU/EEA, 2019–2023

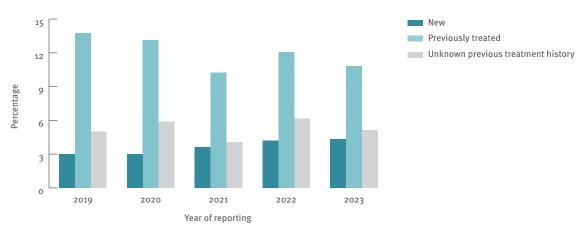
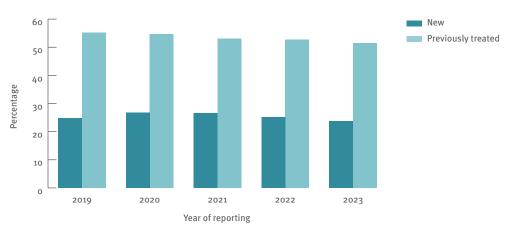


Fig. 2.1.5. Percentages of RR/MDR-TB among laboratory-confirmed pulmonary TB cases by previous treatment history, 18 HPC, 2019-2023



prevalence among pre-XDR-TB cases: Azerbaijan (76.8), Georgia (26.2%), the Republic of Moldova (25.0%) and Uzbekistan (23.5%).

In countries and areas with a long history of DST surveillance for fluoroquinolones among pulmonary RR/MDR-TB cases, there is no clear trend in relation to pre-XDR-TB prevalence. In most of these countries, the pre-XDR percentage varies widely from year to year, but at the regional level, pre-XDR prevalence among RR/MDR-TB cases has slightly increased over the past five years, from 30.5% in 2019 to 31.1% in 2023 (Table VIII).

A total of 27583 RR/MDR-TB and 8 296 pre-XDR/XDR-TB patients were enrolled in the respective treatment programmes. Eight HPCs reported a discrepancy of over 5% between the number of RR/MDR-TB patients diagnosed and the number enrolled in RR/MDR-TB treatment (treatment coverage): Tajikistan (71.0%), Türkiye (84.1%), Russian Federation (90.5%), Kazakhstan (92.9%), Belarus (93.1%), Estonia (93.3%), Georgia (94.1%) and Kyrgyzstan (94.7%) (Table 13).

In 2023, access to pre-XDR/XDR-TB treatment at the regional level was 77.7%. Five HPCs (Belarus, Georgia, Kyrgyzstan, the Russian Federation and Tajikistan) reported a discrepancy of over 5% in XDR-TB treatment coverage.

#### 2.1.8 TB/HIV coinfection

Thirty-five countries and areas provided surveillance data on TB/HIV coinfection (Table 14). Of the 132334 new and relapse TB patients, 123177 (93.1%) were tested for HIV. Twelve HPCs achieved a testing level above 90%: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Lithuania, the Republic of Moldova, the Russian Federation, Tajikistan and Ukraine. A total of 19432 TB cases were detected with HIV-positive status, representing 15.4% of those tested, up from 14.2% in 2023.

Among countries/areas reporting representative HIV testing (above 50% HIV testing coverage), five documented a significant overlap in the HIV and TB epidemics by exceeding 10% HIV prevalence among new and relapse TB cases (Table 14): the Russian Federation (25.4%), Ukraine (17.5%),

the Republic of Moldova (12.6%) Estonia (12.8%) and Armenia (11.4%). Eight countries with representative routine surveillance had 5–10% HIV prevalence among TB patients: Portugal (9.5%), Belarus (8.2%), Kazakhstan (6.2%), Sweden (7.9%), Malta (5.6%), Luxembourg, (7.1%) Cyprus and Czechia (6% each).

In 2023, twenty countries/areas in the Region provided information on ART enrolment among TB cases with HIV-positive status. Of 19432 HIV-positive TB cases, 15643 (82.4%) had received ART. Seven HPCs achieved ART coverage of over 90%: Azerbaijan, Belarus, Georgia, Kazakhstan, Republic of Moldova, Tajikistan and Ukraine.

#### 2.1.9 Country of origin

TB patients of foreign origin represent 10.4% of all TB cases notified Region-wide: 36% in EU/EEA countries and 5% in non-EU/EEA countries and areas (Table 9, Fig 2.1.6). TB patients of foreign origin represent a large majority in several countries: Malta (94.1%), Luxembourg (93.5%), Cyprus (87.7%), Norway (87.6%), Iceland (87.5%), Sweden (85.4%), the Netherlands (81.4%), the United Kingdom (78.6%), Israel (77.5%), Switzerland (75.1%), Germany (74.2%) and Denmark (71.5%).

#### 2.1.10 TB in prisons

Twenty-four countries/areas in the Region provided information on TB case detection and treatment in prisons during 2023 (Table 15). Overall, 5470 (4.1%) of the new and relapse TB cases in the Region were reported from prisons, with 5215 (95.3%) of these in the HPCs. The proportion of TB cases in prisons represented around 1.6% of the country total in EU/EEA countries; in non-EU/EEA countries and areas, the proportion was 4.6%. The notification rate in prisons in the non-EU/EEA countries and areas was 616 new TB cases per 100 000 population, which is about five times higher than in the EU/EEA sub-region. The overall notification rate for new TB cases in prisons in the WHO European Region was 505 per 100 000 population. The TB notification rate exceeded 1000 cases per 100 000 detainees in two countries: the Russian Federation and Ukraine. The highest TB-related risks in prison (relative to incidence in the general population) are calculated

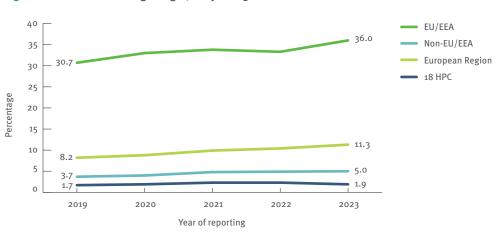


Fig. 2.1.6. TB cases of foreign origin, 2019-2023

to be in the Russian Federation (relative risk (RR) 27.6), followed by Ukraine (RR 23.3) and the Republic of Moldova (RR 22.1).

#### 2.1.11 Treatment outcome

The treatment success rate among new and relapse TB cases having started treatment with first-line drugs in 2022 was 75.5%, higher than that reported for the 2021 cohort (71.8%) (Table 16, Table X). In the HPCs, the average rate of cases cured, or cases with completed treatment was 77.6%. The treatment success rate was lower in the EU/EEA countries than in non-EU/EEA countries and areas (67.9% versus 77.2%). Only three countries achieved at least a 90% treatment success rate in this treatment cohort. Another six were close to the target, with 85–89% success rates. Seven countries had treatment success rates below 60%, with a high proportion of cases not being evaluated.

A total of 11136 (8.3%) cases were reported to have died in the 2022 cohort, 4.1% to have been lost to follow-up, and 5.3% to have had treatment that failed. These unfavourable outcomes were lower in the EU/EEA countries than in the rest of the Region, exemplified by the proportion of patients with failed treatment – 0.8% in the EU/EEA versus 6.4% in non-EU/EEA countries and areas (Table 16). Countries reporting fatal outcomes in excess of 10% were Croatia (17.3%), Slovenia and Estonia (16.7% each), Hungary (15.7%), Czechia (11.9%), Ukraine (11.0%), the Russian Federation (10.3%) and Romania (10.4%).

The treatment success rate among the 4 402 child TB cases (aged 0–14 years) in the 2022 cohort was 88.5% (Table 18). The treatment success rate in EU/EEA countries was remarkably lower than in the non-EU/EEA countries and areas (77.2% versus 92.0%). Among child TB cases in the Region, 1.1% died, 1.4% experienced treatment failure and 1.6% were lost to follow-up.

Of the 13 450 TB/HIV coinfected patients who started treatment throughout the Region in 2022, only 7322 (54.5%) had a successful treatment outcome (Table 20).

In the 2021 cohort, treatment outcome was notified for 42720 laboratory-confirmed RR/MDR-TB cases (with or without fluoroquinolone resistance) (Table 22). The treatment success rate for the whole Region was 59.7%, slightly higher than the 57.9% rate reported for the 2020 RR/MDR-TB treatment cohort. However, the treatment success rate for RR/MDR-TB patients was higher in non-EU/EEA countries and areas than in the EU/EEA (59.8% versus 56.3%). In the Region as a whole, 15.0% of RR/MDR-TB cases died, 9.8% experienced treatment failure and 10.5% were lost to follow-up.

# 2.1.12 Conclusions for the WHO European Region

In 2023, the reported number of people newly diagnosed with TB was over 172000 – the third consecutive year of slight recovery following an unprecedented 24% drop in TB notifications between 2019 and 2020. This recovery has reversed the damaging impact of the pandemic on the number of people falling ill with TB. However, the drop in

new TB diagnoses for 2020 suggested that the number of people with undiagnosed and untreated TB may have increased in the Region, leading to stagnation and a slower decline in the estimated number of TB deaths from 2020 onwards.

Compared to 2022, the rate of successful treatment outcomes among new and relapse TB cases slightly improved for 2023, although it still remains far below the global level. This indicates that countries in the European Region are facing challenges to ensure timely diagnosis and the delivery of appropriate care to TB patients. On a positive note, the treatment success rate of RR/MDR-TB, particularly among pre-XDR-TB patients, is slowly but consistently improving in the Region, most likely reflecting the scale-up of shorter, all-oral treatment regimens for drug-resistant TB patients. Nevertheless, the treatment success rates for new and relapse cases and RR/MDR-TB patients are still below regional and global targets. Similarly, notwithstanding the efforts made, the burden of RR-TB in relation to TB/HIV remains considerable, underlining the need to introduce more innovative and effective approaches to the diagnosis and treatment of TB and RR/MDR-TB.

Innovative solutions need to be implemented and action taken to reverse the impact of the COVID-19 pandemic and restore the provision of diagnostic, treatment and preventive services to pre-pandemic levels. National health programmes and health authorities need to work with community representatives and partners to deliver TB diagnostic, treatment and preventive services. Reviving political commitment, allocating adequate national and international resources and implementing innovative approaches articulated in the 'Tuberculosis action plan for the WHO European Region, 2023–2030' are crucial to avoid losing the gains made during the past decade [3].

# 2.2 Tuberculosis in the EU/EEA countries

#### 2.2.1 Data completeness

TB notification data for 2023 were reported by 29 EU/EEA countries. For most countries, the reporting of the mandatory variables in 2023 was complete or near complete (>95.0%) for age, gender and TB site and variables defining the origin of the cases (Annex 3). Overall, previous treatment history was available for 86.0% of the cases reported in 2023, but completeness ranged from below 70% in four countries (Iceland 25.0%, Ireland 65.0%, Luxembourg 61.4% and Malta 0.0%) to 100% in 15 countries (Annex 3).

Among the TB cases reported in 2023, 80.4% had culture results (Annex 3), which was a slight decrease compared to the proportion reported in 2022 (83.4%). Five countries had less than 70% of cases reported with culture results: Finland (70.0%), France (52.1%), Italy (43.3%), Malta (67.6%) and Portugal (61.0%). Reporting completeness for microscopy in 2023 (80.8%) is lower than for 2022 (84.2%) and ranged from 28.3% in Italy to 100% in Iceland, Liechtenstein and Lithuania. For 2023, DST result reporting completeness

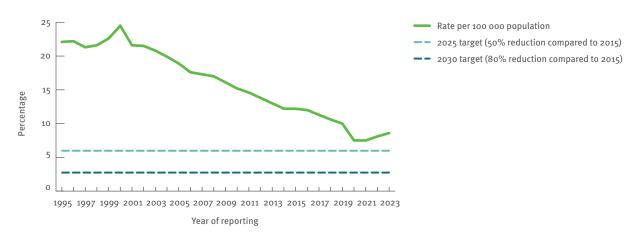
was 74.0% for the first-line drugs (isoniazid and rifampicin). Completeness of DST reporting for at least one second-line drug (including bedaquiline, moxifloxacin and levofloxacin) was 100% for the 22 countries that reported at least one MDR-TB case (Annex 3).

In total, 18 (of 29) countries reported HIV status in 2023, which is less than in 2022 (n=21). HIV status was only available for 39.3% of all TB cases reported in 2023,

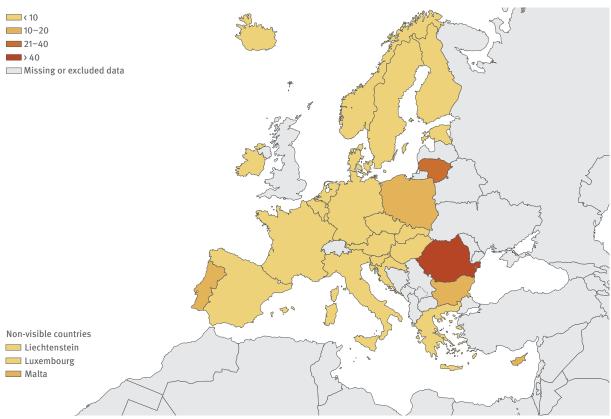
although seven countries reported HIV status for more than 75% of their TB cases (Annex 3).

Treatment outcome at 12 months was available for 61.5% of all cases reported in 2023. Among RR/MDR-TB cases reported in 2021, 96.8% had treatment outcome reported at 24 months. Completeness of treatment outcomes across these two cohorts are comparable to treatment outcome rates in 2022 (Annex 3).

Fig. 2.2.1. TB notification rate per 100 000 population by year of reporting and the Sustainable Development Goals milestone 2025 and 2030 targets, EU/EEA, 1995–2023



Map 3. TB notification rates of new TB cases and relapses per 100 000 population, EU/EEA, 2023



Sources: 2023 data from the European Surveillance Systems (TESSy) and 2023 data from the WHO global TB data-collection system. Map production: ©ECDC.

#### 2.2.2 TB notification rates and trends

In 2023, 38993 cases of TB were reported in 29 EU/EEA countries (Table 3). The number of cases reported in Romania (9506) accounted for 24.4% of all TB cases reported in 2023, and a rate per 100000 population of almost six times the EU/EEA rate.

The EU/EEA notification rate for TB in 2023 was 8.6 per 100 000 population (Table 3), an average increase of 10.5% compared to the rates for 2021 and 2022 (7.5 and 8.1 per 100 000 population, respectively). Despite this increase, when compared to the period before 2020, the overall downward trend in notifications, observed since the launch of European enhanced TB surveillance in 1996, continued (Fig 2.2.1). During the period 2019–2023, the overall average annual decline in the notification rate was 3.8% (Table 3), indicating a slower rate in 2023 than that observed in 2022.

As reported for previous years, country-specific notification rates differed considerably in 2023, ranging from 2.5 per 100 000 population in Liechtenstein to 49.9 per 100 000 population in Romania (Table 3). Rates were below 10.0 per 100 000 in 23 countries (Map 3; Trend table III).

In 24 of 29 countries TB notification rates have fallen compared to 2019. The annual change rate was not calculated for Liechtenstein and Latvia due to missing data (Table 3), the annual rate of decrease between 2019 and 2023 exceeded 10% in two countries (Estonia: -10.6% and Malta: -10.8%). Meanwhile, in the remaining countries the notification rates decreased slightly or experienced an upward trend compared to 2019. This upward trend was particularly pronounced in Cyprus, Greece and Iceland, where the average annual rate increased by more than 2%. When comparing the notification rates between 2022 and 2023, a slight increase was observed in 18 of the 29 countries.

## 2.2.3 Previous treatment, laboratory confirmation and TB site

In 2023, the distribution of cases by previous treatment history was similar to that reported for previous years: 29 054 (74.5%) of 38 993 TB cases reported in 2023 were newly diagnosed, 4489 (11.5%) had previously been treated for TB and 5450 (14.0%) had an unknown previous treatment status (Table 4). The proportion of previously treated cases was more than 10% in ten countries: Belgium, Bulgaria, Estonia, Iceland, Lithuania, Luxembourg, Norway, Poland, Romania and Slovakia.

Of all 38 993 TB cases reported in 2023, 28 219 (72.4%) were diagnosed with pulmonary TB, 7516 (19.3%) with extrapulmonary TB, 2750 (7.1%) with a combination of both and 508 (1.3%) had no TB site reported (Table 5). The proportion of extrapulmonary TB was above 30% in four countries: Finland (37.8%), Ireland (31.8%), the Netherlands (33.8%) and Sweden (34.9%).

Of 36572 new and relapse pulmonary TB cases reported in 2023, 24991 (84.9%) were confirmed by culture and/or smear and nucleic acid amplification test (Table 6). In four

countries, over 30% of reported new and relapse pulmonary TB cases were diagnosed clinically: Bulgaria (39.1%), France (31.3%), Malta (34.7%) and Slovakia (37.0%).

According to the EU case definition, 26687 (68.4%) of 38 993 TB cases reported in 2023 were classified as confirmed, 5 061 (13.0%) as probable and 7 245 (18.6%) as possible cases (Table 7). The proportion of confirmed TB cases continued to slightly decrease in 2023 (68.4%) compared to 2022 and 2021 (70.6% and 72.0%, respectively), but remained comparable to 2020 and 2019 levels (67.3% and 67.1%, respectively). Country-specific proportions of confirmed cases ranged from 42.3% in France to 100% in Liechtenstein, however over 75% of reported cases were laboratory-confirmed in 17 countries. Conversely, three countries reported over 35% of their TB cases as possible cases (i.e. only clinically diagnosed): Bulgaria (44.0%), France (39.7%) and Malta (41.2%). The high proportion of clinically diagnosed cases may reflect underreporting of laboratory results to the national surveillance systems in these countries, or alternatively it could indicate that TB may be over-diagnosed.

#### 2.2.4 Age and sex

Of 36 572 new and relapse TB cases reported in 2023, 23 450 (64.1%) were aged between 25 and 64 years and 7192 cases (19.7%) were in adults aged over 64 years (Table 8). Notification rates per 100 000 population were higher among those aged 25–44 years (10.2 per 100 000 population) and 45–64 years (9.3 per 100 000 population) than for the age groups 15–24 years (8.8 per 100 000 population) and people over 64 years (7.5 per 100 000 population). Children aged between five and 14 years had the lowest notification rate of all age groups at 2.0 per 100 000 population.

There was variation in the age distribution of cases between countries, with cases occurring predominantly in those aged between 25 and 64 years. However, cases were younger in Cyprus and Liechtenstein (26.9% and 100% respectively were aged between 15 and 24 years) and older in Croatia, Estonia, Finland and Slovenia (where more than 30% of cases were aged over 64 years; Table 8).

Children under 15 years accounted for 1644 (4.5%) of 36572 new and relapse TB cases (1689, 4.3% of all TB cases; Table IV), which was a slight increase on the number reported in 2022 (1214, rate per 100 000 of 3.6). Lithuania, Romania and Slovakia reported the highest notification rates among children under 15 years: 7.1, 19.7 and 12.5 cases per 100 000 children aged 0–4 years, and 8.3, 11.2 and 7.7 cases per 100 000 aged 5–14 years (Table 8). In 2023, children under the age of 15 years accounted for a notification rate of 2.5 per 100 000 population, which was higher than the one reported in 2022 (2.0 per 100 000 population; Table IV).

In 2023, the male-to-female ratio in new and relapse TB cases was 2.2 (Table 8), which was similar to the ratio reported in 2022 (2.1).

#### 2.2.5 Origin of cases

Of the 38 993 TB cases notified in 2023, 23 451 (60.1%) were born in, or were citizens of the reporting country (referred to as 'native'), 14 050 (36.0%) were of foreign origin and 1492 (3.8%) were of unknown origin (Table 9). Of the 1492 cases of unknown origin in 2023, four countries reported over 10% of their cases (Finland 17.8%, France 11.7%, Liechtenstein 100%, Spain 16.8%). Country-specific proportions of foreign-origin TB cases ranged from below 2% in three countries (Bulgaria, Liechtenstein and Romania) to above 85% in six countries (Cyprus, Iceland, Luxembourg, Malta, Norway and Sweden). The overall proportion of native TB cases decreased from 64.4% in 2022 to 60.1% in 2023, while the foreign-born proportion increased from 33.3% in 2022 to 36.0% in 2023 (Table 9).

#### 2.2.6 Drug resistance

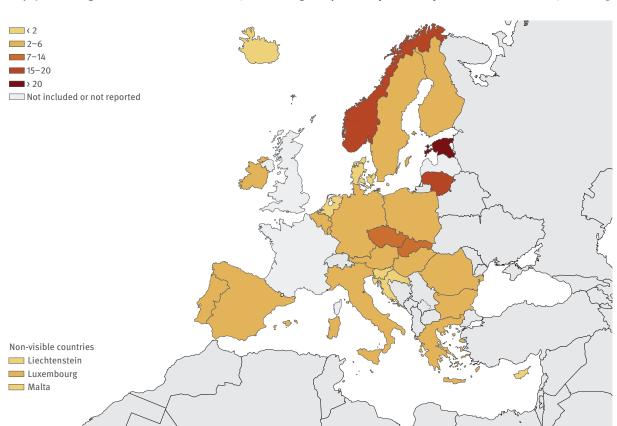
Annex 5 displays participation and performance in an EQA scheme for DST by Member State.

Of 30 969 pulmonary TB cases notified in 2023, 23 847 (77.08%) were bacteriologically confirmed and 19 170 (80.4%) of them had drug susceptibility testing results reported for at least rifampicin (Table 10). The proportion of cases with DST results reported for at least rifampicin varied by country, ranging from 0.0% in Liechtenstein to 100% in five countries (Cyprus, Lithuania, Norway, Slovakia

and Sweden). Among the cases with rifampicin DST results, 814 (4.7%) were reported as MDR TB.

The proportion of MDR TB cases varied by country (Table 10). Six countries reported no MDR-TB cases in 2023 (Croatia, Cyprus, Iceland, Liechtenstein, Malta and Slovenia), and another three countries reported that the proportion of MDR-TB cases (among cases with DST results) was ≤ 2% (Belgium, Denmark and Ireland). France reported 87.9% of cases with DST results as MDR-TB, however DST results are reported only for RR/MDR-TB cases in France. The highest proportion of MDR-TB cases (among cases with DST results) was reported by Estonia, Lithuania and Norway, with 22.5%, 17.7% and 15.3% reported as MDR-TB, respectively.

The proportion of RR/MDR-TB among new and previously treated bacteriologically confirmed pulmonary TB cases with DST results for rifampicin was 4.9% (866 of 17683; Table 11). When the data were analysed by previous treatment history, the proportion of RR/MDR-TB was higher among previously treated cases (10.7%, 271 of 2523) than new cases (3.9%, 595 of 15160). A total of six countries reported zero new RR/MDR-TB cases for those with information available regarding previous treatment (Croatia, Cyprus, Iceland, Liechtenstein, Malta and Slovenia). The Netherlands did report RR/MDR-TB cases in 2023, but treatment history was not available for further analysis



Map 4. Percentage of notified TB cases with RR/MDR among new pulmonary laboratory-confirmed TB cases, EU/EEA, 2023

Sources: 2023 data from the European Surveillance Systems (TESSy) and 2023 data from the WHO global TB data-collection system. Map production: ©ECDC.

and inclusion. Overall, the proportion of RR/MDR-TB cases among new bacteriologically confirmed pulmonary cases with DST results for rifampicin varied across countries, with three countries reporting over 10% of the cases (Estonia: 16.2%, Lithuania: 15.3% and Norway:14.8%) (Table 11; Map 4).

In 2023, 59.6% of RR/MDR-TB cases (561 of 942) had DST results for any fluoroquinolone (Table 12), and among these 155 (27.6%) met the definition for pre-XDR. Of all pre-XDR cases reported in 2023, five countries reported the majority (Germany n=36; 23.2%, Italy n=15; 9.7%, Lithuania n=25; 16.1%, Poland n=26; 16.8% and Romania n=20; 12.9%). Almost all (90.3%, 140 of 155) pre-XDR cases had DST results reported for at least one other Group A drug (Table 12). Among these cases, 15 (10.7) met the XDR-case definition. All XDR-TB cases were reported by seven EU/EEA countries: Estonia (n=2; 13.3%), France (n=1; 6.7%), Germany (n=5; 33.3%), Ireland (n=1; 6.7%), Lithuania (n=2; 13.3%), Poland (n=3; 20.0%) and Romania (n=1; 6.7%).

#### 2.2.7 TB/HIV coinfection

HIV status was reported for 15 324 (77.5%) of 19 765 TB cases reported from the 18 countries that provided information on the HIV status of TB cases (Table IX). Of the cases with known HIV status, 680 (4.4%) were reported as HIV positive. Among the 15 countries with at least 50% reporting completeness for HIV status, the proportion of coinfected cases was highest in Estonia (13.7%), Hungary (16.1%) and Portugal (10.1%). The slight increase in the proportion of HIV co-infected TB cases observed since 2021 continued from 4.2% in 2021, 4.3% in 2022 to 4.4% in 2023. The proportion of co-infections in 2021 and 2022 was higher than in the preceding years (3.6% in 2020 and 3.9% in 2019; Table IX).

#### 2.2.8 TB in prisons

In 2023, 12 EU/EEA countries reported 332 new and relapse TB cases in prisons, resulting in a notification rate of 133.3 per 100 000 prison population and a RR of 10.8 compared to the general population in the same countries (Table 15). Overall, TB cases in prisons accounted for 1.5% of all new and relapse cases notified in the 12 EU/EEA countries reporting, with the proportion being highest in Poland (4.0%).

#### 2.2.9 Treatment outcome

Of all 24 901 new and relapse TB cases notified in 2022 with a treatment outcome reported in 2023, 16 906 (67.9%) were treated successfully, 1962 (7.9%) died, 199 (0.8%) experienced treatment failure, 907 (3.6%) were lost to follow up, 580 (2.3%) were still on treatment in 2023 and 4347 cases (17.5%) were not evaluated (Table 16). Among the 20 countries that reported treatment outcome for the 2022 cohort, five countries reported successful treatment for over 80.0% of cases: Lithuania (87.2%), Norway (82.4%), Romania (84.4%) and Slovakia (89.1%) and Sweden (87.1%). In contrast, six countries reported death as the outcome for over 10% of cases: Croatia (17.3%), Czechia (11.9%), Estonia (16.7%), Hungary (15.7%), Romania (10.4%) and Slovenia (16.7%; Table 16).

Treatment success among the 1176 previously treated TB cases notified in 2022 was 53.0% (Table 17), which was lower than the rate for new and relapse cases (67.9%; Table 16). A higher proportion of previously treated cases was reported to have experienced treatment failure (6.5%) or have been lost to follow-up (9.0%) compared to new and relapse cases.

Treatment outcome at 12 months was reported for 519 HIV-positive TB cases notified in 2022 (Table 20). Of these HIV-positive TB cases, 327 (63.0%) were reported as successfully treated, 47 (9.1%) died, one (0.2%) experienced treatment failure, 31 (6.0%) were lost to follow-up, 40 (7.7%) were still on treatment in 2023 and 73 (14.1%) were not evaluated (Table 20).

Treatment outcome at 24 months for RR/MDR-TB was evaluated for the 577 RR/MDR-TB cases notified in 2021, with a treatment outcome reported in 2023. Of those, 325 (56.3%) were treated successfully, 100 (17.3%) died, 46 (8.0%) experienced treatment failure, 46 (8.0%) were lost to follow-up, 21 (3.6%) were still on treatment in 2023 and 39 (6.8%) were not evaluated (Table 22). Of the 16 countries that had reported RR/MDR-TB cases in 2021 and treatment outcomes in 2023, six countries had a treatment success rate above the target of 75%: Estonia (85.0%), Malta (100%), the Netherlands (90.9%), Slovakia (80.0%), Slovenia (100%) and Sweden (100%). The 24-month treatment success rate for RR/MDR-TB was below 50% for cases reported in 2017, and in recent years there has been an improvement in the rate, which has increased to over 50% (Table XI).

Among the 79 cases categorised as pre-XDR-TB, notified in 2021 and reporting a treatment outcome at 24 months in 2023, 37 cases were reported as having been treated successfully (46.8%), 17 (21.5%) were reported to have died, 14 (17.7%) had experienced treatment failure, three (3.8% were lost to follow-up, four (5.1%) were still on treatment and four (5.1%) were not evaluated (Table 23). Treatment success among the pre-XDR-TB cohort of 2017–2020 has been below 35% each year, however in 2021 an increase to over 40% was reported (Table XII).

In 2023, treatment outcome at 36 months for XDR-TB cases notified in 2020 was not reported as no country reported XDR-TB cases in accordance with the WHO definition implemented in 2021.

#### 2.2.10 WHO disease burden estimates

According to WHO, the estimated TB incidence in the EU/EEA overall (excluding Liechtenstein) was 8.5 per 100 000 population in 2023, showing a slight increase on 2022 (8.4 per 100 000) (Table 1 and Table II). Of the 29 countries with calculated estimates, 22 had an estimated incidence of less than 10.0 per 100 000 population (Table 1 and Table II). In 2023, the overall number of estimated TB deaths, excluding HIV deaths in people who were HIV positive, was 3600 for the EU/EEA, an increase against 2022 (3500) and a reduction of almost 16.3% compared to the estimate of 4300 for 2014 (Table 1 and Trend Table I).

#### 2.2.11 Conclusions for the European Union/ European Economic Area

In 2023, 29 EU/EEA countries reported TB notification data and a total of  $38\,993$  TB cases.

An increase in the overall TB notification rate was observed, from a notification rate of 8.1 per 100 000 population in 2022 to 8.6 in 2023. As in previous years, a few countries reported a large proportion of the total number of cases, including Romania, which reported almost a quarter of all TB cases in 2023.

The increase in total case numbers and notification rates in 2023 continued to show the effect of COVID-19 disruptions on the healthcare system. In addition, the movement to or across EU/EEA countries of almost 190 000 people in 2022 (the largest number since 2016) without legal status on arrival in the host country also contributed to the increase [4].

The analysis of data completeness (presented in Annex 3) indicated decreased completeness across seven of the 17 variables in 2023 compared with 2022, most notably for HIV status, culture results, enrolment to treatment and treatment outcome at 12 months.

Several factors affecting the case notification in EU/EEA countries were identified through a survey conducted alongside the 2020 data collection [5]. These describe diversion of TB resources, whether clinical, laboratory, or public health (including surveillance and contact tracing) to COVID-19 activities and the difficulties for patients to access clinical services, either due to lockdown/movement restrictions, overburdened health services, or fear of contracting COVID-19. These actions contributed to delayed presentation and/or diagnosis of some TB cases. Delayed diagnosis may have resulted in more severe illness at time of diagnosis for a certain number of cases. In addition, delayed treatment of pulmonary cases, combined with decreased contact tracing resources for TB, may have led to more TB transmission. The factors described, combined with the increase in migration in the EU/EEA (4), reinforce the hypothesis that the increases in the number of cases after the COVID-19 pandemic are due to a combination of factors and cannot be attributed to one cause.

Although an increase in the TB notification rate was observed after the pandemic period, the ongoing progress towards reaching the United Nations Sustainable Development Goal 3 target (an 80% reduction in the TB incidence rate in 2030 compared to 2015) remains challenging. The EU/EEA SDG target for 2030 is a notification rate of 2.4 per 100 000 population (based on an 80% reduction of the 2015 TB notification rate of 11.9 per 100 000 population). The catch-up in TB case notifications, resulting in an increased rate in 2023, indicates that progress is still being made. Current progress in identifying and treating people with TB disease, will help to stabilise the TB incidence rate in the years to come. However, at the current rate of decline, most EU/EEA countries are still not on track to reach the 80% reduction target by 2030, or the TB elimination target by 2050 [6].

Following the disruptions caused by the COVID-19 pandemic, the number of drug-resistant TB cases in the EU/EEA continued to increase in 2023, after the initial increase observed in 2022. The 2022 and 2023 increases followed a steady decline during the previous four-year period (2018–2021). The increase in the number of drug-resistant TB cases can be attributed to a range of factors, including the resumption of normal testing services after the COVID-19 pandemic, and expanded and more targeted tuberculosis testing services in some settings and populations at risk.

DST results for first-line drugs were reported for over 70% of laboratory-confirmed TB cases in 2023, a slight decrease compared to just over 75% in 2022, indicating that there is still need for improvement. The changes implemented to the definitions of drug resistant TB [7] in 2020, especially the definition for XDR-TB (i.e. cases that are resistant to rifampicin and may also be resistant to isoniazid) meet the definition for pre XDR-TB, as well having resistance to at least one other Group A drug (bedaquiline and linezolid). The introduction of the 'pre XDR-TB' category, along with the updated WHO treatment guidelines for drug-resistant TB [7] in 2022, emphasise the need for DST against second-line drugs, particularly fluoroquinolones, bedaquiline and linezolid.

Although the treatment success rate for drug-susceptible TB cases improved in 2022 compared to the COVID-19 pandemic period, it is still lower than that observed in 2018. However, the success rate for treatment outcome of the RR/MDR-TB cases has shown a slow improvement in recent years.

Nevertheless, additional efforts are required to achieve the regional milestone of 80% treatment success rate for RR/MDR-TB by 2025 [6] and the 90% rate recommended by WHO priority indicators and targets for monitoring the implementation of the End TB Strategy [6] in the EU/EEA. Additional resources may be required to accelerate progress towards these goals, and to counteract the increase observed at EU/EEA level and globally in the number of TB cases reported, even if this is partly due to countries' catching up on the diagnosis and reporting of cases after the pandemic.

Overall, the increase in the TB notification rate in 2023 across the EU/EEA revealed a continuation of the substantial impact caused by the COVID-19 pandemic which reduced the numbers diagnosed during 2020 and 2021, compared to 2019. The increase in the notification rate reported for the period 2022–2023 suggests a catch-up in the number of people with undiagnosed, untreated and multi-drug resistant TB seeking care in 2023.

However, there is still considerable work to be done to achieve the United Nations Sustainable Development Goals. Following the disruption caused to healthcare services by recent events, intensified efforts are needed to prioritise and appropriately resource TB services. This will facilitate timely TB diagnosis and initiation of appropriate drug treatment regimens, while at the same time encouraging continuous collaboration with TB patients to ensure treatment completion.

WHO's new 'Consolidated guidance on tuberculosis data generation and use. Module 1. Tuberculosis surveillance' [9] highlights the need for surveillance improvement and adaptation at the EU/EEA level, alongside more consolidated tuberculosis surveillance standards.

Persistent efforts are needed in EU/EEA countries to establish and strengthen partnerships between healthcare providers, people affected by TB, communities at high risk of TB, and public health programmes.

As always, ECDC remains committed to supporting EU/EEA countries in ending the TB epidemic.

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<sup>9</sup> All weblinks accessed on 24 February 2025.



# 3. Monitoring of tuberculosis response

The new Tuberculosis Action Plan for the WHO European Region 2023–2030, developed on the basis of consultations with Member States, partners, civil society organisations and affected communities, was submitted to the 72nd session of the Regional Committee for Europe and adopted by the Member States as Resolution EUR/RC72/(2) [1-2].

The Regional Action Plan will operationalise the global End TB Strategy through Region-specific actions, placing people at the heart of the response, in line with the European Programme of Work, 2020–2025 – United Action for Better Health in Europe [3]. By contributing to the European Programme of Work, moving towards attaining universal health coverage, promoting health and well-being and protecting against health emergencies, the Regional Action Plan strives for a better balance in providing support at the regional, sub-regional and country levels for greater impact at the population level.

The Tuberculosis Action Plan for the WHO European Region 2023–2030 is supported by a monitoring framework that facilitates a harmonised approach to monitoring both the progress towards the 2025–2030 targets at national and regional levels, and the actions taken to implement the End TB Strategy. Monitoring is not limited to tracking data on TB surveillance and implementation of activities, but also includes an evaluation of the effectiveness and impact of interventions, providing the foundation for advocacy and policy development.

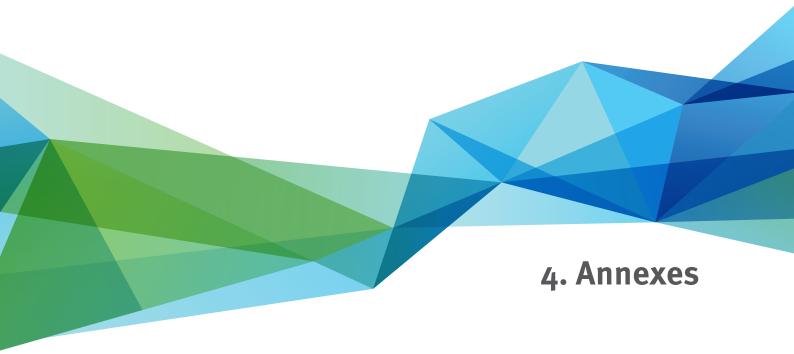
The framework consists of 30 indicators, enabling performance of the intervention areas in the TB Action Plan to be monitored. Ten indicators were selected as the core indicators for monitoring and reporting to the WHO Regional Committee for Europe. In addition, the selection of indicators was harmonised with the End TB Strategy's recommended top 10 global indicators, to focus on those for which data are collected regularly through routine recording and reporting. To prioritise the area of intervention, indicators are measured according to the following categories: 18 HPCs for ending TB in the WHO European Region; EU/EEA countries; and WHO European Region countries.

The status of the core and additional indicators are reported in the surveillance report every second year. The first update on progress was presented in the report 'TB surveillance and monitoring in Europe 2024' [4].

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<sup>10</sup> All weblinks accessed 24 February 2025.



# **Annex 1. Technical note**

Between 1996 and 2007, TB surveillance data from the European Region were collected and analysed annually under the EuroTB project.

Since 1 January 2008, the European Centre for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe have jointly coordinated the collection and analysis of TB surveillance data in Europe, aiming to ensure data standardisation and high quality across the WHO European Region. The underlying standards and definitions have been agreed by leading European experts. The definitions used in this report are in line with the latest WHO revised definitions [1,2]. In the EU/EEA, reporting follows EU case definitions [3].

The report covers the 53 countries of the WHO European Region and Liechtenstein. These are collectively referred to as the European Region. Although the United Kingdom was part of the EU/EEA until 31 January 2020, for ease of reporting, starting with 2020, United Kingdom data and historical data are shown in the non-EU/EEA section of the tables.

Data published in the report may differ from figures in national reports due to variations in reporting periods and the deadlines for data collection. The deadline for updating the data used in this report was 15 November 2024.

# 1.1 Data-reporting and analysis

Designated experts within national surveillance, infectious disease or public health institutes submitted TB surveillance and control programme management data for 2023 electronically to the ECDC/WHO Regional Office for Europe Joint TB Information System via a common portal [4]. TB surveillance data from the EU/EEA countries were later submitted to The European Surveillance System (TESSy) platform hosted by ECDC (Annex 1). Surveillance data from non-EU/EEA countries and areas and programme management data from the entire European Region were processed through the WHO Tuberculosis Monitoring and Evaluation (TME) platform in aggregated format. In all, 29 of 30 EU/EEA Member States reported case-based data. All countries in the European Region were also asked to provide updates for 2020, 2021 and 2022 to allow for the exclusion of duplicate cases or those found later not to have TB, and for the reporting of treatment outcomes in previously notified cases.

The TESSy variable list for collection of the 2023 data (Annex 2) has been updated compared to the previous year.

Reporting completeness (Annexes 3 and 4) varied among countries and areas due to differences in legislation, specifics of national surveillance systems and TB case ascertainment. Readers should therefore be cautious when making comparisons across countries and areas. In recent

years, the quality and comparability of reported data have improved and reporting completeness is generally high in the EU/EEA, with a few exceptions, such as HIV status and drug susceptibility testing (DST) data.

Estimates of TB disease burden presented in Tables 1, 2, I and II are provided by WHO using a methodology developed by the Global Task Force on TB Impact Measurement. Estimates are updated annually using the latest available data and analytical methods [5]. Population denominators were obtained from United Nations Population Division statistics [6] for the calculation of rates in these tables.

For the calculation of notification rates, country total population denominators by age group and gender were obtained from Eurostat [7] (15 April 2024) for the EU/EEA countries and from United Nations Population Division statistics for all other countries and areas.

Reported data were analysed using the main epidemiological variables (time, place, gender, age and patient origin) and case management variables (history of previous anti-TB treatment, localisation of disease, laboratory results, HIV status and treatment outcome). If indicated, associations between variables were quantified as relative risk (RR) and their 95% confidence intervals (CI), and results were considered significant if the CI did not include 1.

# 1.2 TB/HIV coinfection

Case-based HIV status for 2023 was reported by Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Greece, Hungary, Ireland, Lithuania, Luxembourg, Malta, Norway, Portugal, Romania, Slovakia, Slovenia and Spain. The proportion of TB/HIV co-infection was expressed as a percentage of reported TB cases with known HIV status. HIV status had to be available for more than 50% of all TB cases to be considered complete in the country profiles. For the reported new and relapse TB cases with known HIV status in 2023, start or continuation on antiretroviral therapy (ART) was reported by four EU/EEA Member States.

# 1.3 Laboratory network performance and drug resistance

Results of DST from initial isolates of *M. tuberculosis* have been collected for isoniazid and rifampicin since the reporting year 1998. EU/EEA countries have also reported susceptibility to ethambutol and streptomycin, with 79% of EU/EEA countries reporting the latter for the last six years (2017–2023). Data on second-line drug resistance to amikacin, capreomycin, kanamycin, ciprofloxacin and ofloxacin have been reported via TESSy since 2008 and via the Centralized Information System for Infectious Diseases/TME since 2009. Data on ciprofloxacin are no

longer collected in TESSy (since 2017), as ciprofloxacin is no longer recommended for treatment of drug-susceptible or drug-resistant TB. Data on resistance to gatifloxacin, levo-floxacin and moxifloxacin were added in 2013; bedaquiline and delamanid in 2016; pyrazinamide in 2017 and clofazimine, ethionamide and linezolid in 2021. Data on ofloxacin, gatifloxacin and kanamycin are no longer collected in TESSy (since 2021). Case-based information on DST is collected in countries/areas where DST results are linked to TB case notifications (28 out of 30 countries in 2023).

Where individual DST data are not available, data have been obtained from WHO's TME platform in aggregated format, when possible and if deemed adequate. Information on the organisation and laboratory practices for anti-TB DST in the country/area is collected using the TME module of the joint TB surveillance system. Since 2019, when collecting data to report resistance to anti-TB drugs, EU/EEA Member States have been required to report to TESSy the resistance pattern used on initiation of the treatment, irrespective of the method used for DST or resistance prediction. Drug-resistance surveillance (DRS) methods vary across countries and areas. Initial DST results may be collected routinely for all culture-positive TB cases notified, or only for cases included in specific surveys or diagnosed in/ referred to selected laboratories. DRS data were considered complete if:

- they were collected nation-/area-wide; or
- culture results were available for 90% or more of all cases; and
- more than 50% of all cases were culture-positive; and
- more than 75% of all culture-positive cases had DST results available for isoniazid and rifampicin; and
- at least 95% of the external quality assessment (EQA) results were confirmed by a supranational reference laboratory.

DRS data were not reported (or are considered incomplete) for Italy, Monaco, Serbia and Switzerland. France only reported complete national DRS data for rifampicin-resistant TB (RR-TB) cases.

EQA systems are essential for ensuring accurate diagnosis of TB and drug-resistant TB. Implementing EQA by organising regular EQA rounds and identifying training needs is one of the key activities of the European Reference Laboratory for TB (ERLTB-Net) [8]. The latest available EQA test results are published in Annex 5.

Percentages of laboratory-confirmed drug-resistant cases were calculated using cases with known DST results (for at least rifampicin) as the denominator. The results of DST for second-line drugs were only analysed for RR/MDR-TB cases.

# 1.4 Treatment outcome monitoring

EU/EEA countries have provided treatment outcome data since the reporting year 2002 by submitting an updated dataset for cases notified one year prior to the year of reporting. The same applies to MDR-TB treatment outcome for cases reported two years earlier and pre-XDR and XDR-TB treatment outcome for cases reported three years earlier. As part of the 2024 data call, for 2023 data, outcome data were collected for TB cases reported in 2022, rifampicinresistant and multidrug-resistant TB (RR/MDR-TB) cases in 2021 and pre-XDR and XDR-TB cases in 2020. Non-EU/EEA countries and areas have reported aggregated treatment outcome data following the same principle since 2013.

If enrolment for treatment is taken into account for treatment outcome monitoring analysis, two types of TB cases are included: cases enrolled for treatment and cases with no indication of enrolment for treatment. For countries and areas reporting case-based data, the most recently updated information was used. This may result in denominators differing from the number of notified cases reported in the previous year's report. For countries and areas reporting aggregate outcome data, completeness of cohorts is assessed by comparing the total number of cases included in treatment outcome monitoring cohorts with those initially notified as pulmonary and culture- or smear-positive, depending on the type of cohort.

# 1.5 Geographical areas

The following 29 EU/EEA countries are presented separately in tables and in Chapter 3: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

The 24 remaining (non-EU/EEA) countries in the WHO European Region are Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Israel, Kazakhstan, Kyrgyzstan, the Republic of Moldova, Monaco, Montenegro, North Macedonia, the Russian Federation, San Marino, Serbia, Switzerland, Tajikistan, Türkiye, Turkmenistan, Ukraine, the United Kingdom and Uzbekistan.

Data from Serbia include TB cases reported from Kosovo¹ and these are also stratified in tables to reflect United Nations Security Council Resolution 1244 (1999).

Data from the 18 high-priority countries (HPCs) identified in the 'Plan to stop TB in 18 high-priority countries in the WHO European Region, 2007–2015' [9] are presented in italics and as sub-totals alongside the sub-totals for the EU/EEA countries and non-EU/EEA countries and areas. The 18 HPCs in the WHO European Region are: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, Romania, the Russian Federation, Tajikistan, Türkiye, Turkmenistan, Ukraine and Uzbekistan.

TB notifications from France include overseas territories. TB notifications from Greenland are not included in the report.

<sup>1</sup> This designation is without prejudice to positions on status and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

#### 1.6 Definitions

#### 1.6.1 TB case definition for surveillance

Information from EU/EEA countries was collected to enable the classification of cases according to the case definition approved by EU Member States and published by the European Commission [3]. This classifies cases as 'possible', 'probable' or 'confirmed'. Possible cases meet clinical criteria only. Probable cases meet the clinical criteria and at least one of the laboratory criteria for a probable case: detection of acid-fast bacilli by microscopy; detection of M. tuberculosis complex by nucleic acid amplification testing, or histological appearance of granulomata. In addition to meeting clinical criteria, confirmed cases require isolation of M. tuberculosis complex by culture or detection of both acid-fast bacilli by microscopy and M. tuberculosis complex by nucleic acid amplification testing.

All countries and areas in the European Region also follow the WHO-recommended definitions (2013 revision) [1]. These define a 'case of tuberculosis' as a patient in whom TB has been confirmed by bacteriology or diagnosed by a clinician. A 'bacteriologically confirmed TB case' is one from whom a biological specimen has tested positive using smear microscopy, culture or WHO-recommended rapid diagnostics (WRD) (e.g. Xpert MTB/RIF). A 'clinically diagnosed TB case' does not fulfil the criteria for bacteriological confirmation, but has been diagnosed with active TB by a clinician or other medical practitioner who has decided to give the patient a full course of TB treatment.

Cases discovered post-mortem as having gross pathological findings consistent with active TB, which would have indicated anti-TB treatment had the patient been diagnosed before dying, also fit the clinical criteria and are included.

#### 1.6.2 Previous anti-TB treatment status

**New cases** have never been treated for TB or have taken anti-TB drugs for less than one month. For EU/EEA countries, cases diagnosed before 1951 are analysed as new cases.

**Previously treated patients** have received one month or more of anti-TB drugs in the past. They are further classified by the outcome of their most recent course of treatment as follows:

- relapse: patients have previously been treated for TB, were declared cured or to have completed their treatment at the end of their most recent course of treatment, and are now diagnosed with a recurrent episode of TB (either a true relapse or a new episode of TB caused by reinfection):
- treatment after failure: patients who have previously been treated for TB and whose treatment failed at the end of their most recent course of treatment;
- treatment after loss to follow-up: patients who have previously been treated for TB and were declared lost to follow-up at the end of their most recent course of treatment (these were previously classified as 'treatment after default'); and

 other previous treatment: patients who have previously been treated for TB but whose outcome after their most recent course of treatment is unknown or undocumented.

Patients with an unknown previous TB treatment history do not fit any of the categories listed above.

New and relapse cases of TB are incident TB cases.

#### 1.6.3 Site of disease

**Pulmonary TB** refers to any bacteriologically confirmed or clinically diagnosed case of TB involving the lung parenchyma or the tracheobronchial tree (laryngeal TB is classified as pulmonary). A patient with both pulmonary and extrapulmonary TB is classified as a case of pulmonary TB.

**Extrapulmonary TB** refers to any bacteriologically confirmed or clinically diagnosed case of TB involving organs or anatomical sites other than the lungs (such as pleura, lymph nodes, abdomen, genitourinary tract, skin, joints and bones, or meninges).

#### 1.6.4 Notes on the definition

The above TB case definition and the definition of previous anti-TB treatment status and site of disease are in accordance with the European Commission's approved definitions for TB surveillance.

All possible, probable and confirmed cases are reported to the joint European surveillance database. For countries and areas with laboratory-based reporting where no clinical information is available, laboratory-confirmed cases should be reported.

Cases should be notified only once in a given 12-month period, but a case should be reported again if the diagnosis of confirmed TB is made following completion of anti-TB treatment (relapse), even if this occurs within 12 months of reporting the initial disease episode.

Cases that have never been treated are commonly referred to as new cases, although this term should not be considered to indicate incidence in the strict epidemiological sense.

Among re-treated cases, relapses are included in notifications from all countries, but cases re-treated after failure or loss to follow-up and chronic cases are not included, or further defined, by Belgium, Cyprus, Denmark, France, Luxembourg, Malta, Norway, Spain and the United Kingdom.

DST data were analysed for laboratory-confirmed cases.

#### 1.6.5 Origin of cases

The geographical origin of a TB case is classified according to the place of birth of a person with TB disease (that is, born in the country/born outside of the country) for Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Israel, Italy, Kyrgyzstan, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, North Macedonia, Norway, Portugal,

Romania, Slovakia, Slovenia, Spain, Sweden, Tajikistan, Türkiye, the United Kingdom and Uzbekistan. For Albania, Andorra, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Georgia, Greece, Hungary, Kazakhstan, the Republic of Moldova, Montenegro, Poland, the Russian Federation, Serbia, Turkmenistan and Ukraine, origin is classified according to citizenship (citizen/non-citizen). Azerbaijan, Georgia, Kyrgyzstan, Monaco and Turkmenistan did not report information on origin. In Denmark, the birthplace of the parents is also used to classify origin (similarly, for cases born in the Netherlands the birthplace of parents is also notified for case management purposes). The country of origin is included in case-based data.

The term 'native' as used in this report refers to cases born in or having citizenship (nationality) of the reporting country. 'Foreign origin' refers to cases born in (or citizens of) a country different to the reporting country.

#### 1.6.6 Drug resistance

Resistance among cases never treated (new TB cases) indicates primary drug resistance due to infection with resistant bacilli.

Resistance among cases previously treated usually indicates acquired drug resistance emerging during treatment following selection of drug-resistant mutant bacilli. It can also result from exogenous reinfection with resistant bacilli.

**Multidrug resistance (MDR)** refers to resistance to at least isoniazid and rifampicin.

**Pre-extensive drug resistance (pre-XDR)** refers to resistance to: (i) at least rifampicin (that is, RR/MDR) and (ii) any fluoroquinolone.

**Extensive drug resistance (XDR)** refers to resistance to: (i) at least rifampicin (that is, RR/MDR); (ii) a fluoroquinolone; and (iii) at least one additional Group A drug [1,2].

**Rifampicin resistance** refers to resistance to rifampicin detected using phenotypic or genotypic methods, with or without resistance to other anti-TB drugs. This includes any resistance to rifampicin, whether monoresistance, MDR, polydrug resistance or XDR.

#### 1.6.7 Treatment outcome

#### 1.6.7.1 Cohorts

A cohort is defined as all TB cases notified in the calendar year of interest, after exclusion of cases with a final diagnosis other than TB, or cases found to have been reported more than once.

In accordance with the WHO treatment outcome definitions [1], this report distinguishes between two types of cases:

- patients treated for drug-susceptible TB; and
- patients treated for RR-TB for non-EU/EEA countries and areas this includes those placed on second-line treatment (defined as combination chemotherapy for drug-resistant TB).

The two groups are mutually exclusive. For EU/EEA countries, the case types are based on DST results. Any patient reported as having RR-TB is assumed to be on second-line treatment and is excluded from the drug-susceptible TB outcome cohort.

#### 1.6.7.2 Period of observation

All cases are observed until the first outcome assessment up to a maximum of 12 months after the start of treatment. For RR/MDR-TB cases in EU/EEA countries, treatment outcome after 24 months should be reported if treatment lasts longer than 12 months and the reported 12-month outcome is coded as 'still on treatment'. For pre-XDR and XDR-TB cases in EU/EEA countries, treatment outcome after 36 months should be reported if treatment lasts longer than 24 months and the reported 12-month and 24-month outcomes are coded as 'still on treatment'. Non-EU/EEA countries and areas evaluate treatment outcomes according to the WHO definition.

#### 1.6.7.3 Treatment outcome categories

All outcome categories but one apply to the entire Region and follow the WHO recommendations in 'Definitions and reporting framework for tuberculosis – 2013 revision' [1]. The additional category 'still on treatment' applies only to EU/EEA Member States. The categories are set out below.

**Cured** – a pulmonary TB patient with bacteriologically confirmed TB at the beginning of treatment who was smearor culture-negative in the last month of treatment and on at least one previous occasion.

**Cured of MDR-TB, pre-XDR-TB and XDR-TB** – treatment completed, as recommended under national policy without evidence of failure AND three or more consecutive cultures, taken at least 30 days apart, testing negative after the intensive phase.

**Treatment completed** – treatment completed but does not meet the criteria to be classified as cure or treatment failure.

Treatment failed — a TB patient whose sputum smear or culture is positive at month five or later during treatment.

## ${\bf Treatment\,failed\,for\,MDR\text{-}TB,\,pre\text{-}XDR\text{-}TB\,\,and\,\,XDR\text{-}TB\,\,case}$

- treatment terminated or the need for permanent regimen change of at least two anti-TB drugs because of:
- lack of conversion by the end of the intensive phase; or
- bacteriological reversion in the continuation phase after conversion to negative; or
- evidence of additional acquired resistance to fluoroquinolones or second-line injectable drugs; or
- adverse drug reactions.

<sup>2</sup> The degree of adherence to the 12-month limit is unknown, and a number of countries are known to exceed it.

 $_{\rm 3}$   $\,$  The degree of adherence to the 24-month limit is unknown.

**Died** – a TB patient who dies for any reason before starting, or during the course of, treatment.

**Lost to follow-up** – a TB patient who did not start treatment or whose treatment was interrupted for two consecutive months or more (defined in previous reports as 'defaulted').

Still on treatment<sup>4</sup> – a patient reported as still on treatment at 12 months without any other outcome during treatment, or a patient reported as still on treatment at 12 months and still on treatment at 24 months without any other outcome.

Not evaluated – a TB patient for whom no treatment outcome is assigned; this includes cases 'transferred out' to another treatment unit and cases for whom the treatment outcome is unknown to the reporting unit.

In this report, **success** is the sum of 'cured' and 'treatment completed'.

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<sup>4</sup> This definition is applicable to EU/EEA countries only.

<sup>5</sup> All weblinks were accessed on 24 February 2025.

Annex 2. Tuberculosis surveillance system overview, European Union/European Economic Area, 2023

					N-411	Data a	vailable
Country	Data source	Legal character	Comprehensiveness	Туре	National coverage	EuroTB aggregated data	TESSy case-based data <sup>a</sup>
Austria	AT-TUBERKULOSEGESETZ	Compulsory reporting	Comprehensive	Case-based	Yes	_	1995-2023
Belgium	BE-TUBERCULOSIS	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Bulgaria	BG-MOH	Compulsory reporting	Comprehensive	Case-based	Yes	1995-2006	2007-2023
Croatiab	HR-CNIPH	Compulsory reporting	Comprehensive	Case-based	Yes	1995-2007	2012-2023
Cyprus	CY-NOTIFIED_DISEASES	Compulsory reporting	Comprehensive	Case-based	Yes	1995-2001	2002-2023
Czechia	CZ-TUBERCULOSIS	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Denmark	DK-MIS	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Estonia	EE-TBC	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Finland	FI-NIDR	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
France	FR-MANDATORY_INFECTIOUS_DISEASES	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Germany	DE-SURVNET@RKI-7.1/6	Compulsory reporting	Comprehensive	Case-based	Yes	1995-2000	2001-2023
Greece	EL-NOTIFIABLE_DISEASES	Compulsory reporting	Comprehensive	Case-based	Yes	1995-2001	2002-2023
Hungary	HU-TUBERCULOSIS	Compulsory reporting	Comprehensive	Case-based	Yes	1995-1998	1999-2023
Iceland	IS-TUBERCULOSIS	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Ireland	IE-CIDR	Compulsory reporting	Comprehensive	Case-based	Yes	1995-1997	1998-2023
Italy	IT-NRS	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Latviac	LV-TB	Compulsory reporting	Comprehensive	Case-based	Yes	1995-2000	2001-2022
Liechtensteind	CH-SFOPH-LI	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Lithuania	LT-TB_REGISTER	Compulsory reporting	Comprehensive	Case-based	Yes	1995-2002	2003-2023
Luxembourg	LU-SYSTEM1	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Malta	MT-DISEASE_SURVEILLANCE	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Netherlands	NL-NTR	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Norway	NO-MSIS_A	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Poland	PL_CR	Compulsory reporting	Comprehensive	Case-based	Yes	1995-1999	2000-2023
Portugal	PT-TUBERCULOSIS	Compulsory reporting	Comprehensive	Case-based	Yes	1995-1999	2000-2023
Romania	RO-NTBSy	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Slovakia	SK-NRT	Compulsory reporting	Comprehensive	Case-based	Yes	1995	1996-2023
Slovenia	SI-TUBERCULOSIS	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023
Spain	ES-STATUTORY_DISEASES	Compulsory reporting	Comprehensive	Case-based	Yes	1995-2006	2007-2023
Sweden	SE-SweTBReg	Compulsory reporting	Comprehensive	Case-based	Yes	-	1995-2023

Note: EEA: Eurropean Economic Area; EU: European Union; TB: tuberculosis; TESSy: The European Surveillance System. WHO European Region 18 tuberculosis high-priority countries presented in italics

Por some years, data from France, Italy and Spain related to drug susceptibility testing are collected in aggregated format from the WHO TB Monitoring and Evaluation data.

Data reported since 2012 to TESSy, historical data extracted from WHO TB Monitoring and Evaluation data.

Data reported from Latvia during the period 2017–2020 and 2023 are not available in this report.

Data reported from Liechtenstein during the period 2018–2019 are not available in this report.

#### Annex 3. List of variables for 2023 tuberculosis data collection<sup>a</sup>

	List	Description
Comm	on set of variables	
1	RecordId	Unique identifier for each record generated by the national surveillance system
2	RecordType	Structure and format of the data
3	RecordTypeVersion	Indicates which version the sender uses when generating the data for upload
4	Subject	Disease to report
5	Status	Status of reporting NEW/UPDATE or DELETE (inactivate)
6	DataSource	The data source (surveillance system) that the record originates from
7	ReportingCountry	The country reporting the record
	PlaceOfNotification	Place of the first notification of the case to a regional authority
9	PlaceOfResidence	Place of residence of patient at the time of disease onset
10	Age	Age of patient in years as reported in the national system
	Gender	Gender of the reported case
	DateOfDiagnosis	First date of clinical or lab diagnosis
13	DateOfNotification	Date when the case is first reported to public health authorities
	DateUsedForStatistics	The reference date used for standard reports. Usually one of the above
	se-specific variables	
	BornReportingCountry	The patient was born in the reporting country
	CountryOfBirth	Country of birth of patient
	CountryOfNationality	Country of nationality of patient
	DateOfEntryToCountry	Date of entry to country - for TB cases not born in the reporting country
	NationalityReportingCountry	Origin of the patient (based on citizenship)
_	MajorSiteOfTB	Major site of the disease
	MinorSiteOfTB	Minor site of the disease
	PrevDiagnosis	Previous diagnosis of TB in the past
	PrevDiagnosisYear	Year of previous diagnosis
	PrevTreatment	Previous anti-TB drug treatment (at least one month of drug combination)
	PrevTreatmentCompletion	Completion of the previous anti-TB drug treatment
-	DiagnosedAnteMortem	Vital status of the patient at the time of diagnosis
	EnrolledToTreatment	Patient started appropriate TB treatment according to international recommendations
28	Outcome12Months	Patient first outcome at 12 months from the start of the treatment
	Outcome24Months	The first outcome observed 13 to 24 months from the start of treatment
_	Outcome36Months	The first outcome observed 13 to 24 months from the start of treatment
30 31	ResultCulture	The result of the culture test for Mycobacterium tuberculosis complex
_	ResultMicroscopy	The result of the microscopy test performed
-	ResultOtherTest	Additional lab test results
33	Pathogen	Species and gene ( <i>M. tuberculosis</i> complex) of the pathogen which is the cause of the reported disease
	HIVStatus	Result of the last HIV test
	SIR_AMK	Susceptibility to amikacin
	SIR_BDQ	Susceptibility to bedaquiline
		Susceptibility to clofazimine
	SIR_CFZ	
	SIR_DLM	Susceptibility to delamanid Susceptibility to ethambutol
	SIR_ETH	
	SIR_ETO	Susceptibility to ethionamide
	SIR_INH	Susceptibility to isoniazid
	SIR_LZD	Susceptibility to linezolid
	SIR_LVX	Susceptibility to levofloxacin
45	SIR_MFX	Susceptibility to moxifloxacin
	SIR_PZA	Susceptibility to pyrazinamide
	SIR_RIF	Susceptibility to rifampicin
	SIR_STR	Susceptibility to streptomycin
	IsolateID ECDCIsolateID	Unique identifier for each isolate within the data source/lab system related to the case  Identifier for each isolate record that is guaranteed to be unique across countries/labs/pathogens and not contain additional encoded information
51	SpoligoCode <sup>b</sup>	Spoligo pattern code
-	MiruCode <sup>b</sup>	MIRU' pattern code
	BeijingGenotype <sup>b</sup>	Beijing genotype identification
53	Denning denotype	perjuig Senorthe identification

Notification of TB cases for 2023, treatment outcome data updated for cohort 2022, RR/MDR-TB treatment outcome data updated for cohort 2021 and XDR TB treatment outcome data updated for cohort 2020.
 Optional variable. Does not need to be reported if the 'IsolateID' or 'ECDCIsolateID' is provided.
 MIRU - mycobacterial interspersed repetitive units.

Annex 4. Completeness of data reported for 2023, European Union/European Economic Area

Note: WHO European Region 18 tuberculosis high-priority countries presented in Italics.

DST FLD - drug susceptibility testing for itsit line anti-tuberculosis drugs, calculated for confirmed tuberculosis cases. FLD included in calculation are bedaquiline, moxifloxacin and levofloxacin.

DST SLD: drug susceptibility testing for second line anti-tuberculosis drugs, calculated only for multidrug-resistant tuberculosis cases. SLD included in calculation are bedaquiline, moxifloxacin and levofloxacin.

HIV: Human immunodeficiency vivus

HI

Annex 5. Reporting completeness into Global TB Database, 2023

Country/area	Identification (%) (12 fields)	Notification (%) (72 fields)	Anti-tuberculosis drug resistance surveillance (%) (34 fields)	Treatment outcome of TB cases by risk categories (%) (73 fields)	Implementing End TB Strategy (%) (49 fields)	Budget and expenditure (%) (75 fields)
EU/EEA			(54 Helds)	(/) ne(d3)		
Austria	(0.0)	(69.4)	(94.4)	(49.3)	(0.0)	(0.0)
Belgium	(91.7)	(76.4)	(94.4)	(16.4)	(34.7)	(6.7)
Bulgaria	(100.0)	(73.6)	(94.4)	(42.5)	(51.0)	(94.7)
Croatia	(0.0)	(73.6)	(94.4)	(41.1)	(0.0)	(0.0)
Cyprus	(0.0)	(73.6)	(94.4)	(41.1)	(0.0)	(0.0)
Czechia	(58.3)	(73.6)	(94.4)	(91.8)	(53.1)	(9.3)
Denmark	(0.0)	(69.4)	(94.4)	(41.1)	(0.0)	(0.0)
Estonia	(91.7)	(83.3)	(94.4)	(78.1)	(67.3)	(9.3)
Finland	(58.3)	(73.6)	(94.4)	(32.9)	(30.6)	(9.3)
France	(100.0)	(76.4)	(94.4)	(50.7)	(24.5)	(6.7)
Germany	(100.0)	(76.4)	(94.4)	(49.3)	(44.9)	(4.0)
Greece	(0.0)	(73.6)	(94.4)	(0.0)	(0.0)	(0.0)
Hungary	(58.3)	(83.3)	(94.4)	(83.6)	(75.5)	(9.3)
Iceland	(0.0)	(69.4)	(94.4)	(32.9)	(0.0)	(0.0)
Ireland	(100.0)	(79.2)	(94.4)	(91.8)	(57.1)	(5.3)
Italy	(0.0)	(62.5)	(94.4)	(0.0)	(18.4)	(0.0)
Latvia Liechtenstein	(0.0)	(0.0)	(0.0)	(8.2)	(0.0)	(0.0)
Lithuania	(0.0)	(73.6)	(94.4)	(65.8)	(0.0)	(0.0)
Luxembourg	(100.0)	(81.9)	(94.4)	(20.5)	(38.8)	(4.0)
Malta	(100.0)	(81.9)	(94.4)	(17.8)	(59.2)	(2.7)
Netherlands	(100.0)	(76.4)	(94.4)	(9.6)	(49.0)	(5.3)
Norway	(0.0)	(69.4)	(94.4)	(57.5)	(0.0)	(0.0)
Poland	(91.7)	(69.4)	(94.4)	(0.0)	(40.8)	(0.0)
Portugal	(100.0)	(86.1)	(94.4)	(91.8)	(89.8)	(9.3)
Romania	(100.0)	(75.0)	(94.4)	(91.8)	(65.3)	(10.7)
Slovakia	(83.3)	(84.7)	(94.4)	(83.6)	(89.8)	(10.7)
Slovenia	(100.0)	(81.9)	(94.4)	(42.5)	(100.0)	(9.3)
Spain	(0.0)	(73.6)	(94.4)	(65.8)	(0.0)	(0.0)
Sweden	(58.3)	(79.2)	(94.4)	(49.3)	(38.8)	(8.0)
Subtotal EU/EEA	(54.9)	(73.1)	(91.2)	(46.4)	(35.5)	(7.4)
Non-EU/EEA						
Albania	(100.0)	(73.6)	(94.4)	(89.0)	(85.7)	(10.7)
Andorra	(100.0)	(34.7)	(30.6)	(34.2)	(20.4)	(4.0)
Armenia	(100.0)	(83.3)	(94.4)	(91.8)	(77.6)	(65.3)
Azerbaijan	(100.0)	(79.2)	(91.7)	(91.8)	(67.3)	(89.3)
Belarus	(41.7)	(90.3)	(80.6)	(91.8)	(71.4)	(21.3)
Bosnia and Herzegovina	(83.3)	(68.1)	(41.7)	(57.5)	(14.3)	(5.3)
Georgia	(100.0)	(93.1)	(94.4)	(83.6)	(89.8)	(9.3)
Israel	(100.0)	(75.0)	(63.9)	(65.8)	(24.5)	(9.3)
Kazakhstan	(100.0)	(93.1)	(72.2)	(100.0)	(71.4)	(96.0)
Kyrgyzstan	(100.0)	(79.2)	(88.9)	(74.0)	(63.3)	(81.3)
Republic of Moldova	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Monaco	(100.0)	(69.4)	(94.4)	(65.8)	(69.4)	(10.7)
Montenegro North Macedonia	(10 0.0) (10 0.0)	(65.3)	(41.7)	(37.0)	(61.2) (91.8)	(10.7) (100.0)
Russian Federation	(100.0)	(95.8) (73.6)	(100.0) (94.4)	(100.0) (75.3)	(38.8)	(92.0)
San Marino	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Serbia	(100.0)	(88.9)	(47.2)	(91.8)	(69.4)	(82.7)
Serbia excluding Kosovo <sup>1</sup>	(100.0)	(88.9)	(47.2)	(67.1)	(67.3)	(25.3)
Kosovo <sup>1</sup>	(100.0)	(95.8)	(30.6)	(91.8)	(69.4)	(82.7)
Switzerland	(100.0)	(70.8)	(94.4)	(49.3)	(46.9)	(9.3)
Tajikistan	(100.0)	(79.2)	(100.0)	(91.8)	(93.9)	(94.7)
Türkiye	(100.0)	(83.3)	(94.4)	(91.8)	(87.8)	(9.3)
Turkmenistan	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Ukraine	(100.0)	(86.1)	(100.0)	(100.0)	(91.8)	(100.0)
United Kingdom	(83.3)	(77.8)	(94.4)	(41.1)	(18.4)	(0.0)
Uzbekistan	(100.0)	(91.7)	(86.1)	(32.9)	(79.6)	(0.0)
Subtotal non-EU/EEA	(83.7)	(68.8)	(70.8)	(64.8)	(55.6)	(37.6)
Total European Region	(67.9)	(71.2)	(82.0)	(54.8)	(44.6)	(21.1)
Subtotal 18 HPCs	(79.6)	(74.1)	(81.9)	(72.8)	(61.6)	(48.5)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB high-priority countries presented in italics.

¹ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Annex 6. Laboratory network capacity, European Region, 2023<sup>a</sup>

					Country/area	laboratory	network					
	Microscopy		Culture		niazid and	Line		International proficiency testing of national reference laboratory				
Country/area	mere		culture	ritan	picin	probe assay	Xpert MTB/RIF		Percentage agreement of results for:		Acceptable	
	Number of laboratories performing	EQA passed	Number of laboratories performing	Number of laboratories performing	EQA passed	(N) '	(N)	Year	isoniazid	rifampicin	performance <sup>b</sup>	
EU/EEA												
Austria	-	-	-	-	-	-	-	-	-	-	-	
Belgium	0	-	80	0	-	-	0	2023	-	-	-	
Bulgaria	33	-	30	0	-	-	7	2023	100	100	Yes	
Croatia	0	-	-	0	-	-	0	-	-	-	-	
Cyprus	0	-	-	0	-	-	0	-	-	-	-	
Czechia	37	-	37	0	-	-	0	2023	100	100	Yes	
Denmark	0	-	-	0	-	-	0	-	-	-	-	
Estonia	2	-	2	0	_	-	6	2023	100	100	Yes	
Finland	9 120	_	9 120	0	-	-	9	2023	100	100	Yes	
France	0	_	120	0	_	_	75 0	2023	100	100	Yes	
Germany Greece	0	_	_	0	_	_		2023	100	100	Yes	
	11	_	11	0	_	_	0	2023	100	100	Yes	
Hungary Iceland	0	_	0	0	_	_	0	2023	100	100	Yes	
Ireland	10	_	10	0	_	_	8	2023	100	100	Yes	
Italy	0	_	10	0	_	_	0	2023	100	100	Yes	
Latvia	0	_	_	0	_	_	0	2023	100	100	res	
Liechtenstein	0	_	_	0	_	_	0	_	_	_	_	
Lithuania	0	_	_	0	_	_	0	_	_	_	_	
Luxembourg	1	_	1	0	_	_	0	2023	100	100	Yes	
Malta	1	_	1	0	_	_	0	2025	-	-	-	
Netherlands	0	_	30	0	_	_	0	2023	100	100	Yes	
Norway	0	_	_	0	_	_	0	2025	-	-	-	
Poland	53	_	53	0	_	_	42	2023	100	100	Yes	
Portugal	41	_	35	0	_	_	15	2023	100	100	Yes	
Romania	88	_	84	0	_	_	56	2023	100	100	Yes	
Slovakia	7	_	3	0	_	_	1	2023	100	100	Yes	
Slovenia	2	_	2	0	_	_	2	2023	100	100	Yes	
Spain	0	-	_	0	_	_	0	-	-	-	_	
Sweden	5	-	5	0	_	_	5	2023	100	100	Yes	
Subtotal EU/EEA	420	-	513	_	-	-	235	-	-	-	_	
Non-EU/EEA												
Albania	12	_	1	0	_	_	1	2016	100	100	Yes	
Andorra	7	-	7	0	_	_	3	-	-	-	_	
Armenia	13	-	1	0	-	-	11	2022	100	100	Yes	
Azerbaijan	23	-	7	0	-	-	16	-	-	-	_	
Belarus	61	-	11	0	_	-	43	2023	100	100	Yes	
Bosnia and Herzegovina	22	_	20	0	_	-	2	-	-	-	_	
Georgia	10	-	2	0	_	-	28	2023	100	100	Yes	
Israel	15	-	15	0	_	-	15	2023	_	-	_	
Kazakhstan	80	-	20	0	-	-	100	2023	100	100	Yes	
Kyrgyzstan	78	-	7	0	_	_	30	2023	100	100	Yes	
Republic of Moldova	0	-	-	0	-	-	0	-	-	-	_	
Monaco	1	_	1	0	_	-	1	2022	100	100	Yes	
Montenegro	6	-	3	0	-	-	3	2023	100	100	Yes	
North Macedonia	57	-	4	0	-	-	57	2023	95	95	Yes	
Russian Federation	4818	-	295	0	-	-	207	-	-	-	-	
San Marino	0	-	-	0	-	-	0	-	-	-	-	
Serbia	40	-	31	0	-	-	8	-	-	-	-	
Serbia excluding Kosovo <sup>1</sup>	30	-	28	0	-	-	3	2019	100	100	Yes	
Kosovo¹	10	-	3	0	-	-	5	2023	90	100	No	
Switzerland	29	-	20	0	-	-	52	2023	100	100	Yes	
Tajikistan	84	-	6	0	-	-	77	2023	100	100	Yes	
Türkiye	236	-	113	0	-	-	27	2023	100	100	Yes	
Turkmenistan	0	-	-	0	-	-	0	-	-	-	-	
Ukraine	31	-	31	0	-	-	336	-	100	100	Yes	
United Kingdom	-	-	-	0	-	-	0	-	-	-	-	
Uzbekistan	284	-	8	0	-	-	97	2023	100	100	Yes	
Subtotal non-EU/EEA	5907	-	603	-	-	-	1114	-	-	-	-	
Total European Region	6327	-	1 116	-	-	-	1349	-	-	-	-	

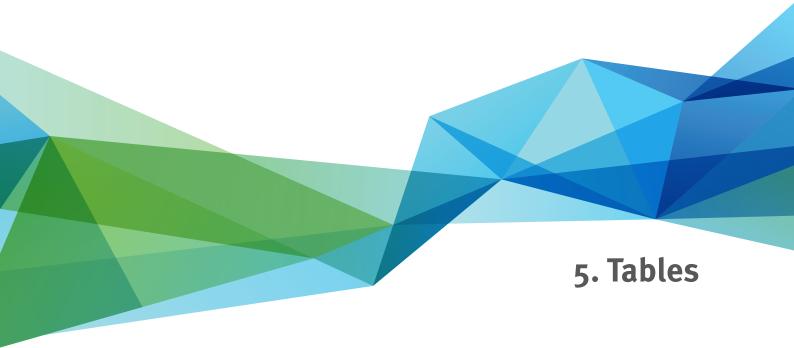
Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB high-priority countries presented in italics.

DST: drug-susceptibility testing; EEA: European Economic Area; EQA: external quality assessment; EU: European Union; HPCs: high-piority country;
N: number; TB: Tuberculosis.

\* Data obtained from WHO Tuberculosis Monitoring and Evaluation database (TME).

\* Acceptable performance defined as reference laboratory achieving 95% agreement of results both isoniazid and rifampicin in annual international proficiency testing.

\* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.



Summary table. TB surveillance data by region, European Region, 2023

					Reg	ion			
		EU/	EEA	Non	-EU/EEA	Т	otal		-priority tries <sup>a</sup>
Data item	Table showing data by country/area	Number of reporting countries/areas <sup>b</sup>	Value	Number of reporting countries/areas <sup>b</sup>	Value	Number of reporting countries/areas <sup>b</sup>	Value	Number of reporting countries/areas	Value
Total population (millions)	1	29	456.6	24	482.7	53	939.3	18	412.5
Estimates of TB disease burden, 2021°									
Estimated TB mortality rate (excluding HIV-related deaths) per 100 000 population	1	29	0.8	24	2.5	53	1.7	18	3.2
Estimated TB incidence rate per 100 000 population	1	29	8.5	24	38.5	53	24.0	18	46.1
Estimated RR-TB cases among notified bacteriologically confirmed pulmonary TB patients	2	29	1000	24	31000	53	32000	18	31100
Estimated percentage of HIV infection among incident TB cases (new and relapse)	2	29	3.8	21	15.1	50	13.0	18	14.7
Notifications of TB cases, 2021									
Total number of TB cases	3	29	38993	22	158560	51	197553	17	161778
All TB cases per 100 000 population	3	29	8.6	22	32.9	51	21.1	17	39.4
Mean annual percentage change of notification rate (2019–2023)	3	28	-3.8%	22	-7.4%	50	-6.8%	17	-8.0%
Number of new and relapse TB cases	III	29	36572	22	135759	50	172331	17	138 625
New and relapse TB cases per 100 000 population	III	29	8.1	22	28.1	50	18.3	17	33.6
Mean annual percentage change of notification rate of new and relapse TB cases (2019–2023)	Ш	28	-4.2%	22	-6.0%	50	-5.7%	17	-6.1%
Percentage of new cases among all TB cases	4	29	74.5%	22	70.9%	50	71.6%	17	70.5%
Percentage of retreatment cases among all TB cases	4	29	11.5%	22	29.1%	50	25.6%	17	29.5%
Percentage of pulmonary TB among all TB cases	5	29	72.4%	-	-	-	-	-	-
Percentage of laboratory-confirmed TB cases among all TB cases	7	29	68.4%	-	-	-	-	-	-
Male-to-female ratio of new and relapse TB cases	8	29	2.2	22	2.0	50	2.0	17	2.0
Percentage of foreign TB cases among all TB cases	9	29	36.0%	22	5.0%	50	11.3%	15	1.9%
TB case laboratory confirmation, RR/MDR and XDR, 2021									
Percentage of laboratory-confirmed cases among new pulmonary TB cases <sup>d</sup>	11	29	79.3%	21	67.2%	50	69.7%	16	67.7%
Percentage of DST results reported among new bacteriologically- confirmed pulmonary TB cases	11	29	81.9%	21	95.0%	50	92.0%	16	94.7%
Percentage of RR/MDR-TB among new pulmonary TB cases	11	29	3.9%	21	24.4%	50	20.1%	16	23.8%
Percentage of RR/MDR-TB among previously treated pulmonary TB cases	11	29	10.7%	21	53.2%	50	49.6%	16	51.5%
Percentage of Pre-XDR-TB among all RR/MDR-TB cases with DST for FQ	12	29	27.6%	15	31.2%	46	31.1%	15	31.2%
Percentage of XDR-TB among all pre-XDR-TB cases with DST for any other Group A drugs	12	29	10.7%	13	12.7%	42	12.6%	15	12.6%
Percentage of XDR-TB among all MDR-TB cases with DST for SLD	14	29	22.4%	18	22.5%	47	22.5%	15	22.6%
TB/HIV coinfection, 2021									
Percentage of new and relapse TB cases with known HIV status	14	18	77.4%	16	95.7%	34	93.1%	15	95.5%
Percentage of HIV-positive cases among new and relapse TB cases with known HIV status	14	18	4.3%	16	17.0%	34	15.4%	15	15.9%
Percentage of HIV-positive new and relapse TB cases started on ART	14	4	26.2%	16	82.3%	20	82.4%	14	82.2%
Treatment outcome									
Treatment success of new and relapse TB cases notified in 2022	16	20	67.9%	22	77.2%	42	75.5%	16	77.6%
Treatment success rate among previously treated TB cases reported in 2022	17	19	53.0%	20	58.6%	39	58.0%	15	58.2%
Treatment success of childhood TB cases notified in 2022	18	16	77.2%	21	92.0%	37	88.5%	14	92.5%
Treatment success of TB/HIV cases notified in 2022	20	14	63.0%	16	54.2%	30	54.5%	14	54.4%
Treatment success of RR/MDR-TB cases enrolled in SLD treatment in 2021	22	21	56.3%	22	61.6%	43	61.5%	17	61.5%
Treatment success of all pre-XDR-TB cases notified in 2021	23	15	46.8%	21	53.9%	44	53.9%	17	53.9%

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein.

ART: antiretroviral therapy; DST: drug-susceptibility testing; EEA: European Economic Area; EU: European Union; MDR: multidrug-resistant; RR: rifampicin-resistant;
SLD: second-line anti-TB drugs; TB: tuberculosis; XDR: extensively drug-resistant.
Pre-XDR: pre-extensive drug resistance.

\*\*Iligh-priority countries: the 18 high-priority countries under the 'STOP TB in the WHO European Region' scheme are: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, Romania, the Russian Federation, Tajikistan, Türkiye, Turkmenistan, Ukraine and Uzbekistan.

\*\*Number of countries/areas with available data included in the statistics.\*\*

\*\*WHO estimates, as published in 'Global tuberculosis report 2024' (Geneva: World Health Organization; 2024 Available from: <a href="https://iris.who.int/handle/po665/379339">https://iris.who.int/handle/po665/3793939</a>

\*\*Laboratory-confirmed cases – cases with positive identification of \*Mycobacterium tuberculosis\* complex, confirmed by culture and/or line probe assay for non-EU/EEA countries. For EU/EEA countries: culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases.

Table 1. Estimates of the TB disease burden, European Region, 2023

Country	Boodstiers			d number o forms, excl	f deaths fro luding HIV)	om TB		Estimated number of incident cases (all forms)					
Country	Population <sup>a</sup>		Number			Per 100 000			Number			100 000	
EU/EEA		Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA	0420 447	20	20	20	0.3	0.3	0.2	470	400	550	F 2	<i>L L</i>	,
Austria	9 130 417	30	29	30	0.3	0.3	0.3	470	400	550	5.2	4.4	6
Belgium	11712 891	33	32	35	0.3	0.3	0.3	880	750	1000	7.5	6.4	8.7
Bulgaria	6795799	95	93	97	1.4	1.4	1.4	1100	820	1400	16	12	20
Croatia	3896036	34	34	34	0.9	0.9	0.9	140	120	160	3.5	3	4
Cyprus	1344976	5	5	6	0.4	0.4	0.4	74	63	85	5.5	4.7	6.3
Czechia	10 809 715	36	31	41	0.3	0.3	0.4	520	440	600	4.8	4.1	5.5
Denmark	5948138	10	10	11	0.2	0.2	0.2	220	190	250	3.6	3.1	4.2
Estonia	1367194	9	9	10	0.7	0.6	0.8	110	96	130	8.2	7.1	9.5
Finland	5 6 0 1 1 9 0	30	30	31	0.5	0.5	0.6	190	160	220	3.4	2.9	4
France	66 438 822	450	430	470	0.7	0.6	0.7	5500	4900	6200	8.3	7.3	9.4
Germany	84548229	290	280	300	0.3	0.3	0.4	4100	3700	4500	4.8	4.4	5.3
Greece	10242906	42	40	44	0.4	0.4	0.4	540	460	620	5.2	4.5	6.1
Hungary	9686464	56	52	59	0.6	0.5	0.6	570	490	660	5.9	5	6.8
Iceland	387551	1	1	1	0.2	0.2	0.2	12	11	14	3.2	2.7	3.7
Ireland	5196629	19	19	19	0.4	0.4	0.4	240	200	280	4.6	3.9	5.3
Italy	59 499 452	300	300	310	0.5	0.5	0.5	2600	2200	3000	4.4	3.7	5.1
Latvia	1882395	55	55	55	2.9	2.9	2.9	300	250	340	16	13	18
Liechtenstein	-	-	-	-	-	-	-	-		-	-	-	-
Lithuania	2854095	110	100	120	3.9	3.6	4.3	810	700	940	28	24	33
Luxembourg	665098	1	1	1	0.2	0.2	0.2	48	41	56	7.3	6.2	8.4
Malta	532959	1	1	1	0.2	0.2	0.2	78	67	90	15	13	17
Netherlands	18 092 527	19	18	19	0.1	0.1	0.1	820	700	940	4.5	3.9	5.2
Norway	5519169	19	18	20	0.3	0.3	0.4	160	140	180	2.9	2.5	3.3
Poland	38762846	480	460	500	1.2	1.2	1.3	3900	3300	4500	10	8.6	12
Portugal	10 430 739	250	240	250	2.4	2.3	2.4	1600	1400	1900	16	13	18
Romania	19118479	960	620	1400	5.0	3.3	7.2	10000	9000	12 000	55	47	63
Slovakia	5518 055	14	14	14	0.3	0.3	0.3	240	200	270	4.3	3.7	5
Slovenia		14	14	15	0.5	0.7	0.7	98	84	110	4.6	3.9	5.3
	2 118 401 47 911 585	170	170	170	0.7	0.7	0.7	2800	2400	3300	5.9		6.8
Spain Sweden				20				390	340			5	
Subtotal EU/EEA	10551490	19 <b>3600</b>	19 <b>3 200</b>	4000	0.2 <b>0.8</b>	0.2 <b>0.7</b>	0.2	<b>39000</b>	37000	450	3.7 <b>8.5</b>	3.2 <b>8.1</b>	4.3 <b>9.0</b>
	456 564 247	3000	3 200	4000	0.8	0.7	0.9	39000	3/000	41000	6.5	6.1	9.0
<b>Non-EU/EEA</b> Albania	2811661	7	/.	11	0.2	0.1	0.4	430	370	510	15	13	10
			4		0.2						15		18
Andorra	80854	0	0	1	0.5	0.3	0.7	5	4	5	5.7	4.9	6.6
Armenia Annula siina	2943390	10	8	12	0.3	0.3	0.4	720	550	930	25	19	31
Azerbaijan	10318209	490	430	540	4.7	4.2	5.3	7400	5000	11000	72	48	107
Belarus	9115 675	190	180	200	2.1	2.0	2.2	2500	1900	3200	27	21	35
Bosnia and Herzegovina	3185078	68	62	75	2.1	1.9	2.4	750	550	980	24	17	31
Georgia	3807493	67	42	97	1.7	1.1	2.5	2100	1700	2600	55	44	69
srael	9 2 5 6 3 1 1	22	21	23	0.2	0.2	0.3	260	220	300	2.8	2.4	3.3
Kazakhstan	20 330 099	360	230	520	1.8	1.2	2.5	14000	8700	24 000	70	43	120
Kyrgyzstan	7 073 516	270	240	290	3.8	3.4	4.1	7900	6200	9500	112	88	134
Monaco	38 955	0	0	0	0.1	0.1	0.1	0	0	0	0.99	0.85	1.1
Montenegro	633551	1	1	1	0.2	0.2	0.2	90	78	100	14	12	16
North Macedonia	1831803	9	9	10	0.5	0.5	0.5	190	140	250	10	7.5	14
Republic of Moldova	3 0 6 7 0 7 2	61	55	66	2.0	1.8	2.2	2300	2000	2700	76	64	88
Russian Federation	145 440 499	5200	4200	6400	3.6	2.9	4.4	55000	30 000	87000	38	21	60
San Marino	33728	0	0	0	0.0	0.0	0.0	0	0	0	0	0	0
Serbia	6773199	27	17	39	0.4	0.3	0.6	930	760	1100	14	11	16
Switzerland	8870559	18	17	18	0.2	0.2	0.2	470	410	550	5.4	4.6	6.2
Tajikistan	10389800	760	680	850	7.4	6.6	8.2	8200	6300	10 000	79	60	99
Türkiye	87270497	320	210	440	0.4	0.3	0.5	12000	9000	15 000	13	10	17
Turkmenistan	7364441	750	640	880	10.0	8.6	12.0	3600	2800	4600	49	38	62
Ukraine <sup>b</sup>	37732841	2600	2500	2700	7.0	6.7	7.3	42000	25000	64000	112	66	170
United Kingdom	68 68 2 9 5 9	240	230	240	0.3	0.3	0.4	5200	4700	5700	7.6	6.8	8.3
Uzbekistan	35 652 303	450	350	570	1.3	1.0	1.6	20000	13 000	29000	57	37	82
Subtotal non-EU/EEA	482704493	12000	11000	13 000	2.5	2.3	2.7	186000	150000	222000	39	31	46
Total European Region	939324662	16 000	14000	17 000	1.7	1.5	1.8	225000	190 000	264000	24	20	28
I DLOL EUI ODEAN KEKION	737324002	10000	19000	17 000	1./	1.0	1.0	443000	170000	209000	24	20	46

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; TB: tuberculosis.

Population estimate 2023 by United Nations statistical database from all countries.
There are uncertainties associated with the UN Population Division population estimates for Ukraine. Estimated TB burden rates per 100 000 population for Ukraine should not be used to evaluate the effectiveness of the national TB programme.

	Estimated	l incidence	of child TB	cases		E	stimated i	incidence of	TB among	females			
	Number			r 100 000			Number			er 100 000		Country	
Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	FILEPA	
14	12	16	11	0.9	1.2	160	120	190	3.5	2.8	7.1	EU/EEA Austria	
55	46	64	1.1 2.9	2.4	3.4	160 270	130 220	330	4.5	3.7		Belgium	
25	19	31	2.5	1.9	3.1	420	280	570	12.0	8.0		Bulgaria	
1	1	1	0.2	0.2	0.2	46	36	55	2.3	1.8	2.7	-	
2	1	2	0.9	0.5	0.9	26	21	31	3.9	3.1		Cyprus	
33	28	39	1.9	1.7	2.3	150	120	180	2.7	2.2		Czechia	
5	4	6	0.5	0.4	0.6	73	58	88	2.4	1.9	2.9	Denmark	
2	2	3	0.9	0.9	1.4	30	24	36	4.2	3.3		Estonia	
7	6	8	0.8	0.7	1.0	95	75	120	3.4	2.6		Finland	
290	260	330	2.6	2.3	3.0	1900	1600	2200	5.5	4.7		France	
200	180	220	1.7	1.5	1.9	1400	1200	1600	3.3	2.8	3.7	,	
5 7	6	6	0.4	0.3	0.4	150 200	120 160	180 240	2.8	3.2	3.4	Greece Hungary	
0	0	0	0.0	0.0	0.0	4	3	5	2.1	1.6	2.6	Iceland	
9	8	11	0.9	0.8	1.1	94	75	110	3.6	2.9		Ireland	
84	71	97	1.2	1.0	1.3	860	690	1000	2.8	2.3		Italy	
5	4	6	1.7	1.4	2.0	87	70	100	8.6	6.9		Latvia	
-	-	-	-	-	-	-	-	-	-	-	-	Liechtenstein	
39	33	45	9.2	7.8	10.6	230	180	270	15.2	11.9	17.9	Lithuania	
3	3	4	2.9	2.9	3.8	20	15	24	6.1	4.5	7.3	Luxembourg	
1	1	1	1.4	1.4	1.4	18	15	22	7.0	5.9	8.6	Malta	
24	20	28	0.9	0.7	1.0	300	240	360	3.3	2.6	4.0	Netherlands	
8	7	9	0.9	0.8	1.0	70	55	85	2.6	2.0	3.1	,	
40	34	46	0.7	0.6	0.8	1000	840	1200	5.0	4.2	6.0	Poland	
45	38	52	3.3	2.8	3.9	510	410	610	9.3	7.5	11.2		
490 93	410 74	<i>570</i> 110	16.1 10.6	13.5 8.4	18.8 12.5	3 <i>000</i> 110	2400 86	<i>3 600</i> 130	30.4	24.3 3.0	36.5	Romania Slovakia	
1	1	1	0.3	0.3	0.3	34	27	42	3.2	2.6	4.0	Slovenia	
120	98	130	1.9	1.5	2.0	1000	830	1300	4.1	3.4	5.3		
10	9	12	0.5	0.5	0.7	170	140	210	3.2	2.7	4.0	Sweden	
1600	1500	1700	2.4	2.2	2.5	12000	11000	13 0 0 0	5.1	4.7	5.6	Subtotal EU/EEA	
												Non-EU/EEA	
11	9	13	2.3	1.9	2.7	150	120	180	10.6	8.4		Albania	
0	0	0	0.0	0.0	0.0	2	2	3	5.1	5.1		Andorra	
48	35	62	8.3	6.1	10.8	210	140	280	13.3	8.9		Armenia	
430	250	620	18.7	10.8	26.9	2600	1200	4000	49.4	22.8		Azerbaijan	
120	85 1	150	7.9 0.5	5.6 0.2	9.9 0.5	690 320	450 190	<i>920</i> 450	14.2 19.2	9.2 11.4	26.9	Belarus Bosnia and Herzegovina	
150	110	190	18.7	13.7	23.7	740	520	970	36.4	25.6		Georgia	
20	16	23	0.8	0.6	0.9	90	72	110	1.9	1.5		Israel	
790	330	1200	13.2	5.5	20.0	5600	1300	9900	53.7	12.5		Kazakhstan	
730	560	890	31.6	24.2	38.5	3500	2400	4500	97.9	67.1		Kyrgyzstan	
0	0	0	0.0	0.0	0.0	0	0	0	0.0	0.0		Monaco	
0	0	0	0.0	0.0	0.0	32	26	38	9.7	7.9	11.6	Montenegro	
25	17	34	8.0	5.4	10.9	58	35	80	6.2	3.7		North Macedonia	
160	140	190	26.1	22.8	31.0	570	460	690	34.4	27.8		Republic of Moldova	
1700	810	2600	6.7	3.2	10.2	16000	5300	27000	20.5	6.8		Russian Federation	
0	0	0	0.0	0.0	0.0	0	0	0	0.0	0.0		San Marino	
44	36	52	4.5	3.7	5.3	390	290	480	11.0	8.2		Serbia	
20	17	23	1.5	1.3	1.7	170	130	200	3.8	2.9		Switzerland	
620 690	460 510	790 860	16.3 3.6	12.1	20.8	3 6 0 0 5 0 0 0	2300 3300	4800 6700	68.1 11.4	43.5 7.6		Tajikistan Türkiye	
170	130	220	7.3	5.6	9.4	1600	1000	2100	42.6	26.6		Turkmenistan	
2000	1000	3000	37.1	18.5	55.6	12000	4600	19000	59.4	22.8		Ukraine	
160	140	180	1.3	1.2	1.5	2100	1800	2400	6.0	5.2		United Kingdom	
2600	1500	3800	23.6	13.6	34.5	9600	4300	15000	54.3	24.3		Uzbekistan	
10 000	8000	12000	10.1	8.1	12.1	65000	50000	80000	26.0	20.0		Subtotal non-EU/EEA	
12000	10 000	14000	7.2	6.0	8.4	77 0 0 0	64000	96000	15.9	13.2	19.9	Total European Region	
11 000	9 0 0 0	13 000	12.8	10.4	15.1	65 000	50000	80000	30.3	23.3	37.3	Subtotal 18 HPCs	

Table 2. Estimates for TB/HIV coinfection and RR-TB, European Region, 2023

Country	Estima		nfection a (new and		ident TB	cases	Estimate RR-TB ca			of RR-T	ted perce B cases a ed TB pat	mong	cases bact confirm	mated RF among no eriologio ed pulmo patients	otified ally		ated num nt RR-TB	
		Number			%			%			%			Number			Number	
FILERA	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA	40		4.0	2.2	4.2	2 /	2.5	0.0	F (	100	24.0	(( )	46	0	22	40	-	24
Austria	10	6	16	2.2	1.2	3.4	2.5	0.9	5.4	49.0	31.0	66.0	16	8	23	18	5	31
Belgium	33	12	63	3.7	1.4	7.1	1.6	1.0	2.4	14.0	6.3	25.0	53	19	87	26	16	37
Bulgaria	5	1	12	0.5	0.1	1.1	1.9	1.1	3.4	15.0	8.3	25.0	16	9	22	33	14	52
Croatia	1	1	2	1.0	0.5	1.5	0.6	0.2	1.1	7.3	2.4	15.0	2	1	3	1	0	2
Cyprus	3	2	6	4.6	2.5	7.3	2.0	0.8	3.7	6.6	1.1	18.0	1	0	2	2	0	3
Czechia	31	19	45	6.0	3.9	8.5	4.9	3.7	6.1	14.0	5.4	27.0	19	15	24	28	20	36
Denmark	6	2	13	2.7	0.8	5.8	2.2	1.2	3.4	4.0	1.2	9.0	3	2	4	5	3	8
Estonia	14	7	24	13.0	6.5	21.0	22	19	25	53.0	46.0	62.0	26	23	28	31	24	38
Finland	3	2	5	1.5	0.8	2.3	4.3	2.7	6.2	18.0	4.4	42.0	5	3	7	9	5	13
France	290	220	360	5.2	4.2	6.3	0.7	0.3	1.3	14.0	4.9	31.0	37	13	61	86	32	140
Germany	110	58	170	2.6	1.4	4.1	2.1	1.4	3.0	27.0	20.0	35.0	120	92	150	130	89	170
Greece	15	7	25	2.8	1.4	4.6	2.0	0.8	4.0	9.5	2.2	25.0	11	4	18	14	4	23
Hungary	6	3	10	1.1	0.6	1.7	3.9	2.7	5.4	16.0	7.9	28.0	15	11	20	29	18	40
Iceland	0	0	1	2.1	0.8	4.0	1.1	0.2	3.9	13.0	1.3	37.0	0	0	0	0	0	0
Ireland	9	5	14	3.6	2.0	5.7	1.5	0.5	3.7	8.2	2.5	17.0	3	1	5	6	1	10
Italy	140	76	210	5.2	3.0	8.0	2.8	2.1	3.5	3.2	2.0	4.7	50	38	62	73	52	94
Latvia	27	17	39	9.2	6.0	13.0	9.5	8.1	11.0	25.0	20.0	30.0	0	0	0	32	25	40
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	34	22	49	4.2	2.8	5.9	16	14	17	42.0	40.0	45.0	120	110	130	160	130	190
Luxembourg	3	1	9	7	1.0	18.0	1.3	0.4	3.3	11.0	1.7	31.0	1	0	2	1	0	2
Malta	4	1	11	5.6	1.0	13.0	1.3	0.4	2.9	11.0	1.0	37.0	0	0	1	1	0	3
Netherlands	34	21	49	4.1	2.6	5.9	2.6	2.0	3.5	21.0	12.0	33.0	10	8	14	26	17	35
Norway	4	1	10	2.4	0.4	6.0	6.8	4.7	9.4	11.0	4.3	20.0	8	5	10	12	8	16
Poland	45	25	70	1.1	0.7	1.8	1.4	1.2	1.7	3.7	3.0	4.4	62	54	71	68	54	82
Portugal	180	140	220	11.0	9.2	12.0	0.9	0.4	1.5	6.7	3.1	12.0	12	7	18	20	9	30
Romania	240	190	290	2.3	2.0	2.6	2.3	2.1	2.5	11.0	10.0	13.0	320	290	340	440	350	530
Slovakia	7	2	17	3.1	0.7	7.2	2.5	1.3	4.2	15.0	7.8	24.0	6	3	8	10	4	16
Slovenia	3	0	8	2.9	0.3	8.0	0.5	0.2	1.2	4.3	1.0	11.0	1	0	1	1	0	1
Spain	190	73	370	6.8	2.6	13.0	3.7	1.4	7.6	2.3	1.4	3.5	96	19	170	98	20	180
Sweden	9	5	14	2.2	1.2	3.5	3.9	3.0	5.1	19.0	11.0	29.0	10	8	13	19	13	25
Subtotal EU/EEA	1500	1000	2000	3.8	2.6	5.1	3.1	2.3	4.3	18.5	11.5	23.5	1000	900	1100	1400	1400	1400
Non-EU/EEA																		
Albania	4	1	12	1.1	0.2	2.7	1.3	0.7	2.2	16.0	7.7	28.0	5	3	8	10	5	15
Andorra	0	0	0	-	-	-	2.5	0.4	7.7	16.0	2.1	47.0	0	0	0	0	0	0
Armenia	83	54	120	11.0	8.4	15.0	18.0	16.0	21.0	46.0	40.0	52.0	54	48	59	170	120	210
Azerbaijan	110	64	170	1.5	1.1	1.9	12.0	11.0	13.0	25.0	24.0	26.0	740	710	770	1500	860	2100
Belarus	200	140	270	8.2	6.8	9.6	39.0	38.0	41.0	63.0	61.0	65.0	680	660	700	1200	860	1500
Bosnia and Herzegovina	2	1	3	0.2	0.1	0.3	0.2	0.1	0.4	2.7	1.2	4.9	2	1	2	2	1	4
Georgia	48	29	71	2.3	1.5	3.2	9.9	8.8	11.0	24.0	21.0	27.0	150	140	170	280	210	350
Israel	12	5	21	4.4	2.0	7.7	8.2	6.2	11.0	9.0	2.4	21.0	10	7	13	22	15	28
Kazakhstan	880	460	1400	6.2	5.7	6.6	33.0	33.0	34.0	53.0	52.0	54.0	2900	2900	3000	5600	2500	8700
Kyrgyzstan	280	210	350	3.5	2.9	4.1	24.0	22.0	25.0	51.0	49.0	53.0	860	840	890	2500	1900	3000
Monaco	0	0	0	-	-		2.1	0.3	7.3	15.0	1.5	55.0	0	0	0	0	0	0
Montenegro	3	0	9	3	0.2	10.0	0.5	0.2	1.2	5.4	2.0	12.0	1	0	1	1	0	1
North Macedonia	1	0	5	0.7	0.0	2.6	1.0	0.5	1.9	5.9	2.2	12.0	2	1	3	3	1	5
Republic of Moldova	290	240	350	13.0	11.0	14.0	27.0	26.0	29.0	54.0	51.0	56.0	580	560	600	820	670	980
Russian Federation	14000	7700	22000	25	25	26	37.0	36.0	37.0	67.0	66.0	67.0	18000	18000	18000	30 000	14000	45 000
San Marino	0	0	0	-	-		2.3	0.4	7.3	14.0	2.1	45.0	0	0	0	0	0	0
Serbia	3	2	5	0.3	0.2	0.5	1.0	0.4	2.0	6.1	2.2	13.0	7	3	11	13	3	23
Switzerland	22	12	35	4.6	2.6	7.1	2.6	1.5	4.1	29.0	15.0	45.0	15	10	20	24	12	36
Tajikistan	250	180	330	3.0	2.5	3.6	26.0	25.0	28.0	32.0	30.0	35.0	590	560	610	2200	1700	2800
Türkiye	150	110	200	1.3	1.1	1.6	2.5	2.2	2.7	8.7	7.5	10.0	140	120	150	330	240	420
Turkmenistan	810	430	1300	22	13	34	33.0	30.0	36.0	53.0	48.0	57.0	0	0	0	1600	1200	2000
Ukraine	9800	6500	14000	25	12	40	28.0	27.0	28.0	41.0	40.0	42.0	4500	4400	4500	13 000	7000	20000
United Kingdom	180	67	350	3.5	1.3	6.6	1.8	1.5	2.1	5.4	3.6	7.5	46	40	52	100	78	130
Uzbekistan	680	430	980	3.3	3.0	3.6	16.0	15.0	17.0	30.0	28.0	31.0	1400	1300	1400	3900	2400	5500
Subtotal non-EU/EEA	28000	17000	42000	15.1	9.1	22.6	26.0	19.0	33.0	53.0	23.0	83.0	31000	30900	31100	63000	63000	63000
Total European Region	29000	22 000	38 000	13.0	9.2	17.0	24.0	16.0	32.0	53.0	23.0	83.0	32000	32 000	32000	65000	48 000	
						.,			2-10	2510	2510	-5.0				-2000		

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; TB: tuberculosis.

Table 3. TB cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2019-2023

C	2019		2020		2021		2022		2023		Mean annual %
Country/area	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	change in rate, 2019–2023
EU/EEA		<u> </u>									
Austria	474	5.4	388	4.4	396	4.4	372	4.1	421	4.6	-3.6%
Belgium	963	8.4	825	7.2	868	7.5	852	7.3	869	7.4	-3.1%
Bulgaria	1344	19.2	930	13.4	687	9.9	792	11.6	881	13.7	-8.2%
Croatia	305	7.5	198	4.9	175	4.3	221	5.7	265	6.9	-2.1%
Cyprus	69	7.9	36	4.1	48	5.4	96	10.6	81	8.8	2.8%
Czechia	461	4.3	363	3.4	357	3.4	382	3.6	459	4.2	-0.5%
Denmark	284	4.9	221	3.8	218	3.7	234	4.0	193	3.3	-9.7%
Estonia	150	11.3	124	9.3	112	8.4	129	9.7	99	7.2	-10.6%
Finland	226	4.1	174	3.1	170	3.1	187	3.4	180	3.2	-5.7%
France	5183	7.7	4515	6.7	4207	6.2	4249	6.3	4866	7.1	-1.9%
Germany	4817	5.8	4191	5.0	3931	4.7	4082	4.9	4481	5.3	-2.2%
Greece	459	4.3	396	3.7	206	1.9	320	3.1	493	4.7	2.6%
Hungary	552	5.6	406	4.2	335	3.4	440	4.5	493	5.1	-2.4%
Iceland	13	3.6	12	3.3	7	1.9	16	4.3	16	4.1	3.2%
Ireland	256	5.2	231	4.7	206	4.1	207	4.1	223	4.2	-5.1%
Italy	3346	5.6	2287	3.8	2480	4.2	2439	4.1	2893	4.9	-3.2%
Latvia	-	-	-	-	261	13.8	319	17.0	-	-	
Liechtenstein	-	-	2	5.2	1	2.6	1	2.5	1	2.5	-
Lithuania	1058	37.9	726	26.0	646	23.1	738	26.3	723	25.3	-9.6%
Luxembourg	50	8.1	34	5.4	35	5.5	48	7.4	46	7.0	-3.8%
Malta	98	19.9	140	27.2	54	10.5	61	11.7	68	12.5	-10.8%
Netherlands	754	4.4	622	3.6	674	3.9	633	3.6	710	4.0	-2.2%
Norway	166	3.1	157	2.9	155	2.9	173	3.2	153	2.8	-2.7%
Poland	5321	14	3388	8.9	3704	9.8	4314	11.5	4 436	12.1	-3.7%
Portugal	1907	18.6	1521	14.8	1537	14.9	1571	15.2	1565	15.0	-5.3%
Romania	11 618	59.8	7693	39.8	7976	41.5	9264	48.6	9506	49.9	-4.4%
Slovakia	214	3.9	158	2.9	137	2.5	155	2.9	221	4.1	0.9%
Slovenia	101	4.9	77	3.7	80	3.8	74	3.5	88	4.2	-3.8%
Spain	4532	9.7	3655	7.7	3816	8.1	3961	8.4	4208	8.8	-2.4%
Sweden	479	4.7	324	3.1	353	3.4	373	3.6	355	3.4	-7.9%
Subtotal EU/EEA	45 200	10.0	33794	7.5	33832	7.5	36703	8.1	38993	8.6	-3.8%
Non-EU/EEA	43200	10.0	33174	1.5	33032	7.5	30703	0.1	30773	0.0	3.070
Albania	412	14.3	240	8.4	269	9.4	292	10.3	302	10.7	-6.9%
Andorra	5	6.5	2	2.6	2	2.6	4	5.0	4	4.9	-6.7%
Armenia	670	23.1	444	15.4	426	14.8	472	16.4	435	14.8	-10.5%
Azerbaijan	6533	64.6	4991	49.0	4944	48.3	5169	50.2	5044	48.9	-6.7%
Belarus	2615	27.7	1778	19.0	1696	18.3	1903	20.7	1681	18.4	-9.7%
Bosnia and Herzegovina	580	17.3	357	10.8	363	11.2	434	13.5	446	14.0	-5.2%
Georgia	2451	64.6	1842	48.5	1645	43.4	1654	43.6	1447	38.0	-12.4%
Israel	217	2.5	158	1.8	213	2.4	207	2.3	227	2.5	-0.5%
Kazakhstan	12990	67.6	10 020	51.4	10 008	50.7	10203	50.9	9672	47.6	-8.4%
Kyrgyzstan	7039	108.4	4885	73.3	5199	76.2	5117	73.6	4674	66.1	-11.6%
Monaco	0	0.0	0	0.0	0	0.0	0	0.0	-	-	- 11.070
Montenegro	82	13.4	40	6.6	83	13.7	71	11.6	62	9.8	-7.6%
North Macedonia	199	10.5	148	7.9	146	7.9	144	7.8	160	8.7	-4.5%
B 111 CH 11											
Republic of Moldova Russian Federation	103 979	71.0	1906 84956	62.1 58.0	79 686	74.3 54.6	75589	72.1 51.9	71441	77.2 49.1	-7.3% -8.8%
		0.0			79686	0.0			/1441	49.1	-0.8%
			0	0.0			0	0.0	1060	15.6	-1.9%
San Marino	1170			6 1.		6 E					
Serbia	1179	16.9	441	6.4	447	6.5	1083	15.9			
Serbia excluding Kosovo¹	1179 567	16.9 10.9	441 -	-	-	-	468	6.9	475	9.4	-3.7%
Serbia Serbia excluding Kosovo¹ Kosovo¹	1179 567 612	16.9 10.9 34.7	441 - 441	25.2	- 447	25.5	468 615	6.9 35.6	475 585	9.4 34.2	-3.7% -0.3%
Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland	1179 567 612 435	16.9 10.9 34.7 5.1	441 - 441 387	25.2 4.5	- 447 364	25.5 4.2	468 615 365	6.9 35.6 4.2	475 585 434	9.4 34.2 4.9	-3.7% -0.3% -0.9%
Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan	1179 567 612 435 5976	16.9 10.9 34.7 5.1 62.7	441 - 441 387 4316	25.2 4.5 44.3	- 447 364 4299	25.5 4.2 43.1	468 615 365 4421	6.9 35.6 4.2 43.4	475 585 434 4540	9.4 34.2 4.9 43.7	-3.7% -0.3% -0.9% -8.6%
Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye	1179 567 612 435 5976 11401	16.9 10.9 34.7 5.1 62.7 13.4	441 - 441 387 4316 8925	25.2 4.5 44.3 10.4	- 447 364 4299 9156	25.5 4.2 43.1 10.6	468 615 365 4421 9851	6.9 35.6 4.2 43.4 11.3	475 585 434 4540 9527	9.4 34.2 4.9 43.7 10.9	-3.7% -0.3% -0.9% -8.6% -4.9%
Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan	1179 567 612 435 5976 11401 2863	16.9 10.9 34.7 5.1 62.7 13.4 42.1	441 - 441 387 4316 8925 2610	25.2 4.5 44.3 10.4 37.6	- 447 364 4299 9156 2422	25.5 4.2 43.1 10.6 34.2	468 615 365 4421 9851 3384	6.9 35.6 4.2 43.4 11.3 46.8	475 585 434 4540 9527 3250	9.4 34.2 4.9 43.7 10.9 44.1	-3.7% -0.3% -0.9% -8.6% -4.9%
Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine	1179 567 612 435 5976 11401 2863 28539	16.9 10.9 34.7 5.1 62.7 13.4 42.1 63.5	441 - 441 387 4316 8925 2610 19521	- 25.2 4.5 44.3 10.4 37.6 43.7	- 447 364 4299 9156 2422 19793	25.5 4.2 43.1 10.6 34.2 44.7	468 615 365 4421 9851 3384 19566	6.9 35.6 4.2 43.4 11.3 46.8 47.7	475 585 434 4540 9527 3250 20991	9.4 34.2 4.9 43.7 10.9 44.1 55.6	-3.7% -0.3% -0.9% -8.6% -4.9% 1.2% -3.2%
Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom	1179 567 612 435 5976 11401 2863 28539 5132	16.9 10.9 34.7 5.1 62.7 13.4 42.1 63.5 7.6	441 - 441 387 4316 8925 2610 19521 4458	25.2 4.5 44.3 10.4 37.6 43.7 6.6	- 447 364 4299 9156 2422 19793 4795	- 25.5 4.2 43.1 10.6 34.2 44.7 7.1	468 615 365 4421 9851 3384 19566 4716	6.9 35.6 4.2 43.4 11.3 46.8 47.7 6.9	475 585 434 4540 9527 3250 20991 5296	9.4 34.2 4.9 43.7 10.9 44.1 55.6 7.7	-3.7% -0.3% -0.9% -8.6% -4.9% 1.2% -3.2% 0.2%
Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom Uzbekistan	1179 567 612 435 5976 11401 2863 28539 5132 18774	16.9 10.9 34.7 5.1 62.7 13.4 42.1 63.5 7.6 57.0	441 441 387 4316 8925 2610 19521 4458 14127	- 25.2 4.5 44.3 10.4 37.6 43.7 6.6	447 364 4299 9156 2422 19793 4795 15450	- 25.5 4.2 43.1 10.6 34.2 44.7 7.1 45.1	468 615 365 4421 9851 3384 19566 4716	6.9 35.6 4.2 43.4 11.3 46.8 47.7 6.9 46.3	475 585 434 4540 9527 3250 20991 5296 15499	9.4 34.2 4.9 43.7 10.9 44.1 55.6 7.7 43.5	-3.7% -0.3% -0.9% -8.6% -4.9% 1.2% -3.2% -6.5%
Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom	1179 567 612 435 5976 11401 2863 28539 5132	16.9 10.9 34.7 5.1 62.7 13.4 42.1 63.5 7.6	441 - 441 387 4316 8925 2610 19521 4458	25.2 4.5 44.3 10.4 37.6 43.7 6.6	- 447 364 4299 9156 2422 19793 4795	- 25.5 4.2 43.1 10.6 34.2 44.7 7.1	468 615 365 4421 9851 3384 19566 4716	6.9 35.6 4.2 43.4 11.3 46.8 47.7 6.9	475 585 434 4540 9527 3250 20991 5296	9.4 34.2 4.9 43.7 10.9 44.1 55.6 7.7	-3.7% -0.3% -0.9% -8.6% -4.9% 1.2% -3.2% 0.2%

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.

¹ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence. The data published in this report might differ from figures in national reports due to different times of reporting. The deadline for correcting and updating the data used in this report in the joint database was 15 November 2024.

Table 4. TB cases by history of previous TB treatment, European Region, 2023

						Previously (			
Country/area	New <sup>a</sup>		Unknown previous	TB history	Previous treat completed		Other previously t		All TB cases
	N	(%)b	N	(%) <sup>b</sup>	N N	(%) <sup>6</sup>	N N	(%) <sup>6</sup>	ı
EU/EEA	<u>'</u>				<u> </u>		<u>'</u>		
Austria	305	(72.4)	93	(22.1)	13	(3.1)	10	(2.4)	421
Belgium <sup>c</sup>	56	(6.4)	197	(22.7)	0	(0.0)	616	(70.9)	869
Bulgaria	775	(88.0)	0	(0.0)	83	(9.4)	23	(2.6)	881
Croatia	196	(74.0)	58	(21.9)	6	(2.3)	5	(1.9)	265
Cyprus	75	(92.6)	2	(2.5)	1	(1.2)	3	(3.7)	8
Czechia	439	(95.6)	0	(0.0)	11	(2.4)	9	(2.0)	459
Denmark <sup>c</sup>	174	(90.2)	0	(0.0)	0	(0.0)	19	(9.8)	193
Estonia	78	(78.8)	0	(0.0)	20	(20.2)	1	(1.0)	99
Finland	165	(91.7)	5	(2.8)	9	(5.0)	1	(0.6)	180
France	3 4 3 7	(70.6)		(23.2)	0	(0.0)	298	(6.1)	4866
Germany	2911	(65.0)	1287	(28.7)	103	(2.3)	180	(4.0)	448
Greece	341	(69.2)	120	(24.3)	6	(1.2)	26	(5.3)	493
Hungary	467	(94.7)	0	(0.0)	26	(5.3)	0	(0.0)	493
Iceland	2	(12.5)		(75.0)	0	(0.0)	2	(12.5)	16
Ireland <sup>c</sup>	129	(57.8)	78	(35.0)	0	(0.0)	16	(7.2)	223
Italy	1590	(55.0)	1117	(38.6)	0	(0.0)	186	(6.4)	2893
Latvia	-	()).()	-	(50.0)	-	(0.0)	-	(0.4)	20/3
Liechtenstein	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1
Lithuania	619	(85.6)	0	(0.0)	88	(12.2)	16	(2.2)	723
Luxembourg	32	(69.6)	9	(19.6)	1	(2.2)	4	(8.7)	46
	68		0	(0.0)	0	(0.0)	0		
Malta		(100.0)						(0.0)	68
Netherlands	0			(100.0)	0	(0.0)	0	(0.0)	710
Norway	136	(88.9)	0	(0.0)	0	(0.0)	17	(11.1)	153
Poland	3921	(88.4)	0	(0.0)	223	(5.0)	292	(6.6)	4436
Portugal	1458	(93.2)	0	(0.0)	43	(2.7)	64	(4.1)	1565
Romania	7719	(81.2)	0	(0.0)	1403	(14.8)	384	(4.0)	9506
Slovakia	188	(85.1)	0	(0.0)	18	(8.1)	15	(6.8)	221
Slovenia	80	(90.9)		(0.0)	5	(5.7)	3	(3.4)	88
Spain	3360	(79.8)	631	(15.0)	0	(0.0)	217	(5.2)	4208
Sweden	332	(93.5)		(0.0)	9	(2.5)	14	(3.9)	355
Subtotal EU/EEA	29 054	(74.5)	5450	(14.0)	2068	(5.3)	2421	(6.2)	38 993
Non-EU/EEA									
Albania	274	(90.7)	-	-	28	(9.3)	0	(0.0)	302
Andorra	4	(100.0)		-	0	(0.0)	0	(0.0)	4
Armenia	377	(86.7)	-	-	27	(6.2)	31	(7.1)	435
Azerbaijan	2816	(55.8)		-	1149	(22.8)	1079	(21.4)	5044
Belarus	1274	(75.8)	-	-	281	(16.7)	126	(7.5)	1 681
Bosnia and Herzegovina	411	(92.2)		-	33	(7.4)	2	(0.4)	446
Georgia	1143	(79.0)	-	-	165	(11.4)	139	(9.6)	1447
Israel	223	(98.2)	-	-	4	(1.8)	0	(0.0)	227
Kazakhstan	7004	(72.4)	-	-	2502	(25.9)	166	(1.7)	9672
Kyrgyzstan	3747	(80.2)	-	-	436	(9.3)	491	(10.5)	4 674
Monaco	-	-	-	-	-	-	-	-	-
Montenegro	55	(88.7)	_	-	7	(11.3)	0	(0.0)	62
North Macedonia	145	(90.6)		-	12	(7.5)	3	(1.9)	160
Republic of Moldova	1732	(73.1)		-	432	(18.2)	204	(8.6)	2368
Russian Federation	43322	(60.6)		-	11321	(15.8)	16798	(23.5)	71441
San Marino	-	(0010)	-	-	0	-	0	(2515)	-
Serbia	961	(90.7)		-	53	(5.0)	46	(4.3)	1060
Serbia excluding Kosovo <sup>1</sup>	403	(84.8)		-	30	(6.3)	42	(8.8)	475
Kosovo <sup>1</sup>	558	(95.4)		-	23	(3.9)	42	(0.7)	585
Switzerland				-	0				434
	413	(95.2) (89.0)		-	395	(0.0) (8.7)	21 105	(4.8) (2.3)	
Tajikistan	4040								4540
Türkiye	8964	(94.1)	-	-	444	(4.7)	119	(1.2)	9527
Turkmenistan	1916	(59.0)		-	357	(11.0)	977	(30.1)	3250
Ukraine	16149	(76.9)	-	-	3909	(18.6)	933	(4.4)	20991
United Kingdom <sup>c</sup>	5143	(97.1)		-	153	(2.9)	0	(0.0)	5296
Uzbekistan	12344	(79.6)		-	1594	(10.3)	1561	(10.1)	15499
		(70.0)		(0.0)	22202	(14.7)	22801	(44.4)	158 5 6 0
Subtotal non-EU/EEA Total European Region	112 457 141511	(70.9) (71.6)		(0.0)	23302 25370	(12.8)	25 222	(14.4)	197 553

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics.

EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.

For non-EU/EEA countries and areas, cases with unknown previous TB history are included among new TB cases.

Proportion of all TB cases.

Previous TB history is defined by previous diagnosis. Treatment completion is not analysed for these countries.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 5. TB cases by site of disease, EU/EEA, 2023

		Pulmona	ry						
Country	Pulmonary	only	Pulmonary extrapulmo		Extrapulmo	nary	No site repo	rted	Total
	N	(%)	N	(%)	N	(%)	N	(%)	N
EU/EEA									
Austria	274	(65.1)	51	(12.1)	96	(22.8)	0	(0.0)	421
Belgium	490	(56.4)	124	(14.3)	238	(27.4)	17	(2.0)	869
Bulgaria	677	(76.8)	34	(3.9)	170	(19.3)	0	(0.0)	881
Croatia	193	(72.8)	9	(3.4)	30	(11.3)	33	(12.5)	265
Cyprus	59	(72.8)	7	(8.6)	15	(18.5)	0	(0.0)	81
Czechia	370	(80.6)	33	(7.2)	56	(12.2)	0	(0.0)	459
Denmark	139	(72.0)	5	(2.6)	49	(25.4)	0	(0.0)	193
Estonia	81	(81.8)	16	(16.2)	2	(2.0)	0	(0.0)	99
Finland	112	(62.2)	0	(0.0)	68	(37.8)	0	(0.0)	180
France	3400	(69.9)	0	(0.0)	1365	(28.1)	101	(2.1)	4866
Germany	2833	(63.2)	592	(13.2)	1009	(22.5)	47	(1.0)	4481
Greece	287	(58.2)	79	(16.0)	53	(10.8)	74	(15.0)	493
Hungary	465	(94.3)	13	(2.6)	13	(2.6)	2	(0.4)	493
Iceland	11	(68.8)	1	(6.2)	4	(25.0)	0	(0.0)	16
Ireland	113	(50.7)	26	(11.7)	71	(31.8)	13	(5.8)	223
Italy	1820	(62.9)	291	(10.1)	735	(25.4)	47	(1.6)	2893
Latvia	-	-	-	_	-	-	-	-	-
Liechtenstein	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	1
Lithuania	639	(88.4)	3	(0.4)	81	(11.2)	0	(0.0)	723
Luxembourg	31	(67.4)	2	(4.3)	13	(28.3)	0	(0.0)	46
Malta	44	(64.7)	4	(5.9)	19	(27.9)	1	(1.5)	68
Netherlands	382	(53.8)	86	(12.1)	240	(33.8)	2	(0.3)	710
Norway	100	(65.4)	15	(9.8)	36	(23.5)	2	(1.3)	153
Poland	4232	(95.4)	33	(0.7)	171	(3.9)	0	(0.0)	4436
Portugal	910	(58.1)	181	(11.6)	456	(29.1)	18	(1.2)	1565
Romania	7685	(80.8)	599	(6.3)	1222	(12.9)	0	(0.0)	9506
Slovakia	126	(57.0)	70	(31.7)	25	(11.3)	0	(0.0)	221
Slovenia	58	(65.9)	19	(21.6)	11	(12.5)	0	(0.0)	88
Spain	2499	(59.4)	415	(9.9)	1144	(27.2)	150	(3.6)	4208
Sweden	189	(53.2)	41	(11.5)	124	(34.9)	1	(0.3)	355
Total EU/EEA	28 219	(72.4)	2750	(7.1)	7516	(19.3)	508	(1.3)	38 993

Note: The five EU/EEA countries designated as WHO European Region TB high-priority countries are presented in italics. EEA: European Economic Area; EU: European Union; N: number; TB: tuberculosis.

Table 6. TB cases by history of previous TB treatment, site of disease and diagnostic method, according to WHO definitions, a European Region, 2023

		1		Ne	w <sup>b</sup> and rela		es .	1			Braulanahi	treated.	All TB
Country/area	N	(%)'	N	(%)°	Pulmor Labora confir	tory-	Clinic diagno		Extrapuln	nonary	Previously case		cases
				(70)	N	(%) <sup>g</sup>	N	(%) <sup>g</sup>	N	(%)°	N	(%) <sup>c</sup>	N
EU/EEA													
Austria	411	(97.6)	317	(77.1)	306	(96.5)	11	(3.5)	94	(22.9)	10	(2.4)	421
Belgium <sup>h</sup>	253	(29.1)	188	(74.3)	152	(80.9)	36	(19.1)	65	(25.7)	616	(70.9)	869
Bulgaria	858	(97.4)	690	(80.4)	420	(60.9)	270	(39.1)	168	(19.6)	23	(2.6)	881
Croatia	260	(98.1)	230	(88.5)	220	(95.7)	10	(4.3)	30	(11.5)	5	(1.9)	265
Cyprus	78	(96.3)	63	(80.8)	55	(87.3)	8	(12.7)	15	(19.2)	3	(3.7)	81
Czechia	450	(98.0)	395	(87.8)	357	(90.4)	38	(9.6)	55	(12.2)	9	(2.0)	459
Denmark <sup>h</sup>	174	(90.2)	126	(72.4)	106	(84.1)	20	(15.9)	48	(27.6)	19	(9.8)	193
Estonia	98	(99.0)	96	(98.0)	89	(92.7)	7	(7.3)	2	(2.0)	1	(1.0)	99
Finland	179	(99.4)	112	(62.6)	104	(92.9)	8	(7.1)	67	(37.4)	1	(0.6)	180
France	4568	(93.9)	3 2 6 2	(71.4)	2 2 4 1	(68.7)	1021	(31.3)	1306	(28.6)	298	(6.1)	4866
Germany	4301	(96.0)	3 3 1 4	(77.1)	2982	(90.0)	332	(10.0)	987	(22.9)	180	(4.0)	4 481
Greece	467	(94.7)	415	(88.9)	396	(95.4)	19	(4.6)	52	(11.1)	26	(5.3)	493
Hungary	493	(100.0)	480	(97.4)	343	(71.5)	137	(28.5)	13	(2.6)	0	(0.0)	493
Iceland	14	(87.5)	10	(71.4)	9	(90.0)	1	(10.0)	4	(28.6)	2	(12.5)	16
Ireland <sup>h</sup>	207	(92.8)	140	(67.6)	115	(82.1)	25	(17.9)	67	(32.4)	16	(7.2)	223
Italy	2707	(93.6)	2003	(74.0)	1659	(82.8)	344	(17.2)	704	(26.0)	186	(6.4)	2893
Latvia	-	-	-	-	-	-	-	_	-	_	-	-	-
Liechtenstein	1	(100.0)	1	(100.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1
Lithuania	707	(97.8)	626	(88.5)	588	(93.9)	38	(6.1)	81	(11.5)	16	(2.2)	723
Luxembourg	42	(91.3)	30	(71.4)	28	(93.3)	2	(6.7)	12	(28.6)	4	(8.7)	46
Malta	68	(100.0)	49	(72.1)	32	(65.3)	17	(34.7)	19	(27.9)	0	(0.0)	68
Netherlands	710	(100.0)	470	(66.2)	397	(84.5)	73	(15.5)	240	(33.8)	0	(0.0)	710
Norway <sup>h</sup>	136	(88.9)	103	(75.7)	94	(91.3)	9	(8.7)	33	(24.3)	17	(11.1)	153
Poland	4144	(93.4)	3975	(95.9)	3 410	(85.8)	565	(14.2)	169	(4.1)	292	(6.6)	4 4 3 6
Portugal	1501	(95.9)	1061	(70.7)	896	(84.4)	165	(15.6)	440	(29.3)	64	(4.1)	1565
Romania	9122	(96.0)	7906	(86.7)	7137	(90.3)	769	(9.7)	1216	(13.3)	384	(4.0)	9506
Slovakia	206	(93.2)	181	(87.9)	114	(63.0)	67	(37.0)	25	(12.1)	15	(6.8)	221
Slovenia	85	(96.6)	74	(87.1)	72	(97.3)	2	(2.7)	11	(12.9)	3	(3.4)	88
Spain	3991	(94.8)	2883	(72.2)	2464	(85.5)	419	(14.5)	1108	(27.8)	217	(5.2)	4208
Sweden	341	(96.1)	220	(64.5)	204	(92.7)	16	(7.3)	121	(35.5)	14	(3.9)	355
Subtotal EU/EEA	36572	(93.8)	29 420	(80.4)	24991	(84.9)	4429	(15.1)	7152	(19.6)	2421	(6.2)	38 993
Non-EU/EEA	200	(400.0)	224	(7.5)	477	(74.4)	F. (	(00.1)	74	(00.5)		(0.0)	200
Albania	302	(100.0)	231	(76.5)	177	(76.6)	54	(23.4)	71	(23.5)	0	(0.0)	302
Andorra	4	(100.0)	4	(100.0)	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	4
Armenia	404	(92.9)	296	(73.3)	198	(66.9)	98	(33.1)	108	(26.7)	31	(7.1)	435
Azerbaijan	3965	(78.6)	3301	(83.3)	2735	(82.9)	566	(17.1)	664	(16.7)	1079	(21.4)	5044
Belarus	1555	(92.5)	1462	(94.0)	1389	(95.0)	73	(5.0)	93	(6.0)	126	(7.5)	1681
Bosnia and Herzegovina	444	(99.6)	410	(92.3)	383	(93.4)	27	(6.6)	34	(7.7)	2	(0.4)	446
Georgia	1308	(90.4)	1104	(84.4)	1029	(93.2)	75	(6.8)	204	(15.6)	139	(9.6)	1447
Israel	227	(100.0)	162	(71.4)	122	(75.3)	40	(24.7)	65	(28.6)	0	(0.0)	227
Kazakhstan	9506	(98.3)	8571	(90.2)	7426	(86.6)	1145	(13.4)	935	(9.8)	166	(1.7)	9 672
Kyrgyzstan	4183	(89.5)	3397	(81.2)	2 481	(73.0)	916	(27.0)	786	(18.8)	491	(10.5)	4 674
Monaco		(400.0)	- (4	(00 ()	- 52		-	(4/ 0)		(4.6)		(0.0)	-
Montenegro	62	(100.0)	61	(98.4)	52	(85.2)	9	(14.8)	1	(1.6)	0	(0.0)	62
North Macedonia	157	(98.1)	133	(84.7)	110	(82.7)	23	(17.3)	24	(15.3)	3	(1.9)	160
Republic of Moldova	2164	(91.4)	1954	(90.3)	1433	(73.3)	521	(26.7)	210	(9.7)	204	(8.6)	2368
Russian Federation	54 643	(76.5)	50 696	(92.8)	28785	(56.8)	21911	(43.2)	3947	(7.2)	16798	(23.5)	71 441
San Marino	101/	(05.7)	0/0		- -	((( ( ))		(2(0)		(4( 1)		(( 2)	10/0
Serbia	1014	(95.7)	848	(83.6)	543	(64.0)	305	(36.0)	166	(16.4)	46	(4.3)	1060
Serbia excluding Kosovo¹	433	(91.2)	398	(91.9)	361	(90.7)	37	(9.3)	35	(8.1)	42	(8.8)	475
Kosovo¹	581	(99.3)	450	(77.5)	182	(40.4)	268	(59.6)	131	(22.5)	4	(0.7)	585
Switzerland Taiikistan	413	(95.2)	397	(96.1)	360	(90.7)	1227	(9.3)	16	(3.9)	21	(4.8)	434
Tajikistan	4435	(97.7)	3305	(74.5)	2068	(62.6)	1237	(37.4)	1130	(25.5)	105	(2.3)	4540
Türkiye	9408	(98.8)	6078	(64.6)	4732	(77.9)	1346	(22.1)	3330	(35.4)	119	(1.2)	9527
Turkmenistan	2273	(69.9)	1877	(82.6)	1064	(56.7)	813	(43.3)	396	(17.4)	977	(30.1)	3250
Ukraine	20 058	(95.6)	18302	(91.2)	13 524	(73.9)	4778	(26.1)	1756	(8.8)	933	(4.4)	20 991
United Kingdom <sup>h</sup>	5296	(100.0)	2922	(55.2)	2 4 4 1	(83.5)	481	(16.5)	2374	(44.8)	0	(0.0)	5296
Uzbekistan	13 9 3 8	(89.9)	8687	(62.3)	6371	(73.3)	2316	(26.7)	5251	(37.7)	1561	(10.1)	15 499
Cubicial non Ellipea										115 91			158 560
Subtotal non-EU/EEA Total European Region	135759 172331	(85.6) (87.2)	114 198 143 618	(84.1)	77 427 102 418	(67.8) (71.3)	36771 41200	(32.2)	21561 28713	(15.9)	22 801 25 222	(14.4)	197553

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

\*\*World Health Organization (2013). 'Definitions and reporting framework for tuberculosis – 2013 revision: updated December 2014 and January 2020'. Geneva: World Health Organization (https://iris.who.int/handle/10665/79190, accessed 30 January 2024).

\*\*Cases with unknown previous TB history are included among new TB cases.

\*\*Proportion of all TB cases.

\*\*Proportion of all are and relapse TB cases site reported are included among pulmonary TB cases.

\*\*Proportion of all new and relapse TB cases.

\*\*Proportion of all new and relapse pulmonary TB cases.

\*\*Proportion of all new and relapse pulmonary TB cases.

\*\*Proportion of all new and relapse pulmonary TB cases.

\*\*Proportion of all new and relapse pulmonary TB cases.

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\*\*Proportion of all new and relapse pulmonary TB cases.

\*\*Proportion of all new and relapse that the tuberculous terms are included for EU/EEA countries.

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\*\*Proportion of all new and relapse that the tuberculous terms are included for EU/EEA countries.

\*\*Proportion of all new and relapse tuberculous terms are included among pulmonary terms are included for EU/EEA countries.

\*\*Proportion of all

Table 7. TB cases according to EU case definition, EU/EEA, 2023

		All la	boratory-co	nfirmed cas	sesª								
Country	Meeting o smear-posi nucleic aci positive cr	tive and id test-	Meeting of culture-p	ositive	Meeting crite		Confirme	d cases <sup>b</sup>	Probable	cases	Possible	cases	All TB cases
	N	(%)	N	(%)	N	(%)°	N	(%)⁴	N	(%)⁴	N	(%)⁴	N
Austria	6	(1.8)	246	(73.2)	84	(25.0)	336	(79.8)	58	(13.8)	27	(6.4)	421
Belgium	0	(0.0)	687	(100.0)	0	(0.0)	687	(79.1)	0	(0.0)	182	(20.9)	869
Bulgaria	0	(0.0)	420	(100.0)	0	(0.0)	420	(47.7)	73	(8.3)	388	(44.0)	881
Croatia	1	(0.4)	216	(90.0)	23	(9.6)	240	(90.6)	12	(4.5)	13	(4.9)	265
Cyprus	0	(0.0)	43	(63.2)	25	(36.8)	68	(84.0)	1	(1.2)	12	(14.8)	81
Czechia	4	(1.0)	166	(43.6)	211	(55.4)	381	(83.0)	37	(8.1)	41	(8.9)	459
Denmark	1	(0.7)	80	(53.0)	70	(46.4)	151	(78.2)	6	(3.1)	36	(18.7)	193
Estonia	2	(2.4)	37	(44.6)	44	(53.0)	83	(83.8)	9	(9.1)	7	(7.1)	99
Finland	1	(0.8)	98	(77.2)	28	(22.0)	127	(70.6)	38	(21.1)	15	(8.3)	180
France	0	(0.0)	2 0 5 7	(100.0)	0	(0.0)	2 0 5 7	(42.3)	876	(18.0)	1933	(39.7)	4866
Germany	148	(4.2)	1686	(47.6)	1708	(48.2)	3542	(79.0)	442	(9.9)	497	(11.1)	4 481
Greece	27	(6.8)	271	(68.3)	99	(24.9)	397	(80.5)	64	(13.0)	32	(6.5)	493
Hungary	2	(0.7)	176	(62.6)	103	(36.7)	281	(57.0)	115	(23.3)	97	(19.7)	493
Iceland	0	(0.0)	10	(76.9)	3	(23.1)	13	(81.2)	0	(0.0)	3	(18.8)	16
Ireland	5	(3.0)	113	(68.9)	46	(28.0)	164	(73.5)	22	(9.9)	37	(16.6)	223
Italy	173	(12.2)	994	(70.3)	247	(17.5)	1414	(48.9)	898	(31.0)	581	(20.1)	2893
Latvia	_	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	0	(0.0)	1	(100.0)	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	1
Lithuania	0	(0.0)	629	(100.0)	0	(0.0)	629	(87.0)	9	(1.2)	85	(11.8)	723
Luxembourg	1	(2.4)	26	(61.9)	15	(35.7)	42	(91.3)	2	(4.3)	2	(4.3)	46
Malta	0	(0.0)	37	(100.0)	0	(0.0)	37	(54.4)	3	(4.4)	28	(41.2)	68
Netherlands	12	(2.4)	273	(54.6)	215	(43.0)	500	(70.4)	63	(8.9)	147	(20.7)	710
Norway	0	(0.0)	79	(63.7)	45	(36.3)	124	(81.0)	15	(9.8)	14	(9.2)	153
Poland	40	(1.1)	2 2 5 1	(63.3)	1263	(35.5)	3554	(80.1)	212	(4.8)	670	(15.1)	4436
Portugal	68	(7.3)	703	(75.5)	160	(17.2)	931	(59.5)	293	(18.7)	341	(21.8)	1565
Romania	146	(2.1)	4137	(58.9)	2746	(39.1)	7029	(73.9)	1225	(12.9)	1252	(13.2)	9506
Slovakia	0	(0.0)	74	(69.2)	33	(30.8)	107	(48.4)	34	(15.4)	80	(36.2)	221
Slovenia	1	(1.2)	54	(64.3)	29	(34.5)	84	(95.5)	4	(4.5)	0	(0.0)	88
Spain	108	(3.6)	1839	(61.2)	1056	(35.2)	3003	(71.4)	524	(12.5)	681	(16.2)	4208
Sweden	0	(0.0)	204	(71.6)	81	(28.4)	285	(80.3)	26	(7.3)	44	(12.4)	355
Total EU/EEA	746	(2.8)	17607	(66.0)	8334	(31.2)	26687	(68.4)	5061	(13.0)	7245	(18.6)	38993

Note: WHO European Region 18 TB high-priority countries are presented in italics.

EEA: European Economic Area; EU: European Union; N: number; TB: tuberculosis.

Laboratory-confirmed TB cases according to the EU case definition.

Culture-positive OR microscopy-positive and nucleic acid amplification test-positive.

Proportion of all laboratory-confirmed TB cases.

Proportion of all TB cases.

Table 8. New and relapse TB cases, by age group and male-to-female ratio, European Region, 2023a

		0	-4			5	-14			15	-24			25-	44		
Country/area	N	(%)	Rate per	M/F ratio	N	(%)	Rate per 100 000	M/F ratio	N	(%)	Rate per 100 000	M/F ratio	N	(%)	Rate per	M/F ratio	
EU/EEA																	
Austria	3	(0.7)	0.7	2.0	9	(2.2)	1.0	0.8	74	(18.0)	7.8	3.6	128	(31.1)	5.2	2.2	
Belgium <sup>b</sup>	2	(0.8)	0.3	1.0	4	(1.6)	0.3	1.0	56	(22.1)	4.1	10.2	103	(40.7)	3.4	2.1	
Bulgaria	8	(0.9)	2.8	1.7	12	(1.4)	1.9	3.0	52	(6.1)	9.1	1.4	227	(26.5)	14.6	1.2	
Croatia	2	(8.0)	1.1	N/F	1	(0.4)	0.3	N/M	10	(3.8)	2.6	1.0	65	(25.0)	6.8	2.0	
Cyprus	1	(1.3)	2.0	N/M	2	(2.6)	2.0	N/F	21	(26.9)	19.6	1.3	40	(51.3)	13.6	1.2	
Czechia	17	(3.8)	3.0	0.7	12	(2.7)	1.0	2.0	26	(5.8)	2.4	2.2	166	(36.9)	5.8	2.7	
Denmark <sup>b</sup>	4	(2.3)	1.3	0.3	6	(3.4)	0.9	0.5	16	(9.2)	2.2	1.0	63	(36.2)	4.2	1.2	
Estonia	0	(0.0)	0.0	-	2	(2.0)	1.3	N/M	3	(3.1)	2.2	2.0	28	(28.6)	7.5	1.8	
Finland	1	(0.6)	0.4	N/M	1	(0.6)	0.2	N/M	9	(5.0)	1.5	0.8	70	(39.1)	4.9	1.1	
France	105	(2.3)	3.0	1.1	145	(3.2)	1.8	1.2	871	(19.1)	10.6	2.7	1707	(37.4)	10.4	2.1	
Germany	87	(2.0)	2.2	1.0	154	(3.6)	1.9	1.1	740	(17.2)	8.7	2.7	1659	(38.6)	7.7	2.2	
Greece	4	(0.9)	1.0	1.0	0	(0.0)	0.0	-	83	(17.8)	7.9	3.1	133	(28.5)	5.3	3.9	
Hungary	4	(8.0)	0.9	0.3	2	(0.4)	0.2	N/M	24	(4.9)	2.4	1.2	105	(21.3)	4.2	1.7	
Iceland	0	(0.0)	0.0	-	1	(7.1)	2.1	N/M	1	(7.1)	2.0	N/F	8	(57.1)	6.8	1.7	
Ireland <sup>b</sup>	2	(1.0)	0.7	1.0	6	(2.9)	0.8	1.0	26	(12.6)	4.0	1.4	89	(43.0)	6.1	1.6	
Italy	63	(2.3)	3.0	1.0	79	(2.9)	1.5	1.4	432	(16.0)	7.4	3.6	960	(35.5)	7.2	2.3	
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Liechtenstein	0	(0.0)	0.0	-	0	(0.0)	0.0	-	1	(100.0)	24.9	N/F	0	(0.0)	0.0	-	
Lithuania	9	(1.3)	7.1	2.0	25	(3.5)	8.3	0.5	32	(4.5)	11.8	0.7	169	(23.9)	22.2	2.4	
Luxembourg	0	(0.0)	0.0	-	3	(7.1)	4.2	0.5	6	(14.3)	8.2	1.0	16	(38.1)	7.8	1.0	
Malta	0	(0.0)	0.0	-	1	(1.5)	2.2	N/M	5	(7.4)	9.4	N/F	50	(73.5)	26.2	3.5	
Netherlands	9	(1.3)	1.0	0.8	12	(1.7)	0.6	0.3	155	(21.8)	7.1	2.8	288	(40.6)	6.4	1.5	
Norway⁵	5	(3.7)	1.8	0.7	2	(1.5)	0.3	N/F	19	(14.0)	2.9	2.2	67	(49.3)	4.5	0.9	
Poland	14	(0.3)	0.8	1.0	37	(0.9)	0.9	0.6	166	(4.0)	4.7	1.2	1115	(26.9)	10.5	3.0	
Portugal	23	(1.5)	5.4	1.1	21	(1.4)	2.3	1.3	137	(9.1)	12.6	2.1	461	(30.7)	18.7	1.9	
Romania	188	(2.1)	19.7	1.5	238	(2.6)	11.2	1.1	779	(8.5)	38.2	1.3	2487	(27.3)	51.6	2.3	
Slovakia	36	(17.5)	12.5	1.1	45	(21.8)	7.7	0.7	17	(8.3)	3.2	0.9	24	(11.7)	1.5	1.2	
Slovenia	0	(0.0)	0.0	-	1	(1.2)	0.5	N/M	4	(4.7)	2.0	3.0	16	(18.8)	2.9	4.3	
Spain	96	(2.4)	5.4	1.2	131	(3.3)	2.8	1.3	427	(10.7)	8.4	1.8	1267	(31.7)	10.4	1.8	
Sweden	4	(1.2)	0.7	0.3	5	(1.5)	0.4	0.7	45	(13.2)	3.8	3.1	132	(38.7)	4.7	1.2	
Subtotal EU/EEA	687	(1.9)	3.3	1.2	957	(2.6)	2.0	1.1	4237	(11.6)	8.8	2.1	11 643	(31.8)	10.2	2.1	
Non-EU/EEA	-	(4.7)	2.4	4.5	2	(4.0)	0.0	AL/F	50	(4( ()	42.5	4.2	0.7	(20.0)	40.7	4.7	
Albania	5	(1.7)	3.4	1.5	3	(1.0)	0.9	N/F	50	(16.6)	13.5	1.3	87	(28.8)	10.7	1.7	
Andorra	0	(0.0)	0.0	-	0	(0.0)	0.0	-	0	(0.0)	0.0	1.0	0	(0.0)	0.0	-	
Armenia	11	(2.7)	6.2	0.8	16	(4.0)	4.0	0.5	28	(6.9)	7.8	1.0	138	(34.2)	15.3	2.6	
Azerbaijan <sup>c</sup>	25	(0.6)	3.7	1.1	114	(2.9)	7.0	0.9	650	(16.4)	47.4	1.9	1379	(34.8)	40.6	2.0	
Belarus	3	(0.2)	0.8	2.0	10	(0.6)	0.9	2.3 N/F	43	(2.8)	4.8	2.3	466	(30.0)	17.9	3.3	
Bosnia and Herzegovina		(0.0)	0.0 5.0	3.0	41	(0.2)	0.3 7.3	0.6	24 132	(5.4) (10.1)	7.1 30.4	1.2	99	(22.3) (34.5)	12.6 43.1	1.2	
<i>Georgia</i> Israel	12	(5.3)			5	(2.2)			132	(7.9)			451			1.7	
Kazakhstan	12		1.4	1.4 1.3	218	(2.2)	0.3	0.7 0.7	946	(10.0)	1.3 35.1	1.6 0.9	98	(43.2) (35.3)	4.1 58.2	1.8	
Kyrgyzstan	94 87	(1.0)	4.4 11.0	1.2	184	(4.4)	5.6 12.1	1.2	860	(20.6)	77.7	1.3	3360 1368	(32.7)	67.7	1.8	
Monaco	-	(2.1)	11.0	1.2	104	(4.4)	12.1	1,2	-	(20.0)	- //./	1.5	1300	(32.7)	0/./	1.4	
	0	(0.0)	0.0	_	0	(0.0)	0.0	_	3	(4.8)	3.9	2.0	13	(21.0)	7.9	1.6	
Montenegro North Macedonia	13	(8.3)	13.7	1.6	8	(5.1)	3.7	1.0	14	(8.9)	6.7	1.8	44	(28.0)	9.0	2.4	
Republic of Moldova	43	(2.0)	24.0	1.0	110	(5.1)	25.3	1.0	98	(4.5)	29.7	1.6	862	(39.8)	9.0	3.0	
Russian Federation	558	(1.0)	7.7	1.0	1156	(2.1)	6.3	0.9	2605	(4.8)	17.6	1.3	24810	(45.4)	58.2	2.5	
San Marino	-	(1.0)	-	1.0	1150	(2.1)	0.5	0.9	2005	(4.0)	-	1.5	24010	(45.4)	50.2	2.5	
Serbia		(1.3)		0.9		(3.5)	5.3	1.1	96	(9.5)		0.8	2/15			1.5	
Serbia excluding Kosovo <sup>1</sup>	13	(0.5)	4.1 0.9	N/F	35 12	(2.8)	3.1	0.7	34	(7.9)	13.8	0.8	245 99	(24.2) (22.9)	14.1	2.0	
Kosovo <sup>1</sup>	11	(1.9)	10.6	0.6	23	(4.0)	8.7	1.3	62	(10.7)	20.9	0.7	146	(25.1)	29.1	1.2	
Switzerland	7	(1.7)	1.6	0.6	10	(2.4)	1.1	1.0	77	(18.6)	8.7	3.8	160	(38.7)	6.6	1.8	
Tajikistan	74	(1.7)	5.5	1.1	199	(4.5)	8.1	1.1	902	(20.3)	50.4	1.7	1574	(35.5)	53.4	1.3	
Türkiye	120	(1.7)	2.1	1.1	291	(3.1)	2.2	0.8	1321	(14.0)	10.1	1.7	2 613	(27.8)	9.8	1.3	
Turkmenistan <sup>d</sup>	120	(0.5)	1.4		25	(1.1)	1.6	0.8	267	(11.7)	25.1	0.9	2 6 1 3 8 9 1	(39.2)	38.7	1.3	
Ukraine				0.7													
United Kingdom <sup>b</sup>	147	(0.7)	11.3	1.2	492	(2.5)	12.0	1.0	775	(3.9)	21.5	1.6	8800	(43.9)	79.7	3.3	
United Kingdom <sup>o</sup> Uzbekistan	62	(1.2)	1.7	0.9	105	(2.0)	1.3	0.9	725	(13.7)	9.1	1.8	2344	(44.3)	12.9	1.4	
	430	(3.1)	10.0	1.4	1074	(7.7)	16.0	1.4	1157	(8.3)	22.4	1.2	3757	(27.0)	33.9	1.2 <b>2.1</b>	
Subtotal non-EU/EEA Total European Region	1727	(1.3)	5.6	1.1	4097	(3.0)	6.0	1.0	10791	(7.9)	18.4	1.3	53559	(39.5)	38.2	2.1	
IVLAL CUI UDEAN KERION	2 414	(1.4)	4.7 6.8	1.1	5 0 5 4 4 2 0 7	(2.9)	4.4	1.0	15 0 2 8 10 6 5 0	(8.7)	14.1 21.4	1.3	65 202 53 380	(37.8)	25.6	2.1	

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics.

EEA: European Economic Area; EU: European Union; F: female; HPC: high-priority countries; M: male; N: number; N/F: no female in the subgroup; N/M: no male in the subgroup; TB: tuberculosis.

Cases with unknown previous TB history are included among new TB cases.

Previous TB history is defined by previous diagnosis.

Azerbaijan provided age distribution for new cases only.

Turkmenistan reported child TB for those aged 0-14 years, data for 0-4 and 5-14 year-olds were imputed based on the pattern for the 18 HPC countries.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

	45	;-6 <b>4</b>				> 64			Unknowr	1	Total		
N	(%)	Rate per 100 000	M/F ratio	N	(%)	Rate per 100 000	M/F ratio	N	(%)	Rate per 100 000	N	M/F ratio	Country/area
													EU/EEA
102	(24.8)	3.9	1.6	95	(23.1)	5.3	1.4	0	(0.0)	-	411	1.9	Austria
60	(23.7)	1.9	5.7	28	(11.1)	1.2	2.5	_ 0	(0.0)	-	253	3.4	Belgium <sup>b</sup>
328	(38.2)	17.3	2.2	231	(26.9)	15.2	1.2	0	(0.0)	-	858		Bulgaria
93	(35.8)	8.7	3.2	89	(34.2)	10.2	1.3	0	(0.0)	-	260	2.0	Croatia
11	(14.1)	5.0	1.8	3	(3.8)	2.0	N/F	0	(0.0)	-	78	1.4	Cyprus
140	(31.1)	4.7	3.4	89	(19.8)	4.0	1.7	0	(0.0)	-	450	2.4	
54	(31.0)	3.5	2.4	31	(17.8)	2.6	1.5	0	(0.0)	-	174	1.4	Denmark <sup>b</sup>
35	(35.7)	9.8	6.0	30	(30.6)	10.9	2.8	0	(0.0)	-	98		Estonia
42	(23.5)	3.0	1.2	56	(31.3)	4.3	3.0	0	(0.0)	-	179	1.4	Finland
931	(20.4)	5.4	2.1	809	(17.7)	5.6	1.8	0	(0.0)	-	4568		France
982	(22.8)	4.1	2.3	679	(15.8)	3.6	1.4	0	(0.0)	-	4301	2.0	Germany
112	(24.0)	3.7	2.7	89	(19.1)	3.7	1.5	46	(9.9)	N/F	467	2.7	Greece
223	(45.2)	8.3	3.1	135	(27.4)	6.8	1.1	0	(0.0)	-	493		Hungary
4	(28.6)	4.4	3.0	0	(0.0)	0.0	-	0	(0.0)	-	14	1.8	Iceland
46	(22.2)	3.5	1.9	38	(18.4)	4.7	1.2	0	(0.0)	-	207	1.5	Ireland <sup>b</sup>
664	(24.5)	3.6	2.0	509	(18.8)	3.6	1.7	0	(0.0)	-	2707	2.1	Italy
-	(0.0)	-	-	-	(0.0)	_	-	-	(0.0)	-	_	- At /=	Latvia
0	(0.0)	0.0	-	100	(0.0)	0.0	- 1.0	0	(0.0)	-	1		Liechtenstein
312	(44.1)	37.7	5.4	160	(22.6)	28.0	1.6	0	(0.0)	-	707	2.6	Lithuania
11	(26.2)	6.2	2.7	6	(14.3)	6.1	5.0	0	(0.0)	-	42	1.5	Luxembourg
10	(14.7)	7.8	4.0	2	(2.9)	2.0	N/M	0	(0.0)	- N/F	68		Malta
155	(21.8)	3.2	1.4	89	(12.5)	2.5	2.1	2	(0.3)	N/F	710		Netherlands
36	(26.5)	2.6	1.8	7	(5.1)	0.7	1.3	0	(0.0)	-	136	1.2	Norwayb
1730	(41.7)	18.0	4.2	1082	(26.1)	14.8	1.8	0	(0.0)	- N/F	4144	2.7	
510	(34.0)	16.7	2.8	348	(23.2)	13.9	2.0	1	(0.1)	N/F	1501	2.2	Portugal
3848	(42.2)	71.7	4.1	1582	(17.3)	42.1	1.6	0	(0.0)	-	9122		Romania
51	(24.8)	3.4	4.1	33	(16.0)	3.4	0.6	0	(0.0)	-	206	1.2	Slovakia
31	(36.5)	5.2	3.4	33	(38.8)	7.3	0.8	0	(0.0)	-	85	1.8	Slovenia
1193	(29.9)	8.2	2.4	877	(22.0)	9.1	1.8	0	(0.0)	-	3991	1.9	Spain
93	(27.3)	3.6	1.1	62	(18.2)	2.9	1.2	0	(0.0)	-	341	1.3	Sweden
11807	(32.3)	9.3	3.0	7192	(19.7)	7.5	1.7	49	(0.1)	-	36572	2.2	Subtotal EU/EEA
7.5	(24.0)	10.0	2.0	02	(27.2)	17.0	1.7		(0, 0)	-	202	1.0	Non-EU/EEA
75 2	(24.8)	10.9	2.9	82	(27.2) (50.0)	17.9 16.0	1.7		(0.0)	_	302	1.9	Albania Andorra
	(50.0) (37.4)	7.5	1.0	60	(14.9)		1.0 2.0		(0.0)	_	404		
151 1399		21.0	4.6	398	(10.0)	15.4 48.2				_	3965	2.5	Armenia Azerbaijan <sup>c</sup>
	(35.3) (50.2)	57.9	3.2	252	(16.2)		1.5		(0.0)	_	1555	2.2	Belarus
781		30.8	5.5 2.8	175		16.2	0.8			_	444	3.3	Bosnia and Herzegovina
145	(32.7) (37.4)	15.3			(39.4) (14.0)	25.4			(0.0)	_	1308		
489 62	(27.3)	52.0	4.6	183 32	(14.1)	31.4	1.6			_	227	2.3	Georgia Israel
		3.5	2.6			2.8	2.2		(0.0)	-		1.9	Kazakhstan
3 4 4 4 1 1 1 1 4	(36.2)	82.6	2.6	1444 570	(15.2)	85.5 148.5	0.9		(0.0)	_	9506 4183	1.6	
1114	(∠0.0)	89.1	1.9	5/0	(13.6)	148.5	0.8		(0.0)	_	4183	1.4	Kyrgyzstan
	(20 7)					10.0			(0.0)	_	- (2	10	Monaco Montenegro
24	(38.7)	14.6	2.4	22	(35.5)	19.9	1.4		(0.0)	_	62		
40	(25.5)	8.0	4.0	38	(24.2)	11.9	1.9		(0.0)		157		North Macedonia
20.052	(38.4)	106.4	5.4	220	(10.2)	45.9	1.7	2/0	(0.0)	2 7	2164		Republic of Moldova
20052	(36.7)	52.3	3.5	5214	(9.5)	21.6	1.3	248	(0.5)	3.7	54643	2.4	Russian Federation San Marino
349	(34.4)	18.8	1.7	276	(27.2)	18.2	1.3		(0.0)	-	1014		Serbia
183	(42.3)	12.4	2.7	103	(23.8)	7.6	1.9		(0.0)	_	433	2.0	Serbia excluding Kosovo
166	(28.6)	43.5	1.1	173	(29.8)	107.3	1.0		(0.0)	-	581	1.1	Kosovo¹
92	(22.3)	3.7	1.3	66	(16.0)	3.8	1.9	1	(0.2)	N/M	413		Switzerland
1095	(24.7)	74.0	1.2	591	(13.3)	155.8	0.7		(0.0)	-	4435		Tajikistan
2985	(31.7)	15.1	1.7	2078	(22.1)	23.8	1.5		(0.0)	_	9408		Turkey
718	(31.6)	53.0	2.3	20/8	(9.2)	66.1	0.8	153	(6.7)	-	2273		Turkmenistand
7771	(38.7)	72.6	3.9	2073	(10.3)	29.6	1.4	100	(0.0)	_	20058		Ukraine
1359	(25.7)	7.8	1.7	701	(13.2)	5.3	1.2		(0.0)	-	5296	1.5	United Kingdom <sup>b</sup>
4636	(33.3)	72.8	1.7	2884	(20.7)	142.0	0.8		(0.0)	-	13 938		Uzbekistan
47 614	(35.1)	40.8	2.7	17569	426	25.9	1.1	402	(0.3)	3.6	135759		Subtotal non-EU/EEA
	(34.5)	24.4	2.7	24761	446	15.1	1.1	451	(0.3)	3.6	172 331		Total European Region
59 421													

<sup>&</sup>lt;sup>1</sup> This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 9. TB cases by origin, European Region, 2023

Country/area	Origin criterion	Native		Foreign		Unknown or		All TB cases
**	Origin criterion	N	(%)	N N	(%)	N	(%)	N
EU/EEA								
Austria	Citizenship	146	(34.7)	275	(65.3)	0	(0.0)	421
Belgium	Citizenship	311	(35.8)	558	(64.2)	0	(0.0)	869
Bulgaria	Birthplace	877	(99.5)	4	(0.5)	0	(0.0)	881
Croatia	Birthplace	224	(84.5)	41	(15.5)	0	(0.0)	265
Cyprus	Birthplace	2	(2.5)	71	(87.7)	8	(9.9)	81
Czechia	Birthplace	232	(50.5)	227	(49.5)	0	(0.0)	459
Denmark	Birthplace	55	(28.5)	138	(71.5)	0	(0.0)	193
Estonia	Birthplace	75	(75.8)	24	(24.2)	0	(0.0)	99
Finland	Birthplace	73	(40.6)	75	(41.7)	32	(17.8)	180
France	Birthplace	1221	(25.1)	3 0 7 5	(63.2)	570	(11.7)	4866
Germany	Birthplace	1006	(22.5)	3326	(74.2)	149	(3.3)	4481
Greece	Citizenship	230	(46.7)	263	(53.3)	0	(0.0)	493
Hungary	Citizenship	440	(89.2)	53	(10.8)	0	(0.0)	493
Iceland	Birthplace	2	(12.5)	14	(87.5)	0	(0.0)	16
Ireland	Birthplace	54	(24.2)	150	(67.3)	19	(8.5)	223
Italy	Birthplace	1146	(39.6)	1745	(60.3)	2	(0.1)	2893
Latvia	Birthplace	-	-		-	_	-	_
Liechtenstein	Birthplace	0	(0.0)	0	(0.0)	1	(100.0)	1
Lithuania	Birthplace	696	(96.3)	27	(3.7)	0	(0.0)	723
Luxembourg	Birthplace	3	(6.5)	43	(93.5)	0	(0.0)	46
Malta	Birthplace	4	(5.9)	64	(94.1)	0	(0.0)	68
Netherlands	Birthplace	130	(18.3)	578	(81.4)	2	(0.3)	710
Norway	Birthplace	18	(11.8)	134	(87.6)	1	(0.7)	153
Poland	Citizenship	4086	(92.1)	350	(7.9)	0	(0.0)	4 436
Portugal	Birthplace	998	(63.8)	567	(36.2)	0	(0.0)	1565
Romania	Birthplace	9442	(99.3)	64	(0.7)	0	(0.0)	9506
Slovakia	Birthplace	209	(94.6)	12	(5.4)	0	(0.0)	221
Slovenia	Birthplace	44	(50.0)	44	(50.0)	0	(0.0)	88
Spain	Birthplace	1675	(39.8)	1825	(43.4)	708	(16.8)	4208
Sweden	Birthplace	52	(14.6)	303	(85.4)	0	(0.0)	355
Subtotal EU/EEA		23 451	(60.1)	14 050	(36.0)	1492	(3.8)	38 993
Non-EU/EEA								
Albania	Citizenship	302	(100.0)	0	(0.0)	-	-	302
Andorra	Citizenship	4	(100.0)	0	(0.0)	-	-	4
Armenia	Citizenship	425	(97.7)	10	(2.3)	-	-	435
Azerbaijan	Citizenship	5 0 4 4	(100.0)	0	(0.0)	_	-	5044
Belarus	Citizenship	1681	(100.0)	0	(0.0)	_	-	1681
Bosnia and Herzegovina	Birthplace	443	(99.3)	3	(0.7)	_	-	446
Georgia	-	-	(>>.5)	_	-	_	-	-
Israel	Birthplace	51	(22.5)	176	(77.5)	-	-	227
Kazakhstan	Citizenship	9514	(98.4)	158	(1.6)	_	_	9672
	Citizensinp	9314	(30.4)	156	(1.0)	_	_	90/2
Kyrgyzstan	-	_			_			
Monaco	- Citi		(00.7)	-		-	_	-
Montenegro	Citizenship	55	(88.7)	7	(11.3)	-	-	62
North Macedonia					(2.5)	-	-	160
	Birthplace	156	(97.5)	4				
Republic of Moldova	Citizenship	2350	(99.2)	18	(0.8)	-	-	2368
Russian Federation	,					-	-	
Russian Federation San Marino	Citizenship	2350 70 060 -	(99.2) (98.1)	18 1381 -	(0.8) (1.9)	- - -	- - -	71441 -
Russian Federation San Marino Serbia	Citizenship Citizenship –	2350 70 060 - 1030	(99.2) (98.1) - (97.2)	18 1381 - 30	(0.8) (1.9) - (2.8)	-	- - -	71441 - 1060
Russian Federation San Marino	Citizenship Citizenship - Citizenship	2350 70 060 -	(99.2) (98.1)	18 1381 -	(0.8) (1.9)	-	- - - -	71441 - 1060
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹	Citizenship Citizenship - Citizenship Birthplace	2350 70 060 - 1030	(99.2) (98.1) - (97.2)	18 1381 - 30	(0.8) (1.9) - (2.8) (6.3) (0.0)	-	- - - - -	71441 - 1060 475
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland	Citizenship Citizenship - Citizenship Birthplace Birthplace	2350 70 060 - 1030 445 585 108	(99.2) (98.1) - (97.2) (93.7)	18 1381 - 30 30	(0.8) (1.9) - (2.8) (6.3) (0.0) (75.1)	- - - -	- - - - -	71441 - 1060 475 585
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹	Citizenship Citizenship - Citizenship Birthplace	2350 70060 - 1030 445 585	(99.2) (98.1) - (97.2) (93.7) (100.0)	18 1381 - 30 30	(0.8) (1.9) - (2.8) (6.3) (0.0)	- - - -	- - - - - -	71441 - 1060 475 585 434
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland	Citizenship Citizenship - Citizenship Birthplace Birthplace	2350 70 060 - 1030 445 585 108	(99.2) (98.1) - (97.2) (93.7) (100.0)	18 1381 - 30 30 0 326	(0.8) (1.9) - (2.8) (6.3) (0.0) (75.1)	- - - - - -	-	71441 - 1060 475 585 434 4540
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan	Citizenship Citizenship - Citizenship Birthplace Birthplace Citizenship	2350 70 060 - 1030 445 585 108 4522	(99.2) (98.1) - (97.2) (93.7) (100.0) (24.9)	18 1381 - 30 30 0 326 18	(0.8) (1.9) - (2.8) (6.3) (0.0) (75.1) (0.4)	-	-	71441 - 1060 475 585 434 4540 9527
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye	Citizenship Citizenship  Citizenship Birthplace Gitizenship Birthplace Citizenship Birthplace Citizenship	2350 70060 - 1030 445 585 108 4522 8288	(99.2) (98.1) - (97.2) (93.7) (100.0) (24.9) - (87.0)	18 1381 - 30 30 0 326 18 1239	(0.8) (1.9) - (2.8) (6.3) (0.0) (75.1) (0.4) (13.0)	- - - - - -	-	71441 - 1060 475 585 434 4540 9527 3250
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine	Citizenship Citizenship  Citizenship Birthplace Birthplace Citizenship Birthplace Citizenship Citizenship Citizenship	2350 70060 - 1030 445 585 108 4522 8288 3250 20980	(99.2) (98.1) - (97.2) (93.7) (100.0) (24.9) - (87.0) (100.0) (99.9)	18 1381 - 30 30 0 326 18 1239 0 11	(0.8) (1.9) - (2.8) (6.3) (0.0) (75.1) (0.4) (13.0) (0.0) (0.1)	- - - - - - -	-	71441 - 1060 475 585 434 4540 9527 3250 20991
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom	Citizenship Citizenship  Citizenship Birthplace Birthplace Citizenship Birthplace Citizenship Citizenship Birthplace	2350 70060 - 1030 445 585 108 4522 8288 3250 20980 1131	(99.2) (98.1) - (97.2) (93.7) (100.0) (24.9) - (87.0) (100.0) (99.9) (21.4)	18 1381 - 30 30 0 326 18 1239 0 11 4165	(0.8) (1.9) - (2.8) (6.3) (0.0) (75.1) (0.4) (13.0) (0.0) (0.1) (78.6)	-	- - - - -	71441 - 1060 475 585 434 4540 9527 3250 20991 5296
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom Uzbekistan	Citizenship Citizenship  Citizenship Birthplace Birthplace Citizenship Birthplace Citizenship Citizenship Citizenship	2350 70060 - 1030 445 585 108 4522 8288 3250 20980 1131 15499	(99.2) (98.1) - (97.2) (93.7) (100.0) (24.9) - (87.0) (100.0) (99.9) (21.4) (100.0)	18 1381 - 30 30 0 326 18 1239 0 11 4165 0	(0.8) (1.9) - (2.8) (6.3) (0.0) (75.1) (0.4) (13.0) (0.0) (0.1) (78.6) (0.0)	-	-	71441 - 1060 475 585 434 4540 9 527 3250 20 991 5 296
Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom	Citizenship Citizenship  Citizenship Birthplace Birthplace Citizenship Birthplace Citizenship Citizenship Birthplace	2350 70060 - 1030 445 585 108 4522 8288 3250 20980 1131	(99.2) (98.1) - (97.2) (93.7) (100.0) (24.9) - (87.0) (100.0) (99.9) (21.4)	18 1381 - 30 30 0 326 18 1239 0 11 4165	(0.8) (1.9) - (2.8) (6.3) (0.0) (75.1) (0.4) (13.0) (0.0) (0.1) (78.6)	-	- - - - -	71441 - 1060 475 585 434 4540 9527 3250 20991 5296 15499 152439 191432

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

¹ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 10. Drug-resistance surveillance of bacteriologically confirmed pulmonary TB cases, European Region, 2023

Country/area	Source of data	Coverage	Bacteriolo confirmed		Cases wi results a for I	it least	Cases re to R		MDR-TB	cases <sup>b</sup>	All pulmonary TB cases	Reporting completeness
			N	(%)	N	(%)	N	(%)	N	(%)	N	completeness
EU/EEA												
Austria	TESSy	National	276	(84.9)	263	(95.3)	9	(3.4)	9	(3.4)	325	Yes
Belgium	TESSy	National	507	(82.6)	500	(98.6)	10	(2.0)	10	(2.0)	614	Yes
Bulgaria	TESSy	National	408	(57.4)	261	(64.0)	11	(4.2)	9	(3.4)	711	No
Croatia	TESSy	National	188	(93.1)	169	(89.9)	0	(0.0)	0	(0.0)	202	Yes
Cyprus	TESSy	National	56	(84.8)	56	(100.0)	0	(0.0)	0	(0.0)	66	Yes
Czechia	TESSy	National	348	(86.4)	332	(95.4)	25	(7.5)	25	(7.5)	403	Yes
Denmark	TESSy	National	117	(81.3)	116	(99.1)	2	(1.7)	1	(0.9)	144	Yes
Estonia	TESSy	National	83	(85.6)	82	(98.8)	20	(24.4)	18	(22.5)	97	Yes
Finland	TESSy	National	92	(82.1)	87	(94.6)	5	(5.7)	5	(5.7)	112	Yes
France	TESSy	National	1530	(45.0)	66	(4.3)	66	(100.0)	58	(87.9)	3400	No
Germany	TESSy	National	2824	(82.5)	2584	(91.5)	173	(6.7)	156	(6.1)	3425	Yes
Greece	TESSy	National	299	(81.7)	231	(77.3)	9	(3.9)	6	(2.6)	366	Yes
Hungary	TESSy	National	278	(58.2)	248	(89.2)	17	(6.9)	17	(6.9)	478	Yes
Iceland	TESSy	National	9	(75.0)	2	(22.2)	0	(0.0)	0	(0.0)	12	No
Ireland	TESSy	National	116	(83.5)	108	(93.1)	2	(1.9)	2	(1.9)	139	Yes
Italy <sup>d</sup>	NRL-TME°	Partial	1789	(84.7)	1401	(78.3)	49	(3.5)	41	-	2111	Yes
Latvia	TESSY	National	-	- (422.2)	-	- (2.2)	-	()	-	- (0.0)	-	-
Liechtenstein	TESSy	National	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	No
Lithuania	TESSy	National	604	(94.1)	604	(100.0)	116	(19.2)	107	(17.7)	642	Yes
Luxembourg	TESSy	National	31	(93.9)	28	(90.3)	1	(3.6)	1	(3.6)	33	Yes
Malta	TESSy	National	29	(60.4)	28	(96.6)	0	(0.0)	0	(0.0)	48	Yes
Netherlands	TESSy	National	372	(79.5)	359	(96.5)	8	(2.2)	8	(2.2)	468	Yes
Norway	TESSy	National	98	(85.2)	98	(100.0)	16	(16.3)	15	(15.3)	115	Yes
Poland	TESSy	National	3463	(81.2)	3132	(90.4)	101	(3.2)	98	(3.1)	4265	Yes
Portugal	TESSy	National	777	(71.2)	452	(58.2)	12	(2.7)	12	(2.7)	1091	No
Romania	TESSy	National	6768	(81.7)	5789	(85.5)	224	(3.9)	166	(2.9)	8284	Yes
Slovakia	TESSy	National	104	(53.1)	104	(100.0)	8	(7.7)	8	(7.7)	196	Yes
Slovenia	TESSy	National	75	(97.4)	74	(98.7)	0	(0.0)	0	(0.0)	77	Yes
Spain	TESSy	National	2407	(82.6)	1798	(74.7)	51	(2.8)	36	(2.1)	2914	No
Sweden	TESSy	National	198	(86.1)	198	(100.0)	7	(3.5)	6	(3.0)	230	Yes
Subtotal EU/EEA	-	-	23847	(77.0)	19170	(80.4)	942	(4.9)	814	(4.7)	30969	-
Non-EU/EEA	NDI THE	N. C. I	477	(7( ()	477	(4000)	-	(2.0)	2	(0.0)	224	1/
Albania	NRL-TME	National	177	(76.6)	177	(100.0)	5	(2.8)	3	(2.3)	231	Yes
Andorra	NRL-TME	National	4	(100.0)	3	(75.0)	0	(0.0)	0	(0.0)	4	Yes
Armenia	NRL-TME	National	225	(64.3)	225	(100.0)	49	(21.8)	44	(19.6)	350	Yes
Azerbaijan	NRL-TME	National	3814	(87.1)	3761	(98.6)	930	(24.7)	329	(8.8)	4380	Yes
Belarus	NRL-TME	National	1494	(94.6)	1494	(100.0)	658	(44.0)	620	(41.5)	1579	Yes
Bosnia and Herzegovina	NRL-TME	National	383	(93.4)	368	(96.1)	0	(0.0)	0	(0.0)	410	Yes
Georgia	NRL-TME	National	1160	(93.7)	1121	(96.6)	136	(12.1)	115	(12.3)	1238	Yes
Israel	NRL-TME	National	122	(75.3)	122	(100.0)	8	(6.6)	5	(4.1)	162	Yes
Kazakhstan	NRL-TME	National	7558	(86.5)	7554	(99.9)	2934	(38.8)	2639	(34.9)	8737	Yes
Kyrgyzstan	NRL-TME	National –	2868	(74.6)	2720	(94.8)	692	(25.4)	531	(20.0)	3847	Yes
Montonogro	NDICTME			(85.3)	E2	(100.0)	-	(0,0)	0	(0.0)	- (1	Voc
Montenegro	NRL-TME	National	52	(85.2)	52	(100.0)	0	(0.0)	0	(0.0)	61	Yes
North Macedonia	NRL-TME	National -	113	(81.3)	1504	(73.5)	470	(2.4)	205	(0.0)	139	No Voc
Republic of Moldova	NRL-TME		1637	(74.6)	1584	(96.8)	478	(30.2)	395	(31.0)	2193	Yes
Russian Federation	NRL-TME	National –	37500	(49.2)	35 695	(95.2)	16878	(47.3)	16 039	(44.9)	76209	Yes _
San Marino				(64.2)	202	(E1 1)	- E	(1.0)	- 2	(42.0)	960	
Serbia Serbia excluding Kosovo <sup>1</sup>	NRL-TME	National -	552	(64.2)	282	(51.1)	5	(1.8)	3	(42.9)	860	No
	NRL-TME		367	(90.4)	97	(26.4)	3	(3.1)	3	(42.9)	406	No
Kosovo <sup>1</sup>	- NDL TME	Cubactions	185	(40.7)	185	(100.0)	2	(1.1)	_	(2.1)	454	Yes
Switzerland	NRL-TME	Subnational	317	(75.7)	257	(81.1)	9	(3.5)	6	(2.4)	419	Yes
Tajikistan	NRL-TME	National	2147	(63.2)	2146	(100.0)	475	(22.1)	435	(22.1)	3397	Yes
Türkiye	NRL-TME	National	4788	(77.6)	4145	(86.6)	126	(3.0)	102	(2.5)	6169	Yes
Turkmenistan	NRL-TME	National	14 212	(7/ /)	12.005	(07.0)			2.040	(20.1)	40.225	- V
Ukraine	NRL-TME	National	14313	(74.4)	13995	(97.8)	3760	(26.9)	2818	(20.1)	19235	Yes
United Kingdom	TESSy	National	2 4 4 1	(83.5)	2156	(88.3)	52	(2.4)	46	(2.1)	2922	Yes
Uzbekistan	NRL-TME	National	7110	(72.0)	7110	(100.0)	1295	(18.2)	1192	(21.0)	9869	Yes
Subtotal non-EU/EEA	-	-	88775	(62.3)	85 05 0	(95.8)	28 492	(33.5)	25322	(30.8)	142 411	-
Total European Region	-	-	112 622	(65.0)	104220	(92.5)	29434	(28.2)	26136	(26.2)	173 380	-

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. The resistance pattern at the initiation of treatment is reported to TESSy irrespective of the method used for drug-susceptibility testing or resistance prediction.

DST: drug-susceptibility testing; EEA: European Economic Area; EU: European Union; HPC: high-priority countries; MDR-TB: multidrug-resistant tuberculosis; N: number; NRL: national reference laboratory; RIF: rifampicin; TB: tuberculosis; TESSy: the European surveillance system; TME: WHO global TB data-collection system.

\*\*Bacteriologically confirmed cases – cases with positive identification for Mycobacterium tuberculosis complex confirmed by culture and/or line probe assay for non-EU/EEA countries and areas. For EU/EEA countries: cases with positive identification of Mycobacterium tuberculosis complex confirmed by culture and/or line probe assay.

- Includes cases that are MDR but that also meet the pre-XDR or XDR case definitions (pre-XDR and XDR cases have not been excluded).

  The % of MDR is computed among those that have the DST results for both isoniazid and RIF.

  Laboratory-related data from Italy are reported by the national reference laboratories and may differ from data shown elsewhere in this report.

  Data are considered complete when national coverage is 100% OR culture results are available for 90% of all cases, and 50% of all cases are culture-positive, and 75% of them have DST results, and external quality-assessment results have been accurate in 95% of samples for the reported year.

  This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 11. Drug-resistance surveillance of bacteriologically confirmed pulmonary TB cases by previous TB treatment history, European Region, 2023

	New cas DST resul		New RR/I		Ne bacteriol confii pulmon cas	ogically med ary TB	New pulmo case		Previously cases wi results	th DST	Previously RR/MDR-T		Previo trea bacteriol confii pulmon cas	ted ogically med ary TB	Previo trea pulmon cas	ted ary TB
	N	(%)⁴	N	(%)°	N	(%) <sup>f</sup>	N	(%) <sup>g</sup>	N	(%)4	N	(%)°	N	(%) <sup>f</sup>	N	(%)8
EU/EEA																
Austria	196	(95.1)	5	(2.6)	206	(88.0)	234	(92.5)	9	(90.0)	3	(33.3)	10	(52.6)	19	(7.5)
Belgium <sup>k</sup>	34	(100.0)	1	(2.9)	34	(81.0)	42	(8.8)	358	(98.6)	8	(2.2)	363	(83.3)	436	(91.2)
Bulgaria	223	(62.8)	7	(3.1)	355	(57.8)	614	(86.4)	38	(71.7)	4	(10.5)	53	(54.6)	97	(13.6)
Croatia	143	(88.8)	0	(0.0)	161	(95.3)	169	(94.9)	6	(85.7)	0	(0.0)	7	(77.8)	9	(5.1)
Cyprus	51	(100.0)	0	(0.0)	51	(85.0)	60	(93.8)	3	(100.0)	0	(0.0)	3	(75.0)	4	(6.3)
Czechia	319	(95.8)	25	(7.8)	333	(86.7)	384	(95.3)	13	(86.7)	0	(0.0)	15	(78.9)	19	(4.7)
Denmark <sup>k</sup>	102	(99.0)	2	(2.0)	103	(81.7)	126	(87.5)	14	(100.0)	0	(0.0)	14	(77.8)	18	(12.5)
Estonia	68	(100.0)	11	(16.2)	68	(89.5)	76	(78.4)	14	(93.3)	9	(64.3)	15	(71.4)	21	(21.6)
Finland	83	(95.4)	5	(6.0)	87	(84.5)	103	(96.3)	2	(100.0)	0	(0.0)	2	(50.0)	4	(3.7)
France	40	(3.6)	40	(100.0)	1107	(46.3)	2389	(91.0)	13	(13.8)	13	(100.0)	94	(39.7)	237	(9.0)
Germany	1747	(92.5)	86	(4.9)	1888	(84.1)	2244	(90.3)	148	(87.6)	39	(26.4)	169	(70.4)	240	(9.7)
Greece	188	(77.0)	7	(3.7)	244	(82.4)	296	(90.8)	21	(77.8)	0	(0.0)	27	(90.0)	30	(9.2)
	240	(89.6)	14	(5.8)	268	(59.3)	452	(94.6)	8	(80.0)	3	(37.5)	10	(38.5)	26	(5.4)
Hungary Iceland	0	(0.0)	0	(0.0)	1	(100.0)	432	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	20	(66.7)
Ireland <sup>k</sup>	70	(95.9)	2	(2.9)	73	(85.9)	85	(87.6)	9	(90.0)	0	(0.0)	10	(83.3)	12	(12.4)
Italy	1383	(100.0)	48	(3.5)	1383	(117.9)	1173	(88.3)	18	(13.8)	1	(5.6)	130	(83.9)	155	(12.4)
	1000	(100.0)	40	(3.3)		(117.9)		(00.3)	-	(13.6)		(5.6)	130	(03.9)		(11./)
Liashtanstain		(0.0)	0	(0.0)	1	(100.0)	- 1	(100.0)	0	(0.0)	-	(0.0)	0	(0.0)	- 0	
Liechtenstein	0	(0.0)		(0.0)		(100.0)		(100.0)		(0.0)	0	(0.0)		(0.0)	-	(0.0)
Lithuania	503	(100.0)	77	(15.3)	503	(93.0)	541	(84.3)	101	(100.0)	39	(38.6)	101	(100.0)	101	(15.7)
Luxembourg	17	(89.5)	1	(5.9)	19	(90.5)	21	(84.0)	3	(75.0)	0	(0.0)	4	(100.0)	4	(16.0)
Malta	28	(96.6)	0	(0.0)	29	(60.4)	48	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Norwayk	88	(100.0)	13	(14.8)	88	(87.1)	101	(87.8)	10	(100.0)	3	(30.0)	10	(71.4)	14	(12.2)
Poland	2775	(90.7)	79	(2.8)	3058	(81.5)	3754	(88.0)	357	(88.1)	22	(6.2)	405	(79.3)	511	(12.0)
Portugal	421	(58.1)	10	(2.4)	725	(71.8)	1010	(92.6)	31	(59.6)	2	(6.5)	52	(64.2)	81	(7.4)
Romania	4 584	(85.4)	111	(2.4)	5368	(81.9)	6552	(79.1)	1205	(86.1)	113	(9.4)	1400	(80.8)	1732	(20.9)
Slovakia	83	(100.0)	5	(6.0)	83	(49.7)	167	(85.2)	21	(100.0)	3	(14.3)	21	(72.4)	29	(14.8)
Slovenia	69	(100.0)	0	(0.0)	69	(98.6)	70	(90.9)	5	(83.3)	0	(0.0)	6	(85.7)	7	(9.1)
Spain	1513	(74.8)	39	(2.6)	2024	(83.3)	2430	(93.1)	110	(78.6)	9	(8.2)	140	(77.3)	181	(6.9)
Sweden	192	(100.0)	7	(3.6)	192	(89.7)	214	(93.0)	6	(100.0)	0	(0.0)	6	(37.5)	16	(7.0)
Subtotal EU/EEA	15160	(81.9)	595	(3.9)	18 5 2 1	(79.3)	23357	(85.4)	2523	(82.3)	271	(10.7)	3067	(76.6)	4005	(14.6)
Non-EU/EEA																
Albania	156	(100.0)	1	(0.6)	156	(75.4)	207	(89.6)	21	(100.0)	4	(19.0)	21	(87.5)	24	(10.4)
Andorra	3	(75.0)	0	(0.0)	4	(100.0)	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Armenia	180	(100.0)	30	(16.7)	180	(66.2)	272	(77.7)	45	(100.0)	19	(42.2)	45	(57.7)	78	(22.3)
Azerbaijan	1611	(98.6)	188	(11.7)	1634	(75.4)	2166	(49.5)	2150	(98.6)	742	(34.5)	2180	(98.5)	2 214	(50.5)
Belarus	1117	(100.0)	405	(36.3)	1117	(94.0)	1188	(75.2)	377	(100.0)	253	(67.1)	377	(96.4)	391	(24.8)
Bosnia and Herzegovina	343	(97.4)	0	(0.0)	352	(93.4)	377	(92.0)	25	(80.6)	0	(0.0)	31	(93.9)	33	(8.0)
Georgia	874	(98.3)	77	(8.8)	889	(93.2)	954	(77.1)	247	(91.1)	59	(23.9)	271	(95.4)	284	(22.9)
Israel	119	(100.0)	8	(6.7)	119	(75.3)	158	(97.5)	3	(100.0)	0	(0.0)	3	(75.0)	4	(2.5)
Kazakhstan	5482	(100.0)	1709	(31.2)	5483	(88.4)	6201	(71.0)	2 072	(99.9)	1225	(59.1)	2 0 7 5	(81.8)	2536	(29.0)
Kyrgyzstan	2094	(95.6)	438	(20.9)	2190	(73.1)	2997	(77.9)	626	(92.3)	254	(40.6)	678	(79.8)	850	(22.1)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	46	(100.0)	0	(0.0)	46	(85.2)	54	(88.5)	6	(100.0)	0	(0.0)	6	(85.7)	7	(11.5)
North Macedonia	75	(74.3)	2	(2.7)	101	(82.1)	123	(88.5)	8	(66.7)	0	(0.0)	12	(75.0)	16	(11.5)
Republic of Moldova	1112	(99.1)	270	(24.3)	1122	(73.0)	1536	(70.0)	472	(91.7)	208	(44.1)	515	(78.4)	657	(30.0)
Russian Federation	21042	(93.5)	7350	(34.9)	22501	(56.4)	39882	(52.3)	14 653	(97.7)	9528	(65.0)	14999	(41.3)	36327	(47.7)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	260	(51.6)	3	(1.2)	504	(63.0)	800	(93.0)	22	(45.8)	2	(9.1)	48	(80.0)	60	(7.0)
Serbia excluding Kosovo¹	90	(26.9)	3	(3.3)	334	(90.5)	369	(90.9)	7	(21.2)	0	(0.0)	33	(89.2)	37	(9.1)
Kosovo¹	170	(100.0)	0	(0.0)	170	(39.4)	431	(94.9)	15	(100.0)	2	(13.3)	15	(65.2)	23	(5.1)
Switzerland	248	(83.2)	8	(3.2)	298	(75.1)	397	(94.7)	9	(0.0)	1	(0.0)	19	(0.0)	22	(5.3)
Tajikistan	1823	(99.9)	360	(19.7)	1824	(61.1)	2985	(87.9)	323	(100.0)	115	(35.6)	323	(78.4)	412	(12.1)
Türkiye	3893	(86.9)	96	(2.5)	4482	(77.9)	5753	(93.3)	252	(82.4)	30	(11.9)	306	(73.6)	416	(6.7)
Turkmenistan	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	10 236	(97.6)	2 413	(23.6)	10 485	(71.8)	14604	(75.9)	3759	(98.2)	1347	(35.8)	3828	(82.7)	4631	(24.1)
United Kingdom <sup>k</sup>	2100	(88.6)	44	(2.1)	2370	(83.5)	2839	(97.2)	56	(78.9)	8	(14.3)	71	(85.5)	83	(2.8)
Uzbekistan	5296	(100.0)	753	(14.2)	5296	(71.0)	7456	(75.5)	1814	(100.0)	542	(29.9)	1814	(75.2)	2413	(24.5)
Subtotal non-EU/EEA	58110	(95.0)	14155	(24.4)	61153	(67.2)	90 953	(63.9)	26940	(97.5)	14337	(53.2)	27622	(53.7)	51458	(36.1)
Total European Region	73270	(92.0)	14750	(20.1)	79674	(69.7)	114310	(67.3)	29463	(96.0)	14608	(49.6)	30689	(55.3)	55463	(32.7)
Subtotal 18 HPCs	60138	(94.7)	14295	(23.8)	63497	(67.7)	93777	(63.8)	28148	(97.1)	14487	(51.5)	28980	(54.5)	53160	(36.2)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. The resistance pattern at the initiation of treatment is reported to TESSy irrespective of the method used for DST or resistance prediction.

DST: drug-susceptibility testing; EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; RIF: rifampicin; RR/MDR: rifampicin-resitant or multidrug-resistant; TB: tuberculosis; Y: yes.

Bacteriologically confirmed cases – cases with positive identification for Mycobacterium tuberculosis complex confirmed by culture and/or line probe assay for non-EU/EEA countries and areas. For EU/EEA countries: culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases.

Includes cases that are RR/MDR but that also meet the pre-XDR or XDR case definitions (pre-XDR and XDR cases have not been excluded).

Pulmonary TB cases with unknown previous TB treatment history are excluded.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Total cas DST resul		Total RR/MD	R-TB cases	Tot bacteriol confir pulmon cas	ogically med ary TB	Total puli TB ca		
N	(%)h	N	(%) <sup>i</sup>	N	(%)8	N	(%) <sup>j</sup>	
								EU/EEA
205	(94.9)	8	(3.9)	216	(85.4)	253	(60.1)	Austria
392	(98.7)	9	(2.3)	397	(83.1)	478	(55.0)	Belgium <sup>k</sup>
261	(64.0)	11	(4.2)	408	(57.4)	711	(80.7)	Bulgaria
149	(88.7)	0	(0.0)	168	(94.4)	178	(67.2)	Croatia
54	(100.0)	0	(0.0)	54	(84.4)	64	(79.0)	Cyprus
332	(95.4)	25	(7.5)	348	(86.4)	403		Czechia
116	(99.1)	2	(1.7)	117	(81.3)	144	( ,	Denmark <sup>k</sup>
82	(98.8)	20	(24.4)	83	(85.6)	97	,	Estonia
85	(95.5)	5	(5.9)	89	(83.2)	107		Finland
53	(4.4)	53	(100.0)	1201	(45.7)	2626		France
1895	(92.1)	125	(6.6)	2 0 5 7	(82.8)	2484		Germany
209	(77.1)	7	(3.3)	271	(83.1)	326		Greece
248	(89.2)	17	(6.9)	278	(58.2)	478		Hungary
0	(0.0)	0	(0.0)	1	(33.3)	3		Iceland
79	(95.2)	2	(2.5)	83	(85.6)	97		Ireland <sup>k</sup>
1401	(92.6)	49	(3.5)	1513	(113.9)	1328	(45.9)	
-	(0.0)	-	- (0.0)	-	(100.0)	-		Latvia
0	(0.0)	0	(0.0)	1	(100.0)	1		Liechtenstein
604	(100.0)	116	(19.2)	604	(94.1)	642		Lithuania
20 28	(87.0) (96.6)	0	(5.0)	23 29	(92.0) (60.4)	25 48		Luxembourg Malta
0	(0.0)	0	(0.0)	0	(0.0)	0		Netherlands
98	(100.0)	16	(16.3)	98	(85.2)	115		Norway <sup>k</sup>
3132	(90.4)	101	(3.2)	3463	(81.2)	4 2 6 5		Poland
452	(58.2)	12	(2.7)	777	(71.2)	1091		Portugal
5789	(85.5)	224	(3.9)	6768	(81.7)	8284	(87.1)	
104	(100.0)	8	(7.7)	104	(53.1)	196		Slovakia
74	(98.7)	0	(0.0)	75	(97.4)	77	(87.5)	
1623	(75.0)	48	(3.0)	2164	(82.9)	2611		Spain
198	(100.0)	7	(3.5)	198	(86.1)	230	(64.8)	
17683	(81.9)	866	(4.9)	21588	(78.9)	27362		Subtotal EU/EEA
								Non-EU/EEA
177	(100.0)	5	(2.8)	177	(76.6)	231	(76.5)	Albania
3	(75.0)	0	(0.0)	4	(100.0)	4	(100.0)	Andorra
225	(100.0)	49	(21.8)	225	(64.3)	350	(80.5)	Armenia
					(074)	4380	(86.8)	Azerbaijan
3761	(98.6)	930	(24.7)	3 814	(87.1)	7,000	(00.0)	/ Lear war jarr
3761 1494	(98.6) (100.0)	930 <i>658</i>	(24.7) (44.0)	3 814 1494	(94.6)	1579		Belarus
3761					(94.6) (93.4)		(93.9) (91.9)	Belarus Bosnia and Herzegovina
3761 1494 368 1121	(100.0) (96.1) (96.6)	658 0 136	(44.0) (0.0) (12.1)	1494 383 1160	(94.6) (93.4) (93.7)	1579 410 1238	(93.9) (91.9) (85.6)	Belarus Bosnia and Herzegovina Georgia
3761 1494 368 1121 122	(100.0) (96.1) (96.6) (100.0)	658 0 136 8	(44.0) (0.0) (12.1) (6.6)	1494 383 1160 122	(94.6) (93.4) (93.7) (75.3)	1579 410 1238 162	(93.9) (91.9) (85.6) (71.4)	Belarus Bosnia and Herzegovina Georgia Israel
3761 1494 368 1121 122 7554	(100.0) (96.1) (96.6) (100.0) (99.9)	658 0 136 8 2934	(44.0) (0.0) (12.1) (6.6) (38.8)	1494 383 1160 122 7558	(94.6) (93.4) (93.7) (75.3) (86.5)	1579 410 1238 162 8737	(93.9) (91.9) (85.6) (71.4) (90.3)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan
3761 1494 368 1121 122 7554 2720	(100.0) (96.1) (96.6) (100.0)	658 0 136 8 2934 692	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4)	1494 383 1160 122 7558 2868	(94.6) (93.4) (93.7) (75.3)	1579 410 1238 162 8737 3847	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan
3761 1494 368 1121 122 7554 2720	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8)	658 0 136 8 2934 692	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4)	1494 383 1160 122 7558 2868	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6)	1579 410 1238 162 8737 3847	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco
3761 1494 368 1121 122 7554 2720 - 52	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0)	658 0 136 8 2934 692 - 0	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) (0.0)	1494 383 1160 122 7558 2868 - 52	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2)	1579 410 1238 162 8737 3847 -	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro
3761 1494 368 1121 122 7554 2720 - 52 83	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5)	658 0 136 8 2934 692 - 0	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) - (0.0) (2.4)	1494 383 1160 122 7558 2868 - 52 113	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3)	1579 410 1238 162 8737 3847 - 61 139	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4) (86.9)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia
3761 1494 368 1121 122 7554 2720 - 52 83 1584	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5) (96.8)	658 0 136 8 2934 692 - 0 2	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) - (0.0) (2.4) (30.2)	1494 383 1160 122 7558 2868 - 52 113 1637	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3) (74.6)	1579 410 1238 162 8737 3847 - 61 139 2193	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4) (86.9) (92.6)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5)	658 0 136 8 2934 692 - 0 2 478 16878	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) - (0.0) (2.4) (30.2) (47.3)	1494 383 1160 122 7558 2868 - 52 113 1637 37500	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3)	1579 410 1238 162 8737 3847 - 61 139 2193 76209	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4) (86.9) (92.6) (106.7)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5) (96.8) (95.2)	658 0 136 8 2934 692 - 0 2 478 16878	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) - (0.0) (2.4) (30.2) (47.3)	1494 383 1160 122 7558 2868 - 52 113 1637 37500	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3) (74.6) (49.2)	1579 410 1238 162 8737 3847 - 61 139 2193 76209	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4) (86.9) (92.6) (106.7)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5) (96.8) (95.2) - (51.1)	658 0 136 8 2934 692 - 0 2 478 16878 - 5	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) - (0.0) (2.4) (30.2) (47.3) - (1.8)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3) (74.6) (49.2) - (64.2)	1579 410 1238 162 8737 3847 - 61 139 2193 76209 - 860	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) (98.4) (86.9) (92.6) (106.7)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5) (96.8) (95.2) - (51.1) (26.4)	658 0 136 8 2934 692 - 0 2 478 16878 - 5	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) - (0.0) (2.4) (30.2) (47.3) - (1.8) (3.1)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3) (74.6) (49.2) - (64.2) (90.4)	1579 410 1238 162 8737 3847 - 61 139 2193 76209 - 860 406	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4) (86.9) (92.6) (106.7) - (81.1) (85.5)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo <sup>1</sup>
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5) (96.8) (95.2) - (51.1) (26.4) (100.0)	658 0 136 8 2934 692 - 0 2 478 16878 - 5 3	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4)  - (0.0) (2.4) (30.2) (47.3)  - (1.8) (3.1) (1.1)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367 185	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3) (74.6) (49.2) - (64.2) (90.4) (40.7)	1579 410 1238 162 8737 3847 - 61 139 2193 76209 - 860 406 454	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4) (86.9) (92.6) (106.7) - (81.1) (85.5) (77.6)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97 185	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5) (96.8) (95.2) - (51.1) (26.4) (100.0) (81.1)	658 0 136 8 2934 692 - 0 2 478 16878 - 5 3 2	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) - (0.0) (2.4) (30.2) (47.3) - (1.8) (3.1) (1.1) (3.5)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367 185 317	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3) (74.6) (49.2) - (64.2) (90.4) (40.7) (75.7)	1579 410 1238 162 8737 3847 - 61 139 2193 76209 - 860 406 454 419	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4) (86.9) (92.6) (106.7) - (81.1) (85.5) (77.6) (96.5)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97 185 257 2146	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) (100.0) (73.5) (96.8) (95.2) (51.1) (26.4) (100.0) (81.1) (100.0)	658 0 136 8 2934 692 - 0 2 478 16878 - 5 3 2 9 475	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) (0.0) (2.4) (30.2) (47.3)  - (1.8) (3.1) (1.1) (3.5) (22.1)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367 185 317 2147	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3) (74.6) - (64.2) (90.4) (40.7) (75.7) (63.2)	1579 410 1238 162 8737 3847 - 61 139 2193 76209 - 860 406 454 419 3397	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4) (86.9) (92.6) (106.7) (81.1) (85.5) (77.6) (96.5) (74.8)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97 185 257 2146 4145	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5) (96.8) (95.2) - (51.1) (26.4) (100.0) (81.1)	658 0 136 8 2934 692 - 0 2 478 16878 - 5 3 2 9 475 126	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) (0.0) (2.4) (30.2) (47.3)  - (1.8) (3.1) (1.1) (3.5) (22.1) (3.0)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367 185 317	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (81.3) (74.6) (49.2) - (64.2) (90.4) (40.7) (75.7)	1579 410 1238 162 8737 3847 - 61 139 2193 76209 - 860 406 454 419	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) (98.4) (86.9) (92.6) (106.7) (81.1) (85.5) (77.6) (96.5) (74.8) (64.8)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Turkey
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97 185 257 2146 4145	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) (100.0) (73.5) (96.8) (95.2) (51.1) (26.4) (100.0) (81.1) (100.0) (86.6)	658 0 136 8 2934 692 - 0 2 478 16878 - 5 3 2 9 475 126	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) (0.0) (2.4) (30.2) (47.3) (1.8) (3.1) (1.1) (3.5) (22.1) (3.0)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367 185 317 2147 4788	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) (85.2) (81.3) (74.6) (49.2) (90.4) (40.7) (75.7) (63.2) (77.6)	1579 410 1238 162 8737 3847 - 61 139 2193 76209 - 860 406 454 419 3397 6169	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) (98.4) (86.9) (92.6) (106.7) (81.1) (85.5) (76.6) (76.6) (74.8) (64.8)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Turkey Turkmenistan
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97 185 257 2146 4145 -	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) (100.0) (73.5) (96.8) (95.2) (51.1) (26.4) (100.0) (81.1) (100.0) (86.6)	658 0 136 8 2934 692 - 0 2 478 16878 - 5 3 2 9 475 126 - 3760	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) (0.0) (2.4) (30.2) (47.3) (1.8) (3.1) (1.1) (3.5) (22.1) (3.0) (26.9)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367 185 317 2147 4788 - 14313	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) (85.2) (81.3) (74.6) (49.2) (90.4) (40.7) (75.7) (63.2) (77.6)	1579 410 1238 162 8737 3847 	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) (98.4) (86.9) (92.6) (106.7) (81.1) (85.5) (77.6) (96.5) (74.8) (64.8) (91.6)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Turkey Turkmenistan Ukraine
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97 185 257 2146 4145 - 13995 2156	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) (100.0) (73.5) (96.8) (95.2) (26.4) (100.0) (81.1) (100.0) (86.6) (97.8) (88.3)	658 0 136 8 2934 692 - 0 2 478 16878 - 5 3 2 9 475 126 - 3760 52	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) (0.0) (2.4) (30.2) (47.3) (1.8) (3.1) (1.1) (3.5) (22.1) (3.0) (26.9) (2.4)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367 185 317 2147 4788 - 14313 2441	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) (85.2) (81.3) (74.6) (49.2) (90.4) (40.7) (75.7) (63.2) (77.6) (74.4) (83.5)	1579 410 1238 162 8737 3847 	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) (98.4) (86.9) (92.6) (106.7) (81.1) (85.5) (77.6) (96.5) (74.8) (64.8) (91.6) (55.2)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Turkey Turkmenistan Ukraine United Kingdom¹
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97 185 257 2146 4145 - 13995 2156 7110	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) - (100.0) (73.5) (96.8) (95.2) - (51.1) (26.4) (100.0) (81.1) (100.0) (86.6) (97.8) (88.3) (100.0)	658 0 136 8 2934 692 - 0 2 478 16878 - 5 3 2 9 475 126 - 3760 52 1295	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) (0.0) (2.4) (30.2) (47.3) (1.8) (3.1) (1.1) (3.5) (22.1) (3.0) (26.9) (2.4) (18.2)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367 185 317 2147 4788 - 14313 2441 7110	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) - (85.2) (90.4) (40.7) (75.7) (63.2) (77.6) (74.4) (83.5) (72.0)	1579 410 1238 162 8737 3847 	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) - (98.4) (86.9) (92.6) (106.7) - (81.1) (85.5) (77.6) (96.5) (74.8) (64.8) (91.6) (55.2) (63.7)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Turkey Turkmenistan Ukraine United Kingdom¹ Uzbekistan
3761 1494 368 1121 122 7554 2720 - 52 83 1584 35695 - 282 97 185 257 2146 4145 - 13995 2156	(100.0) (96.1) (96.6) (100.0) (99.9) (94.8) (100.0) (73.5) (96.8) (95.2) (26.4) (100.0) (81.1) (100.0) (86.6) (97.8) (88.3)	658 0 136 8 2934 692 - 0 2 478 16878 - 5 3 2 9 475 126 - 3760 52	(44.0) (0.0) (12.1) (6.6) (38.8) (25.4) (0.0) (2.4) (30.2) (47.3) (1.8) (3.1) (1.1) (3.5) (22.1) (3.0) (26.9) (2.4)	1494 383 1160 122 7558 2868 - 52 113 1637 37500 - 552 367 185 317 2147 4788 - 14313 2441	(94.6) (93.4) (93.7) (75.3) (86.5) (74.6) (85.2) (81.3) (74.6) (49.2) (90.4) (40.7) (75.7) (63.2) (77.6) (74.4) (83.5)	1579 410 1238 162 8737 3847 	(93.9) (91.9) (85.6) (71.4) (90.3) (82.3) (98.4) (86.9) (92.6) (106.7) (81.1) (85.5) (77.6) (96.5) (74.8) (64.8) (91.6) (55.2) (63.7) (91.7)	Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Turkey Turkmenistan Ukraine United Kingdom¹

Proportion of bacteriologically confirmed pulmonary TB cases with DST results and the respective previous TB treatment history.
Proportion of bacteriologically confirmed pulmonary RR/MDR-TB cases with DST results and the respective previous TB treatment history.
Proportion of all pulmonary TB cases with the respective previous TB treatment history.
Proportion of all pulmonary TB cases. For EU/EEA, excluding the cases with unknown previous TB treatment history.
Proportion of all bacteriologically confirmed pulmonary TB cases with DST results. For EU/EEA, excluding the cases with unknown previous TB treatment history.
Proportion of all bacteriologically confirmed pulmonary RR/MDR-TB cases with DST results. For EU/EEA, excluding the cases with unknown previous TB treatment history.
Proportion of all TB cases.
Previous TB history is defined by previous diagnosis.
This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 12. Pre-XDR-TB and XDR-TB cases among bacteriologically confirmed pulmonary RR/MDR-TB cases, European

Country/area	Source of data	Coverage	Bacteriologically confirmed pulmonary RR/		Cases with DST results for any		Pre-XDR-TB cases		Cases with DST results for any other		XDR-TB cases <sup>d</sup>		Reporting
			MDR-TB	cases <sup>b</sup> (%)	fluoroqu N	inolone (%)	N	(%)	Group A N	drugs (%)	N	(%)	completeness
EU/EEA				(70)		(70)		(70)		(70)		(70)	
Austria	TESSy	National	9	(3.4)	9	(100.0)	2	(22.2)	2	(100.0)	0	(0.0)	No
Belgium	TESSy	National	10	(2.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Bulgaria	TESSV	National	11	(4.2)	10	(90.9)	1	(10.0)	1	(100.0)	0	(0.0)	No
Croatia	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Cyprus	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Czechia <sup>f</sup>	TESSy	National	25	(7.5)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Denmark	TESSy	National	2	(1.7)	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Estonia	TESSy	National	20	(24.4)	19	(95.0)	5	(26.3)	5	(100.0)	2	(40.0)	No
Finland	TESSy	National	5	(5.7)	5	(100.0)	1	(20.0)	1	(100.0)	0	(0.0)	No
France	TESSy	National	66	(100.0)	56	(84.8)	5	(8.9)	5	(100.0)	1	(20.0)	No
Germany	TESSy	National	173	(6.7)	135	(78.0)	36	(26.7)	36	(100.0)	5	(13.9)	Yes
Greece <sup>f</sup>	TESSy	National	9	(3.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Hungary	TESSy	National	17	(6.9)	4	(23.5)	3	(75.0)	3	(100.0)	0	(0.0)	No
Iceland	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Ireland	TESSy	National	2	(1.9)	1	(50.0)	1	(100.0)	1	(100.0)	1	(100.0)	No
Italy	NRL-TME	Partial	49	-	38	(77.6)	15	(39.5)	-	(0.0)	0	(0.0)	No
Latvia	TESSy	National	-	-	-	_	-	-	-	-	-	-	-
Liechtenstein	TESSy	National	0	-	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Lithuania	TESSy	National	116	(19.2)	66	(56.9)	25	(37.9)	25	(100.0)	2	(8.0)	No
Luxembourgf	TESSy	National	1	(3.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Malta	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Netherlands	TESSy	National	8	(2.2)	8	(100.0)	3	(37.5)	3	(0.0)	0	(0.0)	No
Norway	TESSy	National	16	(16.2)	14	(87.5)	4	(28.6)	4	(100.0)	0	(0.0)	No
Poland	TESSy	National	101	(3.2)	91	(90.1)	26	(28.6)	26	(100.0)	3	(11.5)	Yes
Portugal	TESSy	National	12	(2.7)	3	(25.0)	3	(100.0)	3	(100.0)	0	(0.0)	No
Romania	TESSy	National	224	(4.0)	76	(33.9)	20	(26.3)	20	(100.0)	1	(5.0)	Yes
Slovakia	TESSy	National	8	(7.7)	8	(100.0)	4	(50.0)	4	(100.0)	0	(0.0)	No
Slovenia	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	No
Spain	TESSy	National	51	(2.9)	9	(17.6)	0	(0.0)	0	(0.0)	0	(0.0)	No
Sweden	TESSy	National	7	(3.5)	7	(100.0)	1	(14.3)	1	(100.0)	0	(0.0)	No
Subtotal EU/EEA	-	-	942	(5.4)	561	(59.6)	155	(27.6)	140	(90.3)	15	(10.7)	-
Non-EU/EEA													
Albania	NRL-TME	National	5	(2.8)	5	(100.0)	0	(0.0)	-	-	-	-	No
Andorra	NRL-TME	National	0	(0.0)	-	-	-	-	-	-	-	-	Yes
Armenia	NRL-TME	National	49	(21.8)	49	(100.0)	10	(20.4)	8	(80.0)	2	(25.0)	No
Azerbaijan	NRL-TME	National	930	(24.7)	930	(100.0)	164	(17.6)	164	(100.0)	126	(76.8)	Yes
Belarus	NRL-TME	National	658	(44.0)	658	(100.0)	244	(37.1)	244	(100.0)	20	(8.2)	Yes
Bosnia and Herzegovina	NRL-TME	National	0	(0.0)	-	-	-	-	-	-	-	-	Yes
Georgia	NRL-TME	National	136	(12.1)	120	(88.2)	43	(35.8)	42	(97.7)	11	(26.2)	Yes
Israel	NRL-TME	National	8	(6.6)	8	(100.0)	1	(12.5)	-	-	-	-	No
Kazakhstan	NRL-TME	National	2934	(38.8)	-	_	-	-	-	-	-	-	Yes
Kyrgyzstan	NRL-TME	National	692	(25.4)	647	(93.5)	103	(15.9)	103	(100.0)	14	(13.6)	Yes
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	Yes
Montenegro	NRL-TME	National	0	(0.0)	-	-	-	-	-	-	-	-	Yes
North Macedonia	NRL-TME	National	2	(2.4)	0	(0.0)	-	-	-	-	-	-	No
Republic of Moldova	NRL-TME	National	478	(30.2)	432	(90.4)	96	(22.2)	96	(100.0)	24	(25.0)	Yes
Russian Federation	NRL-TME	National	16878	(47.3)	15934	(94.4)	5496	(34.5)	3776	(68.7)	394	(10.4)	Yes
San Marino	-	National	-	-	-	_	-	-	-	-	-	-	Yes
Serbia	_	-	5	(1.8)	1	(20.0)	0	(0.0)	-	-	-	-	No
Serbia excluding Kosovo <sup>1</sup>	NRL-TME	National	3	(3.1)	0	(0.0)	-	-	-	-	-	-	No
Kosovo¹	-	-	2	(1.1)	1	(50.0)	0	(0.0)	-	-	-	-	No
Switzerland	NRL-TME	National	9	(3.5)	6	(66.7)	2	(33.3)	2	(100.0)	1	(50.0)	No
Tajikistan	NRL-TME	National	475	(22.1)	392	(82.5)	115	(29.3)	115	(100.0)	17	(14.8)	Yes
Türkiye	NRL-TME	National	126	(3.0)	79	(62.7)	9	(11.4)	9	(100.0)	0	(0.0)	Yes
Turkmenistan	NRL-TME	National	-	(5.0)	-	(32.7)	-	-	-	-	-	-	Yes
Ukraine	NRL-TME	National	3760	(26.9)	3 6 4 1	(96.8)	980	(26.9)	634	(64.7)	21	(3.3)	Yes
United Kingdom	TESSy	National	52	(2.4)	49	(94.2)	10	(20.4)	10	(100.0)	0	(0.0)	No
Uzbekistan	NRL-TME	National	1295	(18.2)	1221	(94.2)	264	(21.6)	264	(100.0)	62	(23.5)	Yes
Subtotal non-EU/EEA	- NKL-1WL	-	28492	(33.6)	24172	(84.8)	7537	(31.2)	5467	<b>(72.5)</b>	692	(12.7)	-
Total European Region	_	-	29434	(28.6)	241/2	(84.0)	7692	(31.1)	5607	(72.9)	707	(12.7)	-
Subtotal 18 HPCs	-	-	28782	(32.6)	24733	(84.3)	7575	(31.1)	5506	(72.7)	696	(12.6)	-

Note: WHO European Region 18 TB HPCs are presented in italics. The resistance pattern at the initiation of treatment is reported to TESSy, irrespective of the method used for DST or resistance prediction.

DST: drug-susceptibility testing; EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; NRL: national reference laboratory; RIF: rifampicin; RR/MDR: rifampicin-resitant or multidrug-resistant; TB: tuberculosis; TESSy: The European
For EU/EEA countries, laboratory-confirmed cases are culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases. For non-EU/EEA countries, cases with positive identification for *M. tuberculosis* complex confirmed by culture and/or line probe assay.

RR/MDR-TB defined as resistance to at least rifampicin. Includes cases that are RR/MDR but also meet the pre-XDR or XDR case definitions (pre-XDR and XDR cases have not been excluded).

Pre-XDR-TB defined as RR/MDR-TB, as well as resistance to any fluoroquinolone.

XDR-TB is defined as resistance to rifampicin and to at least one fluoroquinolone (pre-XDR-TB), as well as resistance to at least one additional Group A drug. For EU/EEA countries, XDR-TB is assessed on resistance to levofloxacin, moxifloxacin and/or bedaquiline, linezolid (in addition to meeting pre-XDR-TB criteria).

Data considered complete when collected nationwide OR culture results available for ≥90% of all cases, and >50% of all cases culture-positive, and >75% of them with DST results for isoniazid and rifampicin, and ≥95% of the external quality-assessment results confirmed by a supranational reference laboratory.

Second line DST information not reported for 2023 data.

Table 13. RR/MDR-TB and pre-XDR/XDR-TB cases enrolled to treatment, European Region, 2023

Country/area	Total number of RR/MDR-TB cases detected <sup>a</sup>	RR/MDR-TB cases enrolled	to treatment <sup>bc</sup>	Total number of pre-XDR <sup>d</sup> /XDR-TB <sup>e</sup> cases detected	Pre-XDR⁴/XDR-TB° cases enrolled to treatment™		
	N	N	(%)	N N	N	(%)	
EU/EEA							
Austria	7	7	(100.0)	2	2	(100.0)	
Belgium	11	9	(81.8)	0	0	(0.0)	
Bulgaria	10	10	(100.0)	1	1	(100.0)	
Croatia	0	0	(0.0)	0	0	(0.0)	
Cyprus	0	0	(0.0)	0	0	(0.0)	
Czechia <sup>f</sup>	28	27	(96.4)	0	0	(0.0)	
Denmark	5	3	(60.0)	1	0	(0.0)	
Estonia	15	14	(93.3)	5	5	(100.0)	
Finland	6	4	(66.7)	2	1	(50.0)	
France	74	74	(100.0)	6	6	(100.0)	
Germany	156	149	(95.5)	40	38	(95.0)	
Greece <sup>f</sup>	11	11	(100.0)	0	0	(0.0)	
Hungary	14	12	(85.7)	3	3	(100.0)	
Iceland	0	0	(0.0)	0	0	(0.0)	
Ireland	1	1	(100.0)	1	1	(100.0)	
Italy	49	-	-	15	_	_	
Latvia	-	_	_	-	-	-	
Liechtenstein	0	0	(0.0)	0	0	(0.0)	
Lithuania	91	91	(100.0)	25	25	(100.0)	
Luxembourgf	1	1	(100.0)	0	0	(0.0)	
Malta	0	0	(0.0)	0	0	(0.0)	
Netherlands	9	0	(0.0)	5	0	(0.0)	
Norway	12	12	(100.0)	4	4	(100.0)	
Poland	76	76	(100.0)	26	26	(100.0)	
Portugal	10	10	(100.0)	3	3	(100.0)	
Romania	211	208	(98.6)	20	20	(100.0)	
Slovakia	4	4	(100.0)	4	4	(100.0)	
Slovenia	0	0	(0.0)	0	0	(0.0)	
Spain	56	56	(100.0)	0	0	(0.0)	
Sweden	7	7	(100.0)	1	1	(100.0)	
Subtotal EU/EEA	864	786	(91.0)	164	140	(85.4)	
Non-EU/EEA	004	700	(71.0)	104	140	(65.4)	
Albania	5	5	(100.0)	0	0	_	
Andorra	0	0	(100.0)	0	0		
	39		(100.0)	10	10	(100.0)	
Armenia		39				(100.0)	
Azerbaijan	935	900	(96.3)	165	158	(95.8)	
Belarus	450	419	(93.1)	244	214	(87.7)	
Bosnia and Herzegovina	0	0	(2.1.1)	0	0	(22.2)	
Georgia	101	95	(94.1)	43	40	(93.0)	
Israel	7	7	(100.0)	1	1	(100.0)	
Kazakhstan	3193	2965	(92.9)	599	599	(100.0)	
Kyrgyzstan	626	593	(94.7)	117	107	(91.5)	
Monaco	-	-	-	-	-	-	
Montenegro	0	0	-	0	0	-	
North Macedonia	2	2	(100.0)	0	0	-	
Republic of Moldova	392	357	(91.1)	107	104	(97.2)	
Russian Federation	18080	16358	(90.5)	7770	5395	(69.4)	
San Marino	-	-	-	-	-	_	
Serbia	3	5	(166.7)	0	0	-	
Serbia excluding Kosovo <sup>1</sup>	3	3	(100.0)	0	0	_	
Kosovo <sup>1</sup>	0	2	-	0	0	-	
Switzerland	8	8	(100.0)	2	2	(0.0)	
Tajikistan	389	276	(71.0)	121	101	(83.5)	
Türkiye	126	106	(84.1)	9	9	(100.0)	
Turkmenistan	-	-	-	-	-	-	
Ukraine	2944	3172	(107.7)	980	1069	(109.1)	
United Kingdom	59	56	(94.9)	15	15	(100.0)	
Uzbekistan	1449	1449	(100.0)	332	332	(100.0)	
Subtotal non-EU/EEA	28808	26812	(93.1)	10 515	8156	(77.6)	
				10679			
Total European Region	29672	27598	(93.0)	100/9	8 2 9 6	(77.7)	

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. The resistance pattern at the initiation of treatment is reported to TESSy irrespective of the method used for drug-susceptibility testing or resistance prediction. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; RR/MDR-TB: rifampicin-resitant or multidrug-resistant TB; TB: tuberculosis; XDR-TB extensively drug-resistant tuberculosis.

\* Excluding pre-XDR and XDR-TB cases.

\* For countries that do not provide information on treatment start, all reported cases are used as proxy.

\* For some non-EU/EEA countries and areas, patients who were diagnosed before 2022 but started on treatment in 2022 are included, resulting in coverage over 100%.

\* Pre-XDR-TB defined as resistance to rifampicin (RR/MDR-TB), as well as resistance to any fluoroquinolone.

\* XDR-TB defined as resistance to rifampicin and to at least one fluoroquinolone (pre-XDR-TB), as well as resistance to a tleast one additional Group A drug. Group A drugs include levofloxacin, moxifloxacin, bedaquiline and linezolid. For EU/EEA countries, linezolid resistance is not yet reported to TESSy, therefore XDR-TB is assessed on the basis of resistance to levofloxacin, moxifloxacin and/or bedaquiline (in addition to meeting pre-XDR-TB criteria).

\* Second line DST information not reported for 2023 data

\* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 14. New and relapse TB cases with HIV infection, European Region, 2023

Country/area	New and relapse TB cases <sup>b</sup>	TB cases with known HIV status		HIV-positive TB c	ases	HIV-positive cases started ART		
	N	N	(%)	N	(%)	N (%)		
EU/EEA								
Austria	-	-	-	-	-	-		
Belgium <sup>d</sup>	-	-	-	-	-	-	-	
Bulgaria	858	634	(73.9)	3	(0.5)	-	-	
Croatia	260	39	(15.0)	3	(7.7)	-	-	
Cyprus	78	50	(64.1)	3	(6.0)	-	-	
Czechia	450	301	(66.9)	18	(6.0)	_		
Denmarkd	174	123	(70.7)	6	(4.9)	-	-	
Estonia	98	94	(95.9)	12	(12.8)	10	(83.3)	
Finland	-	-	-	-	-	-	-	
France	_	_	-	-	-	-		
Germany	_	_	_	-	-	-	-	
Greece	467	324	(69.4)	9	(2.8)	-	-	
Hungary	493	31	(6.3)	5	(16.1)	_	-	
Iceland	-	_	-	_	-	_	_	
Ireland <sup>d</sup>	207	75	(36.2)	6	(8.0)	5	(83.3)	
Italy	-	-	(50.2)	-	(0.0)	_	(05.5)	
Latvia		-	-		_	_	_	
Liechtenstein	-	_	-	-	-	_		
						_		
Lithuania	707	687	(97.2)	29	(4.2)			
Luxembourg	42	28	(66.7)	2	(7.1)	-	(400.0)	
Malta	68	54	(79.4)	3	(5.6)	3	(100.0)	
Netherlands	_	-	- (- : -)	-	- (- :)	-	-	
Norway <sup>d</sup>	136	124	(91.2)	3	(2.4)	-	-	
Poland	-	-	-	-	-	-	-	
Portugal	1501	1068	(71.2)	101	(9.5)	-	-	
Romania	9122	7825	(85.8)	178	(2.3)	137	(77.0)	
Slovakia	206	76	(36.9)	0	(0.0)	-	-	
Slovenia	85	70	(82.4)	2	(2.9)	-	-	
Spain	3991	3 0 5 0	(76.4)	242	(7.9)	-	-	
Sweden	_	-	-	-	-	-	-	
Subtotal EU/EEA	18 943	14653	(77.4)	625	(4.3)	164	(26.2)	
Non-EU/EEA								
Albania	302	285	(94.4)	3	(1.1)	3	(100.0)	
Andorra	_	_	-	_	_	_	_	
Armenia	404	377	(93.3)	43	(11.4)	35	(81.4)	
Azerbaijan	3965	3965	(100.0)	60	(1.5)	60	(100.0)	
Belarus	1555	1542	(99.2)	126	(8.2)	116	(92.1)	
Bosnia and Herzegovina	-	-	(>>.2)	-	(0:2)	-	(/211/	
Georgia	1308	1241	(94.9)	28	(2.3)	28	(100.0)	
Israel	227	227	(100.0)	10	(4.4)	10	(100.0)	
Kazakhstan	9506	9316	(98.0)		(6.2)	533	(93.0)	
				573				
Kyrgyzstan	4183	4048	(96.8)	141	(3.5)	105	(74.5)	
Monaco	-	-	(400.0)	-	(2.2)	-	(400.0)	
Montenegro	62	62	(100.0)	2	(3.2)	2	(100.0)	
North Macedonia	157	36	(0.0)	0	-	-	_	
Republic of Moldova	2164	2 0 9 1	(96.6)	264	(12.6)	243	(92.0)	
Russian Federation	54 643	52 872	(96.8)	13 411	(25.4)	10 519	(78.4)	
San Marino	_	-	-	-	-	-	-	
	1014	249	(24.6)	1	(0.4)	0	(0.0)	
Serbia			(40.0)	0	(0.0)	-	-	
Serbia Serbia excluding Kosovo <sup>1</sup>	433	53	(12.2)	•			()	
	433 581	53 196	(33.7)	1	(0.5)	0	(0.0)	
Serbia excluding Kosovo¹					(0.5)	0 -	(0.0)	
Serbia excluding Kosovo¹ Kosovo¹				1	(0.5) - (3.0)	0 - 133	(0.0) - (100.0)	
Serbia excluding Kosovo¹ Kosovo¹ Switzerland	581	196 -	(33.7)	1 -	-	-	-	
Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye	581 - 4435	196 - 4 <i>4</i> 12	(33.7) - (99.5)	1 - 133	(3.0)	- 133	(100.0)	
Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan	581 - 4435 9408	196 - 4412 7849	(33.7) - (99.5) (83.4) -	1 - 133 104 -	(3.0) (1.3)	133 70 -	(100.0) (67.3)	
Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine	581 - 4435	196 - 4 <i>4</i> 12	(33.7) - (99.5)	1 - 133	(3.0)	- 133	(100.0) (67.3)	
Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom⁴	581 - 4435 9408	196 - 4412 7849	(33.7) - (99.5) (83.4) -	1 - 133 104 - 3501	(3.0) (1.3)	- 133 70 - 3259	(100.0) (67.3) - (93.1)	
Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom⁴ Uzbekistan¢	581 - 4435 9408 - 20058	196 - 4412 7849 - 19952 -	(33.7) - (99.5) (83.4) - (99.5)	1 - 133 104 - 3501 - 407	(3.0) (1.3) - (17.5)	- 133 70 - 3259 - 363	(100.0) (67.3) - (93.1) - (89.2)	
Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom⁴	581 - 4435 9408	196 - 4412 7849	(33.7) - (99.5) (83.4) -	1 - 133 104 - 3501	(3.0) (1.3)	- 133 70 - 3259	(100.0)	

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics.

ART: antiretroviral therapy; EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

Cases with unknown previous TB history are included among new TB cases.

Countries are only included in this analysis if total number of cases tested for HIV and test results are provided. For EU/EEA countries, countries are only included in this analysis if the total number of cases tested for HIV is more than zero.

Data from: The WHO global TB collection system. Geneva: World Health Organization; 2024 (https://extranet.who.int/tme/, accessed 5 February 2024).

Previous TB history is defined by previous diagnosis.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 15. TB in prisons, European Region, 2023a

Country/area	Prison population <sup>6</sup>	New and relapse TB cas pris	es (all forms) notified in sons	Proportion of new and relapse TB cases in prisons out of the country total	TB relative risk in prisons <sup>c</sup>
	N	N	Rate per 100 000 prisoners	%	
EU/EEA					
Austria	-	-	-	-	-
Belgium	_	-	_	_	-
Bulgaria	5601	3	54	(0.3)	4.0
Croatia	_	-	_	_	-
Cyprus	-	-	-	-	-
Czechia	19 5 6 9	9	46	(2.0)	11.1
Denmark	-	-	-	-	-
Estonia	2250	2	89	(2.0)	12.4
Finland	-	-	-	-	-
France	69448	31	45	(0.7)	6.7
Germany	-	-	-	-	-
Greece	-	-	_	_	-
Hungary	19347	11	57	(2.2)	11.1
Iceland	-	-	_	_	-
Ireland	7946	1	13	(0.5)	3.2
Italy	-	-	-	-	-
Latvia	-	-	-	-	-
Liechtenstein	-	-	-	_	-
Lithuania	-	-	-	_	-
Luxembourg	611	0	0	(0.0)	0.0
Malta	-	-	-	_	-
Netherlands	_	-	_	_	-
Norway	-	-	-	-	-
Poland	76 284	166	218	(4.0)	19.3
Portugal	11137	27	242	(1.8)	16.9
Romania	24106	77	319	(0.8)	6.7
Slovakia	8930	5	56	(2.4)	14.8
Slovenia	3895	0	0	(0.0)	0.0
Spain	-	-	-	_	-
Sweden	_	-	_	_	_
Subtotal EU/EEA <sup>c</sup>	249124	332	133.3	(1.5)	10.8
Non EU/EEA					
Albania	6200	1	16	(0.3)	1.5
Andorra	_	-	_	_	-
Armenia	-	-	-	-	-
Azerbaijan	26072	162	621	(4.1)	16.2
Belarus	-	-	-	-	-
Bosnia and Herzegovina	-	-	_	_	-
Georgia	9868	26	263	(2.0)	7.7
Israel	-	-	_	_	-
Kazakhstan	44489	132	297	(1.4)	6.3
Kyrgyzstan	6272	52	829	(1.2)	14.0
Monaco	-	-	-	-	-
Montenegro	_	-	_	_	_
North Macedonia	2113	4	189	(2.5)	22.1
Republic of Moldova	6084	47	773	(2.2)	10.9
Russian Federation	376826	3909	1 037	(7.2)	27.6
San Marino	_	-	_	_	_
Serbia	10787	0	0	(0.0)	0.0
Serbia excluding Kosovo <sup>1</sup>	10787	0	0	(0.0)	
Kosovo¹	_	_	-	_	_
Switzerland	-	-	_	_	-
Tajikistan	12 000	101	842	(2.3)	19.7
Türkiye	291380	178	61	(1.9)	
Turkmenistan		-	_	-	-
Ukraine	42 420	526	1 240	(2.6)	23.3
United Kingdom	-	-	-	(2.0)	
Uzbekistan	_	-	_	_	_
Subtotal non-EU/EEA	834511	5138	616	(4.6)	18.7
Total European Region	1083635	5470		(4.1)	
	1005033	2710	303	(4.4)	

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

Data from the WHO Global TB Database.

Belarus, Kazakhstan, Montenegro and Kosovo¹ prison population data are from: World Prison Brief [online database]. London: Institute for Crime & Justice Policy Research; 2024. Available at: <a href="https://www.prisonstudies.org/">https://www.prisonstudies.org/</a> [accessed 5 February 2024].

In the calculation of summary results, only countries/areas reporting data on prison population and TB notification in prisons are included.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 16. Treatment outcome of new and relapse TB cases anotified in 2022, European Region, 2023

Country/area	New and relapse TB	Succ	ess	Died	1	Faile	d	Lost to fol	low-up <sup>c</sup>	Still on tre	atment	Not eval	uated
,,,	cases notified in 2022 <sup>b</sup>	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%
EU/EEA													
Austria	354	257	(72.6)	24	(6.8)	0	(0.0)	53	(15.0)	20	(5.6)	0	(0.0)
Belgiume	_	-	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	214	112	(52.3)	37	(17.3)	0	(0.0)	6	(2.8)	11	(5.1)	48	(22.4)
Cyprus	91	24	(26.4)	3	(3.3)	0	(0.0)	0	(0.0)	0	(0.0)	64	(70.3)
Czechia	360	225	(62.5)	43	(11.9)	3	(0.8)	80	(22.2)	7	(1.9)	2	(0.6)
Denmarke	206	38	(18.4)	0	(0.0)	0	(0.0)	1	(0.5)	0	(0.0)	167	(81.1)
Estonia	102	79	(77.5)	17	(16.7)	1	(1.0)	4	(3.9)	0	(0.0)	1	(1.0)
Finland	179	1	(0.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	178	(99.4)
France	3965	1449	(36.5)	111	(2.8)	0	(0.0)	131	(3.3)	21	(0.5)	2 2 5 3	(56.8)
Germany	3737	2304	(61.7)	345	(9.2)	1	(0.0)	90	(2.4)	91	(2.4)	906	(24.2)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	421	274	(65.1)	66	(15.7)	18	(4.3)	30	(7.1)	10	(2.4)	23	(5.5)
Iceland	14	10	(71.4)	0	(0.0)	0	(0.0)	1	(7.1)	0	(0.0)	3	(21.4)
Ireland <sup>e</sup>	180	81	(45.0)	6	(3.3)	0	(0.0)	4	(2.2)	3	(1.7)	86	(47.8)
Italy	_	_	-	-	-	-	-	-	_	-	-	_	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	617	538	(87.2)	53	(8.6)	6	(1.0)	16	(2.6)	2	(0.3)	2	(0.3)
Luxembourg	-	-	-	-	-	-	-	-	(2.0)	-	-	-	(0.5)
Malta	_	-	-	-	-	-	_	-	-	-	-	-	-
Netherlands	_	-	-	-	_	_	_	-	_	_	-	_	_
Norwaye	142	117	(82.4)	7	(4.9)	2	(1.4)	2	(1.4)	0	(0.0)	14	(9.9)
Poland		-	-	_	-	_	-	_	-	_	-	_	().)
Portugal	1523	980	(64.3)	90	(5.9)	2	(0.1)	106	(7.0)	287	(18.8)	58	(3.8)
Romania	8604	7260	(84.4)	892	(10.4)	158	(1.8)	229	(2.7)	65	(0.8)	0	(0.0)
Slovakia	138	123	(89.1)	6	(4.3)	1	(0.7)	2	(1.4)	0	(0.0)	6	(4.3)
Slovenia	72	52	(72.2)	12	(16.7)	0	(0.0)	2	(2.8)	5	(6.9)	1	(1.4)
Spain	3640	2684	(73.7)	228	(6.3)	4	(0.1)	148	(4.1)	56	(1.5)	520	(14.3)
Sweden	342	298	(87.1)	22	(6.4)	3	(0.9)	2	(0.6)	2	(0.6)	15	(4.4)
Subtotal EU/EEA	24901	16 906	(67.9)	1962	(7.9)	199	(0.8)	907	(3.6)	580	(2.3)	4347	(17.5)
Non-EU/EEA	24701	10 700	(01.7)	1702	(1.2)	177	(0.0)	701	(3.0)	500	(2.3)	7,771	(17.3)
Albania	264	234	(88.6)	17	(6.4)	0	(0.0)	6	(2.3)	_	-	7	(2.7)
Andorra	4	4	(100.0)	0	(0.4)	0	(0.0)	0	(0.0)	_	-	0	(0.0)
Armenia	397	335	(84.4)	26	(6.5)	5	(1.3)	26	(6.5)	_	-	5	(1.3)
		2957	(82.0)		(4.4)		(5.9)	241	(6.7)	_	_	35	(1.0)
Azerbaijan	3 60 6 999		(87.0)	160 82		213 21	(2.1)	21	(2.1)	_	-	6	
Belarus		869 200	(46.7)		(8.2)	21	(0.5)	9	(2.1)	-	-	197	(0.6)
Bosnia and Herzegovina	428		(86.8)	20 40	(4.7)		(2.4)			_	-	35	(46.0) (2.6)
Georgia	1357	1178			(2.9)	32		72	(5.3)	_			
Israel Kazakhstan	206	166	(80.6)	18	(8.7)	16	(7.8)	2	(1.0)	-	-	4	(1.9)
	5922	5325	(89.9)	444	(7.5)	83	(1.4)	51	(0.9)			19	(0.3)
Kyrgyzstan	3845	3184	(82.8)	243	(6.3)	152	(4.0)	243	(6.3)	-	-	23	(0.6)
Monaco	-	-	(02.0)	-	(4.1)	-	(0.0)		(5.0)	-			(0.0)
Montenegro	71	66	(93.0)	1	(1.4)	0	(0.0)	4	(5.6)	-	-	0	(0.0)
North Macedonia	137	92	(67.2)	5	(3.6)	2	(1.5)	0	(0.0)	-	-	38	(27.7)
Republic of Moldova	1673	1416	(84.6)	155	(9.3)	53	(3.2)	39	(2.3)	-	-	10	(0.6)
Russian Federation	41 077	27553	(67.1)	4233	(10.3)	5018	(12.2)	1882	(4.6)	-	-	2391	(5.8)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	_
Serbia	1047	880	(84.0)	42	(4.0)	8	(0.8)	58	(5.5)	-	-	59	(5.6)
Serbia excluding Kosovo <sup>1</sup>	457	350	(76.6)	29	(6.3)	3	(0.7)	20	(4.4)	-	-	55	(12.0)
Kosovo¹	590	530	(89.8)	13	(2.2)	5	(0.8)	38	(6.4)	-	-	4	(0.7)
Switzerland	329	215	(65.3)	9	(2.7)	1	(0.3)	3	(0.9)	-	-	101	(30.7)
Tajikistan	3809	3497	(91.8)	166	(4.4)	27	(0.7)	119	(3.1)	-	-	0	(0.0)
Türkiye	9 593	7 628	(79.5)	940	(9.8)	23	(0.2)	287	(3.0)	-	-	715	(7.5)
Turkmenistan	2605	2186	(83.9)	124	(4.8)	145	(5.6)	83	(3.2)	-	-	67	(2.6)
Ukraine	14889	11534	(77.5)	1636	(11.0)	765	(5.1)	864	(5.8)	-	-	90	(0.6)
United Kingdom <sup>e</sup>	4607	3873	(84.1)	240	(5.2)	103	(2.2)	149	(3.2)	-	-	242	(5.3)
Uzbekistan	12373	10941	(88.4)	573	(4.6)	298	(2.4)	383	(3.1)	-	-	178	(1.4)
Subtotal non-EU/EEA	109238	84333	(77.2)	9174	(8.4)	6967	(6.4)	4542	(4.2)	0	(0.0)	4222	(3.9)
Total European Region	134139	101239	(75.5)	11136	(8.3)	7166	(5.3)	5 4 4 9	(4.1)	580	(0.4)	8569	(6.4)
			(77.6)		4		4/		(4.1)	,	4		(3.2)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required.

EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

A Cases with unknown previous TB history are included among new TB cases.

For non-EU/EEA countries and areas: patients started on second-line treatment are excluded. For EU/EEA countries: rifampicin-resistant TB cases are excluded.

In previous reports defined as 'defaulted'.

A In previous reports defined as 'transferred out and unknown'.

Previous TB history is defined by previous diagnosis.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 17. Treatment outcome of previously treated TB cases (excluding relapse) notified in 2022, European Region, 2023

Country/area	New and relapse TB	Succ	ess	Died		Faile	ed	Lost to fol	low-upb	Still on tre	atment	Not evalu	ıated
Country/area	cases notified	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%
EU/EEA													
Austria	6	3	(50.0)	0	(0.0)	0	(0.0)	3	(50.0)	0	(0.0)	0	(0.0)
Belgium	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	5	4	(80.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(20.0)
Cyprus	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Czechia	5	3	(60.0)	0	(0.0)	0	(0.0)	1	(20.0)	0	(0.0)	1	(20.0)
Denmark	20	4	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	16	(80.08)
Estonia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-
France	223	86	(38.6)	7	(3.1)	0	(0.0)	11	(4.9)	1	(0.4)	118	(52.9)
Germany	156	73	(46.8)	13	(8.3)	0	(0.0)	6	(3.8)	4	(2.6)	60	(38.5)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	5	4	(80.0)	0	(0.0)	0	(0.0)	1	(20.0)	0	(0.0)	0	(0.0)
Iceland	1	0	(0.0)	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland	16	10	(62.5)	2	(12.5)	0	(0.0)	0	(0.0)	0	(0.0)	4	(25.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	6	4	(66.7)	1	(16.7)	0	(0.0)	1	(16.7)	0	(0.0)	0	(0.0)
Luxembourg	_	-	-	-	-	-	-	-	-	-	-	-	(0)
Malta	_	-	-	-	-	-	_	-	-	-	-	_	-
Netherlands	_	-	-	-	-	-	-	-	_	-	-	-	-
Norway	20	12	(60.0)	3	(15.0)	0	(0.0)	0	(0.0)	0	(0.0)	5	(25.0)
Poland	_	-	(00.0)	_	(13.0)	_	(0.0)	_	(0.0)	_	(0.0)	_	(23.0)
Portugal	37	15	(40.5)	3	(8.1)	0	(0.0)	5	(13.5)	12	(32.4)	2	(5.4)
Romania	382	208	(54.5)	40	(10.5)	75	(19.6)	55	(14.4)	4	(1.0)	0	(0.0)
Slovakia	12	9	(75.0)	1	(8.3)	1	(8.3)	0	(0.0)	0	(0.0)	1	(8.3)
Slovenia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	263	169	(64.3)	19	(7.2)	0	(0.0)	23	(8.7)	5	(1.9)	47	(17.9)
Sweden	15	15	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Subtotal EU/EEA	1176	623	(53.0)	89	(7.6)	77	(6.5)	106	(9.0)	26	(2.2)	255	(21.7)
Non-EU/EEA	11/0	023	(33.0)	07	(1.0)	11	(0.3)	100	(7.0)	20	(2.2)	233	(21.))
Albania	28	28	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Andorra	_	-	(100.0)	_	(0.0)	_	(0.0)	_	(0.0)	_	_	_	(0.0)
Armenia	15	10	(66.7)	2	(13.3)	0	(0.0)	3	(20.0)	_	-	0	(0.0)
Azerbaijan	489	365	(74.6)	19	(3.9)	53	(10.8)	46	(9.4)	_	_	6	(1.2)
Belarus	70	51	(72.9)	6	(8.6)	1	(1.4)	4	(5.7)	_	_	8	(11.4)
Bosnia and Herzegovina	0	-	(/2.7)	-	(0.0)	-	(1.4)	-	(5.7)	_	_	-	(11.4)
Georgia	115	87	(75.7)	4	(3.5)	5	(4.3)	12	(10.4)	_	_	7	(6.1)
Israel	5	2	(40.0)	1	(20.0)	0	(0.0)	0	(0.0)	_	_	2	(40.0)
Kazakhstan	53	36	(67.9)	11	(20.8)	3	(5.7)	3	(5.7)	_	_	0	(0.0)
Kyrayzstan					(9.8)	24	(6.9)		(12.1)	_	_	5	(1.4)
, 3,	348	243	(69.8)	34	(9.8)	24	(6.9)	42	(12.1)	_	_	5	(1.4)
Monaco	_		-	-	-	_	_	_	_			_	_
Montenegro	0	-	(574)	-	(0.0)	-	(0, 0)		(0.0)	-	-	-	((2.0)
North Macedonia	7	4	(57.1)	0	(0.0)	0	(0.0)	0	(0.0)	_	_	3	(42.9)
Republic of Moldova	107	69	(64.5)	7	(6.5)	6	(5.6)	20	(18.7)	-	-	5	(4.7)
Russian Federation	5688	2796	(49.2)	409	(7.2)	922	(16.2)	564	(9.9)	-	-	997	(17.5)
San Marino	-	-	- (* * -)	-	- ()	-	- (2.2)	-	- (** -)	-	-	-	(0.0)
Serbia	12	8	(66.7)	1	(8.3)	1	(8.3)	2	(16.7)	-	-	0	(0.0)
Serbia excluding Kosovo <sup>1</sup>	9	6	(66.7)	1	(11.1)	1	(11.1)	1	(11.1)	-	-	0	(0.0)
Kosovo¹	3	2	(66.7)	0	(0.0)	0	(0.0)	1	(33.3)	-	-	0	(0.0)
Switzerland	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	1	(50.0)
Tajikistan	89	70	(78.7)	5	(5.6)	1	(1.1)	13	(14.6)	-	-	0	(0.0)
Türkiye	112	57	(50.9)	6	(5.4)	0	(0.0)	24	(21.4)	-	-	25	(22.3)
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	868	552	(63.6)	89	(10.3)	98	(11.3)	123	(14.2)	-	-	6	(0.7)
United Kingdom	159	124	(78.0)	9	(5.7)	5	(3.1)	5	(3.1)	-	-	16	(10.1)
Uzbekistan	1233	1009	(81.8)	84	(6.8)	28	(2.3)	73	(5.9)	-	-	39	(3.2)
Subtotal non-EU/EEA	9 4 0 0	5 5 1 2	(58.6)	687	(7.3)	1147	(12.2)	934	(9.9)	0	(0.0)	1120	(11.9)
Total European Region	10 576	6135	(58.0)	776	(7.3)	1224	(11.6)	1040	(9.8)	26	(0.2)	1375	(13.0)
Subtotal 18 HPCs	9187	5345	(58.2)	676	(7.4)	1141	(12.4)	927	(10.1)	0	(0.0)	1098	(12.0)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (-) when data on treatment outcome are not reported.

EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

Excluding relapsed TB cases

In previous reports defined as 'defaulted'.

In previous reports defined as 'transferred out and unknown'.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 18. Treatment outcome of new and relapse TB cases in children (0-14 years) notified in 2022, European Region,

Country/2ro2	New and relapse	Succ	ess	Died		Faile	d	Lost to fol	low-up <sup>c</sup>	Still on tre	atment	Not eval	uated
Country/area	TB cases reported in 2022 <sup>b</sup>	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	12	12	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Belgiume	-	_	-	-	-	-	_	-	-	-	-	-	-
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-	-
Czechia	11	5	(45.5)	0	(0.0)	0	(0.0)	6	(54.5)	0	(0.0)	0	(0.0)
Denmarke	4	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(75.0)
Estonia	-	-	-	-	-	-	-	-	-	-	-	-	-
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-
France	183	66	(36.1)	1	(0.5)	0	(0.0)	5	(2.7)	1	(0.5)	110	(60.1)
Germany	184	131	(71.2)	1	(0.5)	0	(0.0)	4	(2.2)	3	(1.6)	45	(24.5)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	6	2	(33.3)	1	(16.7)	0	(0.0)	0	(0.0)	0	(0.0)	3	(50.0)
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland <sup>e</sup>	5	2	(40.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(60.0)
Italy	-	-	-	-	-	-	_	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	14	14	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-	-
Norwaye	6	5	(83.3)	1	(16.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Poland	-	_	-	-	-	-	_	-	-	-	-	-	-
Portugal	52	40	(76.9)	0	(0.0)	0	(0.0)	2	(3.8)	8	(15.4)	2	(3.8)
Romania	324	309	(95.4)	4	(1.2)	1	(0.3)	4	(1.2)	6	(1.9)	0	(0.0)
Slovakia	40	38	(95.0)	1	(2.5)	0	(0.0)	1	(2.5)	0	(0.0)	0	(0.0)
Slovenia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	199	175	(87.9)	0	(0.0)	0	(0.0)	4	(2.0)	4	(2.0)	16	(8.0)
Sweden	18	16	(88.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(11.1)
Subtotal EU/EEA	1061	819	(77.2)	9	(8.0)	1	(0.1)	26	(2.5)	22	(2.1)	184	(17.3)
Non-EU/EEA													
Albania	6	6	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Andorra	0	_	-	-	-	-	-	-	-	-	-	-	-
Armenia	17	15	(88.2)	0	(0.0)	0	(0.0)	1	(5.9)	-	-	1	(5.9)
Azerbaijan	110	75	(68.2)	0	(0.0)	12	(10.9)	10	(9.1)	-	-	13	(11.8)
Belarus	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Bosnia and Herzegovina	0	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	45	42	(93.3)	0	(0.0)	1	(2.2)	2	(4.4)	-	-	0	(0.0)
Israel	25	23	(92.0)	2	(8.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Kazakhstan	190	188	(98.9)	1	(0.5)	0	(0.0)	0	(0.0)	-	-	1	(0.5)
Kyrgyzstan	265	254	(95.8)	5	(1.9)	1	(0.4)	2	(0.8)	-	-	3	(1.1)
Monaco	_	-	-	-	-	-	_	-	_	-	-	-	_
Montenegro	0	-	-	-	-	-	-	-	-	-	-	-	-
North Macedonia	7	5	(71.4)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	2	(28.6)
Republic of Moldova	71	71	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Russian Federation San Marino	1455	1374	(94.4)	6	(0.4)	32	(2.2)	5	(0.3)	-	-	38	(2.6)
Serbia	49	47	(95.9)	0	(0.0)	0	(0.0)	1	(2.0)	-	-	1	(2.0)
Serbia excluding Kosovo <sup>1</sup>	17	17	(100.0)	0	(0.0)	0	(0.0)	1	(5.9)	_	-	0	(0.0)
Kosovo <sup>1</sup>	32	31	(96.9)	0	(0.0)	0	(0.0)	0	(0.0)	-	_	0	(0.0)
Switzerland	16	11	(68.8)	0	(0.0)	0	(0.0)	0	(0.0)	_	_	5	(31.3)
Tajikistan	218	212	(97.2)	1	(0.5)	2	(0.9)	3	(1.4)	_	_	0	(0.0)
Türkiye	391	319	(81.6)	15	(3.8)	1	(0.3)	5	(1.4)	_	_	51	(13.0)
Turkmenistan	271	219	(01.0)	-	(5.0)	-	(0.5)	-	(1.3)	-	_	-	(0.01)
Ukraine	330	299	(90.6)	11	(3.3)	7	(2.1)	12	(3.6)	_	_	1	(0.3)
United Kingdome		130	(91.5)	0	(0.0)	3	(2.1)	3	(2.1)	_	_	6	(4.2)
Uzbekistan	142	130	(51.5)	U	(0.0)	)	(2.1)	)	(2.1)	-	_	0	(4.2)
	2266		(02.0)	-	(1.2)	59		44	(1.3)	0		122	(2.5)
Subtotal non-EU/EEA Total European Region	3341 4402	3075 3894	(92.0)	41 50	(1.2)	60	(1.8)	70	(1.6)	22	(0.0)	306	(3.7)
Subtotal 18 HPCs	3434	3176	(92.5)	43	(1.1)	57	(1.7)	44	(1.3)	6	(0.2)	108	(3.1)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

8 Cases with unknown previous TB history are included among new TB cases.

9 For non-EU/EEA countries: patients started on second-line treatment are excluded. For EU/EEA countries: rifampicin-resistant TB cases are excluded.

9 In previous reports defined as 'defaulted'.

9 In previous reports defined as 'transferred out and unknown'.

9 Previous TB history is defined by previous diagnosis.

1 This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 19. Treatment outcome of new and relapse TB cases of foreign origin notified in 2022, European Region, 2023

	New and	Succ	ess	Die	d	Faile	ed	Lost to fo	llow-up <sup>c</sup>	Still on tre	eatment	Not eval	luated
Country/area	relapse TB cases of foreign origin notified in 2022 <sup>b</sup>	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austriae	222	151	(68.0)	8	(3.6)	0	(0.0)	51	(23.0)	12	(5.4)	0	(0.0)
Belgiumef	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	12	3	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(8.3)	8	(66.7)
Cyprus	85	21	(24.7)	3	(3.5)	0	(0.0)	0	(0.0)	0	(0.0)	61	(71.8)
Czechia	151	92	(60.9)	11	(7.3)	2	(1.3)	41	(27.2)	3	(2.0)	2	(1.3)
Denmark <sup>f</sup>	205	38	(18.5)	0	(0.0)	0	(0.0)	1	(0.5)	0	(0.0)	166	(81.0)
Estonia	26	16	(61.5)	8	(30.8)	0	(0.0)	1	(3.8)	0	(0.0)	1	(3.8)
Finland	2/02	-	(2(4)	-	(4.2)	-	(0.0)	- 70	(2.4)	- 42	- (0.5)		(50.0)
France	2482	896	(36.1)	31	(1.2)	0	(0.0)	78	(3.1)	13	(0.5)	1464	(59.0)
Germany	2687	1718	(63.9)	152	(5.7)	1	(0.0)	64	(2.4)	65	(2.4)	687	(25.6)
Greecee	- 24	- 12	(20.7)	-	(0.7)	-	(0.7)	-	(0.7)	- 1	(2.2)		(20.0)
Hungarye	31	12	(38.7) (70.0)	3	(9.7) (0.0)	3	(9.7)	3	(9.7) (10.0)	1	(3.2)	9	(29.0) (20.0)
Iceland	10	7		0		0		1			(0.0)	2	
Ireland <sup>f</sup> Italy	95	45	(47.4)	4	(4.2)	0	(0.0)	1	(1.1)	2	(2.1)	43	(45.3)
Latvia	_	_	_	-	-	-	_	_	-	_	-	-	_
Liechtenstein	_	_		_	_	_	_	_	_	_	_	_	
Lithuania	13	8	(61.5)	1	(7.7)	1	(7.7)	1	(7.7)	0	(0.0)	2	(15.4)
Luxembourg	-	-	(01.5)	-	(/./)	_	(/./)	-	(/./)	_	(0.0)	_	(13.4)
Malta	_	_	_	-	-	_	_	-	_	-	_	-	_
Netherlands	_	_	_	_	_	_	_	_	_	-	_	-	_
Norway <sup>f</sup>	127	108	(85.0)	3	(2.4)	2	(1.6)	2	(1.6)	0	(0.0)	12	(9.4)
Polande	127	-	(03.0)	_	(2.4)	_	(1.0)	_	(1.0)	_	(0.0)	-	(7.4)
Portugal	451	247	(54.8)	8	(1.8)	0	(0.0)	47	(10.4)	113	(25.1)	36	(8.0)
Romania	49	46	(93.9)	1	(2.0)	0	(0.0)	2	(4.1)	0	(0.0)	0	(0.0)
Slovakia	14	11	(78.6)	0	(0.0)	1	(7.1)	0	(0.0)	0	(0.0)	2	(14.3)
Slovenia	30	23	(76.7)	3	(10.0)	0	(0.0)	1	(3.3)	2	(6.7)	1	(3.3)
Spain	1602	1208	(75.4)	38	(2.4)	1	(0.1)	86	(5.4)	27	(1.7)	242	(15.1)
Sweden	282	249	(88.3)	13	(4.6)	3	(1.1)	2	(0.7)	1	(0.4)	14	(5.0)
Subtotal EU/EEA	8574	4899	(57.1)	287	(3.3)	14	(0.2)	382	(4.5)	240	(2.8)	2752	(32.1)
Non-EU/EEA													
Albania	0	-	-	-	-	-	-	-	-	-	-	-	-
Andorra	_	-	-	-	-	-	-	-	-	-	-	-	-
Armenia	5	1	(20.0)	0	(0.0)	0	(0.0)	1	(20.0)	-	-	3	(60.0)
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-	-	-
Belarus	-	-	-	-	-	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	4	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	4	(100.0)
Georgia	-	-	-	-	-	-	-	-	-	-	-	-	-
Israel	148	113	(76.4)	17	(11.5)	13	(8.8)	2	(1.4)	-	-	3	(2.0)
Kazakhstan	90	70	(77.8)	9	(10.0)	0	(0.0)	3	(3.3)	-	-	8	(8.9)
Kyrgyzstan	0	-	-	-	-	-	-	-	-	-	-	-	-
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	5	1	(20.0)	0	(0.0)	0	(0.0)	4	(80.0)	-	-	0	(0.0)
North Macedonia	3	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	3	(100.0)
Republic of Moldova	13	12	(92.3)	1	(7.7)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Russian Federation	-	-	-	-	-	-	-	-	-	-	-	-	-
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	4	1	(25.0)	2	(50.0)	1	(25.0)	0	(0.0)	-	-	0	(0.0)
Serbia excluding Kosovo <sup>1</sup> Kosovo <sup>1</sup>	4 -	1 -	(25.0)	2	(50.0)	1 -	(25.0)	0 -	(0.0)	-	-	0	(0.0)
Switzerland	291	184	(63.2)	5	(1.7)	4	(1.4)	4	(1.4)	-	-	94	(32.3)
Tajikistan	-	-	-	-	-	-	-	-	-	-	-	-	_
Türkiye	1512	1004	(66.4)	113	(7.5)	4	(0.3)	113	(7.5)	-	-	278	(18.4)
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	12	9	(75.0)	2	(16.7)	0	(0.0)	0	(0.0)	-	-	1	(8.3)
United Kingdom <sup>f</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
Uzbekistan	_	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal non-EU/EEA	2087	1395	(66.8)	149	(7.1)	22	(1.1)	127	(6.1)	0	(0.0)	394	(18.9)
Total European Region	10 661	6294	(59.0)	436	(4.1)	36	(0.3)	509	(4.8)	240	(2.3)	3146	(29.5)
Subtotal 18 HPCs	1720	1166	(67.8)	135	(7.8)	5	(0.3)	121	(7.0)	0	(0.0)	293	(17.0)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

a Cases with unknown previous TB history are included among new TB cases.

b For non-EU/EEA countries and areas: patients started on second-line treatment are excluded. For EU/EEA countries: rifampicin-resistant TB cases are excluded.

c In previous reports defined as 'transferred out and unknown'.

o Origin is based on nationality.

T Previous TB history is defined by previous diagnosis.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 20. Treatment outcome of HIV-positive new and relapse TB cases notified in 2022, European Region, 2023

Country/area	HIV-positive TB cases	Succ	ess	Die	d	Fail	ed	Lost to fol	low-up <sup>c</sup>	Still on tre	atment	Not evalu	ıated
<b>,</b> ,	notified in	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgiume	-	-	-	-	-	-	-	-	_	-	-	-	-
Bulgaria	-	-	-	-	-	-	-	-	_	-	-	-	-
Croatia	0	-	-	-	-	-	-	-	_	-	-	-	-
Cyprus	9	1	(11.1)	1	(11.1)	0	(0.0)	0	(0.0)	0	(0.0)	7	(77.8)
Czechia	5	1	(20.0)	1	(20.0)	0	(0.0)	2	(40.0)	1	(20.0)	0	(0.0)
Denmarke	4	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(75.0)
Estonia	4	3	(75.0)	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Finland	-	-	-	-	-	-	-	-	-	-	-	-	_
France	_	-	-	-	-	-	-	_	_	-	-	-	-
Germany	_	_	_	_	_	-	_	_	_	-	_	-	-
Greece	_	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	_	_	_	-	_	-	_	_	_	_	_	-	_
Iceland	_	-	_	-	-	-	_	-	_	-	-	-	_
Ireland <sup>e</sup>	5	3	(60.0)	1	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(20.0)
	)  -	3	(60.0)	-	(20.0)	-	(0.0)	-	(0.0)	-	(0.0)	_	(20.0)
Italy	_	-	-		_	_	-	-	_	_	-	_	
Latvia				-	_		_						
Liechtenstein	- 42	-	(75.0)	-		-		-	(0.2)	-	- (0, 0)	-	(0 -)
Lithuania	12	9	(75.0)	2	(16.7)	0	(0.0)	1	(8.3)	0	(0.0)	0	(0.0)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	_
Malta	0	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-	-
Norwaye	4	3	(75.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(25.0)
Poland	-	-	-	-	-	-	-	-	_	-	-	-	-
Portugal	111	52	(46.8)	8	(7.2)	0	(0.0)	11	(9.9)	32	(28.8)	8	(7.2)
Romania	120	92	(76.7)	16	(13.3)	1	(0.8)	8	(6.7)	3	(2.5)	0	(0.0)
Slovakia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	0	-	-	-	-	-	-	-	-	-	-	-	-
Spain	243	160	(65.8)	17	(7.0)	0	(0.0)	9	(3.7)	4	(1.6)	53	(21.8)
Sweden	-	-	-	-	-	-	_	_	_	-	-	-	_
Subtotal EU/EEA	519	327	(63.0)	47	(9.1)	1	(0.2)	31	(6.0)	40	(7.7)	73	(14.1)
Non-EU/EEA			, ,		, ,		, ,						
Albania	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Andorra	-	-	-	_	-	_	_	_	-	_	-	-	-
Armenia	32	23	(71.9)	6	(18.8)	0	(0.0)	3	(9.4)	_	-	0	(0.0)
Azerbaijan	51	38	(74.5)	0	(0.0)	4	(7.8)	4	(7.8)	-	-	5	(9.8)
Belarus	63	48	(76.2)	11	(17.5)	1	(1.6)	0	(0.0)	_	-	3	(4.8)
Bosnia and Herzegovina	1	0	(0.0)	0	(0.0)	1	(100.0)	0	(0.0)	_	_	0	(0.0)
	39	28				1				_	-	0	
Georgia			(71.8)	6	(15.4)		(2.6)	4	(10.3)				(0.0)
Israel	6	4	(66.7)	2	(33.3)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Kazakhstan	237	180	(75.9)	46	(19.4)	6	(2.5)	4	(1.7)	-	-	1	(0.4)
Kyrgyzstan	117	71	(60.7)	26	(22.2)	6	(5.1)	13	(11.1)	-	-	1	(0.9)
Monaco	-	-	-	-	_	-		-		-	-	-	_
Montenegro	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
North Macedonia	-	-	-	-	-	-	-	-	-	-	-	-	-
Republic of Moldova	172	115	(66.9)	43	(25.0)	9	(5.2)	5	(2.9)	-	-	0	(0.0)
Russian Federation	9394	4 683	(49.9)	1967	(20.9)	1903	(20.3)	228	(2.4)	-	-	613	(6.5)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	_
Serbia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Serbia excluding Kosovo <sup>1</sup>	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Kosovo¹	0	-	-	-	-	-	-	-	-	-	-	-	_
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	_
Tajikistan	79	60	(75.9)	11	(13.9)	0	(0.0)	8	(10.1)	-	-	0	(0.0)
Türkiye	123	64	(52.0)	32	(26.0)	1	(0.8)	4	(3.3)	-	-	22	(17.9)
Turkmenistan	-	-	(52.0)	-	(23.0)	-	(0.0)	-	(3.3)	-	-	-	(11.2)
Ukraine	2 612	1686	(64.5)	506	(19.4)	163	(6.2)	239	(9.2)	_	-	18	(0.7)
	2012	1000	(04.3)		(17.4)	100	(0.2)	239	(9.2)	-	-		(0./)
United Kingdome	_			-					_			-	
Uzbekistan	42.024	7005	(54.2)	2/5/	(20.5)	2005	(46.2)	- 540	- (4.0)	-	(0.0)	- ((2)	4= 4
Subtotal non-EU/EEA	12931	7005	(54.2)	2656	(20.5)	2095	(16.2)	512	(4.0)	0	(0.0)	663	(5.1)
Total European Region	13 450	7332	(54.5)	2703	(20.1)	2096	(15.6)	543	(4.0)	40	(0.3)	736	(5.5)
Subtotal 18 HPCs	13 055	7100	(54.4)	2673	(20.5)	2095	(16.0)	521	(4.0)	3	(0.0)	663	(5.1)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required.

EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

a Cases with unknown previous TB history are included among new TB cases.

b Rifampicin-resistant TB cases are excluded.

c In previous reports defined as 'defaulted'.

d In previous reports defined as 'transferred out and unknown'.

e Previous TB history is defined by previous diagnosis.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 21. Treatment outcome among new and relapse TB cases in prisons notified in 2022, European Region, 2023

Country/area	New and relapse TB cases in prisons notified	Succ	ess	Die	d	Faile	ed	Lost to fol	low-up <sup>c</sup>	Not eval	uated
Country/area	in 2022b	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA											
Austria	-	-	-	-	-	-	-	-	-	-	-
Belgium	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	8	6	(75.0)	0	(0.0)	0	(0.0)	1	(12.5)	1	(12.5)
Croatia	-	-	-	-	-	-	-	-	-	-	-
Cyprus	-	-	-	-	-	-	-	-	-	-	-
Czechia	13	13	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Denmark	-	-	-	-	-	-	-	-	-	-	_
Estonia	2	1	(50.0)	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)
Finland	-	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	
Germany	-	-	-	-	-	-	-	-	-	-	-
Greece	-	-	-	-	-	-	-	-	-	-	-
Hungary	5	4	(80.0)	0	(0.0)	1	(20.0)	0	(0.0)	0	(0.0)
Iceland	-	-	-	-	-	-	-	-	-	-	-
Ireland	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Italy	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-
Lithuania	-	-	-	-	-	-	-	-	- (2.2)	-	- (* *)
Luxembourg	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Malta	53	52	(98.1)	1	(1.9)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	-	-	-	-	-	-	-	-	-	-	
Norway	-	-	-	-	-	-	-	-	-	-	-
Poland	-	-	- ()	-	-	-	-	-	-	-	()
Portugal	27	9	(33.3)	1	(3.7)	0	(0.0)	2	(7.4)	15	(55.6)
Romania	94	86	(91.5)	2	(2.1)	1	(1.1)	5	(5.3)	0	(0.0)
Slovakia	6	6	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	-	-	-	-	-	-	-	-	-	-	_
Spain	-	-	-	-	-	-	-	-	-	-	_
Sweden	-	-	(0= 0)	-	(0.1)	-	- (0.0)	-	(2.0)	-	(= 4)
Subtotal EU/EEA	211	180	(85.3)	5	(2.4)	2	(0.9)	8	(3.8)	16	(7.6)
Non-EU/EEA	1	4	(400.0)	0	(0, 0)	0	(0, 0)	0	(0,0)	0	(0, 0)
Albania	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Andorra	_		(50.0)		(0.0)		(0, 0)	1	(50.0)		(0.0)
Armenia	2	1	(50.0)	0	(0.0)	0	(0.0)		(50.0)	0	
Azerbaijan	120	107 12	(89.2) (80.0)	0	(0.0)	2	(1.7)	8	(6.7)	3	(2.5)
Belarus	15	- 12	(80.0)	1	(6.7)	0	(0.0)	2	(13.3)	0	(0.0)
Bosnia and Herzegovina	18	17	(94.4)	0	(0.0)	0	(0.0)	1	(5.6)	0	(0.0)
Georgia Israel	10	-	(94.4)	_	(0.0)	_	(0.0)	-	(5.0)	_	(0.0)
Kazakhstan	62	55	(88.7)	1	(1.6)	3	(4.8)	2	(3.2)	1	(1.6)
	24	16		1	(4.2)		(12.5)	4		0	(0.0)
Kyrgyzstan Monaco	24	-	(66.7)	-	(4.2)	3	(12.5)	4	(16.7)	-	(0.0)
Montenegro	_	_		_	_	_	_	_	_	_	
North Macedonia	6	6	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Republic of Moldova	61	59	(96.7)	0	(0.0)	2	(3.3)	0	(0.0)	0	(0.0)
Russian Federation	3768	2114	(56.1)	80	(2.1)	371	(9.8)	143	(3.8)	1060	(28.1)
San Marino	7/00	2114	(50.1)	-	(2.1)	<i>3/1</i>	(9.0)	145	(5.6)	-	(20.1)
Serbia		_	-	_	-	_	_	_	-	_	_
Serbia excluding Kosovo <sup>1</sup>	_	_	_	_	_	_	_	_	_		
Kosovo <sup>1</sup>	_	_	-	_	-	_	_	_	_	-	
Switzerland	_	_	_	_	_	_	_	_	_	_	
Tajikistan	45	43	(95.6)	1	(2.2)	0	(0.0)	1	(2.2)	0	(0.0)
Türkiye	156	110	(70.5)	11	(7.1)	0	(0.0)	20	(12.8)	15	(9.6)
Turkmenistan	-	-	(, 0.5)	-	(/.//	-	(0.0)	-	(12.0)	-	(7.0)
Ukraine	243	148	(60.9)	23	(9.5)	22	(9.1)	19	(7.8)	31	(12.8)
United Kingdom	243	140	(00.9)	-	(2.3)		(2.1)	17	(7.0)		(12.0)
Uzbekistan	_	_	_	_	_	_	_	_	_	_	
Subtotal non-EU/EEA	4521	2689	(59.5)	118	(2.6)	403	(8.9)	201	(4.4)	1110	(24.6)
Total European Region	4732	2869	(60.6)	123	(2.6)	405	(8.6)	209	(4.4)	1126	(23.8)
Subtotal 18 HPCs	4620	2777	(60.1)	121	(2.6)	404	(8.7)	207	(4.5)	1111	(24.0)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

a Cases with unknown previous TB history are included among new TB cases.

B Rifampicin-resistant TB cases are excluded.

In previous reports defined as 'dransferred out and unknown'.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 22. Treatment outcome after 24 months of RR/MDR-TB cases started on second-line treatment in 2021, European Region, 2023

Company	RR/MDR-TB <sup>a</sup> cases started on	Succ	ess	Die	ı	Faile	d	Lost to fo	llow up <sup>c</sup>	Still on tre	atment	Not eval	uatedd
Country/area	second-line treatment <sup>b</sup> in 2021	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	9	6	(66.7)	0	(0.0)	0	(0.0)	2	(22.2)	1	(11.1)	0	(0.0)
Belgium	8	3	(37.5)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	5	(62.5)
Bulgaria	4	2	(50.0)	2	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Croatia	0	-	-	-	-	-	-	-	-	-	-	-	-
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-	-
Czechia	11	5	(45.5)	3	(27.3)	0	(0.0)	2	(18.2)	1	(9.1)	0	(0.0)
Denmark	-	-	-	-	-	-	-	-	-	-	-	-	-
Estonia	20	17	(85.0)	1	(5.0)	0	(0.0)	1	(5.0)	1	(5.0)	0	(0.0)
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	95	46	(48.4)	9	(9.5)	1	(1.1)	4	(4.2)	10	(10.5)	25	(26.3)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	12	8	(66.7)	1	(8.3)	0	(0.0)	3	(25.0)	0	(0.0)	0	(0.0)
Iceland	0	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	6	2	(33.3)	1	(16.7)	0	(0.0)	0	(0.0)	0	(0.0)	3	(50.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	0	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	105	74	(70.5)	24	(22.9)	1	(1.0)	3	(2.9)	2	(1.9)	1	(1.0)
Luxembourg	0	-	-	-	-	-	-	-	-	-	-	-	-
Malta	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	11	10	(90.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(9.1)
Norway	12	8	(66.7)	1	(8.3)	1	(8.3)	1	(8.3)	0	(0.0)	1	(8.3)
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	11	7	(63.6)	0	(0.0)	0	(0.0)	0	(0.0)	1	(9.1)	3	(27.3)
Romania	260	125	(48.1)	57	(21.9)	43	(16.5)	30	(11.5)	5	(1.9)	0	(0.0)
Slovakia	5	4	(80.0)	1	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	6	6	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Subtotal EU/EEA	577	325	(56.3)	100	(17.3)	46	(8.0)	46	(8.0)	21	(3.6)	39	(6.8)
Non-EU/EEA	_		(40.0)		(2.2.2)		(2.2)		(0.0)				(0.0.0)
Albania	5	3	(60.0)	1	(20.0)	0	(0.0)	0	(0.0)	-	-	1	(20.0)
Andorra	0	-	()	-	- (4.1)	-	-	-	-	-	-	-	- (2.2)
Armenia	47	34	(72.3)	3	(6.4)	2	(4.3)	8	(17.0)	-	-	0	(0.0)
Azerbaijan	798	519	(65.0)	56	(7.0)	132	(16.5)	91	(11.4)	-	-	0	(0.0)
Belarus	449	364	(81.1)	57	(12.7)	9	(2.0)	13	(2.9)	-	-	6	(1.3)
Bosnia and Herzegovina	0	-	(	-	- (4.1)	-	-	-	-	-	-	-	- (1.0)
Georgia	140	107	(76.4)	9	(6.4)	1	(0.7)	17	(12.1)	-	-	6	(4.3)
Israel	5	3	(60.0)	2	(40.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Kazakhstan	4163	3398	(81.6)	509	(12.2)	73	(1.8)	139	(3.3)	-	-	44	(1.1)
Kyrgyzstan	754	564	(74.8)	48	(6.4)	22	(2.9)	120	(15.9)	-	-	0	(0.0)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	0	-	(0.1)	-	(0.0)	-	(0.0)	-	(0000)	-	-	-	(6.5)
North Macedonia	1	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)			0	(0.0)
Republic of Moldova	443	310	(70.0)	65	(14.7)	10	(2.3)	58	(13.1)	-	-	0	(0.0)
Russian Federation	20 579	11122	(54.0)	3293	(16.0)	2359	(11.5)	2387	(11.6)	-	-	1418	(6.9)
San Marino	-	-	- (1000)	-	- ()	-	- (2.2)	-	- (2. 2)	-	-	-	- ()
Serbia	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Serbia excluding Kosovo¹	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Kosovo¹	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Switzerland	4	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	4	(100.0)
Tajikistan	354	301	(85.0)	24	(6.8)	4	(1.1)	24	(6.8)	-	-	1	(0.3)
Türkiye	101	45	(44.6)	11	(10.9)	0	(0.0)	12	(11.9)	-	-	33	(32.7)
Turkmenistan	521	368	(70.6)	32	(6.1)	74	(14.2)	42	(8.1)	-	-	5	(1.0)
Ukraine	3316	2174	(65.6)	528	(15.9)	156	(4.7)	439	(13.2)	-	-	19	(0.6)
United Kingdom	38	31	(81.6)	2	(5.3)	1	(2.6)	1	(2.6)	-	-	3	(7.9)
	1753	1284	(73.2)	178	(10.2)	64	(3.7)	140	(8.0)	-	-	87	(5.0)
Uzbekistan				1010	444 - 5	0.617	4		der at		to a		
Uzbekistan Subtotal non-EU/EEA Total European Region	33 475 34 052	20 631 20 956	(61.6) (61.5)	4818 4918	(14.4) (14.4)	2907 2953	(8.7)	3492 3538	(10.4) (10.4)	0 21	(0.0)	1627 1666	(4.9) (4.9)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; RR/MDR: rifampicin-resistant and multidrug-resistant; TB: tuberculosis. a Includes cases that are RR/MDR but also meet the pre-XDR or XDR case definition (pre-XDR and XDR cases have not been excluded). For EU/EEA countries, cases diagnosed post-mortem are excluded, and cases with no treatment enrolment data reported are assumed to be enrolled in treatment. In previous reports defined as 'defaulted'. In previous reports defined as 'transferred out and unknown'.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table 23. Treatment outcome after 24 months of pre-XDR-TB cases started on second-line treatment in 2021, European Region, 2023

Country/area	Pre-XDR-TB <sup>a</sup> cases started on second-	Succ	ess	Die	d	Faile	d	Lost to fol	low-up <sup>c</sup>	Still on tre	atment	Not eval	µated⁴
Country/area	line treatment	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)	0	(0.0)
Belgium	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	1	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyprus	0	-	-	-	-	-	-	-	-	-	-	-	-
Czechia	2	1	(50.0)	0	(0.0)	0	(0.0)	1	(50.0)	0	(0.0)	0	(0.0)
Denmark	-	-	-	-	-	-	-	-	-	-	-	-	-
Estonia	8	7	(87.5)	0	(0.0)	0	(0.0)	0	(0.0)	1	(12.5)	0	(0.0)
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	11	2	(18.2)	4	(36.4)	0	(0.0)	0	(0.0)	1	(9.1)	4	(36.4)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	-	-	-	-	-	-	-	-	-	-	-	-	-
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	_
Lithuania	21	13	(61.9)	6	(28.6)	1	(4.8)	1	(4.8)	0	(0.0)	0	(0.0)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	_
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-	-
Norway	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Poland	-	-	- ()	-	- ()	-	- ()	-	- ()	-	- (: :)	-	-
Portugal	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Romania	25	5	(20.0)	5	(20.0)	13	(52.0)	1	(4.0)	1	(4.0)	0	(0.0)
Slovakia	2	1	(50.0)	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	0	-	- ()	-	- ()	-	- ()	-	- ()	-	- ()	-	-
Spain	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Sweden	0	-	-	-	(0.1.7)	-	-	-	- (0.0)	-		-	(= 4)
Subtotal EU/EEA	79	37	(46.8)	17	(21.5)	14	(17.7)	3	(3.8)	4	(5.1)	4	(5.1)
Non-EU/EEA													
Albania	0	-	-	-	-	-	-	-	-	-	-	-	_
Andorra Armenia	0	10	(58.8)	2	(11.8)	1	(5.9)	3	(17.6)	-	-	1	(5.9)
		101			(11.6)	29		15	(9.1)	_	_	0	(0.0)
Azerbaijan Belarus	164 275	206	(61.6) (74.9)	19 21	(7.6)	24	(17.7) (8.7)	20	(7.3)	-	_	4	(1.5)
	0	200	(/4.9)	_	(7.0)	_	(0./)	20	(/.3)	_	_	4	(1.3)
Bosnia and Herzegovina	35		(57.1)		(8.6)	7	(20.0)	2	(5.7)	-	_	3	(0 ()
Georgia Israel		20		3	(0.0)	0	(0.0)	0	(0.0)	-	_	1	(8.6)
Kazakhstan	5 235	179	(80.0) (76.2)	30	(12.8)	12	(5.1)	14	(6.0)	_	_	0	(20.0)
Kyrgyzstan	117	70	(59.8)	18	(12.8)	16	(13.7)	13	(11.1)	-	_	0	(0.0)
Monaco	-	-	(37.0)	-	(13.4)	-	(13./)	-	(11.1)	_	_	_	(0.0)
Montenegro	0	_	_	_	_	_	_	_	_	_	_		_
North Macedonia	-	-	_	-	-	_	_	_		-	-	-	
Republic of Moldova	118	54	(45.8)	16	(13.6)	26	(22.0)	22	(18.6)	-	-	0	(0.0)
Russian Federation	6122	2993	(48.9)	1058	(17.3)	1025	(16.7)	635	(10.4)	_	-	411	(6.7)
San Marino	0122	2777	(70.7)	1036	(17.3)	1025	(10.7)	-	(10.4)	_	_	411	(0./)
Serbia	0	_	-	_	-	_	_	-	_	_	-	-	
Serbia excluding Kosovo <sup>1</sup>	0	_	_	_	_	_	_	_	_	_	_	_	_
Kosovo <sup>1</sup>	0	_	_	_	_	_	_	_	_	_	_	-	_
Switzerland	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	_	_	0	(0.0)
Tajikistan	111	85	(76.6)	16	(14.4)	4	(3.6)	6	(5.4)	_	_	0	(0.0)
Türkiye	5	3	(60.0)	0	(0.0)	0	(0.0)	1	(20.0)	_	_	1	(20.0)
Turkmenistan	288	181	(62.8)	58	(20.1)	20	(6.9)	26	(9.0)	_	_	3	(1.0)
Ukraine	1576	917			(16.4)	133	(8.4)		(14.8)	-	-	34	
United Kingdom	13/6	8	(58.2) (57.1)	259 0	(0.0)	0	(0.0)	<i>233</i>	(7.1)	-	-	5	(2.2)
United Kingdom Uzbekistan	394	280	(71.1)	65	(16.5)	17	(4.3)	19	(4.8)	-	_	13	(35.7)
Subtotal non-EU/EEA	9477	5112	(53.9)	1565	(16.5)	1314	(13.9)	1010	(10.7)	0	(0.0)	476	(3.3) ( <b>5.0</b> )
Total European Region	9556	5149	(53.9)	1582	(16.6)	1328	(13.9)	1013	(10.7)	4	(0.0)	480	(5.0)
Subtotal 18 HPCs	9512	5124	(53.9)	1577	(16.6)	1328	(14.0)	1013	(10.6)	2	(0.0)	470	(4.9)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis; XDR-TB: extensively drug-resistant tuberculosis.

\* Pre-XDR-TB defined as resistance to rifampicin (RR/MDR-TB), as well as resistance to any fluoroquinolone. Includes cases that are pre-XDR but that also meet the XDR case definitions (XDR cases have not been excluded).

\* For EU/EEA countries, cases diagnosed post-mortem are excluded, and cases with no treatment enrolment data reported are assumed to be enrolled in treatment.

\* In previous reports defined as 'defaulted'.

\* In previous reports defined as 'transferred out and unknown'.

\* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.



Table I. Estimated TB mortality per 100 000 population, European Region, 2014–2023a

	20	14	20	15	20	16	20	17	20	18	20	19
Country	N	Rate per 100 000	N	Rate per 100 000								
EU/EEA												
Austria	71	(0.8)	64	(0.7)	38	(0.4)	35	(0.4)	48	(0.5)	40	(0.5)
Belgium	41	(0.4)	61	(0.5)	32	(0.3)	32	(0.3)	33	(0.3)	33	(0.3)
Bulgaria	130	(1.8)	120	(1.6)	120	(1.6)	97	(1.4)	98	(1.4)	97	(1.4)
Croatia	40	(1.0)	46	(1.1)	57	(1.4)	59	(1.5)	40	(1.0)	36	(0.9)
Cyprus	5	(0.4)	2	(0.2)	3	(0.2)	4	(0.3)	5	(0.4)	2	(0.2)
Czechia	39	(0.4)	57	(0.5)	43	(0.4)	37	(0.4)	38	(0.4)	22	(0.2)
Denmark	13	(0.2)	17	(0.3)	23	(0.4)	14	(0.2)	10	(0.2)	10	(0.2)
Estonia	29	(2.2)	22	(1.6)	28	(2.1)	24	(1.8)	13	(1.0)	16	(1.2)
Finland	41	(0.7)	33	(0.6)	26	(0.5)	35	(0.6)	30	(0.6)	29	(0.5)
France	480	(0.7)	450	(0.7)	420	(0.7)	440	(0.7)	370	(0.6)	360	(0.6)
Germany	320	(0.4)	320	(0.4)	290	(0.4)	300	(0.4)	300	(0.4)	270	(0.3)
Greece	55	(0.5)	45	(0.4)	48	(0.4)	58	(0.5)	50	(0.4)	44	(0.4)
	85	(0.9)	100	(1.1)	65	(0.5)	64	(0.5)	85	(0.9)	63	(0.4)
Hungary												
Iceland	2	(0.6)	2	(0.6)	2	(0.5)	2	(0.5)	1	(0.4)	1	(0.3)
Ireland	24	(0.5)	18	(0.4)	17	(0.4)	16	(0.3)	18	(0.4)	7	(0.1)
Italy	290	(0.5)	340	(0.6)	310	(0.5)	300	(0.5)	290	(0.5)	280	(0.5)
Latvia	69	(3.5)	99	(5.0)	80	(4.1)	75	(3.8)	65	(3.4)	65	(3.4)
Liechtenstein <sup>b</sup>	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	230	(7.8)	190	(6.5)	180	(6.4)	160	(5.8)	120	(4.3)	120	(4.2)
Luxembourg	1	(0.2)	1	(0.2)	1	(0.2)	3	(0.5)	2	(0.3)	1	(0.2)
Malta	1	(0.3)	2	(0.5)	3	(0.7)	1	(0.2)	1	(0.2)	1	(0.2)
Netherlands	35	(0.2)	37	(0.2)	30	(0.2)	24	(0.1)	28	(0.2)	20	(0.1)
Norway	13	(0.3)	12	(0.2)	18	(0.3)	14	(0.3)	8	(0.2)	15	(0.3)
Poland	580	(1.5)	590	(1.5)	600	(1.6)	560	(1.5)	580	(1.5)	530	(1.4)
Portugal	220	(2.1)	230	(2.2)	210	(2.0)	200	(2.0)	240	(2.4)	180	(1.8)
Romania	1100	(5.6)	1000	(5.3)	960	(4.9)	920	(4.7)	920	(4.7)	910	(4.7)
Slovakia	35	(0.6)	35	(0.6)	26	(0.5)	29	(0.5)	27	(0.5)	15	(0.3)
Slovenia	21	(1.0)	11	(0.5)	7	(0.3)	7	(0.4)	6	(0.3)	14	(0.7)
Spain	280	(0.6)	250	(0.5)	250	(0.5)	250	(0.4)	260	(0.5)	220	(0.7)
Sweden	30	(0.3)	250	(0.3)	26	(0.3)	230	(0.2)	22	(0.2)	19	(0.2)
		(1.0)						(0.2)		(0.2)		(0.2)
Subtotal EU/EEA	4300	(1.0)	4200	(0.9)	3900	(0.9)	3800	(0.8)	3700	(0.8)	3400	(0.8)
Non-EU/EEA		(0.0)	0	(0.0)		(0.0)	0	(0.0)		(0.0)	0	(0.0)
Albania	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)
Andorra	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Armenia	81	(2.8)	68	(2.3)	56	(1.9)	45	(1.5)	30	(1.0)	36	(1.2)
Azerbaijan	430	(4.5)	580	(5.9)	580	(5.9)	590	(5.9)	590	(5.9)	600	(5.9)
Belarus	530	(5.6)	450	(4.7)	390	(4.1)	330	(3.4)	280	(3.0)	230	(2.4)
Bosnia and Herzegovina	140	(3.8)	130	(3.6)	120	(3.5)	110	(3.2)	100	(3.0)	94	(2.8)
Georgia	180	(4.6)	150	(4.0)	170	(4.4)	160	(4.2)	150	(4.0)	140	(3.8)
Israel	15	(0.2)	15	(0.2)	15	(0.2)	12	(0.2)	20	(0.2)	20	(0.2)
Kazakhstan	920	(5.2)	720	(4.0)	610	(3.3)	570	(3.1)	500	(2.6)	460	(2.4)
Kyrgyzstan	480	(8.2)	430	(7.1)	390	(6.3)	350	(5.7)	340	(5.3)	290	(4.4)
Monaco	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Montenegro	1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)
North Macedonia	24	(1.2)	18	(0.9)	23	(1.2)	11	(0.6)	22	(1.2)	8	(0.4)
Republic of Moldova	310	(9.4)	260	(8.0)	230	(7.1)	180	(5.7)	170	(5.4)	160	(5.3)
Russian Federation	16 000	(11.0)	14 000	(9.9)	12 000	(8.5)	10 000	(7.1)	9300	(6.3)	8100	(5.5)
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	9300	(0.0)	0 100	(0.0)
Serbia	97	(1.3)	71	(1.0)	82	(1.1)	76	(1.1)	75	(1.1)	51	(0.7)
Switzerland	12	(0.2)	17	(0.2)	25	(0.3)	17	(0.2)	17	(0.2)	9	(0.1)
Tajikistan	800	(9.5)	780	(9.0)	780	(8.8)	770	(8.5)	760	(8.2)	750	(7.9)
Türkiye	580	(0.7)	550	(0.7)	560	(0.7)	480	(0.6)	450	(0.5)	410	(0.5)
Turkmenistan	630	(10.0)	580	(9.3)	650	(10.0)	660	(10.0)	680	(10.0)	690	(10.0)
Ukraine <sup>c</sup>	5700	(12.0)	5000	(11.0)	4600	(10.0)	4100	(9.0)	4100	(9.0)	3800	(8.4)
United Kingdom	360	(0.6)	350	(0.5)	300	(0.5)	260	(0.4)	270	(0.4)	230	(0.3)
Uzbekistan	2100	(7.1)	2500	(8.0)	1900	(6.1)	1900	(5.9)	1400	(4.4)	1100	(3.4)
Subtotal non-EU/EEA	29000	(6.3)	27000	(5.8)	23000	(4.9)	21000	(4.4)	19 000	(4.0)	17000	(3.5)
Total European Region	34000	(3.7)	31000	(3.4)	28000	(3.0)	25 000	(2.7)	23000	(2.5)	21000	(2.2)
Subtotal 18 HPCs	30000	(7.5)	27000	(6.7)	24000	(5.9)	21000	(5.1)	20000	(4.9)	18000	(4.4)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. HPCs: high-priority countries.

Excludes HIV coinfected cases.

Liechtenstein data is presented under Switzerland's data.

There are uncertainties associated with the UN Population Division population estimates for Ukraine. Estimated TB burden rates per 100 000 population for Ukraine should not be used to evaluate the effectiveness of the national TB programme.

202	20	20:	21	202	22	20:	23	Mean annual	Mean annual	
N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	% change in rate, 2019-2023	% change in rate, 2014–2023	Country
										EU/EEA
41	(0.5)	31	(0.4)	29	(0.3)	30	(0.3)	-8.2%	-10.0%	Austria
33	(0.3)	33	(0.3)	33	(0.3)	33	(0.3)	0.0%	-2.7%	Belgium
81	(1.2)	59	(0.9)	95	(1.4)	95	(1.4)	0.0%	-2.8%	Bulgaria
26	(0.7)	22	(0.6)	34	(0.9)	34	(0.9)	-0.8%		Croatia
2	(0.2)	2	(0.2)	5	(0.4)	5	(0.4)	19.7%	-0.6%	Cyprus
24	(0.2)	37	(0.4)	20	(0.2)	36	(0.3)	12.0%		Czechia
11	(0.2)	7	(0.1)	10	(0.2)	10	(0.2)	0.0%	-3.3%	Denmark
9	(0.7)	13	(1.0)	12	(0.9)	9	(0.7)	-12.9%		Estonia
21	(0.4)	24	(0.4)	30	(0.5)	30	(0.5)	0.5%		Finland
310	(0.5)	300	(0.5)	450	(0.7)	450	(0.7)	5.4%		France
290	(0.4)	280	(0.3)	290	(0.3)	290	(0.3)	1.5%		Germany
38	(0.4)	34	(0.3)	43	(0.4)	42	(0.4)	0.0%	-2.4%	Greece
55	(0.6)	57	(0.6)	56	(0.6)	56	(0.6)	-3.2%	-4.5%	- ,
1	(0.3)	2	(0.6)	1	(0.2)	1	(0.2)	-8.3%		Iceland
17	(0.4)	19	(0.4)	19	(0.4)	19	(0.4)	27.5%	-3.7%	Ireland
230	(0.4)	300	(0.5)	300	(0.5)	300	(0.5)	2.1%	0.7%	Italy
61	(3.2)	65	(3.5)	55	(2.9)	55	(2.9)	-3.9%	-2.1%	Latvia
-	-	-	-	-	-	-	-	-	_	Liechtenstein <sup>b</sup>
110	(3.9)	100	(3.7)	110	(3.9)	110	(3.9)	-1.8%	-7.4%	Lithuania
1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	-7.3%		Luxembourg
1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	2.3%	-0.9%	
33	(0.2)	21	(0.1)	18	(0.1)	19	(0.1)	-2.4%	-7.9%	Netherlands
7	(0.1)	19	(0.3)	19	(0.3)	19	(0.3)	5.0%	3.5%	Norway
540	(1.4)	500	(1.3)	480	(1.2)	480	(1.2)	-3.8%		Poland
180	(1.8)	240	(2.4)	240	(2.4)	250	(2.4)	7.5%	1.5%	Portugal
780	(4.0)	820	(4.3)	920	(4.8)	960	(5.0)	1.6%		Romania
22	(0.4)	18	(0.3)	14	(0.3)	14	(0.3)	-1.9%	-9.9%	Slovakia
15	(0.7)	14	(0.7)	14	(0.7)	14	(0.7)	0.0%	-4.2%	Slovenia
200	(0.4)	180	(0.4)	170	(0.4)	170	(0.4)	-7.1%	-6.0%	Spain
13	(0.1)	22	(0.2)	19	(0.2)	19	(0.2)	0.0%	-5.9%	Sweden
3200	(0.7)	3200	(0.7)	3500	(0.8)	3600	(0.8)	1.2%	-2.2%	Subtotal EU/EEA
										Non-EU/EEA
	()	7	(0.3)	7	(0.3)	7	(0.2)	-4.6%	-2.1%	Albania
9	(0.3)	7	(0.5)	/		,				
9	(0.3)	0	(0.2)	0	(0.5)	0	(0.5)	_	_	Andorra
					(0.5) (0.8)		(0.5) (0.3)	-27.0%		Andorra Armenia
0	(0.2)	0	(0.2)	0		0			-20.9%	
0 47	(0.2) (1.6)	0 15	(0.2) (0.5)	0 24	(0.8)	0 10	(0.3)	-27.0%	-20.9% 0.5%	Armenia
0 47 430	(0.2) (1.6) (4.2) (2.8) (2.6)	0 15 460	(0.2) (0.5) (4.5) (2.2) (2.5)	0 24 480	(0.8) (4.7) (2.2) (2.3)	0 10 490	(0.3) (4.7) (2.1) (2.1)	-27.0% -5.5%	-20.9% 0.5%	Armenia Azerbaijan Belarus
0 47 430 260	(0.2) (1.6) (4.2) (2.8)	0 15 460 200	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7)	0 24 480 200	(0.8) (4.7) (2.2)	0 10 490 190	(0.3) (4.7) (2.1)	-27.0% -5.5% -3.3%	-20.9% 0.5% -10.3% -6.4%	Armenia Azerbaijan Belarus
0 47 430 260 87	(0.2) (1.6) (4.2) (2.8) (2.6)	0 15 460 200 80	(0.2) (0.5) (4.5) (2.2) (2.5)	0 24 480 200 74	(0.8) (4.7) (2.2) (2.3)	0 10 490 190 68	(0.3) (4.7) (2.1) (2.1)	-27.0% -5.5% -3.3% -6.9%	-20.9% 0.5% -10.3% -6.4% -10.5%	Armenia Azerbaijan Belarus Bosnia and Herzegovina
0 47 430 260 87 83	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1)	0 15 460 200 80 64	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9)	0 24 480 200 74 75	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1)	0 10 490 190 68	(0.3) (4.7) (2.1) (2.1) (1.7)	-27.0% -5.5% -3.3% -6.9% -18.2%	-20.9% 0.5% -10.3% -6.4% -10.5%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia
0 47 430 260 87 83 8	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6)	0 15 460 200 80 64	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8)	0 24 480 200 74 75 22	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8)	0 10 490 190 68 67 22	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8)	-27.0% -5.5% -3.3% -6.9% -18.2%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel
0 47 430 260 87 83 8	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1)	0 15 460 200 80 64 10 380	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9)	0 24 480 200 74 75 22 420	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1)	0 10 490 190 68 67 22 360	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan
0 47 430 260 87 83 8 410 310	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6)	0 15 460 200 80 64 10 380 330	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8)	0 24 480 200 74 75 22 420 260	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8)	0 10 490 190 68 67 22 360 270	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan
0 47 430 260 87 83 8 410 310	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6) (0.0)	0 15 460 200 80 64 10 380 330	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0)	0 24 480 200 74 75 22 420 260	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1)	0 10 490 190 68 67 22 360 270	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9% -3.6%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2% -	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco
0 47 430 260 87 83 8 410 310 0	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6) (0.0) (0.2)	0 15 460 200 80 64 10 380 330 0	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2)	0 24 480 200 74 75 22 420 260 0	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2)	0 10 490 190 68 67 22 360 270 0	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9% -3.6% -0.0%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2% - 0.0% -9.1%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro
0 47 430 260 87 83 8 410 310 0	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6) (0.0) (0.2) (1.0)	0 15 460 200 80 64 10 380 330 0	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2)	0 24 480 200 74 75 22 420 260 0 1	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5)	0 10 490 190 68 67 22 360 270 0 1	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9% -3.6% - 0.0% 3.8%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2% - 0.0% -9.1%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia
0 47 430 260 87 83 8 410 310 0 1	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0)	0 15 460 200 80 64 10 380 330 0 1 12	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6)	0 24 480 200 74 75 22 420 260 0 1 1 9	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9)	0 10 490 190 68 67 22 360 270 0 1	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9% -3.6% - 0.0% 3.8% -21.6%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2% - 0.0% -9.1%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova
0 47 430 260 87 83 8 410 310 0 1 1 20 190 7300	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0)	0 15 460 200 80 64 10 380 0 1 1 12 140 6700	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6) (4.6) (0.0)	0 24 480 200 74 75 22 420 260 0 1 1 9 65 5700	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0)	0 10 490 190 68 67 22 360 270 0 1 1 9 61 5200	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9% -3.66% -0.0% 3.88% -21.6% -10.1%	-20.9% -0.5% -10.3% -6.4% -10.5% 2.6% -11.1% 	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino
0 47 430 260 87 83 8 410 310 0 1 1 20 190 7300 0 46	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0)	0 15 460 200 80 64 10 380 0 1 1 12 140 6700 0 38	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6) (4.6) (0.0) (0.6)	0 24 480 200 74 75 22 420 260 0 1 1 9 65 5700 0	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0) (0.5)	0 10 490 190 68 67 22 360 270 0 1 1 9 61 5200 0	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0) (0.4)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9% -3.6% -0.0% 3.8% -21.6% -10.1%	-20.9% -0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2% -9.1% -9.1% -15.8% -11.7% -12.5%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia
0 47 430 260 87 83 8 410 310 0 1 20 190 7300 0 46	(0.2) (1.6) (4.2) (2.8) (2.6) (0.1) (2.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0) (0.7) (0.2)	0 15 460 200 80 64 10 380 330 0 1 12 140 6700 0 38	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (4.6) (6.0) (0.6) (0.2)	0 24 480 200 74 75 22 420 260 0 1 9 65 5700 0 32	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0) (0.5)	0 10 490 190 68 67 22 360 270 0 1 1 9 61 5200 0	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0) (0.4) (0.2)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.19% -6.9% -3.6% -0.0% 3.88% -21.6% -10.1% 	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2% -0.0% -9.1% -15.8% -11.7% 	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Switzerland
0 47 430 260 87 83 8 410 310 0 1 1 20 190 7300 0 46 14	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0) (0.7) (0.2) (7.9)	0 15 460 200 80 64 10 380 330 0 1 12 140 6700 0 38 16	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6) (4.6) (0.0) (0.6) (0.2) (7.9)	0 24 480 200 74 75 22 420 260 0 1 1 9 65 5700 0 32 18	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0) (0.5) (0.2) (7.9)	0 10 490 190 68 67 22 360 270 0 1 1 9 61 5200 0 27 18	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0) (0.4) (0.2) (7.4)	-27.0% -5.5% -3.3% -6.9% -18.2% -1.1% -6.9% -3.6% -0.0% -3.88% -21.6% -10.1%14.5% -18.9% -1.6%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2% -9.1% -15.8% -11.7%12.5% 3.2% -2.7%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Switzerland Tajikistan
0 47 430 260 87 83 8 410 310 0 11 20 190 7300 0 46 14 770 400	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0) (0.7) (0.2) (7.9) (0.5)	0 15 460 200 80 64 10 380 330 0 1 12 140 6700 0 38 16	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6) (4.6) (0.0) (0.6) (0.2) (7.9) (0.4)	0 24 480 200 74 75 22 420 260 0 1 1 9 65 5700 0 32 18 800 340	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0) (0.5) (0.2) (7.9) (0.4)	0 10 490 190 68 67 22 360 270 0 1 1 9 61 5200 0 27 18 760	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0) (0.4) (0.2) (7.4) (0.4)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9% -3.6% -0.0% 3.88% -21.6% -10.1% 	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -71.11% -8.2% 0.0% -9.1% -15.8% -11.7%12.55% 3.2% -2.7% -7.7%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye
0 47 430 260 87 83 8 410 310 0 1 1 20 190 7300 0 46 14 770 400 710	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0) (0.7) (0.2) (7.9) (0.5)	0 15 460 200 80 64 10 380 330 0 1 12 140 6700 0 38 16 790 370	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6) (4.6) (0.0) (0.6) (0.2) (7.9) (0.4) (10.0)	0 24 480 200 74 75 22 420 260 0 1 1 9 65 5700 0 32 18 800 340 740	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0) (0.5) (0.2) (7.9) (0.4) (10.0)	0 10 490 190 68 67 22 360 270 0 1 9 61 5200 0 27 18 760 320 750	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0) (0.4) (0.2) (7.4) (0.4)	-27.0% -5.5% -3.3% -6.9% -18.2% 1.1% -6.9% -3.6% - 0.0% 3.88% -21.6% -10.1%14.5% 18.9% -1.6% -6.9% 0.0%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2% - 0.0% -9.1% -15.8% -11.7%12.5% 3.2% -2.7% -7.7%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan
0 47 430 260 87 83 8 410 310 0 1 1 20 190 7300 0 46 14 770 400 710 3200	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0) (0.7) (0.2) (7.9) (0.5) (10.0) (7.1)	0 15 460 200 80 64 10 380 330 0 1 1 12 140 6700 0 38 16 790 370 720	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6) (4.6) (0.0) (0.6) (0.2) (7.9) (0.4) (10.0) (7.0)	0 24 480 200 74 75 22 420 260 0 1 1 9 65 5700 0 32 18 800 340 740 2900	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0) (0.5) (0.1) (0.9) (0.1) (0.9) (0.1) (0.9) (0.1) (0.9) (0.1) (0.9) (0.1) (0.9) (0.1) (0.9) (0.1) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9) (0.9)	0 10 490 190 68 67 22 360 270 0 1 1 9 61 5200 0 27 18 760 320 750 2600	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0) (0.4) (0.2) (7.4) (0.4) (10.0) (7.0)	-27.0% -5.5% -3.3% -6.9% -18.2% -1.1% -6.9% -3.6% -0.0% -3.88% -21.6% -10.1%14.5% -18.9% -1.6% -6.9% -0.0% -4.5%	-20.9% 0.5% -10.3% -6.4% -10.5% 2.6% -11.1% -8.2% - 0.0% -9.1% -15.8% -11.7%12.5% 3.2% -7.7% 0.0% -5.8%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan Ukraines
0 47 430 260 87 83 8 410 310 0 1 1 20 190 7300 0 46 14 770 400 710 3200 230	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0) (0.7) (0.2) (7.9) (0.5) (10.0) (7.1) (0.3)	0 15 460 200 80 64 10 380 330 0 1 1 12 140 6700 0 38 16 790 370 720 3100 230	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6) (4.6) (0.0) (0.6) (0.2) (7.9) (0.4) (10.0) (7.0) (0.3)	0 24 480 200 74 75 22 420 260 0 1 1 9 65 5700 0 32 18 800 340 740 2900 230	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0) (0.5) (0.2) (7.9) (0.4) (10.0) (7.0) (0.3)	0 10 490 190 68 67 22 360 270 0 1 1 9 61 5200 0 27 18 760 320 750 2600 240	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0) (0.4) (0.2) (7.4) (10.0) (7.0) (0.3)	-27.0% -5.5% -3.3% -6.9% -18.2% -1.1% -6.9% -3.66% -0.0% -3.88% -21.66% -10.1%14.5% -18.9% -6.9% -6.9% -6.9% -0.0% -4.5% -0.0%	-20.9%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan Ukraines United Kingdom
0 47 430 260 87 83 8 410 310 0 1 1 20 190 7300 0 46 14 770 400 710 3200 230 850	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (2.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0) (0.7) (0.2) (7.9) (0.5) (10.0) (7.1) (0.3) (2.5)	0 15 460 200 80 64 10 380 330 0 1 1 12 140 6700 0 38 16 790 370 720 3100 230 690	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6) (4.6) (0.0) (0.6) (0.2) (7.9) (0.4) (10.0) (7.0) (0.3) (2.0)	0 24 480 200 74 75 22 420 260 0 1 1 9 65 5700 0 32 18 800 340 740 2900 230 560	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0) (0.5) (0.2) (7.9) (0.4) (10.0) (7.0) (0.3) (1.6)	0 10 490 190 68 67 22 360 270 0 1 1 9 61 5200 0 27 18 760 320 750 2600 240 450	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0) (0.4) (0.2) (7.4) (0.4) (10.0) (7.0) (0.3) (1.3)	-27.0% -5.5% -3.3% -6.9% -18.2% -1.1% -6.9% -3.6% -21.6% -10.1% -14.5% -1.6% -6.9% -6.9% -4.5% -0.0% -21.4%	-20.9%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan Ukraine <sup>c</sup> United Kingdom Uzbekistan
0 47 430 260 87 83 8 410 310 0 1 1 20 190 7300 0 46 14 770 400 710 3200 230	(0.2) (1.6) (4.2) (2.8) (2.6) (2.2) (0.1) (4.6) (0.0) (0.2) (1.0) (6.3) (5.0) (0.0) (0.7) (0.2) (7.9) (0.5) (10.0) (7.1) (0.3)	0 15 460 200 80 64 10 380 330 0 1 1 12 140 6700 0 38 16 790 370 720 3100 230	(0.2) (0.5) (4.5) (2.2) (2.5) (1.7) (0.1) (1.9) (4.8) (0.0) (0.2) (0.7) (4.6) (4.6) (0.0) (0.6) (0.2) (7.9) (0.4) (10.0) (7.0) (0.3)	0 24 480 200 74 75 22 420 260 0 1 1 9 65 5700 0 32 18 800 340 740 2900 230	(0.8) (4.7) (2.2) (2.3) (2.0) (0.2) (2.1) (3.8) (0.1) (0.2) (0.5) (2.1) (3.9) (0.0) (0.5) (0.2) (7.9) (0.4) (10.0) (7.0) (0.3)	0 10 490 190 68 67 22 360 270 0 1 1 9 61 5200 0 27 18 760 320 750 2600 240	(0.3) (4.7) (2.1) (2.1) (1.7) (0.2) (1.8) (3.8) (0.1) (0.2) (0.5) (2.0) (3.6) (0.0) (0.4) (0.2) (7.4) (10.0) (7.0) (0.3)	-27.0% -5.5% -3.3% -6.9% -18.2% -1.1% -6.9% -3.66% -0.0% -3.88% -21.66% -10.1%14.5% -18.9% -6.9% -6.9% -6.9% -0.0% -4.5% -0.0%	-20.9%	Armenia Azerbaijan Belarus Bosnia and Herzegovina Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan Ukraines United Kingdom

Table II. Estimated TB incidence per 100 000 population, European Region, 2014–2023

	20	14	20	15	20	16	20	17	20	18	20	19	
Country	N	Rate per	N	Rate per	N	Rate per 100 000	N	Rate per	N	Rate per 100 000	N	Rate per 100 000	
EU/EEA													
Austria	650	(7.6)	650	(7.5)	710	(8.1)	650	(7.3)	540	(6.1)	530	(6.0)	
Belgium	1000	(9.1)	1100	(9.5)	1100	(10.0)	1100	(9.3)	1000	(9.2)	1000	(9.0)	
Bulgaria	2300	(32.0)	2000	(28.0)	1900	(27.0)	1800	(25.0)	1600	(23.0)	1600	(23.0)	
Croatia	570	(14.0)	560	(13.0)	520	(12.0)	420	(10.0)	420	(10.0)	340	(8.6)	
Cyprus	45	(3.7)	72	(5.9)	66	(5.3)	60	(4.8)	59	(4.6)	76	(5.9)	
Czechia	550	(5.2)	580	(5.6)	590	(5.6)	570	(5.4)	500	(4.7)	530	(5.0)	
Denmark	340	(6.0)	370	(6.5)	340	(5.9)	290	(5.0)	310	(5.4)	300	(5.1)	
Estonia	270	(21.0)	240	(18.0)	220	(16.0)	200	(15.0)	170	(13.0)	170	(13.0)	
Finland	290	(5.3)	310	(5.6)	260	(4.7)	270	(4.9)	260	(4.8)	260	(4.7)	
France	5500	(8.5)	5400	(8.4)	5700	(8.7)	5900	(9.0)	5800	(8.8)	5900	(9.0)	
Germany	4800	(5.9)	6200	(7.6)	6300	(7.6)	5900	(7.1)	5800	(6.9)	5100	(6.1)	
Greece	560	(5.1)	500	(4.7)	470	(4.3)	500	(4.6)	470	(4.4)	500	(4.7)	
Hungary	920	(9.3)	990	(10.0)	850	(8.6)	750	(7.6)	690	(7.1)	610	(6.2)	
Iceland	9	(2.8)	8	(2.4)	7	(2.1)	15	(4.4)	9	(2.6)	15	(4.1)	
Ireland	340	(7.3)	340	(7.2)	340	(7.1)	350	(7.2)	340	(6.9)	280	(5.8)	
Italy	3800	(6.3)	4000	(6.6)	4300	(7.2)	4400	(7.3)	4300	(7.2)	3700	(6.1)	
Latvia	850	(43.0)	800	(41.0)	740	(38.0)	620	(32.0)	540	(28.0)	460	(24.0)	
Liechtenstein <sup>a</sup>	-	-	-	-	-	-	-	-	-	-	-	-	
Lithuania	1700	(58.0)	1600	(55.0)	1500	(54.0)	1500	(52.0)	1200	(44.0)	1200	(41.0)	
Luxembourg	28	(5.0)	34	(6.1)	33	(5.7)	37	(6.2)	48	(7.9)	55	(8.9)	
Malta	52	(12.0)	37	(8.3)	58	(13.0)	48	(10.0)	63	(13.0)	110	(22.0)	
Netherlands	940	(5.5)	980	(5.7)	1000	(5.9)	890	(5.2)	910	(5.2)	860	(4.9)	
Norway	350	(6.8)	330	(6.3)	320	(6.1)	270	(5.2)	220	(4.1)	180	(3.3)	
Poland	7500	(20.0)	7200	(19.0)	7100	(18.0)	6400	(17.0)	6000	(16.0)	5700	(15.0)	
Portugal	2500	(24.0)	2400	(23.0)	2100	(20.0)	2000	(20.0)	2100	(21.0)	2000	(19.0)	
Romania	17000	(86.0)	16000	(82.0)	15 000	(74.0)	14 000	(72.0)	13 000	(68.0)	13 0 0 0	(65.0)	
Slovakia	370	(6.8)	350	(6.5)	320	(6.0)	260	(4.8)	310	(5.8)	250	(4.5)	
Slovenia	160 5500	(7.9) (12.0)	150 4600	(7.2) (9.9)	140	(6.6) (12.0)	130	(6.2) (11.0)	110 5200	(5.4) (11.0)	110	(5.4) (9.9)	
Spain Sweden	730	(7.5)	900	(9.9)	5 400 810	(8.1)	5000 560	(5.6)		(5.4)	4700 550	(5.3)	
Subtotal EU/EEA	60000	(13.4)	59000	(13.1)	58000	(12.9)	55 000	(12.2)	550 <b>53000</b>	(11.7)	50000	(11.0)	
Non-EU/EEA	00000	(13.4)	37000	(13.1)	36000	(12.7)	33 000	(12.2)	33000	(11./)	30000	(11.0)	
Albania	470	(16.0)	480	(17.0)	480	(17.0)	580	(20.0)	510	(18.0)	470	(16.0)	
Andorra	7	(9.4)	5	(6.4)	5	(6.4)	1	(1.6)	2	(3.1)	6	(7.5)	
Armenia	1700	(57.0)	1500	(50.0)	1300	(44.0)	1000	(36.0)	900	(31.0)	760	(26.0)	
Azerbaijan	7300	(76.0)	6900	(71.0)	6500	(66.0)	6600	(66.0)	6400	(63.0)	6100	(60.0)	
Belarus	4800	(51.0)	4700	(50.0)	4000	(42.0)	3500	(37.0)	3000	(31.0)	2800	(29.0)	
Bosnia and Herzegovina	1500	(43.0)	1400	(40.0)	1200	(33.0)	980	(29.0)	850	(25.0)	910	(27.0)	
Georgia	4000	(106.0)	3800	(99.0)	3500	(92.0)	3300	(86.0)	3000	(80.0)	2800	(74.0)	
Israel	420	(5.3)	320	(4.0)	290	(3.5)	270	(3.2)	340	(3.9)	250	(2.9)	
Kazakhstan	16 000	(91.0)	15 000	(81.0)	13 000	(73.0)	13 000	(69.0)	13 000	(67.0)	13 0 0 0	(68.0)	
Kyrgyzstan	7400	(126.0)	8100	(136.0)	8100	(133.0)	7700	(124.0)	7300	(116.0)	7100	(110.0)	
Monaco	0	(0.0)	0	(0.0)	2	(6.2)	0	(0.0)	1	(3.0)	0	(0.0)	
Montenegro	130	(21.0)	92	(15.0)	100	(16.0)	85	(14.0)	95	(15.0)	90	(15.0)	
North Macedonia	340	(17.0)	340	(17.0)	310	(16.0)	250	(13.0)	250	(13.0)	230	(12.0)	
Republic of Moldova	3800	(115.0)	3400	(102.0)	3300	(101.0)	3000	(95.0)	2700	(86.0)	2500	(80.0)	
Russian Federation	101 000	(70.0)	97000	(67.0)	92 000	(63.0)	86000	(59.0)	80000	(54.0)	73 000	(50.0)	
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	
Serbia	1700	(23.0)	1500	(21.0)	1400	(19.0)	1300	(19.0)	1200	(17.0)	1000	(14.0)	
Switzerland	490	(5.9)	610	(7.4)	660	(7.9)	610	(7.2)	540	(6.4)	460	(5.4)	
Tajikistan	7700	(91.0)	7400	(86.0)	7600	(85.0)	7700	(85.0)	7800	(84.0)	7900	(83.0)	
Türkiye	15 000	(20.0)	15 000	(18.0)	14 000	(18.0)	14 000	(17.0)	14000	(16.0)	13 0 0 0	(16.0)	
Turkmenistan	3500	(58.0)	3100	(49.0)	2900	(46.0)	2800	(43.0)	3100	(46.0)	3000	(45.0)	
Ukraine <sup>b</sup>	43 000	(94.0)	42 000	(91.0)	40000	(87.0)	38000	(84.0)	36000	(80.0)	35000	(77.0)	
	7400	(11.0)	6600	(10.0)	6500	(9.9)	5900	(8.9)	5400	(8.0)	5400	(8.1)	
United Kingdom						()		(70.0)		(70.0)		()	
Uzbekistan	25 000	(82.0)	24 000	(79.0)	24000	(76.0)	23 000	(73.0)	23 000	(70.0)	22 000	(67.0)	
	25 000 253 000 314 000	(82.0) (54.5) (34.4)	24 000 243 000 301 000	(79.0) (51.9) (32.8)	24 000 231 000 289 000	(76.0) (48.9) (31.3)	23 000 220 000 275 000	(46.3) (29.7)	23 000 209 000 261 000	(43.7) (28.0)	198 000 248 000	(67.0) (41.1) (26.5)	

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

Liechtenstein data is presented under Switzerlands data.

There are uncertainties associated with the UN Population Division population estimates for Ukraine. Estimated TB burden rates per 100 000 population for Ukraine should not be used to evaluate the effectiveness of the national TB programme.

202	20	20	21	20:	22	20:	23	Mean annual	Mean annual	
N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	% change in rate, 2019–2023	% change in rate, 2014–2023	Country
										EU/EEA
440	(4.9)	450	(5.0)	420	(4.6)	470	(5.2)	-3.5%	-4.1%	Austria
890	(7.8)	940	(8.1)	900	(7.8)	880	(7.5)	-4.5%	-2.1%	Belgium
1100	(16.0)	840	(12.0)	950	(14.0)	1100	(16.0)	-8.7%	-7.4%	Bulgaria
200	(5.1)	180	(4.5)	240	(6.1)	140	(3.5)	-20.1%	-14.3%	Croatia
39	(3.0)	55	(4.2)	110	(8.1)	74	(5.5)	-1.7%	4.5%	Cyprus
410	(3.9)	400	(3.8)	440	(4.1)	520	(4.8)	-1.0%	-0.9%	Czechia
240	(4.1)	220	(3.8)	240	(4.0)	220	(3.6)	-8.3%	-5.5%	Denmark
140	(10.0)	120	(9.2)	140	(11.0)	110	(8.2)	-10.9%	-9.9%	Estonia
200	(3.6)	200	(3.5)	220	(3.9)	190	(3.4)	-7.8%	-4.8%	Finland
5300	(8.1)	4900	(7.4)	4600	(7.0)	5500	(8.3)	-2.0%	-0.3%	France
4400	(5.3)	4200	(5.0)	4300	(5.1)	4100	(4.8)	-5.8%	-2.3%	Germany
440	(4.1)	220	(2.1)	350	(3.3)	540	(5.2)	2.6%	0.2%	Greece
440	(4.5)	360	(3.7)	500	(5.2)	570	(5.9)	-1.2%		Hungary
14	(3.8)	8	(2.2)	18	(4.8)	12	(3.2)	-6.0%		Iceland
260	(5.3)	240	(4.8)	230	(4.4)	240	(4.6)	-5.6%		Ireland
2500	(4.2)	2700	(4.6)	2600	(4.4)	2600	(4.4)	-7.8%	-3.9%	
370	(20.0)	290	(16.0)	350	(19.0)	300	(16.0)	-9.6%	-10.4%	
-	(20.0)	_	-	-	-	-	-	7.070		Liechtensteina
790	(28.0)	720	(26.0)	830	(30.0)	810	(28.0)	-9.1%		Lithuania
37	(5.8)	39	(6.1)	54	(8.3)	48	(7.3)	-4.8%		Luxembourg
160	(31.0)	62	(12.0)	69	(13.0)	78	(15.0)	-9.1%		Malta
710	(4.0)	770	(4.4)	720	(4.0)	820	(4.5)	-2.1%		Netherlands
170	(3.1)	160	(3.0)	170	(3.2)	160	(2.9)	-3.2%		Norway
3600	(9.5)	4000	(10.0)	4600	(12.0)	3900	(10.0)	-9.6%		Poland
1600	(16.0)	1700	(16.0)	1700	(16.0)	1600	(16.0)	-4.2%		Portugal
8300	(43.0)	8700	(45.0)	10 000	(53.0)	10000	(55.0)	-4.1%		Romania
180	(3.2)	150	(2.8)	160	(3.0)	240	(4.3)	-1.1%		Slovakia
86	(4.1)	91	(4.3)	83	(3.9)	98	(4.6)	-3.9%		Slovenia
3400	(7.1)	3900	(8.1)	3000	(6.2)	2800	(5.9)	-12.1%		Spain
360	(3.5)	400	(3.8)	410	(3.9)	390	(3.7)	-8.6%		Sweden
37000	(8.2)	37000	(8.2)	38000	(8.4)	39000	(8.5)	-6.2%		Subtotal EU/EEA
37000	(0.2)	37000	(0.2)	36000	(0.4)	37000	(0.3)	-0.270	-4.7/0	Non-EU/EEA
450	(16.0)	440	(15.0)	430	(15.0)	430	(15.0)	-1.6%	-0.7%	Albania
2	(3.0)	2	(2.9)	5	(5.8)	5	(5.7)	-6.6%		Andorra
730	(25.0)	720	(25.0)	720	(25.0)	720	(25.0)	-1.0%		Armenia
5900	(58.0)				(68.0)	7400	(72.0)	4.7%		
		6400	(62.0) (28.0)	7000						Azerbaijan
2600	(28.0)	2600		2500	(28.0)	2500	(27.0)	-1.8%		Belarus
840 2600	(26.0) (69.0)	810 2400	(25.0) (64.0)	780	(24.0) (60.0)	750 2100	(24.0) (55.0)	-2.9% -7.1%		Bosnia and Herzegovina Georgia
				2300						-
180 13000	(2.1)	240	(2.7)	230	(2.6) (72.0)	260 14 <i>000</i>	(2.8)	-0.9% 0.7%	-6.8%	Kazakhstan
	(67.0)	14 0 0 0 7 6 0 0	(71.0)	14000	(112.0)		(70.0)			
7100	(107.0)	7600	(111.0)	7800		7900	(112.0)	0.5%		Kyrgyzstan
	(0.0)	0	(0.0)	0	(1.0)	0	(1.0)	-1 70/		Monaco
88 220	(15.0)	210	(14.0)	88	(14.0)	90	(14.0)	-1.7%		Montenegro
220	(12.0)	210	(11.0)	200	(11.0)	190	(10.0)	-4.5%		North Macedonia Republic of Moldova
		2200	(77.01	2200						KENTINIII DI MOTOLOVO
2400	(78.0)	2300	(77.0)	2300	(77.0)	2300	(76.0)	-1.3%		
2400 71000	(78.0) (49.0)	69000	(47.0)	56000	(39.0)	55000	(38.0)	-6.6%	-6.6%	Russian Federation
2400 71000 0	(78.0) (49.0) (0.0)	69000 0	(47.0) (0.0)	56000 0	(39.0)	55 0 0 0	(38.0) (0.0)	-6.6% -	-6.6% -	Russian Federation San Marino
2400 71000 0 990	(78.0) (49.0) (0.0) (14.0)	69000 0 960	(47.0) (0.0) (14.0)	56000 0 940	(39.0) (0.0) (14.0)	55000 0 930	(38.0) (0.0) (14.0)	-6.6% - 0.0%	-6.6% - -5.4%	Russian Federation San Marino Serbia
2400 71000 0 990 400	(78.0) (49.0) (0.0) (14.0) (4.7)	69000 0 960 410	(47.0) (0.0) (14.0) (4.7)	56000 0 940 400	(39.0) (0.0) (14.0) (4.5)	55000 0 930 470	(38.0) (0.0) (14.0) (5.4)	-6.6% - 0.0% 0.0%	-6.6% - -5.4% -1.0%	Russian Federation San Marino Serbia Switzerland
2400 71000 0 990 400 7900	(78.0) (49.0) (0.0) (14.0) (4.7) (81.0)	69000 0 960 410 8000	(47.0) (0.0) (14.0) (4.7) (80.0)	56000 0 940 400 8100	(39.0) (0.0) (14.0) (4.5) (80.0)	55000 0 930 470 8200	(38.0) (0.0) (14.0) (5.4) (79.0)	-6.6% - 0.0% 0.0% -1.2%	-6.6% - -5.4% -1.0% -1.6%	Russian Federation San Marino Serbia Switzerland Tajikistan
2400 71000 0 990 400 7900 13000	(78.0) (49.0) (0.0) (14.0) (4.7) (81.0) (15.0)	69000 0 960 410 8000 12000	(47.0) (0.0) (14.0) (4.7) (80.0) (14.0)	56000 0 940 400 8100 12000	(39.0) (0.0) (14.0) (4.5) (80.0) (14.0)	55000 0 930 470 8200 12000	(38.0) (0.0) (14.0) (5.4) (79.0) (13.0)	-6.6% - 0.0% 0.0% -1.2% -5.1%	-6.6% - -5.4% -1.0% -1.6% -4.7%	Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye
2400 71000 0 990 400 7900 13 000 3200	(78.0) (49.0) (0.0) (14.0) (4.7) (81.0) (15.0) (46.0)	69000 0 960 410 8000 12000 3400	(47.0) (0.0) (14.0) (4.7) (80.0) (14.0) (47.0)	56000 0 940 400 8100 12000 3500	(39.0) (0.0) (14.0) (4.5) (80.0) (14.0) (48.0)	55000 0 930 470 8200 12000 3600	(38.0) (0.0) (14.0) (5.4) (79.0) (13.0) (49.0)	-6.6% - 0.0% 0.0% -1.2% -5.1% 2.2%	-6.6% - -5.4% -1.0% -1.6% -4.7% -1.9%	Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan
2400 71000 0 990 400 7900 13000 3200 33000	(78.0) (49.0) (0.0) (14.0) (4.7) (81.0) (15.0) (46.0) (75.0)	69000 0 960 410 8000 12000 3400 37000	(47.0) (0.0) (14.0) (4.7) (80.0) (14.0) (47.0) (85.0)	56000 0 940 400 8100 12000 3500 41000	(39.0) (0.0) (14.0) (4.5) (80.0) (14.0) (48.0) (99.0)	55000 0 930 470 8200 12000 3600 42000	(38.0) (0.0) (14.0) (5.4) (79.0) (13.0) (49.0) (112.0)	-6.6% - 0.0% 0.0% -1.2% -5.1% 2.2% 9.8%	-6.6% - -5.4% -1.0% -1.6% -4.7% -1.9% 2.0%	Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan Ukraine <sup>b</sup>
2400 71000 0 990 400 7900 13000 3200 33000 4700	(78.0) (49.0) (0.0) (14.0) (4.7) (81.0) (15.0) (46.0) (75.0)	69000 0 960 410 8000 12000 3400 37000 5400	(47.0) (0.0) (14.0) (4.7) (80.0) (14.0) (47.0) (85.0) (8.0)	56000 0 940 400 8100 12000 3500 41000 5300	(39.0) (0.0) (14.0) (4.5) (80.0) (14.0) (48.0) (99.0) (7.8)	55000 0 930 470 8200 12000 3600 42000 5200	(38.0) (0.0) (14.0) (5.4) (79.0) (13.0) (49.0) (112.0) (7.6)	-6.6% - 0.0% 0.0% -1.2% -5.1% 2.2% 9.8% -1.6%	-6.6%  -5.4% -1.0% -1.6% -4.7% -1.9% -2.0% -4.0%	Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan Ukraine <sup>b</sup> United Kingdom
2400 71000 0 990 400 7900 13000 3200 33000 4700 22000	(78.0) (49.0) (0.0) (14.0) (4.7) (81.0) (15.0) (46.0) (75.0) (70.0) (65.0)	69000 0 960 410 8000 12000 3400 37000 5400 21000	(47.0) (0.0) (14.0) (4.7) (80.0) (14.0) (47.0) (85.0) (8.0) (62.0)	56000 0 940 400 8100 12000 3500 41000 5300 21000	(39.0) (0.0) (14.0) (4.5) (80.0) (14.0) (48.0) (99.0) (7.8) (60.0)	55000 0 930 470 8200 12000 3600 42000 5200 20000	(38.0) (0.0) (14.0) (5.4) (79.0) (13.0) (49.0) (112.0) (7.6) (57.0)	-6.6% 	-6.6%5.4% -1.0% -1.6% -4.7% -1.9% -2.0% -4.0%	Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan Ukraine <sup>b</sup> United Kingdom Uzbekistan
2400 71000 0 990 400 7900 13000 3200 33000 4700	(78.0) (49.0) (0.0) (14.0) (4.7) (81.0) (15.0) (46.0) (75.0)	69000 0 960 410 8000 12000 3400 37000 5400	(47.0) (0.0) (14.0) (4.7) (80.0) (14.0) (47.0) (85.0) (8.0)	56000 0 940 400 8100 12000 3500 41000 5300	(39.0) (0.0) (14.0) (4.5) (80.0) (14.0) (48.0) (99.0) (7.8)	55000 0 930 470 8200 12000 3600 42000 5200	(38.0) (0.0) (14.0) (5.4) (79.0) (13.0) (49.0) (112.0) (7.6)	-6.6% - 0.0% 0.0% -1.2% -5.1% 2.2% 9.8% -1.6%	-6.6%5.4% -1.0% -1.6% -4.7% -2.0% -4.0% -4.0% -3.8%	Russian Federation San Marino Serbia Switzerland Tajikistan Türkiye Turkmenistan Ukraine <sup>b</sup> United Kingdom

Table III. New and relapse TB cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2014-2023

	20	14	20	15	20	16	20	17	20	18	20	19
Country	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000
EU/EEA												
Austria	567	6.7	564	6.6	619	7.1	561	6.4	470	5.3	464	5.2
Belgium	878	7.9	919	8.2	982	8.7	911	8.0	910	8.0	890	7.8
Bulgaria	1825	25.2	1619	22.5	1525	21.3	1408	19.8	1290	18.3	1288	18.4
Croatia	498	11.7	485	11.5	452	10.8	372	9.0	364	8.9	297	7.3
Cyprus	39	4.5	63	7.4	57	6.7	52	6.1	51	5.9	66	7.5
Czechia	472	4.5	507	4.8	511	4.8	495	4.7	434	4.1	455	4.3
Denmark	293	5.2	320	5.7	292	5.1	253	4.4	270	4.7	263	4.5
Estonia	237	18.0	206	15.7	188	14.3	172	13.1	145	11.0	147	11.1
Finland	257	4.7	270	4.9	223	4.1	241	4.4	226	4.1	225	4.1
France	4888	7.4	4 457	6.7	5446	8.2	5006	7.5	4760	7.1	4924	7.3
Germany	4350	5.4	5626	6.9	5739	7.0	5369	6.5	5331	6.4	4656	5.6
Greece	484	4.4	438	4.0	417	3.9	434	4.0	406	3.8	434	4.0
Hungary	799	8.1	858	8.7	737	7.5	650	6.6	602	6.2	528	5.4
Iceland	9	2.8	7	2.1	6	1.8	13	3.8	8	2.3	13	3.6
Ireland	289	6.2	265	5.7	290	6.1	283	5.9	288	6.0	236	4.8
taly	3663	6.0	3 4 7 6	5.7	3778	6.2	3828	6.3	3777	6.2	3185	5.3
Latvia	738	36.9	697	35.1	641	32.6	543	27.8	-	-	-	-
Liechtenstein	-	-	1	2.7	2	5.3	1	2.6	1	2.6	-	-
Lithuania	1481	50.3	1395	47.8	1347	46.6	1268	44.5	1063	37.8	1006	36.0
Luxembourg	24	4.4	30	5.3	29	5.0	32	5.4	42	7.0	48	7.8
Malta	45	10.5	32	7.3	50	11.1	42	9.1	55	11.6	98	19.9
Netherlands	805	4.8	846	5.0	875	5.2	772	4.5	780	4.5	739	4.3
Norway	299	5.9	282	5.5	273	5.2	237	4.5	188	3.6	154	2.9
Poland	6539	17.2	6237	16.4	6143	16.2	5535	14.6	5196	13.7	4983	13.1
Portugal	2223	21.3	2154	20.8	1885	18.2	1870	18.1	1877	18.2	1849	18.0
Romania	14834	74.4	14215	71.5	12774	64.6	12303	62.6	11 581	59.3	11 070	57.0
Slovakia	320	5.9	308	5.7	281	5.2	228	4.2	273	5.0	214	3.9
Slovenia	142	6.9	129	6.3	118	5.7	112	5.4	98	4.7	98	4.7
Spain	4685	10.1	4818	10.4	3973	8.6	4522	9.7	4 614	9.9	4395	9.4
Sweden	625	6.5	776	8.0	691	7.0	487	4.9	474	4.7	478	4.7
Subtotal EU/EEA	52308	11.7	52 000	11.6	50344	11.2	48000	10.6	45 574	10.1	43 203	9.6
Non-EU/EEA	32300	111,	32000	1110	30344	1112	40000	1010	73317	1011	43203	7.0
Albania	408	14.1	415	14.3	415	14.3	503	17.4	440	15.2	412	14.3
Andorra	6	8.1	4	5.5	4	5.5	1	1.4	2	2.7	5	6.5
Armenia	1329	45.5	1171	40.1	1027	35.2	841	28.9	734	25.2	621	21.4
Azerbaijan	5788	60.1	5456	55.9	5159	52.3	5231	52.5	5038	50.2	4823	47.7
Belarus	3858	40.7	3765	39.7	3211	33.8	2781	29.3	2359	24.9	2207	23.4
Bosnia and Herzegovina	1196	33.5	1092	31.0	907	26.1	766	22.3	666	19.7	580	17.3
Georgia	3200	84.4	3152	83.1	2983	78.7	2597	68.5	2316	61.0	2169	57.1
Israel	361	4.6	280	3.5	250	3.0	234	2.8	292	3.4	217	2.5
Kazakhstan	15244	85.6	14006	77.4	12322	67.1	12 449	66.7	12832	67.8	12 5 0 1	65.1
Kyrgyzstan	6390	108.3	7027	117.1	7026	115.0	6687	107.5	6338	99.9	6138	94.5
Monaco	0	0.0	0	0.0	2	5.4	0	0.0	1	2.6	0	0.0
Montenegro	113	17.9	80	12.7	87	13.9	75	12.1	84	13.6	80	13.1
North Macedonia	284	14.2	282	14.2	263	13.4	216	11.1	217	11.3	199	10.5
Republic of Moldova	4058	121.4	3608	109.8	3571	110.3	3358	105.2	3022	95.8	2809	90.2
Russian Federation	102340	70.6	99590	68.5	92407	63.4	84510	57.8	78258	53.4	73 328	50.0
San Marino	0	70.0	0	- 00.3	92 407	0.0	0	0.0	0	0.0	0	0.0
Serbia	1818	25.2	1649	23.0	1472	20.7	1450	20.5	1330	18.9	1106	15.9
Serbia excluding Kosovo¹												
Kosovo <sup>1</sup>	984 834	13.8	879 770	12.4 43.5	755 717	10.7	738 712	10.5 39.9	641 689	9.1 38.5	501	7.2 33.8
Switzerland	423	44.8	531	6.4	573	40.4 6.8	529	6.3		5.6	605 402	4.7
Tajikistan	5807	5.2 68.9	5894	68.2	5965	67.3	5895	64.9	473 5726	61.5		60.4
Türkiye	13108		12 550		12186			14.2		13.7	5755 11 247	
Turkmenistan		16.8		15.7		14.9	11821		11 576		11247	13.2
	2537	41.8	2191	35.2	2068	32.5	1968	30.2	2157	32.4	2117	31.1
Ukraine	31701	69.0	30151	65.9	29 052	63.7	27229	59.9	26512	58.6	25379	56.5
United Kingdom	6622	10.2	5854	9.0	5793	8.8	5248	7.9	4775	7.2	4803	7.2
Uzbekistan	18345 <b>224936</b>	60.7	16315	53.1	16 050	51.3	16842	52.9	16413	50.7	16272	49.4
	11/1/11/26	48.5	215063	45.9	202793	43.0	191231	40.2	181561	37.9	173 170	36.0
Subtotal non-EU/EEA Total European Region	277244	30.4	267063	29.1	253137	27.4	239 231	25.8	227135	24.4	216373	23.2

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

¹ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

202	20	20:	21	20	22	20	23	Mean annual	Mean annual	
N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	% change in rate, 2019–2023	% change in rate, 2014–2023	Country
										EU/EEA
382	4.3	387	4.3	366	4.1	411	4.5	-3.6%	-4.2%	Austria
774	6.7	811	7.0	786	6.8	253	2.2	-27.4%		Belgium
887	12.8	673	9.7	764	11.2	858	13.3	-7.8%		Bulgaria
191	4.7	171	4.2	215	5.6	260	6.8	-1.9%		Croatia
34	3.8	48	5.4	94	10.4	78	8.5	3.0%		Cyprus
356	3.3	352	3.4	377	3.6	450	4.2	-0.7%		Czechia
207	3.6	200	3.4	214	3.6	174	2.9	-10.3%		Denmark
120	9.0	107	8.0	125	9.4	98	7.2	-10.3%		Estonia
174	3.1	170	3.1	187	3.4	179	3.2	-5.8%		Finland
4313	6.4	3979	5.9	4 012	5.9	4568	6.7	-2.2%		France
4069	4.9	3817	4.6	3900	4.7	4301	5.1	-2.4%		Germany
380	3.5	195	1.8	302	2.9	467	4.5	2.6%		Greece
384	3.9	314	3.2	435	4.5	493	5.1	-1.3%		Hungary
12	3.3	7	1.9	15	4.0	14	3.6	-0.2%		Iceland
219	4.4	200	4.0	188	3.7	207	3.9	-5.0%		Ireland
2163	3.6	2378	4.0	2294	3.9	2707	4.6	-3.7%	-3.0%	
-	-	255	13.5	306	16.3	-	-	-		Latvia
2	5.2	1	2.6	1	2.5	1	2.5	-		Liechtenstein
688	24.6	628	22.5	724	25.8	707	24.7	-8.9%		Lithuania
32	5.1	34	5.4	47	7.3	42	6.4	-5.0%		Luxembourg
140	27.2	54	10.5	60	11.5	68	12.5	-10.8%		Malta
613	3.5	662	3.8	633	3.6	710	4.0	-1.7%		Netherlands
142	2.6	139	2.6	152	2.8	136	2.5	-3.8%	-9.1%	Norway
3150	8.3	3446	9.1	4 0 3 7	10.7	4144	11.3	-3.7%		Poland
1477	14.3	1493	14.5	1532	14.8	1501	14.3	-5.5%		Portugal
7189	37.2	7588	39.5	8811	46.3	9122	47.9	-4.3%		Romania
153	2.8	134	2.5	142	2.6	206	3.8	-0.8%	-4.8%	Slovakia
75	3.6	79	3.7	72	3.4	85	4	-3.9%	-5.8%	Slovenia
3 483	7.4	2785	5.9	3694	7.8	3991	8.3	-3.0%	-2.1%	Spain
312	3.0	340	3.3	355	3.4	341	3.2	-8.7%	-7.4%	Sweden
32121	7.1	31447	6.9	34840	7.7	36 572	8.1	-4.2%	-4.0%	Subtotal EU/EEA
										Non-EU/EEA
240	8.4	269	9.4	292	10.3	302	10.7	-6.9%	-2.9%	Albania
2	2.6	2	2.6	4	5.0	4	4.9	-6.7%	-5.4%	Andorra
394	13.6	398	13.9	440	15.3	404	13.7	-10.5%		Armenia
3 683	36.2	3 6 6 3	35.8	3 9 8 9	38.7	3965	38.4	-5.3%		Azerbaijan
1514	16.2	1484	16.0	1670	18.2	1555	17.1	-7.6%	-9.2%	Belarus
357	10.8	362	11.2	432	13.5	444	13.9	-5.3%	-9.3%	Bosnia and Herzegovina
1671	44.0	1501	39.6	1511	39.8	1308	34.4	-11.9%		Georgia
158	1.8	213	2.4	203	2.2	227	2.5	-0.5%	-6.7%	
9603	49.3	9757	49.4	10 009	50.0	9506	46.8	-7.9%		Kazakhstan
4241	63.6	4596	67.4	4568	65.7	4183	59.1	-11.1%		Kyrgyzstan
0	0.0	0	0.0	-	-	-	-	-		Monaco
40	6.6	80	13.2	71	11.6	62	9.8	-7.0%		Montenegro
143	7.6	143	7.7	144	7.8	157	8.6	-4.9%		North Macedonia
1767	57.6	2067	68.4	2121	69.8	2164	70.6	-6.0%		Republic of Moldova
58723	40.1	56922	39.0	55906	38.4	54 6 4 3	37.6	-6.9%		Russian Federation
-	-	-	-	-	-	-	-	-		San Marino
439	6.4	445	6.5	1074	15.8	1014	15.0	-1.5%		Serbia
-	-	-	-	459	9.1	433	8.5	4.4%	-5.2%	Serbia excluding Kosovo <sup>1</sup>
439	23.4	445	24.6	615	34.9	581	34.2	0.3%	-3.0%	Kosovo¹
351	4.1	355	4.1	346	3.9	413	4.7	-0.2%		Switzerland
4148	42.5	4158	41.7	4294	42.2	4435	42.7	-8.3%		Tajikistan
8830	10.3	9047	10.4	9723	11.2	9408	10.8	-4.9%		Türkiye
1918	27.6	1878	26.5	2503	34.6	2273	30.9	-0.2%		Turkmenistan
17533	39.2	18307	41.3	18567	45.2	20 058	53.2	-1.5%		Ukraine
4185	6.2	4795	7.1	4716	6.9	5296	7.7	1.9%		United Kingdom
12111	36.1	13544	39.6	14302	40.9	13 938	39.1	-5.7%		Uzbekistan
132 051	27.3	133986	27.6	136885	28.3	135759	28.1	-6.0%		Subtotal non-EU/EEA
164172	17.5	165433	17.6	171725	18.3	172331	18.3	-5.7%		Total European Region
135 020	32.5	136573	32.8	140333	33.9	138 625	33.6	-6.1%	-5.9%	Subtotal 18 HPCs

Table IV. TB cases in children under 15 years, European Region, 2019–2023a

		2019			2020			2021			2022			2023	
Country/area	N	Percentage among all TB	Rate per 100 000	N	Percentage among all TB	Rate per 100 000	N	Percentage among all TB	Rate per 100 000	N	Percentage among all TB	Rate per 100 000	N	Percentage among all TB	Rate per 100 000
EU/EEA															
Austria	22	(4.6)	1.7	12	(3.1)	0.9	14	(3.5)	1.1	13	(3.5)	1.0	12	(2.9)	0.9
Belgium	50	(5.2)	2.6	48	(5.8)	2.5	40	(4.6)	2.1	49	(5.8)	2.5	37	(4.3)	1.9
Bulgaria	59	(4.4)	5.9	24	(2.6)	2.4	18	(2.6)	1.8	39	(4.9)	3.9	21	(2.4)	2.1
Croatia	1	(0.3)	0.2	2	(1.0)	0.3	2	(1.1)	0.3	1	(0.5)	0.2	3	(1.1)	0.5
Cyprus	2	(2.9)	1.4	0	(0.0)	0.0	0	(0.0)	0.0	2	(2.1)	1.4	3	(3.7)	2.1
Czechia	4	(0.9)	0.2	2	(0.6)	0.1	12	(3.4)	0.7	11	(2.9)	0.6	29	(6.3)	1.7
Denmark	16	(5.6)	1.7	10	(4.5)	1.0	6	(2.8)	0.6	5	(2.1)	0.5	10	(5.2)	1.1
Estonia	1	(0.7)	0.5	1	(0.8)	0.5	0	(0.0)	0.0	0	(0.0)	0.0	2	(2.0)	0.9
Finland	9	(4.0)	1.0	5	(2.9)	0.6	4	(2.4)	0.5	7	(3.7)	0.8	2	(1.1)	0.2
France	238	(4.6)	2.0	195	(4.3)	1.6	171	(4.1)	1.4	186	(4.4)	1.6	255	(5.2)	2.1
Germany	195	(4.0)	1.7	171	(4.1)	1.5	157	(4.0)	1.4	192	(4.7)	1.7	242	(5.4)	2.1
Greece	17	(3.7)	1.1	17	(4.3)	1.1	7	(3.4)	0.5	6	(1.9)	0.4	4	(0.8)	0.3
Hungary	10	(1.8)	0.7	5	(1.2)	0.4	4	(1.2)	0.3	6	(1.4)	0.4	6	(1.2)	0.4
Iceland Ireland	0	(0.0)	0.0	2	(16.7)	2.9	0	(0.0)	0.0	0	(0.0)	0.0	1 8	(6.2)	1.4 0.8
Italy	180	(5.4)	2.3	104	(2.6)	1.3	76	(0.5)	1.0	78	(2.4)	1.0	144	(5.0)	1.9
Latvia	100	(5.4)	2.5	104	(4.5)	- 1.3	5	(1.9)		5			144	(5.0)	-
Liechtenstein	_	_	-	0	(0.0)	0.0	0	(0.0)	1.7 0.0	0	(1.6)	1.7 0.0	0	(0.0)	0.0
Lithuania	27	(2.6)	6.4	13	(1.8)	3.1	13	(2.0)	3.1	15	(2.0)	3.6	34	(4.7)	8.1
Luxembourg	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(2.1)	1.0	3	(6.5)	2.9
Malta	2	(2.0)	3.0	7	(5.0)	10.1	1	(1.9)	1.4	1	(1.6)	1.4	1	(1.5)	1.4
Netherlands	48	(6.4)	1.8	19	(3.1)	0.7	26	(3.9)	1.0	19	(3.0)	0.7	21	(3.0)	0.8
Norway	4	(2.4)	0.4	10	(6.4)	1.1	4	(2.6)	0.4	6	(3.5)	0.7	7	(4.6)	0.8
Poland	81	(1.5)	1.4	39	(1.2)	0.7	37	(1.0)	0.6	42	(1.0)	0.7	51	(1.1)	0.9
Portugal	70	(3.7)	5.0	43	(2.8)	3.1	45	(2.9)	3.3	53	(3.4)	4.0	45	(2.9)	3.4
Romania	390	(3.4)	12.8	261	(3.4)	8.6	281	(3.5)	9.3	326	(3.5)	10.6	427	(4.5)	13.8
Slovakia	35	(16.4)	4.1	35	(22.2)	4.1	41	(29.9)	4.7	43	(27.7)	4.9	81	(36.7)	9.3
Slovenia	2	(2.0)	0.6	0	(0.0)	0.0	2	(2.5)	0.6	2	(2.7)	0.6	1	(1.1)	0.3
Spain	319	(7.0)	4.6	193	(5.3)	2.8	165	(4.3)	2.4	209	(5.3)	3.2	230	(5.5)	3.5
Sweden	19	(4.0)	1.0	16	(4.9)	0.9	15	(4.2)	0.8	19	(5.1)	1.0	9	(2.5)	0.5
Subtotal EU/EEA	1810	(4.0)	2.6	1240	(3.7)	1.8	1147	(3.4)	1.7	1341	(3.7)	2.0	1689	(4.3)	2.5
Non-EU/EEA															
Albania	11	(2.7)	2.1	3	(1.3)	0.6	8	(3.0)	1.6	6	(2.1)	1.2	8	(2.6)	1.7
Andorra	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
Armenia	38	(6.1)	6.4	23	(5.8)	3.9	18	(4.5)	3.1	17	(3.9)	3.0	27	(6.7)	4.7
Azerbaijan	179	(3.7)	7.5	91	(2.5)	3.8	77	(2.1)	3.3	110	(2.8)	4.7	139	(3.5)	6.0
Belarus	8	(0.4)	0.5	4	(0.3)	0.3	5	(0.3)	0.3	7	(0.4)	0.4	13	(0.8)	0.9
Bosnia and Herzegovina	3	(0.5)	0.7	1	(0.3)	0.2	1	(0.3)	0.2	0	(0.0)	0.0	1	(0.2)	0.2
Georgia	72 7	(3.3)	9.1	48	(2.9)	6.0	47	(3.1)	5.9	45	(3.0)	5.6	53	(4.1)	6.6
Israel Kazakhstan	351	(2.8)	0.3 6.3	303	(2.5)	0.2 5.3	10 300	(4.7) (3.1)	0.4 5.2	26 293	(12.8)	1.0 4.9	17 312	(7.5) (3.3)	0.7 5.2
Kyrgyzstan	305	(5.0)	14.4	180	(4.2)	8.2	239	(5.2)	10.6	333	(7.3)	14.5	271	(6.5)	11.7
Monaco	-	(5.0)	-	0	(4.2)	-	-	(3.2)	-	-	(7.5)	-	0	(0.5)	-
Montenegro	1	(1.3)	0.9	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
North Macedonia	12	(6.0)	3.7	10	(7.0)	3.1	3	(2.1)	0.9	7	(4.9)	2.2	21	(13.4)	6.7
Republic of Moldova	101	(3.6)	16.4	56	(3.2)	9.1	89	(4.3)	14.6	83	(3.9)	13.6	153	(7.1)	25.0
Russian Federation	2028	(2.8)	7.8	1627	(2.8)	6.3	1746	(3.1)	6.8	1742	(3.1)	6.8	1714	(3.1)	6.7
San Marino	0	-	0.0	-	-	-	0	-	-	0	-	-	0	-	-
Serbia	15	(1.4)	1.5	11	(2.5)	1.1	10	(2.2)	1.0	54	(5.0)	5.5	48	(4.7)	4.9
Serbia excluding Kosovo <sup>1</sup>	4	(0.7)	0.4	-	_	-	-	_	-	21	(4.6)	3.1	14	(3.2)	2.3
Kosovo¹	11	(1.8)	2.5	11	(2.5)	2.5	10	(2.2)	2.3	33	(5.4)	9.3	34	(5.9)	9.2
Switzerland	15	(3.7)	1.2	16	(4.6)	1.2	7	(2.0)	0.5	16	(4.6)	1.2	17	(4.1)	1.3
Tajikistan	404	(7.0)	11.7	240	(5.8)	6.8	231	(5.6)	6.3	257	(6.0)	6.9	273	(6.2)	7.2
Türkiye	496	(4.4)	2.5	391	(4.4)	2.0	387	(4.3)	2.0	392	(4.0)	2.0	411	(4.4)	2.2
Turkmenistan	44	(2.1)	2.1	50	(2.6)	2.3	24	(1.3)	1.1	41	(1.6)	1.8	36	(1.6)	1.5
Ukraine	585	(2.3)	8.5	382	(2.2)	5.6	463	(2.5)	6.9	452	(2.4)	7.4	639	(3.2)	11.8
United Kingdom	182	(3.8)	1.5	153	(3.7)	1.3	140	(2.9)	1.2	144	(3.1)	1.2	167	(3.2)	1.4
Uzbekistan	2190	(13.5)	22.6	1733	(14.3)	17.4	1825	(13.5)	17.7	1489	(10.4)	13.9	1504	(10.8)	13.7
Subtotal non-EU/EEA	7047	(4.1)	7.1	5326	(4.0)	5.3	5630	(4.2)	5.6	5514	(4.0)	5.5	5824	(4.3)	5.9
Total European Region	8 8 5 7	(4.1)	5.3	6566	(4.0)	3.9	6777	(4.0)	4.0	6855	(3.9)	4.1	7513	(4.3)	4.5
Subtotal 18 HPCs	7278	(4.1)	8.5	5 5 8 0	(4.1)	6.4	5908	(4.3)	6.8	5790	(4.1)	6.7	6196	(4.5)	7.2

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

For non-EU/EEA countries, new and relapse cases are included; for EU/EEA countries, all TB cases under 15 years of age are included.
This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table V. RR/MDR-TBa notification among new bacteriologically confirmed pulmonary TB cases with available DST results, European Region, 2019-2023

		2019			2020			2021			2022			2023		Mean
Country/area	N	%	Rate per 100 000	N	%	Rate per 100000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	annual % change in rate, 2019– 2023
EU/EEA																
Austria	2	(1.0)	0.0	1	(0.6)	0.0	8	(4.8)	0.1	8	(4.8)	0.1	5	(2.6)	0.1	24.9%
Belgium <sup>c</sup>	9	(2.1)	0.1	3	(0.9)	0.0	3	(0.8)	0.0	5	(1.5)	0.0	1	(2.9)	0.0	-42.6%
Bulgaria	7	(1.7)	0.1	8	(3.9)	0.1	2	(1.3)	0.0	4	(2.0)	0.1	7	(3.1)	0.1	2.1%
Croatia	1	(0.5)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(0.7)	0.0	0	(0.0)	0.0	-100.0%
Cyprus	0	(0.0)	0.0	0	(0.0)	0.0	3	(10.3)	0.3	2	(3.1)	0.2	0	(0.0)	0.0	-
Czechia	8	(2.6)	0.1	8	(3.6)	0.1	9	(3.8)	0.1	16	(6.5)	0.2	25	(7.8)	0.2	32.4%
Denmark <sup>c</sup>	3	(1.8)	0.1	1	(0.8)	0.0	1	(0.9)	0.0	7	(5.3)	0.1	2	(2.0)	0.0	-10.1%
Estonia	17	(17.0)	1.3	16	(18.0)	1.2	15	(21.1)	1.1	17	(21.8)	1.3	11	(16.2)	0.8	-11.0%
Finland	2	(1.6)	0.0	0	(0.0)	0.0	2	(2.3)	0.0	7	(6.9)	0.1	5	(6.0)	0.1	25.5%
France	27	(100.0)	0.0	18	(100.0)	0.0	21	(100.0)	0.0	26	(100.0)	0.0	40	(100.0)	0.1	9.9%
Germany	43	(2.2)	0.1	44	(2.5)	0.1	53	(3.3)	0.1	93	(5.3)	0.1	86	(4.9)	0.1	18.4%
Greece	6	(3.4)	0.1	5	(2.0)	0.0	5	(9.3)	0.0	7	(7.2)	0.1	7	(3.7)	0.1	4.7%
Hungary	8	(3.3)	0.1	6	(3.8)	0.1	7	(4.9)	0.1	13	(6.2)	0.1	14	(5.8)	0.1	15.5%
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Ireland <sup>c</sup>	1	(1.1)	0.0	1	(2.3)	0.0	0	(0.0)	0.0	8	(12.7)	0.2	2	(2.9)	0.0	16.8%
Italy	41	(2.4)	0.1	33	(2.8)	0.1	40	(2.9)	0.1	36	(3.3)	0.1	48	(3.5)	0.1	4.4%
Latvia	_	-	-	_	-	-	13	(8.5)	0.7	21	(10.4)	1.1	-	-	-	_
Liechtenstein	_	_	_	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	_
Lithuania	100	(13.8)	3.6	61	(12.6)	2.2	73	(15.7)	2.6	81	(15.1)	2.9	77	(15.3)	2.7	-6.8%
Luxembourg	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(5.9)	0.2	0.070
Malta	0	(0.0)	0.0	0	(0.0)	0.0	1	(3.7)	0.2	2	(6.5)	0.4	0	(0.0)	0.0	_
Netherlands	7	(2.3)	0.0	5	(2.0)	0.0	7	(2.7)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0%
Norway	1	(1.2)	0.0	2	(2.6)	0.0	6	(9.1)	0.0	7	(7.9)	0.0	13	(14.8)	0.0	88.5%
Poland	32	(1.0)		29	(1.4)		39			64	(2.3)		79			26.4%
			0.1			0.1	6	(1.6)	0.1	9		0.2		(2.8)	0.2	
Portugal	9	(1.2)	0.1	11	(2.0)	0.1			0.1		(1.5)	0.1	10	(2.4)	0.1	2.2%
Romania	158	(2.7)	0.8	86	(2.3)	0.4	111	(2.6)	0.6	124	(2.5)	0.7	111	(2.4)	0.6	-8.0%
Slovakia	1	(1.3)	0.0	0	(0.0)	0.0	3	(4.6)	0.1	3	(5.3)	0.1	5	(6.0)	0.1	49.7%
Slovenia	0	(0.0)	0.0	1	(1.8)	0.0	1	(1.7)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Spain	17	(1.7)	0.0	19	(1.9)	0.0	11	(2.4)	0.0	33	(2.3)	0.1	39	(2.6)	0.1	22.3%
Sweden	5	(2.1)	0.0	4	(2.4)	0.0	4	(2.3)	0.0	9	(4.4)	0.1	7	(3.6)	0.1	8.0%
Subtotal EU/EEA	505	(2.7)	0.1	362	(2.8)	0.1	444	(3.3)	0.1	603	(3.9)	0.1	595	(3.9)	0.1	5.3%
Non-EU/EEA		(==)	0.4		(0.0)	0.0	_	(0.0)	0.0		(0.0)	0.0		(0, ()	0.0	45 (0)
Albania	2	(7.7)	0.1	1	(0.8)	0.0	5	(3.2)	0.2	1	(0.6)	0.0	1	(0.6)	0.0	-15.4%
Andorra	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0.0%
Armenia	38	(16.3)	1.3	28	(14.1)	1.0	44	(21.1)	1.5	36	(15.5)	1.2	30	(16.7)	1.0	-6.1%
Azerbaijan	219	(11.5)	2.2	149	(12.0)	1.5	172	(12.2)	1.7	199	(11.9)	1.9	188	(11.7)	1.8	-4.2%
Belarus	561	(37.7)	5.9	401	(39.5)	4.3	390	(37.8)	4.2	499	(41.5)	5.4	405	(36.3)	4.4	-7.0%
Bosnia and Herzegovina	1	(0.3)	0.0	0	(0.0)	0.0	1	(0.4)	0.0	1	(0.3)	0.0	0	(0.0)	0.0	-100.0%
Georgia	165	(12.1)	4.3	114	(10.7)	3.0	101	(10.6)	2.7	105	(10.7)	2.8	77	(8.8)	2.0	-17.4%
Israel	9	(8.6)	0.1	5	(5.6)	0.1	9	(8.7)	0.1	11	(10.9)	0.1	8	(6.7)	0.1	-4.5%
Kazakhstan	1534	(27.0)	8.0	1758	(36.2)	9.0	1932	(37.7)	9.8	1967	(33.5)	9.8	1709	(31.2)	8.4	1.3%
Kyrgyzstan	700	(29.5)	10.8	493	(28.3)	7.4	500	(25.9)	7.3	487	(23.3)	7.0	438	(20.9)	6.2	-12.9%
Monaco	-	-	-	0	-	-	-	_	-	-	_	-	-	-	-	-
Montenegro	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0.0%
North Macedonia	1	(0.8)	0.1	1	(1.2)	0.1	1	(1.0)	0.1	2	(1.9)	0.1	2	(2.7)	0.1	20.0%
Republic of Moldova	441	(32.9)	14.2	218	(26.0)	7.1	256	(25.8)	8.5	238	(21.7)	7.8	270	(24.3)	8.8	-11.2%
Russian Federation	9246	(35.3)	6.3	7657	(36.3)	5.2	7707	(36.0)	5.3	8 0 2 3	(36.5)	5.5	7350	(34.9)	5.1	-5.4%
San Marino	0	-	-	-	-	-	-	_	_	-	-	-	-	_	-	-
Serbia	2	(0.9)	0.0	-	-	-	-	-	-	2	(1.6)	0.0	3	(1.2)	0.0	13.1%
Serbia excluding Kosovo¹	2	(0.9)	0.0	-	-	-	-	-	-	2	(1.6)	0.0	3	(3.3)	0.1	21.6%
Kosovo¹	-	-	-	-	-	-	-	-	-	-	_	-	0	(0.0)	0.0	_
Switzerland	5	(2.6)	0.1	4	(2.3)	0.0	5	(2.3)	0.1	2	(1.0)	0.0	8	(3.2)	0.1	11.5%
Tajikistan	672	(29.0)	7.1	408	(24.2)	4.2	501	(26.9)	5.0	416	(23.4)	4.1	360	(19.7)	3.5	-16.3%
Türkiye	113	(2.4)	0.1	94	(2.5)	0.1	95	(2.6)	0.1	115	(2.9)	0.1	96	(2.5)	0.1	-4.5%
Turkmenistan	-	_	-	-	_	-	251	(46.4)	3.5	157	(21.0)	2.2	-	-	-	_
Ukraine	3438	(27.2)	7.6	2 515	(28.6)	5.6	2418	(26.2)	5.5	2360	(25.2)	5.7	2 413	(23.6)	6.4	-4.4%
United Kingdom <sup>c</sup>	27	(1.4)	0.0	31	(2.0)	0.0	33	(1.9)	0.0	32	(1.7)	0.0	44	(2.1)	0.1	12.3%
Uzbekistan	615	(11.7)	1.9	721	(18.3)	2.1	912	(18.5)	2.7	807	(15.8)	2.3	753	(14.2)	2.1	3.2%
Subtotal non-EU/EEA	17789	(26.0)	3.7	14598	(27.5)	3.0	15 333	(27.4)	3.2	15 460	(26.1)	3.2	14155	(24.4)	3.0	-5.3%
Total European Region	18 294	(21.4)	2.0	14960	(23.0)	1.6	15 777	(23.1)	1.7	16063	(21.8)	1.7	14750	(20.6)	1.6	-5.1%

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. The resistance pattern at the initiation of treatment is reported to TESSy, irrespective of the method used for DST or resistance prediction.

DST: drug susceptibility testing; EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; RR/MDR-TB: rifampicin-resistant or multidrug-resistant tuberculosis; TB: tuberculosis.

Includes cases that are RR/MDR but that also meet the pre-XDR or XDR case definitions (pre-XDR and XDR cases have not been excluded).

Bacteriologically confirmed cases — cases with positive identification for Mycobacterium tuberculosis complex confirmed by culture and/or line probe assay for non-EU/EEA countries, culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases for EU/EEA countries.

Previous TB history is defined as previous diagnosis.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table VI. RR/MDR-TB<sup>a</sup> notification among previously treated bacteriologically confirmed<sup>b</sup> pulmonary TB cases with available DST results, European Region, 2019-2023

		2019			2020			2021			2022			2023		Mean
Country/area	N	%	Rate per 100000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	annual % change in rate, 2019– 2023
EU/EEA																
Austria	1	(8.3)	0.0	1	(20.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	3	(33.3)	0.0	30.7%
Belgium <sup>c</sup>	4	(10.0)	0.0	0	(0.0)	0.0	2	(8.3)	0.0	2	(6.7)	0.0	8	(2.2)	0.1	18.2%
Bulgaria	7	(14.0)	0.1	4	(11.1)	0.1	2	(11.1)	0.0	1	(3.8)	0.0	4	(10.5)	0.1	-11.3%
Croatia	0	(0.0)	0.0	1	(12.5)	0.0	0	(0.0)	0.0	1	(12.5)	0.0	0	(0.0)	0.0	-
Cyprus	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Czechia	0	(0.0)	0.0	3	(30.0)	0.0	1	(6.7)	0.0	1	(5.9)	0.0	0	(0.0)	0.0	-
Denmark <sup>c</sup>	0	(0.0)	0.0	1	(14.3)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Estonia	10	(47.6)	0.8	3	(27.3)	0.2	10	(71.4)	0.8	7	(43.8)	0.5	9	(64.3)	0.7	-3.3%
Finland	1	(25.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(33.3)	0.0	0	(0.0)	0.0	-100.0%
France	26	(100.0)	0.0	11	(100.0)	0.0	6	(100.0)	0.0	12	(100.0)	0.0	13	(100.0)	0.0	-16.2%
Germany	17	(13.9)	0.0	7	(6.8)	0.0	9	(7.8)	0.0	25	(16.2)	0.0	39	(26.4)	0.0	22.6%
Greece	1	(5.9)	0.0	1	(7.1)	0.0	0	(0.0)	0.0	2	(14.3)	0.0	0	(0.0)	0.0	-100.0%
Hungary	5	(20.8)	0.1	5	(23.8)	0.1	5	(21.7)	0.1	1	(7.7)	0.0	3	(37.5)	0.0	-11.6%
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Ireland <sup>c</sup>	1	(11.1)	0.0	0	(0.0)	0.0	2	(50.0)	0.0	2	(16.7)	0.0	0	(0.0)	0.0	-100.0%
Italy	4	(12.9)	0.0	6	(23.1)	0.0	4	(26.7)	0.0	3	(14.3)	0.0	1	(5.6)	0.0	-29.0%
Latvia	-	-	-	-	-	-	5	(20.8)	0.3	3	(21.4)	0.2	-	-	-	-
Liechtenstein	-	-	-	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Lithuania	70	(38.9)	2.5	43	(32.1)	1.5	32	(33.3)	1.1	32	(28.8)	1.1	39	(38.6)	1.4	-14.1%
Luxembourg	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Malta	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Netherlands	0	(0.0)	0.0	0	(0.0)	0.0	3	(17.6)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Norway	1	(14.3)	0.0	0	(0.0)	0.0	2	(22.2)	0.0	1	(12.5)	0.0	3	(30.0)	0.1	30.6%
Poland	12	(3.0)	0.0	11	(3.3)	0.0	19	(5.7)	0.1	33	(9.0)	0.1	22	(6.2)	0.1	17.3%
Portugal	5	(7.7)	0.0	3	(8.3)	0.0	3	(6.7)	0.0	2	(6.7)	0.0	2	(6.5)	0.0	-20.8%
Romania	220	(12.8)	1.1	168	(13.7)	0.9	140	(11.6)	0.7	143	(10.8)	0.8	113	(9.4)	0.6	-14.9%
Slovakia	4	(19.0)	0.1	1	(9.1)	0.0	2	(40.0)	0.0	2	(14.3)	0.0	3	(14.3)	0.1	-6.8%
Slovenia	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(20.0)	0.0	0	(0.0)	0.0	70.00/
Spain	1	(1.6)	0.0	3	(5.9)	0.0	15	(2.8)	0.0	4	(3.5)	0.0	9	(8.2)	0.0	72.2%
Sweden	0	(0.0)	0.0	1	(10.0)	0.0	0 <b>262</b>	(0.0)	0.0	2	(15.4)	0.0	0	(0.0)	0.0	7 50/
Subtotal EU/EEA Non-EU/EEA	390	(13.7)	0.1	273	(13.1)	0.1	202	(10.3)	0.1	281	(12.1)	0.1	271	(10.7)	0.1	-7.5%
Albania	2	(66.7)	0.1	3	(23.1)	0.1	1	(25.0)	0.0	2	(15.4)	0.1	4	(19.0)	0.1	19.7%
Andorra	0	(00.7)	0.0	0	(23.1)	0.0	0	(23.0)	0.0	0	(13.4)	0.0	0	(15.0)	0.0	12.7 /0
Armenia	27	(40.9)	0.9	24	(50.0)	0.8	20	(42.6)	0.7	20	(43.5)	0.7	19	(42.2)	0.6	-8.7%
Azerbaijan	533	(24.4)	5.3	552	(24.4)	5.4	487	(22.6)	4.8	487	(22.6)	4.7	742	(34.5)	7.2	8.1%
Belarus	313	(59.8)	3.3	424	(74.5)	4.5	367	(73.5)	4.0	222	(42.7)	2.4	253	(67.1)	2.8	-4.4%
Bosnia and Herzegovina	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	2	(7.4)	0.1	0	(0.0)	0.0	
Georgia	139	(32.1)	3.7	77	(26.5)	2.0	79	(29.6)	2.1	60	(23.6)	1.6	59	(23.9)	1.5	-19.3%
Israel	0	(32.1)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	17.570
Kazakhstan	1446	(44.5)	7.5	1101	(49.7)	5.7	1011	(42.1)	5.1	1461	(57.9)	7.3	1225	(59.1)	6.0	-5.4%
Kyrgyzstan	603	(60.1)	9.3	377	(54.0)	5.7	339	(50.7)	5.0	294	(45.0)	4.2	254	(40.6)	3.6	-21.1%
Monaco	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
North Macedonia	0	(0.0)	0.0	1	(10.0)	0.1	1	(9.1)	0.1	2	(20.0)	0.1	0	(0.0)	0.0	-
Republic of Moldova	118	(34.2)	3.8	195	(53.1)	6.4	203	(39.6)	6.7	190	(58.1)	6.3	208	(44.1)	6.8	15.6%
Russian Federation	17199	(70.8)	11.7	14306	(68.4)	9.8	12745	(67.7)	8.7	11 022	(67.3)	7.6	9528	(65.0)	6.6	-13.6%
San Marino	0	-	-	-	_	-	-	(0,1,7)	-	-	-	_	-	-	-	-
Serbia	0	(0.0)	0.0	-	-	-	-	-	-	0	(0.0)	0.0	2	(9.1)	0.0	-
Serbia excluding Kosovo <sup>1</sup>	0	(0.0)	0.0	-	-	_	-	-	-	0	(0.0)	0.0	0	(0.0)	0.0	_
Kosovo¹	_	_	-	-	-	-	-	-	-	-	-	-	2	(13.3)	0.1	-
Switzerland	4	(16.7)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(11.1)	0.0	-29.9%
Tajikistan	206	(40.4)	2.2	147	(43.2)	1.5	105	(34.4)	1.1	102	(32.3)	1.0	115	(35.6)	1.1	-15.4%
Türkiye	37	(9.7)	0.0	33	(11.1)	0.0	25	(10.1)	0.0	33	(11.4)	0.0	30	(11.9)	0.0	-5.6%
Turkmenistan	-	-	-	_	-	-	165	(55.9)	2.3	245	(48.6)	3.4	-	-	-	-
Ukraine	2498	(42.9)	5.6	1662	(41.3)	3.7	1607	(40.4)	3.6	1287	(36.7)	3.1	1347	(35.8)	3.6	-10.5%
United Kingdom <sup>c</sup>	4	(3.3)	0.0	4	(5.3)	0.0	5	(6.4)	0.0	2	(3.3)	0.0	8	(14.3)	0.0	18.2%
Uzbekistan	467	(21.8)	1.4	679	(38.4)	2.0	740	(39.6)	2.2	693	(33.1)	2.0	542	(29.9)	1.5	1.8%
Subtotal non-EU/EEA	23596	(57.3)	5.0	19 58 5	(57.2)	4.1	17900	(55.6)	3.7	16124	(54.3)	3.3	14337	(53.2)	3.0	-11.7%
							.,,,,,	(20.0)			(- 110)					
Total European Region	23986	(53.7)	2.6	19858	(53.3)	2.1	18162	(51.9)	1.9	16 405	(51.7)	1.8	14608	(50.3)	1.6	-11.7%

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. The resistance pattern at the initiation of treatment is reported to TESSy, irrespective of the method used for DST or resistance prediction.

DST: drug susceptibility testing; EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; RR/MDR-TB: rifampicin-resistant or multidrug-resistant tuberculosis.

Includes cases that are RR/MDR but that also meet the pre-XDR or XDR case definitions (pre-XDR and XDR cases have not been excluded).

Bacteriologically confirmed cases — cases with positive identification for Mycobacterium tuberculosis complex confirmed by culture and/or line probe assay for non-EU/EEA countries, culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases for EU/EEA countries.

Previous TB history is defined as previous diagnosis.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table VII. RR/MDR-TBa notification among all bacteriologically confirmed TB cases with available DST results in EU/EEA, 2019-2023

		2019			2020			2021			2022			2023		Mean
Country	N	%	Rate per 100 000	N	%	Rate per 100000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	annual % change in rate 2019- 2023
EU/EEA																
Austria	4	(1.5)	0.0	2	(0.9)	0.0	8	(3.5)	0.1	11	(4.7)	0.1	9	(3.4)	0.1	21.6%
Belgium	13	(2.4)	0.1	9	(2.1)	0.1	6	(1.3)	0.1	11	(2.4)	0.1	10	(2.0)	0.1	-6.9%
Bulgaria	14	(3.1)	0.2	12	(4.9)	0.2	4	(2.3)	0.1	5	(2.3)	0.1	11	(4.2)	0.2	-3.9%
Croatia	1	(0.4)	0.0	1	(0.6)	0.0	0	(0.0)	0.0	2	(1.2)	0.1	0	(0.0)	0.0	-100.0%
Cyprus	1	(2.0)	0.1	0	(0.0)	0.0	3	(9.4)	0.3	2	(2.9)	0.2	0	(0.0)	0.0	-100.0%
Czechia	8	(2.5)	0.1	11	(4.7)	0.1	10	(3.9)	0.1	17	(6.5)	0.2	25	(7.5)	0.2	32.4%
Denmark	3	(1.6)	0.1	2	(1.5)	0.0	1	(0.8)	0.0	7	(4.8)	0.1	2	(1.7)	0.0	-10.1%
Estonia	27	(22.3)	2.0	19	(19.0)	1.4	25	(29.4)	1.9	24	(25.5)	1.8	20	(24.4)	1.5	-7.9%
Finland	3	(2.3)	0.1	0	(0.0)	0.0	3	(3.3)	0.1	8	(7.5)	0.1	5	(5.7)	0.1	13.4%
France	77	(100.0)	0.1	45	(100.0)	0.1	38	(100.0)	0.1	49	(100.0)	0.1	66	(100.0)	0.1	-4.1%
Germany	77	(2.8)	0.1	76	(3.2)	0.1	79	(3.6)	0.1	158	(6.6)	0.2	173	(6.7)	0.2	21.9%
Greece	7	(3.5)	0.1	7	(2.4)	0.1	5	(7.2)	0.0	9	(6.8)	0.1	9	(3.9)	0.1	7.3%
Hungary	13	(4.9)	0.1	11	(6.2)	0.1	12	(7.3)	0.1	14	(6.3)	0.1	17	(6.9)	0.2	7.4%
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(12.5)	0.3	0	(0.0)	0.0	-
Ireland	3	(2.2)	0.1	1	(1.4)	0.0	3	(3.9)	0.1	10	(10.9)	0.2	2	(1.9)	0.0	-11.3%
Italy	45	(2.6)	0.1	39	(3.3)	0.1	44	(3.1)	0.1	39	(3.5)	0.1	49	(3.5)	0.1	2.5%
Latvia	-	-	-	-	-	-	18	(10.0)	1.0	25	(11.2)	1.3	-	-	-	-
Liechtenstein	_	-	-	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Lithuania	170	(18.8)	6.1	104	(16.9)	3.7	105	(18.7)	3.8	113	(17.5)	4.0	116	(19.2)	4.1	-9.6%
Luxembourg	1	(3.8)	0.2	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(3.6)	0.2	-1.8%
Malta	0	(0.0)	0.0	0	(0.0)	0.0	1	(3.7)	0.2	2	(6.2)	0.4	0	(0.0)	0.0	-
Netherlands	7	(2.2)	0.0	5	(1.9)	0.0	11	(3.6)	0.1	9	(2.9)	0.1	8	(2.2)	0.0	2.6%
Norway	2	(2.2)	0.0	2	(2.3)	0.0	8	(10.7)	0.1	8	(8.2)	0.1	16	(16.3)	0.3	66.9%
Poland	44	(1.2)	0.1	40	(1.7)	0.1	58	(2.1)	0.2	97	(3.1)	0.3	101	(3.2)	0.3	24.1%
Portugal	14	(1.8)	0.1	14	(2.4)	0.1	9	(1.4)	0.1	11	(1.8)	0.1	12	(2.7)	0.1	-4.2%
Romania	378	(4.9)	1.9	254	(5.2)	1.3	251	(4.5)	1.3	267	(4.3)	1.4	224	(3.9)	1.2	-11.9%
Slovakia	5	(4.7)	0.1	1	(1.6)	0.0	5	(6.8)	0.1	5	(6.9)	0.1	8	(7.7)	0.1	12.6%
Slovenia	0	(0.0)	0.0	1	(1.6)	0.0	1	(1.6)	0.0	1	(1.7)	0.0	0	(0.0)	0.0	-
Spain	18	(1.7)	0.0	26	(2.2)	0.1	27	(2.5)	0.1	48	(2.7)	0.1	51	(2.8)	0.1	29.0%
Sweden	6	(2.3)	0.1	5	(2.8)	0.0	4	(2.1)	0.0	11	(4.7)	0.1	7	(3.5)	0.1	3.2%
Total EU/EEA	941	(4.6)	0.2	687	(4.6)	0.2	739	(4.7)	0.2	964	(5.3)	0.2	942	(5.3)	0.2	0.2%

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. The five EU/EEA countries designated as WHO European Region TB high-priority countries are presented in italics. The resistance pattern at the initiation of treatment is reported to The European Surveillance System irrespective of the method used for drug susceptibility testing or resistance prediction.

DST: drug susceptibility testing; EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; RR/MDR-TB: rifampicin-resistant or multidrug-resistant tuberculosis; TB: tuberculosis;

Includes cases that are RR/MDR but that also meet the pre-XDR or XDR case definitions (pre-XDR and XDR cases have not been excluded).

Culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases.

Table VIII. Pre-XDR-TB notification among pulmonary RR/MDR-TBa cases with DST results to fluoroquinolones, European Region, 2019-2023b

		2019			2020			2021			2022			2023	
Country/area	RR/MDR-TB cases tested for FQL (N)	Pre-XDR-TB cases (N)	Percentage among cases tested for FQL	RR/MDR-TB cases tested for FQL (N)	Pre-XDR-TB cases (N)	Percentage among cases tested for FQL	RR/MDR-TB cases tested for FQL (N)	Pre-XDR-TB cases (N)	Percentage among cases tested for FQL	RR/MDR-TB cases tested for FQL (N)	Pre-XDR-TB cases (N)	Percentage among cases tested for FQL	RR/MDR-TB cases tested for FQL (N)	Pre-XDR-TB cases (N)	Percentage among cases tested for FQL
EU/EEA							·							·	
Austria	3	2	(66.7)	2	0	(0.0)	8	1	(12.5)	11	1	(9.1)	9	2	(22.2)
Belgium	11	2	(18.2)	5	1	(20.0)	6	0	(0.0)	7	0	(0.0)	0	-	-
Bulgaria	14	4	(28.6)	10	2	(20.0)	4	1	(25.0)	5	1	(20.0)	10	1	(10.0)
Croatia	1	1	(100.0)	0	-	-	0	-	-	0	-	-	0	-	-
Cyprus	1	0	(0.0)	0	-	-	3	0	(0.0)	2	0	(0.0)	0	-	-
Czechia	2	0	(0.0)	5	3	(60.0)	10	2	(20.0)	12	3	(25.0)	0	-	-
Denmark	3	0	(0.0)	2	0	(0.0)	1	1	(100.0)	6	0	(0.0)	2	0	(0.0)
Estonia	25	5	(20.0)	19	6	(31.6)	24	10	(41.7)	21	7	(33.3)	19	5	(26.3)
Finland	0	-	-	0	-	-	1	0	(0.0)	8	3	(37.5)	5	1	(20.0)
France	77	14	(18.2)	41	8	(19.5)	28	6	(21.4)	48	9	(18.8)	56	5	(8.9)
Germany	59	12	(20.3)	57	11	(19.3)	52	9	(17.3)	121	33	(27.3)	135	36	(26.7)
Greece	4	0	(0.0)	3	0	(0.0)	0	-	_	0	-	_	0	-	_
Hungary	13	6	(46.2)	0	-	-	0	-	-	0	_	_	4	3	(75.0)
Iceland	0	_	_	0	-	-	0	-	-	1	0	(0.0)	0	_	_
Ireland	3	0	(0.0)	1	0	(0.0)	0	-	-	9	4	(44.4)	1	1	(100.0)
Italy	34	12	(35.3)	34	8	(23.5)	37	10	(27.0)	27	10	(37.0)	38	15	(39.5)
Latvia	_	-	-	-	_	(2313)	11	3	(27.3)	22	2	(9.1)	-	-	(37.3)
Liechtenstein	_	_	_	0	_	_	0	_	(2/.)	0	_	(2.1)	0	_	_
Lithuania	159	75	(47.2)	104	34	(32.7)	46	21	(45.7)	63	24	(38.1)	66	25	(37.9)
Luxembourg	0	-	(47.2)	0	J-7 -	()2.//	0	_	(43.7)	0	-	(50.1)	0	-	(3/.//
Malta	0	_	_	0	_	_	0	_	_	0	_	_	0	_	_
Netherlands	0	_	_	4	0	(0.0)	10	1	(10.0)	8	4	(50.0)	8	3	(37.5)
Norway	2	1	(50.0)	2	0	(0.0)	8	2	(25.0)	8	2	(25.0)	14	4	(28.6)
Poland	31	7	(22.6)	14	12	(85.7)	30	9	(30.0)	42	11	(26.2)	91	26	(28.6)
Portugal	4	0	(0.0)	9	0	(0.0)	6	0	(0.0)	6	0	(0.0)	3	3	(100.0)
Romania	147	51	(34.7)	101	29	(28.7)	91	25	(27.5)		17	(30.4)	76	20	(26.3)
Slovakia	5	0	(0.0)	101	0	(0.0)	4	25		<i>56</i>	2	(40.0)	8	4	
		-	(0.0)						(50.0)	1				4	(50.0)
Slovenia	0 5			1	0	(0.0)	7	0	(0.0)		1	(100.0)	0	0	(0, 0)
Spain Sweden		0	(0.0)	6	2	(33.3)		2	(28.6)	8	0	(0.0)	9	1	(0.0)
Subtotal EU/EEA	6 <b>609</b>	192	(0.0) (31.5)	426	118		4	106	(25.0)	11	2 136	(18.2) (26.8)	561	155	(14.3)
Non-EU/EEA	009	172	(31.3)	420	110	(27.7)	392	100	(27.0)	508	130	(20.0)	301	100	(27.6)
	0	-	_	0	-	_	0	-	_	0	_	_	г	0	(0, 0)
Albania		-	_		_	_	0	-	_	0	_	_	5	0	(0.0)
Andorra	0			0			0						0		(20.4)
Armenia	63	19	(30.2)	52	11	(21.2)	57	17	(29.8)	54	8	(14.8)	49	10	(20.4)
Azerbaijan	704 874	153	(21.7)	576	87	(15.1)	592	114	(19.3)	628	97	(15.4)	930	164	(17.6)
Belarus		277	(31.7)	825	354	(42.9)	757	310	(41.0)	721	314	(43.6)	658	244	(37.1)
Bosnia and Herzegovina	0			0		(20.0)	0		(25.0)	0		(27.0)	0		(25.0)
Georgia	242	65	(26.9)	173	50	(28.9)	148	37	(25.0)	145	55	(37.9)	120	43	(35.8)
Israel	2460	(25	(11.1)	2040	200	(20.0)	2021	5	(55.6)	11	1	(9.1)	8	1 451	(12.5)
Kazakhstan	2460	635	(25.8)	2848	399	(14.0)	2931	461	(15.7)	- (74	517	(1( 0)		451	(45.0)
Kyrgyzstan	909	97	(10.7)	869	149	(17.1)	665	116	(17.4)	674	114	(16.9)	647	103	(15.9)
Monaco	-	-	-	0	-	_	_	-	_	_	_	-	_	_	_
Montenegro	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
North Macedonia	0	-		0	400	(15.5)	0	- 427	(27.0)	0	-	- (46.1)	0		(22.5)
Republic of Moldova	559	121	(21.6)	413	188	(45.5)	459	124	(27.0)	428	70	(16.4)	432	96	(22.2)
Russian Federation	25331	9077	(35.8)	20449	7822	(38.3)	18843	7346	(39.0)	17527	6191	(35.3)	15 934	5496	(34.5)
San Marino	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	0	-	-	1	0	_
Serbia excluding Kosovo¹	-	-	-	-	-	-	-	-	-	0	-	-	0	-	
Kosovo¹	-	-	-	-	-	-	-	-	-	-	-	-	1	0	(0.0)
Switzerland	9	0	(0.0)	4	2	(50.0)	4	1	(25.0)	2	0	(0.0)	6	2	(33.3)
Tajikistan	362	16	(4.4)	512	121	(23.6)	551	129	(23.4)	418	109	(26.1)	392	115	(29.3)
Türkiye	90	22	(24.4)	99	14	(14.1)	101	10	(9.9)	98	12	(12.2)	79	9	(11.4)
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
Ukraine	5936	890	(15.0)	4177	1120	(26.8)	3266	994	(30.4)	3148	1009	(32.1)	3 6 4 1	980	(26.9)
United Kingdom	29	5	(17.2)	32	8	(25.0)	36	13	(36.1)	34	5	(14.7)	49	10	(20.4)
Uzbekistan	466	209	(44.8)	1400	378	(27.0)	1645	394	(24.0)	1500	622	(41.5)	1221	264	(21.6)
Subtotal non-EU/EEA	38043	11587	(30.5)	32434	10704	(33.0)	30064	10 071	(33.5)	25388	9124	(35.9)	24172	7988	(33.0)
Total European Region	38 652	11779	(30.5)	32860	10822	(32.9)	30 456	10177	(33.4)	25896	9260	(33.8)	24733	8143	(31.1)
Subtotal 18 HPCs			(30.6)			-			(33.5)						(33.1)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; FQL: fluroquinolones; HPC: high-prioriy countries; N: number; RR/MDR-TB: rifampicin-resistant or multidrugresistant tuberculosis; XDR-TB: extensively drug-resistant tuberculosis.

Includes cases that are RR/MDR but that also meet the pre-XDR or XDR case definitions (pre-XDR and XDR cases have not been excluded).

Includes only countries reporting second-line anti-TB drug susceptibility testing for at least one fluoroquinolone (ciprofloxacin, gatifloxacin, levofloxacin, moxifloxacin and ofloxacin) and one injectable drug (amikacin, capreomycin and kanamycin).

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table IX. TB cases with HIV infection, European Region, 2019–2023a

			2019					2020					2021		
Country/area	All TB	Cases with HIV sta		HIV po	sitive	All TB	Cases wit HIV st		HIV po	sitive	All TB	Cases wit		HIV po	sitive
	cases (N)	N N	% %	N	% <sup>b</sup>	cases (N)	N N	%	N	% <sup>b</sup>	cases (N)	N N	%	N	%ь
U/EEA															
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	963	502	(52.1)	43	(8.6)	825	387	(46.9)	32	(8.3)	868	462	(53.2)	28	(6.1)
Bulgaria	1344	1104	(82.1)	1	(0.1)	930	781	(84.0)	1	(0.1)	687	477	(69.4)	0	(0.0)
Croatia	305	5	(1.6)	0	(0.0)	198	6	(3.0)	0	0	175	8	(4.6)	0	(0.0)
Cyprus	69	43	(62.3)	2	(4.7)	36	30	(83.3)	2	(6.7)	48	35	(72.9)	1	(2.9)
Czechia	461	270	(58.6)	8	(3.0)	363	199	(54.8)	7	(3.5)	357	211	(59.1)	7	(3.3)
Denmark	284	230	(81.0)	7	(3.0)	221	168	(76.0)	4	(2.4)	218	171	(78.4)	6	(3.5)
Estonia	150	141	(94.0)	16	(11.3)	124	116	(93.5)	13	(11.2)	112	104	(92.9)	12	(11.5)
Finland	-	-	(/4.0)	-	(11.5)	124	-	(/).)/	-	(11.2)	-	-	(/2.//	-	(11.5)
rance	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_
	-	_	_	-	_	_	_	_	_	-	_	_	_	_	_
Germany			(88.9)		(4.7)		396	(100.0)	17	(4.3)		51	(24.0)	2	(3.9)
Greece	459	408		19		396					206		(24.8)		
Hungary	552	32	(5.8)	3	(9.4)	406	18	(4.4)	2	(11.1)	335	7	(2.1)	1	(14.3)
celand	13	11	(84.6)	0	(0.0)	- 224	- 110	(54.5)	-	(5.0)	207	-	- (( ( - )	-	- (( 2)
reland	256	128	(50.0)	13	(10.2)	231	119	(51.5)	7	(5.9)	206	92	(44.7)	4	(4.3)
taly	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	261	188	(72.0)	24	(12.8)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1058	1020	(96.4)	27	(2.6)	726	714	(98.3)	20	(2.8)	646	612	(94.7)	15	(2.5)
uxembourg	50	37	(74.0)	0	(0.0)	34	28	(82.4)	0	(0.0)	35	25	(71.4)	0	(0.0)
Malta	98	34	(34.7)	0	(0.0)	140	119	(85.0)	2	(1.7)	54	46	(85.2)	1	(2.2)
Netherlands	754	600	(79.6)	21	(3.5)	622	498	(80.1)	14	(2.8)	674	522	(77.4)	13	(2.5)
Norway	166	134	(80.7)	6	(4.5)	157	123	(78.3)	3	(2.4)	155	145	(93.5)	4	(2.8)
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	1907	1648	(86.4)	153	(9.3)	1521	1328	(87.3)	121	(9.1)	1537	1311	(85.3)	103	(7.9)
Romania	11 618	10218	(87.9)	200	(2.0)	7693	6580	(85.5)	151	(2.3)	7976	6604	(82.8)	146	(2.2)
Slovakia	214	148	(69.2)	4	(2.7)	158	82	(51.9)	2	(2.4)	137	80	(58.4)	2	(2.5)
Slovenia	101	73	(72.3)	1	(1.4)	77	58	(75.3)	0	(0.0)	80	67	(83.8)	0	(0.0)
Spain	4532	2595	(57.3)	232	(8.9)	3 6 5 5	2100	(57.5)	107	(5.1)	3816	2469	(64.7)	209	(8.5)
Sweden	7 7 7 2	23/3	(37.3)	2,72	(0.7)	7077	2100	(37.3)	-	(5.1)	7010	2407	(04.7)	207	(0.5)
Subtotal EU/EEA	25354	19 381	(76.4)	756	(3.9)	18 513	13 850	(74.8)	505	(3.6)	18583	13 687	(73.7)	578	(4.2)
ion-EU/EEA	23334	17301	(/0.4)	750	(3.7)	כוכסו	15 650	(/4.0)	303	(5.0)	10 203	1500/	(13.1)	3/6	(4.2)
-	612	260	(00.2)	0	(2.2)	240	100	(02.0)	2	(1.0)	260	244	(00.7)	1	(0.4)
Albania	412	368	(89.3)	8	(2.2)	240	199	(82.9)	2	(1.0)	269	244	(90.7)	1	
Andorra	5	0	(0.0)	0	(40.5)	2	0	(0.0)	0	- (40.6)	2	0	(0.0)	-	(40.7)
Armenia	621	591	(95.2)	62	(10.5)	394	369	(93.7)	39	(10.6)	398	335	(84.2)	36	(10.7)
Azerbaijan	4823	4534	(94.0)	71	(1.6)	3 683	4454	(120.9)	83	(1.9)	3663	4448	(121.4)	92	(2.1)
Belarus	2207	2207	(100.0)	157	(7.1)	1514	1514	(100.0)	135	(8.9)	1484	1484	(100.0)	128	(8.6)
Bosnia and Herzegovina	580	18	(3.1)	0	(0.0)	357	15	(4.2)	0	(0.0)	362	0	(0.0)	0	-
Georgia	2169	1841	(84.9)	33	(1.8)	1671	1494	(89.4)	29	(1.9)	1501	1430	(95.3)	43	(3.0)
srael	217	217	(100.0)	8	(3.7)	158	158	(100.0)	15	(9.5)	213	213	(100.0)	16	(7.5)
Kazakhstan	12 501	12 375	(99.0)	666	(5.4)	9603	9440	(98.3)	614	(6.5)	9757	9 6 2 0	(98.6)	625	(6.5)
Kyrgyzstan	6138	5810	(94.7)	131	(2.3)	4241	4007	(94.5)	131	(3.3)	4 5 9 6	4394	(95.6)	126	(2.9)
Monaco	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
Montenegro	80	76	(95.0)	0	(0.0)	40	35	(87.5)	0	(0.0)	80	80	(100.0)	0	(0.0)
North Macedonia	199	152	(76.4)	1	(0.7)	143	69	(48.3)	1	(1.4)	143	29	(20.3)	0	(0.0)
Republic of Moldova	2809	2792	(99.4)	295	(10.6)	1767	1693	(95.8)	219	(12.9)	2067	2008	(97.1)	214	(10.7)
Russian Federation	73328	70 610	(96.3)	16 453	(23.3)	58723	55838	(95.1)	13506	(24.2)	56922	54821	(96.3)	14132	(25.8)
San Marino	0	-	-	-	(25.5)	-	-	-	-	_	-	-	-	-	(23.0)
Serbia	1106	39	(3.5)	3	(7.7)	-	_	-	-	-	-	-	-	-	-
Serbia excluding Kosovo <sup>1</sup>	501	39	(7.8)	3	(7.7)	_	_	_	_	_	_	_	_	_	_
Kosovo <sup>1</sup>		-	(7.0)	_	(1.1)	-	_	-	_	-	_	_	_	-	-
Switzerland	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Tajikistan	5755	5 6 6 0	(98.3)	167	(3.0)	4148	4043	(97.5)	118	(2.9)	4158	4103	(98.7)	118	(2.9)
Türkiye	11 247	8814	(78.4)	104	(1.2)	8830	7062	(80.0)	83	(1.2)	9047	7249	(80.1)	85	(1.2)
Turkmenistan	-	_	-		-	-	-	(0:3		-	-	-	()	-	( )
Jkraine	25379	25210	(99.3)	5 800	(23.0)	17533	17 375	(99.1)	3799	(21.9)	18307	17991	(98.3)	3646	(20.3)
Jnited Kingdom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uzbekistan	16272	16272	(100.0)	647	(4.0)	12 111	12 111	(100.0)	379	(3.1)	15 450	15450	(100.0)	441	(2.9)
Subtotal non-EU/EEA	165848	157 586	(95.0)	24 606	(15.6)	125 158	119876	(95.8)	19153	(16.0)	128 419	123899	(96.5)	19 703	(15.9)
Total European Region	191202	176 967	(92.6)	25 362	(14.3)	143 671	133726	(93.1)	19658	(14.7)	147002	137586	(93.6)	20 281	(14.7)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

4 HIV prevalence may be underestimated due to incomplete HIV testing and/or reporting of HIV serostatus. Countries were only included in this analysis if the total number of cases tested for HIV and test results were provided. HIV testing in netU/EEA countries is only reported for new and relapse cases. Exceptions are Azerbaijan in the 2018, 2020, 2021 and 2022 reporting years, Tajikistan in the 2018 reporting year, and Uzbekistan in the 2020, 2021, 2022 reporting years when HIV testing data was provided for all notified TB cases.

4 Proportion calculated from TB cases with known HIV test results.

5 This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

	2	2022					2023			
All TB	Cases with k	nown HIV	HIV po:	citivo	All TB	Cases wit	h known	HIV po	citivo	Country/area
cases (N)	statı				cases	HIV st				Country/area
	N	%	N	%⁵	(N)	N	%	N	%⁵	
										EU/EEA
-	-	- ()	-	-	-	-	-	-	-	Austria
852	437	(51.3)	23	(5.3)	-	-	()	-	- (2 -)	Belgium
792	562	(71.0)	5	(0.9)	881	650	(73.8)	3	(0.5)	Bulgaria
221	13	(5.9)	0	(0.0)	265	39	(14.7)	3	(7.7)	Croatia
96	54	(56.3)	10	(18.5)	81	52	(64.2)	3		Cyprus
382	252	(66.0)	5	(2.0)	459	308	(67.1)	18	(5.8)	Czechia
234	169	(72.2)	6	(3.6)	193	137	(71.0)	7		Denmark
129	121	(93.8)	7	(5.8)	99	95	(96.0)	13	(13.7)	Estonia
-	-	-	-	-	-	-	-	-	-	Finland
-	-	-	-	-	-	-	-	-	-	France
-	-	-	-	-	-	-	-	-	-	Germany
320	221	(69.1)	9	(4.1)	493	347	(70.4)	11	(3.2)	Greece
440	16	(3.6)	2	(12.5)	493	31	(6.3)	5	(16.1)	Hungary
-	-	-	-	-	-	-	-	-	-	Iceland
207	104	(50.2)	9	(8.7)	223	84	(37.7)	7	(8.3)	Ireland
-	-	-	-	-	-	-	-	-	-	Italy
319	289	(90.6)	29	(10.0)	-	-	-	-	-	Latvia
_	-	-	-	-	-	-	-	-	-	Liechtenstein
738	709	(96.1)	19	(2.7)	723	703	(97.2)	31	(4.4)	Lithuania
48	33	(68.8)	1	(3.0)	46	32	(69.6)	3	(9.4)	Luxembourg
61	61	(100.0)	0	(0.0)	68	54	(79.4)	3	(5.6)	Malta
-	-	-	-	-	-	-	-	-	-	Netherlands
173	143	(82.7)	4	(2.8)	153	140	(91.5)	5	(3.6)	Norway
_	-	-	-	-	-	-	-	-	-	Poland
1571	1340	(85.3)	122	(9.1)	1565	1110	(70.9)	112	(10.1)	Portugal
9264	7753	(83.7)	143	(1.8)	9506	8164	(85.9)	188	(2.3)	Romania
155	83	(53.5)	4	(4.8)	221	85	(38.5)	0	(0.0)	Slovakia
74	63	(85.1)	1	(1.6)	88	73	(83.0)	2	(2.7)	Slovenia
3961	3146	(79.4)	276	(8.8)	4208	3220	(76.5)	266	(8.3)	Spain
-	-	-	-	-	-	-	-	-	_	Sweden
20 037	15 5 6 9	(77.7)	675	(4.3)	19765	15324	(77.5)	680	(4.4)	Subtotal EU/EEA
										Non-EU/EEA
292	263	(90.1)	1	(0.4)	302	285	(94.4)	3	(1.1)	Albania
4	0	(0.0)	-	-	-	-	-	-	-	Andorra
440	411	(93.4)	39	(9.5)	404	377	(93.3)	43	(11.4)	Armenia
3 989	3989	(100.0)	51	(1.3)	3965	3965	(100.0)	60	(1.5)	Azerbaijan
1670	1649	(98.7)	127	(7.7)	1555	1542	(99.2)	126	(8.2)	Belarus
432	29	(6.7)	0	(0.0)	-	-	-	-	-	Bosnia and Herzegovina
1511	1466	(97.0)	42	(2.9)	1308	1241	(94.9)	28	(2.3)	Georgia
203	199	(98.0)	7	(3.5)	227	227	(100.0)	10		Israel
10009	9829	(98.2)	645	(6.6)	9506	9316	(98.0)	573		Kazakhstan
4568	4389	(96.1)	124	(2.8)	4183	4048	(96.8)	141		Kyrgyzstan
-	-	-	-	-	-	-	-	-	-	Monaco
71	66	(93.0)	2	(3.0)	62	62	(100.0)	2	(3.2)	Montenegro
144	0	(0.0)	_	(5.0)	157	36	(22.9)	0		North Macedonia
2121	2047	(96.5)	235	(11.5)	2164	2091	(96.6)	264		Republic of Moldova
55906	55225	(98.8)	14 191	(25.7)	54643	52872	(96.8)	3 411		Russian Federation
-	-	-	-		J-7 U-7 J	-	-	-	(_5. ,)	San Marino
1074	426	(39.7)	2	(0.5)	1014	249	(24.6)	1	(0 4)	Serbia
459	39	(8.5)	2	(5.1)	433	53	(12.2)	_	(0.4)	Serbia excluding Kosovo <sup>1</sup>
615	387	(62.9)	_	(5.1)	581	196	(33.7)	1	(0.5)	Kosovo <sup>1</sup>
-	50/	(02.9)	_	_	701	-	(55.7)	-	(0.3)	Switzerland
4294	4269	(99.4)	109	(2.6)	4435	4412	(99.5)	133	(3.0)	Tajikistan
9723	7860	(80.8)	123	(1.6)	9408	7849	(83.4)	104		Türkiye
9/23	/860	(00.0)	123	(1.6)	9408	7849	(03.4)	104	(1.3)	Turkmenistan
		(98.7)				19952	(99.5)			Ukraine
18567	18324	(70./)	3 328	(18.2)	20 058	17702	(77.0)	3501	(1/.3)	United Kingdom
1/17/	16174	(100.0)	F20	(2 2)	_	-	-	407	_	Uzbekistan
16174	16174	(100.0)	538	(3.3)		108524	(95.7)	407		Subtotal non-EU/EEA
131192	126 615	(96.5)	19 564	(15.5)	113 391			18 807		Total European Region
151229 140214	142184	(94.0)	20 239	(14.2)	133156	123 848	(93.0) (95.5)	19487		Subtotal 18 HPCs
140214	135 066	(96.3)	19 755	(14.6)	122838	117277	(33.3/	19 026	(13.7)	Subtotat 10 nFC3

Table X. Treatment success after 12 months for new<sup>a</sup> and relapse TB cases, European Region, 2018–2022<sup>b</sup>

		2018			2019			2020			2021			2022	
Country/area	Cases	Succ		Cases	Succ		Cases	Succ		Cases	Succ		Cases	Succ	
=11/==A	reported	N	(%)	reported	N	(%)	reported	N	(%)	reported	N	(%)	reported	N	(%)
EU/EEA	/55	227	(72.4)	/50	2/4	(7/ 2)	200	260	(70.5)	270	262	((0.2)	25.4	257	(72.6
Austria	455	334	(73.4)	459	341	(74.3)	380	268	(70.5)	378	262	(69.3)	354	257	(72.6)
Belgium <sup>c</sup>	902	737	(81.7)	877	709	(80.8)	759	511	(67.3)	806	629	(78.0)	-	-	_
Bulgaria	1268	1085	(85.6)	1278	1045	(81.8)	- 404	- 445	((0.2)	671	530	(79.0)		- 442	
Croatia	363	237	(65.3)	296	176	(59.5)	191	115	(60.2)	171	102	(59.6)	214	112	(52.3)
Cyprus	51	30	(58.8)	65	18	(27.7)	34	15	(44.1)	45	23	(51.1)	91	24	(26.4)
Czechia	422	290	(68.7)	447	330	(73.8)	347	241	(69.5)	342	231	(67.5)	360	225	(62.5)
Denmark <sup>c</sup>	266	48	(18.0)	259	117	(45.2)	206	71	(34.5)	199	40	(20.1)	206	38	(18.4)
Estonia Finland	115 222	96 52	(83.5)	120	91	(75.8)	101	76	(75.2)	86	72 11	(83.7)	102	79	(77.5)
		-	(23.4)	222	85	(38.3)	173	44	(25.4)	167		(6.6)	179	1440	(0.6)
France	4760	1976	(41.5)	4858	1824	(37.5)	4263	1578	(37.0)	3942	1449	(36.8)	3965	1449	(36.5)
Germany	5 2 2 1	4069	(77.9)	4572	3123	(68.3)	3968	2559	(64.5)	3730	2479	(66.5)	3737	2304	(61.7)
Greece	-	-	((5.7)	-	-	((5.0)	- 27/	-	- ((( 5)	205	- 10/	((2 ()	- (24	- 27/	((5.4)
Hungary	591	388	(65.7)	517	336	(65.0)	376	250	(66.5)	305	194	(63.6)	421	274	(65.1)
Iceland	8	8	(100.0)	13	13	(100.0)	12	4	(33.3)	7	4	(57.1)	14	10	(71.4)
Ireland <sup>c</sup>	282	159	(56.4)	232	89	(38.4)	217	84	(38.7)	197	83	(42.1)	180	81	(45.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
Latvia	-	-	-	-	-	-	-	-		-			-	-	-
Liechtenstein	-	-	(07.0)	-	-	(07.4)	2	2	(100.0)	1	1	(100.0)	-	-	()
Lithuania	926	806	(87.0)	866	754	(87.1)	601	514	(85.5)	528	456	(86.4)	617	538	(87.2)
Luxembourg	-	-	-	47	17	(36.2)	32	12	(37.5)	-	-	- ( 1)	-	-	_
Malta				98	97	(99.0)	137	136	(99.3)	53	52	(98.1)	-	-	-
Netherlands	774	668	(86.3)	730	635	(87.0)	600	507	(84.5)	651	548	(84.2)	-	-	()
Norway	182	160	(87.9)	153	132	(86.3)	140	126	(90.0)	129	118	(91.5)	142	117	(82.4)
Poland	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-
Portugal	1867	1368	(73.3)	1836	1376	(74.9)	1462	1077	(73.7)	1484	1023	(68.9)	1523	980	(64.3)
Romania	11271	9483	(84.1)	10 812	9051	(83.7)	7017	5727	(81.6)	7396	6007	(81.2)	8604	7260	(84.4)
Slovakia	271	249	(91.9)	209	196	(93.8)	152	130	(85.5)	131	115	(87.8)	138	123	(89.1)
Slovenia	98	77	(78.6)	98	69	(70.4)	74	55	(74.3)	78	58	(74.4)	72	52	(72.2)
Spain	4596	2065	(44.9)	4375	2045	(46.7)	3 450	1862	(54.0)	2771	1068	(38.5)	3640	2684	(73.7)
Sweden	462	361	(78.1)	468	303	(64.7)	307	229	(74.6)	334	284	(85.0)	342	298	(87.1)
Subtotal EU/EEA	35 373	24746	(70.0)	33 907	22 972	(67.8)	25 0 0 1	16 193	(64.8)	24602	15 839	(64.4)	24901	16 906	(67.9)
Non-EU/EEA			(00.0)			(00.0)			(0.0.0)			()			(00.0)
Albania	434	386	(88.9)	412	364	(88.3)	240	213	(88.8)	269	242	(90.0)	264	234	(88.6)
Andorra	2	2	(100.0)	5	3	(60.0)	2	2	(100.0)	2	2	(100.0)	4	4	(100.0)
Armenia	615	497	(80.8)	485	399	(82.3)	303	244	(80.5)	317	272	(85.8)	397	335	(84.4)
Azerbaijan	1751	1471	(84.0)	1702	1429	(84.0)	1180	973	(82.5)	1737	1406	(80.9)	3606	2957	(82.0)
Belarus	1418	1250	(88.2)	1302	1153	(88.6)	833	710	(85.2)	903	759	(84.1)	999	869	(87.0)
Bosnia and Herzegovina	666	189	(28.4)	580	185	(31.9)	357	183	(51.3)	361	166	(46.0)	428	200	(46.7)
Georgia	2071	1735	(83.8)	1947	1659	(85.2)	1513	1314	(86.8)	1343	1169	(87.0)	1357	1178	(86.8)
Israel	292	227	(77.7)	217	182	(83.9)	152	123	(80.9)	178	153	(86.0)	206	166	(80.6)
Kazakhstan	7859	7093	(90.3)	7429	6704	(90.2)	5742	5043	(87.8)	5 621	4987	(88.7)	5922	5325	(89.9)
Kyrgyzstan	5333	4321	(81.0)	5110	4155	(81.3)	3 472	2839	(81.8)	3845	3121	(81.2)	3845	3184	(82.8)
Monaco	1	0	(0.0)	-	-	-	0	-	-	-	-	-	-	-	(6.5.)
Montenegro	81	77	(95.1)	82	78	(95.1)	40	35	(87.5)	80	75	(93.8)	71	66	(93.0)
North Macedonia	214	187	(87.4)	199	177	(88.9)	148	125	(84.5)	146	115	(78.8)	137	92	(67.2)
Republic of Moldova	2312	1954	(84.5)	2215	1854	(83.7)	1408	1117	(79.3)	1638	1318	(80.5)	1673	1416	(84.6)
Russian Federation	59850	41154	(68.8)	54589	37208	(68.2)	46389	28 677	(61.8)	43926	26516	(60.4)	41077	27553	(67.1)
San Marino	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-
Serbia	1265	1032	(81.6)	602	513	(85.2)	434	347	(80.0)	446	381	(85.4)	1047	880	(84.0)
Serbia excluding Kosovo <sup>1</sup>	579	459	(79.3)	-	-	-	-	-	_	-	-	_	457	350	(76.6)
Kosovo¹	686	573	(83.5)	602	513	(85.2)	434	347	(80.0)	446	381	(85.4)	590	530	(89.8)
Switzerland	376	309	(82.2)	391	267	(68.3)	342	254	(74.3)	326	246	(75.5)	329	215	(65.3)
Tajikistan	4995	4 4 5 2	(89.1)	5114	4 6 4 3	(90.8)	3646	3332	(91.4)	3 635	3347	(92.1)	3809	3497	(91.8)
Türkiye	11407	9691	(85.0)	11 095	9231	(83.2)	8820	7125	(80.8)	8947	7192	(80.4)	9593	7628	(79.5)
Turkmenistan	2157	1780	(82.5)	2117	1749	(82.6)	1918	1599	(83.4)	1878	1515	(80.7)	2605	2186	(83.9)
Ukraine	20221	15 607	(77.2)	19 414	15381	(79.2)	13218	10232	(77.4)	14396	10755	(74.7)	14889	11534	(77.5)
United Kingdom <sup>c</sup>	4684	3724	(79.5)	4739	3 6 7 5	(77.5)	4386	3409	(77.7)	4707	4 0 5 9	(86.2)	4607	3873	(84.1)
Uzbekistan	14423	13 2 17	(91.6)	14224	12820	(90.1)	10 654	9644	(90.5)	11 680	10444	(89.4)	12 373	10 941	(88.4)
Subtotal non-EU/EEA	142 427	110 355	(77.5)	133 970	103829	(77.5)	105197	77540	(73.7)	106 381	78 240	(73.5)	109 238	84333	(77.2)
Total European Region	177800	135101	(76.0)	167877	126 801	(75.5)	130198	93733	(72.0)	130 983	94079	(71.8)	134139	101239	(75.5)
Subtotal 18 HPCs	147992	115 692	(78.2)	139819	109326	(78.2)	106815	79166	(74.1)	108547	79866	(73.6)	111468	86480	

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 tuberculosis HPC presented in Italics. Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; TB: tuberculosis.

For EU/EEA countries, cases with unknown TB history are considered as new cases.

Excluding rifampicin-resistant cases.

For Previous TB history is defined as previous diagnosis.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table XI. Treatment success after 24 months of RR/MDR-TBa cases started on treatmentb, European Region, 2017–2021

		2017			2018			2019			2020			2021	
Country/area	Cases	Succ		Cases	Succ		Cases	Succ		Cases	Succ		Cases	Succ	
	reported	N	(%)	reported	N	(%)	reported	N	(%)	reported	N	(%)	reported	N	(%
EU/EEA			()			()			()			()			(
Austria	19	10	(52.6)	18	15	(83.3)	6	6	(100.0)	2	0	(0.0)	9	6	(66.7
Belgium	8	6	(75.0)	9	7	(77.8)	16	14	(87.5)	17	11	(64.7)	8	3	(37.5
Bulgaria	29	18	(62.1)	28	17	(60.7)	13	6	(46.2)	-	-	-	4	2	(50.0,
Croatia	0	-	-	2	0	(0.0)	1	1	(100.0)	1	1	(100.0)	0	-	-
Cyprus	-	-	_	-	-	-	-	-	-	0	-	-	-	-	-
Czechia	8	3	(37.5)	12	4	(33.3)	6	4	(66.7)	11	1	(9.1)	11	5	(45.5)
Denmark	2	1	(50.0)	4	-	-	-	-	-	0	-	-	-	-	-
Estonia	35	28	(80.0)	31	23	(74.2)	27	21	(77.8)	20	16	(80.0)	20	17	(85.0)
Finland	5	2	(40.0)	3	2	(66.7)	3	2	(66.7)	0	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	138	75	(54.3)	129	79	(61.2)	101	46	(45.5)	103	47	(45.6)	95	46	(48.4)
Greece	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	13	6	(46.2)	13	6	(46.2)	13	3	(23.1)	10	6	(60.0)	12	8	(66.7)
Iceland	0	-	_	-	-	-	0	-	_	0	-	_	0	-	-
Ireland	6	3	(50.0)	8	3	(37.5)	6	2	(33.3)	2	1	(50.0)	6	2	(33.3)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	0	-	-	-	-	-	-	-	-	-	-	-	0	-	-
Lithuania	264	111	(42.0)	189	103	(54.5)	173	78	(45.1)	105	53	(50.5)	105	74	(70.5
Luxembourg	-	-	-	_	-	-	-	-	-	0	-	-	0	-	-
Malta	0	-	-	-	-	-	0	-	-	3	3	(100.0)	1	1	(100.0
Netherlands	10	8	(80.0)	6	5	(83.3)	9	8	(88.9)	13	13	(100.0)	11	10	(90.9
Norway	9	8	(88.9)	6	5	(83.3)	2	1	(50.0)	2	2	(100.0)	12	8	(66.7)
Poland	-	-	-	58	-	-	-	-	-	-	-	-	-	-	-
Portugal	13	10	(76.9)	11	7	(63.6)	14	6	(42.9)	16	13	(81.3)	11	7	(63.6)
Romania	455	183	(40.2)	439	192	(43.7)	377	184	(48.8)	258	124	(48.1)	260	125	(48.1)
Slovakia	7	2	(28.6)	3	2	(66.7)	5	4	(80.0)	1	1	(100.0)	5	4	(80.08)
Slovenia	-	-	-	-	-	-	-	-	-	1	1	(100.0)	1	1	(100.0)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	12	10	(83.3)	14	14	(100.0)	10	9	(90.0)	6	5	(83.3)	6	6	(100.0)
Subtotal EU/EEA	1033	484	(46.9)	921	484	(52.6)	782	395	(50.5)	571	298	(52.2)	577	325	(56.3)
Non-EU/EEA															
Albania	0	-	-	4	3	(75.0)	2	1	(50.0)	4	2	(50.0)	5	3	(60.0)
Andorra	0	-	-	0	-	-	0	-	-	-	-	-	0	-	-
Armenia	120	59	(49.2)	99	42	(42.4)	65	35	(53.8)	52	32	(61.5)	64	44	(68.8)
Azerbaijan	1040	624	(60.0)	1010	587	(58.1)	1001	599	(59.8)	655	403	(61.5)	962	620	(64.4)
Belarus	1486	1008	(67.8)	1302	963	(74.0)	1059	846	(79.9)	808	631	(78.1)	724	570	(78.7)
Bosnia and Herzegovina	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-
Georgia	363	231	(63.6)	284	184	(64.8)	271	201	(74.2)	193	143	(74.1)	175	127	(72.6)
Israel	8	5	(62.5)	16	10	(62.5)	10	6	(60.0)	5	3	(60.0)	10	7	(70.0
Kazakhstan	5638	4485	(79.5)	4722	3792	(80.3)	6547	4962	(75.8)	4578	3 514	(76.8)	4398	3577	(81.3)
Kyrgyzstan	1323	734	(55.5)	1349	830	(61.5)	1270	901	(70.9)	902	640	(71.0)	871	634	(72.8)
Monaco	-	-	-	-	-	-	0	-	-	-	-	-	-	-	
Montenegro	1	1	(100.0)	1	1	(100.0)	0	-	-	0	-	-	0	-	
North Macedonia	1	0	(0.0)	2	1	(50.0)	2	0	(0.0)	2	2	(100.0)	1	0	(0.0)
Republic of Moldova	1024	557	(54.4)	983	573	(58.3)	596	408	(68.5)	537	324	(60.3)	561	364	(64.9)
Russian Federation	27041	14339	(53.0)	28733	14768	(51.4)	32588	16445	(50.5)	27839	13 891	(49.9)	26701	14115	(52.9)
San Marino	0		(55.0)	0	-	(51.4)	J2 J00	-	(50.5)	_, 0,	-	-			()2.//
Serbia	10	7	(70.0)	-	-	-	-	_	-	2	2	(100.0)	4	4	(100.0)
Serbia excluding Kosovo <sup>1</sup>	6	4	(66.7)	_	_	_	_	_	_	2	2	(100.0)	3	3	(100.0)
Kosovo <sup>1</sup>	4	3	(75.0)	-	-	_	-	-	_	_	_	(100.0)	1	1	(100.0)
Switzerland	12	10	(83.3)	10	7	(70.0)	12	11	(91.7)	2	2	(100.0)	5	1	(20.0)
Tajikistan	796	507	(63.7)	790	552	(69.9)	656	507	(77.3)	459	359	(78.2)	465	386	(83.0)
Türkiye	204	139	(68.1)	188	100	(53.2)	163	72	(44.2)	146	77	(52.7)	106	48	(45.3)
,													106	48	(43.3)
Turkmenistan	348	228	(65.5)	577	256	(44.4)	762	417	(54.7)	783	468	(59.8)			(12.2
Ukraine	8061	3880	(48.1)	7432	3 511	(47.2)	7259	4460	(61.4)	4882	3179	(65.1)	4892	3091	(63.2,
United Kingdom	59	36	(61.0)	45	32	(71.1)	55	37	(67.3)	54	43	(79.6)	52	39	(75.0)
Uzbekistan	2523	1534	(60.8)	2443	1655	(67.7)	2667	1833	(68.7)	1807	1283	(71.0)	2147	1564	(72.8)
Subtotal non-EU/EEA	50 058 51 091	28384 28868	(56.7)	49 990 50 911	27867 28351	(55.7)	54985	31741	(57.7)	43710	24998	(57.2)	42143	25194	(59.8)
Total European Region						155 71	55767	32136	(57.6)	44281	25296	(57.1)	42720	25 519	(59.7

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 tuberculosis HPC presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; RR/MDR-TB: rifampicin-resistant/multidrug-resistant tuberculosis.

Bincludes cases that are RR/MDR but also meet the pre-XDR or XDR case definitions (pre-XDR and XDR cases have not been excluded).

For EU/EEA countries, cases diagnosed post-mortem were excluded, and cases with no data on treatment enrolment were assumed to be enrolled in treatment. This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table XII. Treatment success after 24 months of pre-XDR-TBa cases started on treatment, European Region, 2017–2021

		2017			2018			2019			2020			2021	
Country/area	Pre-XDR	Suc	cess	Pre-XDR	Suc	cess	Pre-XDR	Suc	cess	Pre-XDR	Suc	cess	Pre-XDR	Suc	cess
	TB cases (N)	N	(%)	TB cases (N)	N	(%)	TB cases (N)	N	(%)	TB cases (N)	N	(%)	TB cases (N)	N	(%)
EU/EEA	(/			()			()			(/			(/		
Austria	6	3	(50.0)	5	3	(60.0)	2	2	(100.0)	_	_	_	2	1	(50.0
Belgium	_	_	(30.0)	5	4	(80.0)	2	2	(100.0)	3	2	(66.7)	_	-	(50.0
Bulgaria	4	2	(50.0)	5	2	(40.0)	4	0	(0.0)	2	0	(0.0)	1	0	(0.0,
Croatia	-	_	(50.0)	_	_	(40.0)	1	1	(100.0)	_	_	(0.0)	_	_	(0.0,
Cyprus	_	-	_	_	_	_	0	-	(100.0)	_	_	_	0	_	_
Czech Republic	2	1	(50.0)	3	0	(0.0)	-	_	_	3	1	(33.3)	2	1	(50.0
Denmark	_	-	(30.0)	_	_	(0.0)	0	_	_	_	-	(55.5)	_	-	(50.0
Estonia	11	6	(54.5)	10	9	(90.0)	5	3	(60.0)	5	3	(60.0)	8	7	(87.5)
Finland	-	-	(54.5)	-	7	(90.0)	9	_	(00.0)	0	_	(00.0)	0	-	(0/.)
France	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
	15	7	(46.7)	25	14	(56.0)	14	4	(28.6)	14	6	(42.9)	11	2	(18.2)
Germany		_	(46./)	25	14	(56.0)	14	4	(28.6)	14	-	(42.9)	- 11	_	(18.2)
Greece	-		((0,0)			(4( 7)			(0, 0)	_	_	_	_	_	_
Hungary	5	2	(40.0)	6	1	(16.7)	6	0	(0.0)						-
Iceland	-	-	(*** *)	-	-	_	-	-	_	-	-	-	-	-	(
Ireland	1	1	(100.0)	-	-	-	-	-	-	-	-	-	1	1	(100.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	_	-	-	-	-	-	_	-	-	_	-	-	
Liechtenstein	- 100	-	- (44.4)	-	-	(22.2)	-	-	(5.0)	-	-	(2.2)	-	-	(***
Lithuania	108	12	(11.1)	76	23	(30.3)	76	4	(5.3)	34	1	(2.9)	21	13	(61.9)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	-	-		-	-	-	-	-	-	-	-	_	-	-	-
Netherlands	1	0	(0.0)	2	2	(100.0)	-	-	-	-	-	-	-	-	-
Norway	2	2	(100.0)	1	1	(100.0)	1	0	(0.0)	0	-	-	2	2	(100.0)
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	2	2	(100.0)	0	-	-	0	-	-	0	-	_	2	2	(100.0)
Romania	76	8	(10.5)	69	10	(14.5)	50	11	(22.0)	30	5	(16.7)	25	5	(20.0)
Slovakia	2	0	(0.0)	1	0	(0.0)	0	-	-	0	-	-	2	1	(50.0)
Slovenia	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
Spain	-	-	-	-	-	-	0	-	-	-	-	-	2	2	(100.0)
Sweden	1	0	(0.0)	0	-	-	0	-	-	2	2	(100.0)	0	-	-
Subtotal EU/EEA	236	46	(19.5)	208	69	(33.2)	161	27	(16.8)	91	20	(22.0)	79	37	(46.8)
Non-EU/EEA															
Albania	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Andorra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Armenia	16	7	(43.8)	14	3	(21.4)	12	6	(50.0)	7	4	(57.1)	17	10	(58.8)
Azerbaijan	182	115	(63.2)	189	116	(61.4)	186	113	(60.8)	69	43	(62.3)	164	101	(61.6)
Belarus	419	256	(61.1)	383	293	(76.5)	287	206	(71.8)	455	349	(76.7)	275	206	(74.9)
Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
Georgia	47	28	(59.6)	54	29	(53.7)	53	30	(56.6)	44	30	(68.2)	35	20	(57.1)
Israel	1	0	(0.0)	2	1	(50.0)	1	1	(100.0)	1	0	(0.0)	5	4	(80.0)
Kazakhstan	300	145	(48.3)	386	293	(75.9)	655	476	(72.7)	1178	934	(79.3)	235	179	(76.2)
Kyrgyzstan	157	91	(58.0)	105	55	(52.4)	97	60	(61.9)	67	41	(61.2)	117	70	(59.8)
Monaco	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	1	1	(100.0)	0	-	-	0	-	-	0	-	-	0	-	-
North Macedonia	0	-	-	0	_	-	_	-	-	0	_	-	_	_	-
Republic of Moldova	62	20	(32.3)	62	32	(51.6)	37	21	(56.8)	71	36	(50.7)	118	54	(45.8)
Russian Federation	4140	1710	(41.3)	27	11	(40.7)	6018	2787	(46.3)	6201	2857	(46.1)	6122	2993	(48.9)
San Marino	0	-	-	_	-	(40.7)	-	_	(40.5)	-	-	(+0.1)	-	-	(10.7)
Serbia	_	-	-	-	-	-	-	-	-	-	_	-	0	_	
Serbia excluding Kosovo <sup>1</sup>	_	-	_	_	-	_	-	_	_	_	_	_	0	-	
Kosovo <sup>1</sup>	-	-	-	-	_	-	-	_	-	-	_	_	0	_	
Switzerland	0	-	_	1	1	(100.0)	-	-	_	1	1	(100.0)	1	1	(100.0
Tajikistan	250	155	(62.0)	63	42	(66.7)	68	53	(77.9)	103	72	(69.9)	111	85	(76.6)
Türkiye	230	0	(0.0)	8	1	(12.5)	8	1	(12.5)	14	7	(50.0)	5	3	(60.0)
Turkmenistan	5	2	(40.0)	28	8	(28.6)	113	59	(52.2)	264	157	(59.5)	288	181	(62.8)
Ukraine	1376	473	(34.4)	1479	505	(34.1)	- 113	59 -	(32.2)	204	15/	(59.5)	1576	917	(58.2)
									(75.0)						
United Kingdom	3	162	(33.3)	5	200	(40.0)	8	6	(75.0)	12	10	(83.3)	14	300	(57.1)
Uzbekistan	258	162	(62.8)	404	280	(69.3)	627	411	(65.6)	427	292	(68.4)	394	280	(71.1)
Subtotal non-EU/EEA	7 2 1 9	3166	(43.9)	3 2 1 0	1672	(52.1)	8 170 8 3 3 1	4230 4257	(51.8) (51.1)	8 9 1 4 9 0 0 5	4833 4853	(54.2) (53.9)	9477	5112 5149	(53.9)
Total European Region	7455	3 2 1 2	(43.1)	3 4 1 8	1741	(50.9)							9556		

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 tuberculosis HPC presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required. EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; pre-XDR-TB: pre-extensively drug-resistant tuberculosis.

Pre-XDR-TB defined as resistance to rifampicin (RR/MDR-TB) as well as resistance to any fluoroquinolone. Includes cases that are pre-XDR-TB but also meet the XDR case definition (XDR cases have not been excluded).

For EU/EEA countries, cases diagnosed post-mortem are excluded, and cases with no treatment enrolment data reported are assumed to be enrolled in treatment.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Table XIII. Treatment success after 36 months of XDR-TB<sup>a</sup> cases notified in EU/EEA, 2016–2020

		2016			2017			2018			2019		2020			
Country/area	XDR-TB	Success		XDR-TB	Suc	cess	XDR-TB	Suc	cess	XDR-TB	Suc	cess	XDR-TB	Success		
Country/area	cases (N)	N	(%)	cases (N)	N	(%)	cases (N)	N	(%)	cases (N)	N	(%)	cases (N)	N	(%)	
EU/EEA																
Austria	0	-	-	0	-	-	-	-	-	0	-	-	0	-	-	
Belgium	0	-	_	0	-	_	1	1	(100.0)	0	-	-	-	-	-	
Bulgaria	0	-	-	0	-	-	0	-	-	-	-	-	0	-	-	
Croatia	_	-	-	-	-	-	-	-	-	0	-	-	-	-	-	
Cyprus	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	
Czechia	0	-	_	0	_	_	0	-	_	0	-	-	-	-	-	
Denmark	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
Estonia	0	-	_	-	_	_	0	_	_	2	0	(0.0)	-	-	-	
Finland	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
France	_	-	-	-	_	_	-	-	-	-	-	-	-	-	-	
Germany	-	-	-	1	1	(100.0)	0	-	-	-	-	-	-	-	-	
Greece	_	-	_	-	_	_	-	-	-	-	-	-	-	-	-	
Hungary	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
Iceland	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-	
Ireland	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
Italy	_	-	-	-	-	-	-	-	_	-	-	-	-	-	-	
Latvia	-	-	_	-	-	_	-	-	-	-	-	-	-	-	-	
Liechtenstein	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lithuania	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
Luxembourg	_	-	-	-	-	-	0	-	-	0	-	-	-	-	-	
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Netherlands	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
Norway	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
Poland	_	-	-	0	-	-	-	-	-	-	-	-	-	-	-	
Portugal	0	-	-	-	-	-	0	-	-	0	-	-	0	-	-	
Romania	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
Slovakia	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-	
Slovenia	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sweden	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	
Total EU/EEA	0	-	-	1	1	(100.0)	1	1	(100.0)	2	0	(100.0)	0	-	-	

Note: WHO European Region 18 tuberculosis HPC presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.

EEA: European Economic Area; EU: European Union; HPC: high-priority countries; N: number; XDR-TB: extensively drug-resistant tuberculosis.

\* XDR-TB defined as resistance to rifampicin and to at least one fluoroquinolone (pre-XDR-TB) as well as resistance to at least one additional Group A drug. Group A drugs include levofloxacin, moxifloxacin, bedaquiline and linezolid. For EU/EEA countries, linezolid resistance is not yet reported to TESSy, therefore XDR-TB is assessed on the basis of resistance to levofloxacin, moxifloxacin and/or bedaquiline (in addition to meeting pre-XDR-TB criteria).

Table XIV. New and relapsed TB cases tested using WHO-recommended rapid diagnostics such as Xpert MTB/RIF, a European Region, 2019-2023

		2019			2020			2021			2022			2023	
Country/area	New and relapse TB cases <sup>b</sup>	Cases test WHO recon rapid diag	nmended nostics <sup>c</sup>	New and relapse TB cases <sup>b</sup>	Cases test WHO recon rapid diag	nmended nostics <sup>c</sup>	New and relapse TB cases <sup>b</sup>	Cases t using recomm rapid diag	WHO ended	New and relapse TB cases <sup>b</sup>	Cases test WHO recor rapid diag	nmended gnostics <sup>c</sup>	New and relapse TB cases <sup>b</sup>	Cases test WHO recor rapid diag	nmended gnostics <sup>c</sup>
	N	N	(%)	N	N	(%)	N	N	(%)	N	N	(%)	N	N	(%)
EU/EEA			()			()			(=)			(-, -)			()
Austria	464	366	(78.9)	382	263	(68.8)	387	281	(72.6)	366	271	(74.0)	411	296	(72.0)
Belgium <sup>d</sup>	890	613	(68.9)	774	531	(68.6)	811	584	(72.0)	786	588	(74.8)	253	0	(0.0)
Bulgaria	1288	17	(1.3)	887	2	(0.2)	673	2	(0.3)	764	1	(0.1)	858	0	(0.0)
Croatia	297	0	(0.0)	191	0	(0.0)	171	3	(1.8)	215	14	(6.5)	260	48	(18.5)
Cyprus	66	30	(45.5)	34	12	(35.3)	48	21	(43.8)	94	55	(58.5)	78	51	(65.4)
Czechia	455	313	(68.8)	356	255	(71.6)	352	264	(75.0)	377	325	(86.2)	450	385	(85.6)
Denmarkd	263	241	(91.6)	207	199	(96.1)	200	192	(96.0)	214	181	(84.6)	174	164	(94.3)
Estonia	147	132	(89.8)	120	106	(88.3)	107	87	(81.3)	125	111	(88.8)	98	89	(90.8)
Finland	225	130	(57.8)	174	107	(61.5)	170	105	(61.8)	187	125	(66.8)	179	120	(67.0)
France	4924	0	(0.0)	4 3 1 3	0	(0.0)	3979	0	(0.0)	4 012	0	(0.0)	4568	0	(0.0)
Germany	4656	4 0 3 1	(86.6)	4069	3598	(88.4)	3817	3356	(87.9)	3900	3 4 3 5	(88.1)	4301	3901	(90.7)
Greece	434	219	(50.5)	380	96	(25.3)	195	91	(46.7)	302	206	(68.2)	467	351	(75.2)
Hungary	528	0	(0.0)	384	0	(0.0)	314	0	(0.0)	435	0	(0.0)	493	257	(52.1)
Iceland	13	12	(92.3)	12	5	(41.7)	7	6	(85.7)	15	11	(73.3)	14	6	(42.9)
Ireland <sup>d</sup>	236	115	(48.7)	219	110	(50.2)	200	106	(53.0)	188	87	(46.3)	207	125	(60.4)
	3185	0	(0.0)	2163	0	(0.0)	2378	235	(9.9)	2294	381	(16.6)	2707	1268	(46.8)
Italy Latvia	2 105	-		2 103	-	(0.0)	2578	203	(79.6)	306	252	(82.4)	2/0/	1208	(40.8)
	_		-			(400.0)									(0.0)
Liechtenstein	4006	-	(0.0)	2	2	(100.0)	1	1	(100.0)	1	1	(100.0)	1	0	(0.0)
Lithuania	1006	0	(0.0)	688	0	(0.0)	628	0	(0.0)	724	0	(0.0)	707	0	(0.0)
Luxembourg	48	0	(0.0)	32	0	(0.0)	34	0	(0.0)	47	22	(46.8)	42	32	(76.2)
Malta	98	0	(0.0)	140	0	(0.0)	54	0	(0.0)	60	0	(0.0)	68	0	(0.0)
Netherlands	739	573	(77.5)	613	500	(81.6)	662	441	(66.6)	633	423	(66.8)	710	464	(65.4)
Norway <sup>d</sup>	154	129	(83.8)	142	121	(85.2)	139	116	(83.5)	152	140	(92.1)	136	123	(90.4)
Poland	4983	1094	(22.0)	3150	876	(27.8)	3446	1164	(33.8)	4037	1664	(41.2)	4144	1886	(45.5)
Portugal	1849	546	(29.5)	1477	459	(31.1)	1493	532	(35.6)	1532	592	(38.6)	1501	588	(39.2)
Romania	11 070	2840	(25.7)	7189	2231	(31.0)	7588	2457	(32.4)	8811	3 9 9 5	(45.3)	9122	4623	(50.7)
Slovakia	214	60	(28.0)	153	45	(29.4)	134	48	(35.8)	142	43	(30.3)	206	74	(35.9)
Slovenia	98	84	(85.7)	75	62	(82.7)	79	68	(86.1)	72	62	(86.1)	85	63	(74.1)
Spain	4395	1260	(28.7)	3483	1245	(35.7)	2785	1090	(39.1)	3694	1585	(42.9)	3991	2152	(53.9)
Sweden	478	386	(80.8)	312	273	(87.5)	340	289	(85.0)	355	328	(92.4)	341	300	(88.0)
Subtotal EU/EEA	43 203	13191	(30.5)	32121	11098	(34.6)	31447	11742	(37.3)	34840	14898	(42.8)	36572	17366	(47.5)
Non-EU/EEA	7,520,5	17171	(30.3)	32 12 1	11070	(34.0)	ודדוכ	11/42	(31.3)	34040	14070	(72.0)	303/2	1/ 500	(71.3)
Albania	412	135	(32.8)	240	138	(57.5)	269	158	(58.7)	292	263	(90.1)	302	274	(90.7)
Andorra	5	5	(100.0)	240	2	(100.0)	209	0	(0.0)	4	0	(0.0)	302	0	(0.0)
Armenia		512	(82.4)	394	326		398		(81.9)		379		-	-	(0.0)
	621					(82.7)		326		440		(86.1)			(00.7)
Azerbaijan	4823	4096	(84.9)	3 683	3 033	(82.4)	3 6 6 3	3125	(85.3)	3989	3794	(95.1)	3965	3955	(99.7)
Belarus	2207	2035	(92.2)	1514	1426	(94.2)	1484	1401	(94.4)	1670	1607	(96.2)	1555	1451	(93.3)
Bosnia and Herzegovina	-	-	-	-	-	-	362	1	(0.3)	-	-	-	-	-	-
Georgia	2169	1824	(84.1)	1 671	1468	(87.9)	1501	1403	(93.5)	-	-	-	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan	12501	11 513	(92.1)	9603	9219	(96.0)	9757	9630	(98.7)	10 009	9 9 7 4	(99.7)	9506	9 411	(99.0)
Kyrgyzstan	6138	4 5 7 5	(74.5)	4241	2495	(58.8)	4596	3833	(83.4)	4568	3850	(84.3)	4183	3778	(90.3)
Monaco	-	_	-	-	-	_	-	-	-	-	-	-	-	-	_
Montenegro	80	57	(71.3)	40	35	(87.5)	80	68	(85.0)	71	68	(95.8)	62	62	(100.0)
North Macedonia	-	-	-	-	-	-	143	112	(78.3)	-	-	-	157	90	(57.3)
Republic of Moldova	2809	2809	(100.0)	1767	1664	(94.2)	2067	1912	(92.5)	2121	1941	(91.5)	-	-	_
Russian Federation	73328	58300	(79.5)	58723	47901	(81.6)	56922	48208	(84.7)	55 906	49145	(87.9)	54643	48009	(87.9)
San Marino	-	-	_	-	-	-	-	_	_	-	_	-	_	-	
Serbia	605	414	(68.4)	439	438	(99.8)	445	101	(22.7)	-	-	-	581	245	(42.2)
Serbia excluding Kosovo <sup>1</sup>	-	714	(00.4)	737	470	(//.0)	447	-	(22.1)	_	-	_	-	247	(72.2)
Kosovo <sup>1</sup>	605	414	(68.4)	439	438	(99.8)	445	101	(22.7)	_	-	_	581	245	(42.2)
				437		(77.0)						_			
Switzerland Tailkistan	402	304	(75.6)	6410	2502	(0/. /)	355	243	(68.5)	4204	2721		413	373	(90.3)
Tajikistan	5755	4915	(85.4)	4148	3502	(84.4)	4158	3544	(85.2)	4294	3721	(86.7)	4435	3901	(88.0)
Türkiye	-	-	(== =)	-	-	(074)	9047	318	(3.5)	- 2500	- 4067	(== -)	-	-	_
Turkmenistan	2117	1650	(77.9)	1918	711	(37.1)	1878	889	(47.3)	2503	1967	(78.6)	-	-	_
Ukraine	25379	22 537	(88.8)	17 533	16774	(95.7)	18307	17451	(95.3)	18567	17 693	(95.3)	20058	19247	(96.0)
	4803	492	(10.2)	4185	475	(11.4)	4795	807	(16.8)	-	-	-	-	-	_
United Kingdom						(04.2)	12 5 4 4	12 272	(98.0)	14302	13730	(96.0)	_	-	-
Uzbekistan	16272	12 074	(74.2)	12 111	11 0 6 2	(91.3)	13 544	13 273			15750				
		12 074 128 247	(74.2) ( <b>79.9</b> )	12 111 122 212	11 0 6 2 100 6 6 9	(91.3) ( <b>82.4</b> )	133773	106803	(79.8)	118736	108132	(91.1)	99864	90796	(90.9)
Uzbekistan	16272												99 864 136 436	90796 108162	(90.9) (79.3)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 tuberculosis HPC presented in italics.

" See: World Health Organization (WHO). 'Automated real-time nucleic acid amplification technology for rapid and simultaneous detection of tuberculosis and rifampicin resistance: Xpert MTB/RIF assay for the diagnosis of pulmonary and extrapulmonary TB in adults and children: policy update.' Geneva: WHO. 2013. Available from: https://iris.who.int/handle/10665/112472.

Cases with unknown previous TB history are included among new TB cases.

All nucleic acid amplification tests are counted as "tested using WHO-recommended rapid diagnostics" for EU/EEA countries.

Previous TB history is defined as previous diagnosis.

This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.



# Abbreviations used in country profiles

ART antiretroviral therapy
C+ culture-positive

DR-TB drug-resistant tuberculosis
DRS drug-resistance surveillance
DST drug-susceptibility testing
MDR-TB multidrug-resistant tuberculosis
EQA external quality assessment

pre-XDR-TB pre-extensively drug-resistant tuberculosis

RR/MDR-TB rifampicin-resistant or multidrug-resistant tuberculosis

RR-TB rifampicin-resistant tuberculosis

TB tuberculosis
UN United Nations

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 2 811 661

#### Tuberculosis cases, 2023

#### Notifications

Notifications					
Total number of cases	302				
Notification rate per 100 000	10.7				
New <sup>a</sup> and relapse		302			
New <sup>a</sup> and relapse notification rate per 100 000		10.7			
Pulmonary	231	(76.5%)			
of which laboratory-confirmed	177	(76.6%)			
Mean age of new native TB cases	4	6.3 years			
Foreign origin of all TB cases	0	(0.0%)			
New (not previously treated)	274	(90.7%)			
Estimates					
Estimated new and relapse cases N,	430	[370-510]			

best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV data <sup>b</sup>		Yes
Case-linked data-reporting		Yes
Cases with DST results	177	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	5	[3-8]
Pulmonary RR/MDR-TB cases notified	5	(2.8%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	5	-
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	285	(94.4%)
HIV-positive TB cases	3	(1.1%)
of these on ART	3	(100.0%)

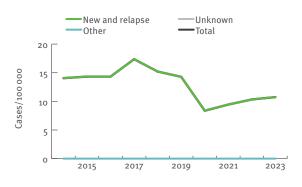
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

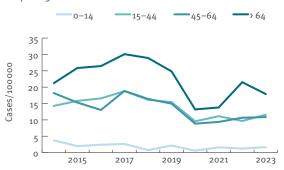
Geographical coverage		Nat	ional			
Outcome cohort <sup>a</sup>	TB case	d relapse s notified 2022	All RR/MDR-TB case notified in 2021			
Case-linked data-reporting	,	/es	Yes			
Cases notified	2	264		5		
Success	234	(88.6%)	3	(60.0%)		
Died	17	(6.4%)	1	(20.0%)		
Failed	0	(0.0%)	0	(0.0%)		
Lost to follow-up	6	(2.3%)	0	(0.0%)		
Not evaluated	7	(2.7%)	1	(20.0%)		

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

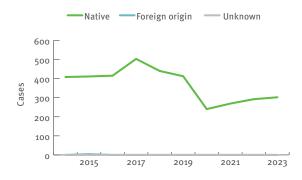
# TB notification rates by previous treatment history, 2014-2023



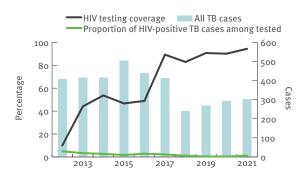
#### New and relapse TB cases - notification rates by age group, 2014-2023



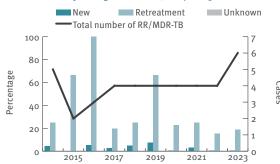
## TB cases by geographical origin, 2014-2023



### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023



# Treatment outcome, new and relapse TB cases, 2013-2022



All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population estimate 2023, UN Statistical Database': 80 854

## Tuberculosis cases, 2023

### Notifications

Total number of cases	4				
Notification rate per 100 000		4.9			
New <sup>a</sup> and relapse		4			
New <sup>a</sup> and relapse notification rate per 100 000	4.9				
Pulmonary	4	(100.0%)			
of which laboratory-confirmed	4	(100.0%)			
Mean age of new native TB cases	6	5.0 years			
Foreign origin of all TB cases	0	(0.0%)			
New (not previously treated)	4	(100.0%)			
Estimates					
Estimated new and relapse cases N, best [low-high]	5	[4-5]			

<sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes		
Completeness of HIV data <sup>b</sup>		No		
Case-linked data-reporting	Yes			
Cases with DST results	3	(75.0%)		
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	0	[0-0]		
Pulmonary RR/MDR-TB cases notified	0	(0.0%)		
of which pre-XDR-TB cases	-	-		
Notified RR/MDR-TB	0	(0.0%)		
of which pre-XDR-TB cases	-	-		
TB cases tested for HIV	-	-		
HIV-positive TB cases	-	-		
of these on ART	-	-		

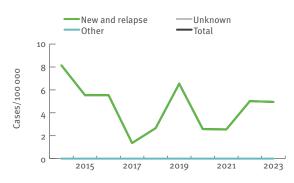
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

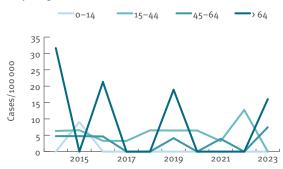
Geographical coverage		Nati	ional		
Outcome cohort <sup>a</sup>	TB cas	nd relapse es notified 2022	All RR/MDR-TB cases notified in 2021 Yes		
Case-linked data-reporting		Yes			
Cases notified		4		0	
Success	4	(100.0%)	-	-	
Died	0	(0.0%)	-	-	
Failed	0	(0.0%)	-	-	
Lost to follow-up	0	(0.0%)	-	-	
Not evaluated	0	(0.0%)	-	-	

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

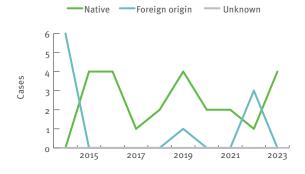
# TB notification rates by previous treatment history, 2014-2023



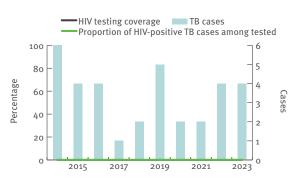
#### New and relapse TB cases - notification rates by age group, 2014-2023



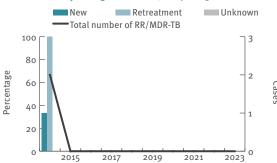
### TB cases by geographical origin, 2014-2023



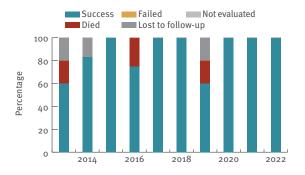
### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023



# Treatment outcome, new and relapse TB cases, 2013-2022



All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 2 943 390

## Tuberculosis cases, 2023

### Notifications

Total number of cases		435			
Notification rate per 100 000		14.8			
New <sup>a</sup> and relapse		404			
New <sup>a</sup> and relapse notification rate per 100 000	13.7				
Pulmonary	350	(80.5%)			
of which laboratory-confirmed	225	(64.3%)			
Mean age of new native TB cases	45.1 years				
Foreign origin of all TB cases	10	(2.3%)			
New (not previously treated)	377	(86.7%)			
Estimates					
Estimated new and relapse cases N,	720	[550-930]			

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes	
Completeness of HIV datab		Yes	
Case-linked data-reporting		Yes	
Cases with DST results	225	(100.0%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	54	[48-59]	
Pulmonary RR/MDR-TB cases notified	49	(21.8%)	
of which pre-XDR-TB cases	10	(20.4%)	
Notified RR/MDR-TB	49		
of which pre-XDR-TB cases	10	(20.4%)	
TB cases tested for HIV	377	(93.3%)	
HIV-positive TB cases	43	(11.4%)	
of these on ART	35	(81.4%)	

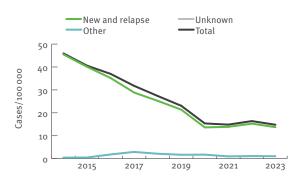
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

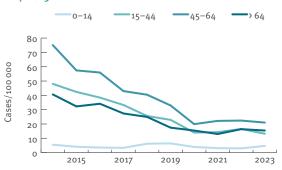
Geographical coverage		Nat	ional	
Outcome cohort <sup>a</sup>	TB case	d relapse es notified 2022		DR-TB cases ed in 2021
Case-linked data-reporting	1	Yes		Yes
Cases notified		397		64
Success	335	(84.4%)	44	(68.8%)
Died	26	(6.5%)	5	(7.8%)
Failed	5	(1.3%)	3	(4.7%)
Lost to follow-up	26	(6.5%)	11	(17.2%)
Not evaluated	5	(1.3%)	1	(1.6%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

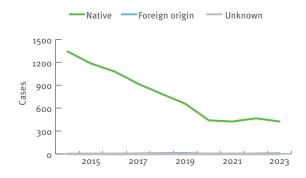
# TB notification rates by previous treatment history, 2014-2023



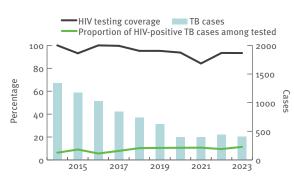
#### New and relapse TB cases - notification rates by age group, 2014-2023



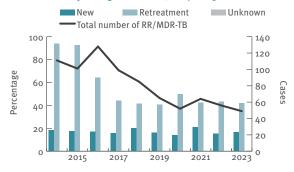
### TB cases by geographical origin, 2014-2023



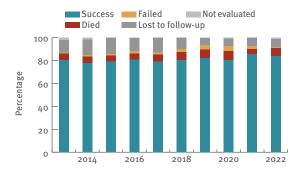
### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023



# Treatment outcome, new and relapse TB cases, 2013-2022



All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat¹: 9 104 772

## Tuberculosis cases, 2023

No	tif	ica	tio	ns

Total number of cases	421		
Notification rate per 100 000	4.6		
New <sup>a</sup> and relapse	411		
New <sup>a</sup> and relapse notification rate per 100 000	4.5		
Pulmonary	325	(77.2%)	
of which microscopy-positive	118	(36.3%)	
of which laboratory-confirmed	276	(84.9%)	
Laboratory-confirmed TB cases	336	(79.8%)	
Mean age of new native TB cases	60.3 years		
Mean age of new foreign TB cases	36.6 years		
Foreign origin of all TB cases	275	(65.3%)	
New (not previously treated)	305	(72.4%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	470	[400-550]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	320	(95.2%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	18	[5-31]
Pulmonary RR/MDR-TB cases notified	9	(3.4%)
of which pre-XDR-TB cases	2	(22.2%)
Notified RR/MDR-TB	9	(2.8%)
of which pre-XDR-TB cases	2	(22.2%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

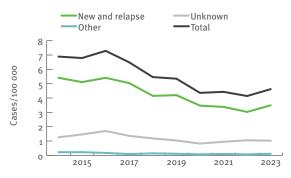
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

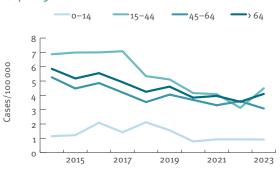
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022		All RR/MDR-TB cases notified in 2021	
Case-linked data-reporting	Yes		-	
Cases notified	178		9	
Success	138	(77.5%)	6	(66.7%)
Died	11	(6.2%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	16	(9.0%)	2	(22.2%)
Still on treatment	13	(7.3%)	1	(11.1%)
Not evaluated	0	(0.0%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

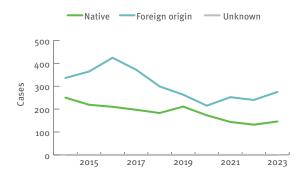
# TB notification rates by previous treatment history, 2014-2023



#### New and relapse TB cases - notification rates by age group, 2014-2023



## TB cases by geographical origin, 2014-2023



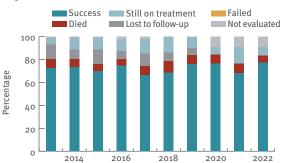
### TB/HIV coinfection, 2014-2023

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014–2023



#### Treatment outcome, new culture-confirmed pulmonary TB cases, 2013-2022



All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

# Azerbaijan

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 10 312 992

### Tuberculosis cases, 2023

#### Notifications

itotiiitatioii5		
Total number of cases		5044
Notification rate per 100 000		48.9
New <sup>a</sup> and relapse	3965	
New <sup>a</sup> and relapse notification rate per 100 000		38.4
Pulmonary	4380	(86.8%)
of which laboratory-confirmed	3814	(87.1%)
Mean age of new native TB cases	42	.1 years
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	2816	(55.8%)
Estimates		
Fastures durant and relation access M.		

Estimated new and relapse cases N,  $\phantom{+}7\,400\phantom{+}[5\,000-11000]$  best [low-high]

<sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	3 761	(98.6%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	740	[710-770]
Pulmonary RR/MDR-TB cases notified	930	(24.7%)
of which pre-XDR-TB cases	164	(17.6%)
Notified RR/MDR-TB	1100	
of which pre-XDR-TB cases	165	(15.0%)
TB cases tested for HIV	3965	(100.0%)
HIV-positive TB cases	60	(1.5%)
of these on ART	60	(100.0%)

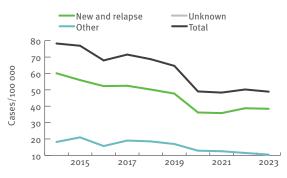
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

## Treatment outcome monitoring

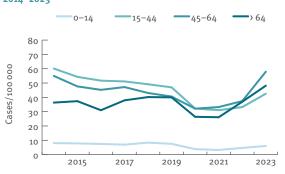
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified notified in in 2022			
Case-linked data-reporting	Yes		,	res .
Cases notified	3	3606		962
Success	2957	(82.0%)	620	(64.4%)
Died	160	(4.4%)	75	(7.8%)
Failed	213	(5.9%)	161	(16.7%)
Lost to follow-up	241	(6.7%)	106	(11.0%)
Not evaluated	35	(1.0%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

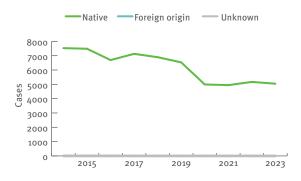
### TB notification rates by previous treatment history, 2014-2023



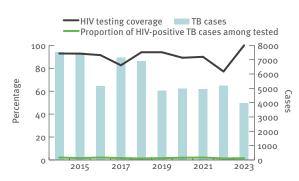
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023

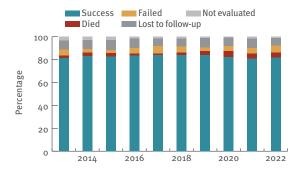


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 9115675

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	1681		
Notification rate per 100 000	18.4		
New <sup>a</sup> and relapse	1555		
New <sup>a</sup> and relapse notification rate per 100 000	17.1		
Pulmonary	1579	(93.9%)	
of which laboratory-confirmed	1494	(94.6%)	
Mean age of new native TB cases	50.5 years		
Foreign origin of all TB cases	0	(0.0%)	
New (not previously treated)	1274	(75.8%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	2500	[1900-3200]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	1494	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	680	[660-700]
Pulmonary RR/MDR-TB cases notified	658	(44.0%)
of which pre-XDR-TB cases	244	(37.1%)
Notified RR/MDR-TB	694	
of which pre-XDR-TB cases	244	(35.2%)
TB cases tested for HIV	1542	(99.2%)
HIV-positive TB cases	126	(8.2%)
of these on ART	116	(92.1%)

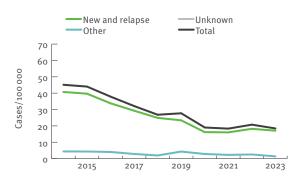
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

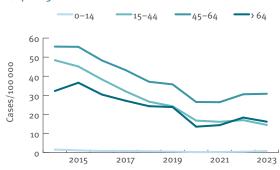
Geographical coverage	National			
Outcome cohort <sup>a</sup>				DR-TB cases d in 2021
Case-linked data-reporting	Yes		,	Yes
Cases notified	9	999		724
Success	869	(87.0%)	570	(78.7%)
Died	82	(8.2%)	78	(10.8%)
Failed	21	(2.1%)	33	(4.6%)
Lost to follow-up	21	(2.1%)	33	(4.6%)
Not evaluated	6	(0.6%)	10	(1.4%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

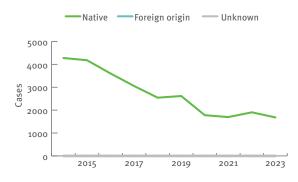
### TB notification rates by previous treatment history, 2014-2023



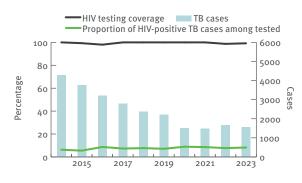
#### New and relapse TB cases - notification rates by age group, 2014-2023



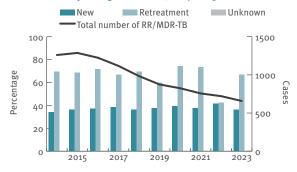
#### TB cases by geographical origin, 2014-2023

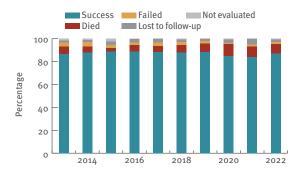


TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat¹: 11 742 796

### Tuberculosis cases, 2023

#### Notifications

Total number of cases		869
Notification rate per 100 000		7.4
New <sup>a</sup> and relapse		253
New <sup>a</sup> and relapse notification rate per 100 000		2.2
Pulmonary	614	(70.7%)
of which microscopy-positive	-	-
of which laboratory-confirmed	507	(82.6%)
Laboratory-confirmed TB cases	687	(79.1%)
Mean age of new native TB cases	5	3.0 years
Mean age of new foreign TB cases	3	9.5 years
Foreign origin of all TB cases	558	(64.2%)
New (not previously treated)	56	(6.4%)
Estimates		
Estimated new and relapse cases N,	000	[750 1000]

best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	671	(97.7%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	26	[16-37]
Pulmonary RR/MDR-TB cases notified	10	(2.2%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	11	(1.6%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

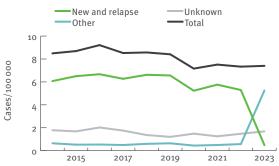
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			R-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified	344			8
Success	0	(0.0%)	3	(37.5%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	344	(100.0%)	5	(62.5%)

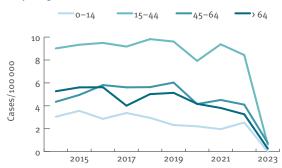
<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

## TB notification rates by previous treatment history, 2014-2023



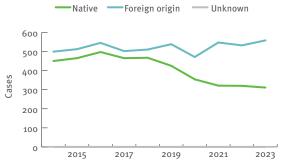
Note: information on new and relapse cases was not available for 2023 data.

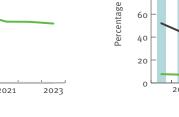
#### New and relapse TB cases - notification rates by age group, 2014-2023



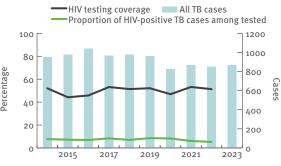
Note: information on new and relapse cases was not available for 2023 data.

#### TB cases by geographical origin, 2014-2023

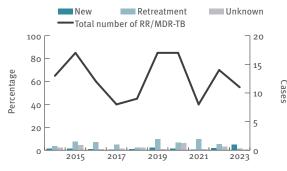


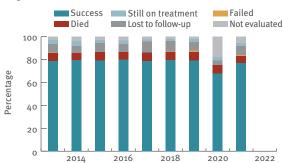


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

# **Bosnia and Herzegovina**

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 3 185 078

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases		446
Notification rate per 100 000	14.0	
New <sup>a</sup> and relapse	444	
New <sup>a</sup> and relapse notification rate per 100 000	13.9	
Pulmonary	410	(91.9%)
of which laboratory-confirmed	383	(93.4%)
Mean age of new native TB cases	54.4 years	
Foreign origin of all TB cases	3	(0.7%)
New (not previously treated)	411	(92.2%)
Estimates		
Estimated new and relapse cases N,	750	[550-980]

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	368	(96.1%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases N, best [low-high]	2	[1-2]
Pulmonary RR/MDR-TB cases notified	0	(0.0%)
of which pre-XDR-TB cases	-	-
Notified RR/MDR-TB	0	(0.0%)
of which pre-XDR-TB cases	-	-
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

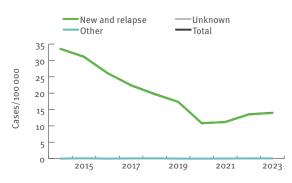
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

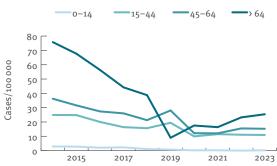
Geographical coverage	National						
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022 All RR/MDR-T notified in		TB cases notified All RR/MDR-		TB cases notified		
Case-linked data-reporting	Yes		Y	es			
Cases notified	1	428		)			
Success	200	(46.7%)	-	-			
Died	20	(4.7%)	-	-			
Failed	2	(0.5%)					
Lost to follow-up	9	(2.1%)					
Not evaluated	197	(46.0%)					

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

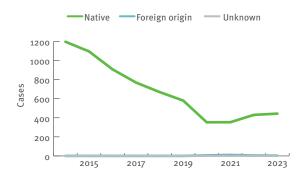
### TB notification rates by previous treatment history, 2014-2023



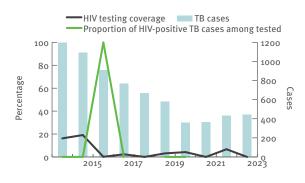
#### New and relapse TB cases - notification rates by age group, 2014-2023



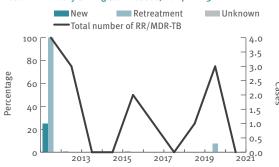
#### TB cases by geographical origin, 2014-2023



#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

# Bulgaria

Total population as of 15 April 2024 by Eurostat¹: 6 447 710

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases		881
Notification rate per 100 000		13.7
New <sup>a</sup> and relapse	858	
New <sup>a</sup> and relapse notification rate per 100 000	13.3	
Pulmonary	711	(80.7%)
of which microscopy-positive	340	(47.8%)
of which laboratory-confirmed	347	(48.8%)
Laboratory-confirmed TB cases	408	(46.3%)
Mean age of new native TB cases	4	2.0 years
Mean age of new foreign TB cases	5	1.4 years
Foreign origin of all TB cases	4	(0.5%)
New (not previously treated)	775	(88.0%)
Estimates		
Estimated new and relapse cases N,	1100	[920_1400]

best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	272	(66.7%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	33	[14 - 52]
Pulmonary RR/MDR-TB cases notified	11	(4.2%)
of which pre-XDR-TB cases	1	(11.1%)
Notified RR/MDR-TB	11	(4.0%)
of which pre-XDR-TB cases	1	(11.1%)
TB cases tested for HIV	650	(73.8%)
HIV-positive TB cases	3	(0.5%)
of these on ART	-	-

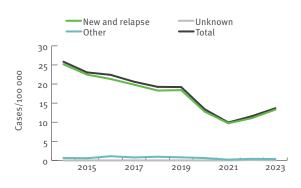
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

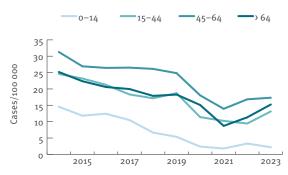
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			
Case-linked data-reporting	Yes			-
Cases notified	3	309		4
Success	0	(0.0%)	2	(50.0%)
Died	0	(0.0%)	2	(50.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	309	(100.0%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

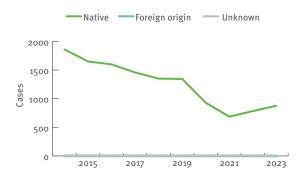
### TB notification rates by previous treatment history, 2014-2023



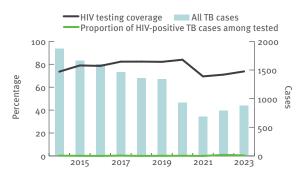
#### New and relapse TB cases - notification rates by age group, 2014-2023



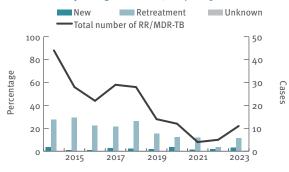
#### TB cases by geographical origin, 2014-2023



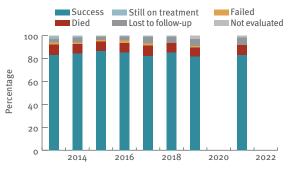
TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023



Treatment outcome, new culture-confirmed pulmonary TB cases, 2013-2022



All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat¹: 3 850 894

### Tuberculosis cases, 2023

#### Notifications

Total number of cases		265
Notification rate per 100 000		6.9
New <sup>a</sup> and relapse		260
New <sup>a</sup> and relapse notification rate per 100 000	6.8	
Pulmonary	202	(76.2%)
of which microscopy-positive	115	(56.9%)
of which laboratory-confirmed	188	(93.1%)
Laboratory-confirmed TB cases	240	(90.6%)
Mean age of new native TB cases	5	7.2 years
Mean age of new foreign TB cases	4	9.0 years
Foreign origin of all TB cases	41	(15.5%)
New (not previously treated)	196	(74.0%)
Estimates		
Estimated new and relapse cases N,	140	[120-160]

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	219	(91.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	1	[0-2]
Pulmonary RR/MDR-TB cases notified	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	39	(14.7%)
HIV-positive TB cases	3	(7.7%)
of these on ART	-	-

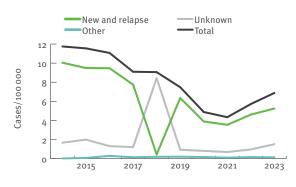
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

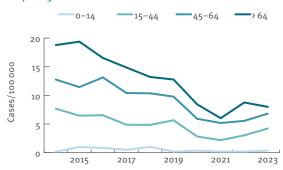
Geographical coverage	National			
Outcome cohort <sup>a</sup>	pulmona	ure positive ry TB cases d in 2022		R-TB cases d in 2021
Case-linked data-reporting	Yes			-
Cases notified	146			0
Success	84	(57.5%)	-	-
Died	26	(17.8%)	-	-
Failed	0	(0.0%)	-	-
Lost to follow-up	2 (1.4%)		-	-
Still on treatment	8	(5.5%)	-	-
Not evaluated	26	(17.8%)	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

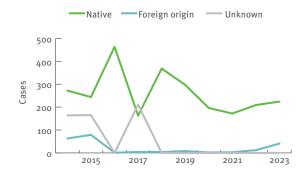
### TB notification rates by previous treatment history, 2014-2023



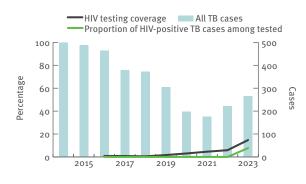
#### New and relapse TB cases - notification rates by age group, 2014-2023



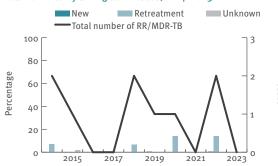
#### TB cases by geographical origin, 2014-2023

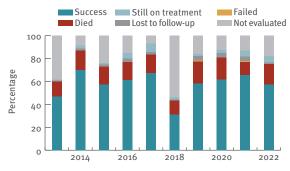


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat1: 920 701

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases		81
Notification rate per 100 000		8.8
New <sup>a</sup> and relapse		78
New <sup>a</sup> and relapse notification rate per 100 000		8.5
Pulmonary	66	(81.5%)
of which microscopy-positive	26	(39.4%)
of which laboratory-confirmed	56	(84.8%)
Laboratory-confirmed TB cases	68	(84.0%)
Mean age of new native TB cases	5	1.5 years
Mean age of new foreign TB cases	31	1.4 years
Foreign origin of all TB cases	71	(87.7%)
New (not previously treated)	75	(92.6%)
Estimates		
Estimated new and relapse cases N,	74	[63-85]

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	68	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	2	[0-3]
Pulmonary RR/MDR-TB cases notified	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	52	(64.2%)
HIV-positive TB cases	3	(5.8%)
of these on ART	-	-

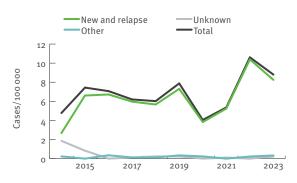
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+>75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

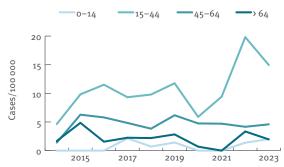
Geographical coverage	National			
Outcome cohort <sup>a</sup>	pulmona	ure-positive ry TB cases d in 2022		DR-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified	67		3	
Success	17	(25.4%)	1	(33.3%)
Died	2	(3.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	1	(33.3%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	48	(71.6%)	1	(33.3%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

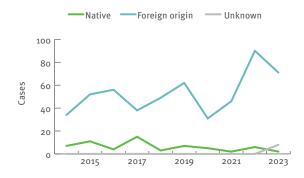
### TB notification rates by previous treatment history, 2014-2023



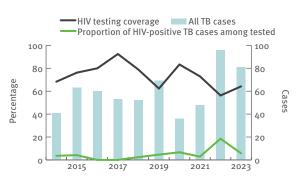
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023

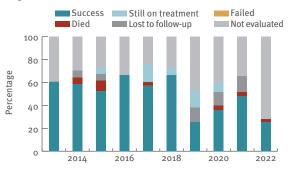


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat: 10 827 529

### Tuberculosis cases, 2023

#### Notifications

HOLITICALIONS		
Total number of cases	459	
Notification rate per 100 000		4.2
New <sup>a</sup> and relapse	450	
New <sup>a</sup> and relapse notification rate per 100 000		4.2
Pulmonary	403	(87.8%)
of which microscopy-positive	224	(55.6%)
of which laboratory-confirmed	348	(86.4%)
Laboratory-confirmed TB cases	381	(83.0%)
Mean age of new native TB cases	5	0.7 years
Mean age of new foreign TB cases	4	0.1 years
Foreign origin of all TB cases	227	(49.5%)
New (not previously treated)	439	(95.6%)
Estimates		
Estimated new and relapse cases N,	520	[440-600]

best [low-high] 520 [440-600]

a Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	359	(94.2%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	28	[12-26]
Pulmonary RR/MDR-TB cases notified	25	(9.6%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	28	(7.8%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	308	(67.1%)
HIV-positive TB cases	18	(5.8%)
of these on ART	-	-

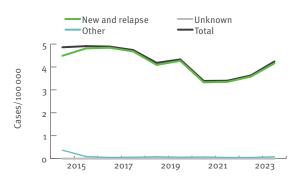
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	pulmona	ure-positive ry TB cases d in 2022		DR-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified	263			11
Success	156	(59.3%)	5	(45.5%)
Died	24	(9.1%)	3	(27.3%)
Failed	2	(0.8%)	0	(0.0%)
Lost to follow-up	67 (25.5%)		2	(18.2%)
Still on treatment	11	(4.2%)	1	(9.1%)
Not evaluated	3	(1.1%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

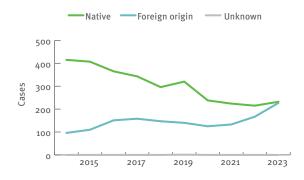
### TB notification rates by previous treatment history, 2014-2023



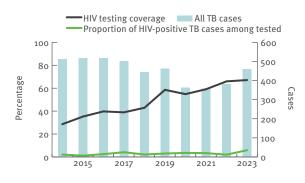
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023

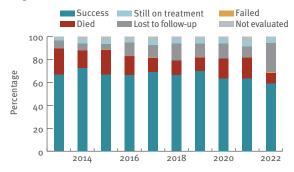


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat¹: 5 932 654

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases	193		
Notification rate per 100 000	3.3		
New <sup>a</sup> and relapse	174		
New <sup>a</sup> and relapse notification rate per 100 000	2.9		
Pulmonary	144	(74.6%)	
of which microscopy-positive	65	(45.1%)	
of which laboratory-confirmed	117	(81.3%)	
Laboratory-confirmed TB cases	151	(78.2%)	
Mean age of new native TB cases	44.8 years		
Mean age of new foreign TB cases	44.2 years		
Foreign origin of all TB cases	138	(71.5%)	
New (not previously treated)	174	(90.2%)	
Estimates			
Estimated new and relapse cases N,	220	[190-250]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	149	(98.7%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	5	[3-8]
Pulmonary RR/MDR-TB cases notified	2	(1.4%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	6	(4.0%)
of which pre-XDR-TB cases	1	(20.0%)
TB cases tested for HIV	137	(71.0%)
HIV-positive TB cases	7	(5.1%)
of these on ART	-	-

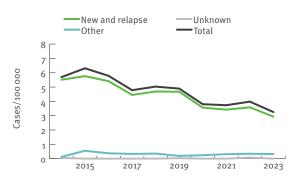
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+>75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

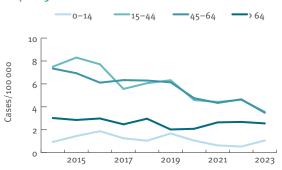
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022 notified in 20			
Case-linked data-reporting	Yes -		-	
Cases notified	133			1
Success	24	(18.0%)	0	(0.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	1 (0.8%)		0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	108	(81.2%)	1	(100.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

### TB notification rates by previous treatment history, 2014-2023



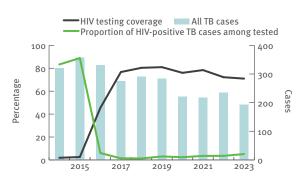
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023

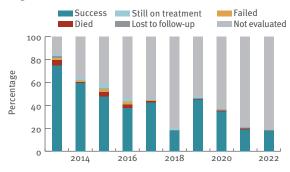


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

# **Estonia**

Total population as of 15 April 2024 by Eurostat<sup>1</sup>: 1365 884

#### Tuberculosis cases, 2023

Notifications	
---------------	--

Nothications			
Total number of cases	99		
Notification rate per 100 000	7.2		
New <sup>a</sup> and relapse	98		
New <sup>a</sup> and relapse notification rate per 100 000	7.2		
Pulmonary	97	(98.0%)	
of which microscopy-positive	46	(47.4%)	
of which laboratory-confirmed	83	(85.6%)	
Laboratory-confirmed TB cases	83	(83.8%)	
Mean age of new native TB cases	52	2.9 years	
Mean age of new foreign TB cases	53.0 years		
Foreign origin of all TB cases	24	(24.2%)	
New (not previously treated)	78	(78.8%)	
Estimates			
Estimated new and relapse cases N,	110	[96-130]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>	Yes	
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	80	(96.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	31	[31-48]
Pulmonary RR/MDR-TB cases notified	20	(24.4%)
of which pre-XDR-TB cases	5	(27.8%)
Notified RR/MDR-TB	20	(25.0%)
of which pre-XDR-TB cases	5	(27.8%)
TB cases tested for HIV	95	(96.0%)
HIV-positive TB cases	13	(13.7%)
of these on ART	10	(83.3%)

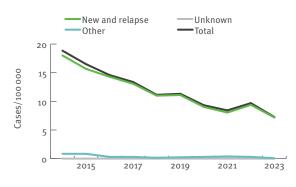
<sup>&</sup>lt;sup>®</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>®</sup> More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	pulmona	ure-positive ry TB cases d in 2022		DR-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified	76		26	
Success	55	(72.4%)	17	(65.4%)
Died	13	(17.1%)	7	(26.9%)
Failed	1	(1.3%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	1	(3.8%)
Still on treatment	5	(6.6%)	1	(3.8%)
Not evaluated	2	(2.6%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

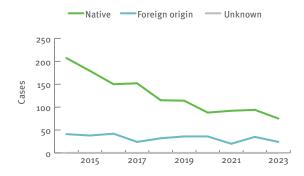
## TB notification rates by previous treatment history, 2014-2023



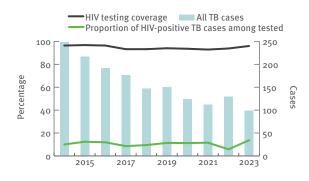
#### New and relapse TB cases - notification rates by age group, 2014-2023



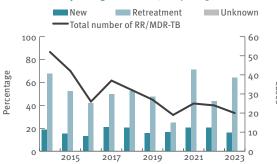
#### TB cases by geographical origin, 2014-2023



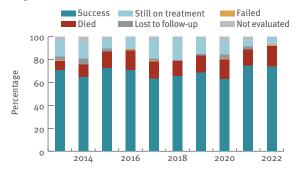
#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023



Treatment outcome, new culture-confirmed pulmonary TB cases, 2013-2022



All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat<sup>1</sup>: 5 563 970

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases	180		
Notification rate per 100 000	3.2		
New <sup>a</sup> and relapse	179		
New <sup>a</sup> and relapse notification rate per 100 000	3.2		
Pulmonary	112	(62.2%)	
of which microscopy-positive	31	(27.7%)	
of which laboratory-confirmed	92	(82.1%)	
Laboratory-confirmed TB cases	127	(70.6%)	
Mean age of new native TB cases	69.6 years		
Mean age of new foreign TB cases	38.3 years		
Foreign origin of all TB cases	75	(41.7%)	
New (not previously treated)	165	(91.7%)	
Estimates			
Estimated new and relapse cases N,	190	[160-220]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

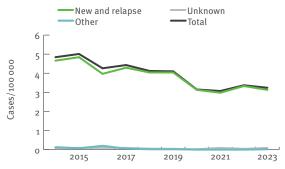
Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab	No	
Case-linked data-reporting	Yes	
Cases with DST results	121	(95.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	9	[5-13]
Pulmonary RR/MDR-TB cases notified	5	(5.7%)
of which pre-XDR-TB cases	1	(20.0%)
Notified RR/MDR-TB	8	(6.6%)
of which pre-XDR-TB cases	2	(25.0%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022 All RR/MDR-TB cas			
Case-linked data-reporting	Yes -		=	
Cases notified	106		3	
Success	1	(0.9%)	0	(0.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	105	(99.1%)	3	(100.0%)

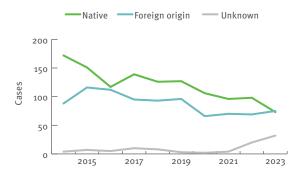
## TB notification rates by previous treatment history, 2014-2023





New and relapse TB cases - notification rates by age group,

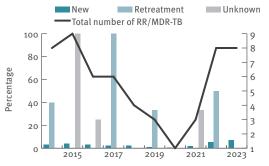
#### TB cases by geographical origin, 2014-2023

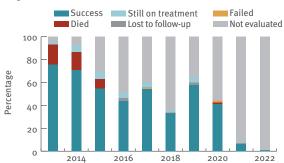


#### TB/HIV coinfection, 2014-2023

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014–2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat1: 68 172 977

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases	4866		
Notification rate per 100 000	7.1		
New <sup>a</sup> and relapse	4568		
New <sup>a</sup> and relapse notification rate per 100 000	6.7		
Pulmonary	3400	(69.9%)	
of which microscopy-positive	1578	(46.4%)	
of which laboratory-confirmed	1530	(45.0%)	
Laboratory-confirmed TB cases	2057	(42.3%)	
Mean age of new native TB cases	45.8 years		
Mean age of new foreign TB cases	37.9 years		
Foreign origin of all TB cases	3 0 7 5	(63.2%)	
New (not previously treated)	3 437	(70.6%)	
Estimates			
Estimated new and relapse cases N,	5500	[4900-6200]	

## best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	80	(3.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	86	[32-140]
Pulmonary RR/MDR-TB cases notified	66	(100.0%)
of which pre-XDR-TB cases	5	(9.1%)
Notified RR/MDR-TB	80	(100.0%)
of which pre-XDR-TB cases	6	(9.0%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

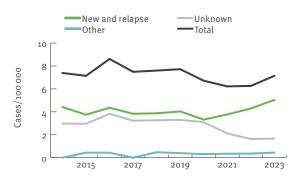
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

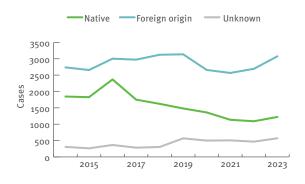
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			
Case-linked data-reporting	Yes			-
Cases notified	1041			43
Success	566	(54.4%)	0	(0.0%)
Died	44	(4.2%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	43	(4.1%)	1	(2.3%)
Still on treatment	9	(0.9%)	0	(0.0%)
Not evaluated	379	(36.4%)	42	(97.7%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

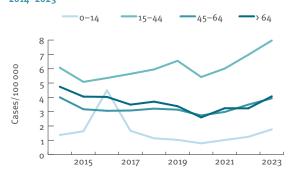
## TB notification rates by previous treatment history, 2014-2023



# TB cases by geographical origin, 2014-2023



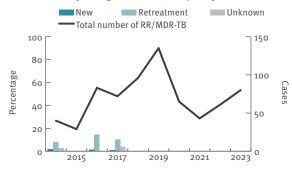
#### New and relapse TB cases - notification rates by age group, 2014-2023

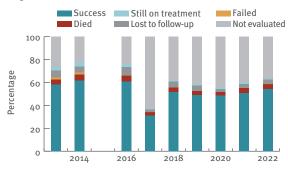


#### TB/HIV coinfection, 2014-2023

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014–2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

# Georgia

Total population estimate 2023, UN Statistical Database: 3 807 493

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	1447		
Notification rate per 100 000	38.0		
New <sup>a</sup> and relapse	1308		
New <sup>a</sup> and relapse notification rate per 100 000	34.4		
Pulmonary	1238	(85.6%)	
of which laboratory-confirmed	1160	(93.7%)	
Mean age of new native TB cases	44.8 years		
Foreign origin of all TB cases	0	(0.0%)	
New (not previously treated)	1143	(79.0%)	
Estimates			
Estimated new and relapse cases N,	2100	[1700_2600]	

best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes	
Completeness of HIV datab	Yes		
Case-linked data-reporting	Yes		
Cases with DST results	1121	(96.6%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	150	[140-170]	
Pulmonary RR/MDR-TB cases notified	136	(12.1%)	
of which pre-XDR-TB cases	43	(35.8%)	
Notified RR/MDR-TB	144		
of which pre-XDR-TB cases	43	(29.9%)	
TB cases tested for HIV	1241	(94.9%)	
HIV-positive TB cases	28	(2.3%)	
of these on ART	28	(100.0%)	

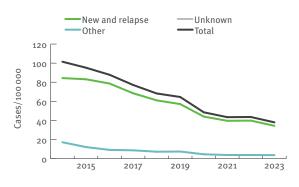
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

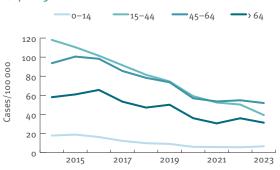
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022 All RR/MDR-TB notified in 20			
Case-linked data-reporting	١	Yes Yes		Yes
Cases notified	1	357		175
Success	1178	(86.8%)	127	(72.6%)
Died	40	(2.9%)	12	(6.9%)
Failed	32	(2.4%)	8	(4.6%)
Lost to follow-up	72	(5.3%)	19	(10.9%)
Not evaluated	35	(2.6%)	9	(5.1%)
	4.	.1		

Treatment outcome after 12 months (or 24 months).

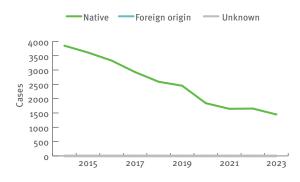
### TB notification rates by previous treatment history, 2014-2023



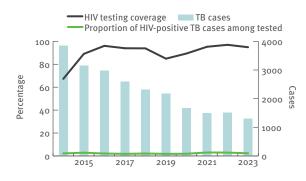
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023



#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat<sup>1</sup>: 84 358 845

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases	4481		
Notification rate per 100 000	5.3		
New <sup>a</sup> and relapse	4301		
New <sup>a</sup> and relapse notification rate per 100 000	5.1		
Pulmonary	3 425	(76.4%)	
of which microscopy-positive	1778	(51.9%)	
of which laboratory-confirmed	2824	(82.5%)	
Laboratory-confirmed TB cases	3542	(79.0%)	
Mean age of new native TB cases	52.9 years		
Mean age of new foreign TB cases	3	6.1 years	
Foreign origin of all TB cases	3326	(74.2%)	
New (not previously treated)	2911	(65.0%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	4100	[3700-4500]	

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	2 705	-
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	3168	(89.4%)
Pulmonary RR/MDR-TB cases notified	130	[89-170]
of which pre-XDR-TB cases	173	(6.7%)
Notified RR/MDR-TB	36	(29.0%)
of which pre-XDR-TB cases	196	(6.2%)
TB cases tested for HIV	40	(28.8%)
HIV-positive TB cases	-	-
of these on ART	-	-
	_	_

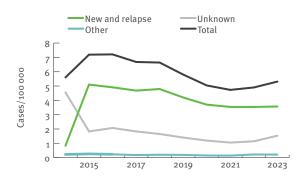
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

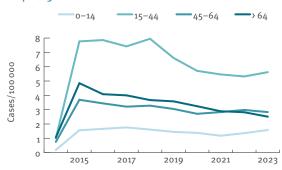
ary TB cases	All RR/MI	
New culture-positive pulmonary TB cases notified in 2022 All RR/MDR-TB c		
Yes –		-
1806		97
(64.8%)	46	(47.4%)
(9.6%)	10	(10.3%)
(0.1%)	1	(1.0%)
(1.6%)	4	(4.1%)
(2.9%)	10	(10.3%)
(21.0%)	26	(26.8%)
	(9.6%) (0.1%) (1.6%) (2.9%)	(9.6%) 10 (0.1%) 1 (1.6%) 4 (2.9%) 10

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

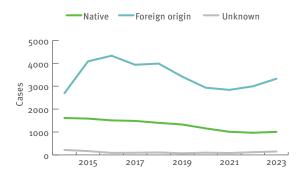
### TB notification rates by previous treatment history, 2014-2023



#### New and relapse TB cases - notification rates by age group, 2014-2023



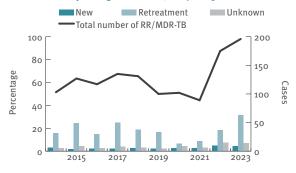
#### TB cases by geographical origin, 2014-2023

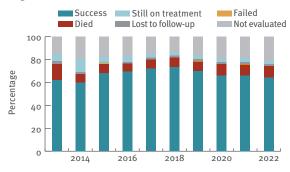


#### TB/HIV coinfection, 2014-2023

Data not reported

#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

Total population as of 15 April 2024 by Eurostat¹: 10 413 982

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	493		
Notification rate per 100 000	4.7		
New <sup>a</sup> and relapse	467		
New <sup>a</sup> and relapse notification rate per 100 000	4.5		
Pulmonary	366	(74.2%)	
of which microscopy-positive	156	(42.6%)	
of which laboratory-confirmed	299	(81.7%)	
Laboratory-confirmed TB cases	397	(80.5%)	
Mean age of new native TB cases	60.3 years		
Mean age of new foreign TB cases	3-	4.2 years	
Foreign origin of all TB cases	263	(53.3%)	
New (not previously treated)	341	(69.2%)	
Estimates			
Estimated new and relapse cases N, best [low–high]	540	[460-620]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>	Yes	
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	293	(73.8%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	14	[4-23]
Pulmonary RR/MDR-TB cases notified	9	(3.9%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	11	(3.8%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	347	(70.4%)
HIV-positive TB cases	11	(3.2%)
of these on ART	-	-

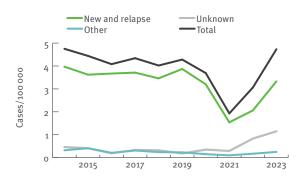
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

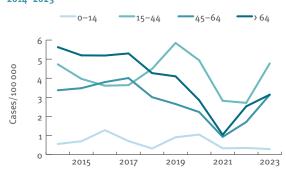
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			
Case-linked data-reporting	Yes			-
Cases notified	122			5
Success	0	(0.0%)	0	(0.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	122	(100.0%)	5	(100.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

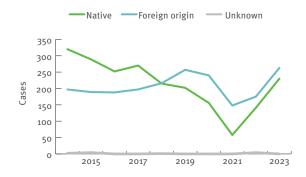
### TB notification rates by previous treatment history, 2014-2023



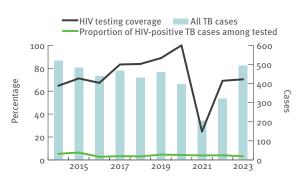
#### New and relapse TB cases - notification rates by age group, 2014-2023



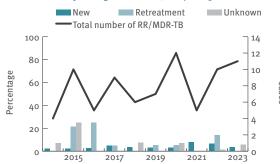
#### TB cases by geographical origin, 2014-2023



### TB/HIV coinfection, 2014-2023



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014–2023



## Treatment outcome, new culture-confirmed pulmonary TB cases,

Data not reported

All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

# Hungary

Total population as of 15 April 2024 by Eurostat1: 9599744

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	493		
Notification rate per 100 000	5.1		
New <sup>a</sup> and relapse	493		
New <sup>a</sup> and relapse notification rate per 100 000	5.1		
Pulmonary	478	(97.0%)	
of which microscopy-positive	190	(39.7%)	
of which laboratory-confirmed	278	(58.2%)	
Laboratory-confirmed TB cases	281	(57.0%)	
Mean age of new native TB cases	55.0 years		
Mean age of new foreign TB cases	3	5.3 years	
Foreign origin of all TB cases	53	(10.8%)	
New (not previously treated)	467	(94.7%)	
Estimates			
Estimated new and relapse cases N,	F70	[400, 440]	

best [low-high]  $^{\rm a}$  Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab	Yes	
Case-linked data-reporting		Yes
Cases with DST results	250	(89.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	29	[18-40]
Pulmonary RR/MDR-TB cases notified	17	(6.9%)
of which pre-XDR-TB cases	3	(75.0%)
Notified RR/MDR-TB	17	(6.8%)
of which pre-XDR-TB cases	3	(75.0%)
TB cases tested for HIV	31	(6.3%)
HIV-positive TB cases	5	(16.1%)
of these on ART	-	-

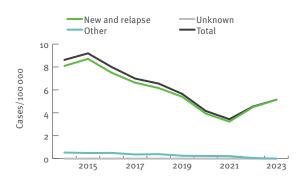
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>			DR-TB cases ed in 2021	
Case-linked data-reporting	,	Yes	-	
Cases notified	225			12
Success	137	(60.9%)	8	(66.7%)
Died	36	(16.0%)	1	(8.3%)
Failed	7	(3.1%)	0	(0.0%)
Lost to follow-up	20	(8.9%)	3	(25.0%)
Still on treatment	9	(4.0%)	0	(0.0%)
Not evaluated	16	(7.1%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

## TB notification rates by previous treatment history, 2014-2023



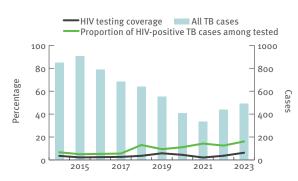
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023

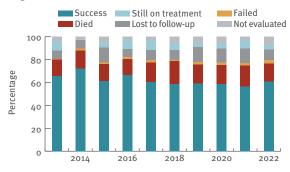


#### TB/HIV coinfection, 2014-2023



### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat¹: 387758

### Tuberculosis cases, 2023

#### Notifications

Total number of cases		16	
Notification rate per 100 000		4.1	
New <sup>a</sup> and relapse	14		
New <sup>a</sup> and relapse notification rate per 100 000		3.6	
Pulmonary	12	(75.0%)	
of which microscopy-positive	6	(50.0%)	
of which laboratory-confirmed	9	(75.0%)	
Laboratory-confirmed TB cases	13	(81.3%)	
Mean age of new native TB cases	27.5 years		
Mean age of new foreign TB cases		-	
Foreign origin of all TB cases	14	(87.5%)	
New (not previously treated)	2	(12.5%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	12	[11-14]	

Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>	Yes	
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	2	(15.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	0	[0-0]
Pulmonary RR/MDR-TB cases notified	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

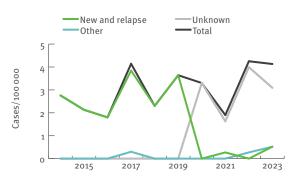
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

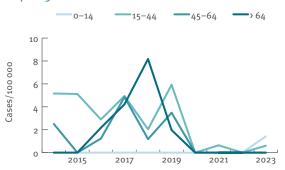
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			R-TB cases d in 2021
Case-linked data-reporting	Yes			-
Cases notified	0			0
Success	-	-	-	-
Died	-	-	-	-
Failed	-	-	-	-
Lost to follow-up			-	-
Still on treatment	-	-	-	-
Not evaluated	-	-	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

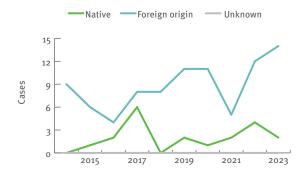
### TB notification rates by previous treatment history, 2014-2023



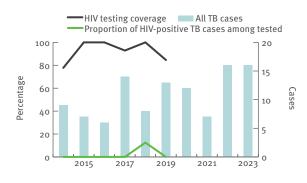
#### New and relapse TB cases - notification rates by age group, 2014-2023



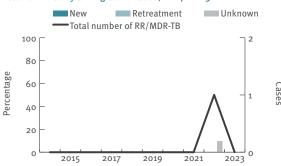
#### TB cases by geographical origin, 2014-2023

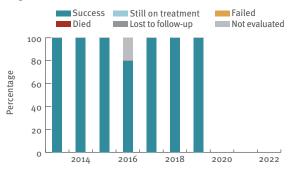


#### TB/HIV coinfection, 2014-2023



### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat1: 5271395

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	223		
Notification rate per 100 000	4.2		
New <sup>a</sup> and relapse	215		
New <sup>a</sup> and relapse notification rate per 100 000	4.1		
Pulmonary	139	(62.3%)	
of which microscopy-positive	59	(42.4%)	
of which laboratory-confirmed	116	(83.5%)	
Laboratory-confirmed TB cases	164	(73.5%)	
Mean age of new native TB cases	54.6 years		
Mean age of new foreign TB cases	30	6.8 years	
Foreign origin of all TB cases	150	(67.3%)	
New (not previously treated)	129	(57.8%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	240	[200-280]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	150	(91.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	6	[1-10]
Pulmonary RR/MDR-TB cases notified	2	(1.9%)
of which pre-XDR-TB cases	1	(100.0%)
Notified RR/MDR-TB	2	(1.3%)
of which pre-XDR-TB cases	1	(100.0%)
TB cases tested for HIV	84	(37.7%)
HIV-positive TB cases	7	(8.3%)
of these on ART	5	(83.3%)

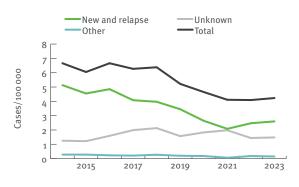
<sup>&</sup>lt;sup>®</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>®</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022		All RR/MDR-TB cases notified in 2021	
Case-linked data-reporting	Yes			-
Cases notified	64		6	
Success	33	(51.6%)	2	(33.3%)
Died	3	(4.7%)	1	(16.7%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	3	3 (4.7%)		(0.0%)
Still on treatment	1	(1.6%)	0	(0.0%)
Not evaluated	24	(37.5%)	3	(50.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

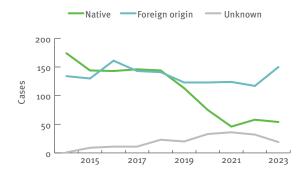
### TB notification rates by previous treatment history, 2014-2023



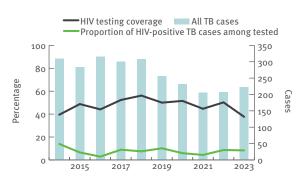
#### New and relapse TB cases - notification rates by age group, 2014-2023



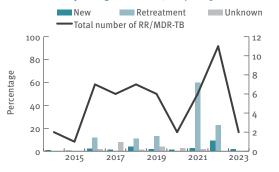
#### TB cases by geographical origin, 2014-2023

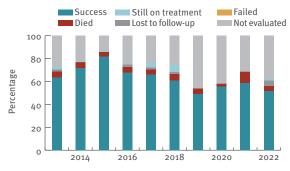


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 9 256 311

### Tuberculosis cases, 2023

#### Notifications

Nothications			
Total number of cases	227		
Notification rate per 100 000	2.5		
New <sup>a</sup> and relapse	227		
New <sup>a</sup> and relapse notification rate per 100 000		2.5	
Pulmonary	162	(71.4%)	
of which laboratory-confirmed	122	(75.3%)	
Mean age of new native TB cases	41.7 years		
Foreign origin of all TB cases	176	(77.5%)	
New (not previously treated)	223	(98.2%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	260	[220-300]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	122	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	10	[7-13]
Pulmonary RR/MDR-TB cases notified	8	(6.6%)
of which pre-XDR-TB cases	1	(12.5%)
Notified RR/MDR-TB	8	
of which pre-XDR-TB cases	1	(12.5%)
TB cases tested for HIV	227	(100.0%)
HIV-positive TB cases	10	(4.4%)
of these on ART	10	(100.0%)

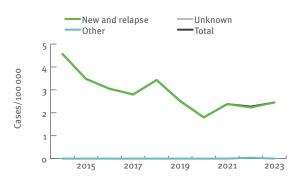
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical		Nat	ional	
Outcome cohort <sup>a</sup>	TB case	d relapse es notified 2022		DR-TB cases ed in 2021
Case-linked data-reporting	,	Yes		Yes
Cases notified		206		10
Success	166	(80.6%)	7	(70.0%)
Died	18	(8.7%)	2	(20.0%)
Failed	16	(7.8%)	0	(0.0%)
Lost to follow-up	2	(1.0%)	0	(0.0%)
Not evaluated	4	(1.9%)	1	(10.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

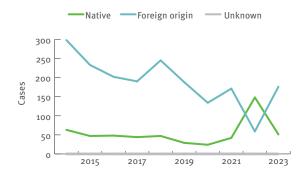
### TB notification rates by previous treatment history, 2014-2023



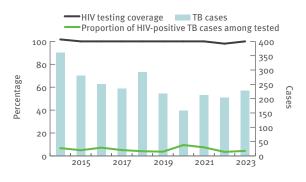
#### New and relapse TB cases - notification rates by age group, 2014-2023



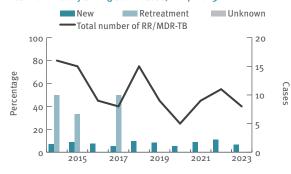
#### TB cases by geographical origin, 2014-2023

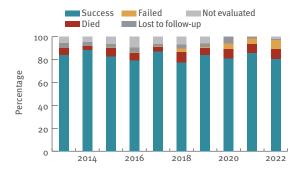


### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat<sup>1</sup>: 58 997 201

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	2893	
Notification rate per 100 000	4.9	
New <sup>a</sup> and relapse	2707	
New <sup>a</sup> and relapse notification rate per 100 000	4.6	
Pulmonary	2111	(73.0%)
of which microscopy-positive	786	(37.2%)
of which laboratory-confirmed	1088	(51.5%)
Laboratory-confirmed TB cases	1414	(48.9%)
Mean age of new native TB cases	4	9.5 years
Mean age of new foreign TB cases	3	8.8 years
Foreign origin of all TB cases	1745	(60.3%)
New (not previously treated)	1590	(55.0%)
Estimates		
Estimated new and relapse cases N,	2600	[2200-3000]

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		No
Cases with DST results	1401	(99.1%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	73	[52-94]
Pulmonary RR/MDR-TB cases notified	49	(3.5%)
of which pre-XDR-TB cases	15	(39.5%)
Notified RR/MDR-TB	49	(3.5%)
of which pre-XDR-TB cases	15	(39.5%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

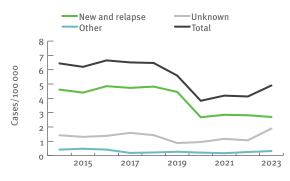
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

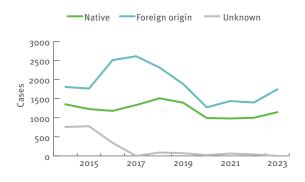
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022		All RR/MDI notified	
Case-linked data-reporting	Yes		-	-
Cases notified	1081		3	9
Success	-	-	-	-
Died	-	-	-	-
Failed	-	-	-	-
Lost to follow-up	-	-	-	-
Still on treatment	-	-	-	-
Not evaluated	-	-	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

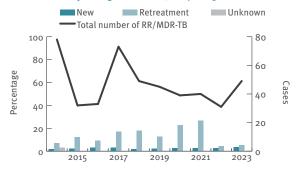
### TB notification rates by previous treatment history, 2014-2023



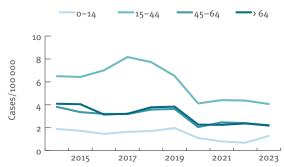
# TB cases by geographical origin, 2014-2023



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014–2023



#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB/HIV coinfection, 2014-2023

Data not reported

## Treatment outcome, new culture-confirmed pulmonary TB cases,

Data not reported

best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

# Kazakhstan

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 20330099

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	9672	
Notification rate per 100 000	47.6	
New <sup>a</sup> and relapse	9506	
New <sup>a</sup> and relapse notification rate per 100 000	46.8	
Pulmonary	8737	(90.3%)
of which laboratory-confirmed	7558	(86.5%)
Mean age of new native TB cases	45.3 years	
Foreign origin of all TB cases	158	(1.6%)
New (not previously treated)	7004	(72.4%)
Estimates		
Full-out to Love and Louis and Allen		

Estimated new and relapse cases N, 14000 [8700-24000] best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	7554	(99.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	2900	[2900-3000]
Pulmonary RR/MDR-TB cases notified	2934	(38.8%)
of which pre-XDR-TB cases	451	-
Notified RR/MDR-TB	3792	
of which pre-XDR-TB cases	599	(15.8%)
TB cases tested for HIV	9316	(98.0%)
HIV-positive TB cases	573	(6.2%)
of these on ART	533	(93.0%)

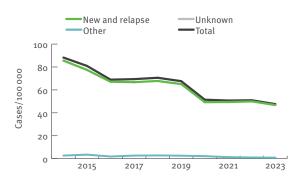
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. b More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National				
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022			R-TB cases d in 2021	
Case-linked data-reporting	Yes		Yes		
Cases notified	5	5922		4398	
Success	5 3 2 5	(89.9%)	3577	(81.3%)	
Died	444	(7.5%)	539	(12.3%)	
Failed	83	(1.4%)	85	(1.9%)	
Lost to follow-up	51	(0.9%)	153	(3.5%)	
Not evaluated	19	(0.3%)	44	(1.0%)	

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

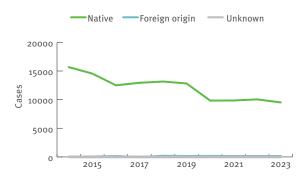
### TB notification rates by previous treatment history, 2014-2023



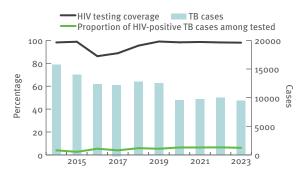
#### New and relapse TB cases - notification rates by age group, 2014-2023



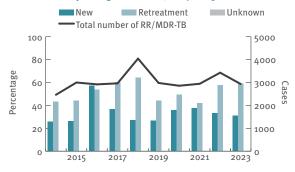
#### TB cases by geographical origin, 2014-2023



#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

# Kyrgyzstan

opulation estimate 2023, UN Statistical Database: 7 073 516

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	4 674	
Notification rate per 100 000		66.1
New <sup>a</sup> and relapse		4183
New <sup>a</sup> and relapse notification rate per 100 000	59.1	
Pulmonary	3846	(82.3%)
of which laboratory-confirmed	2868	(74.6%)
Mean age of new native TB cases	39.9 years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	3747 (80.2%)	
Estimates		
Estimated new and relapse cases N, hest [low-high]	7900	[6200-9500]

best [low-high]

<sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	2720	(94.8%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	860	[840-890]
Pulmonary RR/MDR-TB cases notified	692	(25.4%)
of which pre-XDR-TB cases	103	(15.9%)
Notified RR/MDR-TB	743	
of which pre-XDR-TB cases	117	(15.7%)
TB cases tested for HIV	4048	(96.8%)
HIV-positive TB cases	141	(3.5%)
of these on ART	105	(74.5%)

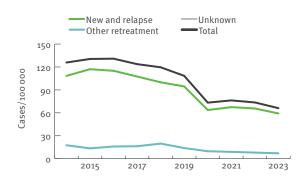
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	TB case	d relapse s notified 2022		OR-TB cases d in 2021
Case-linked data-reporting	١	es/es	,	res .
Cases notified	3	845		371
Success	3184	(82.8%)	634	(72.8%)
Died	243	(6.3%)	66	(7.6%)
Failed	152	(4.0%)	38	(4.4%)
Lost to follow-up	243	(6.3%)	133	(15.3%)
Not evaluated	23	(0.6%)	0	(0.0%)

Treatment outcome after 12 months (or 24 months).

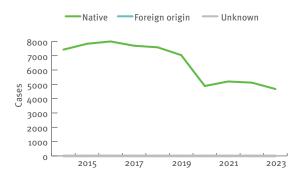
#### TB notification rates by previous treatment history, 2014-2023



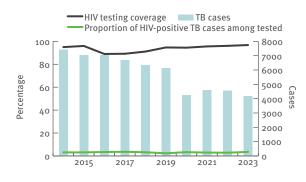
#### New and relapse TB cases - notification rates by age group, 2014-2023



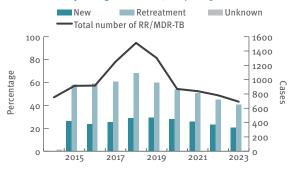
#### TB cases by geographical origin, 2014-2023

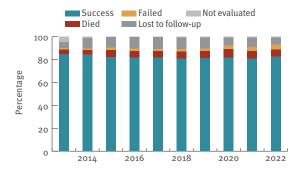


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat¹: 1883 008

#### Tuberculosis cases, 2023

Notifications		
Total number of cases		-
Notification rate per 100 000		-
New <sup>a</sup> and relapse		-
New <sup>a</sup> and relapse notification rate per 100 000		-
Pulmonary	-	-
of which microscopy-positive	-	-
of which laboratory-confirmed	-	-
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases		-
Mean age of new foreign TB cases		-
Foreign origin of all TB cases	-	-
New (not previously treated)	-	-
Estimates		
Estimated new and relapse cases N, best [low-high]	350	[250-340]

Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		No
Completeness of HIV datab		No
Case-linked data-reporting		No
Cases with DST results	-	-
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	32	[25-40]
Pulmonary RR/MDR-TB cases notified	-	-
of which pre-XDR-TB cases	-	-
Notified RR/MDR-TB	-	-
of which pre-XDR-TB cases	-	-
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

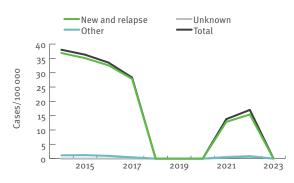
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

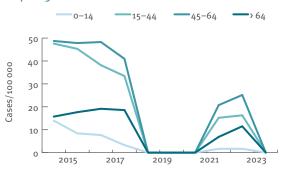
Geographical coverage	National			
Outcome cohort <sup>a</sup>	pulmona	ure-positive ary TB cases ed in 2022		DR-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified	120		19	
Success	-	-	-	-
Died	-	-	-	-
Failed	-	-	-	-
Lost to follow-up	-	-	-	-
Still on treatment	-	-	-	-
Not evaluated	120	(100.0%)	19	(100.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

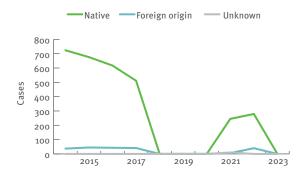
### TB notification rates by previous treatment history, 2014-2023



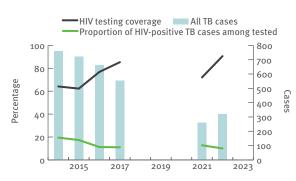
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023

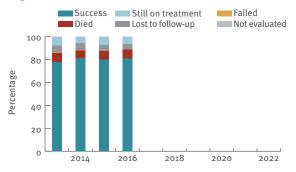


#### TB/HIV coinfection, 2014-2023



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014–2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

# Liechtenstein

Total population as of 15 April 2024 by Eurostat<sup>1</sup>: 39 677

#### Tuberculosis cases, 2023

Noti	rica	tio	ns
Total	nun	her	of c

Total number of cases		1
Notification rate per 100 000		2.5
New <sup>a</sup> and relapse		1
New <sup>a</sup> and relapse notification rate per 100 000		2.5
Pulmonary	1	(100%)
of which microscopy-positive	1	(100%)
of which laboratory-confirmed	1	(100%)
Laboratory-confirmed TB cases	1	(100%)
Mean age of new native TB cases		-
Mean age of new foreign TB cases		-
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1	(100.0%)
Estimates		
Estimated new and relapse cases N, best [low-high]	-	=

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes	
Completeness of HIV datab		No	
Case-linked data-reporting	Yes		
Cases with DST results	0	(0.0%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	-	-	
Pulmonary RR/MDR-TB cases notified	0	(0.0%)	
of which pre-XDR-TB cases	0	(0.0%)	
Notified RR/MDR-TB	0	(0.0%)	
of which pre-XDR-TB cases	0	(0.0%)	
TB cases tested for HIV	-	-	
HIV-positive TB cases	-	-	
of these on ART	-	-	

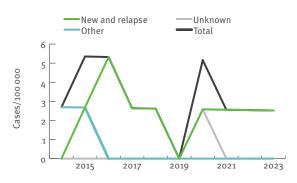
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

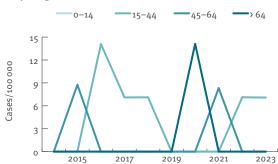
Geographical coverage	National			
Outcome cohort <sup>a</sup>	pulmon	ture-positive ary TB cases ed in 2022		R-TB cases I in 2021
Case-linked data-reporting	Yes			-
Cases notified	1			0
Success	1	(100.0%)	-	-
Died	0	(0.0%)	-	-
Failed	0	(0.0%)	-	-
Lost to follow-up	0	(0.0%)	-	-
Still on treatment	0	(0.0%)	-	-
Not evaluated	1	(100.0%)	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

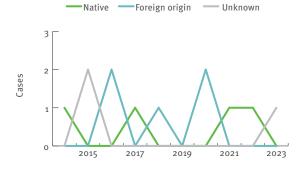
### TB notification rates by previous treatment history, 2014-2023



#### New and relapse TB cases - notification rates by age group, 2014-2023



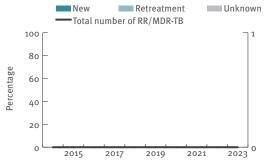
#### TB cases by geographical origin, 2014-2023

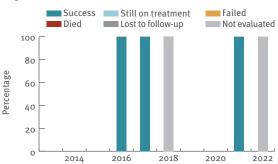


#### TB/HIV coinfection, 2014-2023

Data not reported

### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat1: 2857 279

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases		723
Notification rate per 100 000		25.3
New <sup>a</sup> and relapse	707	
New <sup>a</sup> and relapse notification rate per 100 000	24.7	
Pulmonary	642	(88.8%)
of which microscopy-positive	405	(63.1%)
of which laboratory-confirmed	604	(94.1%)
Laboratory-confirmed TB cases	629	(87.0%)
Mean age of new native TB cases	5	1.4 years
Mean age of new foreign TB cases	3	4.1 years
Foreign origin of all TB cases	27	(3.7%)
New (not previously treated)	619 (85.6%)	
Estimates		
Estimated new and relapse cases N,	910	[700_064]

best [low-high]

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	629	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	160	[130-190]
Pulmonary RR/MDR-TB cases notified	116	(19.2%)
of which pre-XDR-TB cases	25	(38.5%)
Notified RR/MDR-TB	116	(18.4%)
of which pre-XDR-TB cases	25	(38.5%)
TB cases tested for HIV	703	(97.2%)
HIV-positive TB cases	31	(4.4%)
of these on APT	_	_

<sup>&</sup>quot;National coverage 100% or culturing 2 90%, C+/all TB cases > 50%, DST done for C+ 75%, EQA 2 95%.

"More than 50% of TB cases with reported HIV status.

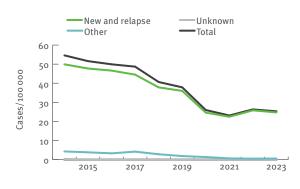
"Cases with unknown previous TB treatment history included in new cases.

#### Treatment outcome monitoring

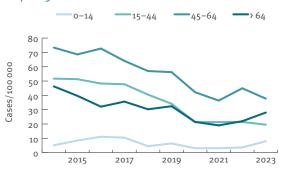
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			DR-TB cases ed in 2021
Case-linked data-reporting	1	/es		-
Cases notified		35		105
Success	395	(73.8%)	74	(70.5%)
Died	54	(10.1%)	24	(22.9%)
Failed	5	(0.9%)	1	(1.0%)
Lost to follow-up	17	(3.2%)	3	(2.9%)
Still on treatment	63	(11.8%)	2	(1.9%)
Not evaluated	1	(0.2%)	1	(1.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

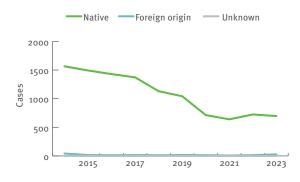
#### TB notification rates by previous treatment history, 2014-2023



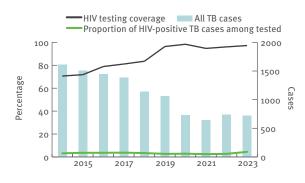
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023

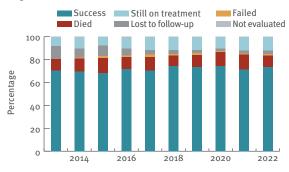


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

 $<sup>^{\</sup>rm a}$  Cases with unknown previous TB treatment history included in new cases.

Total population as of 15 April 2024 by Eurostat1: 660 809

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases	46		
Notification rate per 100 000		7.0	
New <sup>a</sup> and relapse	42		
New <sup>a</sup> and relapse notification rate per 100 000	6.4		
Pulmonary	33	(71.7%)	
of which microscopy-positive	20	(60.6%)	
of which laboratory-confirmed	31	(93.9%)	
Laboratory-confirmed TB cases	42	(91.3%)	
Mean age of new native TB cases	36.0 years		
Mean age of new foreign TB cases	36	5.4 years	
Foreign origin of all TB cases	43	(93.5%)	
New (not previously treated)	32	(69.6%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	48	[41–56]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	37	(88.1%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	1	[0-2]
Pulmonary RR/MDR-TB cases notified	1	(3.6%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	1	(2.7%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	32	(69.6%)
HIV-positive TB cases	3	(9.4%)
of these on ART	-	_

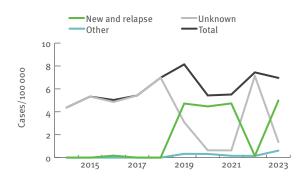
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

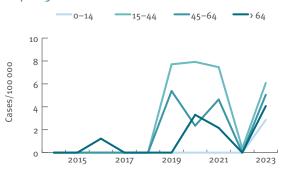
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			OR-TB cases d in 2021
Case-linked data-reporting	Yes			-
Cases notified	1			0
Success	0	(0.0%)	-	-
Died	0	(0.0%)	-	-
Failed	0	(0.0%)	-	-
Lost to follow-up	0	(0.0%)	-	-
Still on treatment	0	(0.0%)	-	-
Not evaluated	1	(100.0%)	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

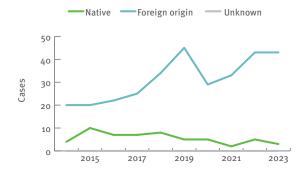
#### TB notification rates by previous treatment history, 2014-2023



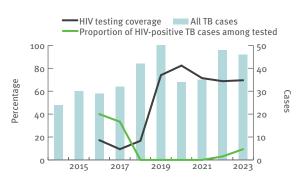
#### New and relapse TB cases - notification rates by age group, 2014-2023



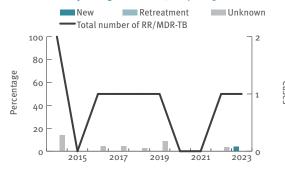
#### TB cases by geographical origin, 2014-2023

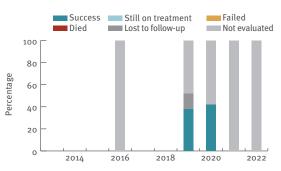


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat1: 542 051

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	68		
Notification rate per 100 000		12.5	
New <sup>a</sup> and relapse		68	
New <sup>a</sup> and relapse notification rate per 100 000	12.5		
Pulmonary	48	(70.6%)	
of which microscopy-positive	16	(33.3%)	
of which laboratory-confirmed	29	(60.4%)	
Laboratory-confirmed TB cases	37	(54.4%)	
Mean age of new native TB cases	5	6.0 years	
Mean age of new foreign TB cases	3	5.0 years	
Foreign origin of all TB cases	64	(94.1%)	
New (not previously treated)	68	(100.0%)	
Estimates			
Estimated new and relapse cases N,	78	[67-90]	

best [low-high]

a Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	34	(91.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	1	[0-3]
Pulmonary RR/MDR-TB cases notified	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	54	(79.4%)
HIV-positive TB cases	3	(5.6%)
of these on ART	3	(100.0%)

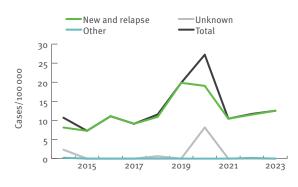
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

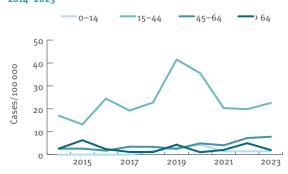
Geographical coverage	National			
Outcome cohort <sup>a</sup>	pulmona	ure-positive ary TB cases ed in 2022		DR-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified		31		1
Success	0	(0.0%)	1	(100.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	31	(100.0%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

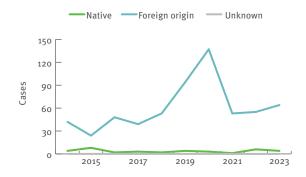
## TB notification rates by previous treatment history, 2014-2023



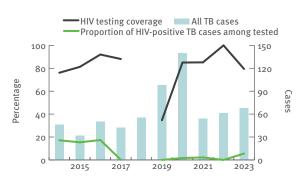
#### New and relapse TB cases - notification rates by age group, 2014-2023



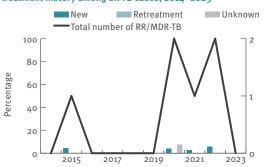
#### TB cases by geographical origin, 2014-2023

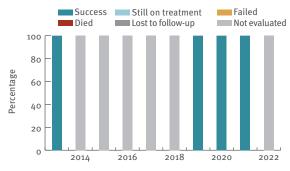


#### TB/HIV coinfection, 2014-2023



### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 38 955

#### Tuberculosis cases, 2023

Foreign origin of all TB cases

Notifications	
Total number of cases	0
Notification rate per 100 000	0.0
New <sup>a</sup> and relapse	0
New <sup>a</sup> and relapse notification rate per 100 000	0.0
Pulmonary	
of which laboratory-confirmed	
Mean age of new native TR cases	_

New (not previously treated) Estimates Estimated new and relapse cases N, best [low-high]0 [0-0] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		-
Completeness of HIV datab		-
Case-linked data-reporting		-
Cases with DST results	-	-
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	-	-
Pulmonary RR/MDR-TB cases notified	-	-
of which pre-XDR-TB cases	-	-
Notified RR/MDR-TB	-	-
of which pre-XDR-TB cases	-	-
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

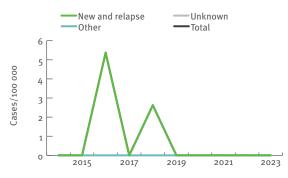
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+>75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

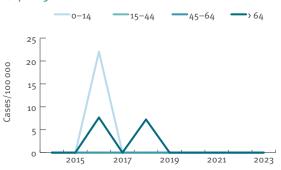
Geographical coverage	Nat	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022	All RR/MDR-TB cases notified in 2021			
Case-linked data-reporting	-	-			
Cases notified	-	-			
Success	-	-			
Died	-	-			
Failed	-	-			
Lost to follow-up	=	=.			
Not evaluated					

Treatment outcome after 12 months (or 24 months).

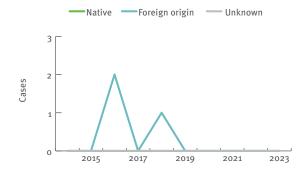
### TB notification rates by previous treatment history, 2014-2023



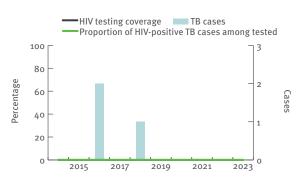
#### New and relapse TB cases - notification rates by age group, 2014-2023



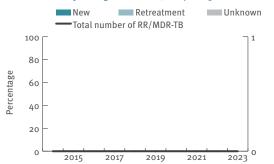
#### TB cases by geographical origin, 2014-2023

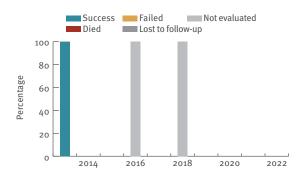


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

# Montenegro

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 633 551

### Tuberculosis cases, 2023

#### Notifications

Nothications			
Total number of cases	62		
Notification rate per 100 000		9.8	
New <sup>a</sup> and relapse		62	
New <sup>a</sup> and relapse notification rate per 100 000	9.8		
Pulmonary	61	(98.4%)	
of which laboratory-confirmed	52	(85.2%)	
Mean age of new native TB cases	54.5 years		
Foreign origin of all TB cases	7	(11.3%)	
New (not previously treated)	55	(88.7%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	90 [78-100]		

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>	Yes		
Completeness of HIV datab	Yes		
Case-linked data-reporting	Yes		
Cases with DST results	52	(100.0%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	1	[0-1]	
Pulmonary RR/MDR-TB cases notified	0	(0.0%)	
of which pre-XDR-TB cases	-	-	
Notified RR/MDR-TB	0		
of which pre-XDR-TB cases	-	-	
TB cases tested for HIV	62	(100.0%)	
HIV-positive TB cases	2	(3.2%)	
of these on APT	2	(100.0%)	

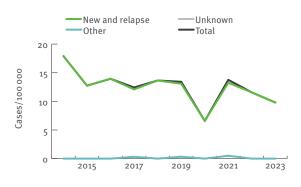
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. b More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

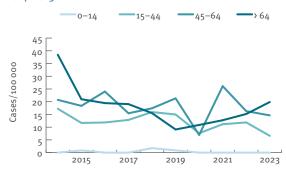
Geographical coverage	National			
Outcome cohort <sup>a</sup>	TB case	nd relapse es notified 2022	All RR/MDI notified	
Case-linked data-reporting	Yes		Ye	es
Cases notified	71		(	)
Success	66	66 (93.0%)		-
Died	1	(1.4%)	-	-
Failed	0 (0.0%)		-	-
Lost to follow-up	4 (5.6%)		-	-
Not evaluated	0	(0.0%)	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

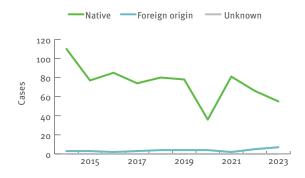
### TB notification rates by previous treatment history, 2014-2023



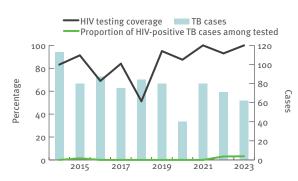
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023



#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

# **Netherlands**

Total population as of 15 April 2024 by Eurostat¹: 17 811 291

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases		710	
Notification rate per 100 000	4.0		
New <sup>a</sup> and relapse	710		
New <sup>a</sup> and relapse notification rate per 100 000	4.0		
Pulmonary	468	(65.9%)	
of which microscopy-positive	226	(48.3%)	
of which laboratory-confirmed	372	(79.5%)	
Laboratory-confirmed TB cases	500	(70.4%)	
Mean age of new native TB cases		-	
Mean age of new foreign TB cases		-	
Foreign origin of all TB cases	578	(81.4%)	
New (not previously treated)	-	-	
Estimates			
Estimated new and relapse cases N. best [low-high]	820	[700-940]	

 $<sup>^{\</sup>rm a}$  Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>	Yes		
Completeness of HIV datab	No		
Case-linked data-reporting	Yes		
Cases with DST results	484	(96.8%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	26	[17-35]	
Pulmonary RR/MDR-TB cases notified	8	(2.6%)	
of which pre-XDR-TB cases	3	(37.5%)	
Notified RR/MDR-TB	14	(2.9%)	
of which pre-XDR-TB cases	5	(55.6%)	
TB cases tested for HIV	-	-	
HIV-positive TB cases	-	-	
of these on ART	-	-	

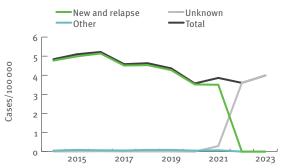
<sup>&</sup>lt;sup>®</sup> National coverage 100% or culturing ≥ 90%. C+/all TB cases >50%. DST done for (+ > 75%. EQA ≥ 95%. <sup>®</sup> More than 50% of TB cases with reported HIV status. <sup>©</sup> Cases with unknown previous TB treatment history included in new cases.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	pulmonar	re-positive y TB cases in 2022		DR-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified	0			12
Success			10	(83.3%)
Died	-	-	0	(0.0%)
Failed			0	(0.0%)
Lost to follow-up			0	(0.0%)
Still on treatment			0	(0.0%)
Not evaluated			2	(16.7%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

## TB notification rates by previous treatment history, 2014-2023



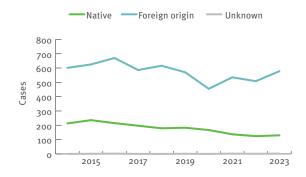
Note: information on new and relapse cases was not available for 2023 data.

#### New and relapse TB cases - notification rates by age group, 2014-2023

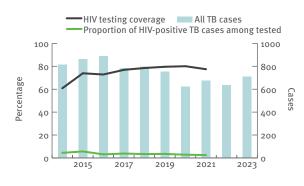


Note: information on new and relapse cases was not available for 2023 data.

#### TB cases by geographical origin, 2014-2023



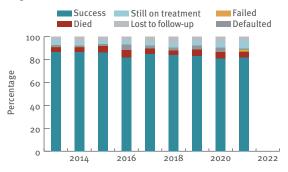
#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023



#### Treatment outcome, new culture-confirmed pulmonary TB cases, 2013-2022



All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

# **North Macedonia**

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 1831803

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases	160		
Notification rate per 100 000	8.7		
New <sup>a</sup> and relapse		157	
New <sup>a</sup> and relapse notification rate per 100 000	8.6		
Pulmonary	139 (86.9%)		
of which laboratory-confirmed	113	(81.3%)	
Mean age of new native TB cases	43.3 years		
Foreign origin of all TB cases	4	(2.5%)	
New (not previously treated)	145 (90.6%)		
Estimates			
Estimated new and relapse cases N,	190 [140-250		

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>	Yes	
Completeness of HIV datab	No	
Case-linked data-reporting	Yes	
Cases with DST results	83	(73.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	2	[1-3]
Pulmonary RR/MDR-TB cases notified	2	(2.4%)
of which pre-XDR-TB cases	-	-
Notified RR/MDR-TB	2	
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	36	(22.9%)
HIV-positive TB cases	0	(0.0%)
of these on ART	-	-

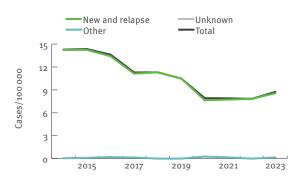
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. b More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022 All RR/MDR-T notified in			
Case-linked data-reporting	Yes		Yes	
Cases notified	137			1
Success	92	(67.2%)	0	(0.0%)
Died	5	(3.6%)	0	(0.0%)
Failed	2	(1.5%)	0	(0.0%)
Lost to follow-up	0 (0.0%)		1	(100.0%)
Not evaluated	38 (27.7%)		0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

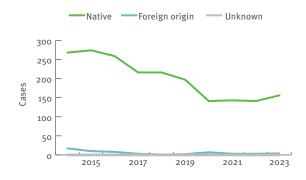
### TB notification rates by previous treatment history, 2014-2023



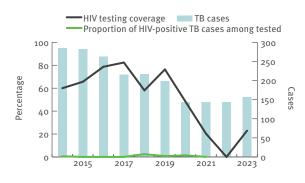
#### New and relapse TB cases - notification rates by age group, 2014-2023



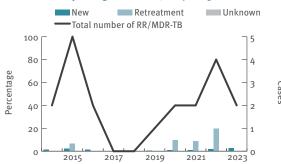
#### TB cases by geographical origin, 2014-2023



#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat<sup>1</sup>: 5488984

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	153		
Notification rate per 100 000	2.8		
New <sup>a</sup> and relapse	136		
New <sup>a</sup> and relapse notification rate per 100 000	2.5		
Pulmonary	115	(75.2%)	
of which microscopy-positive	46	(40.0%)	
of which laboratory-confirmed	98	(85.2%)	
Laboratory-confirmed TB cases	124	(81.0%)	
Mean age of new native TB cases	25.7 years		
Mean age of new foreign TB cases	39	9.9 years	
Foreign origin of all TB cases	134	(87.6%)	
New (not previously treated)	136	(88.9%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	160	[140-180]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes	
Completeness of HIV datab	Yes		
Case-linked data-reporting		Yes	
Cases with DST results	124	(100.0%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	12	[8-16]	
Pulmonary RR/MDR-TB cases notified	16	(16.5%)	
of which pre-XDR-TB cases	4	(30.8%)	
Notified RR/MDR-TB	16	(12.9%)	
of which pre-XDR-TB cases	4	(30.8%)	
TB cases tested for HIV	140	(91.5%)	
HIV-positive TB cases	5	(3.6%)	
of these on ART	_	-	

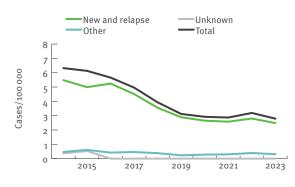
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

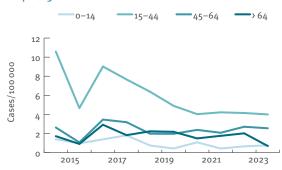
Geographical coverage	National			
Outcome cohort <sup>a</sup>				DR-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified	89			12
Success	72	(80.9%)	8	(66.7%)
Died	4	(4.5%)	1	(8.3%)
Failed	0	(0.0%)	1	(8.3%)
Lost to follow-up	2 (2.2%)		1	(8.3%)
Still on treatment	1	(1.1%)	0	(0.0%)
Not evaluated	10	(11.2%)	1	(8.3%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

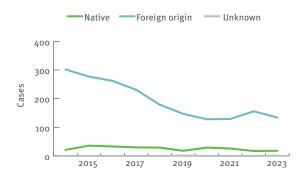
### TB notification rates by previous treatment history, 2014-2023



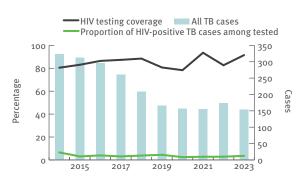
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023

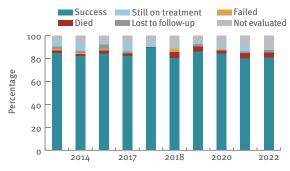


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat': 36753736

### Tuberculosis cases, 2023

#### Notifications

Total number of cases	4436		
Notification rate per 100 000	12.1		
New <sup>a</sup> and relapse	4144		
New <sup>a</sup> and relapse notification rate per 100 000	11.3		
Pulmonary	4265	(96.1%)	
of which microscopy-positive	2274	(53.3%)	
of which laboratory-confirmed	3463	(81.2%)	
Laboratory-confirmed TB cases	3554	(80.1%)	
Mean age of new native TB cases	54.1 years		
Mean age of new foreign TB cases	3	8.3 years	
Foreign origin of all TB cases	350	(7.9%)	
New (not previously treated)	3921	(88.4%)	
Estimates			
Estimated new and relapse cases N,	3900	[3300-4500]	

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>	Yes		
Completeness of HIV datab	No		
Case-linked data-reporting	Yes		
Cases with DST results	3199	(90.0%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	68	[57-86]	
Pulmonary RR/MDR-TB cases notified	101	(3.2%)	
of which pre-XDR-TB cases	26	(29.2%)	
Notified RR/MDR-TB	102	(3.2%)	
of which pre-XDR-TB cases	26	(28.9%)	
TB cases tested for HIV	-	-	
HIV-positive TB cases	-	-	
of these on ART	-	-	

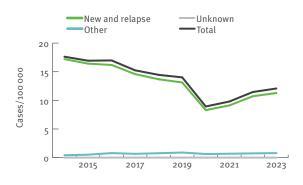
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022 All RR/MDR-T notified in			
Case-linked data-reporting	Yes			-
Cases notified	2	976		58
Success	0	(0.0%)	0	(0.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	2976	(100.0%)	58	(100.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

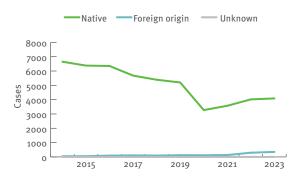
### TB notification rates by previous treatment history, 2014-2023



### New and relapse TB cases - notification rates by age group, 2014-2023



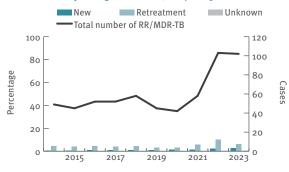
#### TB cases by geographical origin, 2014-2023

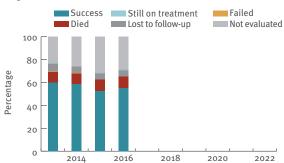


## TB/HIV coinfection, 2014-2023

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014–2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# **Portugal**

Total population as of 15 April 2024 by Eurostat<sup>1</sup>: 10 467 366

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases	1565		
Notification rate per 100 000	15.0		
New <sup>a</sup> and relapse	1501		
New <sup>a</sup> and relapse notification rate per 100 000	14.3		
Pulmonary	1091	(69.7%)	
of which microscopy-positive	547	(50.1%)	
of which laboratory-confirmed	777	(71.2%)	
Laboratory-confirmed TB cases	931	(59.5%)	
Mean age of new native TB cases	54.6 years		
Mean age of new foreign TB cases	37.5 years		
Foreign origin of all TB cases	567	(36.2%)	
New (not previously treated)	1458	(93.2%)	
Estimates			
Estimated new and relapse cases N,	1600	[1//00-1000]	

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>	Yes		
Completeness of HIV datab		Yes	
Case-linked data-reporting	Yes		
Cases with DST results	537	(57.7%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	20	[9-30]	
Pulmonary RR/MDR-TB cases notified	12	(2.7%)	
of which pre-XDR-TB cases	3	(100.0%)	
Notified RR/MDR-TB	13	(2.4%)	
of which pre-XDR-TB cases	3	(75.0%)	
TB cases tested for HIV	1148	(73.4%)	
HIV-positive TB cases	112	(9.8%)	
of these on ART	-	-	

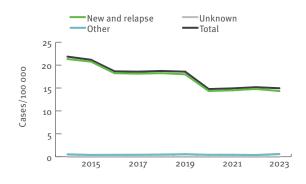
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			DR-TB cases ed in 2021
Case-linked data-reporting	Yes 808			-
Cases notified			11	
Success	534	(66.1%)	7	(63.6%)
Died	49	(6.1%)	1	(9.1%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	63	(7.8%)	0	(0.0%)
Still on treatment	135	(16.7%)	1	(9.1%)
Not evaluated	27	(3.3%)	3	(27.3%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

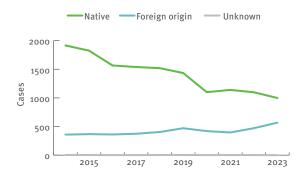
#### TB notification rates by previous treatment history, 2014-2023



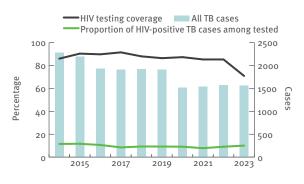
#### New and relapse TB cases - notification rates by age group, 2014-2023



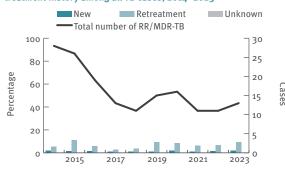
#### TB cases by geographical origin, 2014-2023

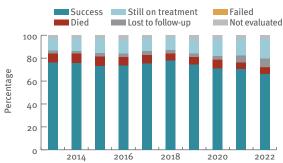


#### TB/HIV coinfection, 2014-2023



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014–2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Republic of Moldova

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 3 067 072

#### Tuberculosis cases, 2023

#### Notifications

Total number of cases	2368		
Notification rate per 100 000	77.2		
New <sup>a</sup> and relapse	2164		
New <sup>a</sup> and relapse notification rate per 100 000	70.6		
Pulmonary	2193	(92.6%)	
of which laboratory-confirmed	1637	(74.6%)	
Mean age of new native TB cases	44.0 years		
Foreign origin of all TB cases	18	(0.8%)	
New (not previously treated)	1732 (73.1%		
Estimates			
Estimated new and relapse cases N.	2200	[2000 2700]	

best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes	
Completeness of HIV datab	Yes		
Case-linked data-reporting	Yes		
Cases with DST results	1584	(96.8%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	580	[560-600]	
Pulmonary RR/MDR-TB cases notified	478	(30.2%)	
of which pre-XDR-TB cases	96	(22.2%)	
Notified RR/MDR-TB	499		
of which pre-XDR-TB cases	107	(21.4%)	
TB cases tested for HIV	2091	(96.6%)	
HIV-positive TB cases	264	(12.6%)	
of these on ART	243	(92.0%)	

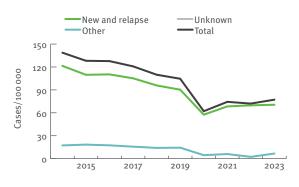
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022 All RR/MDR-T notified in			
Case-linked data-reporting	Yes		Yes	
Cases notified	1	1 673		561
Success	1416	(84.6%)	364	(64.9%)
Died	155	(9.3%)	81	(14.4%)
Failed	53	(3.2%)	36	(6.4%)
Lost to follow-up	39	(2.3%)	80	(14.3%)
Not evaluated	10	(0.6%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

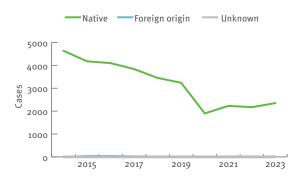
### TB notification rates by previous treatment history, 2014-2023



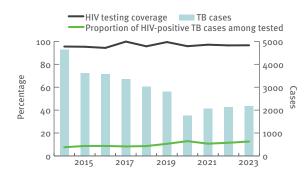
#### New and relapse TB cases - notification rates by age group, 2014-2023



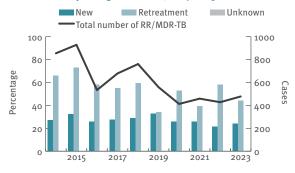
#### TB cases by geographical origin, 2014-2023



#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat<sup>1</sup>: 19 054548

### Tuberculosis cases, 2023

#### Notifications

Notifications			
Total number of cases	9506		
Notification rate per 100 000	49.9		
New <sup>a</sup> and relapse	9122		
New <sup>a</sup> and relapse notification rate per 100 000	47.9		
Pulmonary	8284	(87.1%)	
of which microscopy-positive	5540	(66.9%)	
of which laboratory-confirmed	6768	(81.7%)	
Laboratory-confirmed TB cases	7029	(73.9%)	
Mean age of new native TB cases	4	6.4 years	
Mean age of new foreign TB cases	2	9.0 years	
Foreign origin of all TB cases	64	(0.7%)	
New (not previously treated)	7719	(81.2%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	10 000	[9000-12000]	
. C		and the street and	

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	5860	(83.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	440	[350-530]
Pulmonary RR/MDR-TB cases notified	224	(4.0%)
of which pre-XDR-TB cases	20	(33.3%)
Notified RR/MDR-TB	231	(3.9%)
of which pre-XDR-TB cases	20	(33.3%)
TB cases tested for HIV	8164	(85.9%)
HIV-positive TB cases	188	(2.3%)
of these on ART	137	(77.0%)

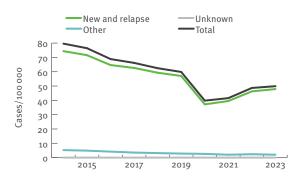
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National				
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022		All RR/MDR-TB cases notified in 2021		
Case-linked data-reporting	Yes		-		
Cases notified	5 2 4 9		261		
Success	4380	(83.4%)	125	(47.9%)	
Died	527	(10.0%)	58	(22.2%)	
Failed	107	(2.0%)	43	(16.5%)	
Lost to follow-up	147	(2.8%)	30	(11.5%)	
Still on treatment	88	(1.7%)	5	(1.9%)	
Not evaluated	0	(0.0%)	0	(0.0%)	

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

### TB notification rates by previous treatment history, 2014-2023



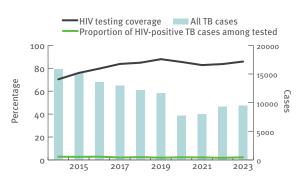
#### New and relapse TB cases - notification rates by age group, 2014-2023



#### TB cases by geographical origin, 2014-2023

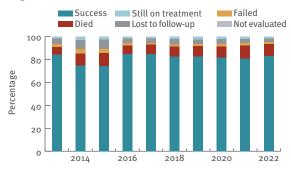


#### TB/HIV coinfection, 2014-2023



#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# **Russian Federation**

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 145 440 499

## Tuberculosis cases, 2023

## Notifications

Total number of cases	71441		
Notification rate per 100 000	49.1		
New <sup>a</sup> and relapse	54643		
New <sup>a</sup> and relapse notification rate per 100 000	37.6		
Pulmonary	76 20 9	(106.7%)	
of which laboratory-confirmed	37500	(49.2%)	
Mean age of new native TB cases	44.4 years		
Foreign origin of all TB cases	1381	(1.9%)	
New (not previously treated)	43322	(60.6%)	
Estimates			

Estimated new and relapse cases N, 55 000 [30000-87000] best [low-high]

<sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	35695	(95.2%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	18 0 0 0	[18 000-18 000]
Pulmonary RR/MDR-TB cases notified	16878	(47.3%)
of which pre-XDR-TB cases	5496	(34.5%)
Notified RR/MDR-TB	25850	
of which pre-XDR-TB cases	7770	(30.1%)
TB cases tested for HIV	52872	(96.8%)
HIV-positive TB cases	13 411	(25.4%)
of these on ART	10519	(78.4%)

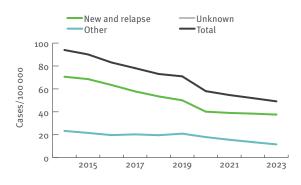
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

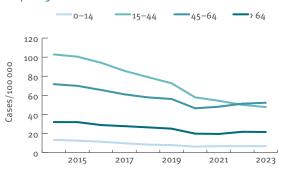
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022 All RR/MDR- notified in			
Case-linked data-reporting	Yes		Yes	
Cases notified	41	41077		701
Success	27553	(67.1%)	14 115	(52.9%)
Died	4233	(10.3%)	4 351	(16.3%)
Failed	5 0 1 8	(12.2%)	3384	(12.7%)
Lost to follow-up	1882	(4.6%)	3022	(11.3%)
Not evaluated	2391	(5.8%)	1829	(6.8%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

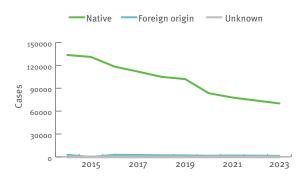
## TB notification rates by previous treatment history, 2014-2023



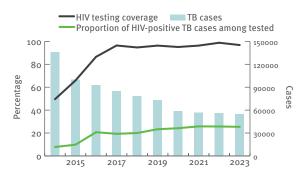
## New and relapse TB cases - notification rates by age group, 2014-2023



## TB cases by geographical origin, 2014-2023

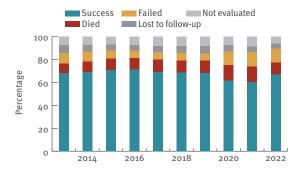


## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

# San Marino

Total population estimate 2023, UN Statistical Database: 33 728

## Tuberculosis cases, 2023

Notifications		
Total number of cases		-
Notification rate per 100 000		-
New <sup>a</sup> and relapse		-
New <sup>a</sup> and relapse notification rate per 100 000		-
Pulmonary	-	-
of which laboratory-confirmed	-	-
Mean age of new native TB cases		-
Foreign origin of all TB cases	-	-
New (not previously treated)	-	-
Estimates		
Estimated new and relapse cases N, best [low-high]	0	[0-0]

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		-
Completeness of HIV datab		-
Case-linked data-reporting		-
Cases with DST results	-	-
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	0	-
Pulmonary RR/MDR-TB cases notified	-	-
of which pre-XDR-TB cases	-	-
Notified RR/MDR-TB	-	-
of which pre-XDR-TB cases	-	-
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

of these on ART

<sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ 775%, EQA ≥ 95%.

<sup>b</sup> More than 50% of TB cases with reported HIV status.

## Treatment outcome monitoring

		_		
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022	All RR/MDR-TB cases notified in 2021		
Case-linked data-reporting	-	=		
Cases notified	-	-		
Success	-	-		
Died	-	-		
Failed	-	-		
Lost to follow-up	-	-		
Not evaluated	-	-		

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

San Marino either reported zero cases or no data for all years.

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 6 773 199

## Tuberculosis cases, 2023

## Notifications

Total number of cases	1060		
Notification rate per 100 000	15.6		
New <sup>a</sup> and relapse	1014		
New <sup>a</sup> and relapse notification rate per 100 000	15.0		
Pulmonary	860	(81.1%)	
of which laboratory-confirmed	552	(64.2%)	
Mean age of new native TB cases	49.0 years		
Foreign origin of all TB cases	30	(2.8%)	
New (not previously treated)	961	(90.7%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	930	[760-1100]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	282	(51.1%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	7	[3-11]
Pulmonary RR/MDR-TB cases notified	5	(1.8%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	3	
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	249	(24.6%)
HIV-positive TB cases	1	(0.4%)
of these on ART	0	(0.0%)

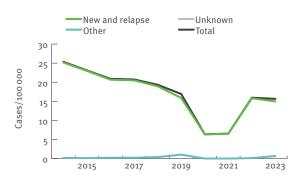
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. b More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage		Nat	ional	
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022			DR-TB cases ed in 2021
Case-linked data-reporting	١	Yes		Yes
Cases notified	1	047		4
Success	880	(84.0%)	4	(100.0%)
Died	42	(4.0%)	0	(0.0%)
Failed	8	(0.8%)	0	(0.0%)
Lost to follow-up	58	(5.5%)	0	(0.0%)
Not evaluated	59	(5.6%)	0	(0.0%)
			.1. 3	

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

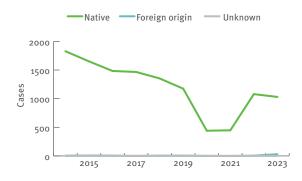
## TB notification rates by previous treatment history, 2014-2023



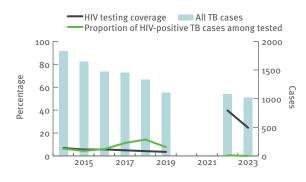
## New and relapse TB cases - notification rates by age group, 2014-2023



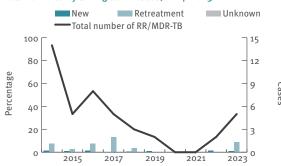
## TB cases by geographical origin, 2014-2023

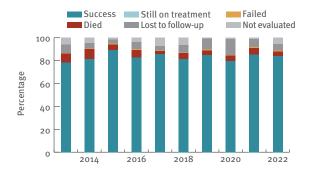


## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

# Slovakia

Total population as of 15 April 2024 by Eurostat¹: 5428792

## Tuberculosis cases, 2023

## Notifications

Total number of cases	221		
Notification rate per 100 000	4.1		
New <sup>a</sup> and relapse	206		
New <sup>a</sup> and relapse notification rate per 100 000	3.8		
Pulmonary	196	(88.7%)	
of which microscopy-positive	61	(31.1%)	
of which laboratory-confirmed	104	(53.1%)	
Laboratory-confirmed TB cases	107	(48.4%)	
Mean age of new native TB cases	31.9 years		
Mean age of new foreign TB cases	2	7.5 years	
Foreign origin of all TB cases	12	(5.4%)	
New (not previously treated)	188	(85.1%)	
Estimates			
Estimated new and relapse cases N, best [low–high]	240	[200-270]	

 $<sup>^{\</sup>rm a}$  Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab	No	
Case-linked data-reporting	Yes	
Cases with DST results	107	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	10	[2-10]
Pulmonary RR/MDR-TB cases notified	10	(7.7%)
of which pre-XDR-TB cases	8	(50.0%)
Notified RR/MDR-TB	4	(7.5%)
of which pre-XDR-TB cases	8	(50.0%)
TB cases tested for HIV	4	(38.5%)
HIV-positive TB cases	0	(0.0%)
of these on ART	-	-

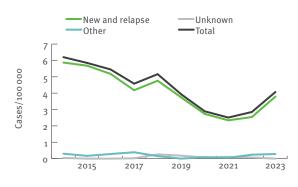
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

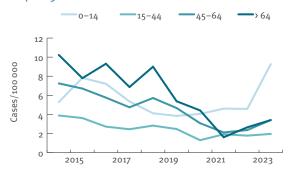
Geographical coverage	National			
Outcome cohort <sup>a</sup>	pulmona	ure-positive ry TB cases d in 2022		DR-TB cases ed in 2021
Case-linked data-reporting	Yes			=
Cases notified	65		1	
Success	58	(89.2%)	1	(100.0%)
Died	5	(7.7%)	0	(0.0%)
Failed	0 (0.0%)		0	(0.0%)
Lost to follow-up	1 (1.5%)		0	(0.0%)
Still on treatment	1	(1.5%)	0	(0.0%)
Not evaluated	0 (0.0%)		0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

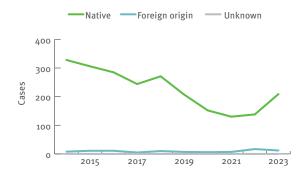
## TB notification rates by previous treatment history, 2014-2023



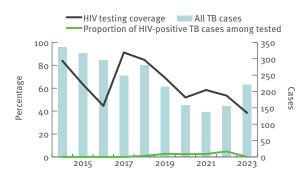
## New and relapse TB cases - notification rates by age group, 2014-2023



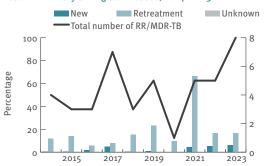
## TB cases by geographical origin, 2014-2023

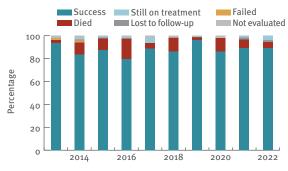


## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat¹: 2116 972

## Tuberculosis cases, 2023

## Notifications

Total number of cases		88
Notification rate per 100 000	4.2	
New <sup>a</sup> and relapse	85	
New <sup>a</sup> and relapse notification rate per 100 000	4.0	
Pulmonary	77	(87.5%)
of which microscopy-positive	33	(42.9%)
of which laboratory-confirmed	75	(97.4%)
Laboratory-confirmed TB cases	84	(95.5%)
Mean age of new native TB cases	65.7 years	
Mean age of new foreign TB cases	49.2 years	
Foreign origin of all TB cases	44	(50.0%)
New (not previously treated)	80	(90.9%)
Estimates		
Estimated new and relapse cases N,	98	[84-110]

best [low-high] 98 [84-110]

a Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting	Yes	
Cases with DST results	83	(98.8%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	1	[0-1]
Pulmonary RR/MDR-TB cases notified	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	0	(0.0%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	73	(83.0%)
HIV-positive TB cases	2	(2.7%)
of these on ART	-	-

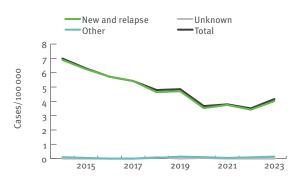
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			DR-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified	53			1
Success	38	(71.7%)	1	(100.0%)
Died	10	(18.9%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	2	(3.8%)	0	(0.0%)
Still on treatment	2	(3.8%)	0	(0.0%)
Not evaluated	1	(1.9%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

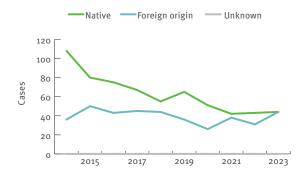
## TB notification rates by previous treatment history, 2014-2023



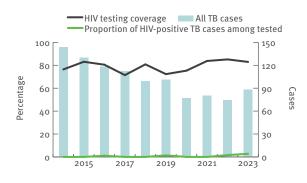
## New and relapse TB cases - notification rates by age group, 2014-2023



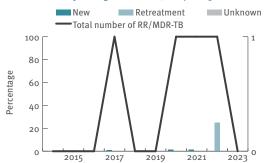
## TB cases by geographical origin, 2014-2023

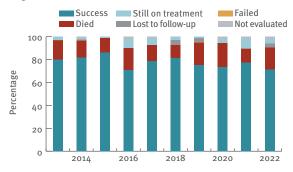


## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

Total population as of 15 April 2024 by Eurostat': 48 085 361

## Tuberculosis cases, 2023

## Notifications

Total number of cases		4208
Notification rate per 100 000		8.8
New <sup>a</sup> and relapse	3991	
New <sup>a</sup> and relapse notification rate per 100 000	8.3	
Pulmonary	2914	(69.2%)
of which microscopy-positive	1405	(48.2%)
of which laboratory-confirmed	2407	(82.6%)
Laboratory-confirmed TB cases	3003	(71.4%)
Mean age of new native TB cases	5	9.2 years
Mean age of new foreign TB cases	39.2 years	
Foreign origin of all TB cases	1825	(43.4%)
New (not previously treated)	3360	(79.8%)
Estimates		
Estimated new and relapse cases N, best [low-high]	2800	[2400-3300]
. C		to a to do I all

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes	
Completeness of HIV datab		Yes	
Case-linked data-reporting		Yes	
Cases with DST results	2157	(71.8%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	98	[20-180]	
Pulmonary RR/MDR-TB cases notified	51	(3.3%)	
of which pre-XDR-TB cases	0	(0.0%)	
Notified RR/MDR-TB	56	(2.6%)	
of which pre-XDR-TB cases	0	(0.0%)	
TB cases tested for HIV	3220	(76.5%)	
HIV-positive TB cases	266	(8.3%)	
of these on ART	-	-	

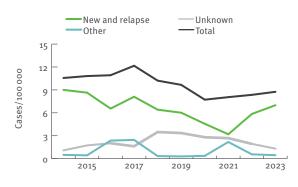
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			DR-TB cases d in 2021
Case-linked data-reporting	Yes 1597			-
Cases notified			34	
Success	1229	(77.0%)	16	(47.1%)
Died	113	(7.1%)	1	(2.9%)
Failed	2	(0.1%)	0	(0.0%)
Lost to follow-up	50	(3.1%)	1	(2.9%)
Still on treatment	33	(2.1%)	0	(0.0%)
Not evaluated	170	(10.6%)	16	(47.1%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

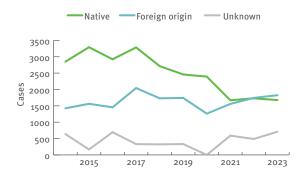
## TB notification rates by previous treatment history, 2014-2023



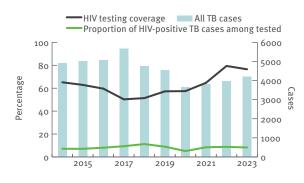
## New and relapse TB cases - notification rates by age group, 2014-2023



## TB cases by geographical origin, 2014-2023

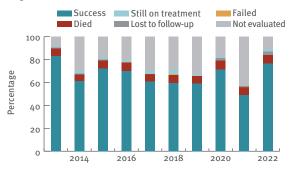


## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

Total population as of 15 April 2024 by Eurostat¹: 10521556

## Tuberculosis cases, 2023

## Notifications

Total number of cases		355	
Notification rate per 100 000		3.4	
New <sup>a</sup> and relapse	341		
New <sup>a</sup> and relapse notification rate per 100 000	3.2		
Pulmonary	230	(64.8%)	
of which microscopy-positive	81	(35.2%)	
of which laboratory-confirmed	198	(86.1%)	
Laboratory-confirmed TB cases	285	(80.3%)	
Mean age of new native TB cases	4	6.4 years	
Mean age of new foreign TB cases	4	3.1 years	
Foreign origin of all TB cases	303	(85.4%)	
New (not previously treated)	332	(93.5%)	
Estimates			
Estimated new and relapse cases N,	390	[340-450]	

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	285	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	19	[13-25]
Pulmonary RR/MDR-TB cases notified	7	(3.0%)
of which pre-XDR-TB cases	1	(16.7%)
Notified RR/MDR-TB	8	(2.8%)
of which pre-XDR-TB cases	1	(14.3%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

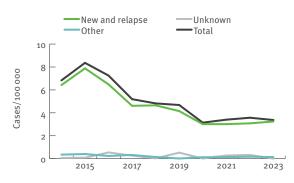
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

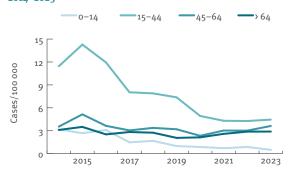
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022			DR-TB cases ed in 2021
Case-linked data-reporting	Yes			-
Cases notified		203		7
Success	179	(88.2%)	6	(85.7%)
Died	11	(5.4%)	0	(0.0%)
Failed	1	(0.5%)	0	(0.0%)
Lost to follow-up	1	(0.5%)	0	(0.0%)
Still on treatment	2	(1.0%)	0	(0.0%)
Not evaluated	9	(4.4%)	1	(14.3%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

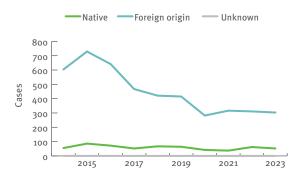
## TB notification rates by previous treatment history, 2014-2023



## New and relapse TB cases - notification rates by age group, 2014-2023



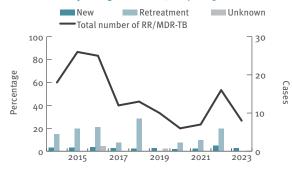
## TB cases by geographical origin, 2014-2023

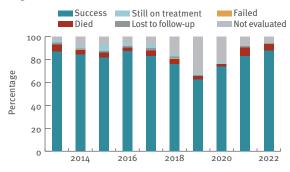


## TB/HIV coinfection, 2014-2023

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014–2023





All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2024 (https://ec.europa.eu/eurostat/home, accessed 25 February 2025).

# **Switzerland**

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 8 870 559

## Tuberculosis cases, 2023

## Notifications

Total number of cases		434
Notification rate per 100 000		4.9
New <sup>a</sup> and relapse	413	
New <sup>a</sup> and relapse notification rate per 100 000		4.7
Pulmonary	357	(82.3%)
of which laboratory-confirmed	317	(88.8%)
Mean age of new native TB cases	40.9 years	
Foreign origin of all TB cases	326	(75.1%)
New (not previously treated)	413	(95.2%)
Estimates		
Estimated new and relapse cases N, best [low-high]	470	[410-550]

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		-
Case-linked data-reporting		Yes
Cases with DST results	257	(81.1%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	15	[10-20]
Pulmonary RR/MDR-TB cases notified	9	(3.5%)
of which pre-XDR-TB cases	2	(33.3%)
Notified RR/MDR-TB	10	
of which pre-XDR-TB cases	2	(20.0%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

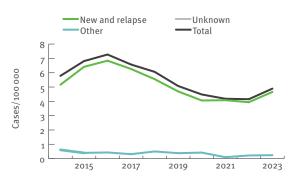
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. b More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

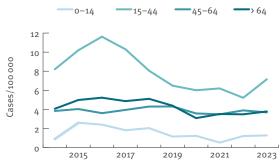
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022 Yes			DR-TB cases ed in 2021
Case-linked data-reporting			Yes Yes	Yes
Cases notified		329		5
Success	215	(65.3%)	1	(20.0%)
Died	9	(2.7%)	0	(0.0%)
Failed	1	(0.3%)	0	(0.0%)
Lost to follow-up	3	(0.9%)	0	(0.0%)
Not evaluated	101	(30.7%)	4	(80.0%)

Treatment outcome after 12 months (or 24 months).

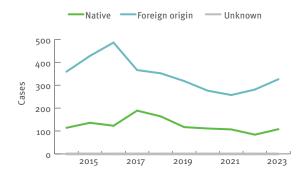
## TB notification rates by previous treatment history, 2014-2023



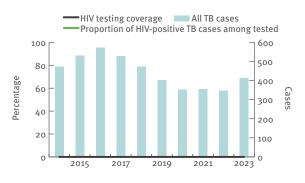
## New and relapse TB cases - notification rates by age group, 2014-2023



## TB cases by geographical origin, 2014-2023

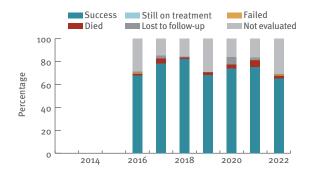


## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 10 389 800

## Tuberculosis cases, 2023

## Notifications

Total number of cases		4540
Notification rate per 100 000		43.7
New <sup>a</sup> and relapse		4 4 3 5
New <sup>a</sup> and relapse notification rate per 100 000		42.7
Pulmonary	3397	(74.8%)
of which laboratory-confirmed	2147	(63.2%)
Mean age of new native TB cases	3	9.6 years
Foreign origin of all TB cases	18	(0.4%)
New (not previously treated)	4040	(89.0%)
Estimates		
Estimated new and relapse cases N, hest [low-high]	8200	[6300-10000]

best [low-high]

<sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes	
Completeness of HIV datab		Yes	
Case-linked data-reporting		Yes	
Cases with DST results	2146	(100.0%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	590	[560-610]	
Pulmonary RR/MDR-TB cases notified	475	(22.1%)	
of which pre-XDR-TB cases	115	(29.3%)	
Notified RR/MDR-TB	510		
of which pre-XDR-TB cases	121	(23.7%)	
TB cases tested for HIV	4 412	(99.5%)	
HIV-positive TB cases	133	(3.0%)	
of these on ART	133	(100.0%)	

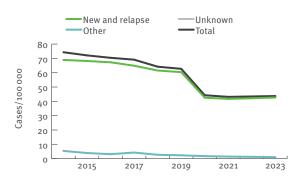
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022			OR-TB cases d in 2021
Case-linked data-reporting	Yes		Yes	
Cases notified	31	3809		165
Success	3497	(91.8%)	386	(83.0%)
Died	166	(4.4%)	40	(8.6%)
Failed	27	(0.7%)	8	(1.7%)
Lost to follow-up	119	(3.1%)	30	(6.5%)
Not evaluated	0	(0.0%)	1	(0.2%)

<sup>a</sup> Treatment outcome after 12 months (or 24 months).

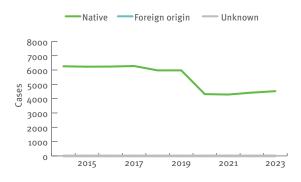
## TB notification rates by previous treatment history, 2014-2023



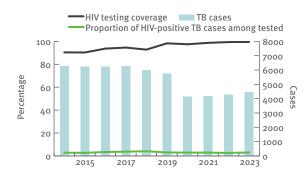
## New and relapse TB cases - notification rates by age group, 2014-2023



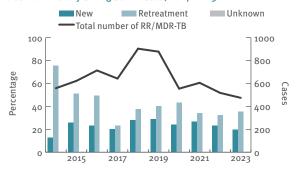
## TB cases by geographical origin, 2014-2023



## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023



# Treatment outcome, new and relapse TB cases, 2013-2022



All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

# Türkiye

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 87 270 497

## Tuberculosis cases, 2023

## Notifications

Total number of cases	9527		
Notification rate per 100 000	10.9		
New <sup>a</sup> and relapse	9408		
New <sup>a</sup> and relapse notification rate per 100 000	10.8		
Pulmonary	6169	(64.8%)	
of which laboratory-confirmed	4788	(77.6%)	
Mean age of new native TB cases	45.8 years		
Foreign origin of all TB cases	1239	(13.0%)	
New (not previously treated)	8964	(94.1%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	12 00 0	[9000-15000]	

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	4145	(86.6%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	140	[120-150]
Pulmonary RR/MDR-TB cases notified	126	(3.0%)
of which pre-XDR-TB cases	9	(11.4%)
Notified RR/MDR-TB	135	
of which pre-XDR-TB cases	9	(6.7%)
TB cases tested for HIV	7849	(83.4%)
HIV-positive TB cases	104	(1.3%)
of these on ART	70	(67.3%)

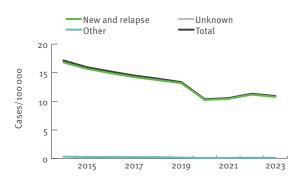
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

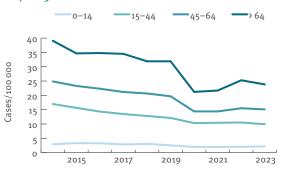
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022			DR-TB cases ed in 2021
Case-linked data-reporting	Yes		Yes	
Cases notified	9	9593		106
Success	7628	(79.5%)	48	(45.3%)
Died	940	(9.8%)	11	(10.4%)
Failed	23	(0.2%)	0	(0.0%)
Lost to follow-up	287	(3.0%)	13	(12.3%)
Not evaluated	715	(7.5%)	34	(32.1%)

Treatment outcome after 12 months (or 24 months).

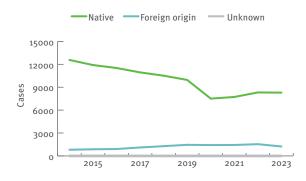
## TB notification rates by previous treatment history, 2014-2023



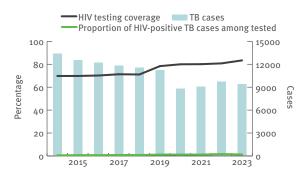
## New and relapse TB cases - notification rates by age group, 2014-2023



## TB cases by geographical origin, 2014-2023

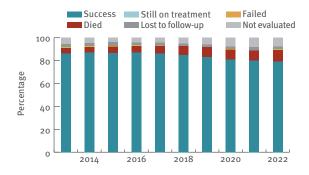


## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

<sup>&</sup>lt;sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Turkmenistan

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 7 364 441

## Tuberculosis cases, 2023

### Notifications

Nothications		
Total number of cases		3 2 5 0
Notification rate per 100 000		44.1
New <sup>a</sup> and relapse		2 273
New <sup>a</sup> and relapse notification rate per 100 000		30.9
Pulmonary	1520	(66.9%)
of which laboratory-confirmed	1064	(70.0%)
Mean age of new native TB cases	40	.9 years
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1916	(59.0%)
Estimates		
Estimated now and relance cases N		

Estimated new and relapse cases N, 3600 [2800-4600] best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		No
Completeness of HIV datab		-
Case-linked data-reporting		-
Cases with DST results	-	-
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	-	-
Pulmonary RR/MDR-TB cases notified	-	-
of which pre-XDR-TB cases	-	-
Notified RR/MDR-TB	-	-
of which pre-XDR-TB cases	-	-
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

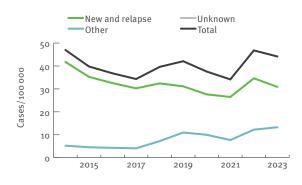
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. b More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

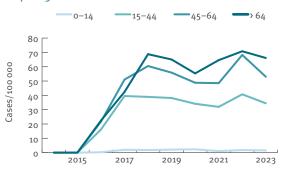
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022		All RR/MD notified	
Case-linked data-reporting	N	lo	No	
Cases notified		-	-	-
Success	-	-	-	-
Died	-	-	-	-
Failed	-	-	-	-
Lost to follow-up	-	-	-	-
Not evaluated	-	-	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

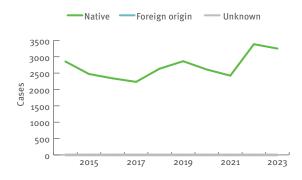
## TB notification rates by previous treatment history, 2014-2023



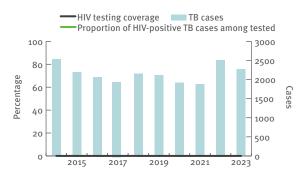
## New and relapse TB cases - notification rates by age group, 2014-2023



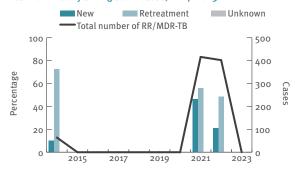
## TB cases by geographical origin, 2014-2023



## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 37 732 841

## Tuberculosis cases, 2023

## Notifications

Total number of cases	20991	
Notification rate per 100 000		55.6
New <sup>a</sup> and relapse	2	0 0 5 8
New <sup>a</sup> and relapse notification rate per 100 000		53.2
Pulmonary	19 235	(91.6%)
of which laboratory-confirmed	14 313	(74.4%)
Mean age of new native TB cases	45.	2 years
Foreign origin of all TB cases	11	(0.1%)
New (not previously treated)	16149	(76.9%)
Estimates		

Estimated new and relapse cases N, 42000 [25000-64000] best [low-high]

<sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	13 9 9 5	(97.8%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	4500	[4400-4500]
Pulmonary RR/MDR-TB cases notified	3760	(26.9%)
of which pre-XDR-TB cases	980	(26.9%)
Notified RR/MDR-TB	3 5 1 2	
of which pre-XDR-TB cases	1756	(50.0%)
TB cases tested for HIV	19 952	(99.5%)
HIV-positive TB cases	3501	(17.5%)
of these on ART	3 2 5 9	(93.1%)

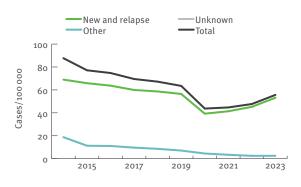
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022			R-TB cases d in 2021
Case-linked data-reporting	Yes		Yes	
Cases notified	14	889	4	392
Success	11534	(77.5%)	3091	(63.2%)
Died	1636	(11.0%)	787	(16.1%)
Failed	765	(5.1%)	289	(5.9%)
Lost to follow-up	864	(5.8%)	672	(13.7%)
Not evaluated	90	(0.6%)	53	(1.1%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

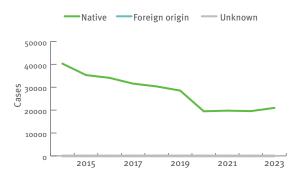
## TB notification rates by previous treatment history, 2014-2023



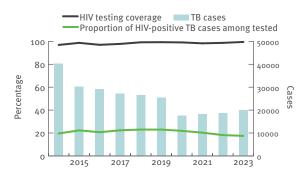
## New and relapse TB cases - notification rates by age group, 2014-2023



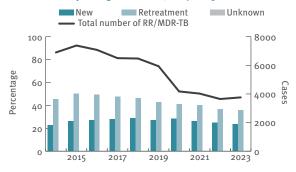
## TB cases by geographical origin, 2014-2023



## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





All non-EU/EEA country population estimates are from World population prospects: the 2023 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2023. (https://population.un.org/wpp/, accessed 25 February 2025).

There are uncertainties associated with the UN Population Division population estimates for Ukraine.

# **United Kingdom**

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 68 682 959

## Tuberculosis cases, 2023

## Notifications

Total number of cases		5296
Notification rate per 100 000		7.7
New <sup>a</sup> and relapse		5296
New <sup>a</sup> and relapse notification rate per 100 000		7.7
Pulmonary	2922	(55.2%)
of which laboratory-confirmed	2441	(83.5%)
Mean age of new native TB cases	4	1.3 years
Foreign origin of all TB cases	4165	(78.6%)
New (not previously treated)	5143	(97.1%)
Estimates		
Estimated new and relapse cases N, hest [low-high]	5200	[4700-5700]

best [low-high] <sup>a</sup> Cases with unknown previous TB treatment history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		_
Case-linked data-reporting	Yes	
Cases with DST results	2156	(88.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	46	[40-52]
Pulmonary RR/MDR-TB cases notified	52	(2.4%)
of which pre-XDR-TB cases	10	(20.4%)
Notified RR/MDR-TB	74	
of which pre-XDR-TB cases	15	(20.3%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

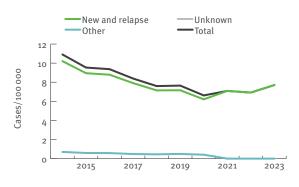
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

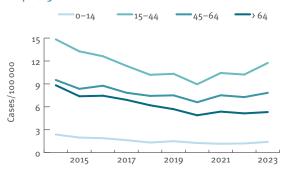
Geographical coverage	National			
Outcome cohort <sup>a</sup>	New culture-positive pulmonary TB cases notified in 2022		All RR/MDR-TB cases notified in 2021	
Case-linked data-reporting	Yes			Yes
Cases notified	4607		52	
Success	3 873	(84.1%)	39	(75.0%)
Died	240	(5.2%)	2	(3.8%)
Failed	103	(2.2%)	1	(1.9%)
Lost to follow-up	149	(3.2%)	2	(3.8%)
Still on treatment	242	(5.3%)	8	(15.4%)
Not evaluated	72	(3.7%)	7	(14.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome after 12 months (or 24 months).

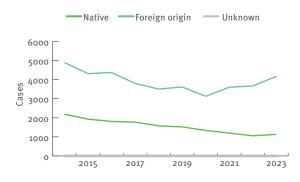
## TB notification rates by previous treatment history, 2014-2023



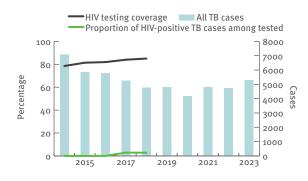
## New and relapse TB cases - notification rates by age group, 2014-2023



## TB cases by geographical origin, 2014-2023

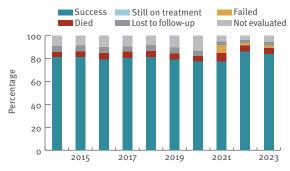


## TB/HIV coinfection, 2014-2023



## RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2014-2023





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# Uzbekistan

Total population estimate 2023, UN Statistical Database<sup>1</sup>: 35 652 303

## Tuberculosis cases, 2023

## Notifications

15 499	
43.5	
13 9 3 8	
39.1	
9869	(63.7%)
7110	(72.0%)
44.9 years	
0	(0.0%)
12344	(79.6%)

Estimated new and relapse cases N, 20000 [13000-29000] best [low-high]

# Drug resistance surveillance and TB/HIV coinfection, 2023

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	7 110	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	1400	[1300-1400]
Pulmonary RR/MDR-TB cases notified	1295	(18.2%)
of which pre-XDR-TB cases	264	(21.6%)
Notified RR/MDR-TB	1781	
of which pre-XDR-TB cases	332	(18.6%)
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	407	-
of these on ART	363	(89.2%)

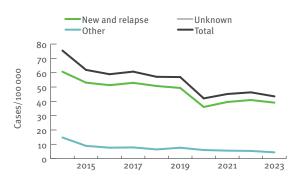
a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
b More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

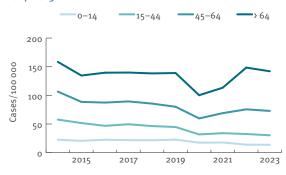
Geographical coverage	Nat	ional		
Outcome cohort <sup>a</sup>	New and relapse TB cases notified in 2022		All RR/MDR-TB cases notified in 2021	
Case-linked data-reporting	Yes		Yes	
Cases notified	12 373		2	147
Success	10 941	(88.4%)	1564	(72.8%)
Died	573	(4.6%)	243	(11.3%)
Failed	298	(2.4%)	81	(3.8%)
Lost to follow-up	383	(3.1%)	159	(7.4%)
Not evaluated	178	(1.4%)	100	(4.7%)

Treatment outcome after 12 months (or 24 months).

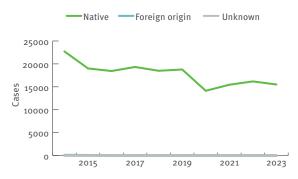
## TB notification rates by previous treatment history, 2014-2023



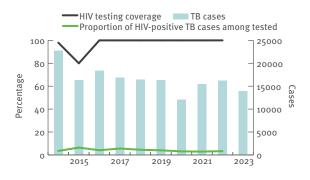
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# **EU publications**

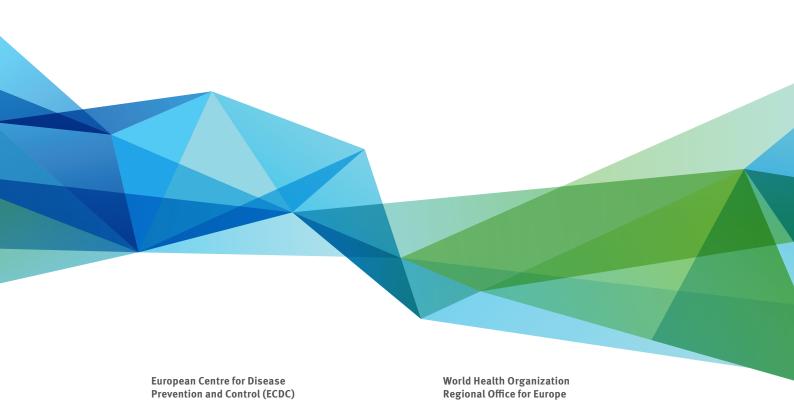
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ECDC PDF ISBN 978-92-9498-780-8 WHO PDF ISBN 978-92-8906-183-4