





# **Tuberculosis surveillance** and monitoring in Europe

2023

2021 data

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### **Abstract**

This report provides an overview of the latest tuberculosis (TB) epidemiological situation and is published jointly by the WHO Regional Office for Europe and the European Centre for Disease Prevention and Control (ECDC). Despite the slight recovery of 1.1% in 2021 compared to 2020, the European Region still recorded 23% fewer new and relapse TB cases in 2021 than in 2019. Notwithstanding the potential issues of underdiagnosis and underreporting which continued throughout 2021, 166 026 incident TB cases were notified in the European Region. The epidemic patterns and trends vary widely - with an incidence level of under 10 per 100 000 population achieved in European Union/European Economic Area countries, while overall the Region still has nine of the 30 countries with the highest multidrug-resistant TB burden in the world.

Keywords TUBERCULOSIS – EPIDEMIOLOGY TB – EPIDEMIOLOGY TB SURVEILLANCE

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<sup>1</sup> All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

# **Abbreviations**

ART antiretroviral therapy
CI confidence interval
COVID-19 coronavirus 2019

DRS drug-resistance surveillance
DST drug-susceptibility testing
(E) European (indicator)

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

EEA European Economic Area
EQA external quality assessment

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

**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)

**LTBI** latent tuberculosis infection

MDR multidrug resistance

MDR-TB multidrug-resistant tuberculosis

**PLHIV** people living with HIV

**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 intervals

WRD WHO-recommended rapid diagnostics (tests)

**XDR** extensive drug resistance

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

# Executive summary/ Краткое резюме

# **Executive summary**

#### The WHO European Region

The data in this report present tuberculosis (TB) notifications through to the end of 2021, the period of the global COVID-19 pandemic. Although 2020–2021 data are compared with those for previous years, the rates and trends should be interpreted with caution, due to the impact on TB detection and reporting of the public health and social measures introduced by countries in response to the COVID-19 pandemic [1].

#### **TB** burden

An estimated 230000 people (95% uncertainty interval (UI): 211000-251000) fell ill with TB in 2021, equivalent to 25 cases (95% UI: 23-27) per 100000 population. Although by 2020 the Region had overachieved on the End TB strategy milestone of a 20% cumulative reduction for TB incidence for the period 2015-2020, in 2021, for the first time in two decades, the incidence rate is estimated to have increased by 1.2% compared to 2020. This reversal reflects the impact of disruption to TB services caused by the COVID-19 pandemic.

An estimated 20000 TB deaths occurred among HIV-negative people in the European Region in 2021, equivalent to 2.2 deaths per 100000 population. Between 2012 and 2021, the TB mortality rate at regional level fell cumulatively by 52%, from 4.4 to 2.1 deaths per 100000 population – on average a decline of 7.7% per year. Between 2020 and 2021, TB mortality in the Region came to a standstill for the first time in two decades as a consequence of undiagnosed and untreated TB and the associated increase in the number of deaths due to disruptions to TB services caused by the COVID-19 pandemic.

Between 2020 and 2021, the burden of rifampicin-resistant TB is estimated to have increased, the first year-on-year increase in a decade, with an estimated 73 000 (95% CI: 64 000-81 000) new cases of rifampicin-resistant and multidrug-resistant TB (RR/MDR-TB) in the Region. Among newly notified bacteriologically-confirmed pulmonary TB patients there were an estimated 37 000 rifampicin-resistant cases. The proportion of RR/MDR-TB among new and previously treated TB cases in the Region also significantly exceeds the global average (26% of new and 57% of previously treated cases compared to 3.6% and 18% respectively) [2].

HIV prevalence in incident TB cases was estimated to be 13% in 2021, another year with no change 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 84% of these thought to be in the Russian Federation (62%) and Ukraine (22%).

#### TB disease notification and treatment outcomes

In 2021, 166 026 incident TB cases were reported in 51 of the 53 countries in the Region². This amounted to 72% of the estimated new and relapse cases. There was a slight recovery in TB notifications, amounting to 1.1% in 2021 compared to the previous year and many countries also reported a year-on-year increase in the number of notified TB cases against 2020. However, the WHO European Region still recorded 23% fewer new and relapse TB cases in 2021 than in 2019.

A total of 137 212 patients with pulmonary TB (82.6%) were notified among incident TB cases, 69.9% of which were laboratory-confirmed. Among bacteriologically confirmed pulmonary TB cases, 94.1% were tested for rifampicin resistance.

Overall, 32.6% of pulmonary TB patients who were reported as having tested for drug susceptibility had RR/MDR-TB. Prevalence of RR/MDR-TB among new and previously treated bacteriologically confirmed pulmonary TB cases was 22.6% and 53.0% respectively.

Data on drug-susceptibility testing (DST) to fluoroquinolones were available for 89.7% of all notified pulmonary RR-TB cases. Overall, 33.4% of pulmonary RR/MDR-TB cases with DST results for fluoroquinolones had pre-extensively drug-resistant TB (pre-XDR-TB) in 2021. Among pre-XDR-TB patients tested for any other Group A drugs, the prevalence of extensively drug-resistant tuberculosis (XDR-TB) was 11.2% at regional level.

Among new and relapse TB patients notified from countries reporting HIV testing data, 92.8% were screened for HIV. A total of 20175 TB cases were detected with HIV-positive status, which is 14.8% of those tested.

A total of 15 909 (80.1%) 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 below the respective regional targets of 80% treatment success by 2025 and 85% treatment success by 2030.

#### **Conclusions**

The remarkable progress in containing the burden of TB in the Region observed between 2015 and 2019 was jeopardised in 2020 and 2021 by the COVID-19 pandemic. As a result, in 2021, the downward trend in TB mortality came to a halt and incidence reversed, meaning that far fewer people were diagnosed and treated for TB. Consequently,

<sup>2</sup> San Marino, Monaco reported zero cases in 2021. Liechtenstein is an EEA Member State, but not a WHO Member State.

fewer people were tested for drug resistance and enrolled into RR/MDR-TB treatment.

In 2020, the downward trend in the number of TB deaths came to a standstill and this remained the same in 2021 – a consequence of delay in, or lack of, TB diagnosis due to disruption to TB services, leading to increased severity of disease and an associated increase in deaths. The burden of drug-resistant TB (DR-TB) is also estimated to have increased between 2020 and 2021.

The rate of successful treatment outcomes among new and relapse TB cases is lower compared to previous years, indicating that countries are facing increasing challenges to ensure the delivery of appropriate care to TB patients. On a positive note, the treatment success rate of RR-TB, particularly among pre-XDR-TB patients, is slowly but consistently improving in the Region, most likely reflecting the scale-up of new and repurposed TB drug use and shorter, all-oral treatment regimens for DR-TB patients. Nevertheless, despite the slow improvement, 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 in relation to RR-TB and TB/HIV remains considerable, underlining the need to introduce more innovative and effective approaches to the diagnosis and treatment of TB and MDR-TB.

The Tuberculosis Action Plan for the WHO European Region 2016–2020 came to an end in 2020 and the progress made was assessed and reported to the 70th session of the Regional Committee for Europe [3]. The new Tuberculosis action plan for the WHO European Region 2023–2030, developed based on consultations with Member States, partners, civil society organizations and affected communities, was submitted to the 72nd session of the WHO Regional Committee for Europe and adopted by the Member States as resolution EUR/RC72(2) [4–5].

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' [6]. 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.

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

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

In 2021, 33520 cases of TB were reported in 29 European Union and European Economic Area (EU/EEA) countries (Iceland did not report data), resulting in a notification rate of 7.4 per 100 000 population in the EU/EEA. The overall notification rate in most countries has decreased over the last five years. The rates for 2020–2021 should be interpreted with caution, given the potential impact

that measures implemented to mitigate the COVID-19 pandemic may have had on TB data collection and access to health services.

Of all notified TB cases, 25402 (75.8%) were newly diagnosed and 21701 (86.2%) were confirmed by culture, or smear and nucleic acid amplification test. In 2021, adults aged between 25 and 64 years accounted for 65.8% of all new and relapse TB cases, while children under 15 years accounted for 3.5% of all new and relapse TB cases. Romania reported the highest notification rates among children, with 9.2 cases per 100000 population aged 0-4 years. In 2021, new and relapse TB cases were more frequently reported in males than females, with a male-to-female ratio of 2.0. Just over one-third (33.8%) of TB cases reported in the EU/EEA in 2021 were of foreign origin.

Of 16 895 cases with DST results for at least rifampicin, 630 (3.8%) had MDR-TB. The countries with the highest proportion of MDR-TB cases among cases with DST results were Estonia (28.4%) and Lithuania (17.5%). Pre-XDR-TB was reported for 115 (28.5%) of the 404 RR/MDR-TB cases tested for fluoroquinolone susceptibility. Among the pre-XDR cases, 79 (68.7%) were tested for susceptibility to any other group A drug, and 43 (54.4%) met the XDR-TB definition.

In 2021, 21 countries reported data on HIV co-infection. In the past, the number of countries reporting data on HIV coinfection varied, with reporting peaking at 23 countries in 2016 and 2017, before decreasing to 21 countries in 2018 and again in 2019 and 2020 to 19 countries. Of the 12 277 TB cases with known HIV status, 472 (3.8%) were reported as HIV-positive.

TB in prisons remains poorly reported. For the 14 EU/EEA countries reporting data, the notification rate was 332 new and relapse TB cases per 100 000 prison population, and prisoners had a relative risk of 8.9 compared to the general population in the same countries.

Of all 20760 TB cases notified in 2020 with a treatment outcome reported in 2021, 71.7% were treated successfully, 8.4% died, o.8% experienced treatment failure, 3.3% were lost to follow up, 2.2% were still on treatment 12 months after starting, and for 13.7% the treatment outcome was not evaluated. Of 781 RR/MDR-TB cases notified in 2019 with a treatment outcome reported in 2021, 51.7% were treated successfully, 14.2% died and 9.1% experienced treatment failure. Of 159 pre-XDR-TB cases with a treatment outcome reported in 2021, 27 (17.0%) were treated successfully, 30 (18.9%) died, 22 (13.8%) experienced treatment failure, 14 (8.8%) were lost to follow up, 58 (36.5%) were still on treatment 24 months after starting and for 8 (5.0%) the treatment outcome was not evaluated. Treatment success was only reported for 18 (66.7%) of the 27 XDR-TB cases notified in 2018, while 11.1% of cases were reported to have died and 11.1% to have experienced treatment failure.

#### Conclusions

In 2021, 29 of 30 EU/EEA countries reported TB notification data. There was a further slight decline in the overall TB notification rate between 2020 and 2021, continuing

the trend observed since 2002. The decline between 2019 and 2021 data must be interpreted with caution due to the possible impact of measures implemented to mitigate the COVID-19 response. Nevertheless, there is significant work ahead to reach the United Nations Sustainable Development Goal 3 target of achieving a notification rate of 2.4 per 100 000 population at EU/EEA level by 2030. Despite the slight increase in the number of reported MDR-TB cases, which accounted for a small proportion of all reported TB cases in 2021, the data shows a similar trend across EU/EEA countries in 2021 when compared to data before 2020.

Across all cohorts, reported treatment success remains well below WHO's 90% treatment success target. Of all TB cases notified in 2020 with a treatment outcome reported in 2021, 71.7% were treated successfully. Treatment success was lower for XDR-TB cases at 36 months (66.7%) and lower still among RR/MDR-TB cases at 24 months (51.7%) while the proportion of deaths for these cohorts was 11.1% and 18.9%, respectively.

Across the EU/EEA, further efforts are needed to improve reporting of HIV coinfection, TB in prisons, and treatment outcomes.

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<sup>3</sup> All weblinks were accessed on 16 February 2023.

# Краткое резюме

#### Европейский регион ВОЗ

В настоящем докладе представлены данные о регистрации случаев туберкулеза (ТБ) за период глобальной пандемии COVID-19 по состоянию на конец 2021 г. Хотя данные за 2020—2021 гг. сравниваются с данными за предыдущие годы, показатели и тенденции следует интерпретировать с осторожностью ввиду влияния на выявление и регистрацию ТБ мер в области общественного здравоохранения и социальной защиты, принятых странами в ответ на пандемию COVID-19 [1].

#### Бремя ТБ

По оценкам, в 2021 г. ТБ заболели 230 000 человек (95% интервал неопределенности [UI]: 211 000–251 000), что эквивалентно 25 случаям (95% UI: 23–27) на 100 000 населения. Хотя к 2020 г. Регион преодолел веху, предусмотренную стратегией ВОЗ по ликвидации туберкулеза, по кумулятивному сокращению инцидентности ТБ, превысив ее контрольное значение на 20% в период 2015–2020 гг., в 2021 г. впервые за два десятилетия показатель заболеваемости, по оценкам, вырос на 1,2%. по сравнению с 2020 г. Подобный регресс отражает влияние сбоев в работе противотуберкулезных служб, вызванных пандемией COVID-19.

Согласно оценкам, в 2021 г. в Европейском регионе было зарегистрирован 20 000 случаев смерти вследствие ТБ среди ВИЧ-отрицательных людей, что эквивалентно 2,2 случаям смерти на 100 000 населения. В период с 2012 г. по 2021 г. показатель смертности от ТБ на региональном уровне в совокупности снизился на 52%, с 4,4 до 2,1 случаев смерти на 100 000 населения (снижение в среднем на 7,7% в год). В период 2020—2021 гг. смертность от ТБ в Регионе впервые за два десятилетия не изменилась, что является следствием увеличения числа случаев невыявленного и нелеченого ТБ и связанного с этим увеличения числа смертей из-за сбоев в работе противотуберкулезных служб, вызванных пандемией COVID-19.

По оценкам, с 2020 г. по 2021 г. бремя устойчивого к рифампицину ТБ увеличилось (первое за десятилетие повышение в годовом исчислении) с регистрацией в Регионе примерно 73000 (95% доверительный интервал [СІ]: 64000-81000) новых случаев ТБ, устойчивого к рифампицину, и ТБ с множественной лекарственной устойчивостью (РУ/МЛУ-ТБ). Среди впервые зарегистрированных пациентов с бактериологически подтвержденным ТБ легких в 37000 случаев, согласно оценкам, выявлялась устойчивость к рифампицину. Доля РУ/МЛУ-ТБ среди новых и ранее леченных случаев ТБ в Регионе также значительно превышает среднемировой показатель (26% новых и 57% ранее леченных случаев в сравнении с 3,6% и 18% соответственно) [2].

Распространенность ВИЧ-инфекции среди инцидентных случаев ТБ оценивалась как 13% в 2021 г., оказавшимся еще одним не принесшим изменений годом после беспрецедентного роста с 4% до 12% в период 2007—2016 гг. По оценкам, в Регионе было зарегистрировано 29 000 случаев ТБ среди ВИЧ-положительных лиц, из которых около 84% приходится на Российскую Федерацию (62%) и Украину (22%).

#### Регистрация и исходы лечения активного ТБ

В 2021 г. было зарегистрировано 166 026 инцидентных случаев ТБ в 51 из 53 стран в Регионе, 4 что составило лишь 72% от оценочного значения новых и рецидивных случаев. В 2021 г. произошел незначительный рост числа зарегистрированных случаев ТБ — 1,1% по сравнению с предыдущим годом; многие страны также сообщили об увеличении числа зарегистрированных случаев ТБ в годовом исчислении в сравнении с 2020 г. Однако в 2021 г. в Европейском регионе ВОЗ по-прежнему регистрировалось на 23% меньше новых и рецидивных случаев, чем в 2019 г.

В общей сложности среди инцидентных случаев ТБ было зарегистрировано 137 212 пациентов с ТБ легких (82,6%), из которых 69,9% имели лабораторное подтверждение диагноза. Среди бактериологически подтвержденных случаев ТБ легких 94,1% обследовались на устойчивость к рифампицину.

В целом, 32,6% больных легочными формами ТБ, зарегистрированных как прошедшие тестирование лекарственной чувствительности, страдали РУ/МЛУ-ТБ. Распространенность РУ/МЛУ-ТБ среди новых и ранее леченных бактериологически подтвержденных случаев ТБ легких составила 22,6% и 53,0% соответственно.

Сведения о тестировании лекарственной чувствительности (ТЛЧ) к фторхинолонам были доступны для 89,7% всех случаев регистрации РУ-ТБ легких. В общей сложности 33,4% случаев РУ-МЛУ/ТБ легких с результатами ТЛЧ к фторхинолонам в 2021 г. были случаями с пред-широкой лекарственной устойчивостью (пре-ШЛУ-ТБ). Среди пациентов с пре-ШЛУ-ТБ, обследованных на чувствительность к любым другим противотуберкулезным препаратам группы А, распространенность ШЛУ-ТБ на региональном уровне составила 11,2%.

Среди новых и рецидивных пациентов с ТБ, зарегистрированных странами с указанием сведений о тестировании на ВИЧ, 92,8% прошли скрининг на ВИЧ. Среди пациентов с ТБ в 20175 случаях был выявлен ВИЧ-положительный статус, что составляет 14,8% обследованных.

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<sup>4</sup> Сан-Марино не подало сведений, Монако доложило об отсутствии случаев в 2021 г. Лихтенштейн – государство-член ЕЭЗ, но не государство-член ВОЗ.

Были поданы сведения о 15 909 (80,1%) ВИЧ-положительных пациентах, получивших антиретровирусную терапию (АРТ). Хотя за последние пять лет охват АРТ увеличивался, он до сих пор не достигает целевого ориентира ВОЗ по всеобщему охвату АРТ пациентов с коинфекцией ТБ/ВИЧ.

Частота успешного лечения в Регионе остается ниже соответствующих региональных целевых ориентиров — 85% и 75%. Исходы успешного лечения для когорт инцидентного ТБ и РУ/МЛУ-ТБ составили 73.4% и 57,2% соответственно.

#### Выводы

Заметный прогресс в снижении бремени ТБ в Регионе, наблюдавшийся в период с 2015 г. по 2019 г., оказался под угрозой в 2020—2021 гг. из-за пандемии COVID-19. В результате в 2021 г. прекратился нисходящий тренд — тенденция к снижению смертности от ТБ, а заболеваемость начала расти, означая, что гораздо меньше больных людей были диагностированы и лечились от ТБ. Следовательно, меньше людей обследовались на лекарственную устойчивость и получили лечение по поводу РУ/МЛУ-ТБ.

В 2020 г. тенденция к снижению числа смертей вследствие ТБ прекратилась, оставаясь неизменной и в 2021 г., что можно расценивать как следствие задержки или отсутствия диагностики ТБ из-за сбоев в работе противотуберкулезных служб, что приводит к увеличению тяжести заболевания и сопряженному повышению показателя смертности. Согласно оценкам, в период 2020—2021 гг. увеличилось также и бремя лекарственно-устойчивого ТБ (ЛУ-ТБ).

Частота успешных исходов лечения новых и рецидивных случаев ТБ ниже в сравнении с предыдущими годами, и это говорит о том, что страны сталкиваются с нарастающими проблемами в обеспечении оказания надлежащей помощи пациентам с ТБ. Позитивным моментом является то, что показатель успешности лечения РУ-ТБ в Регионе, особенно среди пациентов с пре-ШЛУ-ТБ, медленно, но неуклонно улучшается, что, скорее всего, отражает расширение масштабов использования новых и перепрофилированных противотуберкулезных препаратов и укороченных полностью пероральных режимов лечения пациентов с ЛУ-ТБ. Тем не менее, несмотря на медленное улучшение, частота успешного лечения новых и рецидивных случаев, а также пациентов с РУ/МЛУ-ТБ по-прежнему ниже региональных и глобальных целевых ориентиров. Аналогичным образом, несмотря на предпринимаемые усилия, бремя РУ-ТБ и ТБ/ВИЧ остается значительным, что подчеркивает необходимость внедрения более инновационных и эффективных подходов к диагностике и лечению ТБ и МЛУ-ТБ.

Срок выполнения Плана действий по борьбе с туберкулезом для Европейского региона ВОЗ на 2016—2020 гг. истек в 2020 г., а достигнутый прогресс был оценен и представлен на Семидесятой сессии Европейского регионального комитета [3]. Новый План действий по борьбе с туберкулезом для Европейского региона ВОЗ

на 2023—2030 гг., разработанный на основе консультаций с государствами-членами, партнерами, организациями гражданского общества и затронутыми сообществами, был представлен на Семьдесят второй сессии Европейского регионального комитета ВОЗ и принят государствами-членами в качестве резолюции EUR/RC72(2) [4–5].

Региональный план действий позволит реализовать глобальную стратегию по ликвидации туберкулеза посредством деятельности, специфичной для конкретного региона, с принятием мер, ориентированных на нужды людей, в соответствии с Европейской программой работы на 2020—2025 гг. — «Совместные действия для улучшения здоровья жителей Европы» [6]. Внося свой вклад в Европейскую программу работы, стремясь к обеспечению всеобщего охвата услугами здравоохранения, содействуя укреплению здоровья и благополучия и защите от чрезвычайных ситуаций в области здравоохранения, Региональный план действий призван улучшить баланс в оказании поддержки на региональном, субрегиональном и страновом уровнях для достижения большего воздействия на популяционном уровне.

#### Страны Европейского союза и Европейской экономической зоны

#### Эпидемиология и исходы лечения

В 2021 г. в 29 странах Европейского союза и Европейской экономической зоны (ЕС/ЕЭЗ) были зарегистрированы 33 520 случаев ТБ (Исландия сведений не подавала), что соответствует частоте регистрации 7,4 на 100 000 населения ЕС/ЕЭЗ. Общая частота регистрации в большинстве стран за последние пять лет снизилась. Показатели за 2020—2021 гг. следует интерпретировать с осторожностью с учетом потенциального влияния мер, принятых странами для смягчения воздействия, которое пандемия СОVID-19 могла оказать на сбор данных о ТБ и доступ к медицинскому обслуживанию.

Из всех зарегистрированных случаев ТБ 25 402 (75,8%) были впервые диагностированными; 21701 (86,2%) были подтверждены методом посева или исследованием мазка или же методом амплификации нуклеиновых кислот. В 2021 г. взрослые в возрасте от 25 до 64 лет составляли 65,8% всех новых и рецидивных случаев ТБ, в то время как дети в возрасте младше 15 лет составляли 3,5% всех новых и рецидивных случаев ТБ. Румыния предоставила сведения о наиболее высокой частоте регистрации среди детей - 9,2 случаев на 100 000 населения в возрасте о-4 года. В 2021 г. новые и рецидивные случаи ТБ более часто регистрировались среди мужчин, нежели среди женщин, с соотношением мужчин к женщинам, равным 2,0. Чуть более одной трети (33,8%) случаев ТБ, зарегистрированных в ЕС/ЕЭЗ в 2021 г., были иностранного происхождения.

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Из 16 895 случаев с результатами ТЛЧ по меньшей мере к рифампицину 630 (3,8%) признаны случаями МЛУ-ТБ. Странами с наивысшей долей МЛУ-ТБ среди случаев с результатами ТЛЧ оказались Эстония (28,4%) и Литва (17,5%). Пре-ШЛУ-ТБ отмечался у 115 (28,5%) из 404 пациентов с РУ/МЛУ-ТБ, обследованных на чувствительность к фторхинолонам. Среди случаев пре-ШЛУ-ТБ 79 (68,7%) тестировались на чувствительность к какому-либо противотуберкулезному препарату группы А, а 43 (54,4%) удовлетворили критериям ШЛУ-ТБ согласно его определению.

В 2021 г. 21 страна подала сведения о ТБ, сочетанным с ВИЧ-инфекцией. В прошлом число стран, подававших сведения о конфекции с ВИЧ, варьировало с максимальным количеством на пике — 23 страны — в 2016—2017 гг. с последующим снижением до 21 страны в 2018 г. и повторным снижением до 19 стран в 2019—2020 гг. Из 12 277 случаев ТБ с известным ВИЧ-статусом 472 (3,8%) были зарегистрированы как ВИЧ-положительные.

По-прежнему подается недостаточно сведений о ТБ в местах лишения свободы. Для подавших сведения стран EC/EЭЗ частота регистрации составила 332 новых и рецидивных случая ТБ на 100 000 заключенных, а относительный риск среди заключенных достигал 8,9 по сравнению с общей популяцией в тех же странах.

Из всех 2076ослучаев ТБ, зарегистрированных в 2020 г., исходы лечения которых стали известны в 2021 г., 71,7 % были успешно пролечены, 8,4% умерли, у 0,8% отмечалась неудача лечения, 3,3% были потеряны для последующего наблюдения, 2,2% продолжали лечение через 12 месяцев после его начала, а у 13,7% исход лечения не оценивался. Из 781 случаев РУ/МЛУ-ТБ, зарегистрированных в 2019 г., исходы лечения которых стали известны в 2021 г., 51,7% были успешно пролечены, 14,2% умерли, а у 9,1% отмечалась неудача лечения. Из 159 случаев пре-ШЛУ-ТБ, исходы лечения которых стали известны в 2021 г., 27 (17,0%) были успешно пролечены, 30 (18,9%) умерли, у 22 (13,8%) отмечалась неудача лечения, 14 (8,8%) были потеряны для последующего наблюдения, 58 (36,5%) продолжали получать лечение через 24 месяца после его начала, а в 8 (5,0%) случаях исходы лечения не оценивались. Успех лечения был отмечен только у 18 (66,7%) пациентов из 27 случая ШЛУ-ТБ, зарегистрированного в 2018 г., в 11,1% случаев констатировалась смерть, а 11,1% пациентов были потеряны для последующего наблюдения.

#### Выводы

В 2021 г. 29 из 30 стран EC/EЭЗ подали сведения о регистрации ТБ. В период 2020—2021 гг. произошло дальнейшее небольшое снижение общего показателя заболеваемости ТБ в продолжение тенденции, наблюдавшейся с 2002 г. Данные о снижении в период с 2019 г. по 2021 г. должны интерпретироваться с осторожностью с учетом возможного влияния ответных мер, принятых для смягчения воздействия COVID-19. Тем не менее, предстоит еще немало потрудиться, чтобы достичь Цели 3 в области устойчивого развития Организации Объединенных Наций, что предполагает

частоту регистрации на уровне 2,4 случая на 100 000 населения ЕС/ЕЭЗ к 2030 г. Хотя увеличение числа зарегистрированных случаев МЛУ-ТБ совершенно незначительно — на их долю приходится небольшая часть всех случаев ТБ, зарегистрированных в 2021 г., схожая тенденция прослеживается во всех странах ЕС/ЕЭЗ в 2021 г. при сравнении с данными, полученными до 2020 г.

Во всех когортах успех лечения отмечается намного реже, чем в 90% случаев, что является целевым ориентиром успешного лечения, определенным ВОЗ. Из всех случаев, зарегистрированных в 2020 г. с исходами лечения, ставшими известными в 2021 г., 71,7% были успешно пролечены. Частота успешного лечения была ниже среди пациентов с ШЛУ-ТБ (66,7%) через 36 месяцев, и еще ниже среди пациентов с РУ/МЛУ-ТБ (51,7%) через 24 месяца с долей умерших в этих когортах — 11,1% и 18.9% соответственно.

В странах ЕС/ЕЭЗ необходимы дальнейшие усилия по улучшению регистрации конфекции с ВИЧ, ТБ в тюрьмах и исходах лечения.

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Все веб-ссылки были просмотрены 16 февраля 2023 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 coronavirus 2019 (COVID-19) pandemic, TB was the global leading cause of death from a single infectious agent [2]. 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, for example, an individual with pulmonary TB expels bacteria into the air by coughing.

Approximately 25% of the world's population is infected with M. tuberculosis [3], 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 infected 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% [4]. 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.

According to WHO's estimates, 10.6 million people fell ill with TB in 2021. Most cases were thought to have occurred in the WHO South-East Asia Region (45%), the WHO African Region (23%) and the WHO Western Pacific Region (18%). Smaller proportions of cases were estimated for the WHO Eastern Mediterranean Region (8%) and the WHO Region of the Americas (3%). The WHO European Region accounted for 2% of all cases [4].

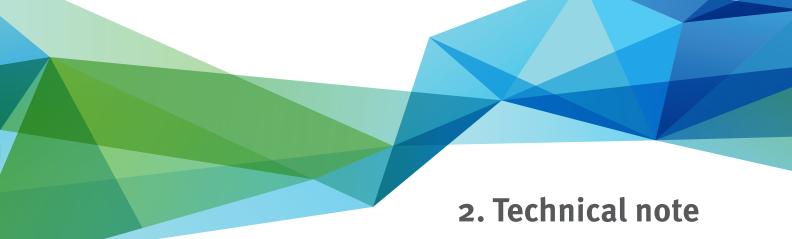
Overall, this report shows that in countries of the European Union/European Economic Area (EU/EEA), TB remains a public health issue. Most EU/EEA countries, however, are low-incidence countries (with a notification rate below 10 per 100 000) in which TB predominantly affects vulnerable populations such as migrants, prison inmates and people coinfected with HIV.

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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# 2. 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 European Union (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 2022.

#### 2.1 Data-reporting and analysis

Designated experts within national surveillance, infectious disease or public health institutes submitted TB surveillance and control programme management data for 2021 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 2018, 2019 and 2020 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 2021 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 be cautious when making comparisons across countries and areas, even though the

quality and comparability of reported data have improved in recent years and the 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] (23 April 2022) 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 (time, place, gender, age and patient origin) and case management (history of previous anti-TB treatment, localisation of disease, laboratory results, HIV status and treatment outcome) variables. If indicated, associations between variables were quantified as relative risk and their 95% confidence intervals (CI), and results were considered significant if the CI did not include 1.

#### 2.1.1 TB/HIV coinfection

Case-based HIV status for 2021 was reported by Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia and Spain. The proportion of TB/HIV coinfection 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 new and relapse TB cases with known HIV status reported in 2021, start or continuation on antiretroviral therapy (ART) was reported by nine EU/EEA Member States.

# 2.1.2 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 (2016–2021). 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, levofloxacin and moxifloxacin were added in 2013; bedaquiline and delamanid in 2016; pyrazinamide in 2017 and clofazimine, ethionamide and linezolid in 2021. Case-based information on DST is collected in countries/areas where DST results are linked to TB case notifications (28 of 29 EU/EEA reporting countries in 2021).

Where individual DST data are not available, data have been obtained from WHO's TME platform in aggregated format, when possible and 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 the resistance pattern used on initiation of the treatment to TESSy, 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 Network 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.

#### 2.1.3 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 2022 data call, for 2021 data, outcome data were collected for TB cases reported in 2020, rifampicin-resistant

and multidrug-resistant TB (RR/MDR-TB) cases in 2019 and pre-XDR and XDR-TB cases in 2018. 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.

#### 2.1.4 Geographical areas

The following 30 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 (case based data not reported for 2021), Ireland, Italy, Latvia, Luxembourg, Liechtenstein, Lithuania, 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 Kosovo<sup>7</sup> 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>7</sup> All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

#### 2.2 Definitions

#### 2.2.1 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.

Data from 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 is positive by smear microscopy, culture or WHO-recommended rapid diagnostics (WRD) (e.g. Xpert MTB/RIF). A 'clinically diagnosed TB case' is one that 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.

#### 2.2.2 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.

#### 2.2.3 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).

#### 2.2.4 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.

#### 2.2.5 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, Latvia, 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/noncitizen). 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 casebased 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.

#### 2.2.6 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.

#### 2.2.7 Treatment outcome

#### 2.2.7.1 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.

#### 2.2.7.2 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'.8 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'.9 Non-EU/EEA countries and areas evaluate treatment outcomes according to the WHO definition.

#### 2.2.7.3 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 as follows.

**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 are negative after the intensive phase.

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

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

Treatment failed for MDR-TB, pre-XDR-TB and XDR-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

<sup>8</sup> The degree of adherence to the 12-month limit is unknown, and a number of countries are known to exceed it.

The degree of adherence to the 24-month limit is unknown.

- evidence of additional acquired resistance to fluoroquinolones or second-line injectable drugs; or
- adverse drug reactions.

**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>10</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.

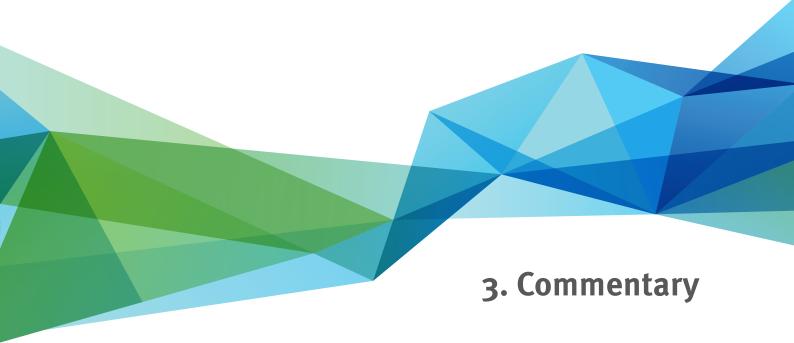
In this report, **success** is the sum of 'cured' and 'treatment completed'.

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<sup>10</sup> This definition is applicable to EU/EEA countries only.

<sup>11</sup> All weblinks accessed on 16 February 2023.



# 3. Commentary

#### 3.1 The WHO European Region

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

An estimated 230000 new and relapse TB cases (range 211000–251000) occurred in countries and areas of the WHO European Region in 2021, equivalent to an average incidence of 25 cases (range 23–27) per 100000 population. This represents about 2.2% of the total burden of TB in the world.

The absolute number of incident TB cases in the WHO European Region increased by 3000 in 2021 compared to the previous year. Around 85% of the estimated TB cases in the Region occurred in the 18 HPCs, where estimated TB incidence was 48 cases per 100000 population, which is almost five times higher than the EU/EEA average. The five countries with the absolute highest number of incident TB cases over 10000 were the Russian Federation (69000), Ukraine (31000), Uzbekistan (21000), Türkiye (15000) and Kazakhstan (14000). The number relative to population (incidence rate) was highest in Kyrgyzstan (130 per 100000 population), followed by Tajikistan (88), the Republic of Moldova (85), Kazakhstan (73) and Ukraine (71) (Table II).

Although by 2020 the European Region had overachieved the End TB strategy milestone of 20% cumulative reduction for TB incidence during the period 2015-2020, in 2021, for the first time in two decades, the incidence rate is estimated to have increased by 1.2% against 2020. This reversal of the trend reflects the impact of the disruption to TB services caused by the COVID-19 pandemic. During the period 2012-2021, the average annual decline in the TB incidence rate was 4.6%, which is notably higher than the global rate of decline for TB incidence (2%) and the fastest decline in the world compared to other regions [1]. This decline was mostly driven by the situation in the Russian Federation, where incidence fell by 5.2% per year between 2012 and 2021. It should nevertheless be emphasised that most of the HPCs in the Region have also experienced a decline in the TB incidence rate. During the period 2012–2021, the HPCs with the highest annual rate of decline were Latvia (-12.9%), Estonia (-9.7%), Lithuania (-9.3%), Belarus (-8.0%), Romania (-7.9%), Armenia (-6.7%), and Georgia (-6.6%).

An estimated 20000 TB deaths occurred among HIV-negative people in the European Region in 2021, equivalent to 2.1 deaths per 100000 population. Between 2012 and 2021, the TB mortality rate at regional level fell cumulatively by 52%, from 4.4 to 2.1 deaths per 100000 population, which on average is a decline of 7.7% per year (Table I). Between 2020 and 2021, TB mortality in the Region came to a standstill for the first time in the last two decades. This was a consequence of undiagnosed and untreated TB and an associated increase in deaths due to disruptions to TB

services caused by the COVID-19 pandemic. Considerable variation was seen across the Region, ranging from under one TB death per 100 000 population in western European countries to 10 per 100 000 and higher in HPCs. The TB mortality rate was highest in Tajikistan (12.3 deaths per 100 000), followed by Turkmenistan (10.2), Romania (8.8), Azerbaijan (8.6), Kyrgyzstan (8.4), and Ukraine (8.3). Together, the 18 HPCs accounted for 90% of TB deaths in the Region.

An estimated 13% (range 11–15%) of incident TB cases in 2021 were coinfected with HIV (Table 2). The proportion of TB cases coinfected with HIV was highest in the Russian Federation (26%), followed by Turkmenistan (22%), Ukraine (20%), the Republic of Moldova and Armenia (11% each). The top five countries with the highest absolute number of TB/HIV coinfection cases were the Russian Federation (18 000) and Ukraine (6 300), representing 84% of the total number of cases, followed by Kazakhstan (930), Turkmenistan (670) and Uzbekistan (600).

Nine of the 30 countries with the highest RR/MDR-TB burden in the world are in the WHO European Region. In 2021, the WHO European Region had an estimated 37 000 incident cases of RR/MDR-TB among notified bacteriologically-confirmed pulmonary TB cases (Table 2). An estimated 26% (95% CI: 21–31%) of newly diagnosed patients and 57% (95% CI: 41–72%) of previously treated patients had RR/MDR-TB. Overall, an estimated 73 000 (range 64 000–81 000) incident cases of RR/MDR-TB occurred in the Region in 2021.

#### 3.1.2 TB notification and trends

In 2021, 197184 TB patients were reported from 51 countries and areas<sup>13</sup> in the WHO European Region. Of these, 166 026 were incident TB patients (Table III). This represents a 1.1% increase in the number of notified TB patients against 2020; a slight recovery following an unprecedented 24% drop in TB notification between 2019 and 2020 due to the impact of the COVID-19 pandemic. This translates into TB treatment coverage of 72% (95% CI: 66–79%) in 2021 (approximated as notifications divided by incidence), down from 88% (95% CI: 77-100%) in 2019. In the 18 HPCs the trend in notifications varied considerably. Kyrgyzstan, Romania, the Republic of Moldova, Türkiye, Ukraine and Uzbekistan, which all experienced large reductions in 2020, partially increased their notification in 2021 against 2020, from 1% in Ukraine to 17.9% in the Republic of Moldova. Meanwhile, despite a large drop in notifications in 2020 compared to 2019, Armenia, Azerbaijan, Belarus, Bulgaria, Estonia,

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>13</sup> San Marino and Iceland did not report, and Monaco reported zero

Georgia, Lithuania, Russian Federation and Turkmenistan reported a further decline in the number of TB cases in 2021 against 2020, from 1% in Azerbaijan to 26% in Bulgaria. The number of TB cases reported from Kazakhstan and Tajikistan in 2021 is comparable to 2020.

The notification rate of new and relapse cases in 2021 varies widely among countries, from zero (Monaco) to 70 (Kyrgyzstan) per 100 000 population (Map 1 and Table III). Forty-one countries, mainly located in the western and central part of the Region, had low notifications of new and relapse cases (fewer than 20 cases per 100 000) in 2021. Ten countries reported new and relapse case rates of between 20 and 50 per 100 000 population and three reported over 50 cases per 100 000 population (Kyrgyzstan (70.4), Republic of Moldova (67.5), and Kazakhstan (50.8)). The new and relapse case notifications from the 18 HPCs account for about 82% of the regional burden. Over a third of new and relapse cases (56 922) come from the Russian Federation, even though the country only accounts for 16% of the Region's population.

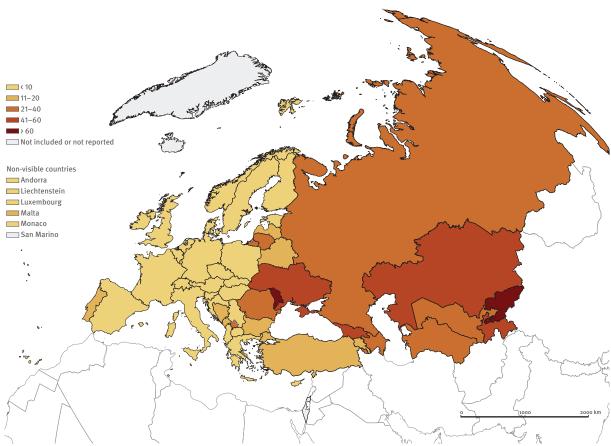
The notification rate of new and relapse cases in the 18 HPCs is almost twice as high as for the Region overall (33 cases per 100 000, compared to 18 cases per 100 000 for the Region) and over five times higher than the rate in the EU/EEA (seven cases per 100 000 population) (Fig. 3.1.1).

#### 3.1.3 Previous treatment history

In 2021, previously treated cases represented 9.9% and 32.5% in the EU/EEA and non-EU/EEA, respectively (Table 4). The average in the 18 HPCs was 32.8%, which is above the pan-European average of 28.7%. Previously treated cases accounted for 15% or more of all TB cases in 12 countries: Azerbaijan (48.7%), the Russian Federation (43.0%), Turkmenistan (39.6%), Belarus (30.7%), Kazakhstan (29.4%), the Republic of Moldova (28.1%), Ukraine (25.9%), Kyrgyzstan (25.1%), Uzbekistan (21.3%), Georgia (21.1%), Romania (19.8%), and Estonia (17.1%). 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.

#### 3.1.4 Disease localisation

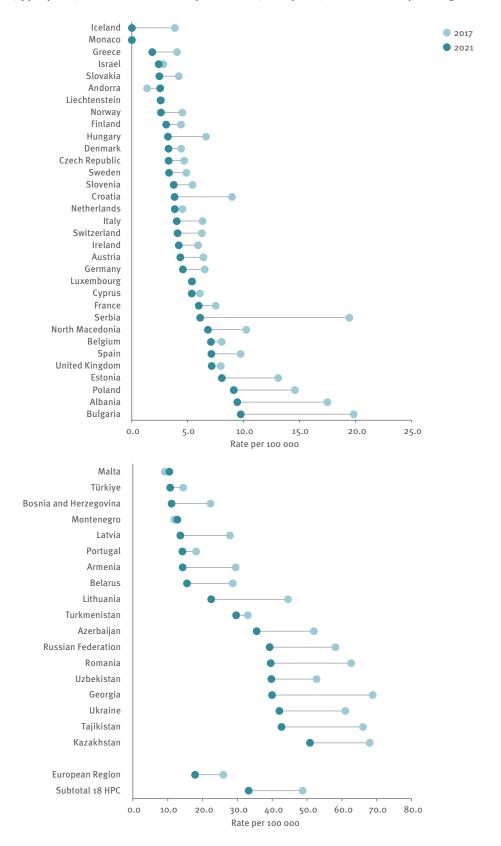
Pulmonary localisation was notified in 82.6% of the incident TB cases in the Region in 2021 (Table 6). The proportion of patients with pulmonary localisation in the non-EU/EEA countries and areas was higher than in the EU/EEA. Eleven countries reported more than 30% of their TB cases having extrapulmonary localisation: Belgium, Finland, France, Israel, the Netherlands, Norway, Sweden, Tajikistan, Türkiye, the United Kingdom and Uzbekistan.



Map 1. TB notification rates of new TB cases and relapses per 100 000 population, European Region, 2021

Sources: 2021 data from the European Surveillance Systems (TESSy) and 2021 data from the WHO global TB data-collection system. Map production: ©ECDC.

Fig. 3.1.1. Trend in TB notification rate per 100 000 between 2017 and 2021 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



Note: Monaco did not report data in 2021 and is excluded.

#### 3.1.5 Bacteriological confirmation

Bacteriological confirmation of TB diagnosis was reported for 95 855 (69.9%) of all 137 212 new and relapse pulmonary cases in the Region (Table 6). Although testing rates with WHO recommended rapid diagnostics (WRDs) were much lower in the EU/EEA countries (37.2%) than in the non-EU/EEA countries and areas (78.4%), the five-year trend shows a continuing increase in the use of WRDs across the Region, from 61.4% in 2017 to 70.5% in 2021 (Fig. 3.1.2 and Table XIV). Testing also varied considerably among countries and areas, from 0.3% in Bulgaria to 99% in Kazakhstan. Bacteriological confirmation of new and relapse pulmonary cases was below 60% in four countries and areas: Hungary (59.1%), Kosovo (58.6%), the Russian Federation (55.8%) and Turkmenistan (50.8%), underlining the need to strengthen diagnostics. In 37 countries, bacteriological confirmation of new and relapse pulmonary cases was 75% and above.

#### 3.1.6 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, Croatia, Estonia and Ireland) to 29.9% (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 4.1%.

There were around twice as many males as females reported among all incident TB cases. However, large variation was observed for male predominance in the sex distribution of TB cases, ranging from almost even to over three times greater in Armenia, Belarus, Latvia and the Republic of Moldova. The exception is Norway, where the number of female TB patients outnumbered those of males. 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).

#### 3.1.7 Drug resistance

Fifty-one countries in the Region reported test results for rifampicin resistance in 2021. Overall, DST coverage in the Region, at least for rifampicin among bacteriologically-confirmed pulmonary TB cases, was 93.6%, with 44 countries achieving coverage of 85% or higher. The percentage of confirmed RR-TB cases among 69775 new pulmonary TB cases tested for rifampicin resistance in the Region was 22.6% (Map 2, Fig. 3.1.3, Table 11 and Table V). Although 11 countries reported no RR-TB or less than 1% among new TB cases, the rate was over 20% in eleven countries (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 3.3%, while the RR-TB proportion among previously treated pulmonary cases was higher at 11.9% (Fig. 3.1.4).

Four HPCs had an RR/MDR-TB prevalence ranging from 10% to 19% among new cases tested for rifampicin resistance: Uzbekistan (18.5%), Lithuania (15.7%), Azerbaijan (12.2%) and Georgia (10.6%). Six had 20–29% RR/MDR-TB among new cases (Tajikistan (26.9%), Ukraine (26.2%), Kyrgyzstan (25.9%), the Republic of Moldova (25.8%), Armenia, and Estonia (21.1% each)) and four had an RR/MDR-TB prevalence of over 30% (Turkmenistan (46.4%), Belarus (37.8%), Kazakhstan (37.7%) and the Russian Federation (36.0%)). The percentage of RR/MDR-TB reported



Fig. 3.1.2. New and relapse TB cases tested using WRD, European Region, 2017-2021

for France is misleading, as DST results are only documented for RR-TB cases.

The percentage of confirmed RR/MDR-TB cases among 34 258 previously treated pulmonary bacteriologically-confirmed TB cases whose isolates were tested for first-line DST was 53.0% (Fig. 3.1.3, Table 11 and Table VI).

Fifteen countries/areas had between 15% and 49% RR/MDR-TB among previously treated TB cases tested for first-line DST. The rate was even higher in some HPCs: Belarus (73.5%), Estonia (69.2%), the Russian Federation (67.7%), Turkmenistan (55.9%) and Kyrgyzstan (50.7%) (Fig. 3.1.5, Table 11).

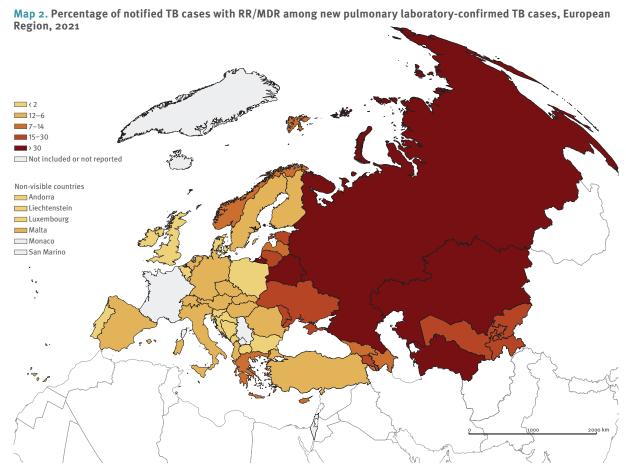
The rates of RR/MDR-TB notification among new and previously treated patients in 2021 at regional level were 1.7 and 2.0 per 100 000 respectively (Table V, Table VI).

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 sub-regional level, the proportion of rifampicin resistance among new pulmonary TB cases slightly increased in the EU/EEA over the last five years, from 2.5% to 3.3%. Meanwhile the rate of notified RR/MDR-TB cases remained stable at around 0.1 case per 100 000 population. The rifampicin-resistant

percentage among new bacteriologically-confirmed pulmonary TB cases in the non-EU/EEA countries and areas increased slightly from 25.3% to 27.4%. Before the pandemic, the RR/MDR-TB notification rate among new TB patients ranged between 3.8 and 4.0 per 100 000 population, with no sign of a decreasing trend. In 2020, the RR/MDR-TB notification rate per 100 000 population declined to 3.1 per 100 000 population, with just slight recovery to 3.2 per 100 000 in 2021.

In 2021, forty-four countries reported data on DST to fluoroquinolones among pulmonary RR/MDR-TB patients. Data on DST to fluoroquinolones were available for about 89.7% of all notified pulmonary RR/MDR-TB cases. Of the 30 468 pulmonary RR/MDR-TB cases subjected to DST to fluoroquinolones, 10186 (33.4%) were pre-XDR-TB (Table 12).

Twenty-eight countries additionally reported DST results for any other Group A drugs among pre-XDR-TB patients. Of 4228 pre-XDR-TB patients tested for resistance against any other Group A drugs, the prevalence of XDR-TB was 11.2% at regional level (Table 12). In EU/EEA countries, where 68.7% of pre-XDR-TB cases were tested for Group A drugs, the prevalence of XDR among pre-XDR cases was 54.4%, while in non-EU/EEA countries and areas where DST coverage for other Group A drugs was only 41.2%, the XDR prevalence among pre-XDR patients was 10.4%. Among



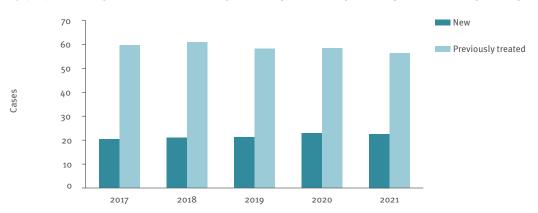
Sources: 2021 data from the European Surveillance Systems (TESSy) and 2021 data from the WHO global TB data-collection system. Map production: ©ECDC.

countries and areas reporting at least 30 pre-XDR cases with Group A DST results, three reported over 20% XDR prevalence among pre-XDR-TB cases: Armenia (31.6%), Georgia (28.6%) and Uzbekistan (22.6%).

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 regional level, pre-XDR prevalence among RR/MDR-TB cases has increased over the past five years, from 25.6 in 2017 to 33.4% in 2021 (Table VIII).

A total of 31839 RR/MDR-TB and 9736 pre-XDR-TB patients were enrolled in respective treatment programmes. The number of cases starting RR/MDR-TB treatment in 2021 exceeded the total number of patients notified during the same period, as many of the HPCs have reported higher numbers of cases enrolled than detected. The reasons for such discrepancies include incomplete reporting, backlogs of RR/MDR-TB patients, frequent treatment failures and

Fig. 3.1.3. Percentages of RR/MDR-TB among laboratory-confirmed pulmonary TB cases, European Region, 2017-2021



 $\textbf{Fig. 3.1.4.} \ Percentages of RR/MDR-TB among laboratory-confirmed pulmonary TB cases by previous treatment history, \\ EU/EEA, 2017-2021$ 

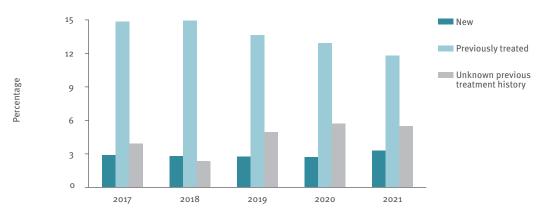
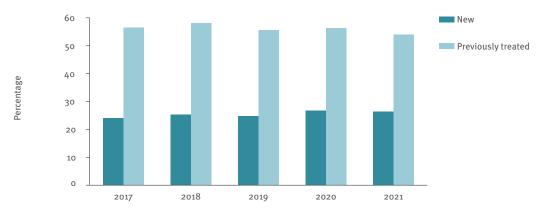


Fig. 3.1.5. Percentages of RR/MDR-TB among laboratory-confirmed pulmonary TB cases, 18 HPCs, 2017–2021



treatment interruptions leading to re-enrolment of the same patients in the same year's cohort, and weakness of surveillance. Five 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 (74.2%), Türkiye (84.9%), Azerbaijan (91.8%), Belarus (91.9%), and Georgia (94%) (Table 13).

In 2021, access to pre-XDR-TB treatment at regional level was 91.8%. Eight HPCs (Belarus, Estonia, Georgia, Kyrgyzstan, Latvia, the Russian Federation, Tajikistan and Türkiye) reported a discrepancy of over 5% in XDR-TB treatment coverage.

#### 3.1.8 TB/HIV coinfection

Thirty-eight countries/areas provided surveillance data on TB/HIV coinfection (Table 14). Of the 146 818 new and relapse TB patients, 136 176 (92.8%) were screened for HIV. Twelve HPCs achieved a testing level above 90%: Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Lithuania, the Republic of Moldova, the Russian Federation, Tajikistan, Ukraine and Uzbekistan. A total of 20175 TB cases were detected with HIV-positive status, representing 14.8% of those tested, comparable with the 14.7% recorded in 2020.

Among countries/areas reporting representative HIV testing (above 50% HIV testing coverage), six 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 (25.8%), Ukraine (20.3%), Latvia (13.1%), Estonia (12.1%), the Republic of Moldova (10.7%) and Armenia (10.7%). Six countries with representative routine surveillance had 5–10% HIV prevalence among TB patients: Belarus (8.6%), Portugal (8.2%), Spain (7.6%), Israel (7.5%), Kazakhstan (6.5%) and Belgium (5.6%).

Twenty-two countries/areas in the Region provided information on ART enrolment among TB cases with HIV-positive status in 2021. Of 19830 HIV-positive TB cases, 15909 (80.1%) had received ART. This is higher than in 2020 (74.0%) but still below the WHO target of universal ART

coverage. Five HPCs achieved ART coverage of over 90%: Azerbaijan, Georgia, Kazakhstan, Tajikistan and Ukraine.

#### 3.1.9 Country of origin

TB patients of foreign origin represent 9.9% of all TB cases notified Region-wide: 33.8% in EU/EEA countries and 4.8% in non-EU/EEA countries and areas (Table 9, Fig. 3.1.6). TB patients of foreign origin represent a large majority in several countries: Malta (98.1%), Cyprus (95.8%), Luxembourg (94.3%), Sweden (89.1%), Norway (82.8%), Israel (80.3%), the Netherlands (78.2%), the United Kingdom (75.1%), Greece (71.8%), Germany (71.4%), Denmark (70.7%), and Switzerland (70.6%).

#### 3.1.10 TB in prisons

Twenty-six countries/areas in the Region provided information on TB case detection and treatment in prisons during 2021 (Table 15). Overall, 6 402 (4.9%) of the new and relapse TB cases in the Region were reported from prisons, with 6186 (96.6%) of these in the HPCs. The proportion of TB cases in prisons represented around 1.2% of the country total in EU/EEA countries; in non-EU/EEA countries and areas, the proportion was 5.5%. The notification rate in prisons in the non-EU/EEA countries and areas was 664 new TB cases per 100 000 population, which is over five times higher than in the EU/EEA sub-region (130 per 100 000). The overall notification rate for new TB cases in prisons in the WHO European Region was 548 per 100 000 population. The TB notification rate exceeded 1000 cases per 100 000 detainees in four countries: Kyrgyzstan, the Republic of Moldova, the Russian Federation and Ukraine. The highest TB-related risks in prison (relative to incidence in the general population) are calculated to be in Armenia (38.1) followed by Ukraine (27.2), the Russian Federation (26), Belgium (24.2) and North Macedonia (22.6).

#### 3.1.11 Treatment outcome

The treatment success rate among 125 957 new and relapse TB cases having started treatment with first-line drugs in 2020 was 73.4%, slightly lower compared to the 76.9% achieved in the 2019 cohort (Table 16, Table X). In the HPCs, the average rate of cases cured or for whom treatment was

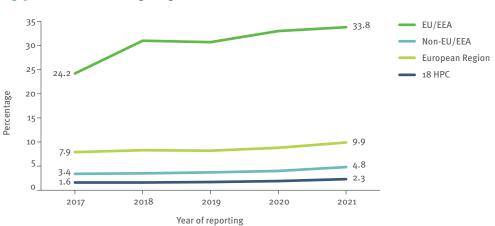


Fig. 3.1.6. TB cases of foreign origin, 2016–2020

completed was 74.1%. The treatment success rate was lower in the EU/EEA countries than in non-EU/EEA countries and areas (71.7% versus 73.7%). Only 13 countries achieved an 85% treatment success rate in this treatment cohort. Another 11 were close to the target, with success rates of 80–85%. Ten countries had treatment success rates below 60%, with a very high proportion of cases not being evaluated

A total of 12 448 (9.9%) cases were reported to have died in the 2020 cohort, 4.2% to have been lost to follow-up and 6.1% 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 7.1% in non-EU/EEA countries and areas (Table 16). Countries reporting fatal outcomes in excess of 10% were Slovenia (21.6%), Estonia (18.8%), Croatia (18.6%), Czechia (15.6%), the Russian Federation (13.4%), the Republic of Moldova (13.2%), Romania (11.2%), Austria, Hungary (10.5% each), Belarus and Lithuania (10.1% each).

The treatment success rate among the 3 919 child TB cases (aged o-14 years) in the 2020 cohort was 89.0% (Table 18). The treatment success rate in EU/EEA countries was remarkably lower than in the non-EU/EEA countries and areas (83.7% versus 90.4%). Among child TB cases in the Region, 1.2% died, 1.4% failed and 0.9% were lost to follow-up.

Of the 15 076 TB/HIV coinfected patients who started treatment throughout the Region in 2020, only 7146 (47.4%) had a successful treatment outcome (Table 20).

In the 2019 cohort, treatment outcome was notified for 53 612 laboratory-confirmed RR/MDR-TB cases reported by 34 countries (Table 22). The treatment success rate for the whole Region was 57.2%, which is slightly higher than the 55.9% rate reported for the 2018 RR/MDR-TB treatment cohort, which might be related to increased access and use of new and re-purposed TB drugs and shorter, all oral regimens for RR-TB treatment. The treatment success rate for RR/MDR-TB patients was higher in non-EU/EEA countries and areas than in the EU/EEA (57.2% versus 51.7%). In the Region as a whole, 14% of RR/MDR-TB cases died, 12.7% failed and 10.5% were lost to follow-up.

# 3.1.12 Conclusions for the WHO European Region

Analysis of 2021 routine surveillance data indicates that progress made in containing the TB burden, which came to a standstill because of the COVID-19 pandemic, has only partially recovered in 2021. As of December 2021, the WHO European Region was the global epicentre of the COVID-19 pandemic, accounting for 35% of COVID-19 cases and 31% of deaths [3]. TB services were disrupted because diagnostic and clinical services were repurposed and health workers reallocated to COVID-19. In addition, there were changes in patients' healthcare-seeking behaviour influenced by the restrictions on movement imposed by authorities, concerns about the risks of going to health facilities during the pandemic and stigma associated with similarities in symptoms between TB and COVID-19. As a

result, far fewer people were diagnosed and treated for TB and remarkably fewer people were tested for drug resistance and enrolled into RR/MDR-TB treatment.

In 2021, for the first time in two decades, the continuing reduction in TB incidence was reversed and the decline in TB mortality came to a standstill. The burden of drugresistant TB is also estimated to have increased between 2020 and 2021, with 2000 more new cases of rifampicinresistant TB estimated in 2021 compared to 2020 (73000 and 71000 cases respectively).

Treatment outcomes for new and relapse TB patients also deteriorated in the 2020 cohort compared to 2019. On a more positive note, the treatment success rate for RR-TB patients has been slowly but consistently improving in the Region, probably reflecting the scale-up of new and repurposed TB treatments and shorter, all-oral treatment regimens for RR-TB patients.

There is a need to introduce and/or scale up innovative and adaptive models of care to address the challenges posed by the COVID-19 pandemic and ensure the provision of timely, good-quality TB services, despite the ongoing pandemic. Actions and innovative solutions need to be implemented to reverse the impact of the COVID-19 pandemic and restore 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 maintain TB diagnostic, treatment and preventive services and build synergies between COVID-19 and TB services. Reviving political commitment, allocating adequate national and international resources and implementing innovative approaches are crucial to avoid losing the gains made during the past decade.

## 3.2 EU/EEA countries

#### 3.2.1 Data completeness

TB notification data for 2021 were reported by 29 of 30 countries (there were no data reported from Iceland for 2021). In 2021, the reporting of non-mandatory variables was complete or near complete (>95.0%) for age, gender, TB site and variables defining the origin of a case (Annex 3). Overall, previous treatment history was available for 85.7% of cases reported in 2021, however completeness ranged from below 70% in three countries (France 66.4%, Ireland 45.6%, and Spain 66.4%) to 100.0% in 13 countries (Annex 3).

Among TB cases reported in 2021, 84.2% had culture results (Annex 3), which was a slight increase compared to the proportion reported in 2020 (81.0%). Six countries had less than 75% of cases with culture results reported: Finland (72.4%), France (50.1%), Greece (65.0%), Ireland (65.9%), Latvia (46.4%) and Portugal (67.6%). Reporting completeness for microscopy in 2021 (84.3%) was comparable to 2020 data (82.8%) and ranged from 34.1% in Ireland to 100% in Liechtenstein, Lithuania and Luxembourg. For 2021, reporting completeness of drug-susceptibility test results was 71.4% 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 24 countries that reported at least one MDR-TB case (Annex 3).

In 2021, the number of countries reporting HIV status increased to 21 (of 29) compared to 19 (of 29) countries in 2020. This is similar to 2018 with 21 (of 30) reporting, while in 2017 there were 23 (of 31) that reported HIV status. HIV status was only available for 38.3% of all TB cases reported in 2021, but seven countries reported HIV status for more than 75% of their TB cases (Annex 3).

Treatment outcome at 12 months was available for 63.9% of all cases reported in 2021. Among RR/MDR-TB cases reported in 2019, 97.0% had treatment outcome reported at 24 months. Completeness of treatment outcomes across these two cohorts are comparable to treatment outcome rates in 2020 (Annex 3).

#### 3.2.2 TB notification rates and trends

In 2021, 33520 cases of TB were reported in 29 EU/EEA countries (Table 3). The number of cases reported in Romania (7979) accounted for 23.8% of all TB cases reported in 2021, which represents a rate per 100000 population more than five times higher than the EU/EEA rate.

The EU/EEA notification rate in 2021 was 7.4 per 100 000 population (Table 3), continuing the downward trend observed since the launch of European enhanced TB surveillance in 1996 (Fig. 3.2.1). During the period 2017–2021, the average annual decline in the notification rate was 10.0% (Table 3).

As reported for previous years, country-specific notification rates differed considerably in 2021, ranging from 1.9 per 100 000 population in Greece to 41.6 per 100 000 population in Romania (Table 3). Rates were below 10.0 per 100 000 in 24 countries.

In 26 countries, the notification rates have fallen compared to 2017 (Table 3). The annual rate of decrease exceeded

10% in 12 countries, with the downward trend being particularly pronounced in Bulgaria, Croatia, Greece, Hungary, and Lithuania, where the average annual rate of decrease exceeded 15%.

# 3.2.3 Previous treatment, laboratory confirmation and TB site

The distribution of cases by previous treatment history was similar in 2021 to that reported in previous years: 25 402 (75.8%) of 33520 TB cases reported in 2021 were newly diagnosed, 3332 (9.9%) had previously been treated for TB and 4786 (14.3%) had an unknown previous treatment status (Table 4). The proportion of previously treated cases was above 10% in eight countries: Bulgaria, Estonia, Hungary, Latvia, Lithuania, Norway, Poland and Romania.

Of all 33520 TB cases reported in 2021, 24036 (71.7%) were diagnosed with pulmonary TB, 7026 (21.0%) with extrapulmonary TB, 2253 (6.7%) with a combination of both and 205 (0.6%) had no TB site reported (Table 5). The proportion of extrapulmonary TB was above 30% in six countries: Belgium (30.7%), Finland (31.2%), France (31.1%), the Netherlands (43.7%), Norway (45.2%) and Sweden (38.1%).

Of 32 040 new and relapse pulmonary TB cases reported in 2021, 21710 (86.2%) were confirmed by culture and/or smear and nucleic acid amplification test (Table 6). In three countries, over 30% of reported new and relapse pulmonary TB cases were diagnosed clinically: Bulgaria (34.7%), France (32.8%) and Hungary (40.9%).

According to the EU case definition, 24127 (72.0%) of 33520 TB cases reported in 2021 are classified as confirmed, 3676 (11.0%) as probable and 5717 (17.1%) as possible cases (Table 7). The proportion of confirmed TB cases increased in 2021 (72.0%) compared to 2020 (67.3%) and 2019 (67.1%). Country-specific proportions of confirmed cases ranged from 38.7% in France to 100% in Liechtenstein, however over 75% of reported cases were laboratory-confirmed in 20 countries. Conversely, three countries reported over 40% of their TB cases as possible cases (that is, only clinically diagnosed): Bulgaria (41.6%), France

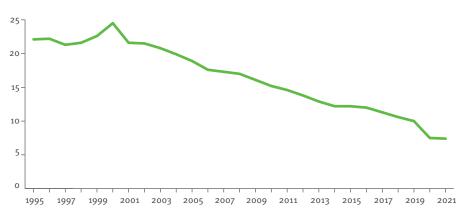


Fig. 3.2.1. TB notification rate per 100 000 population by year of reporting, EU/EEA, 1995-2021

Source: ECDC (3).

(42.4%) and Hungary (41.8%). The high proportion of clinically diagnosed cases may reflect under-reporting of laboratory results to the national surveillance systems in these countries, or alternatively it could indicate that TB may be over-diagnosed in these countries.

#### 3.2.4 Age and sex

Of 32 040 new and relapse TB cases reported in 2021, 21 066 (65.8%) were aged between 25 and 64 years and 6158 cases (19.2%) were in adults aged over 64 years (Table 8). Notification rates per 100 000 population were higher among the age groups 25–44 years (9.4 per 100 000 population) and 45–64 years (8.1 per 100 000 population) than for those aged 15–24 years (7.7 per 100 000 population) and those aged over 64 years (6.6 per 100 000 population).

There was variation in the age distribution of cases between countries. In most, cases were predominantly aged between 25 and 64 years, but cases were younger in Malta (37.0% were aged between 15 and 24 years) and older in Croatia, Finland and Slovenia (where over 30% of cases were aged over 64 years; Table 8).

In 2021, of 32 040 new and relapse TB cases in children, 32 017 had age reported. Of these cases, children under 15 years accounted for 1106 (3.5%) (Table 8). Children aged between five and 14 years had the lowest notification rate of all age groups at 1.4 per 100 000 population. Romania reported the highest notification rates among children under 15 years: 9.2 cases per 100 000 children aged between 0 and 4 years, and 9.3 cases per 100 000 children aged between five and 14 years (Table 8).

In 2021, the male-to-female ratio in new and relapse TB cases was 2.0 (Table 8), which was the same as the ratio reported in 2020. Only two countries, Norway and Cyprus, reported slightly more female than male cases (M/F ratio between 0.7 to 0.9). For children under 15 years, the male-to-female ratio among new and relapse cases was around 1.

### 3.2.5 Origin of cases

Of the 33520 TB cases notified in 2021, 20689 (61.7%) were born in, or were citizens of the reporting country (referred to as 'native'), 11334 (33.8%) were of foreign origin and 1497 (4.5%) were of unknown origin (Table 9). Of the 1497 cases of unknown origin in 2021, 55.8% (1274) were reported by only three countries (France, Ireland and Spain). Country-specific proportions of foreign-origin TB cases ranged from below 1% in four countries (Bulgaria, Croatia, Liechtenstein and Romania) to above 85% in four countries (Cyprus, Luxembourg, Malta and Sweden). The overall proportion of native TB cases decreased slightly from 63.3% in 2020 to 61.7% in 2021 (Table 9).

#### 3.2.6 Drug resistance

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

Of 26289 pulmonary TB cases notified in 2021, 21392 were bacteriologically-confirmed and 16895 (79.0%) 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 3.2% in France to 100% in two countries (Liechtenstein and Lithuania). Among the cases with rifampicin DST results, 630 (3.8%) were reported as MDR TB.

The proportion of MDR TB cases varied by country (Table 10). Four countries reported no MDR TB cases in 2021, and another six countries reported that the proportion of RR/MDR-TB cases (among cases with DST results) was below 2%. France reported 100% of cases with DST results as MDR-TB, however DST results are only reported for MDR-TB cases in France. The highest proportion of MDR-TB cases (among cases with DST results) was reported by Estonia and Lithuania (28.4 and 17.5% respectively).

The proportion of RR/MDR-TB among all bacteriologically confirmed pulmonary TB cases with DST results for rifampicin was 4.9% (742 of 13891; Table 11 and Table 12). When the data were analysed by previous treatment history, the proportion of RR/MDR-TB was higher among previously treated cases (11.7%, 239 of 2049) compared to new cases (3.3%, 456 of 13891).

In 2021, 54.4% of RR/MDR-TB cases (404 of 742) had DST results for any fluoroquinolone (Table 12), and among these 115 (28.5%) met the definition for pre-XDR. Of all pre-XDR cases, the majority were reported by Lithuania (45.7%, n=21) and Romania (26.4%, n=24). The majority (68.7%, 79 of 115) of pre-XDR cases had DST results reported for at least one other Group A drug (Table 12). Among these cases, 43 (54.4%) met the new XDR-case definition. All XDR-TB cases were reported by thirteen EU/EEA countries: Czechia (4.6%, n=2), Denmark (2.3%, n=1), Estonia (20.9%, n=9), France (11.6%, n=5), Germany (9.3%, n=4), Latvia (4.6%, n=2) Lithuania (26.0%, n=11), the Netherlands (2.3%, n=1), Norway (4.6%, n=2), Romania (4.6%, n=2), Slovakia (4.6%, n=2), Spain (2.3%, n=1) and Sweden (2.3%, n=1).

## 3.2.7 TB/HIV coinfection

HIV status was reported for 12837 (70.4%) of 18242 TB cases reported from the 21 countries that reported HIV status of TB cases (Table IX). Of the cases with known HIV status, 510 (4.0%) were reported as HIV-positive. Among the 17 countries with at least 50% reporting completeness for HIV status, the proportion of coinfected cases was highest in Hungary (14.3%), Latvia (12.8%) and Estonia (11.7%). There has been an increase in the proportion of HIV-coinfected TB cases from 3.6% in 2020 to 4.0% in 2021, however in 2021 the proportion of co-infected cases was slightly lower when compared to 2017 (4.1%; Table IX).

### 3.2.8 TB in prisons

For 2021, 14 EU/EEA countries reported 332 new and relapse TB cases in prisons, resulting in a notification rate of 130 per 100 000 prison population and a relative risk of 8.9 compared to the general population in the same countries (Table 15). Overall, TB cases in prisons accounted for 1.2% of all new and relapse cases notified in the 14 EU/EEA

countries reporting, with the proportion being highest in Belgium (2.0%).

#### 3.2.9 Treatment outcome

Of all 20760 new and relapse TB cases notified in 2020 with a treatment outcome reported in 2021, 14876 (71.7%) were treated successfully, 1750 (8.4%) died, 160 (0.8%) experienced treatment failure, 678 (3.3%) were lost to follow up, 454 (2.2%) were still on treatment in 2021 and 2842 cases (13.7%) were not evaluated (Table 16). Among the 24 countries that reported treatment outcome for the 2020 cohort, seven countries reported successful treatment for over 80.0% of cases: Liechtenstein (100%), Lithuania (85.5%), Malta (99.3%), the Netherlands (83.0%), Norway (88.7%), Romania (81.6%) and Slovakia (85.5%). In contrast, eight countries reported death as the outcome for over 10% of cases: Austria (10.5%), Croatia (18.6%), Czechia (15.6%), Estonia (18.8%), Hungary (10.4%), Lithuania (10.1%), Romania (11.2%) and Slovenia (21.6%; Table 16). There has been an decrease in the percentage of cases with a successful outcome after 12 months, 73.9% in 2019 to 71.7% in 2020, however this is still lower than in 2018 (74.2%; Table X).

Treatment success among the 1090 previously treated TB cases notified in 2020 was 52.5% (Table 17), which was lower compared to new and relapse cases. A higher proportion of previously treated cases were reported to have treatment failure (5.7%) or to have died (8.4%) compared to new and relapse cases.

Treatment outcome at 12 months was reported for 426 HIV-positive TB cases notified in 2020 (Table 20). Of these HIV-positive TB cases, 228 (53.5%) were reported as successfully treated, 61 (14.3%) died, two (0.5%) experienced treatment failure, 34 (8.0%) were lost to follow up, 37 (8.7%) were still on treatment in 2021 and 64 (15.0%) were not evaluated (Table 20).

Of 781 RR/MDR-TB cases notified in 2019 with a treatment outcome reported in 2021, 404 (51.7%) were treated successfully, 111 (14.2%) died, 71 (9.1%) experienced treatment failure, 73 (9.3%) were lost to follow up, 73 (9.3%) were still on treatment in 2021 and 49 (6.3%) were not evaluated (Table 22). Of the 17 countries that had reported RR/MDR-TB cases in 2019 and treatment outcomes in 2021, only six had treatment success above the target of 75%: Austria (100%), Belgium (87.5%), Estonia (77.8%), the Netherlands (88.9%), Slovakia (80.0%) and Sweden (90.0%). Although the 24-month treatment success rate for RR/MDR-TB has remained below 50% for cases reported between 2015 and 2017, in recent years it has increased to over 50% (Table XI).

Among the 159 cases categorised as pre-XDR-TB and notified in 2019 with treatment outcome at 24 months reported in 2021, 27 were reported as having treatment success (17.0%) while 30 (18.9%) were reported to have died and 22 (13.8%) to have experienced treatment failure (Table 23). Treatment success among the pre-XDR-TB cohort during the previous five years (2015–2019) was below 35% each year (Table XII).

In 2021, treatment outcome at 36 months for XDR-TB cases notified in 2018 was reported by five countries for a total of 27 XDR-TB cases. Fifteen countries reported zero XDR-TB cases in 2018. Among the 27 XDR-TB cases: 18 (66.7%) were treated successfully, three (11.1%) died and three (11.1%) experienced treatment failure. There were no cases lost to follow up and 3 (11.1%) were not evaluated (Table 24).

#### 3.2.10 WHO disease burden estimates

According to WHO, the estimated TB incidence in the EU/EEA overall (excluding Liechtenstein) was 8.4 per 100 000 population in 2021 (Table 1 and Table II). Of the 29 countries with estimates, 22 had an estimated incidence of less than 10.0 per 100 000 population (Table 1 and Table II). The overall number of estimated TB deaths, excluding HIV deaths in people who were HIV-positive, was 4400 for the EU/EEA in 2021, an increase against 2020 (3600) and a reduction of almost 12% compared with the 5000 estimated for 2012 (Table 1).

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

In 2021, 29 of 30 EU/EEA countries reported TB notification data and a total of 33520 TB cases. There was a further decline in the overall TB notification rate to 7.4 per 100 000 population, which continued the decreasing trend observed since 2002. 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 2021.

The decline in total case numbers and notification rates in 2021 should be interpreted with caution, due to the impact on TB clinical services and surveillance across the EU/EEA of measures to mitigate the COVID-19 pandemic, which continued throughout 2021. The analysis of data completeness (presented in Annex 3) indicated that in 2021 four of the 17 variables were less complete compared with 2020, most notably HIV status and outcome at 24 months.

During 2020, the diversion of TB resources, whether clinical, laboratory, or public health (including surveillance and contact tracing) to COVID-19 activities, and the difficulties experienced by patients in accessing clinical services, identified through the survey conducted alongside the 2020 data collection, may have resulted in delayed presentation and/or diagnosis of some TB cases. These factors may also have continued to have an impact on the Member States in 2021. Delayed diagnosis may have resulted in more severe illness at time of diagnosis for some cases. In addition, delayed treatment of pulmonary cases, along with decreased contact tracing resources for TB, may have led to more TB transmission. As such, it is hypothesised that there may be an increase in the number and clinical severity of cases in the coming years.

The observed decline in TB incidence does indicate ongoing progress towards reaching the United Nations Sustainable Development Goal 3 target of an 80% reduction in the TB incidence rate in 2030 compared to 2015. However, the extent to which the COVID-19 pandemic may have had an

impact on data reported for 2020 and 2021 is not yet fully apparent. The EU/EEA Sustainable Development Goal 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). Although the decline observed in 2021 would indicate progress is being made, at the current rate most EU/EEA countries are still not on track to achieve the 80% reduction target by 2030, or the TB elimination target by 2050 [4]. Despite the slow improvement in the treatment success rates in recent years, additional work is required to achieve the 90% target for treatment success [5] in EU/EEA. Additional resources may be required to accelerate progress towards achieving these goals, and to counteract any increase in TB cases resulting from the impact of the COVID-19 pandemic.

Reassuringly, the number of drug-resistant TB cases in the EU/EEA continued to decrease in 2021, despite the high number of drug-resistant TB cases in the European Region HPCs. Drug-susceptibility testing results for firstline drugs were reported for just over 70% of laboratoryconfirmed TB cases in 2021. Although this represents a decline compared to almost 75% in 2019 and is similar to the figure for 2020 (71.4%), there is still considerable room for improvement here. The changes implemented to the definitions of drug resistant TB [6] in 2020, in particular the definition for XDR-TB<sup>14</sup> and the introduction of the 'pre XDR-TB' category, along with the updated WHO treatment guidelines for drug-resistant TB [7], emphasise the need for drug-susceptibility testing against second-line drugs, particularly fluoroquinolones, bedaquiline and linezolid.

Overall, it is reassuring that the TB incidence continued to decline across the EU/EEA in 2021, and that there was a low proportion of drug-resistant cases reported. However, there is still considerable work to be done to achieve the United Nations Sustainable Development Goals. With the disruption caused by the COVID-19 pandemic during 2020 and 2021, it is now critical that TB services are prioritised and appropriately resourced to support intensified public health measures against TB. As always, ECDC remains committed to supporting EU/EEA countries in their efforts to end the TB epidemic.

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# 4. Commentary - monitoring

The Tuberculosis Action Plan for the WHO European Region 2016–2020 came to an end in 2020 and the progress made during 2016–2020 was assessed and reported to the 70th session of the Regional Committee for Europe [1]. 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) [2–3].

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' [4]. 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 the national and regional levels and the actions taken to put the End TB Strategy into practice. 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, consequently providing the foundation for advocacy and policy development.

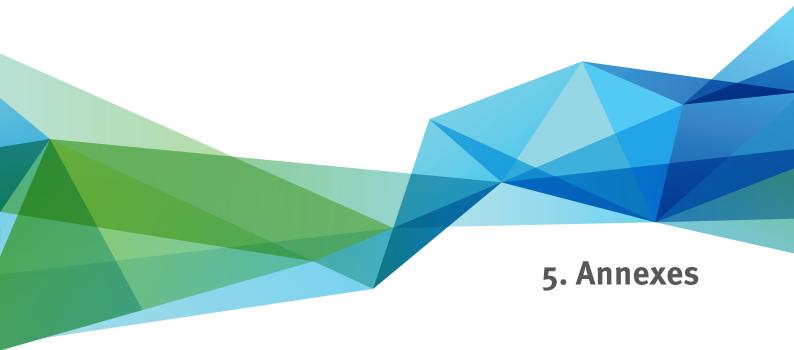
The framework consists of 30 indicators enabling the performance of the interventions areas in the TB Action Plan to be monitored. Ten indicators were selected as the core indicators for monitoring and reporting to the WHO Regional Committee for Europe. In addition, the selection of indicators was harmonised with the End TB Strategy's recommended top 10 global indicators to focus on indicators that are collected regularly through routine recording and reporting. To prioritise the area of intervention, indicators will be measured according to the following layers: 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 will be reported in the surveillance report every second year. The first update on progress will be presented in the TB surveillance and monitoring in Europe 2024 report.

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<sup>6</sup> All weblinks accessed 16 February 2023.



Annex 1. Tuberculosis surveillance system overview, European Union/European Economic Area, 2021

		Level			National	Data a	vailable
Country	Data source	Legal character	Comprehensiveness	Туре	coverage	EuroTB aggregated data	TESSy case-based data <sup>a</sup>
Austria	AT-TUBERKULOSEGESETZ	Ср	Со	С	Y	-	1995-2021
Belgium	BE-TUBERCULOSIS	Ср	Со	C	Υ	-	1995-2021
Bulgaria	BG-MOH	Ср	Со	С	Y	1995-2006	2007-2021
Croatiab	HR-CNIPH	Ср	Со	C	Υ	1995-2007	2012-2021
Cyprus	CY-NOTIFIED_DISEASES	Ср	Со	C	Υ	1995-2001	2002-2021
Czech Republic	CZ-TUBERCULOSIS	Ср	Со	C	Υ	-	1995-2021
Denmark	DK-MIS	Ср	Со	C	Υ	-	1995-2021
Estonia	EE-TBC	Ср	Со	С	Y	-	1995-2021
Finland	FI-NIDR	Ср	Со	С	Υ	-	1995-2021
France	FR-MANDATORY_INFECTIOUS_DISEASES	Ср	Со	C	Y	-	1995-2021
Germany	DE-SURVNET@RKI-7.1/6	Ср	Со	С	Υ	1995-2000	2001-2021
Greece	EL-NOTIFIABLE_DISEASES	Ср	Со	C	Υ	1995-2001	2002-2021
Hungary	HU-TUBERCULOSIS	Ср	Со	C	Υ	1995-1998	1999-2021
Iceland	IS-TUBERCULOSIS	Ср	Со	C	Υ	-	1995-2020
Ireland	IE-CIDR	Ср	Со	С	Υ	1995-1997	1998-2021
Italy	IT-NRS	Ср	Со	С	Υ	-	1995-2021
Latviac	LV-TB	Ср	Со	С	Y	1995-2000	2001-2021
Liechtenstein	CH-SFOPH-LI	Ср	Со	C	Y	-	1995-2021
Lithuania	LT-TB_REGISTER	Ср	Со	С	Y	1995-2002	2003-2021
Luxembourg	LU-SYSTEM1	Ср	Со	C	Υ	-	1995-2021
Malta	MT-DISEASE_SURVEILLANCE	Ср	Со	С	Υ	-	1995-2021
Netherlands	NL-NTR	Ср	Со	C	Υ	-	1995-2021
Norway	NO-MSIS_A	Ср	Со	С	Υ	-	1995-2021
Poland	PL_CR	Ср	Со	C	Υ	1995-1999	2000-2021
Portugal	PT-TUBERCULOSIS	Ср	Со	С	Y	1995-1999	2000-2021
Romania	RO-NTBSy	Ср	Со	С	γ	-	1995-2021
Slovakia	SK-NRT	Ср	Со	С	Y	1995	1996-2021
Slovenia	SI-TUBERCULOSIS	Ср	Со	C	Υ	-	1995-2021
Spain	ES-STATUTORY_DISEASES	Ср	Со	С	Υ	1995-2006	2007-2021
Sweden	SE-SweTBReg	Ср	Со	С	Υ	-	1995-2021

Cp: compulsory reporting.
Co: comprehensive.
C: case-based.
TESSy: The European Surveillance System.
Y: yes.
For some years, data from France, Spain and Italy related to drug-susceptibility testing have been 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 from 2017–2020 is not available in this report.

Annex 2. List of variables for 2021 tuberculosis data collection<sup>a</sup>

	List	Description
omi	mon 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
	Age	Age of patient in years as reported in the national system
11	Gender	Gender of the reported case
	DateOfDiagnosis	First date of clinical or lab diagnosis
	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
_	ase-specific variables	
	BornReportingCountry	The patient was born in the country of report
	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 tuberculosis 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
-	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 25 to 36 months from the start of treatment
	ResultCulture	The result of the culture test for Mycobacterium tuberculosis complex
-	ResultMicroscopy	The result of the microscopy test performed
	ResultOtherTest	Additional lab test results
	Pathogen	Species and gene (M. tuberculosis 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
	SIR_CFZ	Susceptibility to clofazimine
	SIR_DLM	Susceptibility to delamanid
	SIR_ETH	Susceptibility to ethambutol
-	SIR_ETO	Susceptibility to ethionamide
	SIR_INH	Susceptibility to isoniazid
	SIR_LZD	Susceptibility to linezolid
	SIR_LVX	Susceptibility to levofloxacin
	SIR_MFX	Susceptibility to moxifloxacin
	SIR_PZA	Susceptibility to pyrazinamide
	SIR_RIF	Susceptibility to rifampicin
	SIR_STR	Susceptibility to streptomycin
49	IsolateID	Unique identifier for each isolate within the data source / lab system related to the case
	ECDCIsolateID	Identifier for each isolate record that is guaranteed to be unique across countries/labs/pathogens and not contain additional encoded information
-	SpoligoCode <sup>b</sup>	Spoligo pattern code
	MiruCode <sup>b</sup>	MIRU pattern code
53	BeijingGenotype <sup>b</sup>	Beijing genotype identification

Notification of TB cases for 2021, treatment outcome data updated for cohort 2020 and MDR TB treatment outcome data updated for cohort 2018.
 Optional variable. No need to be reported if the "IsolateID" or "ECDCIsolateID" is provided.

Annex 3. Completeness of data reported for 2021, European Union/European Economic Area

Country	Age (%)	Gender (%)	Origin <sup>a</sup> (%)	Country of origin (%)	Site (%)	Previous treatment history <sup>b</sup> (%)	Diagnosed antemortem (%)	Result culture (%)	Result microscopy (%)	Result other test (%)	DST FLD (%)	DST SLD (%)	HIV status (%)	Enrolled in treatment (%)	Outcome 12 months <sup>c</sup> (%)	Outcome 24 months <sup>d</sup> (%)	Outcome 36 months <sup>e</sup> (%)
Austria	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(78.5)	(100.0)	(92.2)	(66.4)	(77.3)	(92.5)	(100.0)	(0.0)	(0.0)	(01.0)	(100.0)	I
Belgium	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(83.3)	(100.0)	(94.4)	(39.0)	(80.0)	(65.3)	(100.0)	(53.0)	(98.4)	(80.8)	(100.0)	I
Bulgaria	(100.0)	(100.0)	(100.0)	(100.0)	(6.66)	(100.0)	(100.0)	(84.1)	(9.98)	(5.1)	(51.3)	(100.0)	(69.4)	(100.0)	(0.0)	(0.0)	I
Croatia	(100.0)	(100.0)	(100.0)	(100.0)	(9.98)	(76.4)	(83.4)	(88.5)	(82.2)	(0.0)	(9.69)	1	(1.9)	(86.0)	(77.3)	(0.0)	I
Cyprus	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(6.76)	(100.0)	(77.1)	(93.8)	(52.1)	(100.0)	(100.0)	(72.9)	(100.0)	(2.99)	(0.0)	I
Czech Republic	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(68.3)	(86.0)	(86.3)	(63.3)	(100.0)	(59.4)	(100.0)	(100.0)	(100.0)	I
Denmark	(100.0)	(100.0)	(100.0)	(0.66)	(100.0)	(100.0)	(100.0)	(9.96)	(97.6)	(95.7)	(8.8)	(100.0)	(77.4)	(22.6)	(38.9)	ı	I
Estonia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(94.6)	(95.5)	(85.6)	(6.9)	(100.0)	(92.8)	(100.0)	(100.0)	(100.0)	(100.0)
Finland	(100.0)	(100.0)	(92.6)	(62.3)	(100.0)	(1.76)	(100.0)	(72.4)	(54.1)	(68.2)	(9.76)	(100.0)	(0.0)	(27.6)	(27.6)	(100.0)	I
France	(100.0)	(100.0)	(87.9)	(92.5)	(68.2)	(66.4)	(3.1)	(20.1)	(26.0)	(0.0)	(5.6)	(100.0)	(0.0)	(0.0)	(44.6)	(0.0)	I
Germany	(66.6)	(66.66)	(6.9)	(8.96)	(66.3)	(74.2)	(98.2)	(87.9)	(90.6)	(86.1)	(87.8)	(100.0)	(0.0)	(98.2)	(87.4)	(100.0)	I
Greece	(100.0)	(0.66)	(100.0)	(86.4)	(68.5)	(82.0)	(196.1)	(65.0)	(0.89)	(45.6)	(29.4)	(100.0)	(24.8)	(87.9)	(0.0)	1	I
Hungary	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(86.3)	(86.6)	(0.0)	(92.2)	(100.0)	(2.1)	(100.0)	(67.3)	(100.0)	I
Iceland	1	I	I	I	1	I	1	I	1	1	1	1	I	I	I	I	I
Ireland	(100.0)	(66.5)	(292)	(2.92)	(71.4)	(45.6)	(100.0)	(62.6)	(34.1)	(47.5)	(83.6)	(100.0)	(31.3)	(100.0)	(11.4)	ı	I
Italy	(66.6)	(100.0)	(67.5)	(92.6)	(866)	(72.1)	(0.0)	(9.98)	(58.4)	(10.4)	(0.0)	1	(0.0)	(9.76)	(0.0)	1	I
Latvia	(100.0)	(100.0)	(69.7)	(66.7)	(100.0)	(95.4)	(100.0)	(46.4)	(20.9)	(83.1)	(85.4)	(100.0)	(72.0)	(81.2)	I	ı	I
Liechtenstein	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	1	(0.0)	(100.0)	(100.0)	1	1
Lithuania	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(1.4)	(100.0)	(100.0)	(24.7)	(100.0)	(100.0)	(100.0)	(100.0)
Luxembourg	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(88.6)	(100.0)	(100.0)	(100.0)	(0.0)	(69.7)	1	(71.4)	(100.0)	(41.2)	(0.0)	I
Malta	(100.0)	(100.0)	(100.0)	(98.1)	(100.0)	(100.0)	(0.0)	(60.7)	(63.0)	(0.0)	(67.4)	1	(85.2)	(100.0)	(100.0)	I	I
Netherlands	(100.0)	(66.66)	(0.66)	(98.4)	(66.7)	(6.66)	(97.2)	(81.5)	(74.4)	(83.1)	(65.6)	(100.0)	(74.7)	(62.6)	(6.46)	(100.0)	I
Norway	(100.0)	(100.0)	(100.0)	(100.0)	(88.7)	(100.0)	(100.0)	(64.3)	(82.2)	(64.6)	(66.5)	(100.0)	(81.5)	(67.5)	(63.7)	(100.0)	I
Poland	(100.0)	(100.0)	(100.0)	(8.66)	(100.0)	(100.0)	(100.0)	(65.4)	(94.4)	(33.5)	(65.2)	(100.0)	(0.0)	(0.0)	(0.0)	I	I
Portugal	(9.66)	(100.0)	(66.6)	(78.9)	(8.86)	(100.0)	(100.0)	(9.79)	(73.7)	(44.5)	(60.3)	(100.0)	(73.7)	(100.0)	(100.0)	(83.3)	I
Romania	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(64.5)	(196.1)	(37.9)	(89.7)	(100.0)	(82.3)	(100.0)	(100.0)	(100.0)	I
Slovakia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(92.6)	(100.0)	(89.1)	(86.9)	(40.9)	(88.7)	(100.0)	(58.4)	(100.0)	(92.6)	(100.0)	I
Slovenia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(67.5)	(92.5)	(8.86)	(100.0)	(100.0)	(83.8)	(100.0)	(100.0)	ı	1
Spain	(266)	(100.0)	(26.8)	(78.8)	(100.0)	(9.99)	(0.0)	(89.0)	(88.6)	(46.1)	(26.8)	(100.0)	(24.8)	(0.0)	(64.3)	I	I
Sweden	(100.0)	(100.0)	(100.0)	(266)	(100.0)	(65.2)	(100.0)	(100.0)	(8.09)	(84.6)	(66.7)	(100.0)	(0.0)	(100.0)	(77.5)	(100.0)	I
Total EU/EEA	(6.66)	(100.0)	(95.5)	(64.7)	(96.4)	(85.7)	(69.3)	(84.2)	(84.3)	(40.3)	(71.4)	(100.0)	(38.3)	(63.1)	(63.9)	(0.7.0)	(100.0)

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

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

DSTSLD: 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.

To determine the origin, two variables merged: BornReportingCountry and NationalityReportingCountry, depending on country preference.

By History of previous fraatment defined by previous diagnosis of tuberculosis for cases reported by Belgium, Denmark, Ireland, Norway and the United Kingdom.

Data for the auditious-resistant tuberculosis 2019 cohort cases that are reported as 'still on treatment' at 12 months.

Data for the extensively drug-resistant tuberculosis 2018 cohort cases that are reported as "still on treatment" at 12 months.

Annex 4. Reporting completeness into Global TB Database, 2021

Country/area	Identification (%) (17 fields)	Notification (%) (67 fields)	Anti-tuberculosis drug resistance surveillance (%) (34 fields)	Treatment outcome of TB cases by risk categories (%) (74 fields)	Implementing End TB Strategy (%) (84 fields)	Budget and expenditure (%) (41 fields)
EU/EEA			()4	() 4		
Austria	(0.0)	(73.1)	(100.0)	(48.6)	(0.0)	(0.0)
Belgium	(0.0)	(83.6)	(100.0)	(83.8)	(9.5)	(0.0)
Bulgaria	(100.0)	(79.1)	(100.0)	(43.2)	(56.0)	(100.0)
Croatia	(0.0)	(73.1)	(100.0)	(40.5)	(0.0)	(0.0)
Cyprus	(0.0)	(73.1)	(100.0)	(56.8)	(0.0)	(0.0)
Czech Republic	(100.0)	(86.6)	(100.0)	(91.9)	(45.2)	(0.0)
Denmark	(0.0)	(68.7)	(100.0)	(40.5)	(0.0)	(0.0)
Estonia	(100.0)	(83.6)	(100.0)	(73.0)	(71.4)	(0.0)
Finland	(70.6)	(86.6)	(100.0)	(48.6)	(34.5)	(0.0)
France	(94.1)	(77.6)	(100.0)	(50.0)	(35.7)	(0.0)
Germany	(70.6)	(73.1)	(100.0)	(50.0)	(17.9)	(0.0)
Greece	(0.0)	(73.1)	(100.0)	(0.0)	(0.0)	(0.0)
Hungary	(70.6)	(73.1)	(100.0)	(56.8)	(11.9)	(0.0)
Iceland	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Ireland	(76.5)	(83.6)	(100.0)	(83.8)	(54.8)	(0.0)
Italy	(35.3)	(67.2)	(100.0)	(0.0)	(21.4)	(0.0)
Latvia	(100.0)	(73.1)	(100.0)	(0.0)	(0.0)	(0.0)
Liechtenstein	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Lithuania	(52.9)	(85.1)	(100.0)	(91.9)	(64.3)	(0.0)
Luxembourg	(94.1)	(79.1)	(100.0)	(67.6)	(38.1)	(0.0)
Malta	(88.2)	(85.1)	(100.0)	(67.6)	(41.7)	(0.0)
Netherlands	(100.0)	(83.6)	(100.0)	(91.9)	(44.0)	(0.0)
Norway	(0.0)	(68.7)	(100.0)	(56.8)	(0.0)	(0.0)
Poland	(100.0)	(73.1)	(100.0)	(0.0)	(27.4)	(0.0)
		(86.6)				
Portugal	(100.0)		(100.0)	(83.8)	(60.7)	(0.0)
Romania	(94.1)	(86.6)	(100.0)	(91.9)	(71.4)	(0.0)
Slovakia	(88.2)	(88.1)	(100.0)	(83.8)	(65.5)	(0.0)
Slovenia	(100.0)	(86.6)	(100.0)	(43.2)	(69.0)	(0.0)
Spain	(0.0)	(73.1)	(100.0)	(64.9)	(0.0)	(0.0)
Sweden	(70.6)	(85.1)	(100.0)	(50.0)	(39.3)	(0.0)
Subtotal EU/EEA	(56.9)	(73.6)	(93.3)	(52.0)	(29.3)	(3.3)
Non-EU/EEA	(100.0)	(01.0)	(474)	((, 0)	(51.2)	(0,0)
Albania		(91.0)	(47.1)	(64.9)		(0.0)
Andorra	(70.6)	(38.8)	(32.4)	(82.4)	(64.3)	(0.0)
Armenia	(100.0)	(94.0)	(55.9)	(91.9)	(60.7)	(56.1)
Azerbaijan	(52.9)	(77.6)	(61.8)	(59.5)	(46.4)	(0.0)
Belarus	(100.0)	(100.0)	(73.5)	(91.9)	(70.2)	(0.0)
Bosnia and Herzegovina	(94.1)	(77.6)	(100.0)	(12.2)	(25.0)	(7.3)
Georgia	(100.0)	(92.5)	(100.0)	(83.8)	(83.3)	(100.0)
Israel	(100.0)	(85.1)	(100.0)	(66.2)	(35.7)	(0.0)
Kazakhstan	(100.0)	(97.0)	(73.5)	(100.0)	(75.0)	(100.0)
Kyrgyzstan	(100.0)	(88.1)	(100.0)	(83.8)	(86.9)	(92.7)
Republic of Moldova	(100.0)	(100.0)	(100.0)	(100.0)	(92.9)	(100.0)
Monaco	(35.3)	(35.8)	(100.0)	(66.2)	(35.7)	(0.0)
Montenegro	(94.1)	(71.6)	(100.0)	(66.2)	(51.2)	(0.0)
North Macedonia	(0.0)	(71.6)	(97.1)	(40.5)	(59.5)	(0.0)
Russian Federation	(64.7)	(79.1)	(94.1)	(75.7)	(44.0)	(80.5)
San Marino	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Serbia	(70.6)	(50.7)	(0.0)	(24.3)	(0.0)	(0.0)
Serbia excluding Kosovo <sup>1</sup>	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Kosovo <sup>1</sup>	(70.6)	(50.7)	(0.0)	(24.3)	(0.0)	(0.0)
Switzerland	(100.0)	(80.6)	(100.0)	(33.8)	(52.4)	(0.0)
Tajikistan	(100.0)	(86.6)	(100.0)	(100.0)	(73.8)	(100.0)
Türkiye	(100.0)	(86.6)	(100.0)	(91.9)	(79.8)	(0.0)
Turkmenistan	(100.0)	(65.7)	(20.6)	(32.4)	(58.3)	(19.5)
Ukraine	(100.0)	(88.1)	(100.0)	(100.0)	(92.9)	(100.0)
United Kingdom	(88.2)	(62.7)	(50.0)	(50.0)	(15.5)	(0.0)
Uzbekistan	(100.0)	(86.6)	(85.3)	(41.9)	(78.6)	(0.0)
Subtotal non-EU/EEA	(82.1)	(75.3)	(74.6)	(65.0)	(55.6)	(31.5)
Total European Region	(68.1)	(74.4)	(85.0)	(57.8)	(41.0)	(15.9)
Subtotal 18 HPCs	(92.5)	(86.1)	(86.9)	(75.2)	(67.0)	(47.2)

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

1 All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Annex 5. Laboratory network capacity, European Region, 2021a

					Country/	area labor	atory networl				
								Internation	nal profici al referenc		
Country/area	Micros	сору	Culture	DST for is and rifa		Line probe assay	Xpert MTB/RIF	-	Percen agreem results	itage ent of	
	Number of laboratories performing	EQA passed	Number of laboratories performing	Number of laboratories performing	EQA passed	(N)	(N)	Year	isoniazid	rifampicin	Acceptable performance <sup>b</sup>
EU/EEA											
Austria	-	-	-	-	-	-	-	-	-	-	-
Belgium	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	33	-	30	-	-	-	4	2017	100	100	Υ
Croatia	-	-	-	-	-	-	1	-	-	-	-
Cyprus Czech Republic	37	-	37	_	_	_	-	2021	100	100	Y
Denmark	-	_	-	_	_	_	_	2021	-	-	-
Estonia	2	_	2	_	_	_	6	2021	100	100	Υ
Finland	9	-	9	-	-	-	5	2021	100	100	Υ
France	140	-	140	-	-	-	75	2021	100	100	Υ
Germany	-	-	-	-	-	-	-	2021	100	100	-
Greece	-	-	-	-	-	-	-	-	-	-	-
Hungary	-	-	-	-	-	-	-	2021	-	-	-
Iceland	-	-	-	-	-	-	-	-	-	-	-
Ireland	11	-	10	-	-	-	6	2020	100	100	Υ
Italy	42	-	42	-	-	-	45	2019	100	100	Υ
Latvia Liechtenstein	_	_	_	-	-	_	_	-	-	-	-
Lithuania	10	-	5	_	-	_	4	2021	100	100	Y
Luxembourg	10	_	1	_	_	_	0	2021	100	100	Y
Malta	1	-	1	_	_	-	1	-	-	-	-
Netherlands	_	-	30	_	-	-	_	2021	100	100	Υ
Norway	-	-	-	-	_	-	-	-	-	-	-
Poland	60	-	60	_	_	-	25	2021	100	100	Υ
Portugal	45	-	41	-	-	-	10	2021	100	100	Υ
Romania	91	-	85	-	-	-	30	2021	100	100	Υ
Slovakia	7	-	3	-	-	-	1	2020	100	100	Υ
Slovenia	2	-	2	-	-	-	2	2020	100	100	-
Spain	-	-	-	-	-	-	-	2024	- 100	-	-
Sweden Subtotal EU/EEA	4 <b>495</b>	-	5 <b>02</b>	-	105	109	5 <b>220</b>	2021	100	100	Υ
Non-EU/EEA	495		502	_	105	109	220	-	_	-	-
Albania	12	-	1	_	0	1	1	2016	100	100	Υ
Andorra	7	-	7	-	-	4	3	-	-	-	-
Armenia	16	-	1	-	0	1	8	2021	100	100	Υ
Azerbaijan	23	-	7	-	3	2	16	2020	-	-	Υ
Belarus	78	-	12	-	8	8	24	2021	100	100	Υ
Bosnia and Herzegovina	18	-	18	-	0	3	0	-	-	-	-
Georgia	10	-	2	-	1	2	28	2021	100	100	Υ
Israel	13	-	13	-		1	1	2021	100	100	Υ
Kazakhstan	139	-	20	-	20	17	119	2021	95	100	Υ
Kyrgyzstan Republic of Moldova	104 57	-	7	-	1	1	24	2021 2021	100 100	100 100	Y Y
Monaco	-	_	-	_	4	4	4	2021	-	100	-
Montenegro	1	-	1	_	1	0	1	2021	100	100	Υ
North Macedonia	7	_	2	_	0	0	1	2021	90	100	N
Russian Federation	5053	-	323	-	79	4	181	-	-	-	-
San Marino	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-
Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-
Switzerland	30	-	21	-	9	5	55	2021	100	100	Υ
Tajikistan	84	-	6	-	0	6	52	2021	100	100	Υ
Türkiye	231	-	110	-	46	5	26	2020	100	100	Υ
Turkmenistan Ukraine	67 683	_	6 39	-	34	6	7 159	2021	100	100	- Y
United Kingdom	003	-	-	_	<i>54</i>	4	109	2021	-	100	- T
Uzbekistan	289	_	8	_	8	12	52	2021	100	100	Y
Subtotal non-EU/EEA	6922	-	608	-	214	86	762	-	-	-	-
Total European Region	7417	-	1110	-	319	195	982	-	-	-	-
Subtotal 18 HPCs	6970	-	667	-	204	72	744	-	-	-	-

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

EQA: external quality assessment.
DST: drug-susceptibility testing.
Y: yes.
N: no.

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

4 Acceptable performance defined as reference laboratory achieving 95% performance (smear and DST).

5 All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).



### Summary table. TB surveillance data by region, European Region, 2021

					Reg	ion			
		EU	/EEA	Non	-EU/EEA	To	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 <sup>b</sup>	Value
Total population (millions)	1	29	518.1	24	480.0	53	930.9	18	411.0
Estimates of TB disease burden, 2021 <sup>c</sup>									
Estimated TB mortality rate (excluding HIV-related deaths) per 100 000 population	1	29	1.0	24	3.3	53	2.2	18	4.4
Estimated TB incidence rate per 100 000 population	1	29	8.4	24	40.2	53	24.7	18	47.7
Estimated RR-TB cases among notified bacteriologically confirmed pulmonary TB patients	2	29	1400	20	71000	49	73000	18	71000
Estimated percentage of HIV infection among incident TB cases (new and relapse)	2	29	3.7	20	14.5	49	13.0	18	14.3
Notifications of TB cases, 2021 Total number of TB cases	3	29	33520	23	163 664	52	197184	17	166666
All TB cases per 100 000 population	3	29	7.4	23	34.1	52	21.1	17	40.6
Mean annual percentage change of notification rate (2017–2021)	3	29	-10.0%	23	-8.9%	52	-9.0%	17	-9.6%
Number of new and relapse TB cases	III	29	32040	23	133 986	52	166 026	17	136 576
New and relapse TB cases per 100 000 population	III	29	7.1	23	27.9	52	17.8	17	33.2
Mean annual percentage change of notification rate of new and relapse TB cases (2017–2021)	III	29	-9.9%	23	-8.9%	52	-9.0%	17	-9.2%
Percentage of new cases among all TB cases	4	29	75.8%	23	67.5%	52	68.9%	18	67.2%
Percentage of retreatment cases among all TB cases	4	29	24.2%	23	32.5%	52	31.1%	18	32.8%
Percentage of pulmonary TB among all TB cases	5	29	71.7%	-	-	-	-	-	-
Percentage of laboratory-confirmed TB cases among all TB cases	8	29	72.0%	-	-	-	-	-	-
Male-to-female ratio of new and relapse TB cases	8	28	2.0	23	1.9	51	1.9	18	2.0
Percentage of foreign TB cases among all TB cases	9	29	33.8%	21	4.8%	50	9.9%	16	2.3%
TB case laboratory confirmation, RR/MDR and XDR, 2021									
Percentage of laboratory-confirmed cases among new pulmonary TB cases <sup>d</sup>	11	29	80.0%	22	65.4%	51	68.0%	18	66.1%
Percentage of DST results reported among new bacteriologically- confirmed pulmonary TB cases	11	29	87.3%	22	95.3%	51	93.6%	18	95.1%
Percentage of RR/MDR-TB among new pulmonary TB cases	11	29	3.3%	22	27.4%	51	22.6%	18	26.5%
Percentage of RR/MDR-TB among previously treated pulmonary TB cases	11	29	11.9%	22	55.6%	51	53.0%	18	54.1%
Percentage of Pre-XDR-TB among all RR/MDR-TB cases with DST for FQ Percentage of XDR-TB among all pre-XDR-TB cases with DST for any other Group A drugs	12 12	29 29	28.5%	15 12	33.5% 10.4%	44	33.4% 11.2%	17 15	33.5%
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	17	2)	22.470	10	22.970	77	22.570	15	22.070
Percentage of new and relapse TB cases with known HIV status	14	21	70.2%	17	95.8%	38	92.8%	17	94.9%
Percentage of HIV-positive cases among new and relapse TB cases with known HIV status	14	21	3.8%	17	15.9%	38	14.8%	17	15.2%
Percentage of HIV-positive new and relapse TB cases started on ART	14	9	79.2%	13	80.1%	22	80.1%	14	80.1%
Treatment outcome									
Treatment success of new and relapse TB cases notified in 2020	16	25	68.7%	23	73.7%	48	72.9%	18	73.5%
Treatment success rate among previously treated TB cases reported in 2020	17	24	50.6%	21	60.6%	45	59.9%	18	60.0%
Treatment success of childhood TB cases notified in 2020	18	26	77.5%	19	90.4%	45	87.5%	14	90.5%
Treatment success of TB/HIV cases notified in 2020	20	19	53.4%	15	47.2%	34	47.4%	14	47.3%
Treatment success of RR/MDR-TB cases enrolled in SLD treatment in 2019	22	19	51.3%	21	57.2%	40	57.2%	17	57.1%
Treatment success of all pre-XDR-TB cases notified in 2019	23	22	16.0%	19	66.3%	41	62.7%	17	63.2%
Treatment success rate among all XDR-TB cases notified in 2019	24	22	43.9%	-	_	-	-	-	_

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

ART: antiretroviral therapy.
DST: drug-susceptibility testing.
MDR: multidrug-resistant.
SLD:- second-line anti-TB drugs.
XDR: extensively drug-resistant.
Pre-XDR: pre-extensive drug resistant.
Pre-XDR: pre-extensive drug resistant.
Pre-XDR: pre-extensive drug resistant.
Pre-XDR: pre-extensived drug resistant.
North of 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 2021 (Geneva: World Health Organization; 2021 Available from: https://www.who.int/publications/i/item/g/380240037021.
Laboratory-confirmed cases – cases with positive identification for 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, 2021

				d number o forms, exc				Esti	mated numb	er of inciden	t cases (al	l forms)	
Country	Population <sup>a</sup>		Number			r 100 000			Number			100 000	
		Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA													
Austria	8922082	41	40	42	0.5	0.5	0.5	450	380	510	5	4.3	5.8
Belgium	11 611 419	33	32	34	0.3	0.3	0.3	940	800	1100	8.1	6.9	9.3
Bulgaria	6885868	96	94	98	1.4	1.4	1.4	1200	870	1500	17	13	22
Croatia	4 0 6 0 1 3 5	36	36	36	0.9	0.9	0.9	160	140	190	4	3.4	4.6
Cyprus	1244188	5	4	5	0.4	0.4	0.4	55	47	64	4.4	3.8	5.1
Czechia	10 510 751	23	22	23	0.2	0.2	0.2	400	350	470	3.9	3.3	4.5
Denmark	5854240	10	10	11	0.2	0.2	0.2	220	190	250	3.8	3.2	4.3
Estonia	1328701	16	16	16	1.2	1.2	1.2	120	110	140	9.3	7.9	11
inland	5535992	30	30	30	0.5	0.5	0.6	200	170	230	3.5	3	4.1
rance	64531444	440	410	460	0.7	0.6	0.7	4900	4300	5600	7.7	6.7	8.6
Germany	83408554	270	260	270	0.3	0.3	0.3	4200	3800	4600	5	4.5	5.5
Greece	10 445 365	43	41	45	0.4	0.4	0.4	430	370	490	4.1	3.5	4.7
Hungary	9709786	62	62	62	0.6	0.6	0.6	360	310	410	3.7	3.1	4.2
celand	370335	2	2	2	0.6	0.6	0.6	11	9	13	2.9	2.5	3.4
reland	4986526	18	18	18	0.4	0.4	0.4	240	210	280	4.8	4.1	5.6
taly	59 240 329	300	290	300	0.4	0.4	0.4	2900	2500	3400	4.9	4.1	5.7
Latvia	1873 919	63	60	67	3.4	3.2	3.6	2900	250	3400	16	13	18
Liechtenstein	10/3919	-	-	-	J.4 -	5.2	J.0 -	290	250	540	-	-	-
Lithuania	2786651	120	110	130	4.3	4.1	4.6	720	620	830	26	22	30
		2	2		0.4	0.3	0.4	39	33		6.1		
.uxembourg Malta	639321	1	1	1	0.4	0.3	0.4	62	53	45 72	12	5.2	7.1 14
	526748												
letherlands	17501696	21	21	22	0.1	0.1	0.1	770	660	890	4.4	3.8	5.1
Vorway	5 403 021	19	18	19	0.3	0.3	0.4	160	130	180	2.9	2.5	3.4
Poland	38307726	510	480	540	1.3	1.3	1.4	4000	3400	4600	10	8.9	12
Portugal	10 290 103	240	230	250	2.4	2.3	2.4	1700	1400	1900	16	14	19
Romania	19328560	1700	1400	1900	8.6	7.4	9.8	8700	7500	10 000	45	39	52
Slovakia	5 4 4 7 6 2 2	14	14	14	0.3	0.3	0.3	150	130	180	2.8	2.4	3.3
Slovenia	2 119 410	14	14	15	0.7	0.7	0.7	91	78	100	4.3	3.7	5
Spain	47 48 6 9 3 5	230	220	230	0.5	0.5	0.5	3900	3300	4500	8.2	7	9.4
Sweden	10 467 097	23	22	23	0.2	0.2	0.2	400	340	460	3.8	3.2	4.4
Subtotal EU/EEA	450 824 524	4400	4200	4600	1.0	0.9	1.0	38 000	36 000	40000	8.4	8.0	8.9
lon-EU/EEA													
Albania	2854710	13	7	21	0.5	0.2	0.7	480	410	550	17	14	19
Andorra	79 034	0	0	0	0.2	0.2	0.4	2	2	3	2.9	2.5	3.4
Armenia	2790974	33	28	39	1.2	1.0	1.4	770	560	1000	27	20	36
Azerbaijan	10 312 992	890	770	1000	8.6	7.5	9.8	6400	5100	8000	63	49	77
Belarus	9578167	370	330	420	3.9	3.5	4.3	2900	2200	3700	30	23	39
Bosnia and Herzegovina	3 270 943	92	86	99	2.8	2.6	3.0	810	610	1000	25	19	32
Georgia	3757980	130	120	150	3.5	3.1	3.9	2400	2000	2900	64	52	77
srael	8 9 0 0 0 5 9	21	21	22	0.2	0.2	0.3	240	210	280	2.8	2.4	3.2
Kazakhstan	19196465	1100	960	1200	5.7	5.0	6.4	14000	9900	19000	74	52	101
(yrgyzstan	6527743	550	460	650	8.4	7.0	9.9	8500	7000	10 000	130	108	155
Monaco	36686	0	0	0	0.0	0.0	0.0	0	0	0	0	0	0
Montenegro	627 859	2	2	2	0.3	0.3	0.4	98	84	110	16	13	18
North Macedonia	2103330	9	7	12	0.4	0.3	0.6	240	180	300	11	8.4	14
Republic of Moldova	3061506	180	150	200	5.7	4.9	6.6	2600	2100	3100	84	69	102
Russian Federation	145102755	4900	4800	5000	3.4	3.3	3.5	69000	57000	81000	47	39	56
San Marino	33745	0	0	0	0.0	0.0	0.0	0	0	0	0	0	0
	7296769	120	110	140	1.7	1.5	1.9	1100	900	1300	15	12	17
Serhia		17	17	18	0.2	0.2	0.2	410	350	470	4.7	4	5.4
	8691//06	17	17			10.0	14.0					67	112
Switzerland	8 6 9 1 4 0 6	1200	1000			10.0	14.0	8600	6600	11 000	88	0/	112
Switzerland Tajikistan	9750 064	1200	1000	1400	12.0			15 000	12 000	10000	40		24
Switzerland Fajikistan Fürkiye	9750 064 84775 404	970	870	1100	1.1	1.0	1.3	15 0 0 0	12 000	18000	18	15	21
Switzerland Tajikistan Türkiye Turkmenistan	9750 064 84775 404 6341 855	970 650	870 550	1100 760	1.1 10.0	1.0 8.6	1.3 12.0	3000	2300	3800	47	15 36	60
Switzerland Fajikistan Fürkiye Furkmenistan Ukraine	9750 064 84775 404 6341 855 43 531 422	970 650 3 600	870 550 3 500	1100 760 3700	1.1 10.0 8.3	1.0 8.6 8.0	1.3 12.0 8.5	3000 31000	2300 20000	3800 44000	47 71	15 36 47	60 100
Serbia Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom	9750 064 84775 404 6341855 43531422 67281039	970 650 3600 230	870 550 3500 230	1100 760 3700 240	1.1 10.0 8.3 0.3	1.0 8.6 8.0 0.3	1.3 12.0 8.5 0.4	3000 31000 4300	2300 20000 3900	3800 44000 4700	47 71 6.3	15 36 47 5.7	60 100 7
Switzerland Tajikistan Türkiye Turkmenistan Ukraine Jnited Kingdom Uzbekistan	9750 064 84775 404 6341855 43531 422 67 281039 34081 449	970 650 3600 230 1100	870 550 3500 230 1000	1100 760 3700 240 1100	1.1 10.0 8.3 0.3 3.2	1.0 8.6 8.0 0.3 3.0	1.3 12.0 8.5 0.4 3.3	3000 31000 4300 21000	2300 20000 3900 14000	3800 44000 4700 29000	47 71 6.3 62	15 36 47 5.7 42	60 100 7 86
Switzerland Tajikistan Türkiye Turkmenistan Ukraine	9750 064 84775 404 6341855 43531422 67281039	970 650 3600 230	870 550 3500 230	1100 760 3700 240	1.1 10.0 8.3 0.3	1.0 8.6 8.0 0.3	1.3 12.0 8.5 0.4	3000 31000 4300	2300 20000 3900	3800 44000 4700	47 71 6.3	15 36 47 5.7	60 100 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. HPCs: high-priority countries.

a Population estimate 2020 by United Nations Statistical Database for all countries.

	Estimate	d incidenc	e of child TB	cases		E	stimated	incidence o	f TB among	females		
	Number			r 100 000			Number			r 100 000		Country
Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	FILEPA
15	13	17	1.2	1.0	1.3	140	110	160	3.1	2.4	2 5	EU/EEA Austria
44	37	51	2.3	1.9	2.6	280	220	340	4.8	3.7		Belgium
32	23	41	3.3	2.4	4.3	410	250	570	11.6	7.0		Bulgaria
2	2	2	0.3	0.3	0.3	66	52	79	3.2	2.5		Croatia
0	0	0	0.0	0.0	0.0	32	25	38	5.2	4.0		Cyprus
14	12	16	0.8	0.7	1.0	110	90	130	2.1	1.7		Czechia
7	6	8	0.7	0.6	0.8	92	73	110	3.1	2.5		Denmark
0	0	0	0.0	0.0	0.0	47	37	57	6.7	5.3	8.2	Estonia
5	4	5	0.6	0.5	0.6	70	56	85	2.5	2.0	3.0	Finland
260	220	290	2.3	2.0	2.6	1900	1600	2200	5.7	4.8	6.6	France
170	150	190	1.5	1.3	1.6	1500	1300	1700	3.5	3.1	4.0	Germany
19	16	22	1.3	1.1	1.5	98	80	120	1.8	1.5	2.3	Greece
5	4	5	0.4	0.3	0.4	110	90	140	2.2	1.8	2.8	Hungary
2	1	2	2.9	1.4	2.9	5	4	7	2.8	2.2	3.9	Iceland
1	1	1	0.1	0.1	0.1	89	71	110	3.5	2.8		Ireland
130	110	160	1.7	1.5	2.1	1000	830	1200	3.3	2.7		Italy
7	6	8	2.4	2.0	2.7	91	74	110	9.0	7.4		Latvia
-	-	-	-	-	-	-	-	-	-	-		Liechtenstein
15	13	17	3.5	3.1	4.0	220	170	260	14.9	11.5		Lithuania
0	0	0	0.0	0.0	0.0	14	11	17	4.4	3.5		Luxembourg
4	3	4	5.8	4.3	5.8	32	27	38	12.7	10.7		Malta
30	25	35	1.1	0.9	1.3	300	230	360	3.4	2.6		Netherlands
5	4	5	0.5	0.4	0.5	91	72	110	3.4	2.7		Norway
42	36	49 55	0.7	0.6	8.0	1100	890	1300	5.6	4.5		Poland
47 320	40 270	370	3.4 10.3	2.9 8.7	4.0	560 2500	450 2000	680 3 <i>000</i>	10.3 25.0	8.3 20.0		Portugal Romania
46	37	55	5.3	4.3	6.4	60	47	72	2.2	1.7		Slovakia
2	2	3	0.6	0.6	0.9	38	30	46	3.6	2.8	4.4	Slovenia
150	130	170	2.2	1.9	2.5	1300	1100	1600	5.4	4.5	6.6	
16	14	19	0.9	0.8	1.0	170	140	210	3.3	2.7	4.0	
1400	1300	1500	2.1	1.9	2.2	12000	11000	13 000	5.2	4.8		Subtotal EU/EEA
												Non-EU/EEA
14	12	16	3.0	2.6	3.4	170	130	200	11.9	9.1	14.0	Albania
0	0	0	0.0	0.0	0.0	1	1	1	2.6	2.6	2.6	Andorra
35	24	45	6.1	4.2	7.9	170	110	230	11.1	7.2	15.0	Armenia
360	270	440	14.6	10.9	17.8	2300	1600	3000	44.0	30.6	57.4	Azerbaijan
110	83	150	6.8	5.1	9.3	800	520	1100	15.5	10.1		Belarus
2	2	3	0.4	0.4	0.6	310	190	420	18.7	11.4		Bosnia and Herzegovina
130	100	160	16.4	12.6	20.2	860	630	1100	43.2	31.6		Georgia
13	11	16	0.5	0.4	0.6	110	87	130	2.5	1.9		Israel
700	460	950	12.3	8.1	16.8	6400	3400	9400	64.2	34.1		Kazakhstan
720	580	870	32.0	25.8	38.7	3 600	2700	4600	108.4	81.3		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	43 68	34 44	53 91	13.4	10.6		Montenegro North Macedonia
180	140	210	29.7	23.1	34.6	710	530	900	44.1	33.0		Republic of Moldova
3700	3000	4400	14.4	11.7	17.1	21000	16000	26 000	27.0	20.6		Russian Federation
0	0	0	0.0	0.0	0.0	0	0	0	0.0	0.0		San Marino
24	20	28	2.3	1.9	2.7	460	350	570	12.1	9.2		Serbia
8	7	9	0.6	0.5	0.7	180	140	220	4.1	3.2		Switzerland
560	410	710	15.8	11.5	20.0	4100	2600	5500	84.6	53.7		Tajikistan
970	780	1200	4.9	3.9	6.0	6500	4900	8100	15.4	11.6		Türkiye
180	130	230	9.1	6.6	11.6	1300	810	1700	40.6	25.3		Turkmenistan
1200	740	1700	18.1	11.2	25.7	9700	4900	15 000	41.5	21.0		Ukraine
160	140	170	1.3	1.2	1.4	1800	1500	2000	5.3	4.4		United Kingdom
3000	1800	4200	29.3	17.6	41.0	9800	4900	15000	57.5	28.8		Uzbekistan
12000	11000	10000	12.0	11.0	10.0	70000	61000	79 000	28.2	24.5	31.8	Subtotal non-EU/EEA
13 0 0 0	12 000	11000	7.8	7.2	6.6	82000	73000	91000	17.1	15.2		Total European Region
12 000	11 000	13 000	13.8	12.6	14.9	71 000	62 000	80000	33.2	29.0	37.4	Subtotal 18 HPCs

Table 2. Estimates for TB/HIV coinfection and RR-TB, European Region, 2021

Country	Estima		nfection a (new and	among inc relapse)	ident TB	cases	Estimate RR-TB ca T			of RR-Ti	ed perce B cases a ed TB pat	mong	cases bact confirm	mated RF among no eriologic ed pulmo patients	otified ally		ated num nt RR-TB	
		Number			%			%			%			Number			Number	
FILER.	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA	10	-	15	2.2	1.2	2 /	5	2.1	0.5	F1	2.6	/0	22	15	20	20	1/	42
Austria	10 35	5 13	15 68	2.2 3.7	1.2	3.4 7.1	1.9	3.1 1.2	8.5 2.7	51 14	34	68 24	22 14	15 9	29 19	29 28	16 17	43 38
Belgium	2	0	7	0.1	1.4	0.6	2.1	1.1	3.6	15	6.6 8.5	25	13	8	18	41	17	65
Bulgaria Croatia	2	1	2	1.0	0.5	1.5	0.5	0.2	1.1	6.6	1.8	15	13	0	2	1	0	2
Cyprus	3	1	4	4.6	2.5	7.3	1.1	0.2	2.5	10	1.4	31	1	0	1	1	0	2
Czechia	3	2	5	0.7	0.4	1.2	3.1	2.1	4.2	13	5.6	24	11	7	14	15	9	20
Denmark	5	1	10	2.2	0.7	4.7	1.6	1	2.8	4.8	1.2	12	3	1	4	5	2	7
Estonia	15	8	25	12.0	6.3	19.0	22	19	26	55	48	63	25	22	28	34	26	42
Finland	3	2	5	1.5	0.8	2.3	3.4	2.2	5.0	18	4.3	43	4	2	6	7	4	11
France	260	200	330	5.3	4.3	6.4	0.6	0.3	1.2	16	5.1	35	31	11	52	81	29	130
Germany	110	59	170	2.6	1.4	4.1	2.1	1.4	2.9	26	19.0	33	87	67	110	130	89	160
Greece	15	9	24	3.6	2.1	5.5	2.2	1.0	4.2	8.3	1.9	21	4	2	7	12	4	19
Hungary	4	2	6	1.1	0.6	1.7	3.0	1.9	4.4	20	9.7	33	10	7	14	17	11	24
Iceland	0	0	0	2.1	0.8	4.0	1.1	0.2	3.5	14	1.5	47	0	0	0	0	0	0
Ireland	9	5	14	3.6	2.0	5.7	1.5	0.5	3.1	9.6	2.9	20	2	1	4	6	1	10
Italy	150	85	240	5.2	3.0	8.0	2.8	2.1	3.6	3.4	2.0	5.1	50	37	64	83	57	110
Latvia	23	8	45	7.7	2.7	15.0	9.3	7.8	11.0	26	21	31	25	21	28	42	32	52
Liechtenstein	_	_	-	-	-	-	-	-	-	-	-	_	-	-	-	_	_	_
Lithuania	18	10	29	2.5	1.4	4.0	15	14	17	45	42	48	110	110	120	150	120	180
Luxembourg	0	0	2	0	0	5.1	1.3	0.3	3.3	10	1.2	33	0	0	1	1	0	2
Malta	1	0	6	2.1	0.0	9.1	0.7	0.1	2.0	13	1.2	43	0	0	1	2	0	5
Netherlands	23	13	35	2.9	1.7	4.4	2.6	1.8	3.5	25	12	41	13	9	17	25	17	34
Norway	7	3	14	4.7	1.7	8.9	4.2	2.5	6.0	8.8	3.5	18	4	2	5	8	5	11
Poland	45	25	72	1.1	0.7	1.8	1.0	0.8	1.2	2.6	2.0	3.3	36	31	42	47	36	58
Portugal	150	110	180	8.8	7.4	10.0	0.9	0.5	1.5	7.1	3.1	13	13	7	18	21	11	31
Romania	190	150	230	2.1	1.8	2.5	2.3	2.1	2.5	13	12	14	290	270	320	400	320	480
Slovakia	5	1	11	3.1	0.7	7.2	1.9	0.9	3.3	15	7.4	25	2	1	4	5	2	8
Slovenia	0	0	2	-	-	2.3	0.5	0.2	1.1	3.1	0.5	9.7	0	0	1	1	0	1
Spain	260	100	510	6.8	2.6	13.0	4.4	2.0	8.2	20	5.9	44	110	43	180	210	70	340
Sweden	9	5	14	2.2	1.2	3.5	3.7	2.5	5.0	18	9.7	29	8	6	11	17	11	24
Subtotal EU/EEA	1400	1000	2000	3.7	2.5	5.6	2.9	2.0	3.8	23.0	17.0	29.0	900	800	1000	1400	1200	1600
Non-EU/EEA																		
Albania	2	0	9	0.4	-	1.9	1.9	0.9	3.5	15	4.7	33	4	2	6	14	5	22
Andorra	-	_	-	-	-	-	2.9	0.4	9.6	25	2.9	67	0	0	0	0	0	0
Armenia	82	52	120	11.0	7.8	14.0	19	16	23	48	42	56	63	56	70	200	130	260
Azerbaijan	130	94	180	2.1	1.6	2.6	12	11	13	20	18	21	600	560	630	1100	810	1300
Belarus	250	180	330	8.6	7.2	10.0	40	38	41	70	67	72	760	730	780	1400	1000	1800
Bosnia and Herzegovina	2	1	3	0.2	0.1	0.3	0.3	0.1	0.5	2.7	1.1	5.3	1	1	2	3	1	5
Georgia	72	49	100	3.0	2.2	4.0	12	11	13	31	28	33	200	190	210	410	320	490
Israel	18	10	29	7.5	4.2	12.0	7.6	4.7	11.0	14	3.8	32	8	5	11	19	11	28
Kazakhstan	930	640	1300	6.5	6.0	7.0	34	33	34	49	48	50	2900	2900	3000	5500	3600	7400
Kyrgyzstan	240	190	310	2.9	2.4	3.4	27	26	29	59	57	62	980	940	1000	3200	2500	3800
Monaco	-	-	-	-	-	-	2.1	0.2	8.1	22	1.9	69	0	0	0	-	-	-
Montenegro	0	0	2	0	0	2.3	0.5	0.2	1.2	6.4	1.7	15	1	0	1	1	0	2
North Macedonia	2	0	6	0.7	0.0	2.6	1.0	0.5	1.8	3.6	0.9	8.7	1	1	2	3	1	5
Republic of Moldova	280	210	340	11.0	9.3	12.0	31	29	32	56	54	59	610	590	630	1000	790	1200
Russian Federation	18000	15 000	21000	26	25	26	38	37	39	69	68	70	22 0 0 0	22 000	23 0 0 0	38000	31000	46000
San Marino	-	-	-	-	-	-	2.4	0.4	8.0	17	1.8	53	0	0	0	0	0	0
Serbia	3	2	5	0.3	0.2	0.5	1.0	0.5	2.0	5.9	1.9	14	2	1	4	15	4	27
Switzerland	19	10	30	4.6	2.6	7.1	2.4	1.3	3.9	30	18	45	10	6	14	20	10	31
Tajikistan	250	180	330	2.9	2.4	3.4	31	30	33	33	30	36	690	660	720	2700	2000	3400
Türkiye	180	130	230	1.2	1.0	1.4	2.4	2.1	2.7	8.0	6.6	9.9	130	110	140	420	330	510
Turkmenistan	670	350	1100	22	13	34	45	41	49	59	53	64	420	390	450	1500	1100	1900
Ukraine	6300	4100	8900	20	20	21	31	31	32	45	44	46	4800	4700	4900	11 0 0 0	6800	15 0 0 0
United Kingdom	150	55	280	3.5	1.3	6.6	1.7	1.4	2.0	5.6	3.7	8.0	39	33	45	93	75	110
Uzbekistan	600	400	850	2.9	2.6	3.1	17	16	18	29	27	31	1400	1300	1400	4200	2700	5800
Subtotal non-EU/EEA	28000	24000	32000	14.5	11.3	18.4	28	23	33	57	41	72	36000	35000	37000	71000	62000	80000
Total European Region	29 000	25 000	33 000	13.0	11.0	15.0	26	21	31	57	41	72	37000	37000	37000	73000	64000	81000
Subtotal 18 HPCs	28 000	24000	32000	14.3	11.2	18.1	29	24	34	58	42	71	36 000	35000	37000	71 000	62000	80000

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. RR-TB: rifampicin-resistant tuberculosis.

Table 3. TB cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2017-2021

Countrulores	2017		2018		2019		2020		2021		Mean annual %
Country/area	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	change in rate, 2017–2021
EU/EEA										<u> </u>	
Austria	569	6.5	482	5.5	474	5.4	388	4.4	396	4.4	-9.1%
Belgium	967	8.5	977	8.6	963	8.4	825	7.2	875	7.6	-2.9%
Bulgaria	1463	20.6	1358	19.3	1344	19.2	930	13.4	687	9.9	-16.7%
Croatia	378	9.1	372	9.1	302	7.4	194	4.8	157	3.9	-19.1%
Cyprus	53	6.2	52	6.0	69	7.9	36	4.1	48	5.4	-3.6%
Czechia	501	4.7	443	4.2	461	4.3	363	3.4	357	3.3	-8.4%
Denmark	275	4.8	291	5.0	284	4.9	221	3.8	208	3.6	-7.1%
Estonia	176	13.4	147	11.1	150	11.3	124	9.3	111	8.3	-11.1%
Finland	244	4.4	227	4.1	226	4.1	174	3.1	170	3.1	-8.8%
France	5006	7.5	5048	7.5	5183	7.7	4 5 1 5	6.7	4274	6.3	-4.2%
Germany	5516	6.7	5 4 9 6	6.6	4811	5.8	4159	5.0	3896	4.7	-8.5%
Greece	467	4.3	432	4.0	459	4.3	396	3.7	206	1.9	-18.3%
Hungary	685	7.0	640	6.5	552	5.6	406	4.2	335	3.4	-16.2%
Iceland	14	4.1	8	2.3	13	3.6	12	3.3	-	-	-100.0%
Ireland	300	6.3	310	6.4	257	5.2	236	4.8	217	4.3	-8.8%
Italy	3944	6.5	3912	6.5	3346	5.6	2 2 8 7	3.8	2480	4.2	-10.4%
Latvia	552	28.3	-	-	-	-	-	-	261	13.8	-
Liechtenstein	1	2.6	1	2.6	0	0.0	2	5.2	1	2.6	-0.8%
Lithuania	1387	48.7	1142	40.7	1058	37.9	726	26.0	646	23.1	-17.0%
Luxembourg	32	5.4	42	7.0	50	8.1	34	5.4	35	5.5	0.4%
Malta	42	9.1	55	11.6	98	19.9	140	27.2	54	10.5	3.5%
Netherlands	783	4.6	795	4.6	754	4.4	622	3.6	680	3.9	-4.0%
Norway	261	5.0	208	3.9	166	3.1	159	3.0	157	2.9	-12.5%
Poland	5787	15.2	5 4 8 7	14.4	5321	14.0	3388	8.9	3704	9.8	-10.5%
Portugal	1914	18.6	1926	18.7	1907	18.6	1519	14.8	1504	14.6	-5.8%
Romania	12 9 9 7	66.2	12199	62.5	11 618	59.8	7693	39.8	7979	41.6	-11.0%
Slovakia	249	4.6	281	5.2	214	3.9	158	2.9	137	2.5	-14.0%
Slovenia	112	5.4	99	4.8	101	4.9	77	3.7	80	3.8	-8.5%
Spain	5660	12.2	4766	10.2	4532	9.7	3697	7.8	3508	7.4	-11.7%
Sweden	519	5.2	488	4.8	479	4.7	324	3.1	357	3.4	-9.8%
Subtotal EU/EEA	50 854	11.3	47 684	10.6	45 192	10.0	33 805	7.5	33 520	7.4	-10.0%
Non-EU/EEA											
Albania	503	17.5	440	15.3	412	14.3	240	8.4	269	9.4	-14.3%
Andorra	1	1.4	2	2.7	5	6.5	2	2.6	2	2.5	16.9%
Armenia	926	32.5	796	28.1	670	23.8	444	15.8	426	15.3	-17.2%
Azerbaijan	7129	70.8	6896	67.9	6533	63.8	4991	48.5	4944	47.9	-9.3%
Belarus	3 0 5 2	31.4	2542	26.2	2 615	27.0	1778	18.5	1696	17.7	-13.4%
Bosnia and Herzegovina	768	22.3	669	19.7	580	17.3	357	10.8	363	11.1	-16.0%
Georgia	2927	77.6	2590	68.7	2 451	65.0	1842	48.9	1645	43.8	-13.3%
Israel	234	2.8	292	3.5	217	2.5	158	1.8	213	2.4	-4.0%
Kazakhstan	12 942	70.7	13361	72.1	12990	69.3	10 020	52.8	10008	52.1	-7.3%
Kyrgyzstan	7695	125.7	7585	121.9	7039	111.3	4885	76.0	5209	79.8	-10.7%
Monaco	0	0.0	1	2.7	0	0.0	0	0.0	0	0.0	0.0%
Montenegro	77	12.2	84	13.3	82	13.0	40	6.4	83	13.2	2.1%
North Macedonia	219	10.4	217	10.3	199	9.4	148	7.0	146	6.9	-9.5%
Republic of Moldova	3 858	121.3	3465	110.3	3255	104.7	1906	61.8	2248	73.4	-11.8%
Russian Federation	114187	78.5	106913	73.4	103 979	71.3	84956	58.3	79 686	54.9	-8.5%
San Marino	0	0.0	0	0.0	0	0.0	-	-	-	-	_
Serbia	1466	19.6	1358	18.3	1179	15.9	441	6.0	447	6.1	-25.3%
Serbia excluding Kosovo <sup>1</sup>	745	10.6	656	9.4	567	8.2	-	-	-	-	_
Kosovo¹	721	40.4	702	39.2	612	34.4	441	24.8	447	34.4	-4.0%
Switzerland	555	6.6	516	6.1	435	5.1	387	4.5	364	4.2	-10.6%
Tajikistan	6279	70.3	5975	65.5	5976	64.0	4316	45.2	4299	44.1	-11.0%
Türkiye	12 046	14.7	11786	14.2	11401	13.7	8925	10.6	9156	10.8	-7.4%
Turkmenistan	2232	37.4	2636	43.5	2863	46.5	2 610	41.8	2422	38.2	0.5%
Ukraine	31584	70.7	30378	68.3	28539	64.6	19 521	44.5	19793	45.5	-10.5%
United Kingdom	5567	8.4	5 0 7 5	7.6	5132	7.7	4458	6.6	4795	7.1	-4.1%
Uzbekistan	19329	60.5	18496	57.0	18774	56.9	14127	42.1	15450	45.3	-7.0%
	233576	49.4	222073	46.8	215326	45.1	166552	34.8	163664	34.1	-8.9%
Subtotal non-EU/EEA	233310	77.7	222013	70.0	217720	77.1					
Total European Region	284430	30.8	269757	29.2	260518	28.1	200357	21.5	197184	21.1	-9.0%

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. 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 for this report in the joint database was 4 October 2021.
HPCS: high-priority countries.

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 4. TB cases by history of previous TB treatment, European Region, 2021

						Previously t			
Country/area	New <sup>a</sup>		Unknown previous	TB history	Previous treat completed		Other previously tr	eated	All TB cases
	N	(%)b	N	(%) <sup>b</sup>	N N	(%) <sup>b</sup>	N N	(%) <sup>b</sup>	
EU/EEA									
Austria	288	(72.7)	85	(21.5)	14	(3.5)	9	(2.3)	390
Belgium <sup>c</sup>	671	(76.7)	146	(16.7)	0	(0.0)	58	(6.6)	87!
Bulgaria	616	(89.7)	0	(0.0)	57	(8.3)	14	(2.0)	68)
Croatia	112	(71.3)	37	(23.6)	5	(3.2)	3	(1.9)	157
Cyprus	45	(93.8)	1	(2.1)	2	(4.2)	0	(0.0)	48
Czechia	332	(93.0)	0	(0.0)	20	(5.6)	5	(1.4)	35
Denmark <sup>c</sup>	191	(91.8)	0	(0.0)	0	(0.0)	17	(8.2)	208
Estonia	92	(82.9)	0	(0.0)	15	(13.5)	4	(3.6)	11
Finland	162	(95.3)	5	(2.9)	3	(1.8)	0	(0.0)	170
France	2608	(61.0)	1434	(33.6)	0	(0.0)	232	(5.4)	4 27
Germany	2671	(68.6)	1007	(25.8)	114	(2.9)	104	(2.7)	389
Greece	162	(78.6)	31	(15.0)	2	(1.0)	11	(5.3)	206
Hungary	293	(87.5)	0	(0.0)	21	(6.3)	21	(6.3)	33!
Iceland	-	-	-	-	-	-	-	-	-
Ireland <sup>c</sup>	92	(42.4)	118	(54.4)	0	(0.0)	7	(3.2)	217
Italy	1686	(68.0)	692	(27.9)	0	(0.0)	102	(4.1)	2480
Latvia	220	(84.3)	12	(4.6)	23	(8.8)	6	(2.3)	26
Liechtenstein	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	
Lithuania	550	(85.1)	0	(0.0)	78	(12.1)	18	(2.8)	640
Luxembourg	30	(85.7)	4	(11.4)	0	(0.0)	1	(2.9)	3!
Malta	54	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	54
Netherlands	642	(94.4)	1	(0.1)	28	(4.1)	9	(1.3)	680
Norway <sup>c</sup>	140	(89.2)	0	(0.0)	0	(0.0)	17	(10.8)	157
Poland	3229	(87.2)	0	(0.0)	217	(5.9)	258	(7.0)	370
Portugal	1412	(93.9)	0	(0.0)	51	(3.4)	41	(2.7)	1504
Romania	6402	(80.2)	0	(0.0)	1189	(14.9)	388	(4.9)	7979
Slovakia	124	(90.5)	6	(4.4)	4	(2.9)	3	(2.2)	137
Slovenia	74	(92.5)	0	(0.0)	5	(6.3)	1	(1.3)	80
Spain	2191	(62.5)	1179	(33.6)	0	(0.0)	138	(3.9)	3508
Sweden	312	(87.4)	28	(7.8)	4	(1.1)	13	(3.6)	357
Subtotal EU/EEA	25 402	(75.8)	4786	(14.3)	1852	(5.5)	1480	(4.4)	33520
Non-EU/EEA									
Albania	261	(97.0)	-	-	8	(3.0)	0	(0.0)	269
Andorra	2	(100.0)	-	-	0	(0.0)	0	(0.0)	2
Armenia	369	(86.6)	-	-	29	(6.8)	28	(6.6)	426
Azerbaijan	2535	(51.3)	-	-	1128	(22.8)	1281	(25.9)	4944
Belarus	1176	(69.3)	-	-	308	(18.2)	212	(12.5)	1696
Bosnia and Herzegovina	330	(90.9)	-	-	32	(8.8)	1	(0.3)	363
Georgia	1298	(78.9)	-	-	203	(12.3)	144	(8.8)	1645
Israel	209	(98.1)	-	-	4	(1.9)	0	(0.0)	213
Kazakhstan	7066	(70.6)	-	-	2 691	(26.9)	251	(2.5)	10 008
Kyrgyzstan	3901	(74.9)	-	-	695	(13.3)	613	(11.8)	5209
Monaco	0	-	-	-	0	-	0	-	(
Montenegro	73	(88.0)	-	-	7	(8.4)	3	(3.6)	83
North Macedonia	129	(88.4)	-	-	14	(9.6)	3	(2.1)	146
Republic of Moldova	1 616	(71.9)		-	451	(20.1)	181	(8.1)	2248
Russian Federation	45420	(57.0)	-	-	11 502	(14.4)	22764	(28.6)	79 686
San Marino	-	-	-	-	-	-	-	-	-
Serbia	424	(94.9)	-	-	21	(4.7)	2	(0.4)	447
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-	-
Kosovo¹	424	(94.9)	-	-	21	(4.7)	2	(0.4)	447
Switzerland	355	(97.5)		-	0	(0.0)	9	(2.5)	364
Tajikistan	3787	(88.1)	-	-	371	(8.6)	141	(3.3)	4299
Türkiye	8591	(93.8)		-	456	(5.0)	109	(1.2)	9156
Turkmenistan	1464	(60.4)		-	414	(17.1)	544	(22.5)	2422
Ukraine	14 667	(74.1)		-	3 6 4 0	(18.4)	1486	(7.5)	1979
United Kingdom <sup>c</sup>	4571	(95.3)		-	224	(4.7)	0	(0.0)	479
Uzbekistan	12152	(78.7)		-	1392	(9.0)	1906	(12.3)	15 450
Subtotal non-EU/EEA	110 396	(67.5)		(0.0)	23590	(14.4)	29 678	(18.1)	163 664
Total European Region	135798	(68.9)		(2.4)	25 442	(12.9)	31158	(15.8)	197184
Subtotal 18 HPCs	111922	(67.2)		(0.0)	24 642	(14.8)	30 090	(18.1)	166666

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.

\*\*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.

\*\*All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 5. TB cases by site of disease, EU/EEA, 2021

		Pulmona	ry						
Country	Pulmonary	only	Pulmonary extrapulmo		Extrapulmo	nary	No site repo	rted	Total
	N	(%)	N	(%)	N	(%)	N	(%)	N
EU/EEA									
Austria	245	(61.9)	47	(11.9)	104	(26.3)	0	(0.0)	396
Belgium	460	(52.6)	146	(16.7)	269	(30.7)	0	(0.0)	875
Bulgaria	532	(77.4)	30	(4.4)	124	(18.0)	1	(0.1)	687
Croatia	121	(77.1)	9	(5.7)	6	(3.8)	21	(13.4)	157
Cyprus	35	(72.9)	3	(6.3)	10	(20.8)	0	(0.0)	48
Czechia	301	(84.3)	20	(5.6)	36	(10.1)	0	(0.0)	357
Denmark	150	(72.1)	6	(2.9)	52	(25.0)	0	(0.0)	208
Estonia	89	(80.2)	18	(16.2)	4	(3.6)	0	(0.0)	111
Finland	117	(68.8)	0	(0.0)	53	(31.2)	0	(0.0)	170
France	2879	(67.4)	0	(0.0)	1331	(31.1)	64	(1.5)	4 2 7 4
Germany	2 2 6 3	(58.1)	497	(12.8)	1109	(28.5)	27	(0.7)	3896
Greece	145	(70.4)	28	(13.6)	30	(14.6)	3	(1.5)	206
Hungary	306	(91.3)	15	(4.5)	14	(4.2)	0	(0.0)	335
Iceland	-	-	-	-	-	-	-	-	-
Ireland	86	(39.6)	12	(5.5)	57	(26.3)	62	(28.6)	217
Italy	1741	(70.2)	99	(4.0)	635	(25.6)	5	(0.2)	2480
Latvia	223	(85.4)	23	(8.8)	15	(5.7)	0	(0.0)	261
Liechtenstein	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	1
Lithuania	591	(91.5)	3	(0.5)	52	(8.0)	0	(0.0)	646
Luxembourg	27	(77.1)	2	(5.7)	6	(17.1)	0	(0.0)	35
Malta	28	(51.9)	13	(24.1)	13	(24.1)	0	(0.0)	54
Netherlands	297	(43.7)	84	(12.4)	297	(43.7)	2	(0.3)	680
Norway	67	(42.7)	17	(10.8)	71	(45.2)	2	(1.3)	157
Poland	3536	(95.5)	17	(0.5)	151	(4.1)	0	(0.0)	3704
Portugal	870	(57.8)	203	(13.5)	413	(27.5)	18	(1.2)	1504
Romania	6452	(80.9)	519	(6.5)	1008	(12.6)	0	(0.0)	7979
Slovakia	82	(59.9)	38	(27.7)	17	(12.4)	0	(0.0)	137
Slovenia	49	(61.3)	19	(23.8)	12	(15.0)	0	(0.0)	80
Spain	2164	(61.7)	343	(9.8)	1001	(28.5)	0	(0.0)	3508
Sweden	180	(50.4)	41	(11.5)	136	(38.1)	0	(0.0)	357
Total EU/EEA	24036	(71.7)	2 2 5 3	(6.7)	7026	(21.0)	205	(0.6)	33520

 $\textit{Note:} \ \mathsf{WHO} \ \mathsf{European} \ \mathsf{Region} \ \mathsf{five} \ \mathsf{TB} \ \mathsf{high-priority} \ \mathsf{countries} \ \mathsf{are} \ \mathsf{presented} \ \mathsf{in} \ \mathsf{italics}.$ 

Table 6. TB cases by history of previous TB treatment, site of disease and diagnostic method, according to WHO definitions, European Region, 2021

				Ne		pse TB case	es .						
Country/area					Pulmo Labora		Clinic	ally	Extrapulr	nonarv	Previously case		All TB cases
country/urcu	N	(%)'	N	(%)•	confir	meď	diagno	oséd	<u> </u>				
					N	(%)§	N	(%) <sup>g</sup>	N	(%)°	N	(%)	N
EU/EEA		()		( )		()		()		()		()	
Austria	387	(97.7)	283	(73.1)	262	(92.6)	21	(7.4)	104	(26.9)	9	(2.3)	396
Belgium <sup>h</sup>	817	(93.4)	570	(69.8)	518	(90.9)	52	(9.1)	247	(30.2)	58	(6.6)	875
Bulgaria	673	(98.0)	554	(82.3)	362	(65.3)	192	(34.7)	119	(17.7)	14	(2.0)	687
Croatia	154	(98.1)	148	(96.1)	132	(89.2)	16	(10.8)	6	(3.9)	3	(1.9)	157
Cyprus Czechia	48 352	(100.0) (98.6)	38 317	(79.2) (90.1)	36 283	(94.7) (89.3)	34	(5.3) (10.7)	10 35	(20.8)	0	(0.0)	48 357
Denmark <sup>h</sup>	191	(91.8)	140	(73.3)	117	(83.6)	23	(16.4)	51	(26.7)	17	(8.2)	208
Estonia	107	(96.4)	103	(96.3)	87	(84.5)	16	(15.5)	4	(3.7)	4	(3.6)	111
Finland	170	(100.0)	117	(68.8)	107	(91.5)	10	(8.5)	53	(31.2)	0	(0.0)	170
France	4042	(94.6)	2763	(68.4)	1856	(67.2)	907	(32.8)	1279	(31.6)	232	(5.4)	4 274
Germany	3792	(97.3)	2701	(71.2)	2442	(90.4)	259	(9.6)	1091	(28.8)	104	(2.7)	3896
Greece	195	(94.7)	166	(85.1)	150	(90.4)	16	(9.6)	29	(14.9)	11	(5.3)	206
Hungary	314	(93.7)	301	(95.9)	178	(59.1)	123	(40.9)	13	(4.1)	21	(6.3)	335
Iceland	-	(/).//	-	(/3./)	-	(37.1)	-	(40.7)	-	(4.1)	-	(0.5)	
Ireland <sup>h</sup>	210	(96.8)	154	(73.3)	115	(74.7)	39	(25.3)	56	(26.7)	7	(3.2)	217
Italy	2378	(95.9)	1756	(73.8)	1703	(97.0)	53	(3.0)	622	(26.2)	102	(4.1)	2480
Latvia	255	(97.7)	240	(94.1)	216	(90.0)	24	(10.0)	15	(5.9)	6	(2.3)	261
Liechtenstein	1	(100.0)	1	(100.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1
Lithuania	628	(97.2)	576	(91.7)	543	(94.3)	33	(5.7)	52	(8.3)	18	(2.8)	646
Luxembourg	34	(97.1)	28	(82.4)	26	(92.9)	2	(7.1)	6	(17.6)	1	(2.9)	35
Malta	54	(100.0)	41	(75.9)	29	(70.7)	12	(29.3)	13	(24.1)	0	(0.0)	54
Netherlands	671	(98.7)	376	(56.0)	329	(87.5)	47	(12.5)	295	(44.0)	9	(1.3)	680
Norway <sup>h</sup>	140	(89.2)	75	(53.6)	70	(93.3)	5	(6.7)	65	(46.4)	17	(10.8)	157
Poland	3446	(93.0)	3299	(95.7)	2826	(85.7)	473	(14.3)	147	(4.3)	258	(7.0)	3704
Portugal	1463	(97.3)	1059	(72.4)	922	(87.1)	137	(12.9)	404	(27.6)	41	(2.7)	1504
Romania	7591	(95.1)	6590	(86.8)	5937	(90.1)	653	(9.9)	1001	(13.2)	388	(4.9)	7979
Slovakia	134	(97.8)	117	(87.3)	85	(72.6)	32	(27.4)	17	(12.7)	3	(2.2)	137
Slovenia	79	(98.8)	67	(84.8)	64	(95.5)	3	(4.5)	12	(15.2)	1	(1.3)	80
Spain	3370	(96.1)	2405	(71.4)	2122	(88.2)	283	(11.8)	965	(28.6)	138	(3.9)	3508
Sweden	344	(96.4)	213	(61.9)	192	(90.1)	21	(9.9)	131	(38.1)	13	(3.6)	357
Subtotal EU/EEA	32 040	(95.6)	25 198	(78.6)	21710	(86.2)	3488	(13.8)	6842	(21.4)	1480	(4.4)	33520
Non-EU/EEA		(1.2.1)		(1.1.1)		,		,				(11.4)	
Albania	269	(100.0)	219	(81.4)	173	(79.0)	46	(21.0)	50	(18.6)	0	(0.0)	269
Andorra	2	(100.0)	2	(100.0)	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	2
Armenia	398	(93.4)	287	(72.1)	229	(79.8)	58	(20.2)	111	(27.9)	28	(6.6)	426
Azerbaijan	3 6 6 3	(74.1)	3108	(84.8)	2456	(79.0)	652	(21.0)	555	(15.2)	1281	(25.9)	4944
Belarus	1484	(87.5)	1381	(93.1)	1332	(96.5)	49	(3.5)	103	(6.9)	212	(12.5)	1696
Bosnia and Herzegovina	362	(99.7)	341	(94.2)	285	(83.6)	56	(16.4)	21	(5.8)	1	(0.3)	363
Georgia	1501	(91.2)	1181	(78.7)	1119	(94.8)	62	(5.2)	320	(21.3)	144	(8.8)	1645
Israel	213	(100.0)	137	(64.3)	104	(75.9)	33	(24.1)	76	(35.7)	0	(0.0)	213
Kazakhstan	9757	(97.5)	9247	(94.8)	7317	(79.1)	1930	(20.9)	510	(5.2)	251	(2.5)	10008
Kyrgyzstan	4596	(88.2)	3 593	(78.2)	2381	(66.3)	1212	(33.7)	1003	(21.8)	613	(11.8)	5209
Monaco	0	-	0	-	0	-	0	-	0	-	0	-	0
Montenegro	80	(96.4)	71	(88.8)	61	(85.9)	10	(14.1)	9	(11.3)	3	(3.6)	83
North Macedonia	143	(97.9)	125	(87.4)	108	(86.4)	17	(13.6)	18	(12.6)	3	(2.1)	146
Republic of Moldova	2067	(91.9)	1872	(90.6)	1376	(73.5)	496	(26.5)	195	(9.4)	181	(8.1)	2248
Russian Federation	56922	(71.4)	52331	(91.9)	29223	(55.8)	23108	(44.2)	4591	(8.1)	22764	(28.6)	79 686
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	445	(99.6)	319	(71.7)	187	(58.6)	132	(41.4)	126	(28.3)	2	(0.4)	447
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	_	-
Kosovo <sup>1</sup>	445	(99.6)	319	(71.7)	187	(58.6)	132	(41.4)	126	(28.3)	2	(0.4)	447
Switzerland	355	(97.5)	344	(96.9)	319	(92.7)	25	(7.3)	11	(3.1)	9	(2.5)	364
Tajikistan	4158	(96.7)	2792	(67.1)	2089	(74.8)	703	(25.2)	1366	(32.9)	141	(3.3)	4299
Türkiye	9047	(98.8)	5 6 8 2	(62.8)	4421	(77.8)	1261	(22.2)	3365	(37.2)	109	(1.2)	9156
Turkmenistan	1878	(77.5)	1464	(78.0)	744	(50.8)	720	(49.2)	414	(22.0)	544	(22.5)	2 422
Ukraine	18307	(92.5)	16751	(91.5)	12256	(73.2)	4 4 9 5	(26.8)	1556	(8.5)	1486	(7.5)	19793
United Kingdom <sup>h</sup>	4795	(100.0)	2532	(52.8)	2073	(81.9)	459	(18.1)	2263	(47.2)	0	(0.0)	4795
Uzbekistan	13 544	(87.7)	8235	(60.8)	5890	(71.5)	2345	(28.5)	5309	(39.2)	1906	(12.3)	15450
0 1 4 4 1 = 11/2= 4	133 986	(81.9)	112 014	(83.6)	74145	(66.2)	37869	(33.8)	21972	(16.4)	29 678	(18.1)	163 664
Subtotal non-EU/EEA Total European Region	166 026	(84.2)	137 212	(82.6)	17179	(69.9)	41357	(30.1)	28814	(17.4)	=/0/0	(15.8)	197184

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.

\*\*World Health Organization (WHO). Definitions and reporting framework for tuberculosis – 2013 revision: updated December 2014 and January 2020. Geneva: WHO; 2013. Available at: https://apps.who.int/iris/handle/10665/79199

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

\*\*Proportion of all TB cases.

\*\*Froportion of all TB cases.

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

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

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

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

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Table 7. TB cases according to EU case definition, EU/EEA, 2021

		All la	boratory-co	nfirmed cas	ses <sup>a</sup>								
Country	Meeting o smear-posi nucleic ac positive c	tive and id test-	Meeting o culture-p criter	ositive	Meeting crite		Confirmed	i cases <sup>b</sup>	Probable	cases	Possible	cases	All TB cases
	N	(%) <sup>c</sup>	N	(%)	N	(%) <sup>c</sup>	N	(%)⁴	N	(%)⁴	N	(%)⁴	N
Austria	11	(3.6)	226	(73.6)	70	(22.8)	307	(77.5)	57	(14.4)	32	(8.1)	396
Belgium	16	(2.4)	380	(56.3)	279	(41.3)	675	(77.1)	129	(14.7)	71	(8.1)	875
Bulgaria	0	(0.0)	339	(100.0)	0	(0.0)	339	(49.3)	62	(9.0)	286	(41.6)	687
Croatia	0	(0.0)	135	(100.0)	0	(0.0)	135	(86.0)	5	(3.2)	17	(10.8)	157
Cyprus	0	(0.0)	25	(67.6)	12	(32.4)	37	(77.1)	7	(14.6)	4	(8.3)	48
Czechia	4	(1.3)	147	(49.3)	147	(49.3)	298	(83.5)	45	(12.6)	14	(3.9)	357
Denmark	1	(0.6)	90	(54.5)	74	(44.8)	165	(79.3)	7	(3.4)	36	(17.3)	208
Estonia	1	(1.2)	36	(42.4)	48	(56.5)	85	(76.6)	14	(12.6)	12	(10.8)	111
Finland	1	(0.8)	94	(75.8)	29	(23.4)	124	(72.9)	30	(17.6)	16	(9.4)	170
France	0	(0.0)	1652	(100.0)	0	(0.0)	1652	(38.7)	808	(18.9)	1814	(42.4)	4 274
Germany	117	(3.8)	1611	(52.3)	1353	(43.9)	3 0 8 1	(79.1)	382	(9.8)	433	(11.1)	3896
Greece	9	(6.5)	108	(78.3)	21	(15.2)	138	(67.0)	42	(20.4)	26	(12.6)	206
Hungary	0	(0.0)	179	(100.0)	0	(0.0)	179	(53.4)	16	(4.8)	140	(41.8)	335
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	5	(3.4)	118	(80.8)	23	(15.8)	146	(67.3)	25	(11.5)	46	(21.2)	217
Italy	0	(0.0)	2146	(100.0)	0	(0.0)	2146	(86.5)	269	(10.8)	65	(2.6)	2480
Latvia	103	(48.6)	96	(45.3)	13	(6.1)	212	(81.2)	27	(10.3)	22	(8.4)	261
Liechtenstein	0	(0.0)	0	(0.0)	1	(100.0)	1	(100.0)	0	(0.0)	0	(0.0)	1
Lithuania	0	(0.0)	578	(100.0)	0	(0.0)	578	(89.5)	3	(0.5)	65	(10.1)	646
Luxembourg	0	(0.0)	30	(100.0)	0	(0.0)	30	(85.7)	0	(0.0)	5	(14.3)	35
Malta	0	(0.0)	38	(100.0)	0	(0.0)	38	(70.4)	1	(1.9)	15	(27.8)	54
Netherlands	10	(2.1)	307	(64.2)	161	(33.7)	478	(70.3)	79	(11.6)	123	(18.1)	680
Norway	0	(0.0)	85	(68.0)	40	(32.0)	125	(79.6)	17	(10.8)	15	(9.6)	157
Poland	0	(0.0)	2149	(70.2)	912	(29.8)	3061	(82.6)	74	(2.0)	569	(15.4)	3704
Portugal	40	(4.1)	758	(77.2)	184	(18.7)	982	(65.3)	250	(16.6)	272	(18.1)	1504
Romania	59	(1.0)	4 410	(71.6)	1687	(27.4)	6156	(77.2)	779	(9.8)	1044	(13.1)	7979
Slovakia	1	(1.3)	56	(73.7)	19	(25.0)	76	(55.5)	19	(13.9)	42	(30.7)	137
Slovenia	0	(0.0)	47	(62.7)	28	(37.3)	75	(93.8)	4	(5.0)	1	(1.3)	80
Spain	64	(2.5)	1857	(73.7)	600	(23.8)	2521	(71.9)	510	(14.5)	477	(13.6)	3508
Sweden	0	(0.0)	196	(68.3)	91	(31.7)	287	(80.4)	15	(4.2)	55	(15.4)	357
Total EU/EEA	442	(1.8)	17893	(74.2)	5792	(24.0)	24127	(72.0)	3676	(11.0)	5717	(17.1)	33520

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

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

Lulture-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, 2021°

		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	M/F ratio	N	(%)	Rate per	M/F ratio
EU/EEA																
Austria	5	(1.3)	1.2	0.7	9	(2.3)	1.1	1.3	58	(15.0)	6.1	3.8	125	(32.3)	5.2	1.5
Belgium <sup>b</sup>	12	(1.5)	2.0	1.0	29	(3.5)	2.2	1.4	182	(22.3)	13.9	3.9	324	(39.7)	10.8	1.5
Bulgaria	7	(1.0)	2.2	2.5	11	(1.6)	1.6	0.8	41	(6.1)	6.7	1.4	211	(31.4)	11.5	2.0
Croatia	0	(0.0)	0.0	-	0	(0.0)	0.0	-	8	(5.2)	1.8	1.7	24	(15.6)	2.3	3.0
Cyprus	0	(0.0)	0.0	-	0	(0.0)	0.0	-	11	(22.9)	9.7	1.8	27	(56.3)	9.6	0.7
Czechia	7	(2.0)	1.2	1.3	5	(1.4)	0.4	1.5	23	(6.5)	2.4	1.1	107	(30.4)	3.6	2.2
Denmark <sup>b</sup>	3	(1.6)	1.0	0.5	3	(1.6)	0.5	2.0	21	(11.0)	2.9	0.9	69	(36.1)	4.7	1.5
Estonia	0	(0.0)	0.0	-	0	(0.0)	0.0	-	8	(7.5)	6.4	1.0	29	(27.1)	7.9	2.6
Finland	2	(1.2)	0.8	1.0	2	(1.2)	0.3	N/M	20	(11.8)	3.3	2.3	45	(26.5)	3.2	2.0
France	79	(2.0)	2.2	1.0	88	(2.2)	1.1	1.3	710	(17.6)	8.9	2.6	1571	(38.9)	9.7	2.0
Germany	69	(1.8)	1.7	1.1	84	(2.2)	1.1	0.7	626	(16.5)	7.3	2.0	1438	(37.9)	6.9	1.8
Greece	3	(1.5)	0.7	N/F	2	(1.0)	0.2	1.0	54	(27.7)	4.9	4.4	73	(37.4)	2.8	2.2
Hungary	3	(1.0)	0.6	N/F	1	(0.3)	0.1	N/M	14	(4.5)	1.4	1.8	82	(26.1)	3.1	2.0
Iceland	_	(1.0)	-	-	-	(0.5)	-	-	-	(4.5)	-	-	-	(2011)	-	_
Ireland <sup>b</sup>	0	(0.0)	0.0	_	1	(0.5)	0.1	N/F	17	(8.1)	2.7	1.3	105	(50.0)	7.6	1.4
Italy	20	(0.8)	0.9	0.7	55	(2.3)	1.0	1.0	385	(16.2)	6.6	3.2	866	(36.4)	6.3	1.9
Latvia	0	(0.0)	0.0	-	5	(2.0)	2.4	0.7	8	(3.1)	-	1.7	96	(37.6)	19.3	2.8
Liechtenstein	0	(0.0)	0.0	-	0	(0.0)	0.0	-	0	(0.0)	0.0	-	0	(0.0)	0.0	-
Lithuania	3	(0.5)	2.1	0.5	10	(1.6)	3.5	1.0	23	(3.7)	8.1	0.9	192	(30.6)	26.4	2.1
Luxembourg	0	(0.0)	0.0	-	0	(0.0)	0.0	-	7	(20.6)	9.7	6.0	15	(44.1)	7.6	0.9
Malta	0	(0.0)	0.0	_	1	(1.9)	2.2	N/M	20	(37.0)	36.4	N/F	26	(48.1)	14.9	3.3
Netherlands	9	(1.3)	1.0	0.8	17	(2.5)	0.9	0.5	92	(13.7)	4.3	2.2	261	(38.9)	6.0	1.5
Norway <sup>b</sup>	1	(0.7)	0.4	N/M	4	(2.9)	0.6	0.3	17	(12.1)	2.6	0.4	72	(51.4)	5.0	0.8
Poland	14	(0.4)	0.7	1.8	23	(0.7)	0.6	0.9	165	(4.8)	4.3	1.4	1008	(29.3)	8.9	2.5
Portugal	22	(1.5)	5.0	2.1	19	(1.3)	2.0	0.4	120	(8.2)	11.0	1.9	378	(25.8)	14.9	1.6
Romania	93	(1.2)	9.2	1.2	188	(2.5)	9.3	0.8	685	(9.0)	33.8	1.1	2395	(31.6)	46.5	2.2
Slovakia	15	(11.2)	5.1	0.7	25	(18.7)	4.4	2.1	19	(14.2)	3.4	0.7	2595	(18.7)	1.5	4.0
Slovenia	1	(1.3)	1.0	N/F	1	(1.3)	0.5	N/M	2	(2.5)	1.0	1.0	16	(20.3)	2.9	0.8
	69	(2.0)	3.6	1.2		(2.1)	1.5	1.3	290	(8.6)			1123		9.1	1.4
Spain Sweden	4	(1.2)	0.7	1.0	72 10	(2.1)	0.8	0.4	61	(17.7)	6.1 5.3	1.9	1123	(33.3)	4.3	1.5
Subtotal EU/EEA	441	(1.4)	2.1	1.1	665	(2.1)	1.4	0.4	3687	(17.7)	7.7	1.9	10822	(33.8)	9.4	1.9
Non-EU/EEA	771	(1.7)	2.1	1+1	003	(2.1)	1.7	0.7	3007	(11.3)	1.1	1.7	10022	(33.6)	7.7	11.7
Albania	4	(1.5)	2.8	3.0	4	(1.5)	1.2	0.3	52	(19.3)	13.0	1.1	82	(30.5)	10.5	1.5
Andorra	0	(0.0)	0.0	J.U _	0	(0.0)	0.0	0.5	0	(0.0)	0.0	- 1.1	1	(50.0)	4.4	N/M
Armenia	9	(2.3)	4.9	-	9	(2.3)	2.3	1.3	32	(8.0)	9.8	2.6	141	(35.4)	16.2	2.4
	19	(0.7)	2.7	1.7	58	(2.3)	3.3	1.0	513	(20.2)			960	(37.9)	28.4	
Azerbaijan Belarus	2	(0.7)	0.4	N/F	3	(0.2)	0.3	2.0	51	(3.4)	37.5 5.5	1.8	529	(35.6)	19.0	1.9 3.1
Bosnia and Herzegovina	0	(0.0)		N/F	1								85			
			0.0			(0.3)	0.3	N/M	50	(13.8)	13.9	1.1		(23.5)	9.6	2.7
Georgia	11	(0.7)	4.2	1.2	36	(2.4)	6.8	0.8	166	(11.1)	39.1	1.2	605	(40.3)	57.9	1.7
Israel	7	(3.8)	0.8	6.0	3	(1.6)	0.2	0.5	7	(3.8)	0.5	0.8	67	(36.6)	2.9	1.2
Kazakhstan	74	(0.8)	3.7	1.2	226	(2.3)	6.2	0.9	1115	(11.4)	45.9	0.8	3797	(38.9)	68.2	1.6
Kyrgyzstan	68	(1.5)	8.4	1.1	171	(3.7)	11.8	0.9	845	(18.4)	81.0	1.1	1597	(34.7)	83.4	1.3
Monaco	0	- (0.0)			0	- (0.0)			0	- (< a)	-		0	(0 < 0)	-	-
Montenegro	0	(0.0)	0.0	-	0	(0.0)	0.0	-	5	(6.3)	6.4	1.5	21	(26.3)	12.1	0.9
North Macedonia	1	(0.7)	0.9	N/F	2	(1.4)	0.9	N/M	14	(9.6)	5.4	2.5	47	(32.2)	7.4	1.9
Republic of Moldova	25	(1.2)	12.3	0.7	64	(3.1)	15.8	0.7	86	(4.2)	25.7	1.4	870	(42.1)	92.8	3.0
Russian Federation	567	(1.0)	7.2	1.0	1179	(2.1)	6.6	0.9	2890	(5.1)	20.2	1.4	28815	(50.6)	65.6	2.5
San Marino	0	-	-	-	0	_	-	-	0	-	-	-	0	-	-	-
Serbia	5	(1.1)	1.4	N/M	5	(1.1)	0.7	0.7	85	(19.1)	11.4	0.9	134	(30.1)	6.7	1.6
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	_	-	-	-	-	-	-	-	_	-	-
Kosovo¹	5	(1.1)	1.4	N/M	5	(1.1)	0.7	0.7	85	(19.1)	11.4	0.9	134	(30.1)	6.7	1.6
Switzerland	4	(1.1)	0.9	1.0	3	(0.8)	0.3	2.0	52	(14.6)	5.8	2.3	153	(43.1)	6.4	1.1
Tajikistan	53	(1.3)	4.2	1.3	178	(4.3)	7.8	1.1	904	(21.7)	51.7	1.3	1561	(37.5)	56.4	1.1
Türkiye	137	(1.5)	2.1	1.4	250	(2.8)	1.9	0.7	1516	(16.8)	11.6	1.1	2 679	(29.6)	10.2	1.1
Turkmenistan	0	(0.0)	0.0	-	0	(0.0)	0.0	-	246	(13.3)	24.7	0.9	808	(43.6)	41.9	1.5
Ukraine	117	(0.6)	6.5	1.0	346	(1.9)	7.2	1.0	773	(4.2)	18.9	1.6	8471	(46.3)	64.5	2.4
United Kingdom <sup>b</sup>	40	(0.8)	1.1	1.4	100	(2.1)	1.2	0.9	571	(11.9)	7.3	1.7	2112	(44.0)	12.0	1.5
Uzbekistan	243	(1.8)	6.3	1.4	1582	(11.7)	24.7	1.1	1507	(11.1)	28.8	1.1	3914	(28.9)	36.1	1.2
Subtotal non-EU/EEA	1386	(1.0)	4.3	1.2	4220	(3.2)	6.2	0.9	11480	(8.6)	19.7	1.2	57449	(43.3)	40.4	2.0
Total European Region	1827	(1.1)	3.4	1.2	4885	(3.0)	4.3	0.9	15167	(9.2)	14.3	1.4	68 271	(41.4)	26.5	2.0
Subtotal 18 HPCs	1428	(1.1)	5.0	1.2	4316	(3.2)	7.4	0.9	11 409	(8.4)	23.0	1.2	57670	(42.6)	46.5	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. HPCs: high-priority countries.
F: female.
M: male
N/F: no females in the subgroup.
N/M: no males in the subgroup.
A Cases with unknown previous TB history are included among new TB cases.
Previous TB history is defined by previous diagnosis.
All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

	45	-64				> 64		ا	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
103	(26.6)	4.0	3.0	87	(22.5)	5.1	1.8	0	(0.0)	-	387	2.0	Austria
170	(20.8)	5.5	2.9	100	(12.2)	4.5	2.2	_ 0	(0.0)	-	817	2.1	Belgium <sup>b</sup>
272	(40.4)	13.9	2.0	131	(19.5)	8.7	1.9	0	(0.0)	-	673	1.9	Bulgaria
66	(42.9)	5.8	2.9	56	(36.4)	6.5	1.0	0	(0.0)	-	154	1.9	Croatia
10	(20.8)	4.8	1.0	0	(0.0)	0.0	-	0	(0.0)	-	48	0.9	Cyprus
132	(37.5)	4.7	4.7	78	(22.2)	3.6	2.1	0	(0.0)	-	352	2.6	Czechia
65	(34.0)	4.2	1.4	30	(15.7)	2.6	1.7	0	(0.0)	-	191	1.4	Denmark <sup>b</sup>
40	(37.4)	11.5	2.3	30	(28.0)	11.1	0.8	0	(0.0)	-	107	1.6	Estonia
24	(14.1)	1.7	1.4	77	(45.3)	6.1	1.8	0	(0.0)	-	170	1.7	Finland
822	(20.3)	4.7	1.5	772	(19.1)	5.5	1.8	0	(0.0)	-	4042	1.9	France
877	(23.1)	3.6	2.2	695	(18.3)	3.8	1.5	3	(0.1)	2.0	3792	1.8	Germany
32	(16.4)	1.1	4.3	31	(15.9)	1.3	2.2	0	(0.0)	-	195	2.9	Greece
135	(43.0)	5.1	2.8	79	(25.2)	4.0	1.6	0	(0.0)	-	314	2.2	Hungary
_	-	-	-	-	-	-	-	-	-	-	-	-	Iceland
58	(27.6)	4.8	2.2	29	(13.8)	3.9	2.2	0	(0.0)	-	210	1.7	Ireland <sup>b</sup>
619	(26.0)	3.4	1.9	431	(18.1)	3.1	1.5	2	(0.1)	1.0	2378	1.9	Italy
115	(45.1)	-	6.2	31	(12.2)	7.9	1.1	0	(0.0)	-	255	3.1	Latvia
1	(100.0)	8.4	N/F	0	(0.0)	0.0	-	0	(0.0)	-	1	N/F	Liechtenstein
294	(46.8)	36.2	3.7	106	(16.9)	19.0	1.3	0	(0.0)	-	628	2.3	Lithuania
10	(29.4)	5.9	2.3	2	(5.9)	2.2	N/F	0	(0.0)	-	34	1.8	Luxembourg
5	(9.3)	4.1	1.5	2	(3.7)	2.1	N/F	0	(0.0)	-	54	5.0	Malta
167	(24.9)	3.5	1.7	125	(18.6)	3.6	1.6	0	(0.0)	-	671	1.6	Netherlands
29	(20.7)	2.1	0.9	17	(12.1)	1.8	0.9	0	(0.0)	-	140	0.7	Norway <sup>b</sup>
1455	(42.2)	14.7	3.9	781	(22.7)	11.0	1.6	0	(0.0)	-	3446	2.5	Poland
513	(35.1)	17.4	2.5	405	(27.7)	17.5	1.8	6	(0.4)	2.0	1463	1.9	Portugal
3048	(40.2)	57.3	4.6	1182	(15.6)	31.9	1.8	0	(0.0)	-	7591	2.5	Romania
32	(23.9)	2.2	1.9	18	(13.4)	1.9	1.3	0	(0.0)	-	134	1.6	Slovakia
26	(32.9)	4.4	1.9	33	(41.8)	7.6	1.5	0	(0.0)	-	79	1.4	Slovenia
1040	(30.9)	7.5	2.2	764	(22.7)	8.2	1.5	12	(0.4)	0.6	3370	1.7	Spain
84	(24.4)	3.3	1.0	66	(19.2)	3.2	1.3	0	(0.0)	-	344	1.3	Sweden
10 244	(32.0)	8.1	2.9	6 158	(19.2)	6.6	1.6	23	(0.1)	1.0	32040	2.0	Subtotal EU/EEA
													Non-EU/EEA
67	(24.9)	9.0	5.1	60	(22.3)	12.9	1.9	0	(0.0)	-	269	1.9	Albania
1	(50.0)	3.9	N/F	0	(0.0)	0.0	-	0	(0.0)	-	2	1.0	Andorra
160	(40.2)	23.9	6.6	47	(11.8)	13.2	2.6	0	(0.0)	-	398	3.5	Armenia
794	(31.3)	33.0	2.5	191	(7.5)	27.6	1.5	0	(0.0)	-	2535	2.0	Azerbaijan
685	(46.2)	26.0	5.7	214	(14.4)	13.3	1.3	0	(0.0)	-	1484	3.3	Belarus
116	(32.0)	12.3	2.5	110	(30.4)	18.5	1.0	0	(0.0)	-	362	1.7	Bosnia and Herzegovina
509	(33.9)	53.7	3.9	174	(11.6)	31.8	2.0	0	(0.0)	-	1501	2.1	Georgia
53	(29.0)	3.2	1.8	46	(25.1)	4.3	0.8	0	(0.0)	-	183	1.2	Israel
3280	(33.6)	81.9	2.8	1265	(13.0)	82.9	1.0	0	(0.0)	-	9757		Kazakhstan
1272	(27.7)	123.0	1.9	643	(14.0)	224.6	1.0	0	(0.0)	-	4596		Kyrgyzstan
0	-	-	-	0	-	-	-	0	-	-	-		Monaco
41	(51.3)	25.6	1.7	13	(16.3)	12.7	0.9	0	(0.0)	-	80		Montenegro
55	(37.7)	9.8	5.9	27	(18.5)	8.7	1.3	0	(0.0)	-	146		North Macedonia
835	(40.4)	109.0	5.2	187	(9.0)	44.9	2.3	0	(0.0)	-	2067	3.1	Republic of Moldova
18604	(32.7)	48.2	3.3	4487	(7.9)	19.8	1.2	380	(0.7)	5.1	56922	2.4	Russian Federation
0	-	-	-	0	-	-	-	0	-	-	0	-	San Marino
120	(27.0)	6.0	1.9	96	(21.6)	6.3	1.2	0	(0.0)	-	445	1.3	Serbia
-	-	-	-	-	-	-	-	-	-	-	-		Serbia excluding Koso
120	(27.0)	6.0	1.9	96	(21.6)	6.3	1.2	0	(0.0)	-	445		Kosovo¹
85	(23.9)	3.5	1.4	58	(16.3)	3.5	1.1	0	(0.0)	-	355		Switzerland
1032	(24.8)	76.0	1.0	430	(10.3)	132.7	0.8	0	(0.0)	-	4158		Tajikistan
2701	(29.9)	14.7	1.8	1764	(19.5)	24.8	1.3	0	(0.0)	-	9047	1.3	Turkey
622	(33.5)	55.3	2.2	178	(9.6)	57.1	0.9	0	(0.0)	-	1854	1.5	Turkmenistan
6955	(38.0)	57.5	3.3	1645	(9.0)	21.7	1.3	0	(0.0)	-	18307		Ukraine
1292	(26.9)	7.5	1.8	680	(14.2)	5.3	1.4	0	(0.0)	-	4795	1.5	United Kingdom <sup>b</sup>
4199	(31.0)	69.1	1.3	2099	(15.5)	123.6	0.9	0	(0.0)	-	13 544		Uzbekistan
43 478	(32.7)	37.5	2.6	14 414	(10.9)	22.7	1.1	380	(0.3)	5.1	132807	1.9	Subtotal non-EU/EEA
53722	(32.6)	22.2	2.7	20572	(12.5)	13.0	1.3	403	(0.2)	4.5	164847	1.9	Total European Region
					(10.9)	28.7	1.2	380	(0.3)	5.1	135 424		Subtotal 18 HPCs

<sup>1</sup> All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 9. TB cases by origin, European Region, 2021

Country/area	Origin criterion	Native		Foreign		Unknown or		All TB cases
Country/area	Origin criterion	N	(%)	N	(%)	N	(%)	N
EU/EEA								
Austria	Citizenship	144	(36.4)	252	(63.6)	0	(0.0)	396
Belgium	Citizenship	326	(37.3)	549	(62.7)	0	(0.0)	875
Bulgaria	Birthplace	686	(99.9)	1	(0.1)	0	(0.0)	687
Croatia	Birthplace	157	(100.0)	0	(0.0)	0	(0.0)	157
Cyprus	Birthplace	2	(4.2)	46	(95.8)	0	(0.0)	48
Czechia	Birthplace	225	(63.0)	132	(37.0)	0	(0.0)	357
Denmark	Birthplace	61	(29.3)	147	(70.7)	0	(0.0)	208
Estonia	Birthplace	92	(82.9)	19	(17.1)	0	(0.0)	111
Finland	Birthplace	96	(56.5)	70	(41.2)	4	(2.4)	170
France	Birthplace	1148	(26.9)	2 610	(61.1)	516	(12.1)	4274
Germany	Birthplace	976	(25.1)	2782	(71.4)	138	(3.5)	3896
Greece	Citizenship	58	(28.2)	148	(71.8)	0	(0.0)	206
Hungary	Citizenship	306	(91.3)	29	(8.7)	0	(0.0)	335
Iceland	-	_	-	-	-	_	-	_
Ireland	Birthplace	44	(20.3)	122	(56.2)	51	(23.5)	217
Italy	Birthplace	981	(39.6)	1437	(57.9)	62	(2.5)	2480
Latvia	Birthplace	245	(93.9)	6	(2.3)	10	(3.8)	261
Liechtenstein		1	(100.0)	0	(0.0)	0	(0.0)	1
Lithuania	Birthplace Birthplace	639	(98.9)	7	(1.1)	0	(0.0)	646
	,							
Luxembourg	Birthplace	2	(5.7)	33	(94.3)	0	(0.0)	35
Malta	Birthplace	1	(1.9)	53	(98.1)	0	(0.0)	54
Netherlands	Birthplace	141	(20.7)	532	(78.2)	7	(1.0)	680
Norway	Birthplace	27	(17.2)	130	(82.8)	0	(0.0)	157
Poland	Citizenship	3572	(96.4)	132	(3.6)	0	(0.0)	3704
Portugal	Birthplace	1117	(74.3)	385	(25.6)	2	(0.1)	1504
Romania	Birthplace	7933	(99.4)	46	(0.6)	0	(0.0)	7979
Slovakia	Birthplace	130	(94.9)	7	(5.1)	0	(0.0)	137
Slovenia	Birthplace	42	(52.5)	38	(47.5)	0	(0.0)	80
Spain	Birthplace	1498	(42.7)	1303	(37.1)	707	(20.2)	3508
Sweden	Birthplace	39	(10.9)	318	(89.1)	0	(0.0)	357
Subtotal EU/EEA	-	20689	(61.7)	11334	(33.8)	1497	(4.5)	33520
Non-EU/EEA								
Albania	Citizenship	269	(100.0)	0	(0.0)	-	-	269
Andorra	Citizenship	2	(100.0)	0	(0.0)	-	-	2
Armenia	Citizenship	424	(99.5)	2	(0.5)	_	-	426
Azerbaijan	_							
Belarus		-	-	_	_	_	_	_
	Citizenshin	1696	(100.0)		(0.0)	-	-	1696
Rosnia and Herzegovina	Citizenship Birthplace	1696 353	(100.0) (97.2)	0	(0.0)	-	-	1696 363
Bosnia and Herzegovina	Citizenship Birthplace	353	(100.0) (97.2)		(0.0) (2.8)	-	-	1696 363
Georgia	Birthplace -	353	(97.2)	0 10 -	(2.8)	- - -	- - -	363 -
Georgia Israel	Birthplace – Birthplace	353 - 42	(97.2) - (19.7)	0 10 - 171	(2.8) - (80.3)	- - -	- - -	363 - 213
Georgia Israel Kazakhstan	Birthplace  Birthplace Citizenship	353 - 42 9852	(97.2) - (19.7) (98.4)	0 10 - 171 156	(2.8) - (80.3) (1.6)	- - - -	- - - -	363 - 213 10 008
Georgia Israel Kazakhstan Kyrgyzstan	Birthplace – Birthplace	353 - 42 9852 5209	(97.2) - (19.7)	0 10 - 171 156 0	(2.8) - (80.3)	- - - - -	- - - -	363 - 213 10008 5209
Georgia Israel Kazakhstan Kyrgyzstan Monaco	Birthplace  Birthplace  Citizenship Birthplace  -	353 - 42 9852 5209 0	(97.2) - (19.7) (98.4) (100.0)	0 10 - 171 156 0	(2.8) - (80.3) (1.6) (0.0)	-	-	363 - 213 10008 5209
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro	Birthplace  Birthplace Citizenship Birthplace  Citizenship	353 - 42 9852 5 209 0 81	(97.2) - (19.7) (98.4) (100.0) - (97.6)	0 10 - 171 156 0 0	(2.8) - (80.3) (1.6) (0.0) - (2.4)	- - - - - -	- - - - - -	363 - 213 10008 5209 0
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia	Birthplace  Birthplace Citizenship Birthplace  Citizenship Birthplace  Citizenship Birthplace	353 - 42 9852 5209 0 81 143	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9)	0 10 - 171 156 0 0 2	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1)	-	-	363 - 213 10008 5209 0 83 146
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova	Birthplace Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship	353 - 42 9852 5209 0 81 143 2228	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1)	0 10 - 171 156 0 0 2 3	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9)	- - - - - -	- - - - - -	363 - 213 10008 5209 0 83 146 2248
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation	Birthplace Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship	353 - 42 9852 5209 0 81 143 2228 77771	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9)	0 10 - 171 156 0 0 2 3 20 1915	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1)	-	-	363  213 10008 5209 0 83 146 2248 79686
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino	Birthplace Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship	353 - 42 9852 5209 0 81 143 2228 77771	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6)	0 10 - 171 156 0 0 2 3 20 1915	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4)	-	-	363 - 213 10008 5209 0 83 146 2248 79686
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Citizenship	353 - 42 9852 5209 0 81 143 2228 77771	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1)	0 10 - 171 156 0 0 2 3 20 1915	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9)	-	-	363  213 10008 5209 0 83 146 2248 79686
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Sirthplace Citizenship Citizenship Birthplace	353 - 42 9852 5209 0 81 143 2228 77771	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6)	0 10 - 171 156 0 0 2 3 20 1915	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4)	-	-	363 - 213 10008 5209 0 83 146 2248 79686 0 447
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Birthplace Citizenship Birthplace Birthplace	353 - 42 9852 5209 0 81 143 2228 77771 0 447 - 447	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) - (100.0)	0 10 - 171 156 0 0 2 3 20 1915 0 0	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0)	-	-	363 - 213 10008 5209 0 83 146 2248 79686 0 447 - 447
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Sirthplace Citizenship Citizenship Birthplace	353 - 42 9852 5209 0 81 143 2228 77771 0 447	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) - (100.0) (29.4)	0 10 - 171 156 0 0 2 3 20 1915 0	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0) (70.6)	-	-	363 
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Citizenship Birthplace  Birthplace  Birthplace  Birthplace	353 - 42 9852 5209 0 81 143 2228 77771 0 447 - 447	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) - (100.0) (29.4) (99.7)	0 10 - 171 156 0 0 2 3 20 1915 0 0	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0) (70.6) (0.3)	-	-	363 
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Birthplace Citizenship Birthplace Birthplace	353 - 42 9852 5209 0 81 143 2228 77771 0 447 - 447 107	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) - (100.0) (29.4)	0 10 - 171 156 0 0 2 3 20 1915 0 0 - 0	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0) (70.6)	-	-	363 - 213 10008 5209 0 83 146 2248 79686 0 447 - 447 364 4299
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Citizenship Birthplace  Birthplace  Birthplace  Birthplace	353 - 42 9852 5209 0 81 143 2228 77771 0 447 - 447 107 4288	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) - (100.0) (29.4) (99.7)	0 10 - 171 156 0 0 2 3 20 1915 0 0 0 2 7	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0) (70.6) (0.3)	-	-	363 - 213 10008 5209 0 83 146 2248 79686 0 447 - 447 364 4299 9156
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Gitizenship Birthplace  Birthplace Birthplace Birthplace Birthplace Birthplace	353 - 42 9852 5209 0 81 143 2228 77771 0 447 - 447 107 4288 7720	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) - (100.0) (29.4) (99.7) (84.3) (100.0)	0 10 - 171 156 0 0 2 3 20 1915 0 0 - 0 2 57 11	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0) (70.6) (0.3) (15.7) (0.0)	-	-	363 - 213 10008 5209 0 83 146 2248 79686 0 447 - 447 - 447 364 4299 9156 2422
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Birthplace Birthplace  Birthplace Birthplace Citizenship Citizenship Citizenship	353 - 42 9852 5209 0 81 143 2228 77771 0 447 - 447 107 4288 7720 2422 19761	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) - (100.0) (29.4) (99.7) (84.3) (100.0) (99.8)	0 10 - 171 156 0 0 2 3 20 1915 0 0 - 0 257 11 1436 0 32	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0) (70.6) (0.3) (15.7) (0.0) (0.2)		-	363 - 213 10008 5209 0 83 146 2248 79686 0 447 - 447 - 447 364 4299 9156 2422 19793
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Birthplace Birthplace Birthplace Birthplace Citizenship Citizenship Birthplace Citizenship	353 - 42 9852 5209 0 81 143 2228 77771 0 4447 - 447 107 4288 7720 2422 19761 1195	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) (100.0) (29.4) (99.7) (84.3) (100.0) (99.8) (24.9)	0 10 - 171 156 0 0 2 3 20 1915 0 0 - 0 257 11 1436 0 32 3600	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0) (70.6) (0.3) (15.7) (0.0) (0.2) (75.1)		-	363 - 213 10008 5209 0 83 146 2248 79686 0 4447 - 447 364 4299 9156 2422 19793 4795
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom Uzbekistan	Birthplace	353 - 42 9852 5209 0 81 143 2228 77771 0 447 - 447 107 4288 7720 2422 19761 1195 15450	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) - (100.0) (29.4) (99.7) (84.3) (100.0) (99.8) (24.9) (100.0)	0 10  171 156 0 0 2 3 20 1915 0 0  0 257 11 1436 0 32 3600 0	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0) (70.6) (0.3) (15.7) (0.0) (0.2) (75.1) (0.0)		-	363 - 213 10008 5209 0 83 146 2248 79686 0 447 - 447 364 4299 9156 2422 19793 4795 15450
Georgia Israel Kazakhstan Kyrgyzstan Monaco Montenegro North Macedonia Republic of Moldova Russian Federation San Marino Serbia Serbia excluding Kosovo¹ Kosovo¹ Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdom	Birthplace  Birthplace Citizenship Birthplace Citizenship Birthplace Citizenship Citizenship Birthplace Birthplace Birthplace Birthplace Citizenship Citizenship Birthplace Citizenship	353 - 42 9852 5209 0 81 143 2228 77771 0 4447 - 447 107 4288 7720 2422 19761 1195	(97.2) - (19.7) (98.4) (100.0) - (97.6) (97.9) (99.1) (97.6) - (100.0) (100.0) (29.4) (99.7) (84.3) (100.0) (99.8) (24.9)	0 10 - 171 156 0 0 2 3 20 1915 0 0 - 0 257 11 1436 0 32 3600	(2.8) - (80.3) (1.6) (0.0) - (2.4) (2.1) (0.9) (2.4) - (0.0) - (0.0) (70.6) (0.3) (15.7) (0.0) (0.2) (75.1)		-	363 - 213 10008 5209 0 83 146 2248 79686

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.

1 All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 10. Drug-resistance surveillance of bacteriologically confirmed pulmonary TB cases, European Region, 2021

Country/area	Source of data	Coverage	Bacteriolo confirmed		Cases wit results at for R	least	Cases re to R		MDR-TB	cases <sup>b</sup>	All pulmonary TB cases	Reporting completeness
			N	(%)	N	(%)	N	(%)	N	(%)	N	
EU/EEA												
Austria	TESSy	National	266	(91.1)	226	(85.0)	8	(3.5)	8	(3.6)	292	Υ
Belgium	TESSy	National	547	(90.3)	470	(85.9)	6	(1.3)	6	(1.3)	606	Υ
Bulgaria	TESSy	National	339	(60.3)	174	(51.3)	4	(2.3)	4	(2.3)	562	Υ
Croatia	TESSy	National	119	(91.5)	79	(66.4)	0	(0.0)	0	(0.0)	130	Y
Cyprus	TESSy	National	33	(86.8)	32	(97.0)	3	(9.4)	3	(9.4)	38	Υ
Czechia	TESSy	National	287	(89.4)	254	(88.5)	9	(3.5)	9	(3.5)	321	Y
Denmark	TESSy	National	131	(84.0)	125	(95.4)	1	(0.8)	1	(0.8)	156	Υ
Estonia	TESSy	National	90	(84.1)	87	(96.7)	25	(28.7)	23	(28.4)	107	Y
Finland	TESSy	National	106	(90.6)	91	(85.8)	3	(3.3)	3	(3.3)	117	Υ
France	TESSy	National	1178	(40.9)	38	(3.2)	38	(100.0)	38	(100.0)	2879	Υ
Germany	TESSy	National	2 453	(88.9)	2048	(83.5)	85	(4.2)	67	(3.3)	2760	Υ
Greece	TESSy	National	140	(80.9)	69	(49.3)	5	(7.2)	5	(7.4)	173	Y
Hungary	TESSy	National	178	(55.5)	165	(92.7)	12	(7.3)	10	(6.1)	321	Υ
Iceland	-	- N. C. 1	- 04	(00.7)	-	(04.5)	-	- (( 1)	-	- (1.6)	-	N
Ireland	TESSy	National	81	(82.7)	66	(81.5)	4	(6.1)	3	(4.6)	98	Υ
Italy <sup>d</sup>	NRL-TME <sup>d</sup>	Partial	1791	(97.3)	1406	(78.5)	44	(3.1)	40	(2.8)	1840	N
Latvia	TESSY	NATIONAL	220	(89.4)	188	(85.5)	19	(10.1)	17	(9.1)	246	Y
Liechtenstein Lithuania	TESSy	National	1	(100.0)	1	(100.0)	105	(0.0)	0	(0.0)	594	Y
	TESSy	<i>National</i> National	561 27	(94.4)	561 26	(100.0) (96.3)	0	(18.7)	98	(17.5)	29	Y
Luxembourg Malta	TESSy	National	28	(93.1) (68.3)	27	(96.4)	1	(3.7)	0	(0.0)	41	Υ
Netherlands	TESSy	National	332	(87.1)	285	(85.8)	10	(3.5)	8	(2.8)	381	Υ
Norway	TESSy	National	77	(91.7)	76	(98.7)	8	(10.5)	8	(10.7)	84	Y
Poland	TESSy	National	3 011	(84.7)	2748	(91.3)	58	(2.1)	54	(2.0)	3553	Y
Portugal	TESSy	National	853	(79.5)	514	(60.3)	8	(1.6)	7	(1.4)	1073	Y
Romania	TESSy	National	6103	(87.5)	5611	(91.9)	257	(4.6)	190	(3.6)	6971	Y
Slovakia	TESSy	National	87	(72.5)	74	(85.1)	5	(6.8)	4	(5.4)	120	Y
Slovenia	TESSy	National	65	(95.6)	64	(98.5)	1	(1.6)	1	(1.6)	68	Y
Spain	TESSy	National	2089	(83.3)	1198	(57.3)	28	(2.3)	20	(1.7)	2507	Y
Sweden	TESSy	National	199	(90.0)	192	(96.5)	4	(2.1)	3	(1.6)	2307	Y
Subtotal EU/EEA	- IE33y	-	21392	(82.1)	16895	(79.0)	751	(4.4)	630	(3.8)	26 289	_
Non-EU/EEA			21372	(62.1)	10073	(/ 7.0)	731	(4.4)	050	(5.6)	20207	
Albania	NRL-TME	National	173	(79.0)	158	(91.3)	6	(3.8)	1	(1.0)	219	Υ
Andorra	NRL-TME	National	2	(100.0)	2	(100.0)	0	(0.0)	0	(0.0)	2	Y
Armenia	NRL-TME	National	256	(81.3)	256	(100.0)	64	(25.0)	60	(23.4)	315	Y
Azerbaijan	NRL-TME	National	3 634	(82.8)	3568	(98.2)	659	(18.5)	389	(10.9)	4390	Y
Belarus	NRL-TME	National	1531	(96.1)	1531	(100.0)	757	(49.4)	695	(45.4)	1593	Y
Bosnia and Herzegovina	NRL-TME	National	285	(83.6)	279	(97.9)	1	(0.4)	0	(0.0)	341	Y
Georgia	NRL-TME	National	1241	(94.7)	1220	(98.3)	180	(14.8)	146	(15.1)	1311	Y
Israel	NRL-TME	National	104	(75.9)	104	(100.0)	9	(8.7)	9	(8.7)	137	Ϋ́
Kazakhstan	NRL-TME	National	7536	(79.3)	7522	(99.8)	2943	(39.1)	2265	(30.1)	9498	Y
Kyrgyzstan	NRL-TME	National	2762	(66.5)	2601	(94.2)	839	(32.3)	685	(32.6)	4152	Y
Monaco	-	-	-	-	-	-	-	-	-	-	0	-
Montenegro	NRL-TME	National	61	(85.9)	61	(100.0)	0	(0.0)	0	(0.0)	71	Υ
North Macedonia	NRL-TME	National	111	(84.7)	111	(100.0)	2	(1.8)	0	(0.0)	131	Υ
Republic of Moldova	NRL-TME	-	1557	(73.7)	1503	(96.5)	459	(30.5)	454	(35.0)	2112	Υ
Russian Federation	NRL-TME	National	42769	(57.2)	40222	(94.0)	20452	(50.8)	19246	(47.8)	74798	Υ
San Marino	-	-	-	-	-	-	-	-	-	-	-	N
Serbia	-	-	0	-	0	-	0	-	0	-	0	N
Serbia excluding Kosovo <sup>1</sup>	-	-	0	-	0	-	0	-	0	-	0	N
Kosovo¹	-	-	0	-	0	-	0	-	0	-	0	N
Switzerland	NRL-TME	Subnational	327	(90.8)	227	(69.4)	5	(2.2)	5	(2.2)	360	N
Tajikistan	NRL-TME	National	2190	(75.3)	2167	(98.9)	606	(28.0)	335	(18.1)	2907	Υ
Türkiye	NRL-TME	National	4478	(77.6)	3902	(87.1)	120	(3.1)	102	(2.6)	5768	Υ
Turkmenistan	-	-	836	(41.7)	836	(100.0)	416	(49.8)	0	-	2006	Υ
Ukraine	NRL-TME	National	13 571	(74.6)	13 214	(97.4)	4 025	(30.5)	3099	(23.5)	18199	Υ
United Kingdom	TESSy	National	2073	(81.9)	1812	(87.4)	38	(2.1)	33	(1.8)	2532	Υ
Uzbekistan	NRL-TME	National	6797	(69.2)	6797	(100.0)	1652	(24.3)	1510	(22.2)	9816	Y
Subtotal non-EU/EEA	-	-	92294	(65.6)	88093	(95.4)	33233	(37.7)	29034	(33.8)	140 658	-
Total European Region	-	-	113 686	(68.1)	104988	(92.3)	33984	(32.4)	29 664	(28.9)	166 947	-
		-		(66.4)	91960	(95.3)	33582	(36.5)	29318	(32.6)	145 345	-

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.
HPCs: high-priority countries.
MDR-TB: multidrug-resistant tuberculosis.
N: no.
NRL: national reference laboratory.
RIF: rifampicin.
TESSy: The European Surveillance System.
TME: WHO global TB data-collection system.
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: cases with positive identification for 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).

  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 of reported year.

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

  All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 11. Drug-resistance surveillance of bacteriologically confirmed pulmonary TB cases by previous TB treatment history, European Region, 2021

	New cas DST resul		New RR/I		Ne bacteriol confir 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	(%) <sup>g</sup>
EU/EEA																
Austria	165	(95.9)	8	(4.8)	172	(83.1)	207	(90.8)	12	(80.0)	0	(0.0)	15	(71.4)	21	(9.2)
Belgium <sup>k</sup>	377	(92.6)	3	(0.8)	407	(85.1)	478	(93.0)	24	(92.3)	2	(8.3)	26	(72.2)	36	(7.0)
Bulgaria	156	(51.8)	2	(1.3)	301	(60.6)	497	(88.4)	18	(50.0)	2	(11.1)	36	(55.4)	65	(11.6)
Croatia	62	(63.3)	0	(0.0)	98	(90.7)	108	(93.9)	4	(66.7)	0	(0.0)	6	(85.7)	7	(6.1)
Cyprus	29	(100.0)	3	(10.3)	29	(82.9)	35	(94.6)	2	(100.0)	0	(0.0)	2	(100.0)	2	(5.4)
Czechia	239	(94.5)	9	(3.8)	253	(84.9)	298	(92.8)	15	(83.3)	0	(0.0)	18	(78.3)	23	(7.2)
Denmark <sup>k</sup>	113	(99.1)	1	(0.9)	114	(81.4)	140	(89.7)	12	(100.0)	0	(0.0)	12	(75.0)	16	(10.3)
Estonia	71	(100.0)	15	(21.1)	71	(80.7)	88	(82.2)	13	(100.0)	9	(69.2)	13	(68.4)	19	(17.8)
Finland	87	(97.8)	2	(2.3)	89	(80.2)	111	(98.2)	0	(0.0)	0	(0.0)	0	(0.0)	2	(1.8)
France	17	(2.4)	17	(100.0)	698	(40.7)	1715	(90.5)	6	(8.2)	6	(100.0)	73	(40.8)	179	(9.5)
Germany	1424	(89.3)	53	(3.7)	1594	(84.2)	1892	(91.7)	106	(86.2)	8	(7.5)	123	(71.5)	172	(8.3)
Greece	54	(60.7)	5	(9.3)	89	(67.4)	132	(91.7)	3	(60.0)	0	(0.0)	5	(41.7)	12	(8.3)
	142	(92.2)	7	(4.9)	154	(55.0)	280	(87.2)	23	(95.8)	5	(21.7)	24	(58.5)	41	(12.8)
Hungary Iceland	142	(92.2)	-	(4.7)	154	(55.0)	200	(07.2)	-	(93.0)	_	(21./)		(36.3)	41	(12.0)
Ireland <sup>k</sup>	40	(87.0)	0	(0.0)	46	(85.2)	54	(90.0)	4	(100.0)	2	(50.0)	4	(66.7)	6	(10.0)
	1391		40	(2.9)	1203	(99.8)	1206	(90.0)	15	(17.0)	4	(26.7)	88	(98.9)	89	(6.9)
Italy		(115.6)														
Liashtanstain	153	(85.5)	13	(8.5)	179	(86.9)	206	(87.7)	24	(96.0)	5	(20.8)	25 0	(86.2)	29	(12.3)
Liechtenstein	1	(100.0)	0	(0.0)	1	(100.0)	1	(100.0)		(0.0)	0	(0.0)		(0.0)	0	(0.0)
Lithuania	465	(100.0)	73	(15.7)	465	(93.4)	498	(83.8)	96	(100.0)	32	(33.3)	96	(100.0)	96	(16.2)
Luxembourg	21	(95.5)	0	(0.0)	22	(91.7)	24	(96.0)	1	(100.0)	0	(0.0)	1	(100.0)	1	(4.0)
Malta	27	(96.4)	1	(3.7)	28	(68.3)	41	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	269	(93.4)	8	(3.0)	288	(80.4)	358	(94.2)	15	(88.2)	2	(13.3)	17	(77.3)	22	(5.8)
Norwayk	66	(100.0)	6	(9.1)	66	(90.4)	73	(86.9)	9	(90.0)	2	(22.2)	10	(90.9)	11	(13.1)
Poland	2 415	(93.5)	39	(1.6)	2582	(83.7)	3084	(86.8)	333	(85.8)	19	(5.7)	388	(82.7)	469	(13.2)
Portugal	481	(64.4)	5	(1.0)	747	(74.7)	1000	(93.2)	33	(58.9)	3	(9.1)	56	(76.7)	73	(6.8)
Romania	4290	(92.5)	114	(2.7)	4638	(85.0)	5 457	(78.3)	1202	(92.4)	135	(11.2)	1301	(85.9)	1 514	(21.7)
Slovakia	65	(98.5)	3	(4.6)	66	(61.7)	107	(93.9)	5	(100.0)	2	(40.0)	5	(71.4)	7	(6.1)
Slovenia	58	(100.0)	1	(1.7)	58	(93.5)	62	(91.2)	6	(100.0)	0	(0.0)	6	(100.0)	6	(8.8)
Spain	1040	(81.3)	24	(2.3)	1279	(82.8)	1545	(93.8)	60	(69.0)	1	(1.7)	87	(85.3)	102	(6.2)
Sweden	173	(100.0)	4	(2.3)	173	(88.3)	196	(95.6)	8	(100.0)	0	(0.0)	8	(88.9)	9	(4.4)
Subtotal EU/EEA	13 891	(87.3)	456	(3.3)	15 9 10	(80.0)	19 893	(86.8)	2049	(83.8)	239	(11.7)	2445	(80.7)	3029	(13.2)
Non-EU/EEA		(-, -)		()		()		()		()		()		(		()
Albania	154	(91.7)	5	(3.2)	168	(79.6)	211	(96.3)	4	(80.0)	1	(25.0)	5	(62.5)	8	(3.7)
Andorra	2	(100.0)	0	(0.0)	2	(100.0)	2	(100.0)	0	_	0	_	0	-	0	(0.0)
Armenia	209	(100.0)	44	(21.1)	209	(79.2)	264	(83.8)	47	(100.0)	20	(42.6)	47	(92.2)	51	(16.2)
Azerbaijan	1409	(96.1)	172	(12.2)	1466	(72.5)	2022	(46.1)	2159	(99.6)	487	(22.6)	2168	(91.6)	2368	(53.9)
Belarus	1032	(100.0)	390	(37.8)	1032	(95.6)	1079	(67.7)	499	(100.0)	367	(73.5)	499	(97.1)	514	(32.3)
Bosnia and Herzegovina	255	(97.7)	1	(0.4)	261	(84.5)	309	(90.6)	24	(100.0)	0	(0.0)	24	(75.0)	32	(9.4)
Georgia	953	(99.8)	101	(10.6)	955	(94.8)	1007	(76.8)	267	(93.4)	79	(29.6)	286	(94.1)	304	(23.2)
Israel	103	(100.0)	9	(8.7)	103	(77.4)	133	(97.1)	1	(100.0)	0	(0.0)	1	(25.0)	4	(2.9)
Kazakhstan	5121	(99.9)	1932	(37.7)	5127	(77.3)	6 629	(69.8)	2401	(99.7)	1 011	(42.1)	2409	(84.0)	2869	(30.2)
Kyrgyzstan	1932	(94.0)	500	(25.9)	2 0 5 5	(69.4)	2959	(71.3)	669	(94.6)	339	(50.7)	707	(59.3)	1193	(28.7)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	55	(100.0)	0	(0.0)	55	(85.9)	64	(90.1)	6	(100.0)	0	(0.0)	6	(85.7)	7	(9.9)
North Macedonia	100	(100.0)	1	(1.0)	100	(87.7)	114	(87.0)	11	(100.0)	1	(9.1)	11	(64.7)	17	(13.0)
Republic of Moldova	991	(96.4)	256	(25.8)	1028	(71.6)	1436	(68.0)	512	(96.8)	203	(39.6)	529	(78.3)	676	(32.0)
Russian Federation	21391	(93.5)	7707	(36.0)	22 873	(55.2)	41447	(55.4)	18831	(94.6)	12745	(67.7)	19896	(59.7)	33 351	(44.6)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kosovo¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	220	(87.3)	5	(2.3)	252	(73.3)	344	(95.6)	7	(87.5)	0	(0.0)	8	(50.0)	16	(4.4)
Tajikistan	1862	(100.0)	501	(26.9)	1862	(74.4)	2502	(86.1)	305	(93.0)	105	(34.4)	328	(81.0)	405	(13.9)
Türkiye	3 654	(87.7)	95	(2.6)	4166	(77.8)	5353	(92.8)	248	(79.5)	25	(10.1)	312	(75.2)	415	(7.2)
Turkmenistan	541	(100.0)	251	(46.4)	541	(50.7)	1067	(53.2)	295	(100.0)	165	(55.9)	295	(31.4)	939	(46.8)
Ukraine	9 2 3 7	(97.5)	2 418	(26.2)	9 476	(71.2)	13 3 0 6	(73.1)	3977	(97.1)	1607	(40.4)	4095	(83.7)	4893	(26.9)
United Kingdom <sup>k</sup>	1734	(87.9)	33	(1.9)	1972	(82.0)	2405	(95.0)	78	(77.2)	5	(6.4)	101	(79.5)	127	(5.0)
Uzbekistan	4929	(100.0)	912	(18.5)	4929	(69.9)	7053	(71.9)	1868	(100.0)	740	(39.6)	1868	(67.6)	2763	(28.1)
Subtotal non-EU/EEA	55884	(95.3)	15333	(27.4)	58632	(65.4)	89706	(63.8)	32209	(95.9)	17900	(55.6)	33595	(65.9)	50952	(36.2)
Total European Region	69775	(93.6)	15789	(22.6)	74542	(68.0)	109599	(67.0)	34258	(95.1)	18139	(52.9)	36040	(66.8)	53981	(33.0)
Subtotal 18 HPCs	58396	(95.1)	15496	(26.5)	61373	(66.1)	92870	(63.9)	33 431	(95.8)	18 076	(54.1)	34910	(66.5)	52464	(36.1)

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.
HPCs: high-priority countries.
RIF: rifampicin.
RR/MDR: rifampicin-resistant or multidrug-resistant tuberculosis.
TESSy: The European Surveillance 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: 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).

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Total cas DST resul		Total RR/M	MDR-TB cases	To bacteriol confii pulmon cas	ogically med ary TB	Total puli TB ca		
N	(%)h	N	(%) <sup>i</sup>	N	(%) <sup>g</sup>	N	(%) <sup>j</sup>	
								EU/EEA
177	(94.7)	8	(4.5)	187	(82.0)	228	(57.6)	Austria
401	(92.6)	5	(1.2)	433	(84.2)	514	(58.7)	Belgium <sup>k</sup>
174	(51.6)	4	(2.3)	337	(60.0)	562	(81.8)	Bulgaria
66	(63.5)	0	(0.0)	104	(90.4)	115		Croatia
31	(100.0)	3	(9.7)	31	(83.8)	37	(77.1)	/ 1
254	(93.7)	9	(3.5)	271	(84.4)	321	(89.9)	Czechia
125 84	(99.2) (100.0)	1 24	(0.8) (28.6)	126 84	(80.8) (78.5)	156 107	(75.0) (96.4)	Denmark <sup>k</sup> Estonia
87	(97.8)	24	(2.3)	89	(78.8)	113	(66.5)	
23	(3.0)	23	(100.0)	771	(40.7)	1894	(44.3)	
1530	(89.1)	61	(4.0)	1717	(83.2)	2064	(53.0)	Germany
57	(60.6)	5	(8.8)	94	(65.3)	144	(69.9)	Greece
165	(92.7)	12	(7.3)	178	(55.5)	321	(95.8)	Hungary
-	-	-	-	-	-	-	-	Iceland
44	(88.0)	2	(4.5)	50	(83.3)	60	(27.6)	Ireland <sup>k</sup>
1406	(108.9)	44	(3.1)	1291	(99.7)	1295	(52.2)	
177	(86.8)	18	(10.2)	204	(86.8)	235	(90.0)	Latvia
1	(100.0)	0	(0.0)	1	(100.0)	1	(100.0)	Liechtenstein
561 22	(100.0) (95.7)	105	(18.7)	561 23	(94.4) (92.0)	594 25	(92.0) (71.4)	Lithuania Luxembourg
27	(96.4)	1	(3.7)	28	(68.3)	41	(75.9)	Malta
284	(93.1)	10	(3.5)	305	(80.3)	380	(55.9)	Netherlands
75	(98.7)	8	(10.7)	76	(90.5)	84	(53.5)	Norway <sup>k</sup>
2748	(92.5)	58	(2.1)	2970	(83.6)	3 5 5 3	(95.9)	Poland
514	(64.0)	8	(1.6)	803	(74.8)	1073	(71.3)	Portugal
5 4 9 2	(92.5)	249	(4.5)	5939	(85.2)	6971	(87.4)	Romania
70	(98.6)	5	(7.1)	71	(62.3)	114	(83.2)	Slovakia
64	(100.0)	1	(1.6)	64	(94.1)	68	(85.0)	Slovenia
1100 181	(80.5)	25 4	(2.3)	1366	(82.9)	1647	(46.9)	Spain Sweden
15940	(100.0) (86.8)	695	(4.4)	181 <b>18355</b>	(88.3) ( <b>80.1</b> )	205 <b>22922</b>	(57.4)	Subtotal EU/EEA
13740	(00.0)	073	(+++/	10 333	(00.1)	22/22	(07.0)	Non-EU/EEA
158	(91.3)	6	(3.8)	173	(79.0)	219	(81.4)	Albania
2	(100.0)	0	(0.0)	2	(100.0)	2	(100.0)	Andorra
256	(100.0)	64	(25.0)	256	(81.3)	315		Armenia
3568	(98.2)	659	(18.5)	3634	(82.8)	4390	(88.8)	Azerbaijan
1531	(100.0)	757	(49.4)	1531	(96.1)	1593	(93.9)	Belarus
279	(97.9)	1	(0.4)	285	(83.6)	341	(93.9)	Bosnia and Herzegovina
1220 104	(98.3) (100.0)	180	(14.8)	1241 104	(94.7) (75.9)	1311 137	(79.7) (64.3)	Georgia Israel
7522	(99.8)	2943	(39.1)	7536	(79.3)	9498		Kazakhstan
2601	(94.2)	839	(32.3)	2762	(66.5)	4152		Kyrgyzstan
-	-	-	-	_	-	0	-	
61	(100.0)	0	(0.0)	61	(85.9)	71		Montenegro
111	(100.0)	2	(1.8)	111	(84.7)	131	(89.7)	
1503	(96.5)	459	(30.5)	1557	(73.7)	2112	(94.0)	
40222	(94.0)	20452	(50.8)	42769	(57.2)	74798	(93.9)	Russian Federation
-	-	-	-	-	-	0	-	San Marino
-	-	-	-	-	-	-	-	Serbia Serbia and disast Kananat
-	-	-	-	-	-	-	-	Serbia excluding Kosovo <sup>1</sup> Kosovo <sup>1</sup>
227	(87.3)	5	(2.2)	260	(72.2)	360		Switzerland
2167	(98.9)	606	(28.0)	2190	(75.3)	2907		Tajikistan
3902	(87.1)	120	(3.1)	4 478	(77.6)	5768		Turkey
836	(100.0)	416	(49.8)	836	(41.7)	2006	(82.8)	,
13 214	(97.4)	4025	(30.5)	13 571	(74.6)	18199	(91.9)	
1812	(87.4)	38	(2.1)	2073	(81.9)	2532		United Kingdom <sup>k</sup>
6797	(100.0)	1652	(24.3)	6797	(69.2)	9816		Uzbekistan
88093	(95.5)	33233	(37.7)	92227	(65.6)	140 658		Subtotal non-EU/EEA
104 033	(94.1)	33928	(32.6)	110582	(67.6)	163580		Total European Region
91827	(95.4)	33572	(36.6)	96283	(66.2)	145334	(6/.2)	Subtotal 18 HPCs

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

Proportion of bacteriologically confirmed pulmonary TB cases with DST results with 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.

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

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

Country/area	Source of data	Coverage	Bacteriolog confirmed pulm MDR-TB ca	onary RR/	Cases with D for any fluore		Pre-XDR-T	B cases
			N	(%)	N	(%)	N	(%)
EU/EEA								
Austria	TESSy	National	8	(3.6)	8	(100.0)	1	(12.5)
Belgium	TESSy	National	6	(1.3)	6	(100.0)	0	(0.0)
Bulgaria	TESSy	National	4	(2.3)	4	(100.0)	1	(25.0)
Croatia	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)
Cyprus	TESSy	National	3	(9.4)	3	(100.0)	0	(0.0)
Czechia	TESSy	National	9	(3.5)	7	(77.8)	2	(28.6)
Denmark	TESSy	National	1	(0.8)	1	(100.0)	1	(100.0)
Estonia	TESSy	National	24	(29.6)	23	(95.8)	9	(39.1)
Finland	TESSy	National	3	(3.3)	1	(33.3)	0	(0.0)
France	TESSy	National	38	(100.0)	35	(92.1)	11	(31.4)
Germany	TESSy	National	83	(4.1)	51	(61.4)	9	(17.6)
Greece	TESSy	National	5	(7.4)	0	(0.0)	0	(0.0)
Hungary	TESSy	National	12	(7.3)	11	(91.7)	6	(54.5)
Iceland		-	_	-	-	-	-	-
Ireland	TESSy	National	4	(6.2)	1	(25.0)	1	(100.0)
Italy	NRL-TME	Partial	44	(3.1)	37	(84.1)	10	(27.0)
Latvia	TESSy	National	18	(9.7)	11	(61.1)	3	(27.3)
Liechtenstein	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)
Lithuania	TESSy	National	105	(18.7)	46	(43.8)	21	(45.7)
Luxembourg	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)
Malta	TESSy	National	1	(3.7)	0	0	0	(0.0)
Netherlands	TESSy	National	10	(3.5)	10	(100.0)	1	(10.0)
Norway	TESSy	National	8	(10.7)	8	(100.0)	2	(25.0)
Poland	TESSy	National	58	(2.1)	30	(51.7)	9	(30.0)
Portugal	TESSy	National	8	(1.6)	6	(75.0)	0	(0.0)
Romania	TESSy	National	253	(4.8)	91	(36.0)	24	(26.4)
Slovakia	TESSy	National	5	(6.8)	4	(80.0)	2	(50.0)
Slovenia	TESSy	National	1	(1.6)	1	(100.0)	0	(0.0)
Spain	TESSy	National	27	(2.3)	5	(18.5)	1	(20.0)
Sweden	TESSy	National	4	(2.1)	4	(100.0)	1	(25.0)
Subtotal EU/EEA	- IL33y	-	742	(4.9)	404	(54.4)	115	(28.5)
Non-EU/EEA			172	(4.7)	707	(37.7)	115	(20.3)
Albania	NRL-TME	National	6	(3.8)	0	(0.0)	-	-
Andorra	NRL-TME	National	0	(0.0)	0	(0.0)	_	
Armenia	NRL-TME	National	64	(25.0)	57	(89.1)	17	(29.8)
Azerbaijan	NRL-TME	National	659	(18.5)	592	(89.8)	114	(19.3)
Belarus	NRL-TME	National –	757	(49.4)	757	(100.0)	310	(41.0)
Bosnia and Herzegovina			1	(0.4)	160			
Georgia	NRL-TME	National	180	(14.8)	148	(82.2)	37	(25.0)
Israel	NRL-TME	National	9	(8.7)	2021	(100.0)	5	(55.6)
Kazakhstan	NO TAE	Alasta I	2943	(39.1)	2931	(99.6)	461	(15.7)
Kyrgyzstan	NRL-TME	National	839	(32.3)	665	(79.3)	116	(17.4)
Monaco	NDI THE	March 1	_	(0.0)	-	-	-	-
Montenegro	NRL-TME	National	0	(0.0)	-	(0.0)	-	-
North Macedonia	NRL-TME	National	2	(1.8)	0	(0.0)	-	()
Republic of Moldova	NRL-TME	National	459	(30.5)	459	(100.0)	124	(27.0)
Russian Federation	NRL-TME	National	20 452	(50.8)	18843	(92.1)	7346	(39.0)
San Marino	-	National	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-
Kosovo¹	-	-	-	-	-	-	-	-
Switzerland	NRL-TME	National	5	(2.2)	4	(80.0)	1	(25.0)
Tajikistan	NRL-TME	National	606	(28.0)	551	(90.9)	129	(23.4)
Türkiye	NRL-TME	National	120	(3.1)	101	(84.2)	10	(9.9)
Turkmenistan	-	-	416	(49.8)	0	-	-	-
Jkraine	NRL-TME	National	4 025	(30.5)	3266	(81.1)	994	(30.4)
United Kingdom	TESSy	National	38	(2.1)	36	(94.7)	13	(36.1)
Uzbekistan	NRL-TME	National	1652	(24.3)	1645	(99.6)	394	(24.0)
Subtotal non-EU/EEA	-	-	33 2 3 3	(37.7)	30064	(90.5)	10071	(33.5)
Total European Region	-	-	33 975	(32.5)	30468	(89.7)	10186	(33.4)
Subtotal 18 HPCs	_	-	33576	(36.5)	30190	(90.0)	10110	(33.5)

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.
HPCs: high-priority countries.
MDR-TB: multidrug-resistant tuberculosis.
N: no.
NRL: not.
NRL: national reference laboratory.
TESSy: The European surveillance system.
TME: WHO global TB data-collection system.
XDR-TB: extensively drug-resistant tuberculosis.
Y: yes.
' All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Cases with DS for any o Group A c	Tresults ther	XDR-TB ca	ses <sup>d</sup>	Reporting completeness	Country/area
N	(%)	N	(%)	completeness.	
1	(100.0)	0	(0.0)	Υ	Austria
0	(0.0)	0	(0.0)	Υ	Belgium
1	(100.0)	0	(0.0)	Υ	Bulgaria
0	(0.0)	0	(0.0)	Υ	Croatia
0	(0.0)	0	(0.0)	Υ	Cyprus
2	(100.0)	2	(100.0)	Y	Czechia
1	(100.0)	1	(100.0)	Y	Denmark
9	(100.0)	9	(100.0)	Y	Estonia
0	(0.0)	0	(0.0)	Υ	Finland
11	(100.0)	5	(45.5)	Ϋ́	France
9	(100.0)	4	(44.4)	Y	Germany
0	(0.0)	0	(0.0)	Ϋ́	Greece
0	(0.0)	0	(0.0)	Y	Hungary
_	(0.0)	_	(0.0)	N N	Iceland
1	(100.0)	0	(0.0)	Υ	Ireland
-	(100.0)	0	(0.0)	N N	Italy
3	(100.0)	2	(66.7)	N Y	Latvia
	(100.0)		(66.7)		Liechtenstein
0	(0.0)	0	(0.0) (52.4)	Y Y	
21	(100.0)	11			Lithuania
0	(0.0)	0	(0.0)	Y	Luxembourg
0	(0.0)	0	(0.0)		Malta
1	(100.0)	1	(100.0)	Y	Netherlands
2	(100.0)	2	(100.0)	Υ	Norway
9	(100.0)	0	(0.0)	Y	Poland
0	(0.0)	0	(0.0)	Υ	Portugal
4	(16.7)	2	(50.0)	Y	Romania
2	(100.0)	2	(100.0)	Υ	Slovakia
0	(0.0)	0	(0.0)	Υ	Slovenia
1	(100.0)	1	(100.0)	Υ	Spain
1	(100.0)	1	(100.0)	Υ	Sweden
79	(68.7)	43	(54.4)	-	Subtotal EU/EEA
					Non-EU/EEA
-	-	-	-	Υ	Albania
-	-	-	-	Υ	Andorra
7	(41.2)	0	(0.0)	Υ	Armenia
98	(86.0)	31	(31.6)	Y	Azerbaijan
-	-	-	-	Υ	Belarus
-	_	-	-	N	Bosnia and Herzegovina
35	(94.6)	10	(28.6)	Υ	Georgia
0	(0.0)	-	-	Υ	Israel
-	-	-	-	N	Kazakhstan
116	(100.0)	13	(11.2)	Y	Kyrgyzstan
-	-	-	-	N	Monaco
-	_	_	_	Y	Montenegro
_	_	_	_	Y	North Macedonia
124	(100.0)	24	(19.4)	Y	Republic of Moldova
2311	(31.5)	203	(8.8)	Y	Russian Federation
2311	(51.5)	203	(0.0)	Y	San Marino
	_	_	_	- -	Serbia
-	_				Serbia excluding Kosovo
	-	-	_	N	
-	(100.0)	_	(0.0)	N	Kosovo¹
1	(100.0)	0	(0.0)	Υ	Switzerland
103	(79.8)	19	(18.4)	Y	Tajikistan
9	(90.0)	0	(0.0)	Y	Turkey
-	-	-	_	N	Turkmenistan
951	(95.7)	41	(4.3)	Υ	Ukraine
-	_	-	-	Υ	United Kingdom
394	(100.0)	89	(22.6)	Υ	Uzbekistan
4149	(41.2)	430	(10.4)	-	Subtotal non-EU/EEA
4228	(41.5)	473	(11.2)	_	Total European Region
7220	(1)	11.0	(/		

For EU/EEA countries, bacteriologically confirmed cases are culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases. For non-EU/EEA countries and areas, cases with positive identification for *Mycobacterium 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 that 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.

ADR-TB defined as resistance to rifampicin and resistance 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.

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.

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 13. RR/MDR-TB and pre-XDR/XDR-TB cases enrolled to treatment, European Region, 2021

Country/area	Total number of RR/MDR-TB cases detected <sup>a</sup>	RR/MDR-TB cases enrol	led to treatment <sup>bc</sup>	Total number of pre-XDR <sup>4</sup> /XDR-TB <sup>e</sup> cases detected	Pre-XDR <sup>d</sup> /XDR-TB <sup>e</sup> co treatme	ases enrolled to nt <sup>bc</sup>
	N	N	(%)	N	N	(%
EU/EEA						
Austria	7	7	(100.0)	2	2	(100.0
Belgium	8	8	(100.0)	0	0	-
Bulgaria	3	3	(100.0)	1	1	(100.0)
Croatia	0	0	-	0	0	-
Cyprus	3	3	(100.0)	0	0	-
Czechia	8	8	(100.0)	2	2	(100.0
Denmark	0	0	-	1	0	(0.0)
Estonia	15	12	(80.0)	9	7	(77.8)
Finland	3	3	(100.0)	0	0	-
France	32	32	(100.0)	11	11	(100.0
Germany	81	79	(97.5)	11	10	(90.9
Greece	5	5	(100.0)	0	0	(70.7)
	6	6	(100.0)	6	6	(100.0
Hungary	-	0	(100.0)	-	0	(100.0
Iceland			(400.0)			(400.0
Ireland	7	7	(100.0)	1	1	(100.0
Italy	44	-	-	10	-	-
Latvia	15	15	(100.0)	3	2	(66.7)
Liechtenstein	0	0	-	0	0	-
Lithuania	84	84	(100.0)	21	21	(100.0,
Luxembourg	0	0	-	0	0	-
Malta	1	1	(100.0)	0	0	-
Netherlands	10	10	(100.0)	1	1	(100.0)
Norway	8	8	(100.0)	2	2	(100.0)
Poland	49	49	(100.0)	9	9	(100.0)
Portugal	8	8	(100.0)	2	2	(100.0)
Romania	234	234	(100.0)	25	24	(96.0)
Slovakia	3	3	(100.0)	2	2	(100.0)
Slovenia	1	1	(100.0)	0	0	(10010)
Spain	32	32	(100.0)	1	1	(100.0)
Sweden	6	6	(100.0)	1	0	(0.0)
Subtotal EU/EEA	673	624	(99.2)	121	104	(86.0)
Non-EU/EEA	013	024	(77.2)	141	10-7	(00.0)
Albania	6	5	(83.3)	0	0	_
Andorra	0	0	(63.3)	0	0	
			(400.0)			(400.0
Armenia	47	47	(100.0)	17	17	(100.0)
Azerbaijan	869	798	(91.8)	171	164	(95.9)
Belarus	491	451	(91.9)	310	276	(89.0)
Bosnia and Herzegovina	1	1	(100.0)	0	0	-
Georgia	149	140	(94.0)	38	35	(92.1)
Israel	6	6	(100.0)	12	12	(100.0)
Kazakhstan	3294	3 403	(103.3)	461	469	(101.7,
Kyrgyzstan	788	756	(95.9)	129	116	(89.9)
Monaco	0	0	-	0	0	-
Montenegro	0	0	-	0	0	-
North Macedonia	2	2	(100.0)	0	0	-
Republic of Moldova	469	500	(106.6)	124	124	(100.0)
Russian Federation	13106	18909	(144.3)	7346	6146	(83.7)
San Marino	-	-	-	-	-	(35.7)
Serbia	_	-	_	_	_	_
Serbia excluding Kosovo <sup>1</sup>	_	-	_	-	_	_
Kosovo <sup>1</sup>	_	-	_	-	_	
			(100.0)			(100.0
Switzerland	4	4		1	1	
Tajikistan	477	354	(74.2)	129	111	(86.0)
Türkiye	119	101	(84.9)	10	5	(50.0)
Turkmenistan	521	521	(100.0)	287	287	(100.0
Ukraine	3 0 3 1	3 4 2 7	(113.1)	1015	1460	(143.8
United Kingdom	38	37	(97.4)	37	15	(40.5
Uzbekistan	1753	1753	(100.0)	394	394	(100.0,
Subtotal non-EU/EEA	25171	31215	(124.0)	10 481	9632	(91.9
Total European Region	25844	31839	(123.2)	10 602	9736	(91.8
Subtotal 18 HPCs	25 465	31508	(123.7)	10 490	9659	(92.1

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 drug-susceptibility testing or resistance prediction. HPCs: high-priority countries.

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

TESSy: The European Surveillance System.

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 2018 but started treatment in 2018 are included, resulting in over 100% coverage.

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 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).

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 14. New and relapse TB cases with HIV infection, European Region, 2021

Country/area	New and relapse TB cases <sup>b</sup>	TB cases with known	HIV status	HIV-positive TE	cases	HIV-positive cases st	arted ART
Country/area	N N	N	(%)	N	(%)	N	(%)
EU/EEA							
Austria	-	-	-	-	-	-	-
Belgium <sup>d</sup>	817	428	(52.4)	24	(5.6)	-	-
Bulgaria	673	467	(69.4)	0	(0.0)	0	-
Croatia	154	3	(1.9)	0	(0.0)	_	-
Cyprus	48	35	(72.9)	1	(2.9)	-	-
Czechia	352	208	(59.1)	7	(3.4)	-	-
Denmark <sup>d</sup>	191	147	(77.0)	5	(3.4)	-	-
Estonia	107	99	(92.5)	12	(12.1)	10	(83.3)
Finland	_	-	-	-	-	-	_
France	_	_	_	_	-	-	-
Germany	-	-	_	-	-	_	_
Greece	195	51	(26.2)	2	(3.9)	_	_
Hungary	314	7	(2.2)	1	(14.3)	_	_
Iceland	-	_	-	-	(14.5)	_	_
Ireland <sup>d</sup>	210	65	(31.0)	1	(1.5)	1	(100.0)
Italy	_	-	(51.0)	_	(1.5)	_	(100.0)
Latvia	255	183	(71.8)	24	(13.1)	_	_
Liechtenstein	200	100	(/1.0)	_	(15.1)	_	
Lithuania	628	594	(94.6)	15	(2.5)	_	_
Luxembourg	34	24	(70.6)	0	(0.0)	0	_
Malta	54		(85.2)	1	(2.2)	1	(100.0)
Netherlands	671	46					(76.9)
Norway <sup>d</sup>		502	(74.8)	13	(2.6)	10	(/6.9)
,	140	113	(80.7)	3	(2.7)	_	_
Poland		4.076			(0.2)	_	_
Portugal	1463	1 076	(73.5)	88	(8.2)		-
Romania	7 591	6 237	(82.2)	132	(2.1)	102	(77.3)
Slovakia	134	78	(58.2)	2	(2.6)	2	(100.0)
Slovenia	79	66	(83.5)	0	(0.0)	0	-
Spain	3 370	1848	(54.8)	141	(7.6)	-	-
Sweden	-	-	-	-	-	-	_
Subtotal EU/EEA	17 480	12 277	(70.2)	472	(3.8)	126	(79.2)
Non-EU/EEA							
Albania	269	244	(90.7)	1	(0.4)	1	(100.0)
Andorra	2	0	(0.0)	-	-	-	-
Armenia	398	335	(84.2)	36	(10.7)	0	(0.0)
Azerbaijan	4 944	4 448	(90.0)	92	(2.1)	90	(97.8)
Belarus	1 484	1 484	(100.0)	128	(8.6)	111	(86.7)
Bosnia and Herzegovina	-	-	-	-	-	-	-
Georgia	1 501	1 430	(95.3)	43	(3.0)	43	(100.0)
Israel	213	213	(100.0)	16	(7.5)	16	(100.0)
Kazakhstan	9 757	9 620	(98.6)	625	(6.5)	581	(93.0)
Kyrgyzstan	4 596	4 394	(95.6)	126	(2.9)	77	(61.1)
Monaco	0	-	-	-	-	-	-
Montenegro	80	80	(100.0)	0	(0.0)	-	-
North Macedonia	143	29	(20.3)	0	(0.0)	-	-
Republic of Moldova	2 067	2 008	(97.1)	214	(10.7)	169	(79.0)
Russian Federation	56 922	54 821	(96.3)	14 132	(25.8)	10 764	(76.2)
San Marino	_	_	_	_	-	-	_
Serbia	_	_	_	_	_	_	_
Serbia excluding Kosovo <sup>1</sup>	_	-	_	_	-	-	_
Kosovo <sup>1</sup>	-	_	_	-	_	_	_
Switzerland	_	_	_	-	_	_	_
Tajikistan	4 158	4 103	(98.7)	118	(2.9)	118	(100.0)
Türkiye	9 047	7 249	(80.1)	85	(1.2)	64	(75.3)
	9 04/	/ 249	(00.1)	00	(1.2)	04	(/3.3)
Turkmenistan	40.205	47.004	(00.0)	2///	(20.2)	2.25/	(02.0)
Ukraine	18 307	17 991	(98.3)	3 646	(20.3)	3 354	(92.0)
United Kingdom <sup>d</sup>	-	-	(4.5.5)	-	(2.2)	_	()
Uzbekistan <sup>e</sup>	15 450	15 450	(100.0)	441	(2.9)	395	(89.6)
Subtotal non-EU/EEA	129 338	123 899	(95.8)	19 703	(15.9)	15 783	(80.1)
Total European Region	146 818	136 176	(92.8)	20 175	(14.8)	15 909	(80.1)
Subtotal 18 HPCs	137 885	130 913	(94.9)	19 869	(15.2)	15 878	(80.1)

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

ART: antiretroviral therapy.
HPCs: high-priority countries.

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

3 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.

4 Data from the WHO Butabase.

4 Previous TB history is defined by previous diagnosis.

4 All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 15. TB in prisons, European Region, 2021<sup>a</sup>

Country/area	Prison population <sup>b</sup>		es (all forms) notified in ons	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	10 559	20	189	(2.0)	24.2
Bulgaria	6192	5	81	(0.3)	4.4
Croatia	-	-	_	_	-
Cyprus	-	-	-	-	-
Czechia	18748	3	16	(0.6)	3.7
Denmark	-	-	-	_	-
Estonia	2265	2	88	(1.1)	8.0
Finland	-	-	-	_	-
France	64405	41	64	(0.8)	8.8
Germany	-	_	_	_	-
Greece	_	-	_	_	-
Hungary	_	-	_	_	_
Iceland	_	_	_	_	-
Ireland	6133	1	16	(0.3)	3.2
Italy	-	-	-	(0.5)	-
Latvia	_	-	_	-	-
Liechtenstein	_	-	_	_	-
Lithuania	4425	16	362	(1.2)	10.0
Luxembourg	750	0	0	(0.0)	0.0
Malta	750	-	_	(0.0)	-
Netherlands	23341	5	21	(0.6)	5.0
Norway	25541	_	_	(0.0)	J.0
Poland	71209	119	167	(1.9)	12.7
Portugal	11388	20	176	(1.1)	10.5
Romania	23387	97	415	(0.8)	7.3
Slovakia	8750	3	34	(1.1)	8.7
Slovenia	3277	0	0	(0.0)	0.0
Spain	7211	-	_	(0.0)	-
Sweden	_	_	_	_	_
Subtotal EU/EEA	254829	332	130	(1.2)	8.9
Non EU/EEA	254027	332	150	(1,2)	0.7
Albania	_	_	_	-	_
Andorra	_	_	_	_	-
Armenia	2 023	11	543.7	(2.8)	38.1
Azerbaijan	21839	147	673.1	(4.0)	19.0
Belarus	21039	14/	0/3.1	(4.0)	19.0
Bosnia and Herzegovina	_	_	_	_	_
Georgia	9203	27	293.4	(1.8)	7.3
Israel	7205	- Z/	293.4	(1.0)	7.5
Kazakhstan	34000	204	600.0	(2.1)	11.8
Kyrgyzstan	6565	74	1 127	(1.6)	16.0
	0 0 0 0	0	1 127	(1.0)	
Monaco	0	U -	_	_	-
Montenegro North Macedonia					
	2600	4	153.8	(2.8)	22.6
Republic of Moldova	6396	79	1 235	(3.8)	18.3
Russian Federation San Marino	473129	4832	1 021	(8.5)	26.0
	-	-	_	_	_
Serbia		-	-	-	
Serbia excluding Kosovo¹	-	-	_	_	_
Kosovo¹		-	_	_	_
Switzerland	-	-		- (4.2)	-
Tajikistan	12 000	50	416.7	(1.2)	9.8
Türkiye	297726	95	31.9	(1.1)	3.0
Turkmenistan	-	-	-	-	-
Ukraine	47848	547	1 143	(3.0)	27.2
United Kingdom	-	-	-	-	-
Uzbekistan	-	-	-	-	-
Subtotal non-EU/EEA	913329	6070	664.6	(5.5)	19.9
Total European Region	1168158	6402	548.0	(4.9)	22.1

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

Data from the WHO Global TB Database.

Belarus, Kazakhstan, Montenegro and Kosovo¹ prison population data are from prisonstudies.org.

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

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 16. Treatment outcome of new and relapse TB cases notified in 2020, European Region, 2021

Country/area	New and relapse TB cases notified	Succ	ess	Died	ı <u> </u>	Faile	d	Lost to fol	low-up <sup>c</sup>	Still on tre	atment	Not eval	ıated <sup>d</sup>
	in 2020 <sup>b</sup>	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	380	266	(70.0)	40	(10.5)	0	(0.0)	4	(1.1)	37	(9.7)	33	(8.7)
Belgiume	759	511	(67.3)	43	(5.7)	1	(0.1)	37	(4.9)	17	(2.2)	150	(19.8)
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	188	95	(50.5)	35	(18.6)	0	(0.0)	6	(3.2)	7	(3.7)	45	(23.9)
Cyprus	34	15	(44.1)	1	(2.9)	0	(0.0)	4	(11.8)	2	(5.9)	12	(35.3)
Czechia	347	241	(69.5)	54	(15.6)	2	(0.6)	36	(10.4)	7	(2.0)	7	(2.0)
Denmarke	206	71	(34.5)	1	(0.5)	1	(0.5)	2	(1.0)	1	(0.5)	130	(63.1)
Estonia	101	76	(75.2)	19	(18.8)	1	(1.0)	2	(2.0)	0	(0.0)	3	(3.0)
Finland	173	44	(25.4)	1	(0.6)	2	(1.2)	1	(0.6)	0	(0.0)	125	(72.3)
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	3942	2932	(74.4)	310	(7.9)	0	(0.0)	66	(1.7)	49	(1.2)	585	(14.8)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	376	250	(66.5)	39	(10.4)	17	(4.5)	38	(10.1)	17	(4.5)	15	(4.0)
Iceland	12	3	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	9	(75.0)
Irelande	223	14	(6.3)	7	(3.1)	0	(0.0)	4	(1.8)	0	(0.0)	198	(88.8)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	_
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Lithuania	601	514	(85.5)	61	(10.1)	5	(0.8)	19	(3.2)	1	(0.2)	1	(0.2)
Luxembourg	32	12	(37.5)	1	(3.1)	0	(0.0)	0	(0.0)	0	(0.0)	19	(59.4)
Malta	137	136	(99.3)	0	(0.0)	0	(0.0)	1	(0.7)	0	(0.0)	0	(0.0)
Netherlands	601	499	(83.0)	25	(4.2)	0	(0.0)	29	(4.8)	12	(2.0)	36	(6.0)
Norwaye	141	125	(88.7)	3	(2.1)	1	(0.7)	0	(0.0)	0	(0.0)	12	(8.5)
Poland	_	-	_	-	-	-	_	-	_	_	-	-	_
Portugal	1461	1072	(73.4)	93	(6.4)	1	(0.1)	59	(4.0)	187	(12.8)	49	(3.4)
Romania	7017	5727	(81.6)	788	(11.2)	126	(1.8)	309	(4.4)	65	(0.9)	2	(0.0)
Slovakia	152	130	(85.5)	12	(7.9)	0	(0.0)	3	(2.0)	0	(0.0)	7	(4.6)
Slovenia	74	55	(74.3)	16	(21.6)	0	(0.0)	0	(0.0)	2	(2.7)	1	(1.4)
Spain	3 494	1864	(53.3)	191	(5.5)	3	(0.1)	58	(1.7)	50	(1.4)	1328	(38.0)
Sweden	307	222	(72.3)	10	(3.3)	0	(0.0)	0	(0.0)	0	(0.0)	75	(24.4)
Subtotal EU/EEA	20760	14876	(71.7)	1750	(8.4)	160	(0.8)	678	(3.3)	454	(2.2)	2842	(13.7)
Non-EU/EEA													
Albania	240	213	(88.8)	14	(5.8)	0	(0.0)	12	(5.0)	-	-	1	(0.4)
Andorra	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	_	-	0	(0.0)
Armenia	303	244	(80.5)	24	(7.9)	14	(4.6)	19	(6.3)	-	-	2	(0.7)
Azerbaijan	1180	973	(82.5)	62	(5.3)	51	(4.3)	86	(7.3)	_	-	8	(0.7)
Belarus	833	710	(85.2)	84	(10.1)	10	(1.2)	23	(2.8)	-	-	6	(0.7)
Bosnia and Herzegovina	357	183	(51.3)	21	(5.9)	0	(0.0)	14	(3.9)	_	-	139	(38.9)
Georgia	1513	1314	(86.8)	66	(4.4)	35	(2.3)	80	(5.3)	_	-	18	(1.2)
Israel	152	123	(80.9)	13	(8.6)	7	(4.6)	9	(5.9)	_	-	0	(0.0)
Kazakhstan	5742	5043	(87.8)	461	(8.0)	171	(3.0)	54	(0.9)	-	-	13	(0.2)
Kyrqyzstan	3472	2839	(81.8)	271	(7.8)	92	(2.6)	254	(7.3)	-	-	16	(0.5)
Monaco	0	-	-	-	-	-	-	-	-	_	_	-	-
Montenegro	40	35	(87.5)	3	(7.5)	1	(2.5)	1	(2.5)	_	-	0	(0.0)
North Macedonia	148	125	(84.5)	11	(7.4)	0	(0.0)	10	(6.8)	_	_	2	(1.4)
Republic of Moldova	1408	1117	(79.3)	186	(13.2)	53	(3.8)	33	(2.3)	_	-	19	(1.3)
Russian Federation	46389	28 677	(61.8)	6205	(13.4)	5 5 7 0	(12.0)	2543	(5.5)	-	-	3394	(7.3)
San Marino	40307	200//	(01.0)	0205	(1).4)	-	(12.0)	2 343	(3.3)	_	-	7774	(/.)/
Serbia	434	347	(80.0)	19	(4.4)	3	(0.7)	60	(13.8)	-	-	5	(1.2)
Serbia excluding Kosovo <sup>1</sup>		- J47	(00.0)	-	(4.4)	_	(0.7)	-	(15.0)	_	-	_	(1.2)
Kosovo <sup>1</sup>	434	347	(80.0)	19	(4.4)	3	(0.7)	60	(13.8)	-	-	5	(1.2)
Switzerland	342	254	(74.3)	12	(3.5)	0	(0.0)	21	(6.1)	_	_	55	(16.1)
Tajikistan	3646	3332	(91.4)	173	(4.7)	44	(1.2)	97	(2.7)	_	_	0	(0.0)
Türkiye	8820	7125	(80.8)	806	(9.1)	25	(0.3)	182	(2.1)	_	_	682	(7.7)
										_	-		
Turkmenistan	1918	1599	(83.4)	1277	(4.5)	131	(6.8)	53	(2.8)			49	(2.6)
Ukraine	13218	10232	(77.4)	1377	(10.4)	852	(6.4)	744	(5.6)	-	-	13	(0.1)
United Kingdom <sup>e</sup>	4386	3409	(77.7)	320	(7.3)	311	(7.1)	128	(2.9)	-	-	218	(5.0)
Uzbekistan	10 654	9644	(90.5)	484	(4.5)	147	(1.4)	180	(1.7)	-	- (0.0)	199	(1.9)
Subtotal non-EU/EEA	105197	77540	(73.7)	10 698	(10.2)	7517	(7.1)	4603	(4.4)	0	(0.0)	4839	(4.6)
Total European Region	125 957	92416	(73.4)	12 448	(9.9)	7677	(6.1)	5281	(4.2)	454	(0.4)	7681	(6.1)
Subtotal 18 HPCs	106815	79166	(74.1)	11 153	(10.4)	7327	(6.9)	4 678	(4.4)	66	(0.1)	4 4 2 5	(4.1)

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

\*\*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'.

\*\*In previous TB history is defined as 'transferred out and unknown'.

\*\*Previous TB history is defined by previous diagnosis.

\*\*All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 17. Treatment outcome of previously treated TB cases notified in 2020, European Region, 2021

Country/area	New and relapse TB	Succ	ess	Die	d	Faile	ed .	Lost to fo	llow-up <sup>b</sup>	Still on tre	atment	Not evalu	ıated
Country/area	cases notified _ in 2020 <sup>2</sup>	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	6	2	(33.3)	1	(16.7)	0	(0.0)	0	(0.0)	1	(16.7)	2	(33.3
Belgium	49	35	(71.4)	2	(4.1)	0	(0.0)	5	(10.2)	0	(0.0)	7	(14.3
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	5	2	(40.0)	2	(40.0)	0	(0.0)	1	(20.0)	0	(0.0)	0	(0.0)
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)	1	(20.0)	0	(0.0)	1	(20.0)	0	(0.0)	0	(0.0)
Denmark	13	5	(38.5)	0	(0.0)	0	(0.0)	1	(7.7)	0	(0.0)	7	(53.8)
Estonia	2	0	(0.0)	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Finland	0	0	(22.7)	0	(2.2)	0	(0.0)	0	(2.7)	0	(0.5)	0	(50.0)
France	187	63	(33.7)	6	(3.2)	0	(0.0)	7	(3.7)	1	(0.5)	110	(58.8)
Germany Greece	-	73	(65.8)	4	(3.6)	0	(0.0)	7	(6.3)	_	(0.9)	26	(23.4)
Hungary	19	12	(63.2)	2	(10.5)	0	(0.0)	3	(15.8)	2	(10.5)	0	(0.0)
Iceland	0	0	(03.2)	0	(10.5)	0	(0.0)	0	(13.6)	0	(10.5)	0	(0.0)
Ireland	12	1	(8.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	11	(91.7)
Italy	-	-	(3.5)	-	(0.0)	_	(0.0)	_	(0.0)	_	(0.0)	-	() 1.7)
Latvia	-	-	-	-	-	_	-	_	-	-	-	-	_
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	_
Lithuania	20	18	(90.0)	0	(0.0)	1	(5.0)	1	(5.0)	0	(0.0)	0	(0.0)
Luxembourg	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Malta	-	-	-	-	-	-	-	-	(0.0)	-	-	-	(30.0)
Netherlands	9	6	(66.7)	1	(11.1)	0	(0.0)	1	(11.1)	0	(0.0)	1	(11.1)
Norway	16	11	(68.8)	1	(6.3)	0	(0.0)	0	(0.0)	0	(0.0)	4	(25.0)
Poland	-	-	-	-	-	-	_	_	-	_	-	-	_
Portugal	43	21	(48.8)	5	(11.6)	0	(0.0)	8	(18.6)	7	(16.3)	2	(4.7)
Romania	414	203	(49.0)	49	(11.8)	60	(14.5)	96	(23.2)	6	(1.4)	0	(0.0)
Slovakia	5	2	(40.0)	1	(20.0)	0	(0.0)	2	(40.0)	0	(0.0)	0	(0.0)
Slovenia	2	1	(50.0)	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	168	111	(66.1)	14	(8.3)	1	(0.6)	6	(3.6)	5	(3.0)	31	(18.5)
Sweden	0	0	-	0	-	0	-	0	-	0	-	0	-
Subtotal EU/EEA	1090	572	(52.5)	92	(8.4)	62	(5.7)	139	(12.8)	23	(2.1)	202	(18.5)
Non-EU/EEA													
Albania	0	-	-	-	-	-	-	-	-	-	-	-	_
Andorra	0	-	-	-	-	-	-	-	-	-	-	-	-
Armenia	10	5	(50.0)	1	(10.0)	1	(10.0)	3	(30.0)	-	-	0	(0.0)
Azerbaijan	1880	1361	(72.4)	135	(7.2)	138	(7.3)	198	(10.5)	-	-	48	(2.6)
Belarus	65	42	(64.6)	8	(12.3)	4	(6.2)	5	(7.7)	-	-	6	(9.2)
Bosnia and Herzegovina	120	- 07	((7.4)	-	(2.0)	-	(2.0)	- 20	(22.5)	-	-	-	(2.2)
Georgia	129	87	(67.4)	5	(3.9)	5	(3.9)	29	(22.5)	_	_	3	(2.3)
Israel Kazakhstan	53	36	(67.9)	7	(13.2)	6	(11.3)	3	(5.7)	_	_	1	(1.9)
Kyrayzstan	400	282	(70.5)	37	(9.3)	15	(3.8)	62	(15.5)	_	_	4	(1.9)
Monaco	0	202	(/0.3)	-	(9.3)	-	(3.6)	- 02	(13.3)	_	_	4	(1.0)
Montenegro	0	-	_	_	-	_	_	_	_	_	_	_	_
North Macedonia	-	_	_	_	_	_	_	_	-	_	_	_	_
Republic of Moldova	115	67	(58.3)	15	(13.0)	9	(7.8)	18	(15.7)	-	-	6	(5.2)
Russian Federation	7409	3 6 0 3	(48.6)	675	(9.1)	1486	(20.1)	826	(11.1)	-	-	819	(11.1)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	-	_
Kosovo¹	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	98	78	(79.6)	10	(10.2)	0	(0.0)	10	(10.2)	-	-	0	(0.0)
Türkiye	95	45	(47.4)	6	(6.3)	1	(1.1)	14	(14.7)	-	-	29	(30.5)
Turkmenistan	692	560	(80.9)	39	(5.6)	36	(5.2)	35	(5.1)	-	-	22	(3.2)
Ukraine	1635	1104	(67.5)	155	(9.5)	167	(10.2)	208	(12.7)	-	-	1	(0.1)
United Kingdom	219	155	(70.8)	29	(13.2)	16	(7.3)	5	(2.3)	-	-	14	(6.4)
Uzbekistan	1415	1190	(84.1)	116	(8.2)	28	(2.0)	34	(2.4)	-	-	47	(3.3)
Subtotal non-EU/EEA	14 2 16	8 616	(60.6)	1238	(8.7)	1912	(13.4)	1450	(10.2)	0	(0.0)	1000	(7.0)
Total European Region	15 3 0 6	9188	(60.0)	1330	(8.7)	1974	(12.9)	1589	(10.4)	23	(0.2)	1202	(7.9)
Subtotal 18 HPCs	14432	8 6 8 1	(60.2)	1260	(8.7)	1957	(13.6)	1542	(10.7)	6	(0.0)	986	(6.8)

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

HPCs: high-priority countries.

Excluding relapsed TB cases

In previous reports defined as 'defaulted'.

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

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 18. Treatment outcome of new and relapse TB cases in children (0-14 years) notified in 2020, European Region, 2021

Country/area	New and relapse TB cases	Succ	ess	Died		Faile	d	Lost to fol	low-up <sup>c</sup>	Still on tre	atment	Not eval	luated
Country/area	reported in	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%
EU/EEA													
Austria	12	10	(83.3)	1	(8.3)	0	(0.0)	0	(0.0)	1	(8.3)	0	(0.0
Belgiume	48	39	(81.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	9	(18.8
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	
Croatia	2	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)	1	(50.0
Cyprus	0	0	-	0	-	0	-	0	-	0	-	0	
Czechia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0
Denmarke	10	3	(30.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	7	(70.0
Estonia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0
Finland	5	2	(40.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(60.0
France	-	-	-	-	-	-	-	-	-	-	-	-	
Germany	168	142	(84.5)	0	(0.0)	0	(0.0)	1	(0.6)	5	(3.0)	20	(11.9
Greece	-	-	-	-	-	-	-	-	-	-	-	-	
Hungary	5	4	(80.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(20.0)	0	(0.0
Iceland	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0
Irelande	-	-	-	-	-	-	-	-	-	-	-	-	
Italy	-	-	-	-	-	-	-	-	-	-	-	-	
Latvia	-	-	-	0	-	0	-	0	-	0	-	0	
Liechtenstein	0	0	-	0	-	0	-	0	-	0	-	0	
Lithuania	13	13	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0
Luxembourg	0	0	-	0	-	0	-	0	-	0	-	0	
Malta	7	7	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	19	17	(89.5)	2	(10.5)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Norwaye	10	10	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Poland	-	-	-	-	-	-	_	-	-	-	-	-	
Portugal	42	37	(88.1)	0	(0.0)	0	(0.0)	1	(2.4)	3	(7.1)	1	(2.4
Romania	258	245	(95.0)	6	(2.3)	0	(0.0)	6	(2.3)	1	(0.4)	0	(0.0
Slovakia	35	34	(97.1)	0	(0.0)	0	(0.0)	1	(2.9)	0	(0.0)	0	(0.0)
Slovenia	0	0	-	0	-	0	-	0	-	0	-	0	
Spain	185	123	(66.5)	1	(0.5)	0	(0.0)	0	(0.0)	2	(1.1)	59	(31.9
Sweden	16	12	(75.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	4	(25.0
Subtotal EU/EEA	840	703	(83.7)	10	(1.2)	0	(0.0)	9	(1.1)	14	(1.7)	104	(12.4
Non-EU/EEA													
Albania	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Andorra	0	-	-	-	-	-	_	-	_	-	-	-	
Armenia	21	20	(95.2)	1	(4.8)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-	-	
Belarus	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0
Bosnia and Herzegovina	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	1	(100.0
Georgia	47	45	(95.7)	1	(2.1)	0	(0.0)	0	(0.0)	-	-	1	(2.1
Israel	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Kazakhstan	227	224	(98.7)	0	(0.0)	3	(1.3)	0	(0.0)	-	-	0	(0.0)
Kyrgyzstan	182	130	(71.4)	5	(2.7)	2	(1.1)	4	(2.2)	-	-	41	(22.5
Monaco	0	-	-	-	-	-	-	-	-	-	-	-	
Montenegro	0	-	-	-	-	-	-	-	-	-	-	-	
North Macedonia	10	8	(80.0)	0	(0.0)	0	(0.0)	2	(20.0)	-	-	0	(0.0)
Republic of Moldova	56	56	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Russian Federation	1432	1365	(95.3)	4	(0.3)	26	(1.8)	8	(0.6)	-	-	29	(2.0
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	-	
Kosovo¹	-	-	-	-	-	-	-	-	-	-	-	-	
Switzerland	18	17	(94.4)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	1	(5.6
Tajikistan	240	188	(78.3)	5	(2.1)	0	(0.0)	7	(2.9)	-	-	40	(16.7
Türkiye	390	314	(80.5)	12	(3.1)	2	(0.5)	4	(1.0)	-	-	58	(14.9
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	
Ukraine	289	277	(95.8)	5	(1.7)	6	(2.1)	1	(0.3)	-	-	0	(0.0
United Kingdom <sup>e</sup>	156	129	(82.7)	3	(1.9)	14	(9.0)	0	(0.0)	-	-	10	(6.4
Uzbekistan	-	-	-	-	-	-	_	-	-	-	-	-	
Subtotal non-EU/EEA	3079	2783	(90.4)	36	(1.2)	53	(1.7)	26	(0.8)	0	(0.0)	181	(5.9
Total European Region	3919	3486	(89.0)	46	(1.2)	53	(1.4)	35	(0.9)	14	(0.4)	285	(7.3
Subtotal 18 HPCs	3159	2881	(91.2)	39	(1.2)	39	(1.2)	30	(0.9)	1	(0.0)	169	(5.3

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

\*\*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'.

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

\*\*Previous TB history is defined by previous diagnosis.

\*\*All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 19. Treatment outcome of new and relapse TB cases of foreign origin notified in 2020, European Region, 2021

	New and	Succ	ess	Die	d	Faile	d	Lost to fo	llow-up <sup>c</sup>	Still on tr	eatment	Not eval	luated
Country/area	relapse TB cases of foreign origin notified in 2020 <sup>b</sup>	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austriae	208	146	(70.2)	10	(4.8)	0	(0.0)	3	(1.4)	18	(8.7)	31	(14.9)
Belgiumef	431	296	(68.7)	20	(4.6)	0	(0.0)	28	(6.5)	12	(2.8)	75	(17.4)
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	2	1	(50.0)	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Cyprus	29	13	(44.8)	0	(0.0)	0	(0.0)	4	(13.8)	2	(6.9)	10	(34.5)
Czechia	113	73	(64.6)	9	(8.0)	1	(0.9)	21	(18.6)	2	(1.8)	7	(6.2)
Denmark <sup>f</sup>	148	45	(30.4)	1	(0.7)	1	(0.7)	2	(1.4)	1	(0.7)	98	(66.2)
Estonia Finland	30	17	(56.7) (28.8)	9	(30.0)	0	(0.0)	1	(3.3)	0	(0.0)	<i>3</i> 45	(10.0)
France	66	19	(28.8)	0	(0.0)	-	(1.5)	1	(1.5)	0	(0.0)	45	(68.2)
Germany	2707	2098	(77.5)	132	(4.9)	0	(0.0)	42	(1.6)	32	(1.2)	403	(14.9)
Greece <sup>e</sup>	2/0/	2090	(//.5)	132	(4.7)	_	(0.0)	42	(1.0)	- 52	(1.2)	405	(14.7)
Hungarye	16	7	(43.8)	0	(0.0)	1	(6.3)	3	(18.8)	2	(12.5)	3	(18.8)
Iceland	11	2	(18.2)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	9	(81.8)
Ireland	116	10	(8.6)	1	(0.9)	0	(0.0)	4	(3.4)	0	(0.0)	101	(87.1)
Italy	-	-	(0.0)	_	(0.9)	_	(0.0)	-	(3.4)	-	(0.0)	-	(07.1)
Latvia	-	_	-	-	-	-	_	-	-	-	-	-	-
Liechtenstein	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Lithuania	8	7	(87.5)	1	(12.5)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Luxembourg	27	8	(29.6)	1	(3.7)	0	(0.0)	0	(0.0)	0	(0.0)	18	(66.7)
Malta	134	133	(99.3)	0	(0.0)	0	(0.0)	1	(0.7)	0	(0.0)	0	(0.0)
Netherlands	439	369	(84.1)	11	(2.5)	0	(0.0)	18	(4.1)	11	(2.5)	30	(6.8)
Norway <sup>f</sup>	114	102	(89.5)	1	(0.9)	1	(0.9)	0	(0.0)	0	(0.0)	10	(8.8)
Polande	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	398	273	(68.6)	7	(1.8)	0	(0.0)	29	(7.3)	61	(15.3)	28	(7.0)
Romania	31	25	(80.6)	2	(6.5)	0	(0.0)	2	(6.5)	2	(6.5)	0	(0.0)
Slovakia	6	6	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	23	16	(69.6)	4	(17.4)	0	(0.0)	0	(0.0)	2	(8.7)	1	(4.3)
Spain	1201	626	(52.1)	26	(2.2)	0	(0.0)	30	(2.5)	14	(1.2)	505	(42.0)
Sweden	266	191	(71.8)	5	(1.9)	0	(0.0)	0	(0.0)	0	(0.0)	70	(26.3)
Subtotal EU/EEA	6526	4 485	(68.7)	241	(3.7)	5	(0.1)	189	(2.9)	159	(2.4)	1447	(22.2)
Non-EU/EEA Albania	0				-	-	-	-	-			-	
Andorra	2	2	(100.0)	- 0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Armenia	3	1	(33.3)	0	(0.0)	0	(0.0)	2	(66.7)	-	-	0	(0.0)
Azerbaijan	_	-	()).))	-	(0.0)	_	(0.0)	_	(00.7)	_	_	_	(0.0)
Belarus	_	_	_	-	_	-	_	_	_	-	-	-	_
Bosnia and Herzegovina	5	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	_	_	5	(100.0)
Georgia	-	-	-	-	-	-	-	_	-	-	-	-	-
Israel	133	104	(78.2)	13	(9.8)	6	(4.5)	7	(5.3)	-	-	3	(2.3)
Kazakhstan	102	80	(78.4)	15	(14.7)	3	(2.9)	4	(3.9)	-	-	0	(0.0)
Kyrgyzstan	-	-	-	-	-	-	-	-	-	-	-	-	_
Monaco	0	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	3	0	(0.0)	1	(33.3)	0	(0.0)	2	(66.7)	-	-	0	(0.0)
North Macedonia	5	5	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Republic of Moldova	6	5	(83.3)	1	(16.7)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Russian Federation	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-
San Marino	-	-	-	-	-								_
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	
Serbia Serbia excluding Kosovo <sup>1</sup> Kosovo <sup>1</sup>	-	- - -	- - -	-	-	-	-	-	-	-	-	-	-
Serbia Serbia excluding Kosovo <sup>a</sup> Kosovo <sup>a</sup> Switzerland	279	-	-	- - - 1		-		-		- - -	- - -	-	- (25.8)
Serbia Serbia excluding Kosovo <sup>1</sup> Kosovo <sup>1</sup> Switzerland <i>Tajikistan</i>	279 0	- - - 189	- - - (67.7)	- - - 1	(0.4)	- - 0 -	(0.0) -	- - 17 -	- (6.1) -	- - -	- - -	- - 72 -	-
Serbia Serbia excluding Kosovo <sup>1</sup> Kosovo <sup>1</sup> Switzerland Tajikistan Türkiye	279	- - -	- - -	- - 1 - 87	-	- 0 - 5	-	-	-	- - - -	- - - -	-	-
Serbia Serbia excluding Kosovo <sup>1</sup> Kosovo <sup>1</sup> Switzerland Tajikistan Türkiye Turkmenistan	279 0 1407	- - 189 - 1027	- (67.7) - (73.0)	- - 1 - 87	(0.4) - (6.2)	- 0 - 5	(0.0) - (0.4)	- 17 - 68 -	(6.1) - (4.8)	- - - -	- - - -	- 72 - 220	- (15.6) -
Serbia Serbia excluding Kosovo <sup>1</sup> Kosovo <sup>1</sup> Switzerland Tajikistan Türkiye Turkmenistan Ukraine	279 0 1407 - 27	- - 189 - 1027 - 19	- (67.7) - (73.0) - (70.4)	- - 1 - 87 -	(0.4) - (6.2) - (3.7)	- 0 - 5 -	(0.0) - (0.4) - (3.7)	- 17 - 68 - 4	(6.1) - (4.8) - (14.8)	- - - - -	- - - -	- 72 - 220 - 2	- (15.6) - (7.4)
Serbia Serbia excluding Kosovot Kosovot Switzerland Tärkistan Türkiye Turkmenistan Ukraine United Kingdomf	279 0 1407 - 27 3122	- 189 - 1027 - 19 2490	- (67.7) - (73.0)	- - 1 - 87	(0.4) - (6.2)	- 0 - 5	(0.0) - (0.4)	- 17 - 68 -	(6.1) - (4.8)	- - - - -	-	- 72 - 220	- (15.6) -
Serbia Serbia excluding Kosovot Kosovot Switzerland Tajikistan Türkiye Turkmenistan Ukraine United Kingdomt Uzbekistan	279 0 1407 - 27 3122	- 189 - 1027 - 19 2490	- (67.7) - (73.0) - (70.4) (79.8)	- - 1 - 87 - 1 167	(0.4) - (6.2) - (3.7) (5.3)	- 0 - 5 - 1 211	(0.0) - (0.4) - (3.7) (6.8)	- 17 - 68 - 4 104	(6.1) - (4.8) - (14.8) (3.3)	- - - - - -	- - - - -	- 72 - 220 - 2 150	(15.6) - (7.4) (4.8)
Serbia Serbia excluding Kosovot Kosovot Switzerland Tärkistan Türkiye Turkmenistan Ukraine United Kingdomf	279 0 1407 - 27 3122	- 189 - 1027 - 19 2490	- (67.7) - (73.0) - (70.4)	- - 1 - 87 -	(0.4) - (6.2) - (3.7)	- 0 - 5 -	(0.0) - (0.4) - (3.7)	- 17 - 68 - 4	(6.1) - (4.8) - (14.8)	- - - - -	-	- 72 - 220 - 2	- (15.6) - (7.4)

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

\*\*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 'tefaulted'.

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

\*\*Origin is based on nationality.

\*\*Origin is based on nationality.

\*\*Previous TB history is defined by previous diagnosis.

\*\*All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 20. Treatment outcome of HIV-positive new and relapse TB cases notified in 2020, European Region, 2021

Country/area	HIV-positive TB cases	Succ	ess	Die	ed .	Faile	ed	Lost to fol	low-up <sup>c</sup>	Still on tre	atment	Not eval	uated
,,	notified in 2020 <sup>b</sup>	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgiume	29	19	(65.5)	1	(3.4)	0	(0.0)	4	(13.8)	1	(3.4)	4	(13.8)
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	0	0	-	0	-	0	-	0	_	0	-	0	-
Cyprus	2	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(100.0)
Czechia	6	3	(50.0)	1	(16.7)	0	(0.0)	2	(33.3)	0	(0.0)	0	(0.0)
Denmarke	4	2	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(50.0)
Estonia	9	7	(77.8)	1	(11.1)	0	(0.0)	1	(11.1)	0	(0.0)	0	(0.0)
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	-	-	-	-	-	-	-	-	-	-	-	-	-
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	2	0	(0.0)	0	(0.0)	0	(0.0)	2	(100.0)	0	(0.0)	0	(0.0)
Iceland	_	-	_	-	_	_	_	-	_	-	-	_	_
Ireland <sup>e</sup>	5	1	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	4	(80.0)
Italy	_	_	(2010)	_	-	_	(0.0)	_	(0.0)	_	-	_	(0010)
Latvia	_	-	-	-	-	-	-	-	-	-	-	-	_
Liechtenstein	-	-	-	_	-	-	_	_	_	_	-	_	_
Lithuania	10	7	(70.0)	2	(20.0)	0	(0.0)	1	(10.0)	0	(0.0)	0	(0.0)
Luxembourg	0	0	(/0.0)	0	(20.0)	0	(0.0)	0	(10.0)	0	(0.0)	0	(0.0)
Malta	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	14	13	(92.9)	0	(0.0)	0	(0.0)	0	(0.0)	1	(7.1)	0	(0.0)
Norwaye	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Poland	_	_	(100.0)	_	(0.0)	_	(0.0)	-	(0.0)	-	(0.0)	-	(0.0)
	111	59	(53.2)	6	(5.4)	0	(0.0)	9	(8.1)	27	(24.3)	10	(9.0)
Portugal Romania			(58.6)		(28.1)	2	(1.6)	11	(8.6)		(3.1)	0	(0.0)
	128	75		36					(0.0)	4			
Slovakia		1	(50.0)	1	(50.0)	0	(0.0)	0		0	(0.0)	0	(0.0)
Slovenia	0	0		0		0		0	(4.0)	0	- (( 0)	0	((2.0)
Spain	100	37	(37.0)	13	(13.0)	0	(0.0)	4	(4.0)	4	(4.0)	42	(42.0)
Sweden		220	(F2 F)	- (1	(44. 2)		(0.5)		(0.0)		(8.7)		(15.0)
Subtotal EU/EEA	426	228	(53.5)	61	(14.3)	2	(0.5)	34	(8.0)	37	(8./)	64	(15.0)
Non-EU/EEA	2	2	(400.0)	0	(0,0)	0	(0,0)	0	(0, 0)				(0,0)
Albania	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Andorra	0	-	(70.0)	-	(22.2)	-	(0.0)	-	(2.2)	-	-	-	(0.0)
Armenia	30	22	(73.3)	6	(20.0)	0	(0.0)	1	(3.3)	-	-	1	(3.3)
Azerbaijan	-	-	(00.4)	-	- (2.2)	-	- (2.2)	-	-	-	-	-	- ()
Belarus	61	51	(83.6)	6	(9.8)	0	(0.0)	3	(4.9)	-	-	1	(1.6)
Bosnia and Herzegovina	-	-	(00.4)	-	- (, -)	-	- (2.2)	-	-	-	-	-	()
Georgia	23	19	(82.6)	1	(4.3)	0	(0.0)	3	(13.0)	-	-	0	(0.0)
Israel	14	12	(85.7)	0	(0.0)	2	(14.3)	0	(0.0)	-	-	0	(0.0)
Kazakhstan	242	167	(69.0)	55	(22.7)	10	(4.1)	7	(2.9)	-	-	3	(1.2)
Kyrgyzstan	99	52	(52.5)	29	(29.3)	5	(5.1)	13	(13.1)	-	-	0	(0.0)
Monaco	0	-	-	-	-	-	-	-	-	-	-	-	_
Montenegro	0	-	-	-	-	-	-	-	-	-	-	-	_
North Macedonia	1	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Republic of Moldova	162	99	(61.1)	50	(30.9)	7	(4.3)	4	(2.5)	-	-	2	(1.2)
Russian Federation	11120	4538	(40.8)	2261	(20.3)	2557	(23.0)	909	(8.2)	-	-	855	(7.7)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	0	-	-	-	-	-	-	-	-	-	-	-	_
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
Kosovo¹	0	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	93	72	(77.4)	17	(18.3)	2	(2.2)	2	(2.2)	-	-	0	(0.0)
Türkiye	83	53	(63.9)	15	(18.1)	0	(0.0)	1	(1.2)	-	-	14	(16.9)
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	2720	1831	(67.3)	538	(19.8)	132	(4.9)	217	(8.0)	-	-	2	(0.1)
United Kingdom <sup>e</sup>	-	-	-	-	-	-	_	-	_	-	-	-	_
Uzbekistan	-	-	-	-	-	-	-	-	-	_	-	-	_
Subtotal non-EU/EEA	14650	6 9 1 8	(47.2)	2979	(20.3)	2715	(18.5)	1160	(7.9)	0	(0.0)	878	(6.0)
Total European Region	15 076	7146	(47.4)	3040	(20.2)	2717	(18.0)	1194	(7.9)	37	(0.2)	942	(6.2)
			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. EU/EEA: 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. HPCs: high-priority countries.

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

5 Rifampicin-resistant (RR) TB cases are excluded.

6 In previous reports defined as 'defaulted'.

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

7 Previous TB history is defined by previous diagnosis.

7 All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 21. Treatment outcome among new and relapse TB cases in prisons notified in 2020, European Region, 2021

Country/area	New and relapse TB cases in prisons notified	Succ	ess	Die	d	Faile	d	Lost to fol	low-up <sup>c</sup>	Not eval	uated
Country/area	in 2020b	N	(%)	N	(%)	N	(%)	N	(%)	N	(%
EU/EEA											
Austria	-	-	-	-	-	-	-	-	-	-	-
Belgium	11	8	(72.7)	0	(0.0)	0	(0.0)	2	(18.2)	1	(9.1
Bulgaria	6	6	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Croatia	_	-	-	-	-	-	-	-	-	-	-
Cyprus	-	-	-	-	-	-	-	-	-	-	-
Czechia	3	2	(66.7)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)
Denmark	-	-	-	-	-	-	-	-	-	-	-
Estonia	3	3	(100.0)	-	-	-	-	-	-	-	-
Finland	-	-	-	-	-	-	-	-	-	-	-
France	_	-	-	-	-	-	-	-	-	-	-
Germany	-	-	-	-	-	-	-	-	-	-	-
Greece	_	-	-	-	-	-	-	-	-	-	-
Hungary	_	-	-	-	-	-	-	-	-	-	-
Iceland	_	-	-	-	-	-	-	-	-	-	-
Ireland	0	0	-	0	-	0	-	0	-	0	-
Italy	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-
Lithuania	22	13	(59.1)	1	(4.5)	0	(0.0)	5	(22.7)	3	(13.6)
Luxembourg	0	-	-	0	-	0	_	0	-	0	-
Malta	0	-	-	-	-	-	-	-	-	-	-
Netherlands	5	3	(60.0)	0	(0.0)	0	(0.0)	2	(40.0)	0	(0.0)
Norway	_	-	-	-	-	-	-	_	-	-	-
Poland	_	-	-	-	-	-	-	-	-	-	-
Portugal	22	15	(68.2)	3	(13.6)	0	(0.0)	1	(4.5)	3	(13.6)
Romania	73	64	(87.7)	2	(2.7)	0	(0.0)	4	(5.5)	3	(4.1)
Slovakia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	_	-	-	-	-	-	-	-	-	-	-
Spain	-	-	-	-	-	-	-	_	-	-	-
Sweden	_	-	-	-	-	-	-	-	-	-	-
Subtotal EU/EEA	147	116	(78.9)	7	(4.8)	0	(0.0)	14	(9.5)	10	(6.8)
Non-EU/EEA			4,		12.7		1		4		
Albania	-	-	-	-	-	-	-	-	-	-	-
Andorra	0	-	-	-	-	-	-	-	-	-	-
Armenia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Azerbaijan	86	83	(96.5)	1	(1.2)	0	(0.0)	2	(2.3)	0	(0.0)
Belarus	7	7	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Bosnia and Herzegovina	, –	_	(100.0)	_	(0.0)	_	(0.0)	_	(0.0)	_	(0.0)
Georgia	25	21	(84.0)	0	(0.0)	0	(0.0)	4	(16.0)	0	(0.0)
Israel	-	_	(04.0)	_	(0.0)	-	(0.0)	-	(10.0)	-	(0.0)
Kazakhstan	62	52	(83.9)	1	(1.6)	3	(4.8)	0	(0.0)	6	(9.7)
Kyrgyzstan	53	39	(73.6)	1	(1.9)	0	(0.0)	3	(5.7)	10	(18.9)
Monaco	-	-	(/ ).0/	-	(1.2)	-	(0.0)	_	(3.7)	-	(10.5)
Montenegro	_	_	_	-	_	_	_	_	_	_	
North Macedonia	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Republic of Moldova	33	24	(72.7)	3	(9.1)	3	(9.1)	0	(0.0)	3	(9.1)
Russian Federation	4630	2638	(57.0)	140	(3.0)	423	(9.1)	200	(4.3)	1229	(26.5)
San Marino	4 630	2 0 3 8	(57.0)	140	(3.0)	423	(9.1)	200	(4.3)	1229	(20.5)
Serbia	_	-	-	-			_	_	-	-	
Serbia excluding Kosovo <sup>1</sup>	_	_	_	-	-	-	-	-	_	_	
Kosovo <sup>1</sup>	-		-	-		-	-	-	-	-	
Switzerland	_	-	_		-	_	-	_	-	_	
Tajikistan				- 1	(1.5)						(20.4)
Türkiye	68	52	(76.5) (82.2)	1	(3.4)	1	(1.5)	0	(0.0)	14	(20.6)
	118	97	(02.2)	4	(3.4)	1	(0.8)	7	(3.9)	9	(/.6,
Turkmenistan	222	- 260	(70 ()	- 12	(2.5)	24	(77)	-	(0.4)	-	(0.0)
Ukraine	339	269	(79.4)	12	(3.5)	26	(7.7)	32	(9.4)	0	(0.0)
United Kingdom	-	-	-	-	-	-	_	-	-	-	
Uzbekistan	-	-	-	- 442	- (2.0)	-	- (0.1)	- 0/0	-	-	100 -
Subtotal non-EU/EEA Total European Region	5425	3286	(60.6)	163	(3.0)	457	(8.4)	248	(4.6)	1271	(23.4)
	5572	3402	(61.1)	170	(3.1)	457	(8.2)	262	(4.7)	1281	(23.0)

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

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

5 Rifampicin-resistant (RR) TB cases are excluded.

6 In previous reports defined as 'defaulted'.

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

7 All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 22. Treatment outcome after 24 months of RR/MDR-TB cases started on second-line treatment in 2019, European Region, 2021

C	RR/MDR-TB° cases started on	Succ	ess	Die	1	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 2019	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA	1019												
Austria	6	6	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Belgium	16	14	(87.5)	0	(0.0)	0	(0.0)	1	(6.3)	0	(0.0)	1	(6.3)
Bulgaria	13	6	(46.2)	3	(23.1)	1	(7.7)	2	(15.4)	0	(0.0)	1	(7.7)
Croatia	-	_	-	_	-	_	-	_	-	_	-	_	-
Cyprus	_	_	_	-	_	-	_	_	_	_	_	_	_
Czechia	6	4	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(33.3)
Denmark	-	-	(00.7)	-	(0.0)	_	(0.0)	-	(0.0)	_	(0.0)	_	()).)
Estonia	27	21	(77.8)	2	(7.4)	1	(3.7)	2	(7.4)	1	(3.7)	0	(0.0)
Finland	3	2	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)
France	_	_	(00.7)	_	(0.0)	_	(0.0)	-	(0.0)	_	(0.0)	_	()).))
Germany	101	56	(55.4)	4	(4.0)	0	(0.0)	3	(3.0)	8	(7.9)	30	(29.7)
Greece	-	-	(33.4)	-	(4.0)	_	(0.0)	_	(5.0)	-	(7.5)	-	(23.1)
	13	3	(23.1)	1	(7.7)	1	(7.7)	2	(15.4)	3	(23.1)	3	(23.1)
Hungary			(23.1)		(/./)	_		_		3	(23.1)	-	(23.1)
Iceland	-	-	(22.2)	-	(4 ( 7)		(0.0)		(0.0)				(50.0)
Ireland	6	2	(33.3)	1	(16.7)	0	(0.0)	0	(0.0)	0	(0.0)	3	(50.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	_
Liechtenstein	-	-	- (1-1)	-	- (1.1.2)	-	- (2.2)	-	- ()	-	- (2.2.2)	-	()
Lithuania	173	78	(45.1)	29	(16.8)	5	(2.9)	10	(5.8)	50	(28.9)	1	(0.6)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	
Malta	-	-	-	-	-	-	-	-	-	-	-	-	_
Netherlands	9	8	(88.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(11.1)
Norway	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	14	6	(42.9)	0	(0.0)	0	(0.0)	2	(14.3)	2	(14.3)	4	(28.6)
Romania	377	184	(48.8)	70	(18.6)	63	(16.7)	51	(13.5)	9	(2.4)	0	(0.0)
Slovakia	5	4	(80.0)	1	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	0	-	-	-	-	-	-	-	-	-	-	-	-
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	10	9	(90.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(10.0)
Subtotal EU/EEA	781	404	(51.7)	111	(14.2)	71	(9.1)	73	(9.3)	73	(9.3)	49	(6.3)
Non-EU/EEA													
Albania	2	1	(50.0)	1	(50.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Andorra	0	-	-	-	-	-	-	-	-	-	-	-	-
Armenia	65	35	(53.8)	12	(18.5)	7	(10.8)	10	(15.4)	-	-	1	(1.5)
Azerbaijan	815	486	(59.6)	87	(10.7)	99	(12.1)	143	(17.5)	-	-	0	(0.0)
Belarus	772	640	(82.9)	64	(8.3)	13	(1.7)	47	(6.1)	-	-	8	(1.0)
Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	218	171	(78.4)	13	(6.0)	4	(1.8)	28	(12.8)	-	-	2	(0.9)
Israel	9	5	(55.6)	1	(11.1)	1	(11.1)	2	(22.2)	-	-	0	(0.0)
Kazakhstan	5892	4486	(76.1)	600	(10.2)	196	(3.3)	289	(4.9)	-	-	321	(5.4)
Kyrgyzstan	1173	841	(71.7)	79	(6.7)	42	(3.6)	208	(17.7)	-	-	3	(0.3)
Monaco	0	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	0	-	-	-	-	-	-	-	-	_	-	-	-
North Macedonia	2	0	(0.0)	0	(0.0)	0	(0.0)	2	(100.0)	_	-	0	(0.0)
Republic of Moldova	559	387	(69.2)	76	(13.6)	35	(6.3)	13	(2.3)	_	-	48	(8.6)
Russian Federation	32 574	16447	(50.5)	5070	(15.6)	5187	(15.9)	3 572	(11.0)	_	-	2298	(7.1)
San Marino	-	-	(50.5)	-	(1310)	-	-	-	-	_	-	_	-
Serbia	_	_	_	-	_	-	_	_	_	_	-	_	_
Serbia excluding Kosovo <sup>1</sup>	_	_	-	_	-	_	_	_		_	-	_	_
Kosovo <sup>1</sup>	_	_	_	_	_	_	_	_	_	_	_	-	_
Switzerland	12	11	(91.7)	0	(0.0)	0	(0.0)	1	(8.3)	_	_	0	(0.0)
Tajikistan	588	454	(77.2)	66	(11.2)	14	(2.4)	54	(9.2)	_	-	0	(0.0)
,										_	-		
Türkiye	155	7	(4.5)	16	(10.3)	106	(0.0)	11	(7.1)	-	-	121	(78.1)
Turkmenistan	649	358	(55.2)	106	(16.3)	106	(16.3)	71	(10.9)			8	(1.2)
Ukraine	7259	4460	(61.4)	969	(13.3)	907	(12.5)	918	(12.6)	-	-	5	(0.1)
	47	31	(66.0)	4	(8.5)	3	(6.4)	5	(10.6)	-	-	4	(8.5)
United Kingdom													(5.9)
Uzbekistan	2040	1422	(69.7)	223	(10.9)	113	(5.5)	162	(7.9)	-	- (2.2)	120	
	2 040 52 831 53 612	30 242 30 646	(69.7) (57.2) (57.2)	7387 7498	(10.9) (14.0) (14.0)	6727 6798	(12.7) (12.7)	5536 5609	(7.9) (10.5)	73	(0.0)	2939 2988	(5.6) (5.6)

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

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).

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

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

\* All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 23. Treatment outcome after 24 months of pre-XDR-TB cases started on second-line treatment in 2019, European Region, 2021

Country/area	Pre-XDR-TB <sup>a</sup> cases started on second-	Succ	ess	Died		Faile	d	Lost to fol	low-up <sup>c</sup>	Still on tre	atment	Not evalu	ıated
Country/area	line treatment in 2019 <sup>b</sup>	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Belgium	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Bulgaria	4	0	(0.0)	2	(50.0)	0	(0.0)	1	(25.0)	0	(0.0)	1	(25.0)
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyprus	0	0	-	0	-	0	-	0	-	0	-	0	-
Czechia	0	0	-	0	-	0	-	0	-	0	-	0	-
Denmark	0	0	- ((0,0)	0	- (0.0)	0	- (0.0)	0	(22.2)	0	(22.2)	0	(0.0)
Estonia	5	3	(60.0)	0	(0.0)	0	(0.0)	1	(20.0)	1	(20.0)	0	(0.0)
Finland	0	0	-	0	_	0	-	0	_	0	-	0	_
France	14	- 5	(35.7)		(0.0)	0	(0.0)	1	(7.1)	3	(21.4)	5	(35.7)
Germany Greece	14	5	(35./)	0	(0.0)	0	(0.0)	-	(/.1)	_	(21.4)	5	(35./)
Hungary	6	0	(0.0)	1	(16.7)	1	(16.7)	1	(16.7)	1	(16.7)	2	(33.3)
Iceland	0	0	(0.0)	0	(10.7)	0	(10.7)	0	(10.7)	0	(10.7)	0	()).))
Ireland	0	0	-	0	-	0	_	0	_	0	-	0	_
Italy	_	-	_	_	_	_	_	_	_	_	-	_	_
Latvia	_	-	-	-	-	-	_	_	_	_	-	_	_
Liechtenstein	_	-	-	-	-	-	-	-	-	_	-	-	_
Lithuania	76	4	(5.3)	14	(18.4)	4	(5.3)	4	(5.3)	50	(65.8)	0	(0.0)
Luxembourg	-	-	-	-	-	-	-	_	-	-	-	-	-
Malta	_	-	-	-	-	-	_	_	-	-	-	-	-
Netherlands	0	0	-	0	-	0	-	0	-	0	-	0	-
Norway	-	-	-	-	-	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	0	0	-	0	-	0	-	0	-	0	-	0	-
Romania	50	11	(22.0)	13	(26.0)	17	(34.0)	6	(12.0)	3	(6.0)	0	(0.0)
Slovakia	0	0	-	0	-	0	-	0	-	0	-	0	-
Slovenia	0	0	-	0	-	0	-	0	-	0	-	0	-
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	0	0	-	0	-	0	-	0	-	0	-	0	-
Subtotal EU/EEA	159	27	(17.0)	30	(18.9)	22	(13.8)	14	(8.8)	58	(36.5)	8	(5.0)
Non-EU/EEA													
Albania	0	-	-	-	-	-	-	-	-	-	-	-	-
Andorra	0	-	()	-	- (22.2)	-	- (2.2)	-	- (2.2)	-	-	-	(2.2)
Armenia	12	6	(50.0)	4	(33.3)	1	(8.3)	0	(0.0)	-	-	1	(8.3)
Azerbaijan	186	113	(60.8)	13	(7.0)	32	(17.2)	28	(15.1)	-	-	0	(0.0)
Belarus	287	206	(71.8)	24	(8.4)	19	(6.6)	36	(12.5)	_	-	2	(0.7)
Bosnia and Herzegovina	53	30	(56.6)		(7.5)	5	(9.4)	10	(18.9)	_	-	4	(7.5)
Georgia Israel	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	_	_	0	(0.0)
Kazakhstan	655	476	(72.7)	82	(12.5)	55	(8.4)	22	(3.4)	_	-	20	(3.1)
Kyrgyzstan	97	60	(61.9)	8	(8.2)	10	(10.3)	19	(19.6)	_	_	0	(0.0)
Monaco	0	-	(01.7)	0	(0.2)	-	(10.5)	-	(17.0)	_	-	-	(0.0)
Montenegro	0	_	-	-	-	-	_	_	_	_	-	-	_
North Macedonia	0	-	_	_	_	-	_	_	_	_	_	_	-
Republic of Moldova	37	21	(56.8)	4	(10.8)	7	(18.9)	3	(8.1)	_	-	2	(5.4)
Russian Federation	39	11	(28.2)	5	(12.8)	15	(38.5)	5	(12.8)	_	-	3	(7.7)
San Marino	-	-	-	-	-	-	-	-	-	_	-	-	_
Serbia	-	-	-	-	-	-	-	-	_	-	-	-	-
Serbia excluding Kosovo <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
Kosovo¹	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	68	53	(77.9)	9	(13.2)	4	(5.9)	2	(2.9)	-	-	0	(0.0)
Türkiye	8	0	(0.0)	0	(0.0)	0	(0.0)	1	(12.5)	-	-	7	(87.5)
Turkmenistan	113	59	(52.2)	30	(26.5)	15	(13.3)	8	(7.1)	-	-	1	(0.9)
Ukraine	0	-	-	-	-	-	-	-	_	-	-	-	_
United Kingdom	8	6	(75.0)	1	(12.5)	1	(12.5)	0	(0.0)	-	-	0	(0.0)
Uzbekistan	627	411	(65.6)	108	(17.2)	32	(5.1)	34	(5.4)	-	-	42	(6.7)
Subtotal non-EU/EEA	2191	1453	(66.3)	292	(13.3)	196	(8.9)	168	(7.7)	0	(0.0)	82	(3.7)
Total European Region	2350	1480	(63.0)	322	(13.7)	218	(9.3)	182	(7.7)	58	(2.5)	90	(3.8)
Subtotal 18 HPCs	2317	1464	(63.2)	320	(13.8)	216	(9.3)	180	(7.8)	54	(2.3)	83	(3.6)

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

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 but that also meet the XDR case definitions (XDR cases have not been excluded).

For EU/EEA countries, cases diagnosed postmortem 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'.

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table 24. Treatment outcome after 36 months of XDR-TB notified in 2018, EU/EEA, 2021

Country	XDR-TB <sup>a</sup> cases reported in	Succe	ss	Died		Faile	d	Lost to fo	llow-upb	Not evalu	ated <sup>c</sup>
,	2018	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA								·			
Austria	4	3	(75.0)	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)
Belgium	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Bulgaria	-	-	-	-	-	-	-	-	-	-	-
Croatia	0	0	-	0	-	0	-	0	-	0	-
Cyprus	0	0	-	0	-	0	-	0	-	0	-
Czechia	0	0	-	0	-	0	-	0	-	0	-
Denmark	0	0	-	0	-	0	-	0	-	0	-
Estonia	5	4	(80.0)	0	(0.0)	1	(20.0)	0	(0.0)	0	(0.0)
Finland	0	0	-	0	-	0	-	0	-	0	-
France	-	-	-	-	-	-	-	-	-	-	-
Germany	14	8	(57.1)	2	(14.3)	1	(7.1)	0	(0.0)	3	(21.4)
Greece	0	0	-	0	-	0	-	0	-	0	_
Hungary	0	0	-	0	-	0	-	0	-	0	-
Iceland	-	-	-	-	-	-	-	-	-	-	-
Ireland	0	0	-	0	-	0	-	0	-	0	-
Italy	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-
Lithuania	3	2	(66.7)	0	(0.0)	1	(33.3)	0	(0.0)	0	(0.0)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-	-	-	-
Netherlands	0	0	-	0	-	0	-	0	-	0	-
Norway	0	0	-	0	-	0	-	0	-	0	-
Poland	-	-	-	-	-	-	-	-	-	-	-
Portugal	0	0	-	0	-	0	-	0	-	0	-
Romania	0	0	-	0	-	0	-	0	-	0	-
Slovakia	0	0	-	0	-	0	-	0	-	0	-
Slovenia	0	0	-	0	-	0	-	0	-	0	-
Spain	-	-	-	-	-	-	-	-	-	-	-
Sweden	0	0	-	0	-	0	-	0	-	0	-
Total EU/EEA	27	18	(66.7)	3	(11.1)	3	(11.1)	0	(0.0)	3	(11.1)

Note: WHO European Region 18 TB high-priority countries 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.
TESSy: The European Surveillance System.
XDR-TB: extensively drug-resistant tuberculosis.
XDR-TB defined as resistance to iriampicin 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).

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



Table I. Estimated tuberculosis (TB) mortality per 100 000 population, European Region, 2012-2021a

	20	12	20	13	20	14	20	15	20	16	20	17
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
U/EEA												
Austria	43	(0.5)	70	(0.8)	72	(0.8)	65	(0.8)	39	(0.4)	36	(0.4)
Belgium	61	(0.6)	57	(0.5)	42	(0.4)	61	(0.5)	32	(0.3)	33	(0.3)
Bulgaria	170	(2.3)	160	(2.2)	130	(1.8)	120	(1.6)	120	(1.7)	98	(1.4)
Croatia	60	(1.4)	54	(1.3)	40	(0.9)	46	(1.1)	58	(1.4)	61	(1.5)
Cyprus	5	(0.4)	1	(0.1)	5	(0.4)	2	(0.2)	3	(0.3)	3	(0.2)
Czechia	31	(0.3)	68	(0.6)	40	(0.4)	57	(0.5)	43	(0.4)	38	(0.4)
Denmark	23	(0.4)	17	(0.3)	13	(0.2)	17	(0.3)	23	(0.4)	14	(0.2)
Estonia	36	(2.7)	26	(2.0)	29	(2.2)	22	(1.7)	28	(2.1)	23	(1.7)
Finland	50	(0.9)	32	(0.6)	41	(0.8)	33	(0.6)	26	(0.5)	35	(0.6)
rance	560	(0.9)	560	(0.9)	480	(0.8)	470	(0.7)	440	(0.7)	430	(0.7)
Germany	360	(0.4)	380	(0.5)	320	(0.4)	320	(0.4)	300	(0.4)	300	(0.4)
Greece	110	(1.0)	78	(0.5)	55	(0.4)	45	(0.4)	48	(0.4)	58	(0.4)
	130	(1.3)	95	(1.0)	84	(0.9)	100	(1.0)	64	(0.4)	63	(0.6)
Hungary												
celand	3	(0.9)	2	(0.6)	2	(0.6)	2	(0.6)	2	(0.6)	2	(0.6)
reland	26	(0.6)	22	(0.5)	24	(0.5)	17	(0.4)	17	(0.4)	18	(0.4)
taly	340	(0.6)	270	(0.4)	290	(0.5)	340	(0.6)	310	(0.5)	310	(0.5)
Latvia	64	(3.1)	110	(5.4)	69	(3.4)	99	(5.0)	80	(4.1)	75	(3.8)
Liechtenstein	-	-	-	-	-	-	_	-	-	-	-	-
Lithuania	260	(8.5)	210	(6.9)	230	(7.7)	190	(6.4)	180	(6.1)	160	(5.5)
uxembourg	1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	3	(0.5)
Malta	1	(0.2)	3	(0.7)	1	(0.2)	2	(0.4)	3	(0.6)	1	(0.2)
Netherlands	35	(0.2)	40	(0.2)	35	(0.2)	37	(0.2)	30	(0.2)	24	(0.1)
Vorway	22	(0.4)	21	(0.4)	13	(0.3)	12	(0.2)	18	(0.3)	18	(0.3)
Poland	680	(1.8)	580	(1.5)	580	(1.5)	580	(1.5)	600	(1.6)	560	(1.5)
Portugal	230	(2.2)	230	(2.2)	220	(2.1)	220	(2.1)	210	(2.0)	200	(1.9)
Romania	1300	(6.5)	1200	(6.0)	1100	(5.5)	1100	(5.5)	990	(5.0)	950	(4.8)
Slovakia	18	(0.3)	20	(0.4)	35	(0.6)	35	(0.6)	25	(0.5)	27	(0.5)
Slovenia	11	(0.5)	9	(0.4)	22	(1.1)	11	(0.5)	7	(0.3)	7	(0.3)
Spain	330	(0.7)	300	(0.6)	290	(0.6)	250	(0.5)	260	(0.6)	250	(0.5)
Sweden	40	(0.4)			30		250		260		230	(0.2)
		(1.1)	44	(0.5)		(0.3)		(0.3)		(0.3)		(0.2)
Subtotal EU/EEA	5 0 0 0	(1.1)	4700	(1.1)	4300	(1.0)	4300	(1.0)	4000	(0.9)	3800	(0.8)
lon-EU/EEA	0	(0.2)	0	(0, 2)	0	(0.2)	0	(0.2)	0	(0, 2)	0	(0, 2)
Albania	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)
Andorra	1	(1.4)	0	(0.0)	1	(1.4)	0	(0.0)	0	(0.0)	0	(0.0)
Armenia	140	(4.8)	110	(3.8)	81	(2.8)	68	(2.4)	56	(2.0)	45	(1.6)
Azerbaijan -	430	(4.5)	450	(4.7)	440	(4.5)	580	(5.9)	590	(5.9)	600	(6.0)
Belarus	770	(7.9)	650	(6.7)	510	(5.3)	460	(4.7)	400	(4.1)	330	(3.4)
Bosnia and Herzegovina	170	(4.6)	150	(4.1)	140	(3.9)	130	(3.7)	120	(3.4)	110	(3.2)
Georgia	220	(5.8)	190	(5.0)	170	(4.5)	150	(4.0)	170	(4.5)	160	(4.2)
srael	22	(0.3)	15	(0.2)	15	(0.2)	15	(0.2)	15	(0.2)	13	(0.2)
Kazakhstan	1600	(9.4)	1100	(6.3)	930	(5.3)	720	(4.0)	610	(3.4)	580	(3.2)
(yrgyzstan	630	(11.2)	630	(11.0)	520	(8.9)	460	(7.8)	420	(7.0)	380	(6.2)
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	28	(1.3)	25	(1.2)	25	(1.2)	21	(1.0)	25	(1.2)	13	(0.6)
Republic of Moldova	440	(12.5)	310	(9.1)	300	(9.0)	250	(7.6)	220	(6.8)	170	(5.3)
Russian Federation	19 000	(13.2)	18000	(12.5)	16000	(11.1)	14 000	(9.7)	12 000	(8.3)	10000	(6.9)
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	140	(1.8)	120	(1.6)	100	(1.3)	75	(1.0)	86	(1.1)	80	(1.1)
Switzerland	23	(0.3)		(0.2)					25	(0.3)	17	(0.2)
			20 700		13	(0.2)	17	(0.2)				
ajikistan	800	(10.1)	790	(9.7)	790	(9.5)	770	(9.0)	770	(8.8)	760	(8.5)
Türkiye	740	(1.0)	630	(0.8)	590	(0.8)	550	(0.7)	550	(0.7)	510	(0.6)
Turkmenistan	590	(10.8)	530	(9.5)	640	(11.3)	570	(9.9)	600	(10.2)	610	(10.2)
Jkraine	7100	(15.6)	6400	(14.1)	5800	(12.8)	5000	(11.1)	4500	(10.0)	4000	(9.0)
Jnited Kingdom	340	(0.5)	360	(0.6)	370	(0.6)	350	(0.5)	310	(0.5)	260	(0.4)
Jzbekistan	2200	(7.5)	2200	(7.3)	2200	(7.2)	2000	(6.5)	1900	(6.0)	1600	(5.0)
Subtotal non-EU/EEA	35000	(7.7)	33 000	(7.2)	30000	(6.5)	26 000	(5.6)	23000	(4.9)	20000	(4.2)
Total European Region	40000	(4.4)	41000	(4.5)	34000	(3.7)	30000	(3.8)	27000	(2.9)	24000	(2.6)
Subtotal 18 HPCs	36000	(9.2)	34000	(8.6)	31000	(7.8)	27000	(6.7)	24000	(5.9)	21000	(5.2)

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

a Excludes HIV coinfected cases.

20:	18	20:	19	20	20	20	21	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, 2017–2021	% change in rate, 2012–2021	Country
								201/ 2021	2012 2021	EU/EEA
49	(0.6)	41	(0.5)	41	(0.5)	41	(0.5)	2.9%	-1.2%	Austria
33	(0.3)	33	(0.3)	33	(0.3)	33	(0.3)	-0.5%	-7.1%	Belgium
98	(1.4)	98	(1.4)	97	(1.4)	96	(1.4)	0.5%		Bulgaria
60	(1.4)	36	(0.9)	36	(0.9)	36	(0.9)	-11.6%		Croatia
5	(0.4)	5	(0.4)	5	(0.4)	5	(0.4)	12.8%		Cyprus
39	(0.4)	23	(0.2)	23	(0.2)	23	(0.2)	-11.8%		Czechia
10	(0.2)	10	(0.2)	10	(0.2)	10	(0.2)	-8.5%		Denmark
13	(1.0)	16	(1.2)	16	(1.2)	16	(1.2)	-8.9%	-8.7%	Estonia
30	(0.5)	30	(0.5)	30	(0.5)	30	(0.5)	-3.9%		Finland
430	(0.7)	440	(0.7)	440	(0.7)	440	(0.7)	0.4%		France
310	(0.4)	270	(0.3)	270	(0.3)	270	(0.3)	-2.8%		Germany
52	(0.5)	44	(0.4)	44	(0.4)	43	(0.4)	-6.7%	-9.4%	Greece
84	(0.9)	62	(0.6)	62	(0.6)	62	(0.6)	-0.2%	-7.7%	Hungary
2	(0.6)	2	(0.6)	2	(0.5)	2	(0.5)	-1.9%	-5.9%	Iceland
18	(0.4)	18	(0.4)	18	(0.4)	18	(0.4)	-1.1%		Ireland
300	(0.5)	300	(0.5)	300	(0.5)	300	(0.5)	-0.5%	-1.2%	
65	(3.4)	65	(3.4)	64	(3.4)	63	(3.4)	-3.2%		Latvia
- 420	- (( 2)	- 100	- (( 2)	- 420	- (1.5)	- 420	- (( 2)		7.20/	Liechtenstein
120	(4.2)	120	(4.2)	120	(4.3)	120	(4.3)	-6.0%		Lithuania
2	(0.3)	2	(0.3)	2	(0.3)	2	(0.3)	-11.2%		Luxembourg
1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	-2.3%		Malta
28	(0.2)	21	(0.1)	21	(0.1)	21	(0.1)	-3.7%		Netherlands
18	(0.3)	18	(0.3)	18	(0.3)	19	(0.4)	0.8%		Norway
570	(1.5)	510	(1.3)	510	(1.3)	510	(1.3)	-2.2%		Poland
240	(2.3)	240	(2.3)	240	(2.3)	240	(2.3)	4.7%	0.7%	Portugal
930	(4.7)	930	(4.8)	930	(4.8)	1700	(8.8)	16.2%		Romania
25	(0.5)	14	(0.3)	14	(0.3)	14	(0.3)	-15.2%		Slovakia
6	(0.3)	14	(0.7)	14	(0.7)	14	(0.7)	18.6%		Slovenia
250	(0.5)	230	(0.5)	230	(0.5)	230	(0.5)	-2.5%		Spain
22	(0.2)	22	(0.2)	23	(0.2)	23	(0.2)	-1.0%		Sweden
3800	(0.8)	3600	(0.8)	3600	(0.8)	4400	(1.0)	3.6%	-1.5%	Subtotal EU/EEA
	(* *)		(1.1)		(1.1)		()			Non-EU/EEA
8	(0.3)	8	(0.3)	9	(0.3)	13	(0.5)	13.1%		Albania
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0.0%	-100.0%	
30	(1.1)	35	(1.2)	28	(1.0)	33	(1.2)	-7.0%		Armenia
600	(5.9)	600	(5.9)	650	(6.3)	890	(8.6)	9.7%		Azerbaijan
260	(2.7)	270	(2.8)	270	(2.8)	370	(3.9)	3.2%		Belarus
100	(2.9)	95	(2.8)	94	(2.8)	92	(2.8)	-3.2%	-5.4%	
150	(4.0)	140	(3.7)	140	(3.7)	130	(3.5)	-5.0%		Georgia
20	(0.2)	21	(0.2)	21	(0.2)	21	(0.2)	10.8%	-2.3%	
500	(2.7)	440	(2.3)	330	(1.7)	1100	(5.7)	16.0%	-5.3%	Kazakhstan
360	(5.8)	290	(4.6)	290	(4.5)	550	(8.4)	7.9%		Kyrgyzstan
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0.0%		Monaco
1	(0.2)	1	(0.2)	1	(0.2)	2	(0.3)	19.1%		Montenegro
25	(1.2)	9	(0.4)	9	(0.4)	9	(0.4)	-8.7%		North Macedonia
170	(5.4)	160	(5.1)	160	(5.2)	180	(5.9)	2.4%	-8.1%	Republic of Moldova
9200	(6.3)	8000	(5.5)	7300	(5.0)	4900	(3.4)	-16.3%	-14.1%	Russian Federation
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0.0%	0.0%	San Marino
79	(1.1)	54	(0.7)	46	(0.6)	120	(1.6)	11.3%		Serbia
17	(0.2)	17	(0.2)	17	(0.2)	17	(0.2)	-0.7%		Switzerland
750	(8.2)	730	(7.8)	830	(8.7)	1200	(12.3)	9.6%		Tajikistan
460	(0.6)	420	(0.5)	420	(0.5)	970	(1.1)	16.5%		Türkiye
620	(10.2)	630	(10.2)	640	(10.2)	650	(10.2)	0.1%		Turkmenistan
4000	(9.0)	3700	(8.4)	3600	(8.2)	3600	(8.3)	-2.0%		Ukraine
260	(0.4)	230	(0.3)	230	(0.3)	230	(0.3)	-3.5%		United Kingdom
1300	(4.0)	1000	(3.0)	1100	(3.3)	1100	(3.2)	-10.4%		Uzbekistan
19 000	(4.0)	17000	(3.6)	16000	(3.3)	16000	(3.3)	-5.8%		Subtotal non-EU/EEA
27000	(2.9)	24000	(2.6)	20000	(2.2)	20000	(2.1)	-4.7%		Total European Region
20000	(4.9)	18 0 0 0	(4.4)	17000	(4.1)	18000	(4.4)	-4.1%		Subtotal 18 HPCs
20000	(7:7)	10000	(1-1/	1,000	(717)	10000	(717)	71170	11,770	

Table II. Estimated TB incidence per 100 000 population, European Region, 2012-2021

	20	12	20	13	20	14	20	15	20	16	20	17
Country	N	Rate per 100000	N	Rate per 100 000	N	Rate per	N	Rate per 100 000	N	Rate per 100000	N	Rate per 100 000
EU/EEA												
Austria	710	(8.4)	720	(8.5)	650	(7.6)	650	(7.5)	710	(8.1)	650	(7.4)
Belgium	1000	(9.1)	1000	(9.0)	1000	(8.9)	1100	(9.8)	1100	(9.7)	1100	(9.7)
Bulgaria	2700	(36.1)	2500	(33.6)	2300	(31.2)	2100	(28.7)	1900	(26.2)	1800	(25.1)
Croatia	620	(14.3)	590	(13.7)	570	(13.3)	560	(13.2)	520	(12.3)	420	(10.0)
Cyprus	72	(6.2)	47	(4.0)	45	(3.8)	72	(6.1)	66	(5.5)	60	(5.0)
Czechia	650	(6.2)	540	(5.1)	550	(5.2)	580	(5.5)	590	(5.6)	570	(5.4)
Denmark	390	(7.0)	380	(6.8)	340	(6.0)	370	(6.5)	340	(6.0)	290	(5.1)
Estonia	300	(22.7)	300	(22.8)	270	(20.5)	240	(18.3)	220	(16.7)	200	(15.2)
Finland	300	(5.5)	310	(5.7)	290	(5.3)	310	(5.7)	260	(4.7)	270	(4.9)
France	5700	(9.0)	5700	(9.0)	5500	(8.6)	5400	(8.5)	5700	(8.9)	5900	(9.2)
	4400	(5.4)	4600	(5.6)	4800	(5.9)	6200	(7.6)	6300	(7.7)	5900	(7.1)
Germany Greece	600	(5.5)	570	(5.2)	560	(5.2)	500	(4.6)	470	(4.4)		(4.7)
					920						500	
Hungary	1300	(13.1)	1200	(12.1)		(9.3)	990	(10.1)	850	(8.7)	750	(7.7)
Iceland	12	(3.7)	13	(4.0)	9	(2.7)	8	(2.4)	7	(2.1)	15	(4.4)
Ireland	390	(8.5)	410	(8.9)	340	(7.4)	340	(7.3)	340	(7.2)	350	(7.3)
Italy	3600	(6.0)	3500	(5.8)	3900	(6.5)	4000	(6.6)	4300	(7.2)	4400	(7.3)
Latvia	1100	(53.6)	1000	(49.2)	850	(42.3)	800	(40.2)	740	(37.5)	620	(31.7)
Liechtenstein	_	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1900	(62.0)	1800	(59.4)	1700	(56.8)	1600	(54.0)	1500	(51.1)	1500	(51.6)
Luxembourg	52	(9.8)	44	(8.1)	28	(5.0)	34	(6.0)	33	(5.7)	37	(6.2)
Malta	48	(11.2)	58	(13.3)	52	(11.6)	37	(8.1)	58	(12.4)	48	(10.0)
Netherlands	1100	(6.6)	960	(5.7)	940	(5.5)	980	(5.8)	1000	(5.8)	890	(5.2)
Norway	390	(7.8)	420	(8.3)	350	(6.8)	330	(6.4)	320	(6.1)	270	(5.1)
Poland	8100	(21.0)	8100	(21.0)	7500	(19.4)	7200	(18.7)	7100	(18.4)	6400	(16.6)
Portugal	2900	(27.6)	2700	(25.8)	2500	(24.0)	2400	(23.2)	2100	(20.3)	2000	(19.4)
Romania	19 000	(94.4)	18000	(89.7)	17 0 0 0	(85.0)	16000	(80.4)	15000	(75.8)	14000	(71.1)
Slovakia	370	(6.8)	460	(8.5)	370	(6.8)	350	(6.5)	320	(5.9)	260	(4.8)
Slovenia	150	(7.2)	160	(7.7)	160	(7.7)	150	(7.2)	140	(6.7)	130	(6.2)
Spain	6500	(13.9)	6000	(12.9)	5500	(11.8)	4600	(9.9)	5400	(11.6)	5000	(10.7)
Sweden	680	(7.1)	700	(7.3)	730	(7.5)	900	(9.1)	810	(8.1)	560	(5.6)
Subtotal EU/EEA	65 000	(14.5)	63000	(14.1)	60000	(13.4)	59 000	(13.2)	58000	(12.9)	55000	(12.2)
Non-EU/EEA												
Albania	470	(16.3)	540	(18.7)	470	(16.3)	480	(16.7)	480	(16.7)	580	(20.1)
Andorra	10	(14.1)	6	(8.4)	7	(9.8)	5	(7.0)	5	(6.9)	1	(1.4)
Armenia	1500	(51.5)	1700	(58.6)	1600	(55.4)	1400	(48.6)	1300	(45.4)	1000	(35.1)
Azerbaijan	8100	(85.4)	7500	(78.0)	7400	(76.0)	7000	(71.0)	6600	(66.2)	6700	(66.5)
Belarus	6200	(64.0)	5700	(58.8)	5000	(51.6)	4800	(49.5)	4100	(42.2)	3600	(37.1)
Bosnia and Herzegovina	1800	(49.0)	1600	(44.2)	1500	(42.0)	1400	(39.7)	1200	(34.5)	980	(28.5)
Georgia	4500	(118.3)	4400	(116.2)	4000	(106.0)	3700	(98.1)	3500	(92.8)	3200	(84.8)
Israel	580	(7.6)	350	(4.5)	420	(5.3)	320	(4.0)	290	(3.6)	270	(3.2)
Kazakhstan	21000	(122.8)	18000	(103.8)	16000	(90.9)	14 000	(78.5)	13 000	(71.9)	13 000	(71.0)
Kyrgyzstan	7100	(126.1)	8100	(141.6)	7300	(125.5)	8000	(135.2)	8000	(132.9)	7600	(124.2)
	7100	(0.0)	0	(0.0)	7300	(0.0)	0008	(0.0)	8000	(5.4)	0	(0.0)
Monaco											87	
Montenegro	110	(17.4)	140	(22.1)	130	(20.5)	93	(14.7)	100	(15.8)		(13.8)
North Macedonia	440	(21.0)	400	(19.0)	360	(17.1)	360	(17.1)	330	(15.6)	270	(12.8)
Republic of Moldova	4400	(125.5)	4300	(125.9)	3800	(113.8)	3300	(100.7)	3300	(102.3)	3000	(94.3)
Russian Federation	110 000	(76.6)	106000	(73.6)	101 000	(70.0)	96000	(66.4)	91000	(62.7)	86000	(59.1)
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	1800	(23.7)	2100	(27.8)	1800	(23.9)	1600	(21.3)	1400	(18.7)	1400	(18.8)
Switzerland	480	(6.0)	540	(6.7)	490	(6.0)	610	(7.4)	660	(7.9)	610	(7.2)
Tajikistan	8600	(108.1)	8100	(99.6)	7600	(91.3)	7300	(85.6)	7400	(84.8)	7500	(84.0)
Türkiye	16 000	(21.3)	15 000	(19.6)	15 0 0 0	(19.2)	15000	(18.8)	14000	(17.3)	14000	(17.1)
Turkmenistan	3800	(69.6)	3900	(70.1)	3300	(58.3)	2800	(48.6)	2700	(46.0)	2600	(43.6)
Ukraine	46 000	(101.3)	44000	(97.1)	43 000	(95.2)	41000	(91.1)	39000	(87.0)	37000	(82.9)
United Kingdom	9300	(14.6)	8300	(12.9)	7400	(11.4)	6600	(10.1)	6500	(9.9)	5900	(8.9)
Uzbekistan	26 000	(88.1)	26000	(86.8)	25000	(82.1)	25000	(80.8)	24000	(76.3)	23 0 0 0	(72.0)
Subtotal non-EU/EEA	278 000	(61.0)	267000	(58.2)	253000	(54.7)	241000	(51.7)	229000	(48.8)	218 000	(46.1)
Total European Region	343 000	(38.0)	330000	(36.4)	313 000	(34.4)	300000	(32.8)	287000	(31.3)	273 000	(29.6)
Subtotal 18 HPCs	288000	(73.2)	276000	(69.7)	262000	(65.7)	250000	(62.3)	237000	(58.7)	226 000	(55.6)

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.

20	18	20	19	20	12	20	21	Mean annual	Mean annual	
N	Rate per 100000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	% change in rate, 2017–2021	% change in rate, 2012–2021	Country
										EU/EEA
540	(6.1)	530	(6.0)	440	(4.9)	450	(5.0)	-9.1%	-5.5%	Austria
1000	(8.7)	1000	(8.7)	890	(7.7)	940	(8.1)	-4.3%	-1.2%	Belgium
1600	(22.5)	1400	(19.9)	1300	(18.6)	1200	(17.4)	-8.7%	-7.8%	Bulgaria
420	(10.1)	340	(8.2)	200	(4.9)	160	(3.9)	-20.8%	-13.4%	Croatia
59	(4.8)	76	(6.2)	39	(3.2)	55	(4.4)	-2.9%	-3.7%	Cyprus
500	(4.7)	530	(5.0)	410	(3.9)	400	(3.8)	-8.4%	-5.3%	Czechia
310	(5.4)	300	(5.2)	240	(4.1)	220	(3.8)	-7.1%	-6.6%	Denmark
170	(12.9)	170	(12.8)	140	(10.5)	120	(9.0)	-12.2%	-9.7%	Estonia
260	(4.7)	260	(4.7)	200	(3.6)	200	(3.6)	-7.3%	-4.6%	Finland
5800	(9.0)	5900	(9.2)	5300	(8.2)	4900	(7.6)	-4.7%	-1.9%	France
5800	(7.0)	5100	(6.1)	4400	(5.3)	4200	(5.0)	-8.4%	-0.8%	Germany
470	(4.4)	500	(4.7)	440	(4.2)	430	(4.1)	-3.1%	-3.1%	Greece
690	(7.1)	610	(6.2)	440	(4.5)	360	(3.7)	-16.6%	-13.1%	Hungary
9	(2.5)	15	(4.2)	14	(3.8)	11	(3.0)	-9.2%		Iceland
340	(7.0)	280	(5.7)	260	(5.3)	240	(4.8)	-10.0%		Ireland
4300	(7.2)	3700	(6.2)	2500	(4.2)	2900	(4.9)	-9.6%	-2.2%	
540	(27.9)	460	(24.0)	370	(19.5)	290	(15.5)	-16.4%	-12.9%	
-	-	-	-	-	-	-	-	-		Liechtenstein
1200	(41.7)	1200	(42.1)	790	(28.0)	720	(25.8)	-15.9%		Lithuania
48	(7.9)	55	(8.9)	37	(5.9)	39	(6.1)	-0.4%		Luxembourg
63	(12.8)	110	(21.8)	160	(31.0)	62	(11.8)	4.1%		Malta
910	(5.3)	860	(5.0)	710	(4.1)	770	(4.4)	-4.0%		Netherlands
220	(4.1)	180	(3.4)	170	(3.2)	160	(3.0)	-12.8%		Norway
6000	(15.6)	5700	(14.8)	3600	(9.4)	4000	(10.4)	-11.0%		Poland
2100	(20.4)	2000	(19.4)	1600	(15.5)	1700	(16.5)	-3.9%		Portugal
13 000	(66.3)	13 000	(66.6)	8300	(42.7)	8700	(45.0)	-10.8%		Romania
310	(5.7)	250	(4.6)	180	(3.3)	150	(2.8)	-12.9%		Slovakia
110	(5.2)	110	(5.2)	86	(4.1)	91	(4.3)	-8.8%		Slovenia
5200	(11.1)	4700	(10.0)	3400	(7.2)	3900	(8.2)	-6.5%		Spain
550	(5.4)	550	(5.4)	360	(3.5)	400	(3.8)	-9.0%		Sweden
53 000	(11.8)	50000	(11.1)	37000	(8.2)	38000	(8.4)	-8.9%		Subtotal EU/EEA
0000	(IIII)		(*****)	0, 101	(0.12)		( 1)		51010	Non-EU/EEA
500	(17.4)	470	(16.4)	450	(15.7)	480	(16.8)	-4.4%	0.4%	Albania
2	(2.7)	6	(7.9)	2	(2.6)	2	(2.5)	16.9%		Andorra
880	(31.0)	740	(26.2)	710	(25.3)	770	(27.6)	-5.8%		Armenia
6400	(63.0)	6100	(59.6)	6000	(58.3)	6400	(62.1)	-1.7%		Azerbaijan
3000	(30.9)	2800	(28.9)	2700	(28.0)	2900	(30.3)	-4.9%		Belarus
850	(25.0)	910	(27.1)	850	(25.6)	810	(24.8)	-3.4%		Bosnia and Herzegovina
3000	(79.5)	2800	(74.3)	2600	(69.0)	2400	(63.9)	-6.9%		Georgia
340	(4.0)	250	(2.9)	180	(2.1)	240	(2.7)	-4.6%	-10.9%	
12 000	(64.7)	13 000	(69.3)	13 0 0 0	(68.5)	14000	(72.9)	0.7%		Kazakhstan
7200	(115.7)	7000	(110.7)	6900	(107.4)	8500	(130.2)	1.2%		Kyrgyzstan
1	(2.7)	0	(0.0)	0	(0.0)	0	(0.0)	0.0%		Monaco
97	(15.4)	92	(14.6)	91	(14.5)	98	(15.6)	3.2%		Montenegro
280	(13.2)	250	(11.8)	250	(11.8)	240	(11.4)	-2.8%		North Macedonia
2700	(85.9)	2500	(80.4)	2400	(77.8)	2600	(84.9)	-2.6%		Republic of Moldova
79000	(54.2)	73 0 0 0	(50.1)	71000	(48.8)	69000	(47.6)	-5.3%		Russian Federation
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0.0%		San Marino
1300	(17.5)	1100	(14.9)	1000	(13.6)	1100	(15.1)	-5.3%		Serbia
540	(6.3)	460	(5.4)	400	(4.6)	410	(4.7)	-10.1%		Switzerland
7600	(83.3)	7700	(82.5)	7600	(79.6)	8600	(88.2)	1.2%		Tajikistan
13 000	(15.7)	13 000	(15.6)	13 000	(15.5)	15 0 0 0	(17.7)	0.9%		Türkiye
2800	(46.2)	2700	(43.8)	2900	(46.4)	3000	(47.3)	2.1%		Turkmenistan
36000	(81.0)	34000	(76.9)	32000	(72.9)	31000	(71.2)	-3.7%		Ukraine
5400	(8.1)	5400	(8.1)	4700	(72.9)	4300	(6.4)	-8.0%		United Kingdom
23 000	(70.9)	22 000	(66.7)	22 000	(65.6)	21000	(61.6)	-3.8%		Uzbekistan
206000	(43.4)	196000	(41.1)	191000	(39.9)	193000	(40.2)	-3.4%		Subtotal non-EU/EEA
259000	(28.0)	246000	(26.5)	228000	(24.5)	231000	(24.8)	-4.3%		Total European Region
213 000	(52.2)	204000	(49.8)	194000	(47.3)	196000	(47.7)	-3.8%	-4.7%	Subtotal 18 HPCs

Table III. New and relapse TB cases, a notification rates per 100 000 population and mean annual change in rates, European Region, 2012-2021

	20	12	20	13	20	14	20	15	20	16	20	17
Country	N	Rate per 100000	N	Rate per 100 000	N	Rate per 100 000						
EU/EEA												
Austria	623	7.4	628	7.4	567	6.7	564	6.6	619	7.1	561	6.4
Belgium	898	8.1	890	8.0	878	7.9	919	8.2	982	8.7	911	8.0
Bulgaria	2212	30.2	1930	26.5	1825	25.2	1 619	22.5	1525	21.3	1408	19.8
Croatia	539	12.6	510	12.0	498	11.7	485	11.5	452	10.8	372	9.0
Cyprus	65	7.5	41	4.7	39	4.5	63	7.4	57	6.7	52	6.1
Czechia	557	5.3	468	4.5	472	4.5	507	4.8	511	4.8	495	4.7
Denmark	342	6.1	330	5.9	293	5.2	320	5.7	292	5.1	253	4.4
Estonia	269	20.3	265	20.1	237	18.0	206	15.7	188	14.3	172	13.1
Finland	269	5.0	263	4.8	257	4.7	270	4.9	223	4.1	241	4.4
France	5003	7.7	4947	7.5	4888	7.4	4 457	6.7	5446	8.2	5006	7.5
Germany	4038	5.0	4094	5.1	4350	5.4	5626	6.9	5739	7.0	5369	6.5
Greece	520	4.7	494	4.5	484	4.4	438	4.0	417	3.9	434	4.0
Hungary	1182	11.9	1040	10.5	799	8.1	858	8.7	737	7.5	650	6.6
Iceland	11	3.4	11	3.4	9	2.8	7	2.1	6	1.8	13	3.8
Ireland	333	7.3	350	7.6	290	6.3	266	5.7	290	6.1	283	5.9
Italy	3512	5.9	3 435	5.8	3663	6.0	3476	5.7	3778	6.2	3828	6.3
Latvia	971	47.5	872	43.1	738	36.9	697	35.1	641	32.6	543	27.8
Liechtenstein	2	5.5	0	0.0	0	0.0	1	2.7	2	5.3	1	2.6
Lithuania	1640	54.6	1573	52.9	1481	50.3	1395	47.8	1347	46.6	1268	44.5
Luxembourg	45	8.6	38	7.1	24	4.4	30	5.3	29	5.0	32	5.4
Malta	41	9.8	50	11.8	45	10.5	32	7.3	50	11.1	42	9.1
Netherlands	934	5.6	828	4.9	805	4.8	846	5.0	875	5.2	772	4.5
Norway	340	6.8	354	7.0	299	5.9	282	5.5	273	5.2	237	4.5
Poland	7285	19.1	7043	18.5	6539	17.2	6 2 3 7	16.4	6143	16.2	5535	14.6
Portugal	2558	24.3	2356	22.5	2223	21.3	2154	20.8	1891	18.3	1870	18.1
Romania	16764	83.4	15505	77.4	14834	74.4	14215	71.5	12774	64.6	12303	62.6
Slovakia	344	6.4	398	7.4	320	5.9	308	5.7	281	5.2	228	4.2
Slovenia	138	6.7	139	6.8	142	6.9	129	6.3	118	5.7	112	5.4
Spain	5738	12.3	5328	11.4	4685	10.1	4818	10.4	3973	8.6	4522	9.7
Sweden	591	6.2	603	6.3	625	6.5	776	8.0	691	7.0	487	4.9
Subtotal EU/EEA	57764	13.0	54783	12.3	52309	11.7	52 001	11.6	50350	11.2	48 000	10.6
Non-EU/EEA	37704	1510	34703	1213	32307	1117	32 001	1110	30330	11,2	40000	1010
Albania	408	(14.1)	474	(16.4)	408	(14.1)	415	(14.4)	415	(14.4)	503	(17.5)
Andorra	9	(12.7)	5	(7.0)	6	(8.4)	4	(5.6)	4	(5.5)	1	(1.4)
Armenia	1213	(41.6)	1397	(48.1)	1329	(46.0)	1171	(40.7)	1027	(35.8)	841	(29.5)
Azerbaijan	6363	(67.1)	5860	(60.9)	5788	(59.4)	5456	(55.3)	5159	(51.7)	5231	(51.9)
Belarus	4783	(49.3)	4470	(46.1)	3858	(39.8)	3765	(38.8)	3211	(33.1)	2781	(28.6)
Bosnia and Herzegovina	1409	(38.3)	1261	(34.9)	1196	(33.5)	1092	(31.0)	907	(26.1)	766	(22.3)
Georgia	3940	(103.6)	3434	(90.7)	3200	(84.8)	3152	(83.6)	2983	(79.1)	2597	(68.9)
Israel	506	(6.7)	308	(4.0)	361	(4.6)	280	(3.5)	250	(3.1)	234	(2.8)
Kazakhstan	18006	(105.3)	18958	(109.3)	15244	(86.7)	14006	(78.5)	12322	(68.2)	12 449	(68.0)
Kyrgyzstan	6195	(110.0)	7075	(123.7)	6390	(109.9)	7027	(118.8)	7026	(116.7)	6687	(109.2)
Monaco	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(5.4)	0	(10).2)
Montenegro	98	(15.5)	119	(18.8)	113	(17.8)	80	(12.6)	87	(13.7)	75	(11.9)
North Macedonia	346	(16.5)	318	(15.1)	284	(13.5)	282	(13.4)	263	(12.5)	216	(10.2)
Republic of Moldova	4409	(125.7)	4485	(131.3)	4058	(121.6)	3608	(110.1)	3 571	(110.7)	3358	(105.6)
Russian Federation	105753	(73.6)	106 053	(73.7)	102340	(70.9)	99590	(68.8)	92407	(63.7)	84510	(58.1)
San Marino	0	(0.0)	0	(0.0)	102 340	(0.0)	0	(0.0)	92407	(0.0)	0	(0.0)
Serbia	1872	(24.7)	2106	(27.8)	1818	(24.1)	1649	(21.9)	1472	(19.6)	1450	(19.4)
Serbia excluding Kosovo¹		(16.2)		(16.2)	984	(13.8)		(12.4)		(10.7)		(10.5)
Kosovo <sup>1</sup>	1168 704		1184 922	(54.0)	834	(44.8)	879 770	(43.5)	755 717	(40.4)	738 712	(39.9)
Switzerland	416	(38.7)	466	(54.0)	423	(5.2)	531	(6.4)		(6.8)	529	(6.3)
Tajikistan	6508	(81.8)	5576	(68.5)	5807	(69.7)	5894	(69.1)	573 5965	(6.8)	5895	(66.0)
Türkiye			13170	(17.2)		(16.8)				(15.0)		(14.4)
Turkmenistan	14139 2937	(18.8)	3047		13108 2537		12 550 2 19 1	(15.8)	12186 2068		11 <i>82</i> 1 1968	(33.0)
Ukraine		(53.8)		(54.8)		(44.8)		(38.0)		(35.2)		
	40990	(90.3)	36510	(80.6)	31701	(70.2)	30151	(67.0)	29 052	(64.8)	27229	(61.0)
United Kingdom	8 269 14 832	(13.0)	7384	(11.5)	6622	(10.2)	5854	(9.0)	5793	(8.8)	5248	(7.9)
Uzhakistan		(50.3)	20812	(69.5)	18345	(60.3)	16315	(52.7)	16 050	(51.0)	16842	(52.7)
Uzbekistan				(F2.0)	22/-024	(10.0)	245075	(1.00)	202702	((0.0)	404.004	(1-0 E)
Uzbekistan Subtotal non-EU/EEA Total European Region	243401 301165	(53.4) (33.4)	243288 298071	(53.0) (32.9)	224936 277245	(48.6) (30.5)	215063 267064	(46.1) (29.2)	202793 253143	(43.2) (27.6)	191231 239231	(40.5) (26.0)

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

1 All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

20:	18	20:	19	20	20	20	21	Mean annual	Mean annual	
N	Rate per 100 000	N	Rate per 100000	N	Rate per 100 000	N	Rate per 100 000	% change in rate, 2017–2021	% change in rate, 2012–2021	Country
										EU/EEA
470	5.3	464	5.2	382	4.3	387	4.3	-9.3%	-5.8%	Austria
910	8.0	890	7.8	774	6.7	817	7.1	-3.1%		Belgium
1290	18.3	1288	18.4	887	12.8	673	9.7	-16.3%		Bulgaria
364	8.9	295	7.2	188	4.6	154	3.8	-19.2%	-	Croatia
51	5.9	66	7.5	34	3.8	48	5.4	-3.1%	-3.7%	Cyprus
434	4.1	455	4.3	356	3.3	352	3.3	-8.4%	-5.2%	Czechia
270	4.7	263	4.5	207	3.6	191	3.3	-7.2%	-6.7%	Denmark
145	11.0	147	11.1	120	9.0	107	8.0	-11.4%	-9.8%	Estonia
226	4.1	225	4.1	174	3.1	170	3.1	-8.5%	-5.2%	Finland
4760	7.1	4924	7.3	4 3 1 3	6.4	4042	6.0	-5.5%	-2.7%	France
5332	6.4	4 651	5.6	4042	4.9	3792	4.6	-8.5%	-1.1%	Germany
406	3.8	434	4.0	380	3.5	195	1.8	-18.0%		Greece
602	6.2	528	5.4	384	3.9	314	3.2	-16.5%	-13.5%	Hungary
8	2.3	13	3.6	12	3.3	-	-	-100.0%	-100.0%	Iceland
290	6.0	238	4.9	224	4.5	210	4.2	-8.2%	-5.9%	Ireland
3777	6.2	3 185	5.3	2163	3.6	2378	4.0	-10.7%	-4.2%	Italy
0	0.0	-	-	-	-	255	13.6	-		Latvia
1	2.6	0	0.0	-	-	1	2.6	-0.8%		Liechtenstein
1063	37.8	1006	36.0	688	24.6	628	22.5	-15.7%		Lithuania
42	7.0	48	7.8	32	5.1	34	5.4	-0.3%		Luxembourg
55	11.6	98	19.9	140	27.2	54	10.5	3.5%	0.7%	Malta
780	4.5	739	4.3	613	3.5	671	3.8	-4.0%		Netherlands
188	3.6	154	2.9	143	2.7	140	2.6	-12.9%		Norway
5196	13.7	4983	13.1	3150	8.3	3 4 4 6	9.1	-11.1%		Poland
1877	18.2	1849	18.0	1475	14.3	1463	14.2	-5.9%		Portugal
11 581	59.3	11 070	57.0	7189	37.2	7591	39.5	-10.9%		Romania
273	5.0	214	3.9	153	2.8	134	2.5	-12.5%		Slovakia
98	4.7	98	4.7	75	3.6	79	3.7	-8.8%		Slovenia
4 614	9.9	4395	9.4	3526	7.4	3370	7.1	-7.5%	-5.9%	
474	4.7	478	4.7	312	3.0	344	3.3	-9.2%		Sweden
45 577	10.1	43198	9.6	32136	7.1	32 040	7.0	-9.9%	-6.6%	Subtotal EU/EEA
///	(45.2)	/42	(41.2)	2/0	(0, 1)	2(0	(0, ()	44.20/	4.404	Non-EU/EEA
440	(15.3)	412	(14.3)	240	(8.4)	269	(9.4)	-14.3%		Albania
2	(2.7)	5	(6.5)	2	(2.6)	2	(2.5)	16.9%		Andorra
734	(25.9)	621	(22.0)	394	(14.0)	398	(14.3)	-16.6%		Armenia
5038 2359	(49.6) (24.3)	4 <i>823</i> 2207	(47.1) (22.8)	3 683 1 514	(35.8) (15.7)	3 6 6 3 1 4 8 4	(35.5) (15.5)	-9.1% -14.2%		Azerbaijan Belarus
666	(19.6)	580	(17.3)	357	(10.8)	362	(11.1)	-16.0%		Bosnia and Herzegovina
2316	(61.4)	2169	(57.5)	1671	(44.4)	1501	(39.9)	-12.7%		Georgia
292	(3.5)	2109	(2.5)	158	(1.8)	213	(2.4)	-4.0%	-10.8%	
12 832	(69.2)	12501	(66.7)	9603	(50.6)	9757	(50.8)	-7.0%		Kazakhstan
6338	(101.8)	6138	(97.1)	4241	(66.0)	4596	(70.4)	-10.4%		Kyrgyzstan
1	(2.7)	0 0	(27.1)	0	(0.0)	0	(0.0)	0.0%	0.0%	Monaco
84	(13.3)	80	(12.7)	40	(6.4)	80	(12.7)	1.8%		Montenegro
217	(10.3)	199	(9.4)	143	(6.8)	143	(6.8)	-9.7%		North Macedonia
3022	(96.2)	2809	(90.3)	1767	(57.3)	2067	(67.5)	-10.6%		Republic of Moldova
78258	(53.7)	73328	(50.3)	58723	(40.3)	56922	(39.2)	-9.4%		Russian Federation
0	(0.0)	0	(0.0)	0	(-10.5)	0	(37.2)	-		San Marino
1330	(17.9)	1106	(14.9)	439	(6.0)	445	(6.1)	-25.1%		Serbia
641	(9.1)	501	(7.2)	0	-	0	(011)	-	-	Serbia excluding Kosovo <sup>1</sup>
689	(38.5)	605	(33.8)	439	(23.4)	445	(24.6)	-11.4%	-4.9%	Kosovo¹
473	(5.6)	402	(4.7)	351	(4.1)	355	(4.1)	-10.1%		Switzerland
5726	(62.7)	5755	(61.6)	4148	(43.5)	4158	(42.6)	-10.4%		Tajikistan
11576	(14.0)	11247	(13.5)	8830	(10.5)	9047	(10.7)	-7.2%		Türkiye
2157	(35.6)	2117	(34.4)	1918	(30.7)	1878	(29.6)	-2.7%		Turkmenistan
26512	(59.6)	25379	(57.4)	17533	(39.9)	18307	(42.1)	-8.9%		Ukraine
4775	(7.2)	4803	(7.2)	4185	(6.2)	4795	(7.1)	-2.7%		United Kingdom
16413	(50.6)	16272	(49.3)	12111	(36.1)	13 544	(39.7)	-6.8%		Uzbekistan
181561	(38.2)	173170	(36.3)	132051	(27.6)	133986	(27.9)	-8.9%		Subtotal non-EU/EEA
227138	(24.6)	216368	(23.3)	164187	(17.7)	166 026	(17.8)	-8.9%		Total European Region
187360	(45.9)	178877	(43.7)	135 020	(32.9)	136 576	(33.2)	-9.1%		Subtotal 18 HPCs
	,,,,,,		,,,,,,		ţ,		47			

Table IV. TB cases in children under 15 years, European Region, 2017–2021a

		2017			2018			2019			2020			2021	
Country/area	N	Percentage among all TB	Rate per 100 000	N	Percentage among all TB	Rate per 100000	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	21	(3.7)	1.6	28	(5.8)	2.2	22	(4.6)	1.7	12	(3.1)	0.9	14	(3.5)	1.1
Belgium	68	(7.0)	3.5	60	(6.1)	3.1	50	(5.2)	2.6	48	(5.8)	2.5	41	(4.7)	2.1
Bulgaria	108	(7.4)	10.8	72	(5.3)	7.2	59	(4.4)	5.9	24	(2.6)	2.4	18	(2.6)	1.8
Croatia	3	(0.8)	0.5	8	(2.2)	1.4	1	(0.3)	0.2	2	(1.0)	0.3	0	(0.0)	0.0
Cyprus	3	(5.7)	2.1	1	(1.9)	0.7	2	(2.9)	1.4	0	(0.0)	0.0	0	(0.0)	0.0
Czechia	6	(1.2)	0.4	5	(1.1)	0.3	4	(0.9)	0.2	2	(0.6)	0.1	12	(3.4)	0.7
Denmark Estonia	12	(4.4)	1.2 0.0	11 2	(3.8)	1.1 0.9	16 1	(5.6)	1.7	10 1	(4.5) (0.8)	1.1 0.5	6	(2.9)	0.6
Finland	6	(0.0)	0.7	2	(0.9)	0.9	9	(4.0)	0.5 1.0	5	(2.9)	0.6	4	(2.4)	0.5
France	343	(6.9)	2.8	248	(4.9)	2.0	238	(4.6)	2.0	195	(4.3)	1.6	168	(3.9)	1.4
Germany	242	(4.4)	2.2	213	(3.9)	1.9	195	(4.1)	1.7	168	(4.0)	1.5	153	(3.9)	1.3
Greece	11	(2.4)	0.7	6	(1.4)	0.4	17	(3.7)	1.1	17	(4.3)	1.1	7	(3.4)	0.5
Hungary	6	(0.9)	0.4	3	(0.5)	0.2	10	(1.8)	0.7	5	(1.2)	0.4	4	(1.2)	0.3
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	2	(16.7)	2.9	-	-	-
Ireland	6	(2.0)	0.6	7	(2.3)	0.7	9	(3.5)	0.9	6	(2.5)	0.6	1	(0.5)	0.1
Italy	168	(4.3)	2.1	164	(4.2)	2.1	180	(5.4)	2.3	104	(4.5)	1.4	76	(3.1)	1.0
Latvia	10	(1.8)	3.3	-	-	-	-	-	-	-	-	-	5	(1.9)	1.7
Liechtenstein	0	(0.0)	0.0	0	(0.0)	0.0	-	-	-	0	(0.0)	0.0	0	(0.0)	0.0
Lithuania	44	(3.2)	10.4	19	(1.7)	4.5	27	(2.6)	6.4	13	(1.8)	3.1	13	(2.0)	3.1
Luxembourg	1	(3.1)	1.0	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	1	(1.8)	1.5	2	(2.0)	2.9	7	(5.0)	10.1	1	(1.9)	1.4
Netherlands	34 17	(4.3)	1.2	21	(2.6)	0.8	48	(6.4) (2.4)	1.8	19 10	(3.1)	0.7	26 5	(3.8)	1.0
Norway Poland	68	(1.2)	1.2	7 52	(0.9)	0.7	4 81	(1.5)	1.4	39	(1.2)	1.1 0.7	37	(1.0)	0.6
Portugal	45	(2.4)	3.2	50	(2.6)	3.6	70	(3.7)	5.0	43	(2.8)	3.1	42	(2.8)	3.0
Romania	533	(4.1)	17.4	542	(4.4)	17.8	390	(3.4)	12.9	261	(3.4)	8.6	281	(3.5)	9.3
Slovakia	46	(18.5)	5.4	40	(14.2)	4.7	35	(16.4)	4.1	35	(22.2)	4.0	41	(29.9)	4.7
Slovenia	2	(1.8)	0.6	1	(1.0)	0.3	2	(2.0)	0.6	0	(0.0)	0.0	2	(2.5)	0.6
Spain	347	(6.1)	5.0	302	(6.3)	4.4	319	(7.0)	4.6	192	(5.2)	2.8	144	(4.1)	2.1
Sweden	26	(5.0)	1.4	31	(6.4)	1.7	19	(4.0)	1.0	16	(4.9)	0.9	15	(4.2)	0.8
Subtotal EU/EEA	2176	(3.9)	3.2	1896	(3.6)	2.7	1810	(3.6)	2.6	1236	(3.7)	1.8	1116	(3.3)	1.6
Non-EU/EEA															
Albania	14	(2.8)	2.8	4	(0.9)	0.8	11	(2.7)	2.3	3	(1.3)	0.6	8	(3.0)	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 Azerbaijan	20 166	(2.4)	3.5	37 200	(5.0)	6.5 8.0	38 179	(6.1)	6.6	23 91	(5.8) (2.5)	4.0	18 77	(4.5)	3.2 3.1
Belarus	13	(0.5)	6.7 0.8	12	(0.5)	0.7	8	(0.4)	7.2 0.5	4	(0.3)	3.7 0.2	5	(0.3)	0.3
Bosnia and Herzegovina	11	(1.4)	2.1	5	(0.8)	1.0	3	(0.5)	0.6	1	(0.3)	0.2	1	(0.3)	0.2
Georgia	94	(3.6)	12.4	77	(3.3)	10.0	72	(3.3)	9.2	48	(2.9)	6.1	47	(3.1)	5.9
Israel	16	(6.8)	0.7	16	(5.5)	0.7	7	(3.2)	0.3	4	(2.5)	0.2	10	(4.7)	0.4
Kazakhstan	404	(3.2)	7.9	362	(2.8)	6.9	351	(2.8)	6.5	303	(3.2)	5.5	300	(3.1)	5.3
Kyrgyzstan	436	(6.5)	21.4	310	(4.9)	14.8	305	(5.0)	14.1	180	(4.2)	8.2	239	(5.2)	10.6
Monaco	-	-	-	0	(0.0)	0.0	-	-		0	(0.0)	0.0	0	(0.0)	0.0
Montenegro	0	(0.0)	0.0	2	(2.4)	1.7	1	(1.3)	0.9	0	(0.0)	0.0	0	(0.0)	0.0
North Macedonia	10	(4.6)	2.8	12	(5.5)	3.5	12	(6.0)	3.5	10	(7.0)	2.9	3	(2.1)	0.9
Republic of Moldova	123	(3.7)	20.4	95	(3.1)	15.7	101	(3.6)	16.7	56	(3.2)	9.2	89	(4.3)	14.7
Russian Federation	2494	(3.0)	9.8	2169	(2.8)	8.5	2028	(2.8)	7.9	1627	(2.8)	6.3	1746	(3.1)	6.8
San Marino	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(2.5)	11	10	(2.2)	1.0
Serbia Serbia excluding	22	(1.5)	2.1	29	(2.2)	2.8	15	(1.4)	1.4	11	(2.5)	1.1	10	(2.2)	1.0
Kosovo <sup>1</sup>	7	(0.9)	0.7	6	(0.9)	0.6	4	(0.7)	0.4	-	-	-	-	-	-
Kosovo¹	15	(2.1)	3.3	23	(3.3)	5.2	11	(1.8)	2.5	11	(2.5)	2.5	10	(2.2)	2.3
Switzerland	23	(4.3)	1.8	26	(5.5)	2.0	15	(3.7)	1.2	16	(4.6)	1.2	7	(2.0)	0.5
Tajikistan	353	(6.0)	10.8	346	(6.0)	10.4	404	(7.0)	11.8	240	(5.8)	6.9	231	(5.6)	6.5
Türkiye	551	(4.7)	2.8	599	(5.2)	3.0	496	(4.4)	2.5	391	(4.4)	2.0	387	(4.3)	1.9
Turkmenistan	39	(2.0)	2.1	37	(1.7)	2.0	44	(2.1)	2.3	50	(2.6)	2.6	24	(1.3)	1.2
	611	(2.2)	8.9	580	(2.2)	8.4	585	(2.3)	8.6	382	(2.2)	5.7	463	(2.5)	7.0
Ukraine										450	(2 7)	1.3	140	(2.9)	1.2
Ukraine United Kingdom	195	(3.7)	1.7	159	(3.3)	1.3	182	(3.8)	1.5	153	(3.7)				
Ukraine United Kingdom Uzbekistan	195 1989	(11.8)	21.6	2029	(12.4)	21.5	2190	(13.5)	22.6	1733	(14.3)	17.4	1825	(13.5)	17.8
Ukraine United Kingdom	195														17.8 5.6 4.0

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

\*\*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.

\*\*All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table V. RR/MDR-TBa notification among new bacteriologically confirmed pulmonary TB cases with available DST results, European Region, 2017-2021

		2017			2018			2019			2020			2021		Mean
Country/area	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100000	annual % change in rate, 2017– 2021
EU/EEA																
Austria	11	(4.2)	0.1	10	(4.8)	0.1	2	(1.0)	0.0	1	(0.6)	0.0	8	(4.9)	0.1	-8.1%
Belgium <sup>c</sup>	2	(0.5)	0.0	5	(1.2)	0.0	9	(2.1)	0.1	3	(0.9)	0.0	3	(0.8)	0.0	10.2%
Bulgaria	14	(2.7)	0.2	12	(2.6)	0.2	7	(1.8)	0.1	6	(3.0)	0.1	2	(1.3)	0.0	-38.1%
Croatia	0	(0.0)	0.0	0	-	0.0	1	(0.5)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Cyprus	1	(3.0)	0.1	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	3	(10.3)	0.3	30.1%
Czechia	3	(1.0)	0.0	10	(3.6)	0.1	8	(2.6)	0.1	8	(3.6)	0.1	9	(3.8)	0.1	31.2%
Denmark <sup>c</sup>	1	(0.6)	0.0	4	(2.5)	0.1	3	(1.8)	0.1	1	(0.8)	0.0	1	(0.9)	0.0	-0.4%
Estonia	26	(22.0)	2.0	22	(22.0)	1.7	17	(17.0)	1.3	16	(18.2)	1.2	14	(20.6)	1.1	-14.6%
Finland	4	(2.9)	0.1	4	(3.1)	0.1	2	(1.6)	0.0	0	(0.0)	0.0	2	(2.3)	0.0	-16.0%
France	48	(1.8)	0.1	46	(1.7)	0.1	20	(100.0)	0.0	20	(100.0)	0.0	17	(100.0)	0.0	-23.1%
Germany	57	(2.6)	0.1	61	(2.7)	0.1	42	(2.2)	0.1	42	(2.5)	0.1	53	(3.8)	0.1	-2.0%
Greece	6	(4.2)	0.1	5	(4.3)	0.0	6	(3.4)	0.1	5	(2.0)	0.0	5	(9.4)	0.0	-4.3%
Hungary	9	(3.2)	0.1	8	(2.7)	0.1	8	(3.4)	0.1	6	(3.9)	0.1	7	(5.0)	0.1	-5.9%
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	-	0.0	-	-	_	-
Ireland <sup>c</sup>	2	(1.9)	0.0	4	(4.2)	0.1	1	(1.1)	0.0	1	(2.4)	0.0	0	(0.0)	0.0	-100.0%
Italy	60	(3.1)	0.1	37	(2.1)	0.1	41	(2.4)	0.1	33	(2.8)	0.1	40	(2.9)	0.1	-9.1%
Latvia	29	(8.0)	1.5	-	-	-	-	-	-	-	-	-	11	(7.3)	0.6	-20.9%
Liechtenstein	0	(0.0)	0.0	0	(0.0)	0.0	-	-	_	0	(0.0)	0.0	0	(0.0)	0.0	-
Lithuania	118	(13.8)	4.1	96	(12.8)	3.4	100	(13.8)	3.6	61	(12.6)	2.2	73	(15.7)	2.6	-10.9%
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	1	(3.7)	0.2	-
Netherlands	5	(1.5)	0.0	3	(0.9)	0.0	7	(2.3)	0.0	4	(1.6)	0.0	8	(3.0)	0.0	11.8%
Norway <sup>c</sup>	6	(4.5)	0.1	6	(6.1)	0.1	1	(1.2)	0.0	2	(2.6)	0.0	6	(9.1)	0.1	-0.6%
Poland	37	(1.1)	0.1	37	(1.2)	0.1	32	(1.0)	0.1	29	(1.4)	0.1	39	(1.6)	0.1	1.4%
Portugal	11	(1.2)	0.1	6	(0.7)	0.1	9	(1.2)	0.1	10	(1.8)	0.1	5	(1.0)	0.0	-17.9%
Romania	151	(2.5)	0.8	165	(2.8)	0.8	158	(2.7)	0.8	86	(2.3)	0.4	112	(2.7)	0.6	-6.7%
Slovakia	4	(4.1)	0.1	1	(0.9)	0.0	1	(1.3)	0.0	0	(0.0)	0.0	3	(4.6)	0.1	-7.0%
Slovenia	1	(1.2)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(1.8)	0.0	1	(1.7)	0.0	-0.5%
Spain	18	(2.1)	0.0	14	(1.7)	0.0	16	(1.6)	0.0	18	(1.8)	0.0	21	(2.0)	0.0	3.4%
Sweden	8	(3.2)	0.1	5	(1.8)	0.0	5	(2.1)	0.0	4	(2.4)	0.0	4	(2.3)	0.0	-16.7%
Subtotal EU/EEA	632	(2.5)	0.1	561	(2.4)	0.1	496	(2.4)	0.1	357	(2.7)	0.1	448	(3.3)	0.1	-8.3%
Non-EU/EEA																
Albania	2	(2.9)	0.1	3	(5.1)	0.1	2	(7.7)	0.1	1	(0.8)	0.0	5	(3.2)	0.2	26.0%
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	51	(15.9)	1.8	51	(20.4)	1.8	38	(16.3)	1.3	28	(14.1)	1.0	44	(21.1)	1.6	-3.1%
Azerbaijan	245	(12.4)	2.4	237	(12.0)	2.3	219	(11.5)	2.1	149	(12.0)	1.4	172	(12.2)	1.7	-9.0%
Belarus	649	(38.4)	6.7	559	(36.6)	5.8	561	(37.7)	5.8	401	(39.5)	4.2	390	(37.8)	4.1	-11.7%
Bosnia and Herzegovina	0	(0.0)	0.0	2	(0.5)	0.1	1	(0.3)	0.0	0	(0.0)	0.0	1	(0.4)	0.0	-
Georgia	163	(11.3)	4.3	160	(12.2)	4.2	165	(12.1)	4.4	114	(10.7)	3.0	101	(10.6)	2.7	-11.2%
Israel	7	(5.4)	0.1	15	(9.7)	0.2	9	(8.6)	0.1	5	(5.6)	0.1	9	(8.7)	0.1	4.7%
Kazakhstan	1406	(36.7)	7.7	1706	(27.1)	9.2	1534	(27.0)	8.2	1758	(36.2)	9.3	1932	(37.7)	10.1	7.0%
Kyrgyzstan	584	(25.6)	9.5	663	(28.9)	10.7	700	(29.5)	11.1	493	(28.3)	7.7	500	(25.9)	7.7	-5.3%
Monaco	-	-	-	0	(0.0)	0.0	-	-	-	0	(0.0)	0.0	0	(0.0)	0.0	-
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	0	(0.0)	0.0	1	(0.8)	0.0	1	(1.2)	0.0	1	(1.0)	0.0	-
Republic of Moldova	399	(27.6)	12.5	402	(28.8)	12.8	441	(32.9)	14.2	218	(26.0)	7.1	256	(25.8)	8.4	-9.6%
Russian Federation	9312	(32.0)	6.4	9654	(34.5)	6.6	9246	(35.3)	6.3	7657	(36.3)	5.3	7707	(36.0)	5.3	
San Marino	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	_	-	_	-	_	_	-
Serbia	1	(0.3)	0.0	2	(0.7)	0.0	2	(0.9)	0.0	-	-	-	-	-	-	-
Serbia excluding Kosovo¹	1	(0.3)	0.0	2	(0.7)	0.0	2	(0.9)	0.0	-	-	-	-	-	-	-
Kosovo¹	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
Switzerland	7	(2.6)	0.1	3	(1.1)	0.0	5	(2.6)	0.1	4	(2.3)	0.0	5	(2.3)	0.1	-8.7%
Tajikistan	490	(20.1)	5.5	696	(28.0)	7.6	672	(29.0)	7.2	408	(24.2)	4.3	501	(26.9)	5.1	
Türkiye	162	(3.3)	0.2	163	(3.5)	0.2	113	(2.4)	0.1	94	(2.5)	0.1	95	(2.6)	0.1	-13.2%
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	251	(46.4)	4.0	
Ukraine	3388	(27.9)	7.6	3 587	(29.0)	8.1	3438	(27.2)	7.8	2 5 1 5	(28.6)	5.7	2 418	(26.2)	5.6	
United Kingdom <sup>c</sup>	28	(1.4)	0.0	24	(1.2)	0.0	27	(1.4)	0.0	31	(2.0)	0.0	33	(1.9)	0.0	
Uzbekistan	657	(14.8)	2.1	735	(15.2)	2.3	615	(11.7)	1.9	721	(18.3)	2.2	912	(18.5)	2.7	
										14598	(27.5)	3.1	15333	(27.4)	3.2	-3.6%
Subtotal non-EU/EEA	17 5 5 1	(25.31	5.8	1866/	(20.41	66.11	1//69	(20.0)	5.6							
Subtotal non-EU/EEA Total European Region	17551 18183	(25.3)	3.8 2.0	18 662 19 223	(26.4)	4.0 2.1	17789 18 285	(26.0) (21.3)	3.8 2.0	14 955	(22.9)	1.6	15781	(22.6)		_

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.

HPCs: high-priority countries.

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

TESSy: the European Surveillance System.

Pre-XDR TB: pre-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).

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.

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

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, 2017-2021

EU/EEA         N           Austria         3 (20.0)           Belgium²         2 (5.1)           Bulgaria         15 (18.1)           Croatia         0 (0.0)           Cyprus         0 (0.0)           Czechia         3 (18.8)           Denmark²         0 (0.0)           Estonia         11 (52.4)           Finland         2 (66.7)           France         33 (13.9)           Geremany         25 (20.8)           Greece         1 (5.9)           Hungary         4 (14.8)           Iceland         0 (0.0)           Italy         13 (17.3)           Latvia         18 (30.5)           Liechtenstein         0 (0.0)           Lithuania         145 (54.1)           Luxembourg         0 (0.0)           Malta         0 (0.0)           Notherlands         1 (7.1)           Norway²         0 (0.0)           Poland         15 (3.9)           Portugal         2 (2.9)           Romania         291 (15.0)           Slovakia         2 (7.7)           Slovenia         0 (0.0)           Swhore-EU/EEA         601 (14.8)      <												2021	T	Mean
Austria Belgium' Belgium' Bulgaria Croatia Croatia Coolia Cyprus Coechia Selminam' Selminam' Croatia C	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	annua % chango in rate 2017– 2021
Belgium*         2         (5.1)           Bulgaria         15         (18.1)           Croatia         0         (0.0)           Cyprus         0         (0.0)           Czechia         3         (18.8)           Denmark*         0         (0.0)           Estonia         11         (52.4)           Finland         2         (66.7)           France         33         (13.9)           Gereany         25         (20.8)           Greece         1         (5.9)           Hungary         4         (14.8)           Iceland         0         (0.0)           Ireland*         0         (0.0)           Italy         13         (17.3)           Latvia         18         (30.5)           Liechtenstein         0         (0.0)           Lithuania         145         (54.1)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Malta         0         (0.0)           Norway*         0         (0.0)           Portugal         2         (2.9)           Romania														
Bulgaria         15         (18.1)           Croatia         0         (0.0)           Cyprus         0         (0.0)           Czechia         3         (18.8)           Denmark¹         0         (0.0)           Estonia         11         (52.4)           Finland         2         (66.7)           France         33         (13.9)           Gerece         1         (5.9)           Hungary         4         (14.8)           Iceland         0         (0.0)           Italy         13         (17.3)           Latvia         18         (30.5)           Liechtenstein         0         (0.0)           Liexmbourg         0         (0.0)           Malta         0         (0.0)           Metherlands         1         (7.1)           Norway¹         0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia	0.0	3	(21.4)	0.0	1	(8.3)	0.0	1	(20.0)	0.0	0	(0.0)	0.0	-100.0°
Croatia         0         (0.0)           Cyprus         0         (0.0)           Czechia         3         (18.8)           Demmark⁴         0         (0.0)           Estonia         11         (52.4)           Finland         2         (66.7)           France         33         (13.9)           Gerece         1         (5.9)           Hungary         4         (14.8)           Iceland         0         (0.0)           Ireland⁴         0         (0.0)           Italy         13         (17.3)           Letvia         18         (30.5)           Liechtenstein         0         (0.0)           Lithuania         145         (54.1)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Netherlands         1         (7.1)           Norway⁴         0         (0.0)           Poland         15         (3.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia	0.0	1	(2.9)	0.0	4	(10.0)	0.0	0	(0.0)	0.0	2	(8.3)	0.0	-0.5
Cyprus         0         (0.0)           Czechia         3         (18.8)           Demark*         0         (0.0)           Estonia         11         (52.4)           Finland         2         (66.7)           France         33         (13.9)           Gerece         1         (5.9)           Hungary         4         (14.8)           Iceland         0         (0.0)           Ireland*         0         (0.0)           Italy         13         (17.3)           Latvia         18         (30.5)           Liechtenstein         0         (0.0)           Lithuania         145         (54.1)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Norway*         0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia	0.2	16	(22.2)	0.2	7	(14.0)	0.1	4	(11.1)	0.1	2	(11.1)	0.0	-39.2
Czechia         3         (18.8)           Denmark <sup>c</sup> 0         (0.0)           Estonia         11         (52.4)           Finland         2         (66.7)           France         33         (13.9)           Geremany         25         (20.8)           Greece         1         (5.9)           Hungary         4         (14.8)           Iceland         0         (0.0)           Italy         13         (17.3)           Latvia         18         (30.5)           Licetheenstein         0         (0.0)           Lithuania         145         (54.1)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Metralads         1         (7.1)           Norway <sup>c</sup> 0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia<	0.0	1	(6.3)	0.0	1	(7.1)	0.0	1	(14.3)	0.0	0	(0.0)	0.0	
Denmark	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	
Estonia 11 (52.4) Finland 2 (66.7) France 33 (13.9) Germany 25 (20.8) Greece 1 (5.9) Hungary 4 (14.8) Iceland 0 (0.0) Ireland* 0 (0.0) Italy 13 (17.3) Latvia 18 (30.5) Liechtenstein 0 (0.0) Lithuania 145 (54.1) Luxembourg 0 (0.0) Malta 0 (0.0) Poland 145 (3.9) Portugal 2 (2.9) Romania 291 (15.0) Slovakia 2 (7.7) Slovahia 2 (0.0) Spain 13 (2.3) Sweden 2 (9.5) Subtotal EU/EEA 601 (14.8) Non-EU/EEA Albania 2 (20.0) Armenia 48 (44.4) Azerbaijan 762 (28.3) Belarus 468 (66.9) Bosnia and Herzegovina 0 (0.0) Georgia 161 (30.0) Israel 1 (50.0) Kazakhstan 1557 (60.3) Kyrgyzstan 666 (60.9) Monaco — — Montenegro 1 (11.1) North Macedonia 0 (0.0) Republic of Moldova 280 (55.0) Russian Federation 16567 (66.8) San Marino 0 (0.0) Serbia (13.3) Serbia excluding Kosovo¹ 4 (13.3) Serbia excluding Kosovo¹ 7 (14.1) Turkmenistan —	0.0	0	(0.0)	0.0	0	(0.0)	0.0	3	(30.0)	0.0	0	(0.0)	0.0	-100.0
Finland 2 (66.7) France 33 (13.9) Germany 25 (20.8) Greece 1 (5.9) Hungary 4 (14.8) Iceland 0 (0.0) Ireland* 0 (0.0) Italy 13 (17.3) Latvia 18 (30.5) Liechtenstein 0 (0.0) Lithuania 145 (54.1) Luxembourg 0 (0.0) Malta 0 (0.0) Malta 1 (7.1) Norway* 0 (0.0) Poland 15 (3.9) Portugal 2 (2.9) Romania 291 (15.0) Slovakia 2 (7.7) Slovenia 0 (0.0) Spain 13 (2.3) Sweden 2 (9.5) Subtotal EU/EEA 601 (14.8) Non-EU/EEA Albania 2 (20.0) Armenia 48 (44.4) Azerbaijan 762 (28.3) Belarus 468 (66.9) Bosnia and Herzegovina 0 (0.0) Georgia 161 (30.0) Israel 1 (50.0) Kazakhstan 1557 (60.3) Kyrgyzstan 666 (60.9) Monaco — — Monaco — — Monaco — — Montenegro 1 (11.1) North Macedonia 0 (0.0) Republic of Moldova 280 (55.0) Russian Federation 16567 (66.8) San Marino 0 (0.0) Serbia (13.3) Serbia excluding Kosovo¹ 4 (13.3) Serbia excluding Kosovo¹ 7 (14.1) Turkmenistan —	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(14.3)	0.0	0	(0.0)	0.0	
France         33         (13.9)           Germany         25         (20.8)           Greece         1         (5.9)           Hungary         4         (14.8)           Iceland         0         (0.0)           Itrelandé         0         (0.0)           Italy         13         (7.3)           Latvia         18         (30.5)           Liechtenstein         0         (0.0)           Lithuania         145         (54.1)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Metherlands         1         (7.7)           Norways         0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovenia         2         (7.7)           Slovenia         2         (7.7)           Slovenia         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Non-EU/EEA         401         (14.8)	0.8	10	(55.6)	0.8	10	(47.6)	0.8	3	(30.0)	0.2	9	(69.2)	0.7	-5.2
Germany         25         (20.8)           Greece         1         (5.9)           Hungary         4         (14.8)           Iceland         0         (0.0)           Ireland <sup>c</sup> 0         (0.0)           Italy         13         (17.3)           Liechtenstein         0         (0.0)           Liechtenstein         0         (0.0)           Liechtenstein         0         (0.0)           Malta         0         (0.0)           Malta         0         (0.0)           Netherlands         1         (7.1)           Norway <sup>c</sup> 0         (0.0)           Poland         15         (3.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovakia         2         (9.5)           Subtotal	0.0	0	(0.0)	0.0	1	(25.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0
Greece 1 1 (5.9) Hungary 4 (14.8) Iceland 0 (0.0) Ireland⁴ 0 (0.0) Italy 13 (17.3) Latvia 18 (30.5) Liechtenstein 0 (0.0) Lithuania 145 (54.1) Luxembourg 0 (0.0) Malta 0 (0.0) Netherlands 1 (7.1) Norway⁴ 0 (0.0) Poland 15 (3.9) Portugal 2 (2.9) Romania 291 (15.0) Slovakia 2 (7.7) Slovenia 0 (0.0) Spain 13 (2.3) Sweden 2 (9.5) Subtotal EU/EEA 601 (14.8) Non-EU/EEA Albania 2 (20.0) Armenia 48 (44.4) Azerbaijan 762 (28.3) Belarus 468 (66.9) Bosnia and Herzegovina 0 (0.0) Georgia 161 (30.0) Israel 1 (50.0) Kazakhstan 1557 (60.3) Kyrgyzstan 666 (60.9) Monaco − − Montenegro 1 (11.1) North Macedonia 0 (0.0) Republic of Moldova 280 (55.0) Russian Federation 16567 (66.8) San Marino 0 (0.0) Serbia (13.3) Kosovo¹ (0.0) Serbia (13.3) Kosovo¹ (0.0) Switzerland (2 (22.2) Tajikistan 153 (23.5) Türkiye 77 (14.1) Turkmenistan −	0.0	36	(13.9)	0.0	18	(14.8)	0.1	11	(100.0)	0.0	6	(100.0)	0.0	-24.3
Hungary	0.0	23	(17.2)	0.0	17	(13.9)	0.0	6	(6.3)	0.0	8	(7.5)	0.0	-24.9
Iceland         0         (0.0)           Ireland <sup>c</sup> 0         (0.0)           Italy         13         (17.3)           Letvia         18         (30.5)           Liechtenstein         0         (0.0)           Lithuania         145         (54.1)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Malta         0         (0.0)           Metherlands         1         (7.1)           Norway <sup>c</sup> 0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         66.9         (66.9) <td>0.0</td> <td>0</td> <td>(0.0)</td> <td>0.0</td> <td>1</td> <td>(5.9)</td> <td>0.0</td> <td>1</td> <td>(7.1)</td> <td>0.0</td> <td>0</td> <td>(0.0)</td> <td>0.0</td> <td>-100.0</td>	0.0	0	(0.0)	0.0	1	(5.9)	0.0	1	(7.1)	0.0	0	(0.0)	0.0	-100.0
Ireland <sup>c</sup> 0         (0.0)           Italy         13         (17.3)           Latvia         18         (30.5)           Liechtenstein         0         (0.0)           Lithuania         145         (54.7)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Netherlands         1         (7.7)           Norway <sup>c</sup> 0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia         2         (7.7)           Slovakia         2         (7.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Non-EU/EEA         401         (14.8)           Non-EU/EEA         401         (14.8)           Adamana         4         (4.4)           Azerbaijan         762         (28.3)	0.0	5	(14.7)	0.1	5	(22.7)	0.1	5	(23.8)	0.1	5	(21.7)	0.1	5.9
Italy         13         (17.3)           Latvia         18         (30.5)           Liechtenstein         0         (0.0)           Lithuania         145         (54.1)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Malta         0         (0.0)           Norway*         0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Non-EU/EEA         401         (14.8)           Non-EU/EEA         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0) </td <td>0.0</td> <td>0</td> <td>(0.0)</td> <td>0.0</td> <td>0</td> <td>(0.0)</td> <td>0.0</td> <td>0</td> <td>(0.0)</td> <td>0.0</td> <td>-</td> <td>-</td> <td>-</td> <td></td>	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-	-	-	
Latvia         18         (30.5)           Liechtenstein         0         (0.0)           Lithuania         145         (54.1)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Metherlands         1         (7.7)           Norway*         0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Non-EU/EEA         401         (14.8)           Non-EU/EEA         468         (66.9)           Adorra         0         (0.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)	0.0	0	(0.0)	0.0	1	(11.1)	0.0	0	(0.0)	0.0	2	(50.0)	0.0	
Liechtenstein	0.0	12	(17.3)	0.0	4	(17.9)	0.0	6	(12.9)	0.0	4	(23.1)	0.0	-25.1
Lithuania         145         (54.1)           Luxembourg         0         (0.0)           Malta         0         (0.0)           Netherlands         1         (7.1)           Norway*         0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Albania         2         (20.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)	0.9	-	-	-	-	-	-	-	-	-	5	(20.8)	0.3	-26.9
Luxembourg         0         (0.0)           Malta         0         (0.0)           Netherlands         1         (7.1)           Norway*         0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Albania         2         (20.0)           Andorra         0         (0.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kyrgyzstan         666         (60.9)           Monaco         -         -	0.0	0	(0.0)	0.0	-	-	-	0	(0.0)	0.0	0	(0.0)	0.0	
Malta         0         (0.0)           Netherlands         1         (7.1)           Norway <sup>c</sup> 0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Albania         2         (20.0)           Andorra         0         (0.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kyzgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1) <t< td=""><td>5.1</td><td>92</td><td>(42.2)</td><td>3.3</td><td>70</td><td>(38.9)</td><td>2.5</td><td>43</td><td>(32.1)</td><td>1.5</td><td>32</td><td>(33.3)</td><td>1.1</td><td>-31.1</td></t<>	5.1	92	(42.2)	3.3	70	(38.9)	2.5	43	(32.1)	1.5	32	(33.3)	1.1	-31.1
Netherlands         1         (7.7)           Norway'         0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Albania         2         (20.0)           Andorra         0         (0.0)           Armenia         48         (4.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	
Norway*         0         (0.0)           Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Albania         2         (20.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (5	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	
Poland         15         (3.9)           Portugal         2         (2.9)           Romania         291         (15.0)           Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         401         (14.8)           Albania         2         (20.0)           Andorra         0         (0.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (5	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	2	(13.3)	0.0	18.2
Portugal	0.0	0	(0.0)	0.0	1	(14.3)	0.0	0	(0.0)	0.0	2	(22.2)	0.0	
Romania         291         (5.0)           Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         W           Albania         2         (20.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Kosovo¹         0         (0.0)	0.0	18	(4.1)	0.0	12	(3.0)	0.0	11	(3.3)	0.0	19	(5.7)	0.1	6.2
Slovakia         2         (7.7)           Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA           Albania         2         (20.0)           Andorra         0         (0.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia excluding Kosovo¹         4         (1	0.0	2	(3.9)	0.0	5	(7.7)	0.0	3	(8.3)	0.0	3	(9.1)	0.0	10.79
Slovenia         0         (0.0)           Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         V           Albania         2         (20.0)           Andorra         0         (0.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)	1.5	270	(14.8)	1.4	217	(12.7)	1.1	168	(13.8)	0.9	135	(11.2)	0.7	-17.0
Spain         13         (2.3)           Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA	0.0	2	(13.3)	0.0	4	(19.0)	0.1	1	(9.1)	0.0	2	(40.0)	0.0	-0.19
Sweden         2         (9.5)           Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         (20.0)           Albania         2         (20.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tigikistan         1	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	
Subtotal EU/EEA         601         (14.8)           Non-EU/EEA         (20.0)           Albania         2         (20.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         <	0.0	4	(9.3)	0.0	1	(1.7)	0.0	3	(5.9)	0.0	1	(1.7)	0.0	-47.6°
Non-EU/EEA	0.0	2	(18.2)	0.0	0	(0.0)	0.0	1	(10.0)	0.0	0	(0.0)	0.0	-100.0°
Albania         2         (20.0)           Andorra         0         (0.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	0.1	497	(15.0)	0.1	380	(13.3)	0.1	272	(13.0)	0.1	239	(11.7)	0.1	-20.79
Andorra         0         (0.0)           Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia excluding Kosovo¹         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -														
Armenia         48         (44.4)           Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	0.1	1	(25.0)	0.0	2	(66.7)	0.1	3	(23.1)	0.1	1	(25.0)	0.0	-15.79
Azerbaijan         762         (28.3)           Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	
Belarus         468         (66.9)           Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	1.7	34	(41.5)	1.2	27	(40.9)	1.0	24	(50.0)	0.9	20	(42.6)	0.7	-19.2
Bosnia and Herzegovina         0         (0.0)           Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	7.6	701	(25.6)	6.9	533	(24.4)	5.2	552	(24.4)	5.4	487	(22.6)	4.7	-11.1
Georgia         161         (30.0)           Israel         1         (50.0)           Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	4.8	425	(69.4)	4.4	313	(59.8)	3.2	424	(74.5)	4.4	367	(73.5)	3.8	-5.6
Israel     1     (50.0)       Kazakhstan     1557     (60.3)       Kyrgyzstan     666     (60.9)       Monaco     -     -       Morth Macedonia     0     (0.0)       Republic of Moldova     280     (55.0)       Russian Federation     16567     (66.8)       San Marino     0     (0.0)       Serbia     4     (13.3)       Serbia excluding Kosovo¹     4     (13.3)       Kosovo¹     0     (0.0)       Switzerland     2     (22.2)       Tajikistan     153     (23.5)       Türkiye     77     (14.1)       Turkmenistan     -     -	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	
Israel     1     (50.0)       Kazakhstan     1557     (60.3)       Kyrgyzstan     666     (60.9)       Monaco     -     -       Morth Macedonia     0     (0.0)       Republic of Moldova     280     (55.0)       Russian Federation     16567     (66.8)       San Marino     0     (0.0)       Serbia     4     (13.3)       Serbia excluding Kosovo¹     4     (13.3)       Kosovo¹     0     (0.0)       Switzerland     2     (22.2)       Tajikistan     153     (23.5)       Türkiye     77     (14.1)       Turkmenistan     -     -	4.3	137	(30.9)	3.6	139	(32.1)	3.7	77	(26.5)	2.0	79	(29.6)	2.1	-16.29
Kazakhstan         1557         (60.3)           Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0
Kyrgyzstan         666         (60.9)           Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	8.5	2337	(64.3)	12.6	1446	(44.5)	7.7	1101	(49.7)	5.8	1011	(42.1)	5.3	-11.3
Monaco         -         -           Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	10.9	850	(68.3)	13.7	603	(60.1)	9.5	377	(54.0)	5.9	339	(50.7)	5.2	-16.9
Montenegro         1         (11.1)           North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	-	0	(0.0)	0.0	-	-	-	0	(0.0)	0.0	0	(0.0)	0.0	
North Macedonia         0         (0.0)           Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	0.2	1	(33.3)	0.2	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0
Republic of Moldova         280         (55.0)           Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(10.0)	0.0	1	(9.1)	0.0	
Russian Federation         16567         (66.8)           San Marino         0         (0.0)           Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	8.8	359	(59.6)	11.4	118	(34.2)	3.8	195	(53.1)	6.3	203	(39.6)	6.6	-6.8
San Marino       0       (0.0)         Serbia       4       (13.3)         Serbia excluding Kosovo¹       4       (13.3)         Kosovo¹       0       (0.0)         Switzerland       2       (22.2)         Tajikistan       153       (23.5)         Türkiye       77       (14.1)         Turkmenistan       -       -	11.4	17011	(70.6)	11.7	17199	(70.8)	11.8	14306	(68.4)	9.8	12745	(67.7)	8.8	-6.3
Serbia         4         (13.3)           Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	0.0	0	(0.0)	0.0	0	(0.0)	0.0	14300	(00.4)	7.0	12/73	(0/.//)	- 0.0	0.5
Serbia excluding Kosovo¹         4         (13.3)           Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	0.0	1	(3.7)	0.0	0	(0.0)	0.0	-	-	_	_	_	_	
Kosovo¹         0         (0.0)           Switzerland         2         (22.2)           Tajikistan         153         (23.5)           Türkiye         77         (14.1)           Turkmenistan         -         -	0.0	1	(3.7)	0.0	0	(0.0)	0.0	_	_	_	_	_	_	
Switzerland     2     (22.2)       Tajikistan     153     (23.5)       Türkiye     77     (14.1)       Turkmenistan     -     -	0.0	0	(0.0)	0.0	-	(0.0)	-	_	_	_	_	_	_	
Tajikistan     153     (23.5)       Türkiye     77     (14.1)       Turkmenistan     -     -	0.0	1	(6.7)	0.0	4	(16.7)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0
Türkiye 77 (14.1) Turkmenistan – –	1.7	208	(37.8)	2.3	206	(40.4)	2.2	147	(43.2)	1.5	105	(34.4)	1.1	-11.0
Turkmenistan	0.1	53	(11.9)	0.1	37	(9.7)	0.0	33	(11.1)	0.0	25	(10.1)	0.0	-25.1
	-	-	(11.7)	-	<i>-</i>	(7./)	0.0	-	(11.1)	-		(55.9)	2.6	25.1
			(46.4)			((2.0)					165			-14.7
	7.0	2888	(46.4)	6.5	2498	(42.9)	5.7	1662	(41.3)	3.8	1607	(40.4)	3.7	-14.7
United Kingdom <sup>c</sup> 6 (4.7)	0.0	8	(5.3)	0.0	4	(3.3)	0.0	4 670	(5.3)	0.0	5 740	(6.4)	0.0	-4.9
Uzbekistan 1200 (57.5)	3.8	687	(34.1)	2.1	467	(21.8)	1.4	679	(38.4)	2.0	740	(39.6)	2.2	-12.8
Subtotal non-EU/EEA 25068 (58.2)	5.4	25702	(59.9)	5.5	23596	(57.3)	5.0	19585	(57.7)	4.2	17900	(55.6)	3.8	-8.4
Total European Region 25669 (59.6)  Subtotal 18 HPCs 25532 (56.5)	2.8 6.4	26 199 26 078	(61.0) (58.2)	2.9 6.5	23 976 23 890	(58.2) (55.7)	2.6 6.0	19857 19795	(58.5) (56.3)	2.2 4.9	18139 18076	(56.3) (54.0)	2.0 4.4	-8.5°

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

RR/MDR-TB: rifampicin-resistant or multidrug-resistant tuberculosis.
TESSy: the European Surveillance System.

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.

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table VII. RR/MDR-TBa notification among all bacteriologically confirmed TB cases with available DST results in EU/EEA, 2017-2021

		2017			2018			2019			2020			2021		Mean
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	annual % change in rate 2017- 2021
EU/EEA																
Austria	19	4	0.2	18	5	0.2	6	2	0.1	2	1	0.0	9	3	0.1	-17.4%
Belgium	8	1	0.1	9	1	0.1	17	2	0.1	17	3	0.1	8	1	0.1	-0.5%
Bulgaria	29	5	0.4	28	5	0.4	14	3	0.2	10	4	0.1	4	2	0.1	-38.7%
Croatia	0	0	0.0	2	1	0.0	2	1	0.0	1	1	0.0	0	0	0.0	-
Cyprus	1	3	0.1	0	0	0.0	1	2	0.1	0	0	0.0	3	8	0.3	30.1%
Czechia	8	2	0.1	12	4	0.1	8	2	0.1	11	4	0.1	10	4	0.1	5.4%
Denmark	2	1	0.0	4	2	0.1	4	2	0.1	2	1	0.0	1	1	0.0	-16.2%
Estonia	37	26	2.8	32	26	2.4	27	21	2.0	19	18	1.4	23	28	1.7	-11.4%
Finland	6	3	0.1	4	2	0.1	3	2	0.1	1	1	0.0	3	2	0.1	-16.0%
France	81	3	0.1	82	3	0.1	95	3	0.1	65	2	0.1	43	2	0.1	5.9%
Germany	134	3	0.2	128	3	0.2	100	3	0.1	99	3	0.1	92	3	0.1	-9.1%
Greece	9	5	0.1	6	4	0.1	7	3	0.1	12	3	0.1	5	6	0.0	-13.5%
Hungary	13	4	0.1	13	4	0.1	13	5	0.1	11	6	0.1	12	7	0.1	-1.8%
Iceland	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	-	-	-	-
Ireland	6	3	0.1	7	3	0.1	6	3	0.1	1	1	0.0	8	7	0.2	6.2%
Italy	73	4	0.1	49	3	0.1	45	3	0.1	39	3	0.1	44	3	0.1	4.7%
Latvia	48	11	2.5	-	-	_	-	-	-	_	-	-	16	9	0.8	-23.5%
Liechtenstein	0	0	0.0	0	0	0.0	-	-	-	0	0	0.0	0	0	0.0	-
Lithuania	264	23	9.3	189	19	6.7	173	19	6.2	105	17	3.8	105	18	3.8	-20.2%
Luxembourg	1	4	0.2	1	3	0.2	1	3	0.2	0	0	0.0	0	0	0.0	-100.0%
Malta	0	0	0.0	0	0	0.0	0	0	0.0	2	5	0.4	1	3	0.2	-
Netherlands	10	2	0.1	6	1	0.0	9	2	0.1	12	3	0.1	11	2	0.1	1.8%
Norway	9	4	0.2	6	4	0.1	2	1	0.0	2	2	0.0	10	8	0.2	2.0%
Poland	52	1	0.1	58	2	0.2	45	1	0.1	42	2	0.1	58	2	0.2	2.9%
Portugal	13	1	0.1	11	1	0.1	15	2	0.1	15	2	0.1	10	2	0.1	-6.3%
Romania	454	5	2.3	442	5	2.3	381	5	2.0	262	5		251	5	1.3	-13.3%
Slovakia	7	5	0.1	3	2	0.1	5	4	0.1	1	2	0.0	5	7	0.1	-8.2%
Slovenia	1	1	0.0	0	0	0.0	0	0	0.0	1	1		1	1	0.0	-0.5%
Spain	35	2	0.1	23	2	0.0	19	1	0.0	30	2	0.1	30	2	0.1	-4.2%
Sweden	12	3	0.1	13	3	0.1	10	3	0.1	6	2	0.1	7	2	0.1	-13.4%
Total EU/EEA	1332	(4.4)	0.3	1146	(3.8)	0.3	1008	(4.1)	0.2	768	(4.2)	0.2	770	(4.1)	0.2	-12.9%

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

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

TESSy: the European Surveillance System.

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, 2017-2021b

		2017			2018			2019			2020			2021	
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	16	4	(25.0)	15	4	(26.7)	3	2	(66.7)	2	0	(0.0)	8	1	(12.5)
Belgium	3	0	(0.0)	7	5	(71.4)	11	2	(18.2)	5	1	(20.0)	6	0	(0.0)
Bulgaria	27	4	(14.8)	28	5	(17.9)	14	4	(28.6)	10	2	(20.0)	4	1	(25.0)
Croatia	0	-	-	0	-	-	1	1	(100.0)	0	-	-	0	-	-
Cyprus	1	1	(100.0)	0	-	-	1	0	(0.0)	0	-	-	3	0	(0.0)
Czechia	6	2	(33.3)	10	1	(10.0)	2	0	(0.0)	5	3	(60.0)	7	2	(28.6)
Denmark	1	0	(0.0)	4	0	(0.0)	3	0	(0.0)	2	0	(0.0)	1	1	(100.0)
Estonia	35	11	(31.4)	32	10	(31.3)	25	5	(20.0)	19	6	(31.6)	23	9	(39.1)
Finland	6	1	(16.7)	0	-	-	0	-	_	0	-	_	1	0	(0.0)
France	57	14	(24.6)	46	19	(41.3)	77	14	(18.2)	41	8	(19.5)	35	11	(31.4)
Germany	85	14	(16.5)	68	24	(35.3)	58	12	(20.7)	55	11	(20.0)	51	9	(17.6)
Greece	6	1	(16.7)	6	1	(16.7)	4	0	(0.0)	3	0	(0.0)	0	-	-
Hungary	12	5	(41.7)	12	6	(50.0)	13	6	(46.2)	10	0	(0.0)	11	6	(54.5)
Iceland	0	_	-	0	_	-	0	_	_	0	_	-	_	_	-
Ireland	5	1	(20.0)	5	0	(0.0)	3	0	(0.0)	1	0	(0.0)	1	1	(100.0)
Italy	28	11	(39.3)	17	14	(82.4)	34	12	(35.3)	34	8	(23.5)	37	10	(27.0)
Latvia	47	18	(38.3)	-	-	(02.4)	-	-	(55.5)	_	-	(23.3)	11	3	(27.3)
Liechtenstein	0	-	(50.5)	0	_		0	_	_	0	_	_	0	_	(27.3)
						(60.6)					34	(32.7)			(45.7)
Lithuania	263 0	108	(41.1)	188	76	(40.4)	159 0	75 -	(47.2)	104	34	(32./)	46	21	(45.7)
Luxembourg Malta	0	_	_		_	_		_	_	0	_	_	0	_	_
				0		(22.2)	0		_			_			(40.0)
Netherlands	6	0	(0.0)	3	1	(33.3)	0	-	(50.0)	0	-	(0.0)	10	1	(10.0)
Norway	6	1	(16.7)	6	1	(16.7)	2	1	(50.0)	2	0	(0.0)	8	2	(25.0)
Poland	36	11	(30.6)	41	18	(43.9)	31	7	(22.6)	14	12	(85.7)	30	9	(30.0)
Portugal	8	2	(25.0)	1	0	(0.0)	4	0	(0.0)	8	0	(0.0)	6	0	(0.0)
Romania	225	76	(33.8)	265	70	(26.4)	147	51	(34.7)	101	29	(28.7)	91	24	(26.4)
Slovakia	5	2	(40.0)	2	1	(50.0)	5	0	(0.0)	1	0	(0.0)	4	2	(50.0)
Slovenia	1	0	(0.0)	0	-	-	0	-	-	1	0	(0.0)	1	0	(0.0)
Spain	9	1	(11.1)	10	2	(20.0)	5	0	(0.0)	6	2	(33.3)	5	1	(20.0)
Sweden	10	0	(0.0)	7	0	(0.0)	6	0	(0.0)	5	2	(40.0)	4	1	(25.0)
Subtotal EU/EEA	904	288	(31.9)	773	258	(33.4)	608	192	(31.6)	429	118	(27.5)	404	115	(28.5)
Non-EU/EEA															
Albania	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-
Andorra	-		-	-		-	-		-	-		-	-		-
Armenia	98	20	(20.4)	85	18	(21.2)	63	19	(30.2)	52	11	(21.2)	57	17	(29.8)
Azerbaijan	812	208	(25.6)	864	148	(17.1)	704	153	(21.7)	576	87	(15.1)	592	114	(19.3)
Belarus	1117	464	(41.5)	984	272	(27.6)	874	277	(31.7)	825	354	(42.9)	757	310	(41.0)
Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-	-	-	-	0	-	_
Georgia	266	93	(35.0)	211	75	(35.5)	242	65	(26.9)	173	50	(28.9)	148	37	(25.0)
Israel	8	1	(12.5)	15	3	(20.0)	9	1	(11.1)	5	1	(20.0)	9	5	(55.6)
Kazakhstan	2187	278	(12.7)	3 577	349	(9.8)	2460	635	(25.8)	2848	399	(14.0)	2931	461	(15.7)
Kyrgyzstan	659	220	(33.4)	666	117	(17.6)	909	97	(10.7)	869	149	(17.1)	665	116	(17.4)
Monaco	-		-	-	-	-	-		-	-		-	0		-
Montenegro	1	1	(100.0)	1	0	(0.0)	0	_	-	0	_	_	0	-	-
North Macedonia	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Republic of Moldova	533	89	(16.7)	658	157	(23.9)	559	121	(21.6)	413	188	(45.5)	459	124	(27.0)
Russian Federation	22 528	5 672	(25.2)	23 919	7737	(32.3)	25331	9077	(35.8)	20 449	7822	(38.3)	18843	7346	(39.0)
San Marino	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Serbia	0	-	-	-	-	-	-	-	-	-	-	-	-	-	_
Serbia excluding Kosovo <sup>1</sup>	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kosovo¹	0	_	-	-	-	-	-	_	-	-	-	-	-	-	_
Switzerland	-	-	-	4	1	(25.0)	9	0	(0.0)	4	2	(50.0)	4	1	(25.0)
Tajikistan	464	55	(11.9)	583	197	(33.8)	362	16	(4.4)	512	121	(23.6)	551	129	(23.4)
Türkiye	121	9	(7.4)	142	16	(11.3)	90	22	(24.4)	99	14	(14.1)	101	10	(9.9)
Turkmenistan	-	_	-	-	-	-	_	-	-	-	-	-	-	-	-
Ukraine	6501	1965	(30.2)	6475	2498	(38.6)	5936	890	(15.0)	4177	1120	(26.8)	3266	994	(30.4)
United Kingdom	31	10	(32.3)	25	6	(24.0)	29	5	(17.2)	32	8	(25.0)	36	13	(36.1)
Uzbekistan	540	51	(9.4)	1422	11	(0.8)	466	209	(44.8)	1400	378	(27.0)	1645	394	(24.0)
	35866	9136	(25.5)	39631	11605	(29.3)	38 043	11587	(30.5)	32434	10704	(33.0)	30064	10 071	(33.5)
Suptotal non-eu/eea									(0000)	10-1		(22.0)	20004		
Subtotal non-EU/EEA Total European Region	36770	9424	(25.6)	40 404	11863	(29.4)	38 651	11779	(30.5)	32863	10822	(32.9)	30468	10186	(33.4)

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. DST: drug-susceptibility testing.
FQL: fluroquinolones.
HPCs: high-priority countries.
RR/MDR-TB: rifampicin-resistant or multidrug-resistant 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).

\* All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table IX. TB cases with HIV infection, European Region, 2017–2021a

			2017					2018					2019		
	(S	Cases with		HIV po	sitive	<u>S</u>	Cases wit		HIV po:	sitive	(S	Cases wit		HIV po	sitive
Country/area	cases (N)	HIV sta	itus			ses	HIV st	atus			cases (N)	HIV st	atus		
	All TB ca	N	%	N	% <sup>b</sup>	All TB cases (N)	N	%	N	%⁵	All TB G	N	%	N	%⁵
U/EEA															
Austria	-	_	-	-	-	-	-	-	-	-	-	_	-	-	_
Belgium	967	514	(53.2)	43	(8.4)	977	502	(51.4)	35	(7.0)	963	502	(52.1)	43	(8.6)
Bulgaria	1463	1204	(82.3)	3	(0.2)	1358	1118	(82.3)	0	(0.0)	1344	1104	(82.1)	1	(0.1)
•															
Croatia	378	3	(0.8)	0	(0.0)	372	2	(0.5)	0	(0.0)	302	5	(1.7)	0	(0.0)
Cyprus	53	49	(92.5)	0	(0.0)	52	41	(78.8)	1	(2.4)	69	43	(62.3)	2	(4.7)
Czechia	501	195	(38.9)	8	(4.1)	443	190	(42.9)	4	(2.1)	461	270	(58.6)	8	(3.0)
Denmark	275	211	(76.7)	3	(1.4)	291	234	(80.4)	3	(1.3)	284	230	(81.0)	7	(3.0)
stonia	176	164	(93.2)	14	(8.5)	147	137	(93.2)	13	(9.5)	150	141	(94.0)	16	(11.3)
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
rance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	-	-	-	-	_	_	_	-	-	-	_	-	-	-	-
Greece	467	389	(83.3)	13	(3.3)	432	362	(83.8)	11	(3.0)	459	408	(88.9)	19	(4.7)
	685	18	(2.6)	1	(5.6)	640	23	(3.6)	3		552	32	(5.8)	3	(9.4)
Hungary										(13.0)		-			
celand	14	13	(92.9)	0	(0.0)	8	8	(100.0)	1	(12.5)	13	11	(84.6)	0	(0.0)
reland	300	156	(52.0)	14	(9.0)	310	160	(51.6)	13	(8.1)	257	115	(44.7)	13	(11.3)
taly	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	552	471	(85.3)	52	(11.0)	-	-	-	-	-	-	-	-	-	-
iechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ithuania	1387	1125	(81.1)	42	(3.7)	1142	954	(83.5)	32	(3.4)	1058	1020	(96.4)	27	(2.6)
uxembourg	32	3	(9.4)	1	(33.3)	42	7	(16.7)	0	(0.0)	50	37	(74.0)	0	(0.0)
Malta	42	37	(88.1)	0	(0.0)	72	,	(10.7)	_	(0.0)	98	34	(34.7)	0	(0.0)
						705	(2)	(70.5)		(2.1)					
letherlands	783	602	(76.9)	23	(3.8)	795	624	(78.5)	21	(3.4)	754	600	(79.6)	21	(3.5)
Norway	261	228	(87.4)	7	(3.1)	208	184	(88.5)	7	(3.8)	166	134	(80.7)	6	(4.5)
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	1914	1751	(91.5)	149	(8.5)	1926	1695	(88.0)	158	(9.3)	1907	1648	(86.4)	153	(9.3)
Romania	12997	10890	(83.8)	232	(2.1)	12199	10355	(84.9)	255	(2.5)	11 618	10218	(87.9)	200	(2.0)
Slovakia	249	227	(91.2)	0	(0.0)	281	238	(84.7)	2	(0.8)	214	148	(69.2)	4	(2.7)
Slovenia	112	80	(71.4)	0	(0.0)	99	80	(80.8)	0	(0.0)	101	73	(72.3)	1	(1.4)
Spain	5660	2845	(50.3)	266	(9.3)	4766	76	(1.6)	35	(46.1)	4532	2595	(57.3)	232	(8.9)
		2047	(50.5)	200		4700	70	(1.0)	_	(40.1)	4772	2 3 9 3			(0.5)
Sweden	-				-								(=4.4)	-	
Subtotal EU/EEA	29 268	21175	(72.3)	871	(4.1)	26488	16990	(64.1)	594	(3.5)	25 352	19 3 6 8	(76.4)	756	(3.9)
lon-EU/EEA															
Albania	503	235	(46.7)	4	(1.7)	440	215	(48.9)	6	(2.8)	412	368	(89.3)	8	(2.2)
Andorra	1	0	(0.0)	-	-	2	0	(0.0)	-	-	5	0	(0.0)	-	-
Armenia	841	838	(99.6)	66	(7.9)	734	699	(95.2)	72	(10.3)	621	591	(95.2)	62	(10.5)
Azerbaijan	7129	5889	(82.6)	95	(1.6)	6896	6483	(94.0)	87	(1.3)	6533	4534	(69.4)	71	(1.6)
Belarus	2781	2781	(100.0)	202	(7.3)	2359	2359	(100.0)	182	(7.7)	2207	2207	(100.0)	157	(7.1)
Bosnia and Herzegovina	-		-	-	-	-	-	-	-	-	_	_	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	-
	2597	2442	(94.0)	43	(1.8)	2316	2174	(93.9)	45	(2.1)	2169	1841	(84.9)	33	(1.8)
Georgia															
srael	234	234	(100.0)	12	(5.1)	292	292	(100.0)	12	(4.1)	217	217	(100.0)	8	(3.7)
(azakhstan	12449	11 056	(88.8)	443	(4.0)	12 832	12 23 6	(95.4)	717	(5.9)	12 5 0 1	12375	(99.0)	666	(5.4)
(yrgyzstan	6 6 8 7	5966	(89.2)	216	(3.6)	6338	5771	(91.1)	187	(3.2)	6138	5810	(94.7)	131	(2.3)
Monaco	0	0	-	0	-	0	0	-	0	-	0	0	-	0	-
Montenegro	75	63	(84.0)	0	(0.0)	84	43	(51.2)	0	(0.0)	80	76	(95.0)	0	(0.0)
North Macedonia	216	178	(82.4)	0	(0.0)	217	126	(58.1)	3	(2.4)	199	152	(76.4)	1	(0.7)
Republic of Moldova	3358	3352	(99.8)	277	(8.3)	3022	2893	(95.7)	248	(8.6)	2809	2792	(99.4)	295	(10.6)
Russian Federation	84510	81443	(96.4)	15 695	(19.3)	78258	74 075	(94.7)	14797	(20.0)	73 328	70 610	(96.3)	16453	(23.3)
San Marino	0	0	- (, , ,	0	-	0	0	- (, , ,	0	-	0	0	- (2.5)	0	()
Serbia	1450	71	(4.9)	8	(11.3)	1330	56	(4.2)	8	(14.3)	1106	39	(3.5)	3	(7.7)
Serbia excluding Kosovo¹	738	91	(12.3)	8	(8.8)	641	56	(8.7)	8	(14.3)	501	39	(7.8)	3	(7.7)
Kosovo¹	712	0	(0.0)	0	-	0	0	-	0	-	0	0	-	0	-
Switzerland	0	0	-	0	-		0	-	0	-	0	0	-	0	-
Tajikistan	5895	5937	(100.7)	219	(3.7)	5726	5545	(96.8)	227	(4.1)	5755	5660	(98.3)	167	(3.0)
Türkiye	11821	8423	(71.3)	65	(0.8)	11 576	8234	(71.1)	67	(0.8)	11247	8814	(78.4)	104	(1.2)
,						115/0				(0.0)	1124/		(/0.4)		
Turkmenistan	0	0	-	0	- (22.4)		0	-	0			0	(0)	0	-
Jkraine	27229	26 623	(97.8)	5955	(22.4)	26 512	26312	(99.2)	6053	(23.0)	25379	25210	(99.3)	5800	(23.0)
United Kingdom	5248	4407	(84.0)	128	(2.9)	4775	4060	(85.0)	115	(2.8)	0	0	-	0	-
Uzbekistan	16842	16842	(100.0)	935	(5.6)	16 413	16 413	(100.0)	736	(4.5)	16272	15450	(94.9)	647	(4.2)
Subtotal non-EU/EEA	189866	176780	(93.1)	24363	(13.8)	180122	167986	(93.3)	23562	(14.0)	166978	156746	(93.9)	24606	(15.7)
Total European Region	219134	197955	(90.3)	25234	(12.7)	206610	184976	(89.5)	24156	(13.1)	192330	176 114	(91.6)	25362	(14.4)

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.

4 HIV prevalence may be underestimated due to incomplete HIV testing and/or reporting of HIV serostatus. Countries/areas were only included in this analysis if the total number of cases tested for HIV and test results were provided.

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

4 All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

		2020					2021			
	Cases with I		HIV po	sitive	(S	Cases wi		HIV po	sitive	
All TB	stat	us	пт ро	JILIVE	ses	HIV s	tatus	1117 po	311170	Country/area
cases (N)	N	%	N	%ь	All TB cases (N)	N	%	N	% <sup>b</sup>	country/area
										EU/EEA
-	-	-	-	-	-	-	-	-	_	Austria
825	387	(46.9)	32	(8.3)	875	464	(53.0)	28	(6.0)	Belgium
930	781	(84.0)	1	(0.1)	687	477	(69.4)	0		Bulgaria
194	6	(3.1)	0	(0.0)	157	3	(1.9)	0	(0.0)	-
36	30	(83.3)	2	(6.7)	48	35	(72.9)	1	(2.9)	Cyprus
363	199	(54.8)	7	(3.5)	357	212	(59.4)	7	(3.3)	Czechia
221	168	(76.0)	4	(2.4)	208	161	(77.4)	6	(3.7)	Denmark
124	116	(93.5)	13	(11.2)	111	103	(92.8)	12	(11.7)	
-	-	-	-	-	-	-	-	-	-	Finland
-	-	-	-	-	-	-	-	-	-	France
-	-	- (400.0)	-	- (4.0)	-	-	- (21.2)	-	- (2.2)	Germany
396	396	(100.0)	17	(4.3)	206	51	(24.8)	2	(3.9)	
406	18	(4.4)	2	(11.1)	335	7	(2.1)	1 -	(14.3)	Hungary Iceland
236	100	(42.4)	5	(5.0)	217	68	(31.3)	2		Ireland
230	-	(42.4)	_	(5.0)	217	-	(51.5)	_	(2.7)	Italy
_	-	_	_	_	261	188	(72.0)	24	(12.8)	Latvia
_	_	-	_	_	-	-	(/2.0)	_	(12.0)	
726	714	(98.3)	20	(2.8)	646	612	(94.7)	15		Lithuania
34	28	(82.4)	0	(0.0)	35	25	(71.4)	0		Luxembourg
140	119	(85.0)	2	(1.7)	54	46	(85.2)	1		Malta
622	496	(79.7)	14	(2.8)	680	508	(74.7)	13	(2.6)	
159	124	(78.0)	3	(2.4)	157	128	(81.5)	4	(3.1)	Norway
-	-	-	-	-	-	-	-	-	-	Poland
1519	1315	(86.6)	121	(9.2)	1504	1109	(73.7)	96		Portugal
7693	6580	(85.5)	151	(2.3)	7979	6 5 6 9	(82.3)	144	(2.2)	
158	82	(51.9)	2	(2.4)	137	80	(58.4)	2		Slovakia
77	58	(75.3)	0	(0.0)	80	67	(83.8)	0	(0.0)	Slovenia
3697	2121	(57.4)	107	(5.0)	3508	1924	(54.8)	152		Spain
18556	13838	(74.6)	503	(3.6)	18 242	12 837	(70.4)	510	(/, n)	Sweden Subtotal EU/EEA
10 330	13030	(/4.0)	303	(3.0)	10 242	12 03/	(/0.4)	310	(4.0)	Non-EU/EEA
240	199	(82.9)	2	(1.0)	269	244	(90.7)	1	(0,4)	Albania
2	0	(0.0)	-	-	2	0	(0.0)	0	-	Andorra
394	369	(93.7)	39	(10.6)	398	335	(84.2)	36	(10.7)	Armenia
4991	4454	(89.2)	83	(1.9)	4944	4448	(90.0)	92	(2.1)	Azerbaijan
1514	1514	(100.0)	135	(8.9)	1484	1484	(100.0)	128	(8.6)	Belarus
-	-	-	-	-	-	-	-	-	_	Bosnia and Herzegovina
1671	1494	(89.4)	29	(1.9)	1501	1430	(95.3)	43		Georgia
158	158	(100.0)	15	(9.5)	213	213	(100.0)	16		Israel
9603	9440	(98.3)	614	(6.5)	9757	9620	(98.6)	625		Kazakhstan
4241	4007	(94.5)	131	(3.3)	4596	4394	(95.6)	126		Kyrgyzstan Monaco
0 40	<i>0</i> 35	(87.5)	0	(0.0)	<i>0</i> 80	<i>0</i> 80	(100.0)	0		Montenegro
143	69	(48.3)	1	(1.4)	143	29	(20.3)	0		North Macedonia
1767	1693	(95.8)	219	(12.9)	2067	2008	(97.1)	214	(10.7)	Republic of Moldova
58723	55838	(95.1)	13 506	(24.2)	56922	54821	(96.3)	14132	(25.8)	Russian Federation
0	0	-	0	-	0	0	-	0	-	San Marino
0	0	-	0	-	0	0	-	0	-	Serbia
0	0	-	0	-	0	0	-	0	-	Serbia excluding Kosovo <sup>1</sup>
0	0	-	0	-	0	0	-	0	-	Kosovo¹
0	0	-	0	-	0	0	-	0	-	Switzerland
4148	4043	(97.5)	118	(2.9)	4158	4103	(98.7)	118	(2.9)	,
8830	7062	(80.0)	83	(1.2)	9047	7249	(80.1)	85	(1.2)	Türkiye
47.50	0	(00.4)	0	(24.0)	0	0	(00.0)	0	(22.2)	Turkmenistan
17533	17375	(99.1)	3799	(21.9)	18307	17991	(98.3)	3646	,	Ukraine
0 12111	0 12111	(100.0)	0 379	(3.1)	0 13 5 4 4	0 15 450	(114.1)	0 441	(2.9)	United Kingdom  Uzbekistan
126109	119 861	(95.0)	19 153	(16.0)	127 432	123899	(97.2)	19703		Subtotal non-EU/EEA
144665	133 699	(92.4)	19 656	(14.7)	145 674	136736	(93.9)	20 213		Total European Region
134 999	127591	(94.5)	19320	(15.1)	136409	131 282	(96.2)	19881		Subtotal 18 HPCs
.,,,,	-,,,,	/		,,	. ,		ų·-/		,,	

Table X. Treatment success after 12 months for new<sup>a</sup> and relapse TB cases, European Region, 2016–2020<sup>b</sup>

		2016			2017			2018			2019			2020	
Country/area	Cases		ess	Cases		cess	Cases	Succ		Cases		cess	Cases	Succ	
	reported	N	(%)	reported	N	(%)	reported	N	(%)	reported	N	(%)	reported	N	(%)
EU/EEA	44.	1.50	(=, =)			(40.4)		***	(== ()	1.50		(= 1 =)			(== =)
Austria	604	452	(74.8)	543	375	(69.1)	455	334	(73.4)	459	341	(74.3)	380	266	(70.0)
Belgium <sup>c</sup>	973	793	(81.5)	905	718	(79.3)	902	737	(81.7)	877	709	(80.8)	759	511	(67.3)
Bulgaria	1510	1291	(85.5)	1386	1167	(84.2)	1268	1085	(85.6)	1278	1045	(81.8)	- 400	-	(50.5)
Croatia	452	264	(58.4)	372	245	(65.9)	363	237	(65.3)	293	149	(50.9)	188	95	(50.5)
Cyprus	56	37	(66.1)	51	34	(66.7)	51	30	(58.8)	65	18	(27.7)	34	15	(44.1)
Czechia	505	346	(68.5)	489	337	(68.9)	422	290	(68.7)	447	330	(73.8)	347	241	(69.5)
Denmark <sup>c</sup>	288	113	(39.2)	251	99	(39.4)	266	48	(18.0)	259	117	(45.2)	206	71	(34.5)
Estonia Finland	165	132	(80.0)	139	112	(80.6)	115	96	(83.5)	120	91	(75.8)	101	76	(75.2)
France	217	69	(31.8)	235	85	(36.2)	222	52	(23.4)	222	85	(38.3)	173	44	(25.4)
	5 6 3 5	3926	(69.7)	5 251	3715	(70.7)	5222	4070	(77.9)	4567	3503	(76.7)	3942	2932	(74.4)
Germany Greece	7000	3920	(09.7)	5 2 5 1	3/13	(/0./)	5222	40/0	(77.9)	4307	3303	(/0./)	3942 -	2932	(/4.4)
	722	511	(70.8)	639	429	(67.1)	591	388	(65.7)	517	336	(65.0)	376	250	(66.5)
Hungary Iceland	6	5	(83.3)		12	(92.3)	8	8	(100.0)			(100.0)		3	(25.0)
Ireland <sup>c</sup>	285	168	(58.9)	13 277	163	(58.8)	284	110	(38.7)	13 234	13 52	(22.2)	12 223	14	(6.3)
	200	100	(50.9)	-	- 103	(50.0)	204	-	(30.7)	234	52	(22.2)		14	(0.5)
Italy <i>Latvia</i>	592	505	(85.3)	_	-	_	_	_	_	_	_	_	_	-	_
Liechtenstein	2	2	(100.0)	1	1	(100.0)	_	_	_	_	_	_	2	2	(100.0)
Lithuania	1152	958	(83.2)	1086	905	(83.3)	926	806	(87.0)	866	754	(87.1)	601	514	(85.5)
	1152	958	(83.2)	1086	905	(03.3)	926	806	(07.0)	47	17	(36.2)	32	12	(37.5)
Luxembourg Malta	_	_	_	_	_	_	_	_	_	98	97	(99.0)	137	136	(99.3)
Netherlands	864	758	(87.7)	762	665	(87.3)	774	668	(86.3)	730	635	(87.0)	601	499	(83.0)
Norway	262	226	(86.3)	228	214	(93.9)	182	160	(87.9)	153	132	(86.3)	141	125	(88.7)
Poland	6099	3300	(54.1)		- 214	(23.2)	-	-	(07.9)	-	-	(00.5)	-	-	(00.7)
Portugal	1872	1316	(70.3)	1859	1366	(73.5)	1867	1368	(73.3)	1836	1376	(74.9)	1461	1072	(73.4)
Romania	12 458	10729	(86.1)	12 007	10348	(86.2)	11271	9483	(84.1)	10 812	9 0 5 1	(83.7)	7017	5727	(81.6)
Slovakia	279	241	(86.4)	222	204	(91.9)	271	249	(91.9)	209	196	(93.8)	152	130	(85.5)
Slovenia	118	84	(71.2)	111	85	(76.6)	98	77	(78.6)	98	69	(70.4)	74	55	(74.3)
Spain	3964	2669	(67.3)	4499	2721	(60.5)	4596	2065	(44.9)	4375	2045	(46.7)	3494	1864	(53.3)
Sweden	669	607	(90.7)	477	413	(86.6)	462	361	(78.1)	468	303	(64.7)	307	222	(72.3)
Subtotal EU/EEA	39749	29502	(74.2)	31803	24 413	76.8	30 616	22722	74.2	29043	21464	73.9	20760	14876	71.7
Non-EU/EEA	57117	_,,,,,	(, 1,-)	J.005	_	70.0	500.0		, ,,=	27015	21101	10.7	20700	11010	,,
Albania	409	357	(87.3)	499	435	(87.2)	434	386	(88.9)	412	364	(88.3)	240	213	(88.8)
Andorra	4	3	(75.0)	1	1	(100.0)	2	2	(100.0)	5	3	(60.0)	2	2	(100.0)
Armenia	869	703	(80.9)	710	563	(79.3)	615	497	(80.8)	485	399	(82.3)	303	244	(80.5)
Azerbaijan	1464	1225	(83.7)	1777	1492	(84.0)	1751	1 471	(84.0)	1702	1429	(84.0)	1180	973	(82.5)
Belarus	2123	1894	(89.2)	1792	1587	(88.6)	1418	1250	(88.2)	1302	1153	(88.6)	833	710	(85.2)
Bosnia and Herzegovina	907	505	(55.7)	766	343	(44.8)	666	189	(28.4)	580	185	(31.9)	357	183	(51.3)
Georgia	2715	2263	(83.4)	2351	1977	(84.1)	2 071	1735	(83.8)	1947	1659	(85.2)	1513	1314	(86.8)
Israel	250	198	(79.2)	225	196	(87.1)	292	227	(77.7)	217	182	(83.9)	152	123	(80.9)
Kazakhstan	6775	5962	(88.0)	8589	7826	(91.1)	7859	7093	(90.3)	7429	6704	(90.2)	5742	5043	(87.8)
Kyrgyzstan	6072	4968	(81.8)	5752	4728	(82.2)	5333	4321	(81.0)	5110	4155	(81.3)	3 472	2839	(81.8)
Monaco	2	0	(0.0)	-	-	-	1	0	(0.0)	-	-	-	0	-	-
Montenegro	87	70	(80.5)	75	65	(86.7)	81	77	(95.1)	82	78	(95.1)	40	35	(87.5)
North Macedonia	263	232	(88.2)	219	193	(88.1)	214	187	(87.4)	199	177	(88.9)	148	125	(84.5)
Republic of Moldova	3048	2 515	(82.5)	2715	2187	(80.6)	2312	1954	(84.5)	2215	1854	(83.7)	1408	1117	(79.3)
Russian Federation	73137	52335	(71.6)	67593	46938	(69.4)	59850	41154	(68.8)	54589	37208	(68.2)	46389	28 677	(61.8)
San Marino	0	-	-	0	-	-	0	-	-	-	-	-	-	-	_
Serbia	1443	1191	(82.5)	1440	1239	(86.0)	1265	1032	(81.6)	602	513	(85.2)	434	347	(80.0)
Serbia excluding Kosovo <sup>1</sup>	733	590	(80.5)	738	616	(83.5)	579	459	(79.3)	-	-	-	-	-	_
Kosovo¹	710	601	(84.6)	702	623	(88.7)	686	573	(83.5)	602	513	(85.2)	434	347	(80.0)
Switzerland	565	384	(68.0)	518	406	(78.4)	376	309	(82.2)	391	267	(68.3)	342	254	(74.3)
Tajikistan	5324	4751	(89.2)	5259	4789	(91.1)	4995	4 4 5 2	(89.1)	5114	4643	(90.8)	3646	3332	(91.4)
Türkiye	12 017	10462	(87.1)	11 638	10 014	(86.0)	11407	9 6 9 1	(85.0)	11 095	9231	(83.2)	8820	7125	(80.8)
Turkmenistan	2068	1738	(84.0)	1968	1676	(85.2)	2157	1780	(82.5)	2117	1749	(82.6)	1918	1599	(83.4)
Ukraine	22 615	17234	(76.2)	21165	16189	(76.5)	20221	15 607	(77.2)	19 414	15381	(79.2)	13218	10232	(77.4)
United Kingdom <sup>c</sup>	5675	4570	(80.5)	5176	4216	(81.5)	4684	3724	(79.5)	4739	3 6 7 5	(77.5)	4386	3409	(77.7)
Uzbekistan	14743	12906	(87.5)	15167	13 554	(89.4)	14423	13 217	(91.6)	14224	12820	(90.1)	10 654	9644	(90.5)
Subtotal non-EU/EEA	162575	126466	(77.8)	155 395	120 614	(77.6)	142 427	110 355	(77.5)	133 970	103829	(77.5)	105197	77540	(73.7)
Total European Region	202324	155968	(77.1)	187198	145 027	(77.5)	173 043	133 077	(76.9)	163 013	125 293	(76.9)	125 957	92416	(73.4)
	168847	132571	(78.5)	161 094	126 052	(78.2)	147992	115 692	(78.2)	139 819	109326	(78.2)	106815	79166	(74.1)

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

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

Excluding rifampicin-resistant cases.

Previous TB history is defined as previous diagnosis.

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table XI. Treatment success after 24 months of RR/MDR-TBa cases started on treatmentb, European Region, 2015–2019

		2015			2016			2017			2018			2019	
Country/area	Cases	Succ		Cases	Succ	ess	Cases	Succ	ess	Cases	Succ		Cases	Succ	
	reported	N	(%)	reported	N	(%)	reported	N	(%)	reported	N	(%)	reported	N	(%)
EU/EEA															
Austria	13	12	(92.3)	17	11	(64.7)	19	10	(52.6)	18	15	(83.3)	6	6	(100.0
Belgium	16	16	(100.0)	12	10	(83.3)	8	6	(75.0)	9	7	(77.8)	16	14	(87.5)
Bulgaria	28	17	(60.7)	22	12	(54.5)	29	18	(62.1)	28	17	(60.7)	13	6	(46.2)
Croatia	1	1	(100.0)	0	-	-	0	-	-	2	0	(0.0)	-	-	-
Cyprus	0	-	-	-	-	-	-	-	-	0	-	-	-	-	-
Czechia	9	3	(33.3)	5	2	(40.0)	8	3	(37.5)	12	4	(33.3)	6	4	(66.7)
Denmark	7	0	(0.0)	5	3	(60.0)	2	1	(50.0)	4	0	(0.0)	-	-	-
Estonia	40	25	(62.5)	25	18	(72.0)	35	28	(80.0)	31	23	(74.2)	27	21	(77.8)
Finland	9	4	(44.4)	6	4	(66.7)	5	2	(40.0)	3	2	(66.7)	3	2	(66.7
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	131	54	(41.2)	121	45	(37.2)	138	75	(54.3)	129	79	(61.2)	101	56	(55.4)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	9	2	(22.2)	20	8	(40.0)	13	6	(46.2)	13	6	(46.2)	13	3	(23.1)
Iceland	0	-	-	0	-	-	0	-	-	0	-	-	-	-	-
Ireland	1	0	(0.0)	7	5	(71.4)	6	2	(33.3)	8	1	(12.5)	6	2	(33.3)
Italy	-	-	-	-	-	_	-	-	-	-	-	_	-	-	-
Latvia	63	39	(61.9)	-	-	-	-	0	-	-	-	-	-	-	-
Liechtenstein	0	-	_	0	-	-	0	-	-	0	-	-	0	-	
Lithuania	248	99	(39.9)	255	110	(43.1)	264	111	(42.0)	189	103	(54.5)	173	78	(45.1)
Luxembourg	-	-	_	-	-	-	-	-	_	-	-	_	-	-	
Malta	_	-	-	-	-	-	-	-	-	-	_	-	_	-	-
Netherlands	10	6	(60.0)	15	11	(73.3)	10	8	(80.0)	6	5	(83.3)	9	8	(88.9)
Norway	6	6	(100.0)	11	10	(90.9)	9	8	(88.9)	6	5	(83.3)	2	1	(50.0)
Poland	45	16	(35.6)	-	-	_	_	0	-	-	0	-	_	0	(5 11 1)
Portugal	26	9	(34.6)	19	5	(26.3)	13	10	(76.9)	11	7	(63.6)	14	6	(42.9)
Romania	589	259	(44.0)	547	271	(49.5)	455	183	(40.2)	439	192	(43.7)	377	184	(48.8)
Slovakia	3	1	(33.3)	3	0	(0.0)	7	2	(28.6)	3	2	(66.7)	5	4	(80.0)
Slovenia	0	_	(33.3)	0	_	(0.0)	1	0	(0.0)	0	_	(00.7)	0	_	(00.0)
Spain	_	_	_	_	-	_	_	_	(0.0)	_	_	_	_	_	_
Sweden	26	24	(92.3)	25	23	(92.0)	12	10	(83.3)	14	14	(100.0)	10	9	(90.0)
Subtotal EU/EEA	1280	593	(46.3)	1115	548	(49.1)	1034	483	(46.7)	925	482	(52.1)	781	404	(51.7)
Non-EU/EEA	1200	373	(4013)	1113	340	(4711)	1034	403	(4017)	723	402	(3211)	701	707	(311)
Albania	3	3	(100.0)	1	1	(100.0)	0	-	_	4	3	(75.0)	2	1	_
Andorra	0	_	-	0	_	(.00.0)	0	-	_	0	_	(, 5.0)	0	_	_
Armenia	95	40	(42.1)	118	58	(49.2)	104	52	(50.0)	85	39	(45.9)	65	35	(53.8)
Azerbaijan	800	473	(59.1)	798	480	(60.2)	858	509	(59.3)	821	471	(57.4)	815	486	(59.6)
Belarus	1400	899	(64.2)	1180	796	(67.5)	1067	752	(70.5)	919	670	(72.9)	772	640	(82.9)
Bosnia and Herzegovina	1	1	(100.0)	0	-	(07.5)	-	7 72	(/0.5/	-	-	(/2.//	-	-	(02.7)
Georgia	412	231	(56.1)	339	222	(65.5)	316	203	(64.2)	230	155	(67.4)	218	171	(78.4)
Israel	10	8	(80.0)	9	6	(66.7)	7	203	(71.4)	14	9	(64.3)	9	5	(55.6)
Kazakhstan	6482	5063	(78.1)	6260	4979	(79.5)	5338	4340	(81.3)	4336	3499	(80.7)	5892	4486	(76.1)
Kyrgyzstan Monaco	1162	624	(53.7)	1232	655	(53.2)	1166	643	(55.1)	1244	775	(62.3)	1173	841	(71.7)
	1	1	(100.0)	0	_	_	0	_	_	1	1	(100.0)	0	_	
Montenegro North Macedonia	5	2	(40.0)	2	1	(50.0)	1	0	(0.0)	2	1	(50.0)	2	0	(0.0)
Republic of Moldova	996	487	(48.9)	979	518	(52.9)	962	537	(55.8)	921	541	(58.7)	559	387	(69.2)
Russian Federation	22 607	12 117	(53.6)	22593	12 141	(53.7)	22901	12 629	(55.1)	28706	14757	(51.4)	32 574	16447	(50.5)
San Marino	0	-	(000)	0	-	(75.0)	0	-	(=0.0)	-	-	-	-	-	_
Serbia	10	9	(90.0)	12	9	(75.0)	10	7	(70.0)	-	-	-	0	-	
Serbia excluding Kosovo <sup>1</sup>	5	4	(80.0)	10	7	(70.0)	6	4	(66.7)	-	-	-	-	-	-
Kosovo¹	5	5	(100.0)	2	2	(100.0)	4	3	(75.0)	-	-	-	0	-	(04.7)
Switzerland	16	7	(== 1)	17	8	(47.1)	12	10	(83.3)	9	6	(66.7)	12	11	(91.7)
Tajikistan	682	398	(58.4)	681	440	(64.6)	546	352	(64.5)	727	510	(70.2)	588	454	(77.2)
Türkiye	230	156	(67.8)	211	131	(62.1)	202	139	(68.8)	180	99	(55.0)	155	7	(4.5)
Turkmenistan	210	142	(67.6)	557	303	(54.4)	343	226	(65.9)	549	248	(45.2)	649	358	(55.2)
Ukraine	7592	3 8 5 5	(50.8)	7277	3 590	(49.3)	6 6 8 5	3407	(51.0)	5953	3006	(50.5)	7259	4460	(61.4)
United Kingdom	45	32	(71.1)	59	39	(66.1)	56	35	(62.5)	40	30	(75.0)	47	31	(66.0)
Uzbekistan	2149	1259	(58.6)	1986	1140	(57.4)	2265	1372	(60.6)	2039	1375	(67.4)	2040	1422	(69.7)
Subtotal non-EU/EEA	44908	25807	(57.5)	44311	25 517	(57.6)	42839	25 218	(58.9)	46780	26195	(56.0)	52831	30 242	(57.2)
Total European Region	46188	26400	(57.2)	45 426	26 065	(57.4)	43873	25701	(58.6)	47705	26 677	(55.9)	53 612	30646	(57.2)
Subtotal 18 HPCs	45785	26183	(57.2)	45 060	25864	(57.4)	43 536	25 501	(58.6)	47397	26480	(55.9)	53349	30483	(57.1)

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

RR/MDR-18: rifampicin-resistant/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).

For EU/EEA countries, cases diagnosed postmortem were excluded, and cases with no data on treatment enrolment were assumed to be enrolled in treatment.

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table XII. Treatment success after 24 months of pre-XDR-TBa cases started on treatment, European Region, 2015–2019

		2015			2016			2017			2018			2019	
	ses	Succ	ess	ses	Succ	ess	ses	Succ	ess	ses	Succ	ess	ses	Succ	ess
Country/area	Pre-XDR TB cases (N)	N	(%)	Pre-XDR TB cases (N)	N	(%)	Pre-XDR TB cases (N)	N	(%)	Pre-XDRTB cases (N)	N	(%)	Pre-XDR TB cases (N)	N	(%)
EU/EEA															
Austria	2	1	(50.0)	5	4	(80.0)	6	3	(50.0)	5	3	(60.0)	2	2	(100.0)
Belgium	4	4	(100.0)	0	-	-	0	-	-	5	4	(80.0)	2	2	(100.0)
Bulgaria	6	3	(50.0)	3	0	(0.0)	4	2	(50.0)	5	2	(40.0)	4	0	(0.0)
Croatia	1	1	(100.0)	0	-	-	0	-	-	0	-	-	-	-	-
Cyprus	0	-	-	-	-	-	-	-	-	0	-	-	0	-	-
Czech Republic	5	1	(20.0)	0	-	-	2	1	(50.0)	3	0	(0.0)	0	-	-
Denmark	2	0	(0.0)	0	-	-	0	-	-	0	-	-	0	-	-
Estonia	14	7	(50.0)	6	3	(50.0)	11	6	(54.5)	10	9	(90.0)	5	3	(60.0)
Finland	1	0	(0.0)	2	1	(50.0)	0	-	-	0	-	-	0	-	-
France	-	-	-	-	-	-	-	-	_	-	-	-	-	-	_
Germany	24	8	(33.3)	24	8	(33.3)	15	7	(46.7)	25	14	(56.0)	14	5	(35.7)
Greece	-	-	- ()	-	-	- (	-	-	- ()	-	-	-	-	-	(: :)
Hungary	3	1	(33.3)	10	5	(50.0)	5	2	(40.0)	6	1	(16.7)	6	0	(0.0)
Iceland	0	-	-	0	-	(50.5)	0	-	(4000)	0	-	-	-	-	-
Ireland	0	-	-	2	1	(50.0)	1	1	(100.0)	0	-	-	0	-	-
Italy	- 10	- 10	(55.6)	-	-	-	-	-	-	-	-	-	_	-	-
Latvia	18	10	(55.6)	-	_	-	_	_	_	-	_	-		_	_
Liechtenstein Lithuania	100	10	(10.0)	0	- 11	(12.5)	108	12	(11.1)	0 76	23	(30.3)	76	-	(5.3)
	100	19	(19.0)	88	-	(12.5)	108	- 12	(11.1)	76	23	(30.3)	/6	4	(5.3)
Luxembourg Malta	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Netherlands	0	_	_	0	-	_	1	0	(0.0)	2	2	(100.0)	0	_	
Norway	0	_	_	0	_	_	2	2	(100.0)	1	1	(100.0)	-		
Poland	9	4	(44.4)	-	_	_	_	_	(100.0)	-	-	(100.0)	_	_	
Portugal	6	1	(16.7)	4	0	(0.0)	2	2	(100.0)	0	_	_	0	_	
Romania	123	48	(39.0)	96	34	(35.4)	76	8	(100.0)	69	10	(14.5)	50	11	(22.0)
Slovakia	0	-	(33.0)	1	0	(0.0)	2	0	(0.0)	1	0	(0.0)	0	-	(22.0)
Slovenia	0	_	_	0	_	(0.0)	0	_	(0.0)	0	_	(0.0)	0	_	_
Spain	_	_	-	-	-	_	_	_	_	_	_	_	_	_	_
Sweden	2	1	(50.0)	6	4	(66.7)	1	0	(0.0)	0	_	_	0	-	_
Subtotal EU/EEA	320	109	(34.1)	247	71	(28.7)	247	46	(18.6)	227	69	(30.4)	159	27	(17.0)
Non-EU/EEA			(L 2) V			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1			(= 1.1.4)			, , ,
Albania	-	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Andorra	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Armenia	8	4	(50.0)	10	3	(30.0)	16	7	(43.8)	14	3	(21.4)	12	6	(50.0)
Azerbaijan	-	-	-	-	-	-	182	115	(63.2)	189	116	(61.4)	186	113	(60.8)
Belarus	508	268	(52.8)	393	207	(52.7)	419	256	(61.1)	383	293	(76.5)	287	206	(71.8)
Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	62	35	(56.5)	55	31	(56.4)	47	28	(59.6)	54	29	(53.7)	53	30	(56.6)
Israel	1	1	(100.0)	2	2	(100.0)	1	0	(0.0)	2	1	(50.0)	1	1	(100.0)
Kazakhstan	391	126	(32.2)	435	207	(47.6)	300	145	(48.3)	386	293	(75.9)	655	476	(72.7)
Kyrgyzstan	51	9	(17.6)	68	10	(14.7)	157	91	(58.0)	105	55	(52.4)	97	60	(61.9)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
Montenegro	0	-	-	1	1	(100.0)	1	1	(100.0)	0	-	-	0	-	-
North Macedonia	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Republic of Moldova	32	5	(15.6)	65	17	(26.2)	62	20	(32.3)	62	32	(51.6)	37	21	(56.8)
Russian Federation	2882	960	(33.3)	2909	1094	(37.6)	4140	1710	(41.3)	27	11	(40.7)	39	11	(28.2)
San Marino	0	-	-	0	_	(0.0)	0	-	-	-	-	-	-	-	_
Serbia evaluding Kasayal	0	-	-	1	0	(0.0)	0	-	-		-	-	_	-	
Serbia excluding Kosovo¹	0	-	-	1	0	(0.0)	0	-	-	-	-	_	_		-
Kosovo¹	0	-	-	0	-	-	0	-	_			(100.0)	_	-	_
Switzerland Tajikistan	0 -	-	-	43	20	(46.5)	0 250	155	(62.0)	1	1/2		68	53	(77.9)
Türkiye	3	2	(66.7)	9	20 5			0	(0.0)	63 8	42	(66.7)	8		(0.0)
Turknye Turkmenistan	3	2	(00./)	9	5	(55.6)	2 5	2	(40.0)	28	8	(28.6)	113	0 59	(52.2)
Ukraine	1206	424	(35.2)	1353	501	(37.0)	1376	473	(34.4)	1479	505	(34.1)	0	59 -	(32.2)
United Kingdom	1206	2	(25.0)	7	3	(42.9)	13/6	4/3	(33.3)	14/9	2	(40.0)	8	6	(75.0)
Uzbekistan	147	34	(23.1)	184	91	(42.9)	258	162	(62.8)	404	280	(69.3)	627	411	(65.6)
Subtotal non-EU/EEA	5299	1870	(35.3)	5535	2192	(39.6)	7219	3166	(43.9)	3 <b>210</b>	1672	(52.1)	2191	1453	(66.3)
Total European Region	5619	1979	(35.2)	5782	2263	(39.1)	7466	3212	(43.0)	3437	1741	(50.7)	2350	1480	(63.0)
. o cor raiobeau ve2ion	5551	1954	(35.2)	5717	2234	(39.1)	7413	3192	(43.1)	3362	1712	(50.7)	2317	1464	(63.2)

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

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 that also meet the XDR case definition (XDR cases have not been excluded).

Pror EU/EEA countries, cases diagnosed postmortem are excluded, and cases with no treatment enrolment data reported are assumed to be enrolled in treatment.

All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Table XIII. Treatment success after 36 months of XDR-TBa cases notified in EU/EEA, 2014-2018

		2014			2015			2016			2017			2018	
		Succ	ess		Succ	ess		Succ	cess		Succ	ess		Succ	ess
Country/area	XDR-TB cases (N)	N	(%)	XDR-TB cases (N)	N	(%)	XDR-TB cases (N)	N	(%)	XDR-TB cases (N)	N	(%)	XDR-TB cases (N)	N	(%)
EU/EEA															
Austria	2	2	(100.0)	1	1	(100.0)	2	2	(100.0)	2	0	(0.0)	4	3	(75.0)
Belgium	3	3	(100.0)	4	4	(100.0)	0	-	_	0	_	-	1	1	(100.0)
Bulgaria	5	2	(40.0)	1	1	(100.0)	1	0	(0.0)	4	2	(50.0)	-	-	-
Croatia	0	_	-	0	_	_	0	_	-	0	_	-	0	-	-
Cyprus	0	_	_	0	_	_	_	_	_	0	_	_	0	_	-
Czechia	0	_	-	0	-	_	0	-	-	0	-	_	0	-	-
Denmark	0	-	-	2	0	(0.0)	0	_	_	0	-	_	0	_	-
Estonia	6	3	(50.0)	6	3	(50.0)	0	-	-	3	1	(33.3)	5	4	(80.0)
Finland	0	_	-	0	-	-	0	_	_	0	-	-	0	_	-
France	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Germany	11	3	(27.3)	16	6	(37.5)	19	6	(31.6)	13	5	(38.5)	14	8	(57.1)
Greece	_	_	(=,15)	_	-	-	-	-	-	-	-	-	-	_	-
Hungary	0	_	_	0	_	_	0	_	_	0	_	_	0	_	-
Iceland	0	_	-	0	-	_	0	-	-	0	-	_	0	-	-
Ireland	0	_	_	0	-	_	_	_	_	-	-	_	0	_	-
Italy	_	_	_	_	-	_	-	-	_	-	-	-	-	-	-
Latvia	8	7	(87.5)	-	-	-	-	-	_	-	-	-	-	-	-
Liechtenstein	0	_	_	0	-	_	0	-	_	0	-	-	0	-	-
Lithuania	0	_	-	0	-	-	0	-	-	1	0	(0.0)	3	2	(66.7)
Luxembourg	0	_	-	0	-	_	0	-	-	0	-	-	0	-	_
Malta	_	-	_	-	_	_	_	_	_	_	_	_	_	_	_
Netherlands	0	_	_	0	_	_	0	_	_	0	-	_	0	-	_
Norway	0	_	_	0	_	_	0	_	_	0	_	_	0	_	-
Poland	0	_	-	0	-	_	0	-	-	0	-	_	_	-	-
Portugal	1	0	(0.0)	2	0	(0.0)	2	0	(0.0)	2	2	(100.0)	0	-	-
Romania	0	_	-	0	_	-	0	-	-	1	0	(0.0)	0	-	-
Slovakia	0	-	-	0	-	-	0	_	-	0	-	-	0	-	-
Slovenia	0	-	-	0	-	-	0	-	-	0	-	_	0	-	-
Spain	_	-	-	-	_	-	-	-	-	-	-	-	-	-	-
Sweden	1	0	(0.0)	1	1	(100.0)	3	1	(33.3)	0	-	_	0	-	-
Total EU/EEA	37	20	(54.1)	33	16	(48.5)	27	9	(33.3)	26	10	(38.5)	27	18	(66.7)

Note: WHO European Region 18 TB high-priority countries presented in italics. EU/EEA: 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. TESSy: the European Surveillance System.

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 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, 2017-2021

		2017			2018			2019			2020			2021	
Country/area	New and relapse TB cases <sup>b</sup>	Cases test WHO recon rapid diag	nmended	New and relapse TB cases <sup>b</sup>	Cases test WHO recor rapid diag	nmended	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	New and relapse TB cases <sup>b</sup>	Cases test WHO recor rapid diag	mmended
	N	N	(%)	N	N	(%)	N	N	(%)	N	N	(%)	N	N	(%)
EU/EEA			()			()			()			(			()
Austria	561	444	(79.1)	470	376	(80.0)	464	366	(78.9)	382	263	(68.8)	387	281	(72.6)
Belgium <sup>d</sup>	911	484	(53.1)	910	522	(57.4)	890	613	(68.9)	774	531	(68.6)	817	586	(71.7)
Bulgaria	1408	5	(0.4)	1290	7	(0.5)	1288	17	(1.3)	887	2	(0.2)	673	2	(0.3)
Croatia	372	0	(0.0)	364	0	(0.0)	295	0	(0.0)	188	0	(0.0)	154	0	(0.0)
Cyprus	52	14	(26.9)	51	17	(33.3)	66	30	(45.5)	34	12	(35.3)	48	21	(43.8)
Czechia	495	334	(67.5)	434	274	(63.1)	455	313	(68.8)	356	255	(71.6)	352	264	(75.0)
Denmark <sup>d</sup>	253	198	(78.3)	270	262	(97.0)	263	241	(91.6)	207	199	(96.1)	191	183	(95.8)
Estonia	172	138	(80.2)	145	127	(87.6)	147	132	(89.8)	120	106	(88.3)	107	87	(81.3)
Finland	241	90	(37.3)	226	106	(46.9)	225	130	(57.8)	174	107	(61.5)	170	105	(61.8)
France	5006	0	(0.0)	4760	0	(0.0)	4924	0	(0.0)	4313	0	(0.0)	4042	0	(0.0)
Germany	5369	4327	(80.6)	5332	4506	(84.5)	4 6 5 1	4025	(86.5)	4042	3541	(87.6)	3792	3 2 6 7	(86.2)
Greece	434	204	(47.0)	406	181	(44.6)	434	219	(50.5)	380	96	(25.3)	195	91	(46.7)
Hungary	650	0	(0.0)	602	0	(0.0)	528	0	(0.0)	384	0	(0.0)	314	0	(0.0)
Iceland	13	12	(92.3)	8	8	(100.0)	13	12	(92.3)	12	5	(41.7)	240	- 04	(10 =)
Ireland <sup>d</sup>	283	124	(43.8)	290	140	(48.3)	238	115	(48.3)	224	105	(46.9)	210	91	(43.3)
Italy	3828	0	(0.0)	3777	0	(0.0)	3185	0	(0.0)	2163	0	(0.0)	2378	235	(9.9)
Latvia	543	178	(32.8)	-	-	(4000)	-	-	-	_	-	(400.0)	255	203	(79.6)
Liechtenstein	1200	1	(100.0)	1002	1	(100.0)	1006	-	(0, 0)	2	2	(100.0)	1	1	(100.0)
Lithuania	1268	0	(0.0)	1063	0	(0.0)	1006	0	(0.0)	688	0	(0.0)	628	0	(0.0)
Luxembourg	32	0	(0.0)	42	0	(0.0)	48	0	(0.0)	32	0	(0.0)	34	0	(0.0)
Malta	42	13	(31.0)	55	0	(0.0)	98	0	(0.0)	140	0	(0.0)	54	0	(0.0)
Netherlands	772	576	(74.6)	780	582	(74.6)	739	573	(77.5)	613	499	(81.4)	671	523	(77.9)
Norwayd	237	183	(77.2)	188	150	(79.8)	154	129	(83.8)	143	121	(84.6)	140	117	(83.6)
Poland	5535	1037	(18.7)	5196	1054	(20.3)	4983	1094	(22.0)	3150	876	(27.8)	3446	1164	(33.8)
Portugal	1870	403	(21.6)	1877	474	(25.3)	1849	546	(29.5)	1475	459	(31.1)	1463	522	(35.7)
Romania	12303	3214	(26.1)	11 581	2757	(23.8)	11 070	2840	(25.7)	7189	2231	(31.0)	7591	2456	(32.4)
Slovakia	228	56	(24.6)	273	66	(24.2)	214	60	(28.0)	153	45	(29.4)	134	48	(35.8)
Slovenia	112	95	(84.8)	98	81	(82.7)	98	84	(85.7)	75	62	(82.7)	79	68	(86.1)
Spain	4522	1228	(27.2)	4 614	1181	(25.6)	4395	1260	(28.7)	3526	1253	(35.5)	3370	1324	(39.3)
Sweden	487	412	(84.6)	474	326	(68.8)	478	386	(80.8)	312	273	(87.5)	344	290	(84.3)
Subtotal EU/EEA	48 000	13770	(28.7)	45 577	13 198	(29.0)	43 198	13 185	(30.5)	32138	11 043	(34.4)	32 040	11 929	(37.2)
Non-EU/EEA Albania	E03	0	_	440	0	-	/12	125	(22.0)	240	120	(575)	260	10.0	(50.7)
Andorra	503	0	(100.0)	440	0 2	(100.0)	412 5	135	(32.8)	240	138	(57.5) (100.0)	269	158	(58.7)
Armenia	841	631	(75.0)	734	619	(84.3)	621	512	(82.4)	394	326	(82.7)	398	326	(81.9)
Azerbaijan	5231	2869	(54.8)	5038	3472	(68.9)	4823	4096	(84.9)	3683	3033	(82.4)	3663	3125	(85.3)
Belarus	2781	2452	(88.2)	2359	2201	(93.3)	2207	2035	(92.2)	1514	1426	(94.2)	1484	1401	(94.4)
Bosnia and Herzegovina	766	0	(0.0)	666	0	(0.0)	580	0	(92.2)	357	0	(34.2)	362	1401	(24.4)
Georgia	2597	2099	(80.8)	2316	1940	(83.8)	2169	1824	(84.1)	1671	1468	(87.9)	1501	1403	(93.5)
Israel	234	0	(00.0)	292	0	(0).0)	217	0	(04.1)	158	0	(07.3)	213	0	(22.2)
Kazakhstan	12 4 4 9	10226	(82.1)	12832	11 454	(89.3)	12 5 0 1	11513	(92.1)	9603	9219	(96.0)	9757	9630	(98.7)
Kyrgyzstan	6687	4330	(64.8)	6338	3910	(61.7)	6138	4575	(74.5)	4241	2495	(58.8)	4596	2080	(45.3)
Monaco	0	4550	(04.0)	1	0	(01.7)	0	0	(/4.3)	0	0	(50.0)	4390	0	( <del>4</del> ,5,5)
Montenegro	75	48	(64.0)	84	64	(76.2)	80	57	(71.3)	40	35	(87.5)	80	68	(85.0)
North Macedonia	216	152	(70.4)	217	147	(67.7)	199	0	(0.0)	143	0	(0.0)	143	112	(78.3)
Republic of Moldova	3358	3129	(93.2)	3 022	2857	(94.5)	2809	2809	(100.0)	1767	1664	(94.2)	2067	1912	(92.5)
Russian Federation	84510	65843	(77.9)	78258	57344	(73.3)	73328	58300	(79.5)	58723	47901	(81.6)	56922	48208	(84.7)
San Marino	04510	0)049	(//.)	70230	0	(/ ).)	75520	0	(/ 2.3)	0	0	(01.0)	0	0	(04.7)
Serbia	712	275	(38.6)	689	399	(57.9)	605	414	(68.4)	439	438	(99.8)	445	101	(22.7)
Serbia excluding Kosovo <sup>1</sup>	0	0	(50.0)	009	0	(37.5)	0	0	(00.4)	0	0	(//.0)	0	0	(22.7)
Kosovo <sup>1</sup>	712	275	(38.6)	689	399	(57.9)	605	414	(68.4)	439	438	(99.8)	445	101	(22.7)
Switzerland	529	354	(66.9)	009	0	(37.5)	402	304	(75.6)	0	0	(//.0)	355	243	(68.5)
Tajikistan	5895	3075	(52.2)	5726	4235	(74.0)	5755	4915	(85.4)	4148	3502	(84.4)	4158	3544	(85.2)
Türkiye	0	0	(32.2)	0	0	(/4.0)	0	0	(0).4)	0	0	(04.4)	9047	318	(3.5)
Turkmenistan	1968	1488	(75.6)	2157	1 611	(74.7)	2117	1650	(77.9)	1918	711	(37.1)	1878	889	(47.3)
Ukraine	0	0	(/ ).0)	26 512	23 093	(87.1)	25379	22 537	(88.8)	17533	16774	(95.7)	18307	17451	(95.3)
United Kingdom	5248	397	(7.6)	4775	367	(7.7)	4803	492	(10.2)	4185	475	(11.4)	4795	807	(16.8)
Uzbekistan	16842	11368	(67.5)	16413	14390	(87.7)	16272	12 074	(74.2)	12111	11 0 6 2	(91.3)	13544	13273	(98.0)
Subtotal non-EU/EEA	151443	108737	(71.8)	168871	128105	(75.9)	161422	128247	(79.4)	122 870	100669	(81.9)	133986	105 050	(78.4)
		122507	(61.4)	214 448	141303	(65.9)	204620	141432	(69.1)	155 008	111712	(72.1)	166026	116979	(70.5)
Total European Region	199 443					IN UI	Z(14 P / 11	A 057							

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.

\* See: WHO (2013). Automated real-time nucleic acid amplification technology for rapid and simultaneous detection of tuberculosis and rifampicin resistance. Policy update. Geneva: World Health Organization (WHOWHO/HTM/TB/2013.16; World Health Organization (WHO). Automated real-time nucleic acid amplification technology for rapid and simultaneous detection of tuberculosis and rifampicin resistance: Xpert MTB/RIP/RIP assay for the diagnosis of pulmonary and extrapulmonary TB in adults and children: policy update. Geneva. WHO. 2013. Available at: <a href="https://apps.who.int/iris/handle/10665/112472">https://apps.who.int/iris/handle/10665/112472</a>

\* 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.

\* All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).



### 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

### **Albania**

Total population estimate 2021 by United Nations Statistical Database: 2 854 710

#### TB cases, 2021

Notifications		
Total number of cases		269
Notification rate per 100 000		9.4
New <sup>a</sup> and relapse		269
New <sup>a</sup> and relapse notification rate per 100 000		9.4
Pulmonary	219	(81.4%)
of which microscopy-positive	-	-
of which laboratory-confirmed	173	(79.0%)
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases	43.8	3 years
Mean age of new foreign TB cases	-	-
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	261	(97.0%)
Estimates		

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

Estimated new and relapse cases N, best [low-high]

### Drug-resistance surveillance and TB/HIV coinfection, 2020

Completeness of DRS data <sup>a</sup>	١	/es
Completeness of HIV datab	١	/es
Case-linked data-reporting	١	res .
Cases with DST results	158	(91.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases N, best [low-high]	4	[2-6]
Pulmonary RR/MDR-TB cases notified	6	(3.8%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	6	
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	244	(90.7%)
HIV-positive TB cases	1	(0.4%)
of these on ART	1	(100.0%)

 $<sup>^</sup>a$  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

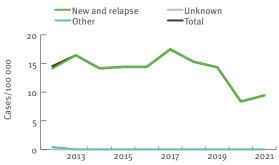
Geographical coverage	National			
Outcome cohort	TB case	id relapse es notified 2020ª	enrolled	R-TB cases I into DR-TB ent in 2019 <sup>b</sup>
Case-linked data-reporting	Yes			-
Cases notified	1	240		4
Success	213	(88.8%)	1	(50.0%)
Died	14	(5.8%)	1	(50.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	12	(5.0%)	0	(0.0%)
Not evaluated	1	(0.4%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021

480

[410-550]



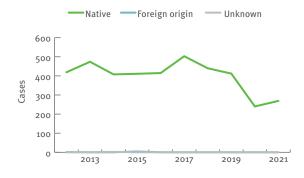
Note: starting from 2013, cases with unknown history are included in new and relapses.

### New and relapse TB cases – notification rates by age group, 2012–2021



Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012–2021

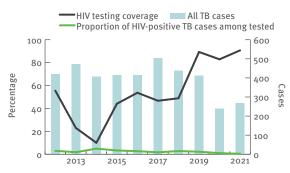


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



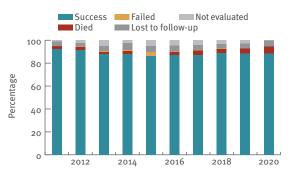
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases.

### Treatment outcome, new and relapse TB cases, 2011–2020



Total population estimate 2021 by United Nations Statistical Database: 79 034

#### **TB** cases, 2021

Notifications			
Total number of cases		2	
Notification rate per 100 000		2.5	
New <sup>a</sup> and relapse		2	
New <sup>a</sup> and relapse notification rate per 100 000	2.5		
Pulmonary	2	(100.0%)	
of which microscopy-positive	-	-	
of which laboratory-confirmed	2	(100.0%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	45.	0 years	
Mean age of new foreign TB cases	-	-	
Foreign origin of all TB cases	0	(0.0%)	
New (not previously treated)	2	(100.0%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	2	[2-3]	
Estimates Estimated new and relapse cases N, best	_		

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

#### Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	/es
Completeness of HIV datab	No	
Case-linked data-reporting	Yes	
Cases with DST results	2	(100.0%)
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	0	(0.0%)
HIV-positive TB cases	-	-
of these on ART	-	-

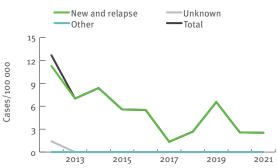
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases  $\gt$  50%, DST done for C+  $\gt$  75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse TB cases notified in 2020ª		RR/MDR- enrolled i treatmen	nto DR-TB
Case-linked data-reporting	Yes		-	-
Cases notified	2		(	)
Success	2	(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 as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012–2021



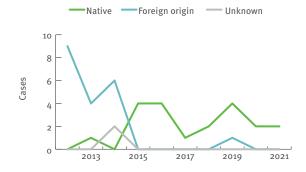
Note: starting from 2013, cases with unknown history are included in new and relapses.

#### New and relapse TB cases - notification rates by age group, 2012-2021

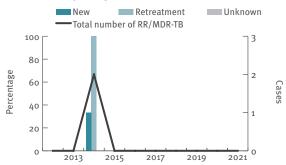


Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

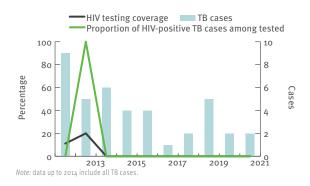


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

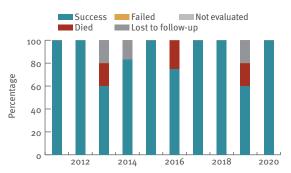


*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



### Treatment outcome, new and relapse TB cases, 2011–2020



Total population estimate 2021 by United Nations Statistical Database: 2 790 973

#### **TB** cases, 2021

Notifications		
Total number of cases		426
Notification rate per 100 000		15.3
New <sup>a</sup> and relapse		398
New <sup>a</sup> and relapse notification rate per 100 000		14.3
Pulmonary	315	(73.9%)
of which microscopy-positive	-	-
of which laboratory-confirmed	256	(81.3%)
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases	44	.8 years
Mean age of new foreign TB cases	-	-
Foreign origin of all TB cases	2	(0.5%)
New (not previously treated)	369	(86.6%)
Estimates		
Estimated new and relapse cases N, best [low-high]	770	[560-1000]

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

#### Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	١	/es
Completeness of HIV data <sup>b</sup>	١	/es
Case-linked data-reporting	١	/es
Cases with DST results	256	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	63	[56-70]
Pulmonary RR/MDR-TB cases notified	64	(25.0%)
of which pre-XDR-TB cases	17	(29.8%)
Notified RR/MDR-TB	64	-
of which pre-XDR-TB cases	17	(26.6%)
TB cases tested for HIV	335	(84.2%)
HIV-positive TB cases	36	(10.7%)
of these on ART	-	-

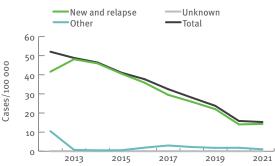
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	TB case	d relapse s notified 2020a	enrolled	R-TB cases into DR-TB nt in 2019 <sup>b</sup>
Case-linked data-reporting	Yes		-	
Cases notified		303		65
Success	244	(80.5%)	35	(53.8%)
Died	24	(7.9%)	12	(18.5%)
Failed	14	(4.6%)	7	(10.8%)
Lost to follow-up	19	(6.3%)	10	(15.4%)
Not evaluated	2	(0.7%)	1	(1.5%)

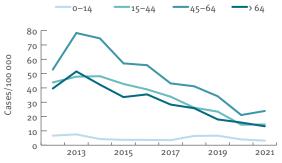
<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



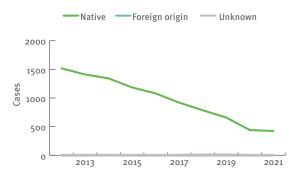
Note: starting from 2013, cases with unknown history are included in new and relapses.

#### New and relapse TB cases - notification rates by age group, 2012-2021

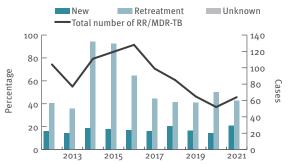


Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

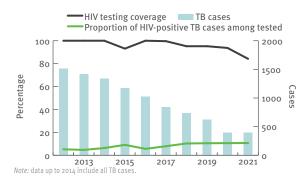


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

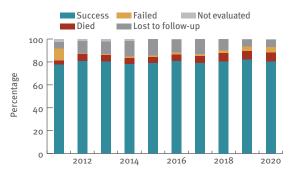


*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



### Treatment outcome, new and relapse TB cases, 2011-2020



Total population at 23 April 2022 by EUROSTAT: 8 932 664

#### TB cases, 2021

### Notifications

Total number of cases		396	
Notification rate per 100 000	4.4		
New <sup>a</sup> and relapse	387		
New <sup>a</sup> and relapse notification rate per 100 000	4.3		
Pulmonary	292	(73.7%)	
of which microscopy-positive	91	(31.2%)	
of which laboratory-confirmed	242	(82.9%)	
Laboratory-confirmed TB cases	307	(77.5%)	
Mean age of new native TB cases	58.5 years		
Mean age of new foreign TB cases	37.	2 years	
Foreign origin of all TB cases	252	(63.6%)	
New (not previously treated)	288	(72.7%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	450	[380-510]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	Yes
Completeness of HIV datab		-
Case-linked data-reporting	,	Yes
Cases with DST results	284	(92.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	22	[15-29]
Pulmonary RR/MDR-TB cases notified	8	(3.6%)
of which pre-XDR-TB cases	1	(12.5%)
Notified RR/MDR-TB	9	(3.2%)
of which pre-XDR-TB cases	2	(22.2%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

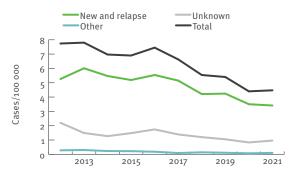
 $<sup>^</sup>a$  National coverage 100% or culturing  $\geq$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\geq$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

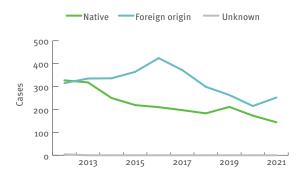
National			
New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> All RR/MDR-TB contified in 20			
Yes -		-	
176			6
134	(76.1%)	6	(100.0%)
14	(8.0%)	0	(0.0%)
0	(0.0%)	0	(0.0%)
0	(0.0%)	0	(0.0%)
12	(6.8%)	0	(0.0%)
16	(9.1%)	0	(0.0%)
	pulmonal notified 1 134 14 0 0	New culture-positive pulmonary TB cases notified in 2020°  Yes  176  134 (76.1%) 14 (8.0%) 0 (0.0%) 0 (0.0%) 12 (6.8%)	New culture-positive pulmonary TB cases notified in 2020*  Yes  176  134 (76.1%) 6  14 (8.0%) 0  0 (0.0%) 0  0 (0.0%) 0  12 (6.8%) 0

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

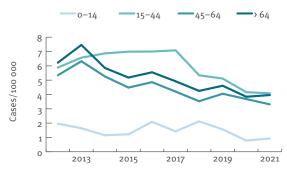
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021



### New and relapse TB cases - notification rates by age group, 2012-2021



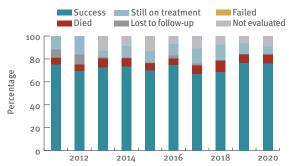
### TB/HIV coinfection, 2012-2021

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.



# **Azerbaijan**

Total population estimate 2021 by United Nations Statistical Database: 10 312 992

#### TB cases, 2021

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Total number of cases	al number of cases 4944		
Notification rate per 100 000		47.9	
New <sup>a</sup> and relapse	3663		
New <sup>a</sup> and relapse notification rate per 100 000	35.5		
Pulmonary	4390	(88.8%)	
of which microscopy-positive	-	-	
of which laboratory-confirmed	3634	(82.8%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	28 years		
Mean age of new foreign TB cases	-	-	
Foreign origin of all TB cases	(0.0%)	(0.0%)	
New (not previously treated)	2535	(51.3%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	6400	(5100-8000)	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	/es
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	3568	(98.2%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	600	[560-630]
Pulmonary RR/MDR-TB cases notified	659	(18.5%)
of which pre-XDR-TB cases	114	(19.3%)
Notified RR/MDR-TB	1040	-
of which pre-XDR-TB cases	171	(16.4%)
TB cases tested for HIV	4448	(90.0%)
HIV-positive TB cases	92	(2.1%)
of these on ART	90	(97.8%)

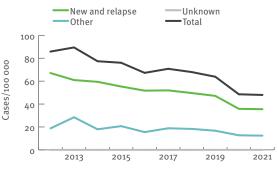
 $<sup>^</sup>a$  National coverage 100% or culturing 90%, C+/all TB cases  $\flat$  50%, DST done for C+  $\flat$  75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse RR/MDR-T TB cases notified enrolled in in 2020° treatment		into DR-TB	
Case-linked data-reporting	Yes			-
Cases notified	1180		815	
Success	973	(82.5%)	486	(59.6%)
Died	62	(5.3%)	87	(10.7%)
Failed	51	(4.3%)	99	(12.1%)
Lost to follow-up	86	(7.3%)	143	(17.5%)
Not evaluated	8	(0.7%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



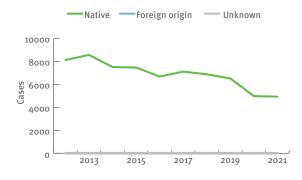
Note: starting from 2013, cases with unknown history are included in new and relapse.

### New and relapse TB cases – notification rates by age group, 2012–2021



Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012–2021

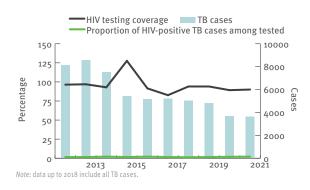


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

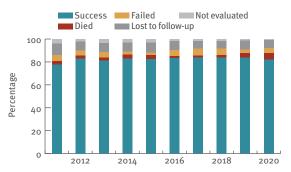


*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



### Treatment outcome, new and relapse TB cases, 2011–2020



### **Belarus**

Total population estimate 2021 by United Nations Statistical Database: 9 578 168

#### TB cases, 2021

### Notifications

Total number of cases		1696	
Notification rate per 100 000	17.7		
New <sup>a</sup> and relapse	1484		
New <sup>a</sup> and relapse notification rate per 100 000	15.5		
Pulmonary	1593	(93.9%)	
of which microscopy-positive	-	-	
of which laboratory-confirmed	1531	(96.1%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	1	19 years	
Mean age of new foreign TB cases	-	-	
Foreign origin of all TB cases	0	(0.0%)	
New (not previously treated)	1176	(69.3%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	2900	[2200-3700]	

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

### Drug-resistance surveillance and TB/HIV coinfection, 2020

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	1531	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	760	[730-780]
Pulmonary RR/MDR-TB cases notified	757	(49.4%)
of which pre-XDR-TB cases	310	(41.0%)
Notified RR/MDR-TB	801	-
of which pre-XDR-TB cases	310	(38.7%)
TB cases tested for HIV	1484	(100.0%)
HIV-positive TB cases	128	(8.6%)
of these on ART	111	(86.7%)

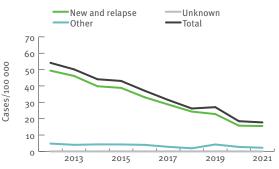
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases  $^{\flat}$  50%, DST done for C+  $^{\flat}$  75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National				
Outcome cohort	New and relapse RR/MDR-TB c TB cases notified enrolled into l in 2020a treatment in :		into DR-TB		
Case-linked data-reporting	Yes		-		
Cases notified	833		772		
Success	710	(85.2%)	640	(82.9%)	
Died	84	(10.1%)	64	(8.3%)	
Failed	10	(1.2%)	13	(1.7%)	
Lost to follow-up	23	(2.8%)	47	(6.1%)	
Not evaluated	6	(0.7%)	8	(1.0%)	

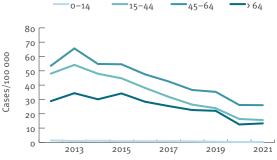
<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



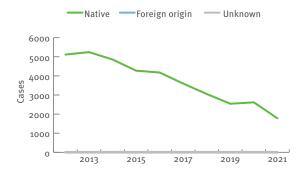
Note: starting from 2013, cases with unknown history are included in new and relapses.

### New and relapse TB cases – notification rates by age group, 2012–2021



Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012–2021

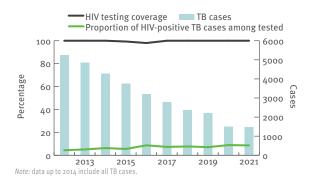


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

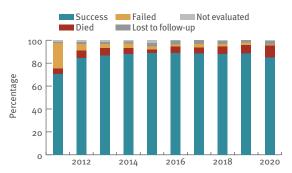


*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



### Treatment outcome, new and relapse TB cases, 2011–2020a



# **Belgium**

Total population at 23 April 2022 by EUROSTAT: 11 566 041

#### TB cases, 2021

### Notifications

NULITICALIUMS			
Total number of cases	875		
Notification rate per 100 000	8		
New <sup>a</sup> and relapse	817		
New <sup>a</sup> and relapse notification rate per 100 000	7.1		
Pulmonary	606	(69.3%)	
of which microscopy-positive	288	(47.5%)	
of which laboratory-confirmed	504	(83.2%)	
Laboratory-confirmed TB cases	675	(77.1%)	
Mean age of new native TB cases	4	6 years	
Mean age of new foreign TB cases	3	4 years	
Foreign origin of all TB cases	549	(62.7%)	
New (not previously treated)	671	(76.7%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	940	[800-1100]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Υ	/es
Completeness of HIV datab	Υ	/es
Case-linked data-reporting	Υ	/es
Cases with DST results	623	(92.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low–high]	14	[9-19]
Pulmonary RR/MDR-TB cases notified	6	(1.3%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	8	(1.3%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	464	(53.0%)
HIV-positive TB cases	28	(6.0%)
of these on ART	-	-

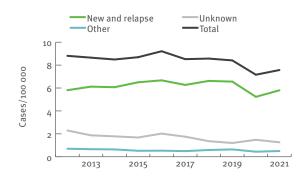
 $<sup>^</sup>a$  National coverage 100% or culturing  $\geq$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\geq$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

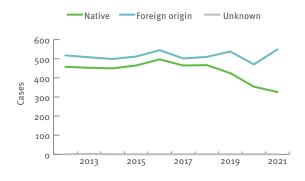
New cultu	4.4		
New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> All MDR-TB cas			
١	'es	-	
328		17	
223	(68.0%)	14	(82.4%)
24	(7.3%)	1	(5.9%)
1	(0.3%)	0	(0.0%)
12	(3.7%)	1	(5.9%)
10	(3.0%)	0	(0.0%)
58	(17.7%)	1	(5.9%)
	223 24 1 12 10	Yes  328  223 (68.0%)  24 (7.3%)  1 (0.3%)  12 (3.7%)  10 (3.0%)	Yes 328 223 (68.0%) 14 24 (7.3%) 1 1 (0.3%) 0 12 (3.7%) 1 10 (3.0%) 0

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

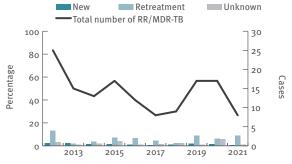
TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021

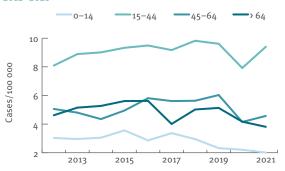


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

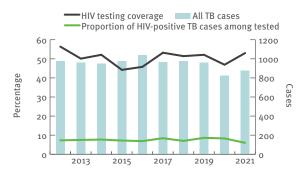


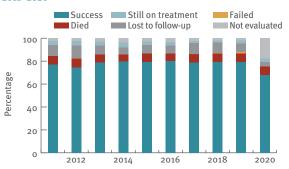
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





# **Bosnia and Herzegovina**

Total population estimate 2021 by United Nations Statistical Database: 3 270 943

#### TB cases, 2021

Notifica	tions
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Total number of cases     363       Notification rate per 100 000     11.1       New³ and relapse     362       New³ and relapse notification rate per 100 000     11.1       Pulmonary     341     (93.9%)       of which microscopy-positive of which laboratory-confirmed     285     (83.6%)       Laboratory-confirmed TB cases     -     -       Mean age of new native TB cases     49.9 years       Mean age of new foreign TB cases     -     -       Foreign origin of all TB cases     10     (2.8%)       New (not previously treated)     330     (90.9%)       Estimates       Estimated new and relapse cases N, est [low-high]     810     [610-1 000]			
New* and relapse 362  New* and relapse notification rate per 100 000  Pulmonary 341 (93.9%) of which microscopy-positive of which laboratory-confirmed 285 (83.6%)  Laboratory-confirmed TB cases Mean age of new native TB cases 49.9 years  Mean age of new foreign TB cases Foreign origin of all TB cases 10 (2.8%)  New (not previously treated) 330 (90.9%)  Estimates  Estimated new and relapse cases N, 810 (610-1 0.001)	Total number of cases		363
New" and relapse notification rate per 100 000  Pulmonary 341 (93.9%) of which microscopy-positive of which laboratory-confirmed 285 (83.6%)  Laboratory-confirmed TB cases Mean age of new native TB cases 49.9 years  Mean age of new foreign TB cases Foreign origin of all TB cases 10 (2.8%)  New (not previously treated) 330 (90.9%)  Estimates  Estimated new and relapse cases N, 810 (610-1 0.001)	Notification rate per 100 000		11.1
Pulmonary   341 (93.9%)   of which microscopy-positive   -   -	New <sup>a</sup> and relapse		362
of which microscopy-positive of which laboratory-confirmed 285 (83.6%)  Laboratory-confirmed TB cases  Mean age of new native TB cases 49.9 years  Mean age of new foreign TB cases  Foreign origin of all TB cases 10 (2.8%)  New (not previously treated) 330 (90.9%)  Estimates  Estimated new and relapse cases N, 910 (60-1.000)		11.1	
of which laboratory-confirmed 285 (83.6%) Laboratory-confirmed TB cases Mean age of new native TB cases 49.9 years Mean age of new foreign TB cases Foreign origin of all TB cases 10 (2.8%) New (not previously treated) 330 (90.9%)  Estimates Estimated new and relapse cases N, 910 (610-1 0.001)	Pulmonary	341	(93.9%)
Laboratory-confirmed TB cases  Mean age of new native TB cases 49.9 years  Mean age of new foreign TB cases  Foreign origin of all TB cases 10 (2.8%)  New (not previously treated) 330 (90.9%)  Estimates  Estimated new and relapse cases N, 810 (610-1 0.001)	of which microscopy-positive	-	-
Mean age of new native TB cases         49.9 years           Mean age of new foreign TB cases         -         -           Foreign origin of all TB cases         10         (2.8%)           New (not previously treated)         330         (90.9%)           Estimates         Estimated new and relapse cases N,         210         (640-1000)	of which laboratory-confirmed	285	(83.6%)
Mean age of new foreign TB cases         -         -         -           Foreign origin of all TB cases         10         (2.8%)           New (not previously treated)         330         (90.9%)           Estimates           Estimated new and relapse cases N,         910         [610-1 0.00]	Laboratory-confirmed TB cases	-	-
Foreign origin of all TB cases 10 (2.8%) New (not previously treated) 330 (90.9%)  Estimates  Estimated new and relapse cases N, 910 (610-1.000)	Mean age of new native TB cases	49.	9 years
New (not previously treated) 330 (90.9%)  Estimates  Estimated new and relapse cases N, 910 [610-1 000]	Mean age of new foreign TB cases	-	-
Estimates Estimated new and relapse cases N, 910 [610–1 000]	Foreign origin of all TB cases	10	(2.8%)
Estimated new and relapse cases N,	New (not previously treated)	330	(90.9%)
	Estimates		
		810	[610-1 000]

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

## Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Yes	
Completeness of HIV datab	No	
Case-linked data-reporting	Yes	
Cases with DST results	279	(97.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases N, best [low-high]	1	[1-2]
Pulmonary RR/MDR-TB cases notified	1	(0.4%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	1	
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

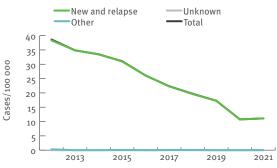
 $<sup>^</sup>a$  National coverage 100% or culturing  $_{\rm 2}$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $_{\rm 2}$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse TB cases notified in 2020 <sup>a</sup>		RR/MDR- enrolled i treatmen	nto DR-TB
Case-linked data-reporting	Yes		-	-
Cases notified	357		(	)
Success	183	(51.3%)	-	-
Died	21	(5.9%)	-	-
Failed	0	(0.0%)	-	-
Lost to follow-up	14	(3.9%)	-	-
Not evaluated	139	(38.9%)	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



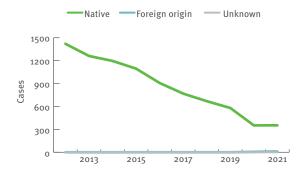
Note: starting from 2013, cases with unknown history are included in new and relapses.

#### New and relapse TB cases - notification rates by age group, 2012-2021



Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

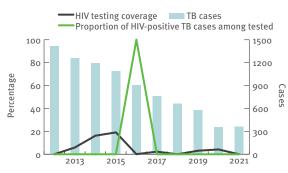


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



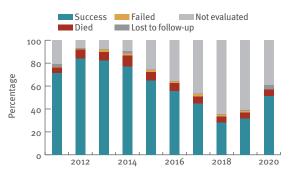
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases.

### Treatment outcome, new and relapse TB cases, 2011-2020



# Bulgaria

Total population at 23 April 2022 by EUROSTAT: 6 916 548

#### TB cases, 2021

### Notifications

Notifications			
Total number of cases	687		
Notification rate per 100 000	9.9		
New <sup>a</sup> and relapse		673	
New <sup>a</sup> and relapse notification rate per 100 000	9.7		
Pulmonary	562	(81.8%)	
of which microscopy-positive	309	(55.0%)	
of which laboratory-confirmed	337	(60.0%)	
Laboratory-confirmed TB cases	339	(49.3%)	
Mean age of new native TB cases	48	3.8 years	
Mean age of new foreign TB cases	42	2.0 years	
Foreign origin of all TB cases	1	(0.1%)	
New (not previously treated)	616	(89.7%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	1,200	[870-1500]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Yes	
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	174	(51.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	13	[8-18]
Pulmonary RR/MDR-TB cases notified	4	(2.3%)
of which pre-XDR-TB cases	1	(25.0%)
Notified RR/MDR-TB	4	(2.3%)
of which pre-XDR-TB cases	1	(25.0%)
TB cases tested for HIV	477	(69.4%)
HIV-positive TB cases	0	(0.0%)
of these on ART	0	-

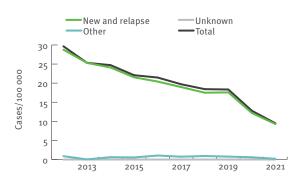
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

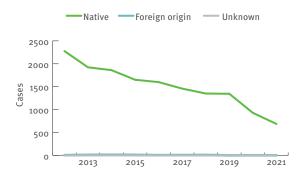
Geographical coverage	National			
Outcome cohort				DR-TB cases d in 2019 <sup>b</sup>
Case-linked data-reporting	,	Yes	-	
Cases notified	3	368 14		14
Success	0	(0.0%)	6	(42.9%)
Died	0	(0.0%)	4	(28.6%)
Failed	0	(0.0%)	1	(7.1%)
Lost to follow-up	0	(0.0%)	2	(14.3%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	368	(100.0%)	1	(7.1%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

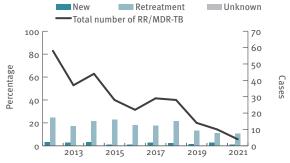
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021

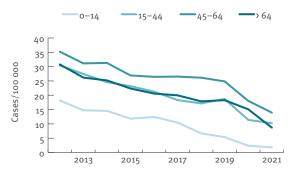


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

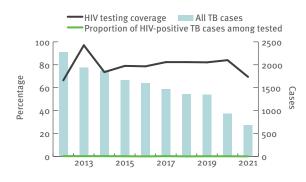


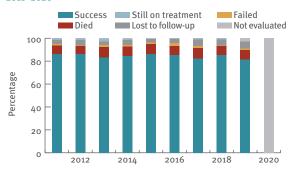
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 4 036 355

#### TB cases, 2021

### Notifications

Total number of cases	157	
Notification rate per 100 000	3.9	
New <sup>a</sup> and relapse	154	
New <sup>a</sup> and relapse notification rate per 100 000	3.8	
Pulmonary	130	(82.8%)
of which microscopy-positive	89	(68.5%)
of which laboratory-confirmed	119	(91.5%)
Laboratory-confirmed TB cases	135	(86.0%)
Mean age of new native TB cases	56.9 years	
Mean age of new foreign TB cases		-
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	112	(71.3%)
Estimates		
Estimated new and relapse cases N, best [low-high]	160	[140-190]

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	Yes
Completeness of HIV datab	No	
Case-linked data-reporting	,	Yes
Cases with DST results	94	(69.6%)
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	-
Notified RR/MDR-TB	0	(0.0%)
of which pre-XDR-TB cases	0	-
TB cases tested for HIV	3	(1.9%)
HIV-positive TB cases	0	(0.0%)
of these on ART	-	-

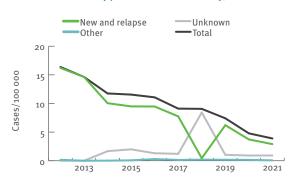
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

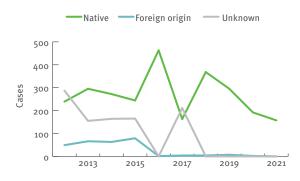
Geographical coverage	National			
Outcome cohort	New <sup>a</sup> culture-positive pulmonary TB cases notified in 2020 <sup>b</sup>			DR-TB cases ed in 2019°
Case-linked data-reporting	Yes		-	
Cases notified		134		2
Success	72	(53.7%)	0	(0.0%)
Died	24	(17.9%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	5	(3.7%)	0	(0.0%)
Still on treatment	6	(4.5%)	0	(0.0%)
Not evaluated	27	(20.1%)	2	(100.0%)

<sup>&</sup>lt;sup>a</sup>For 2019, cases with unknown treatment history included in new cases. <sup>b</sup>Treatment outcome as presented is treatment outcome after 12 months. <sup>c</sup>Treatment outcome as presented is treatment outcome after 24 months."

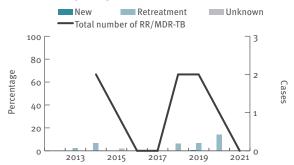
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021

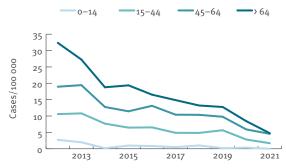


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



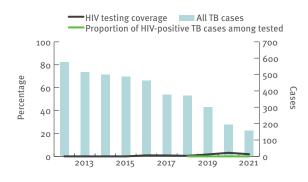
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

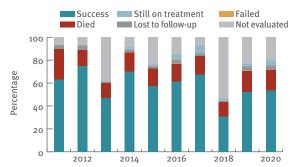
### New and relapse TB cases - notification rates by age group, 2012-2021



Note: for 2019, cases with unknown treatment history included in new cases.

### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 896 007

#### **TB** cases, 2021

#### Notifications

NOLITICALIONS		
Total number of cases	48	
Notification rate per 100 000	5.4	
New <sup>a</sup> and relapse	48	
New <sup>a</sup> and relapse notification rate per 100 000	5.4	
Pulmonary	38	(79.2%)
of which microscopy-positive	21	(55.3%)
of which laboratory-confirmed	32	(84.2%)
Laboratory-confirmed TB cases	37	(77.1%)
Mean age of new native TB cases	45.5 years	
Mean age of new foreign TB cases	33.9	9 years
Foreign origin of all TB cases	46	(95.8%)
New (not previously treated)	45	(93.8%)
Estimates		
Estimated new and relapse cases N, best [low-high]	55	[47-64]

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	Yes
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	37	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	1	[0-2]
Pulmonary RR/MDR-TB cases notified	3	(9.4%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	3	(8.1%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	35	(72.9%)
HIV-positive TB cases	1	(2.9%)
of these on ART	-	-

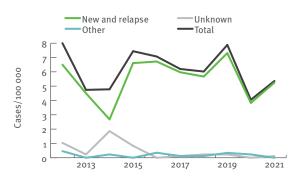
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+>75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

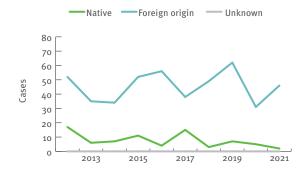
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			DR-TB cases ed in 2019 <sup>b</sup>
Case-linked data-reporting		Yes	-	
Cases notified		25 1		1
Success	9	(36.0%)	0	-
Died	1	(4.0%)	0	-
Failed	0	(0.0%)	0	-
Lost to follow-up	3	(12.0%)	0	-
Still on treatment	2	(8.0%)	0	-
Not evaluated	10	(40.0%)	1	(100.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

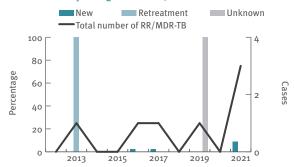
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021

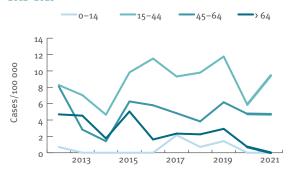


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

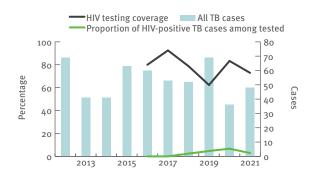


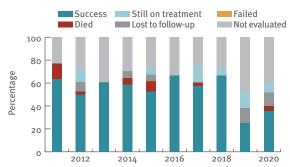
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 10 701 777

#### TB cases, 2021

### Notifications

NULLICALIUMS		
Total number of cases	357	
Notification rate per 100 000	3.3	
New <sup>a</sup> and relapse	352	
New <sup>a</sup> and relapse notification rate per 100 000	3.3	
Pulmonary	321	(89.9%)
of which microscopy-positive	171	(53.3%)
of which laboratory-confirmed	271	(84.4%)
Laboratory-confirmed TB cases	298	(83.5%)
Mean age of new native TB cases	52.8 years	
Mean age of new foreign TB cases	40.1 years	
Foreign origin of all TB cases	132	(37.0%)
New (not previously treated)	332	(93.0%)
Estimates		
Estimated new and relapse cases N, best	400	[350-470]

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Υ	'es
Completeness of HIV datab	Υ	'es
Case-linked data-reporting	Υ	'es
Cases with DST results	278	(93.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	11	[7-14]
Pulmonary RR/MDR-TB cases notified	9	(3.5%)
of which pre-XDR-TB cases	2	(22.2%)
Notified RR/MDR-TB	10	(3.6%)
of which pre-XDR-TB cases	2	(20.0%)
TB cases tested for HIV	212	(59.4%)
HIV-positive TB cases	7	(3.3%)
of these on ART	-	-

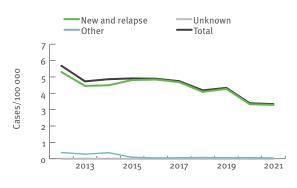
 $<sup>^</sup>a$  National coverage 100% or culturing  $\geq$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\geq$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

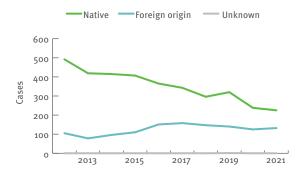
Geographical coverage	National				
Outcome cohort	pulmonai	re-positive ry TB cases I in 2020ª		DR-TB cases d in 2019 <sup>b</sup>	
Case-linked data-reporting	Yes		-		
Cases notified	239		8		
Success	152	(63.6%)	4	(50.0%)	
Died	41	(17.2%)	1	(12.5%)	
Failed	1	(0.4%)	0	(0.0%)	
Lost to follow-up	31	(13.0%)	1	(12.5%)	
Still on treatment	9	(3.8%)	0	(0.0%)	
Not evaluated	5	(2.1%)	2	(25.0%)	

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

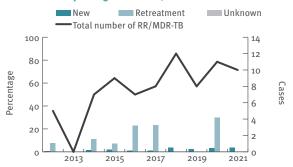
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

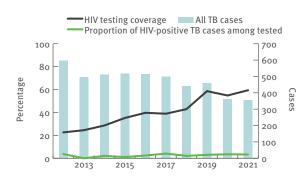


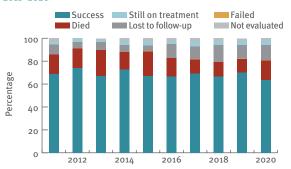
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 5 840 045

#### TB cases, 2021

### Notifications

Notifications		
Total number of cases		208
Notification rate per 100 000		3.6
New <sup>a</sup> and relapse		191
New <sup>a</sup> and relapse notification rate per 100 000		3.3
Pulmonary	156	(75.0%)
of which microscopy-positive	74	(47.4%)
of which laboratory-confirmed	126	(80.8%)
Laboratory-confirmed TB cases	165	(79.3%)
Mean age of new native TB cases	46.	3 years
Mean age of new foreign TB cases	44.	3 years
Foreign origin of all TB cases	147	(70.7%)
New (not previously treated)	191	(91.8%)
Estimates		
Estimated new and relapse cases N, best [low-high]	220	[190-250]

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	/es
Completeness of HIV data <sup>b</sup>	1	/es
Case-linked data-reporting	,	/es
Cases with DST results	163	(98.8%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	3	[1-4]
Pulmonary RR/MDR-TB cases notified	1	(0.8%)
of which pre-XDR-TB cases	1	(100.0%)
Notified RR/MDR-TB	1	(0.6%)
of which pre-XDR-TB cases	1	(100.0%)
TB cases tested for HIV	161	(77.4%)
HIV-positive TB cases	6	(3.7%)
of these on ART	-	-

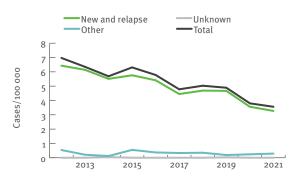
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+>75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

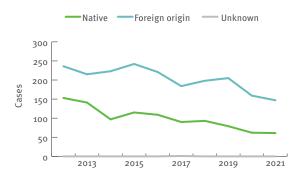
	ura macitiva		
			DR-TB cases d in 2019 <sup>b</sup>
Yes		-	
127		4	
43	(33.9%)	0	(0.0%)
1	(0.8%)	0	(0.0%)
0	(0.0%)	0	(0.0%)
1	(0.8%)	0	(0.0%)
1	(0.8%)	0	(0.0%)
81	(63.8%)	4	(100.0%)
	43 1 0 1 1	Yes  127  43 (33.9%) 1 (0.8%) 0 (0.0%) 1 (0.8%) 1 (0.8%)	Yes 127 43 (33.9%) 0 1 (0.8%) 0 0 (0.0%) 0 1 (0.8%) 0 1 (0.8%) 0

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

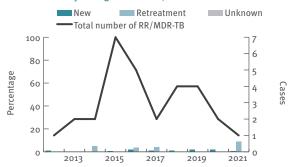
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

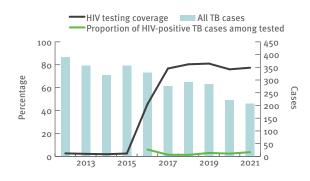


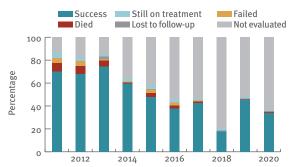
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 1330 068

#### **TB** cases, 2021

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Total number of cases	111		
Notification rate per 100 000	8.3		
New <sup>a</sup> and relapse	107		
New <sup>a</sup> and relapse notification rate per 100 000	8		
Pulmonary	107	(96.4%)	
of which microscopy-positive	52	(48.6%)	
of which laboratory-confirmed	84	(78.5%)	
Laboratory-confirmed TB cases	85	(76.6%)	
Mean age of new native TB cases	51.9 years		
Mean age of new foreign TB cases	58.	8 years	
Foreign origin of all TB cases	19	(17.1%)	
New (not previously treated)	92	(82.9%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	120	[110-140]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	١	/es
Completeness of HIV datab	,	/es
Case-linked data-reporting	,	/es
Cases with DST results	82	(96.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	25	[22-28]
Pulmonary RR/MDR-TB cases notified	24	(29.6%)
of which pre-XDR-TB cases	9	(37.5%)
Notified RR/MDR-TB	24	(29.3%)
of which pre-XDR-TB cases	9	(37.5%)
TB cases tested for HIV	103	(92.8%)
HIV-positive TB cases	12	(11.7%)
of these on ART	10	(83.3%)

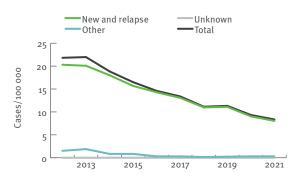
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

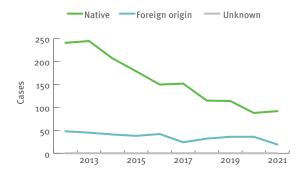
National				
pulmona	ry TB cases		DR-TB cases d in 2019 <sup>b</sup>	
	Yes	-		
	89		29	
57	(64.0%)	21	(72.4%)	
15	(16.9%)	4	(13.8%)	
1	(1.1%)	1	(3.4%)	
3	(3.4%)	2	(6.9%)	
11	(12.4%)	1	(3.4%)	
2	(2.2%)	0	(0.0%)	
	57 15 1 3	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> Yes  89  57 (64.0%) 15 (16.9%) 1 (1.1%) 3 (3.4%) 11 (12.4%)	New culture-positive pulmonary TB cases notified in 2020*  Yes  89  57 (64.0%) 21  15 (16.9%) 4  1 (1.1%) 1  3 (3.4%) 2  11 (12.4%) 1	

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

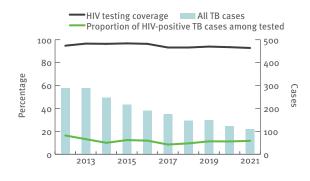


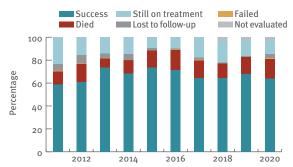
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 5 533 793

#### TB cases, 2021

### Notifications

NOTHIC GETOILS			
Total number of cases	170		
Notification rate per 100 000	3.1		
New <sup>a</sup> and relapse	170		
New <sup>a</sup> and relapse notification rate per 100 000	3.1		
Pulmonary	117	(68.8%)	
of which microscopy-positive	40	(34.2%)	
of which laboratory-confirmed	93	(79.5%)	
Laboratory-confirmed TB cases	124	(72.9%)	
Mean age of new native TB cases	68.7 years		
Mean age of new foreign TB cases	36.	2 years	
Foreign origin of all TB cases	70	(41.2%)	
New (not previously treated)	162	(95.3%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	200	[170-230]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Υ	es/es
Completeness of HIV datab		-
Case-linked data-reporting	Υ	es/es
Cases with DST results	121	(97.6%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	4	[2-6]
Pulmonary RR/MDR-TB cases notified	3	(3.3%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	3	(2.5%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

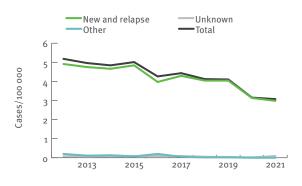
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

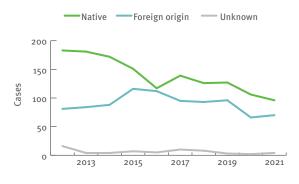
National				
pulmona	ry TB cases		DR-TB cases d in 2019 <sup>b</sup>	
Yes		-		
101		3		
42	(41.6%)	2	(66.7%)	
1	(1.0%)	0	(0.0%)	
2	(2.0%)	0	(0.0%)	
0	(0.0%)	0	(0.0%)	
0	(0.0%)	0	(0.0%)	
56	(55.4%)	1	(33.3%)	
	42 1 2 0	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> Yes  101  42 (41.6%) 1 (1.0%) 2 (2.0%) 0 (0.0%) 0 (0.0%)	New culture-positive pulmonary TB cases notified in 2020*   All RR/M notified	

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021



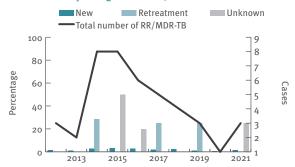
### New and relapse TB cases - notification rates by age group, 2012-2021



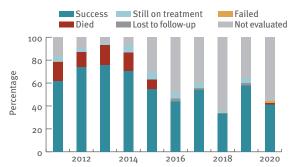
### TB/HIV coinfection, 2012-2021

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.



Total population at 23 April 2022 by EUROSTAT: 67 656 682

#### TB cases, 2021

#### Notifications

Notifications			
Total number of cases	4 274		
Notification rate per 100 000	6.3		
New <sup>a</sup> and relapse	4042		
New <sup>a</sup> and relapse notification rate per 100 000		6	
Pulmonary	2879	(67.4%)	
of which microscopy-positive	1310	-	
of which laboratory-confirmed	1178	(40.9%)	
Laboratory-confirmed TB cases	1652	(38.7%)	
Mean age of new native TB cases	4	8.5 years	
Mean age of new foreign TB cases	3	8.4 years	
Foreign origin of all TB cases	2 610	(61.1%)	
New (not previously treated)	2608	(61.0%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	4900	[4300-5600]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		-
Case-linked data-reporting		No
Cases with DST results	43	(1.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	31	[11-52]
Pulmonary RR/MDR-TB cases notified	38	(100.0%)
of which pre-XDR-TB cases	11	(28.9%)
Notified RR/MDR-TB	43	(100.0%)
of which pre-XDR-TB cases	11	(25.6%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

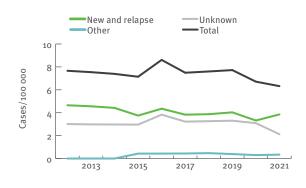
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

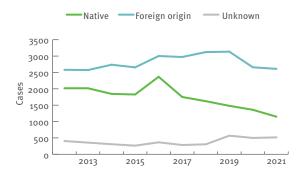
National			
pulmona	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>		DR-TB cases d in 2019 <sup>b</sup>
١	'es		-
6	674		95
329	(48.8%)	7	(7.4%)
22	(3.3%)	1	(1.1%)
0	(0.0%)	0	(0.0%)
15	(2.2%)	3	(3.2%)
11	(1.6%)	0	(0.0%)
297	(44.1%)	84	(88.4%)
	pulmonal notified N 6 329 22 0 15 11	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> Yes  674  329 (48.8%) 22 (3.3%) 0 (0.0%) 15 (2.2%) 11 (1.6%)	New culture-positive pulmonary TB cases notified in 2020*  Yes  674  329 (48.8%) 7  22 (3.3%) 1  0 (0.0%) 0  15 (2.2%) 3  11 (1.6%) 0

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

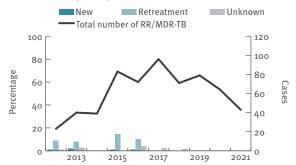
TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021



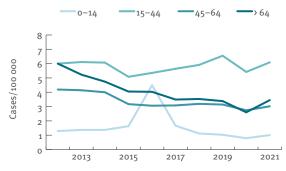
# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



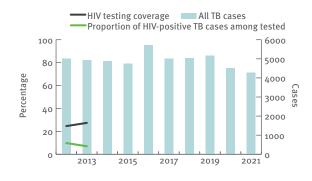
 $\it Note:$  Data for France 2018–2021 only included drug susceptibility testing for RR/MDR TB cases and was therefore not included in this graph.

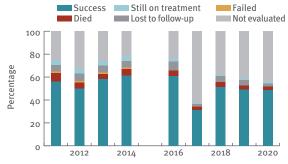
 ${\it Note:} \ {\it Percentage} \ is \ calculated \ on \ the \ basis of \ all \ new, \ retreated \ and \ unknown \ cases, \ meaning \ that \ the \ sum \ of \ all \ cases \ can \ sometimes \ be \ over \ 100\% \ for \ a \ particular \ year.$ 

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Note: No data was reported for treatment outcome in 2015.

# Georgia

Total population estimate 2021 by United Nations Statistical Database: 3 757 980

#### TB cases, 2021

### Notifications

Total number of cases		1645	
Notification rate per 100 000	43.8		
New <sup>a</sup> and relapse		1501	
New <sup>a</sup> and relapse notification rate per 100 000	39.9		
Pulmonary	1311	(79.7%)	
of which microscopy-positive			
of which laboratory-confirmed	1241	(94.7%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	43.3 years		
Mean age of new foreign TB cases	-	-	
Foreign origin of all TB cases	0	(0.0%)	
New (not previously treated)	1298	(78.9%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	2400	[2000-2900]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	1220	(98.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	200	[190-210]
Pulmonary RR/MDR-TB cases notified	180	(14.8%)
of which pre-XDR-TB cases	37	(25.0%)
Notified RR/MDR-TB	187	
of which pre-XDR-TB cases	38	(20.3%)
TB cases tested for HIV	1430	(95.3%)
HIV-positive TB cases	43	(3.0%)
of these on ART	43	(100.0%)

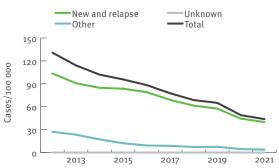
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases  $\gt$  50%, DST done for C+  $\gt$  75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse TB cases notified in 2020 <sup>a</sup>		enrolled	R-TB cases into DR-TB nt in 2019 <sup>b</sup>
Case-linked data-reporting	١	'es		-
Cases notified	1	1513		218
Success	1314	(86.8%)	171	(78.4%)
Died	66	(4.4%)	13	(6.0%)
Failed	35	(2.3%)	4	(1.8%)
Lost to follow-up	80	(5.3%)	28	(12.8%)
Not evaluated	18	(1.2%)	2	(0.9%)

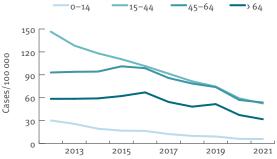
<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



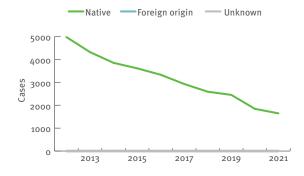
Note: starting from 2013, cases with unknown history are included in new and relapses

#### New and relapse TB cases - notification rates by age group, 2012-2021



Note: 2012 data include new TB cases only

### TB cases by geographical origin, 2012-2021

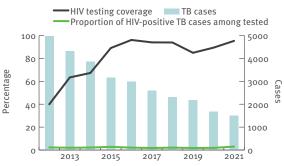


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



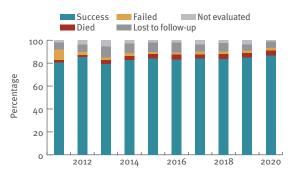
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases

### Treatment outcome, new and relapse TB cases, 2011-2020



Total population at 23 April 2022 by EUROSTAT: 83 155 031

#### TB cases, 2021

### Notifications

Total number of cases	3896		
Notification rate per 100 000		4.6	
New <sup>a</sup> and relapse		3792	
New <sup>a</sup> and relapse notification rate per 100 000	4.7		
Pulmonary	2760	(70.8%)	
of which microscopy-positive	1472	(53.3%)	
of which laboratory-confirmed	2298	(83.3%)	
Laboratory-confirmed TB cases	3 0 8 1	(79.1%)	
Mean age of new native TB cases	53.1 years		
Mean age of new foreign TB cases	3	7.6 years	
Foreign origin of all TB cases	2782	(71.4%)	
New (not previously treated)	2 671	(68.6%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	4200	[3800-4600]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Υ	'es
Completeness of HIV datab		-
Case-linked data-reporting	Υ	'es
Cases with DST results	2 705	-
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	87	[67-110]
Pulmonary RR/MDR-TB cases notified	83	(4.1%)
of which pre-XDR-TB cases	9	(10.8%)
Notified RR/MDR-TB	92	(3.4%)
of which pre-XDR-TB cases	11	(12.0%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

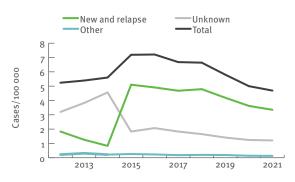
<sup>&</sup>lt;sup>a</sup> National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%. <sup>b</sup> More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

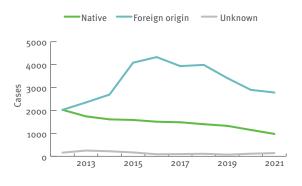
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			DR-TB cases d in 2019 <sup>b</sup>
Case-linked data-reporting	Υ	'es		-
Cases notified	17	1780		102
Success	1204	(67.6%)	56	(54.9%)
Died	183	(10.3%)	4	(3.9%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	32	(1.8%)	3	(2.9%)
Still on treatment	45	(2.5%)	8	(7.8%)
Not evaluated	316	(17.8%)	31	(30.4%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

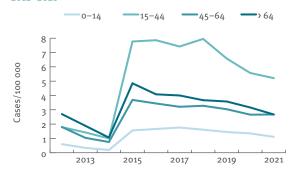
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021



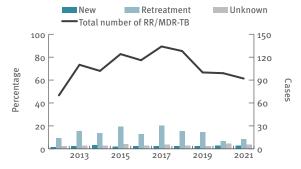
### New and relapse TB cases - notification rates by age group, 2012-2021



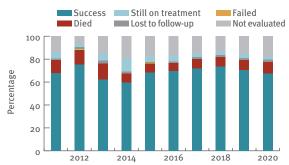
### TB/HIV coinfection, 2012-2021

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.



Total population at 23 April 2022 by EUROSTAT: 10 678 632

#### TB cases, 2021

### Notifications

HOLITICACIONS			
Total number of cases	206		
Notification rate per 100 000	1.9		
New <sup>a</sup> and relapse		195	
New <sup>a</sup> and relapse notification rate per 100 000		1.8	
Pulmonary	173	(84.0%)	
of which microscopy-positive	86	(49.7%)	
of which laboratory-confirmed	115	(66.5%)	
Laboratory-confirmed TB cases	138	(67.0%)	
Mean age of new native TB cases	56.1 years		
Mean age of new foreign TB cases	31	.5 years	
Foreign origin of all TB cases	148	(71.8%)	
New (not previously treated)	162	(78.6%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	430	[370-490]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		No
Case-linked data-reporting		Yes
Cases with DST results	82	(59.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	4	[2-7]
Pulmonary RR/MDR-TB cases notified	5	(7.4%)
of which pre-XDR-TB cases	0	-
Notified RR/MDR-TB	5	(6.1%)
of which pre-XDR-TB cases	0	-
TB cases tested for HIV	51	(24.8%)
HIV-positive TB cases	2	(3.9%)
of these on ART	-	-

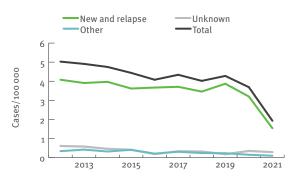
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+>75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

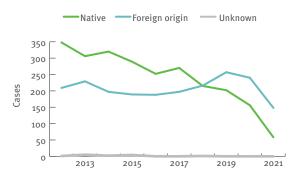
National			
New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> All RR/MDR-TB case notified in 2019			
١	/es		-
2	259 7		7
0	(0.0%)	0	(0.0%)
0	(0.0%)	0	(0.0%)
0	(0.0%)	0	(0.0%)
0	(0.0%)	0	(0.0%)
0	(0.0%)	0	(0.0%)
259	(100.0%)	7	(100.0%)
	pulmona notified 0 0 0 0	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> Yes  259  0 (0.0%) 0 (0.0%) 0 (0.0%) 0 (0.0%) 0 (0.0%)	New culture-positive pulmonary TB cases notified in 2020*   All RR/M notified

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

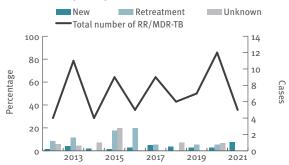
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021

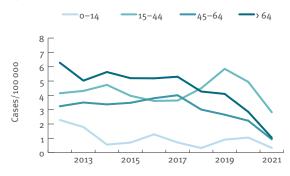


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

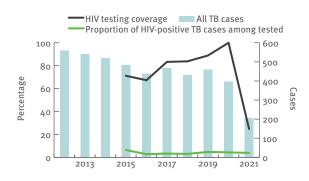


*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

## New and relapse TB cases – notification rates by age group, 2012–2021



### TB/HIV coinfection, 2012-2021



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

Data not reported

# Hungary

Total population at 23 April 2022 by EUROSTAT: 9 730 772

#### TB cases, 2021

### Notifications

itotiiitatioii5			
Total number of cases	335		
Notification rate per 100 000	3.4		
New <sup>a</sup> and relapse	314		
New <sup>a</sup> and relapse notification rate per 100 000	3.2		
Pulmonary	321	(95.8%)	
of which microscopy-positive	122	(38.0%)	
of which laboratory-confirmed	178	(55.5%)	
Laboratory-confirmed TB cases	179	(53.4%)	
Mean age of new native TB cases	53.5 years		
Mean age of new foreign TB cases	34.6 years		
Foreign origin of all TB cases	29	(8.7%)	
New (not previously treated)	293	(87.5%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	360	[310-410]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	١	Yes
Completeness of HIV datab	No	
Case-linked data-reporting	,	Yes
Cases with DST results	165	(92.2%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	10	[7-14]
Pulmonary RR/MDR-TB cases notified	12	(7.3%)
of which pre-XDR-TB cases	6	(50.0%)
Notified RR/MDR-TB	12	(7.3%)
of which pre-XDR-TB cases	6	(50.0%)
TB cases tested for HIV	7	(2.1%)
HIV-positive TB cases	1	(14.3%)
of these on ART	-	-

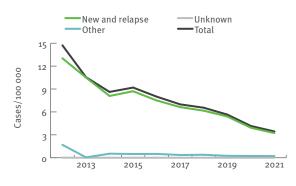
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

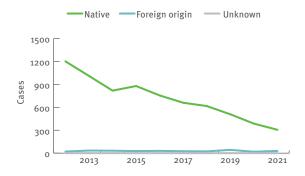
		National			
New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			DR-TB cases d in 2019 <sup>b</sup>		
١	Yes -		-		
172		13			
103	(59.9%)	3	(23.1%)		
26	(15.1%)	1	(7.7%)		
4	(2.3%)	1	(7.7%)		
21	(12.2%)	2	(15.4%)		
8	(4.7%)	3	(23.1%)		
10	(5.8%)	3	(23.1%)		
	pulmona notified 103 26 4 21 8	pulmonary TB cases notified in 2020s  Yes  172  103 (59.9%) 26 (15.1%) 4 (2.3%) 21 (12.2%) 8 (4.7%)	Pulmonary TB cases notified in 2020s    Yes    172    103		

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021

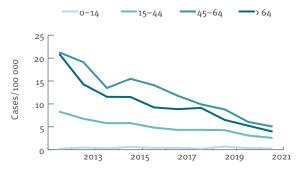


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

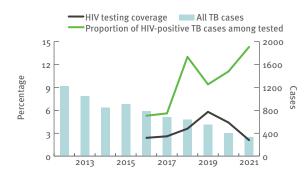


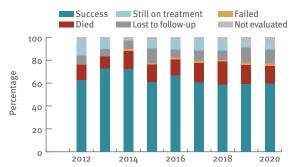
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 368 792

#### TB cases, 2021

### 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]	11	[9-13]

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

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]	-	-
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	-	-

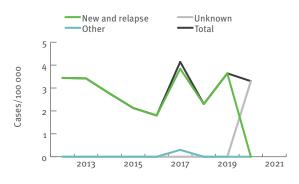
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

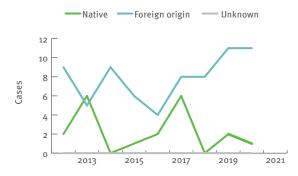
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020ª			R-TB cases in 2019 <sup>b</sup>
Case-linked data-reporting	No			-
Cases notified	(	0		0
Success	-	-	-	-
Died	-	-	-	-
Failed	-	-	-	-
Lost to follow-up	-	-	-	-
Still on treatment	-	-	-	-
Not evaluated	-	-	-	-

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

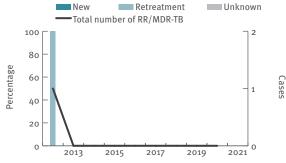
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021

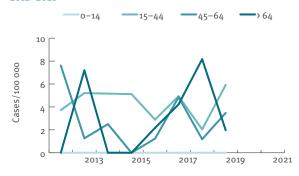


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

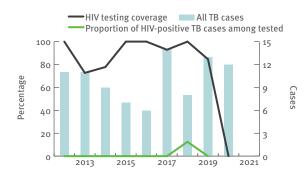


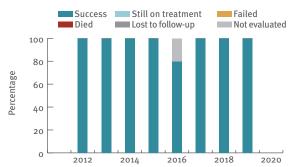
Note: Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 5 006 324

#### TB cases, 2021

### Notifications

Total number of cases	217		
Notification rate per 100 000	4.3		
New <sup>a</sup> and relapse	210		
New <sup>a</sup> and relapse notification rate per 100 000	4.2		
Pulmonary	98	(45.2%)	
of which microscopy-positive	46	(46.9%)	
of which laboratory-confirmed	78	(79.6%)	
Laboratory-confirmed TB cases	146	(67.3%)	
Mean age of new native TB cases	54.2 years		
Mean age of new foreign TB cases	36	.6 years	
Foreign origin of all TB cases	122	(56.2%)	
New (not previously treated)	92	(42.4%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	240	[210-280]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Υ	es/es
Completeness of HIV datab	1	No
Case-linked data-reporting	Υ	es/es
Cases with DST results	122	(83.6%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	2	[1-4]
Pulmonary RR/MDR-TB cases notified	4	(6.2%)
of which pre-XDR-TB cases	1	(25.0%)
Notified RR/MDR-TB	8	(6.6%)
of which pre-XDR-TB cases	1	(12.5%)
TB cases tested for HIV	68	(31.3%)
HIV-positive TB cases	2	(2.9%)
of these on ART	1	-

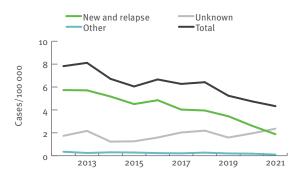
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

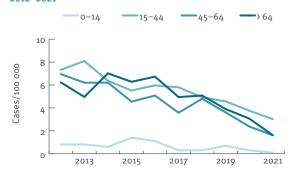
Geographical coverage	National			
Outcome cohort	pulmona	ure-positive ry TB cases d in 2020ª		DR-TB cases ed in 2019 <sup>b</sup>
Case-linked data-reporting	,	Yes		-
Cases notified		42		6
Success	8	(19.0%)	2	(33.3%)
Died	1	(2.4%)	1	(16.7%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	1	(2.4%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	32	(76.2%)	3	(50.0%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

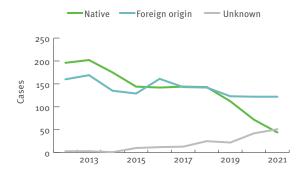
### TB notification rates by previous treatment history, 2012-2021



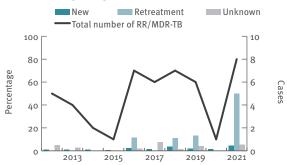
### New and relapse TB cases - notification rates by age group, 2012-2021



### TB cases by geographical origin, 2012–2021

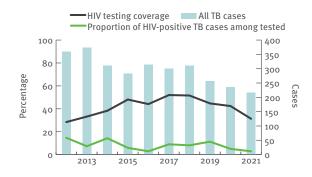


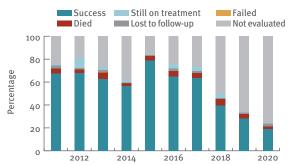
# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021





Total population estimate 2021 by United Nations Statistical Database: 8 900 059

#### TB cases, 2021

### Notifications

Notifications		
Total number of cases		213
Notification rate per 100 000		2.4
New <sup>a</sup> and relapse	213	
New <sup>a</sup> and relapse notification rate per 100 000	2.4	
Pulmonary	137	(64.3%)
of which microscopy-positive		
of which laboratory-confirmed	104	(75.9%)
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases	39	.8 years
Mean age of new foreign TB cases		-
Foreign origin of all TB cases	171	(80.3%)
New (not previously treated)	209	(98.1%)
Estimates		
Estimated new and relapse cases N, best [low-high]	240	[210-280]

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

## Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Υ	/es
Completeness of HIV datab	Υ	/es
Case-linked data-reporting	Υ	/es
Cases with DST results	104	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	8	[5-11]
Pulmonary RR/MDR-TB cases notified	9	(8.7%)
of which pre-XDR-TB cases	5	(55.6%)
Notified RR/MDR-TB	18	
of which pre-XDR-TB cases	12	(66.7%)
TB cases tested for HIV	213	(100.0%)
HIV-positive TB cases	16	(7.5%)
of these on ART	16	(100.0%)

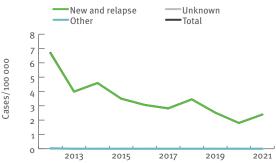
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases  $\gt$  50%, DST done for C+  $\gt$  75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse TB cases notified in 2020ª		enrolled	R-TB cases I into DR-TB ent in 2019 <sup>b</sup>
Case-linked data-reporting	Yes		-	
Cases notified		152		9
Success	123	(80.9%)	5	(55.6%)
Died	13	(8.6%)	1	(11.1%)
Failed	7	(4.6%)	1	(11.1%)
Lost to follow-up	9	(5.9%)	2	(22.2%)
Not evaluated	0	(0.0%)	0	(0.0%)

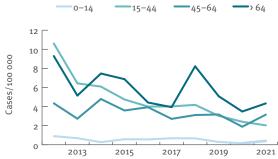
<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



Note: cases with unknown previous treatment included with new and relapse cases.

### New and relapse TB cases - notification rates by age group, 2012-2021

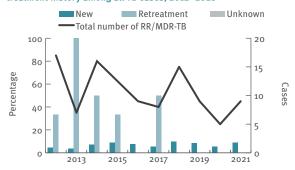


Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

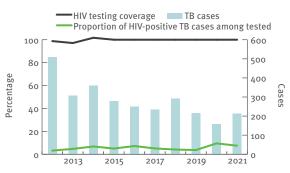


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



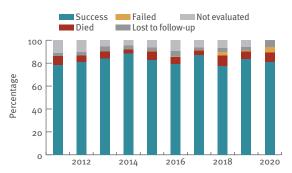
Note: Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 includes all TB cases.

### Treatment outcome, new and relapse TB cases, 2011-2020



# Italy

Total population at 23 April 2022 by EUROSTAT: 59 236 213

### **TB** cases, 2021

#### Notifications

Notifications		
Total number of cases		2480
Notification rate per 100 000		4
New <sup>a</sup> and relapse		2378
New <sup>a</sup> and relapse notification rate per 100 000		4
Pulmonary	1840	(74.2%)
of which microscopy-positive	689	(37.4%)
of which laboratory-confirmed	1390	(75.5%)
Laboratory-confirmed TB cases	2146	(86.5%)
Mean age of new native TB cases	54	4.0 years
Mean age of new foreign TB cases	38	3.0 years
Foreign origin of all TB cases	1437	(57.9%)
New (not previously treated)	1686	(68.0%)
Estimates		
Estimated new and relapse cases N, best [low-high]	2900	[2500-3400]

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

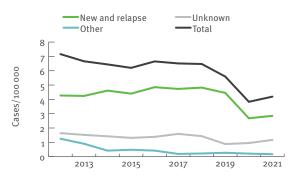
Completeness of DRS data <sup>a</sup>	N	lo
Completeness of HIV datab		-
Case-linked data-reporting	1	lo
Cases with DST results	1406	(65.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	50	[37-64]
Pulmonary RR/MDR-TB cases notified	40	(3.4%)
of which pre-XDR-TB cases	10	(25.6%)
Notified RR/MDR-TB	44	(3.1%)
of which pre-XDR-TB cases	10	(22.7%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

### Treatment outcome monitoring

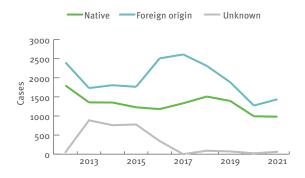
Geographical coverage	National			
Outcome cohort				R-TB cases in 2019 <sup>b</sup>
Case-linked data-reporting	Ye	es		-
Cases notified	77	73	4	9
Success	-	-	-	-
Died	-	-	-	-
Failed	-	-	-	-
Lost to follow-up	-	-	-	-
Still on treatment	-	-	-	-
Not evaluated	-	-	-	-

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021

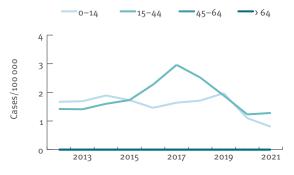


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



Note: Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

# New and relapse TB cases – notification rates by age group, 2012–2021



### TB/HIV coinfection, 2012-2021

Data not reported

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

Data not reported

<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>a</sup> More than 50% of TB cases with reported HIV status.

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

# Kazakhstan

Total population estimate 2021 by United Nations Statistical Database: 19 196 466

#### TB cases, 2021

### Notifications

Hotilications			
Total number of cases	10 008		
Notification rate per 100 000		52.1	
New <sup>a</sup> and relapse		9757	
New <sup>a</sup> and relapse notification rate per 100 000	50,8		
Pulmonary	9498	(94.9%)	
of which microscopy-positive			
of which laboratory-confirmed	7536	(79.3%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	1	3.7 years	
Mean age of new foreign TB cases		-	
Foreign origin of all TB cases	156	(1.6%)	
New (not previously treated)	7066	(70.6%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	14000	[9900-19000]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	7522	(99.8%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	2900	[2900-3000]
Pulmonary RR/MDR-TB cases notified	2943	(39.1%)
of which pre-XDR-TB cases	461	(15.7%)
Notified RR/MDR-TB	3755	
of which pre-XDR-TB cases	461	(12.3%)
TB cases tested for HIV	9620	(98.6%)
HIV-positive TB cases	625	(6.5%)
of these on ART	581	(93.0%)

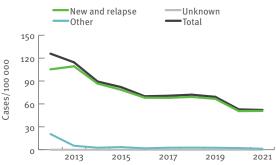
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases  $^{\flat}$  50%, DST done for C+  $^{\flat}$  775%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse RR/MDR TB case TB cases notified enrolled into DR- in 2020 <sup>a</sup> treatment in 201			into DR-TB
Case-linked data-reporting	Y	'es		-
Cases notified	5	742	58	392
Success	5 0 4 3	(87.8%)	4486	(76.1%)
Died	461	(8.0%)	600	(10.2%)
Failed	171	(3.0%)	196	(3.3%)
Lost to follow-up	54	(0.9%)	289	(4.9%)
Not evaluated	13	(0.2%)	321	(5.4%)

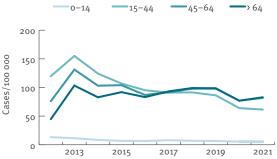
 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



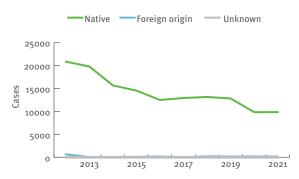
Note: starting from 2013, cases with unknown history are included in new and relapses.

### New and relapse TB cases – notification rates by age group, 2012–2021



Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012–2021

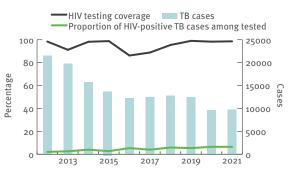


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



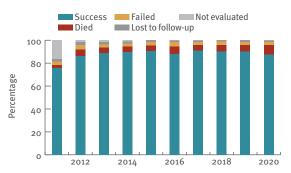
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



 $\it Note: data \ up \ to \ 2014 \ include \ all \ TB \ cases.$ 

### Treatment outcome, new and relapse TB cases 2011–2020



# Kyrgyzstan

Total population estimate 2021 by United Nations Statistical Database: 6 527 743

#### TB cases, 2021

No	tif	ica	tio	ns

Hotilications			
Total number of cases	5209		
Notification rate per 100 000		79.8	
New <sup>a</sup> and relapse		4596	
New <sup>a</sup> and relapse notification rate per 100 000	70.4		
Pulmonary	4152	(79.7%)	
of which microscopy-positive	-	-	
of which laboratory-confirmed	2762	(66.5%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	41.0 years		
Mean age of new foreign TB cases		-	
Foreign origin of all TB cases	0	(0.0%)	
New (not previously treated)	3901	(74.9%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	8500	[7000-10000]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	2601	(94.2%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low–high]	980	[940-1000]
Pulmonary RR/MDR-TB cases notified	839	(32.3%)
of which pre-XDR-TB cases	116	(17.4%)
Notified RR/MDR-TB	917	
of which pre-XDR-TB cases	129	(14.1%)
TB cases tested for HIV	4394	(95.6%)
HIV-positive TB cases	126	(2.9%)
of these on ART	77	(61.1%)

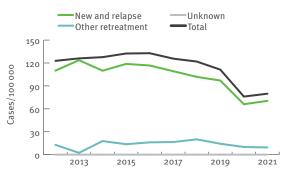
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

National			
New and relapse TB cases notified in 2020 <sup>a</sup>		enrolled	TB cases into DR-TB nt in 2018 <sup>b</sup>
Υ	'es		-
3	472	1	173
2839	(81.8%)	841	(71.7%)
271	(7.8%)	79	(6.7%)
92	(2.6%)	42	(3.6%)
254	(7.3%)	208	(17.7%)
16	(0.5%)	3	(0.3%)
	TB case in 2  Y  3-  2839  271  92  254	New and relapse TB cases notified in 2020 <sup>a</sup> Yes  3472 2839 (81.8%) 271 (7.8%) 92 (2.6%) 254 (7.3%)	New and relapse   TB cases notified in 2020 <sup>3</sup>   realment

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



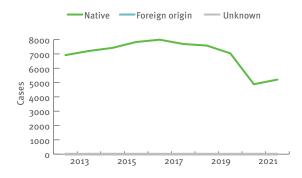
Note: starting from 2013, cases with unknown history are included in new and relapses.

# New and relapse TB cases - notification rates by age group, 2012–2021

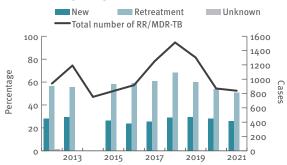


Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

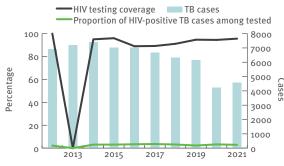


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



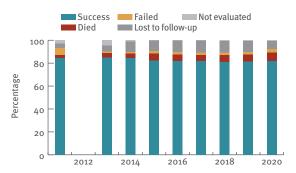
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases

### Treatment outcome, new and relapse TB cases, 2011-2020



Total population at 23 April 2022 by EUROSTAT: 1893 223

#### TB cases, 2021

### Notifications

itotiiitatioii5			
Total number of cases	261		
Notification rate per 100 000		14	
New <sup>a</sup> and relapse		255	
New <sup>a</sup> and relapse notification rate per 100 000		13	
Pulmonary	246	(94.3%)	
of which microscopy-positive	118	(48.0%)	
of which laboratory-confirmed	207	(84.1%)	
Laboratory-confirmed TB cases	212	(81.2%)	
Mean age of new native TB cases	47	7.3 years	
Mean age of new foreign TB cases	4(	0.6 years	
Foreign origin of all TB cases	6	(2.3%)	
New (not previously treated)	220	(84.3%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	290	[250-340]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		No
Completeness of HIV datab	,	Yes
Case-linked data-reporting	No	
Cases with DST results	181	(85.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	25	[21-28]
Pulmonary RR/MDR-TB cases notified	18	(9.7%)
of which pre-XDR-TB cases	3	(16.7%)
Notified RR/MDR-TB	18	(9.9%)
of which pre-XDR-TB cases	3	(16.7%)
TB cases tested for HIV	188	(72.0%)
HIV-positive TB cases	24	(12.8%)
of these on ART	-	-

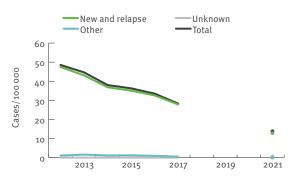
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

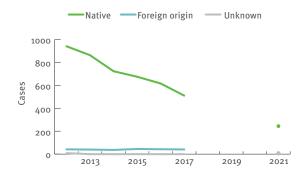
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> All RR/MDR-TB ca			
Case-linked data-reporting	N	lo	-	
Cases notified		-		-
Success	-	-	-	-
Died	-	-	-	-
Failed	-	-	-	-
Lost to follow-up	-	-	-	-
Still on treatment	-	-	-	-
Not evaluated	-	-	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021

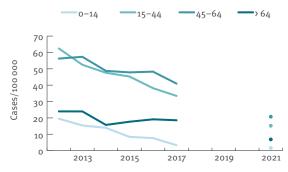


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

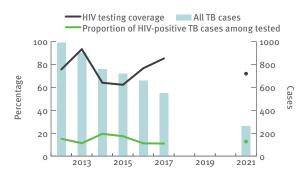


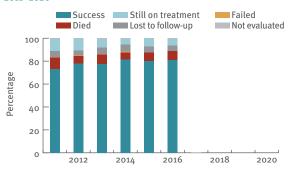
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

# New and relapse TB cases – notification rates by age group, 2012–2021



### TB/HIV coinfection, 2012-2021





# Liechtenstein

Total population at 23 April 2022 by EUROSTAT: 39 055

#### TB cases, 2021

Notifications		
Total number of cases		1
Notification rate per 100 000		2.6
New <sup>a</sup> and relapse		1
New <sup>a</sup> and relapse notification rate per 100 000		2.6
Pulmonary	1	(100.0%)
of which microscopy-positive	1	-
of which laboratory-confirmed	1	-
Laboratory-confirmed TB cases	1	(100.0%)
Mean age of new native TB cases	58	8.0 years
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 history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		-
Case-linked data-reporting		Yes
Cases with DST results	1	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	-	-
Pulmonary RR/MDR-TB cases notified	0	-
of which pre-XDR-TB cases	0	-
Notified RR/MDR-TB	0	-
of which pre-XDR-TB cases	0	-
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

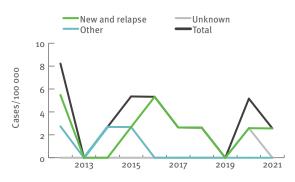
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

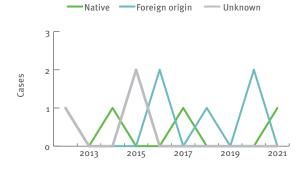
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> All RR/MDR-TI			
Case-linked data-reporting	Yes			-
Cases notified	0		(	0
Success	-	-	-	-
Died	-	-	-	-
Failed	-	-	-	-
Lost to follow-up	-	-	-	-
Still on treatment	-	-	-	-
Not evaluated	-	-	-	-

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

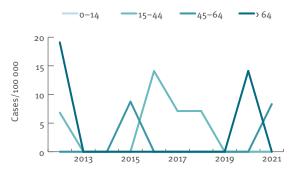
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021



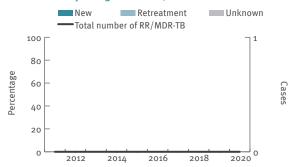
### New and relapse TB cases - notification rates by age group, 2012-2021



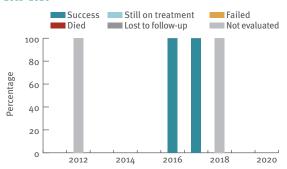
### TB/HIV coinfection, 2012-2021

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



Note: Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.



Total population at 23 April 2022 by EUROSTAT: 2795 680

### TB cases, 2021

### Notifications

Total number of cases		646	
Notification rate per 100 000	23.1		
New <sup>a</sup> and relapse	628		
New <sup>a</sup> and relapse notification rate per 100 000	22.5		
Pulmonary	594	(92.0%)	
of which microscopy-positive	397	(66.8%)	
of which laboratory-confirmed	561	(94.4%)	
Laboratory-confirmed TB cases	578	(89.5%)	
Mean age of new native TB cases	49	9.5 years	
Mean age of new foreign TB cases	52	.4 years	
Foreign origin of all TB cases	7	(1.1%)	
New (not previously treated)	550	(85.1%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	720	[620-830]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

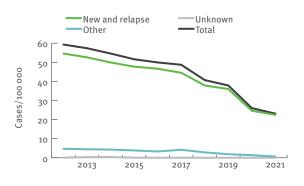
Completeness of DRS data <sup>a</sup>	,	Yes
Completeness of HIV datab	,	Yes
Case-linked data-reporting	,	Yes
Cases with DST results	578	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	110	[110-120]
Pulmonary RR/MDR-TB cases notified	105	(18.7%)
of which pre-XDR-TB cases	21	(20.0%)
Notified RR/MDR-TB	105	(18.2%)
of which pre-XDR-TB cases	21	(20.0%)
TB cases tested for HIV	612	(94.7%)
HIV-positive TB cases	15	(2.5%)
of these on ART	-	-

### Treatment outcome monitoring

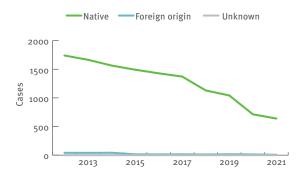
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> All RR/MDR-TB			
Case-linked data-reporting	١	Yes		-
Cases notified	1	483		173
Success	359	(74.3%)	78	(45.1%)
Died	60	(12.4%)	29	(16.8%)
Failed	4	(0.8%)	5	(2.9%)
Lost to follow-up	11	(2.3%)	10	(5.8%)
Still on treatment	49	(10.1%)	50	(28.9%)
Not evaluated	0	(0.0%)	1	(0.6%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

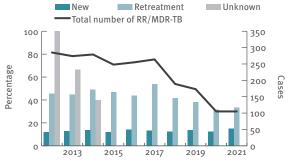
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021

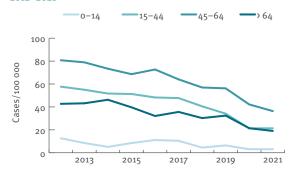


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

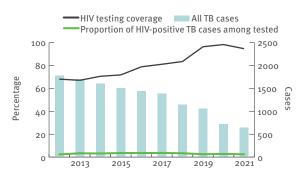


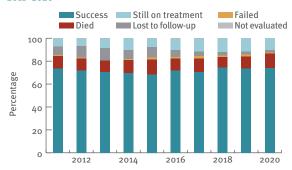
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





<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>a</sup> More than 50% of TB cases with reported HIV status.

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

Total population at 23 April 2022 by EUROSTAT: 634 730

#### TB cases, 2021

### Notifications

Total number of cases	35		
Notification rate per 100 000	5.5		
New <sup>a</sup> and relapse	34		
New <sup>a</sup> and relapse notification rate per 100 000	5.4		
Pulmonary	29	(82.9%)	
of which microscopy-positive	21	(72.4%)	
of which laboratory-confirmed	27	(93.1%)	
Laboratory-confirmed TB cases	30	(85.7%)	
Mean age of new native TB cases	37.	5 years	
Mean age of new foreign TB cases	40	.4 years	
Foreign origin of all TB cases	33	(94.3%)	
New (not previously treated)	30	(85.7%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	39	[33-45]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	١	/es
Completeness of HIV datab	,	/es
Case-linked data-reporting	,	/es
Cases with DST results	29	(96.7%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	0	[0-1]
Pulmonary RR/MDR-TB cases notified	0	(0.0%)
of which pre-XDR-TB cases	0	-
Notified RR/MDR-TB	0	(0.0%)
of which pre-XDR-TB cases	0	-
TB cases tested for HIV	25	(71.4%)
HIV-positive TB cases	0	(0.0%)
of these on ART	0	-

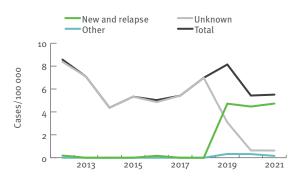
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

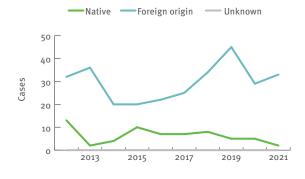
Geographical coverage	National			
Outcome cohort	pulmona	ure-positive ry TB cases d in 2020ª	All RR/MDR-TB cas notified in 2019 <sup>b</sup>	
Case-linked data-reporting	,	Yes	-	
Cases notified	19			1
Success	8	(42.1%)	0	(0.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	11	(57.9%)	1	(100.0%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

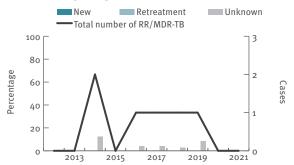
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021

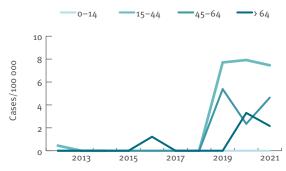


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

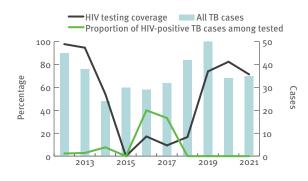


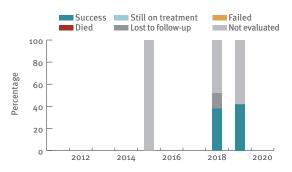
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 516 100

#### TB cases, 2021

### Notifications

Notifications			
Total number of cases	54		
Notification rate per 100 000	10.5		
New <sup>a</sup> and relapse	54		
New <sup>a</sup> and relapse notification rate per 100 000	10.5		
Pulmonary	41	(75.9%)	
of which microscopy-positive	17	(41.5%)	
of which laboratory-confirmed	28	(68.3%)	
Laboratory-confirmed TB cases	38	(70.4%)	
Mean age of new native TB cases	18	3.0 years	
Mean age of new foreign TB cases	30	).8 years	
Foreign origin of all TB cases	53	(98.1%)	
New (not previously treated)	54	(100.0%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	62	[53-72]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	Yes
Completeness of HIV datab	,	Yes
Case-linked data-reporting	1	Yes
Cases with DST results	37	(97.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	0	[0-1]
Pulmonary RR/MDR-TB cases notified	1	(3.7%)
of which pre-XDR-TB cases	0	-
Notified RR/MDR-TB	1	(2.7%)
of which pre-XDR-TB cases	0	-
TB cases tested for HIV	46	(85.2%)
HIV-positive TB cases	1	(2.2%)
of these on ART	1	(100.0%)

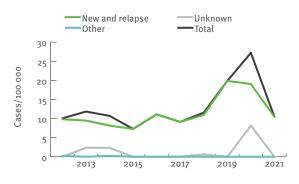
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+> 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

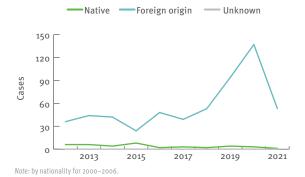
Geographical coverage	National				
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>		All RR/MDR-TB cases notified in 2019 <sup>b</sup>		
Case-linked data-reporting	Yes			-	
Cases notified	1	18		0	
Success	-	-	-	-	
Died	-	-	-	-	
Failed	-	-	-	-	
Lost to follow-up			-	-	
Still on treatment	-	-	-	-	
Not evaluated	-	-	-	-	

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021

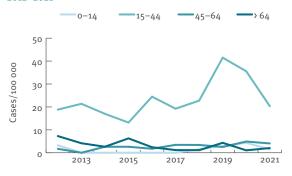


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

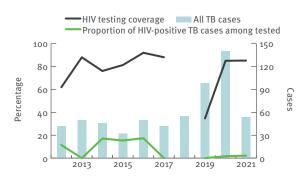


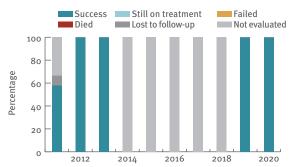
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





Total population estimate 2021 by United Nations Statistical Database: 36 686

#### TB cases, 2021

Notifications		
Total number of cases	(	)
Notification rate per 100 000	0.	.0
New <sup>a</sup> and relapse	(	)
New <sup>a</sup> and relapse notification rate per 100 000	0.	.0
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]	0	[0-0]

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

## Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	-	-
Completeness of HIV datab	-	
Case-linked data-reporting	Ye	!S
Cases with DST results	-	-
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	0	[0-0]
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	-	-

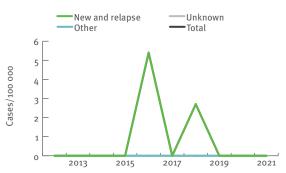
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse TB cases notified in 2020ª	RR/MDR-TB cases enrolled into DR-TB treatment in 2019 <sup>b</sup>		
Case-linked data-reporting	Yes			
Cases notified	0	0		
Success	=	=		
Died	-	-		
Failed				
Lost to follow-up	-	-		
Not evaluated	-	-		

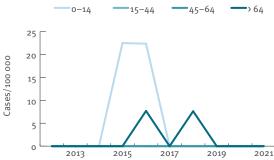
<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



Note: starting from 2013, cases with unknown history are included in new and relapses.

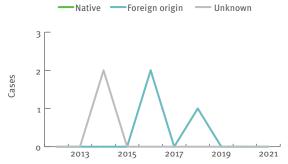
#### New and relapse TB cases - notification rates by age group, 2012-2021

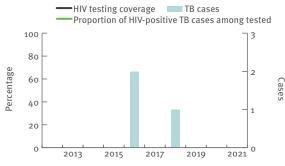


Note: 2012 data include new TB cases only.

TB/HIV coinfection, 2012-2021

### TB cases by geographical origin, 2012–2021





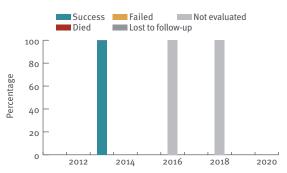
Note: data up to 2014 include all TB cases.

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



Note: Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### Treatment outcome, new and relapse TB cases, 2011-2020



# Montenegro

Total population estimate 2021 by United Nations Statistical Database: 627 859

#### TB cases, 2021

Mean age of new foreign TB cases Foreign origin of all TB cases

Notifications		
Total number of cases		83
Notification rate per 100 000		13.2
New <sup>a</sup> and relapse		80
New <sup>a</sup> and relapse notification rate per 100 000		12.7
Pulmonary	71	(85.5%)
of which microscopy-positive	-	-
of which laboratory-confirmed	61	(85.9%)
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases	50.	3 years

New (not previously treated) 73 (88.0%) Estimates Estimated new and relapse cases N, 98 [84-110] best [low-high]

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	res .
Completeness of HIV datab	Yes	
Case-linked data-reporting	,	/es
Cases with DST results	61	(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	80	(100.0%)
HIV-positive TB cases	0	(0.0%)
of these on ART	-	-

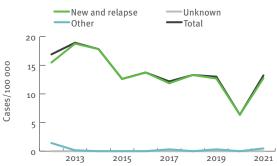
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

National			
New and relapse TB cases notified in 2020 <sup>a</sup>		enrolled i	nto DR-TB
Yes		-	-
40		(	)
35	(87.5%)	-	-
3	(7.5%)	-	-
1	(2.5%)	-	-
1	(2.5%)	-	-
0	(0.0%)	-	-
	35 3 1	New and relapse TB cases notified in 2020 <sup>a</sup> Yes  40  35 (87.5%)  3 (7.5%)  1 (2.5%)  1 (2.5%)	New and relapse   TB cases notified in 2020a   reatment

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

(2.4%)



Note: starting from 2013, cases with unknown history are included in new and relapses.

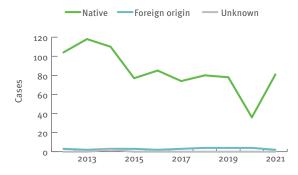
#### New and relapse TB cases - notification rates by age group, 2012-2021

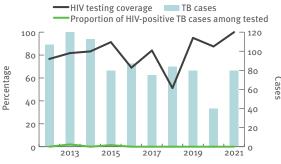


Note: 2012 data include new TB cases only.

TB/HIV coinfection, 2012-2021

### TB cases by geographical origin, 2012–2021





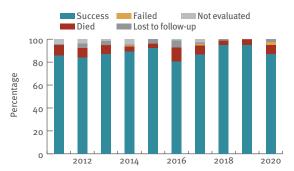
Note: data up to 2014 include all TB cases.

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### Treatment outcome, new and relapse TB cases, 2011-2020



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

TB notification rates by previous treatment history, 2012-2021

# **Netherlands**

Total population at 23 April 2022 by EUROSTAT: 17 475 415

#### TB cases, 2021

### Notifications

Hotilications			
Total number of cases		680	
Notification rate per 100 000	3.9		
New <sup>a</sup> and relapse		671	
New <sup>a</sup> and relapse notification rate per 100 000	3.8		
Pulmonary	381	(56.0%)	
of which microscopy-positive	155	(40.7%)	
of which laboratory-confirmed	306	(80.3%)	
Laboratory-confirmed TB cases	478	(70.3%)	
Mean age of new native TB cases	50.0 years		
Mean age of new foreign TB cases	41.4 years		
Foreign origin of all TB cases	532	(78.2%)	
New (not previously treated)	642	(94.4%)	
Estimates			
Estimated new and relapse cases N. best [low-high]	770	[660-890]	

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

# Drug-resistance surveillance and TB/HIV coinfection, 2020

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	444	(92.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	13	[9-17]
Pulmonary RR/MDR-TB cases notified	10	(3.5%)
of which pre-XDR-TB cases	1	(10.0%)
Notified RR/MDR-TB	11	(2.5%)
of which pre-XDR-TB cases	1	(9.1%)
TB cases tested for HIV	508	(74.7%)
HIV-positive TB cases	13	(2.6%)
of these on ART	10	(76.9%)

<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>a</sup> More than 50% of TB cases with reported HIV status.

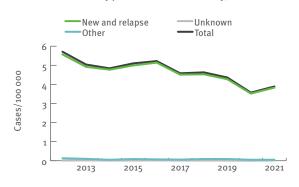
<sup>c</sup> Cases with unknown previous TB treatment history included in new cases.

### Treatment outcome monitoring

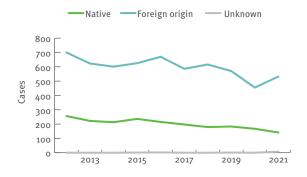
Geographical coverage	National				
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			DR-TB cases ed in 2019 <sup>b</sup>	
Case-linked data-reporting	Yes -		-		
Cases notified	2	253		9	
Success	200	(79.1%)	8	(88.9%)	
Died	15	(5.9%)	0	(0.0%)	
Failed	0	(0.0%)	0	(0.0%)	
Lost to follow-up	9	(3.6%)	0	(0.0%)	
Still on treatment	8	(3.2%)	0	(0.0%)	
Not evaluated	21	(8.3%)	1	(11.1%)	

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

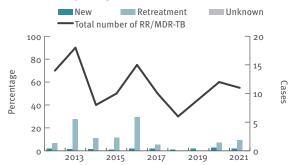
#### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021

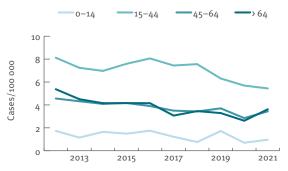


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

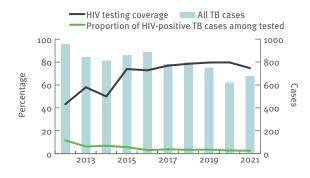


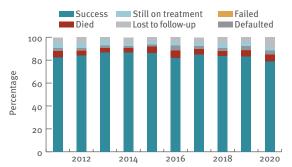
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





# **North Macedonia**

Total population estimate 2021 by United Nations Statistical Database: 2 103 330

#### TB cases, 2021

### Notifications

Notifications		
Total number of cases		146
Notification rate per 100 000	6.9	
New <sup>a</sup> and relapse		143
New <sup>a</sup> and relapse notification rate per 100 000	6.8	
Pulmonary	131	(89.7%)
of which microscopy-positive	-	=
of which laboratory-confirmed	111	(84.7%)
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases	47.	9 years
Mean age of new foreign TB cases		-
Foreign origin of all TB cases	3	(2.1%)
New (not previously treated)	129	(88.4%)
Estimates		
Estimated new and relapse cases N, best [low-high]	240	[180-300]

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

### Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	١	/es
Completeness of HIV datab	No	
Case-linked data-reporting	Yes	
Cases with DST results	111	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	1	[1-2]
Pulmonary RR/MDR-TB cases notified	2	(1.8%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	2	
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	29	(20.3%)
HIV-positive TB cases	0	(0.0%)
of these on ART	-	-

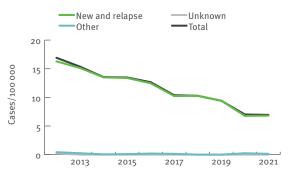
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse TB cases notified in 2020 <sup>a</sup>		enrolled	R TB cases d into DR-TB ent in 2018 <sup>b</sup>
Case-linked data-reporting	Yes			=
Cases notified		148		2
Success	125	(84.5%)	0	(0.0%)
Died	11	(7.4%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	10	(6.8%)	2	(100.0%)
Not evaluated	2	(1.4%)	0	(0.0%)

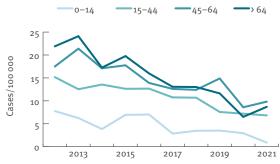
<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



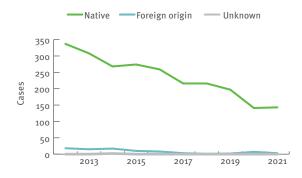
Note: starting from 2013, cases with unknown history are included in new and relapses.

# New and relapse TB cases – notification rates by age group, 2012–2021

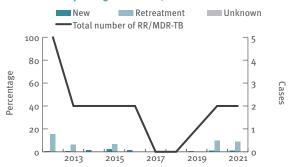


Note: 2012 data include new TB cases only.

#### TB cases by geographical origin, 2012-2021

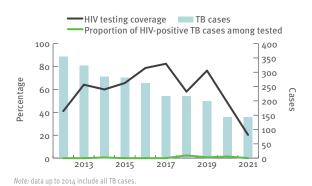


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

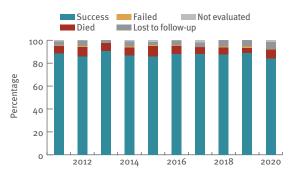


*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Treatment outcome, new and relapse TB cases, 2011-2020



# **Norway**

Total population at 23 April 2022 by EUROSTAT: 5 391 369

#### TB cases, 2021

#### Notifications

Notifications			
Total number of cases	157		
Notification rate per 100 000	2.9		
New <sup>a</sup> and relapse	#V	ALUE!	
New <sup>a</sup> and relapse notification rate per 100 000	#VALUE!		
Pulmonary	84	(53.5%)	
of which microscopy-positive	37	(44.0%)	
of which laboratory-confirmed	76	(90.5%)	
Laboratory-confirmed TB cases	125	(79.6%)	
Mean age of new native TB cases	39.9 years		
Mean age of new foreign TB cases	40.	4 years	
Foreign origin of all TB cases	130	(82.8%)	
New (not previously treated)	140	(89.2%)	
Estimates			
Estimated new and relapse cases N, best flow-highl	160	[130-180]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	١	es/es
Completeness of HIV datab	١	'es
Case-linked data-reporting	١	'es
Cases with DST results	124	(99.2%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	4	[2-5]
Pulmonary RR/MDR-TB cases notified	8	(10.7%)
of which pre-XDR-TB cases	2	(25.0%)
Notified RR/MDR-TB	10	(8.1%)
of which pre-XDR-TB cases	2	(20.0%)
TB cases tested for HIV	128	(81.5%)
HIV-positive TB cases	4	(3.1%)
of these on ART	-	-

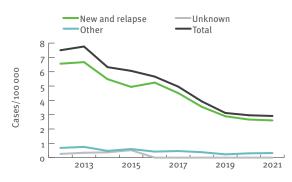
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

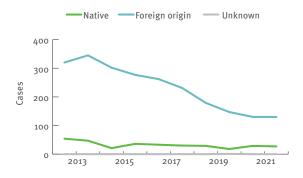
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			DR-TB cases d in 2019 <sup>b</sup>
Case-linked data-reporting		Yes		-
Cases notified		78		2
Success	67	(85.9%)	1	(50.0%)
Died	2	(2.6%)	0	(0.0%)
Failed	1	(1.3%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	1	(1.3%)	0	(0.0%)
Not evaluated	7	(9.0%)	1	(50.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



#### TB cases by geographical origin, 2012-2021

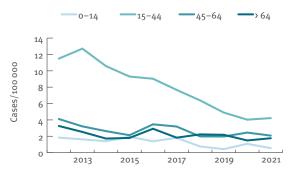


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

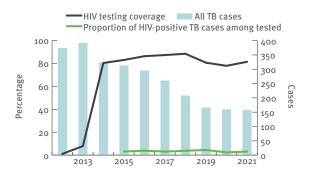


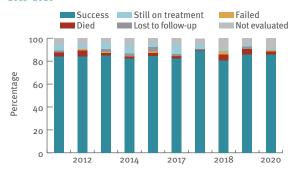
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

# New and relapse TB cases – notification rates by age group, 2012–2021



#### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 37 840 001

#### TB cases, 2021

#### Notifications

NULITICALIUMS			
Total number of cases	3704		
Notification rate per 100 000	9.8		
New <sup>a</sup> and relapse		3446	
New <sup>a</sup> and relapse notification rate per 100 000	9.1		
Pulmonary	3553	(95.9%)	
of which microscopy-positive	2 115	(59.5%)	
of which laboratory-confirmed	2970	(83.6%)	
Laboratory-confirmed TB cases	3 0 6 1	(82.6%)	
Mean age of new native TB cases	51	.9 years	
Mean age of new foreign TB cases	35	.7 years	
Foreign origin of all TB cases	132	(3.6%)	
New (not previously treated)	3229	(87.2%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	4000	[3400-4600]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Υ	es
Completeness of HIV datab		-
Case-linked data-reporting	Υ	es
Cases with DST results	2 830	(92.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	36	[31-42]
Pulmonary RR/MDR-TB cases notified	58	(2.1%)
of which pre-XDR-TB cases	9	(15.5%)
Notified RR/MDR-TB	58	(2.0%)
of which pre-XDR-TB cases	9	(15.5%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

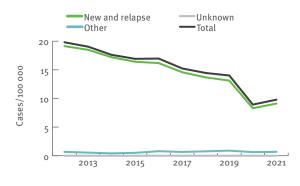
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+>75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

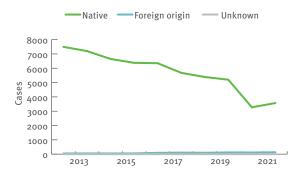
Geographical coverage	National			
Outcome cohort	pulmona	re-positive ry TB cases I in 2020ª		DR-TB cases d in 2019 <sup>b</sup>
Case-linked data-reporting	١	'es		-
Cases notified	2	2192		45
Success	0	(0.0%)	0	(0.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	2192	(100.0%)	45	(100.0%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

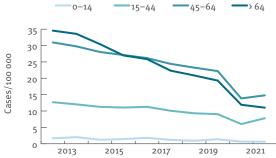
### TB notification rates by previous treatment history, 2012-2021



#### TB cases by geographical origin, 2012-2021



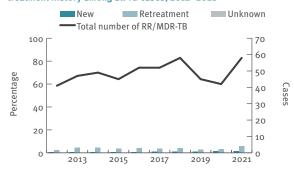
### New and relapse TB cases - notification rates by age group, 2012-2021



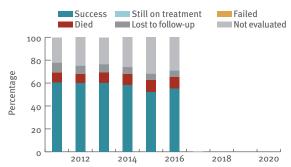
#### TB/HIV coinfection, 2012-2021

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.



# **Portugal**

Total population at 23 April 2022 by EUROSTAT: 10 298 252

#### TB cases, 2021

#### Notifications

Total number of cases	1504		
Notification rate per 100 000	14.6		
New <sup>a</sup> and relapse	1463		
New <sup>a</sup> and relapse notification rate per 100 000	14.2		
Pulmonary	1073	(71.3%)	
of which microscopy-positive	612	(57.0%)	
of which laboratory-confirmed	803	(74.8%)	
Laboratory-confirmed TB cases	982	(65.3%)	
Mean age of new native TB cases	54.5 years		
Mean age of new foreign TB cases	4	0.3 years	
Foreign origin of all TB cases	385	(25.6%)	
New (not previously treated)	1412	(93.9%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	1700	[1400-1900]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Υ	es
Completeness of HIV datab	Υ	'es
Case-linked data-reporting	Υ	es
Cases with DST results	592	(60.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	13	[7-18]
Pulmonary RR/MDR-TB cases notified	8	(1.6%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	10	(1.7%)
of which pre-XDR-TB cases	2	(20.0%)
TB cases tested for HIV	1109	(73.7%)
HIV-positive TB cases	96	(8.7%)
of these on ART	-	-

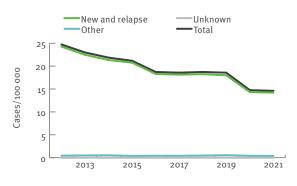
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

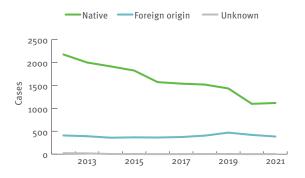
National			
New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			DR-TB cases d in 2019 <sup>b</sup>
١	/es		-
7	716		15
511	(71.4%)	6	(40.0%)
54	(7.5%)	1	(6.7%)
0	(0.0%)	0	(0.0%)
24	(3.4%)	2	(13.3%)
106	(14.8%)	2	(13.3%)
21	(2.9%)	4	(26.7%)
	pulmona notified 511 54 0 24 106	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup> Yes  716  511 (71.4%) 54 (7.5%) 0 (0.0%) 24 (3.4%) 106 (14.8%)	New culture-positive pulmonary TB cases notified in 2020*  Yes  716  511 (71.4%) 6 54 (7.5%) 1 0 (0.0%) 0 24 (3.4%) 2 106 (14.8%) 2

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



#### TB cases by geographical origin, 2012-2021



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

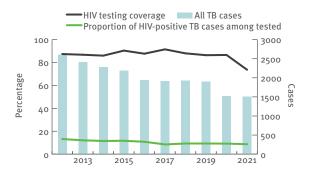


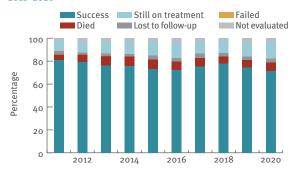
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

#### New and relapse TB cases - notification rates by age group, 2012-2021



#### TB/HIV coinfection, 2012-2021





# Republic of Moldova

Total population estimate 2021 by United Nations Statistical Database: 3 061 507

# TB cases, 2021

Foreign origin of all TB cases

New (not previously treated)

MOLITICALIONS		
Total number of cases		2248
Notification rate per 100 000		73.4
New <sup>a</sup> and relapse	2067	
New <sup>a</sup> and relapse notification rate per 100 000		67.5
Pulmonary	2112	(94.0%)
of which microscopy-positive	-	-
of which laboratory-confirmed	1557	(73.7%)
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases	44	.7 years
Mean age of new foreign TB cases		-

Estimates
Estimated new and relapse cases N, 2600 [2100-3100]

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	/es
Completeness of HIV datab	,	/es
Case-linked data-reporting	,	/es
Cases with DST results	1503	(96.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	610	[590-630]
Pulmonary RR/MDR-TB cases notified	459	(30.5%)
of which pre-XDR-TB cases	124	(27.0%)
Notified RR/MDR-TB	593	
of which pre-XDR-TB cases	124	(20.9%)
TB cases tested for HIV	2008	(97.1%)
HIV-positive TB cases	214	(10.7%)
of these on ART	169	(79.0%)

 $<sup>^</sup>a$  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.

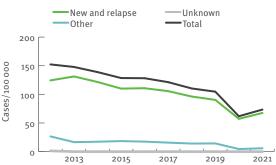
Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	TB case	d relapse s notified 2020 <sup>a</sup>	enrolled	R TB cases into DR-TB nt in 2018 <sup>b</sup>
Case-linked data-reporting	١	'es		-
Cases notified	1-	408		559
Success	1117	(79.3%)	387	(69.2%)
Died	186	(13.2%)	76	(13.6%)
Failed	53	(3.8%)	35	(6.3%)
Lost to follow-up	33	(2.3%)	13	(2.3%)
Not evaluated	19	(1.3%)	48	(8.6%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

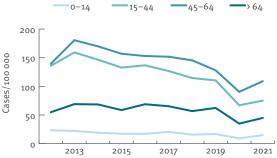
1616

(71.9%)



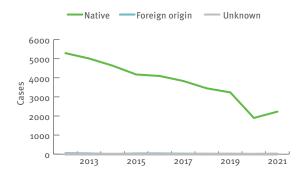
Note: starting from 2013, cases with unknown history are included in new and relapses.

# New and relapse TB cases – notification rates by age group, 2012–2021

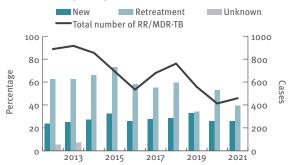


Note: 2012 data include new TB cases only.

#### TB cases by geographical origin, 2012-2021

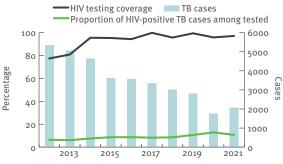


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



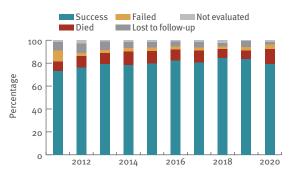
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

#### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases

### Treatment outcome, new and relapse TB cases, 2011–2020



TB notification rates by previous treatment history, 2012-2021

Total population at 23 April 2022 by EUROSTAT: 19 201 662

#### TB cases, 2021

#### Notifications

NOLITICALIONS		
Total number of cases		7,979
Notification rate per 100 000		41.6
New <sup>a</sup> and relapse		7,591
New <sup>a</sup> and relapse notification rate per 100 000		39.5
Pulmonary	6,971	(87.4%)
of which microscopy-positive	4,983	(71.5%)
of which laboratory-confirmed	5,939	(85.2%)
Laboratory-confirmed TB cases	6,156	(77.2%)
Mean age of new native TB cases	45	.6 years
Mean age of new foreign TB cases	24	.3 years
Foreign origin of all TB cases	46	(0.6%)
New (not previously treated)	6,402	(80.2%)
Estimates		
Estimated new and relapse cases N, best [low-high]	8700	[7500-10000)

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	/es
Completeness of HIV datab	,	/es
Case-linked data-reporting	,	/es
Cases with DST results	5489	(89.2%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	290	[270-320]
Pulmonary RR/MDR-TB cases notified	253	(4.8%)
of which pre-XDR-TB cases	24	(9.5%)
Notified RR/MDR-TB	259	(4.7%)
of which pre-XDR-TB cases	25	(9.7%)
TB cases tested for HIV	6569	(82.3%)
HIV-positive TB cases	144	(2.2%)
of these on ART	102	(70.8%)

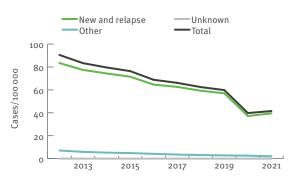
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

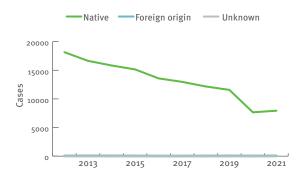
Geographical coverage	National			
Outcome cohort	pulmonai	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>		DR-TB cases d in 2019 <sup>b</sup>
Case-linked data-reporting	Υ	'es		-
Cases notified	4	103	3	384
Success	3361	(81.9%)	184	(47.9%)
Died	401	(9.8%)	75	(19.5%)
Failed	85	(2.1%)	64	(16.7%)
Lost to follow-up	177	(4.3%)	52	(13.5%)
Still on treatment	79	(1.9%)	9	(2.3%)
Not evaluated	0	(0.0%)	0	(0.0%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



#### TB cases by geographical origin, 2012-2021

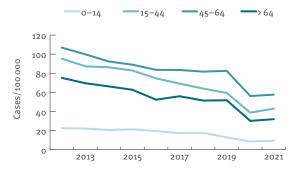


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

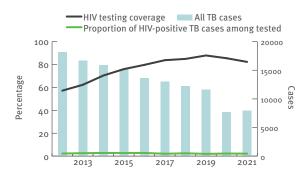


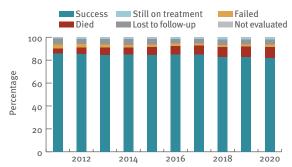
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

# New and relapse TB cases – notification rates by age group, 2012–2021



#### TB/HIV coinfection, 2012-2021





# **Russian Federation**

Total population estimate 2021 by United Nations Statistical Database: 145 102 754

#### TB cases, 2021

### Notifications

HOLITICACIONS			
Total number of cases	79686		
Notification rate per 100 000		54.9	
New <sup>a</sup> and relapse		56922	
New <sup>a</sup> and relapse notification rate per 100 000		39.2	
Pulmonary	74798	(93.9%)	
of which microscopy-positive	-	-	
of which laboratory-confirmed	42769	(57.2%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	42.8 years		
Mean age of new foreign TB cases		-	
Foreign origin of all TB cases	1915	(2.4%)	
New (not previously treated)	45 420	(57.0%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	69000	[57000-81000]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	40 222	(94.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	22000	[22000-23000]
Pulmonary RR/MDR-TB cases notified	20 452	(50.8%)
of which pre-XDR-TB cases	7346	(39.0%)
Notified RR/MDR-TB	20 452	
of which pre-XDR-TB cases	7346	(35.9%)
TB cases tested for HIV	54821	(96.3%)
HIV-positive TB cases	14132	(25.8%)
of these on ART	10764	(76.2%)

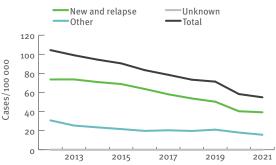
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse TB cases notified in 2020ª		enrolled	TB cases into DR-TB it in 2018 <sup>b</sup>
Case-linked data-reporting	Υ	es		-
Cases notified	46	389	32	574
Success	28 677	(61.8%)	16 4 4 7	(50.5%)
Died	6205	(13.4%)	5070	(15.6%)
Failed	5570	(12.0%)	5187	(15.9%)
Lost to follow-up	2543	(5.5%)	3572	(11.0%)
Not evaluated	3394	(7.3%)	2298	(7.1%)

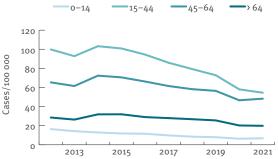
 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

### TB notification rates by previous treatment history, 2012-2021



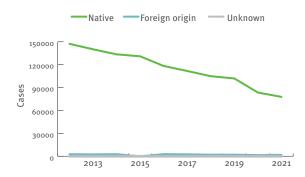
Note: starting from 2013, cases with unknown history are included in new and relapses.

#### New and relapse TB cases - notification rates by age group, 2012-2021



Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

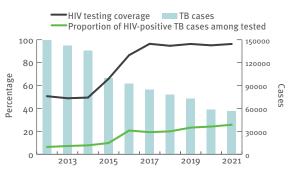


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



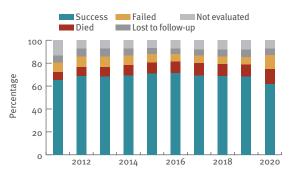
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases.

### Treatment outcome, new and relapse TB cases, 2011-2020



Total population estimate 2021 by United Nations Statistical Database: 33 746

#### TB cases, 2021

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]	0	[0-0]

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		-
Completeness of HIV datab		-
Case-linked data-reporting	Y	es
Cases with DST results	-	-
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	0	[0-0]
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	-	-

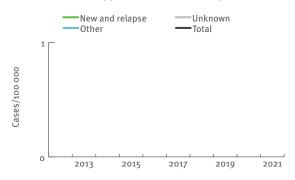
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

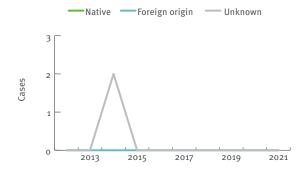
Geographical coverage	National		
Outcome cohort	New and relapse TB cases notified in 2020ª	RR/MDR-TB cases enrolled into DR-TB treatment in 2019 <sup>b</sup>	
Case-linked data-reporting	Yes	-	
Cases notified	-	-	
Success	-	-	
Died	-	-	
Failed	-	-	
Lost to follow-up	-	-	
Not evaluated	-	-	

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

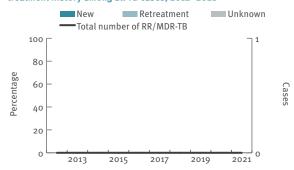
TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021

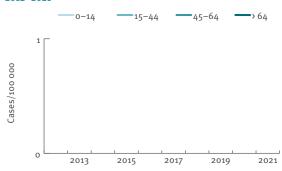


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

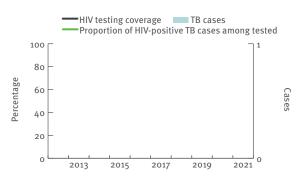


Note: Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

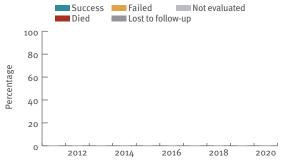
#### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021



### Treatment outcome, new and relapse TB cases, 2011-2020



# Slovakia

Total population at 23 April 2022 by EUROSTAT: 5 459 781

#### TB cases, 2021

#### Notifications

NOTIFICATIONS			
Total number of cases	137		
Notification rate per 100 000	2.5		
New <sup>a</sup> and relapse	134		
New <sup>a</sup> and relapse notification rate per 100 000	2.5		
Pulmonary	120	(87.6%)	
of which microscopy-positive	45	(37.5%)	
of which laboratory-confirmed	75	(62.5%)	
Laboratory-confirmed TB cases	76	(55.5%)	
Mean age of new native TB cases	32.	3 years	
Mean age of new foreign TB cases	37-	7 years	
Foreign origin of all TB cases	7	(5.1%)	
New (not previously treated)	124	(90.5%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	150	[130-180]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Yes	
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	75	(98.7%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	2	[1-4]
Pulmonary RR/MDR-TB cases notified	5	(6.8%)
of which pre-XDR-TB cases	2	(40.0%)
Notified RR/MDR-TB	5	(6.7%)
of which pre-XDR-TB cases	2	(40.0%)
TB cases tested for HIV	80	(58.4%)
HIV-positive TB cases	2	(2.5%)
of these on ART	2	(100.0%)

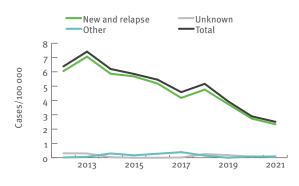
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

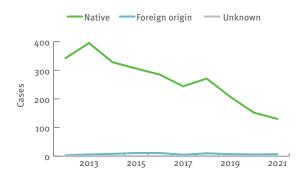
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			DR-TB cases ed in 2019 <sup>b</sup>
Case-linked data-reporting	Yes –		-	
Cases notified		51		5
Success	44	(86.3%)	4	(80.0%)
Died	6	(11.8%)	1	(20.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	1	(2.0%)	0	(0.0%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

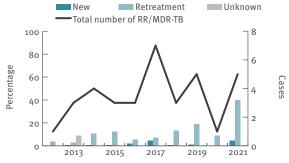
TB notification rates by previous treatment history, 2012-2021



#### TB cases by geographical origin, 2012-2021

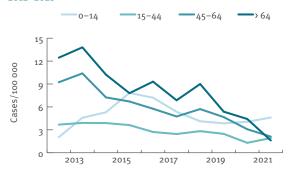


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

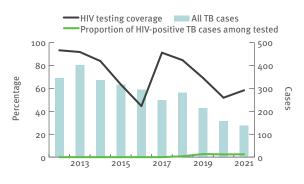


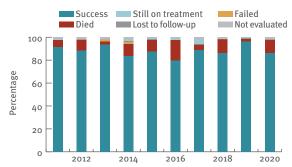
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

#### New and relapse TB cases - notification rates by age group, 2012-2021



#### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 2 108 977

#### TB cases, 2021

#### Notifications

HOLITICALIONS			
Total number of cases	80		
Notification rate per 100 000	3.8		
New <sup>a</sup> and relapse	79		
New <sup>a</sup> and relapse notification rate per 100 000	3.7		
Pulmonary	68	(85.0%)	
of which microscopy-positive	30	(44.1%)	
of which laboratory-confirmed	64	(94.1%)	
Laboratory-confirmed TB cases	75	(93.8%)	
Mean age of new native TB cases	64.	3 years	
Mean age of new foreign TB cases	52.	5 years	
Foreign origin of all TB cases	38	(47.5%)	
New (not previously treated)	74	(92.5%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	91	[78-100]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	١	/es
Completeness of HIV datab	Yes	
Case-linked data-reporting	,	/es
Cases with DST results	75	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	0	[0-1]
Pulmonary RR/MDR-TB cases notified	1	(1.6%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	1	(1.3%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	67	(83.8%)
HIV-positive TB cases	0	(0.0%)
of these on ART	-	-

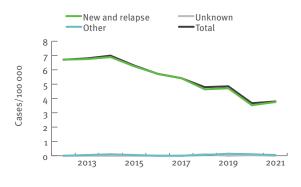
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

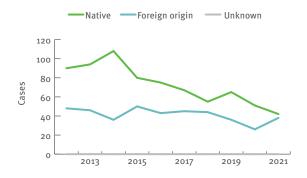
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			R-TB cases in 2019 <sup>b</sup>
Case-linked data-reporting	Yes			-
Cases notified		57		0
Success	42	(73.7%)	-	-
Died	12	(21.1%)	-	-
Failed	0	(0.0%)	-	-
Lost to follow-up	0	0 (0.0%)		-
Still on treatment	2	(3.5%)	-	-
Not evaluated	1	(1.8%)	-	-

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

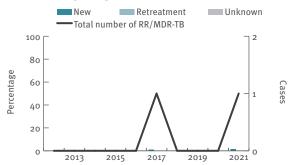
### TB notification rates by previous treatment history, 2012-2021



#### TB cases by geographical origin, 2012-2021



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

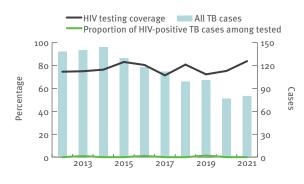


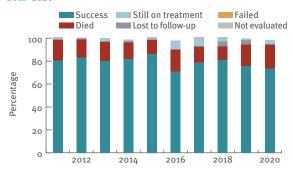
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

#### New and relapse TB cases - notification rates by age group, 2012-2021



#### TB/HIV coinfection, 2012-2021





Total population at 23 April 2022 by EUROSTAT: 47 398 695

#### **TB** cases, 2021

#### Notifications

HOLITICACIONS			
Total number of cases	3508		
Notification rate per 100 000	7.4		
New <sup>a</sup> and relapse	3370		
New <sup>a</sup> and relapse notification rate per 100 000	7.1		
Pulmonary	2507	(71.5%)	
of which microscopy-positive	1225	(48.9%)	
of which laboratory-confirmed	1979	(78.9%)	
Laboratory-confirmed TB cases	2521	(71.9%)	
Mean age of new native TB cases	53	.6 years	
Mean age of new foreign TB cases	38	.9 years	
Foreign origin of all TB cases	1303	(37.1%)	
New (not previously treated)	2191	(62.5%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	3900	[3300-4500]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Yes		
Completeness of HIV datab	Yes		
Case-linked data-reporting	Yes		
Cases with DST results	1508	(59.8%)	
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	110	[43-180]	
Pulmonary RR/MDR-TB cases notified	27	(1.8%)	
of which pre-XDR-TB cases	1	(3.7%)	
Notified RR/MDR-TB	33	(2.2%)	
of which pre-XDR-TB cases	1	(3.0%)	
TB cases tested for HIV	1924	(54.8%)	
HIV-positive TB cases	152	(7.9%)	
of these on ART	-	-	

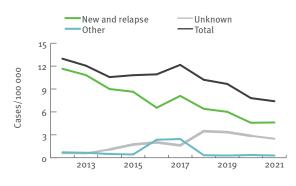
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

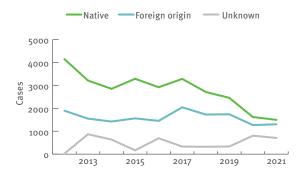
Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			DR-TB cases d in 2019 <sup>b</sup>
Case-linked data-reporting	Yes –		-	
Cases notified	1	1214		21
Success	867	(71.4%)	12	(57.1%)
Died	95	(7.8%)	0	(0.0%)
Failed	1	(0.1%)	0	(0.0%)
Lost to follow-up	24	(2.0%)	0	(0.0%)
Still on treatment	19	(1.6%)	0	(0.0%)
Not evaluated	208	(17.1%)	9	(42.9%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

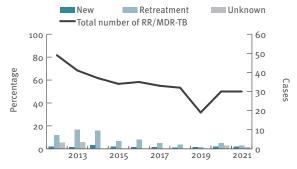
### TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012-2021



# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

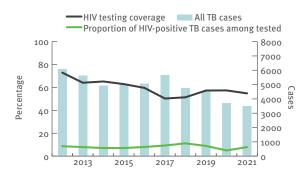


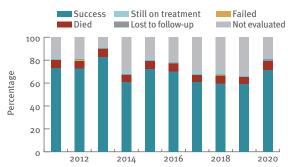
Note: in 2013, 2015 and 2016, only pulmonary RR/MDR-TB cases were reported. *Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

#### New and relapse TB cases - notification rates by age group, 2012-2021



#### TB/HIV coinfection, 2012-2021





# Sweden

Total population at 23 April 2022 by EUROSTAT: 10 379 295

#### TB cases, 2021

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Notifications			
Total number of cases	357		
Notification rate per 100 000	3.4		
New <sup>a</sup> and relapse	344		
New <sup>a</sup> and relapse notification rate per 100 000	3.4		
Pulmonary	221	(61.9%)	
of which microscopy-positive	93	(42.1%)	
of which laboratory-confirmed	193	(87.3%)	
Laboratory-confirmed TB cases	287	(80.4%)	
Mean age of new native TB cases	45.	9 years	
Mean age of new foreign TB cases	41.	5 years	
Foreign origin of all TB cases	318	(89.1%)	
New (not previously treated)	312	(87.4%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	400	[340-460]	

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

### Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	,	Yes
Completeness of HIV datab	-	
Case-linked data-reporting	Yes	
Cases with DST results	264	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low–high]	286	(99.7%)
Pulmonary RR/MDR-TB cases notified	8	[6-11]
of which pre-XDR-TB cases	4	(2.1%)
Notified RR/MDR-TB	1	(25.0%)
of which pre-XDR-TB cases	7	(2.4%)
TB cases tested for HIV	1	(14.3%)
HIV-positive TB cases	-	-
of these on ART	-	-

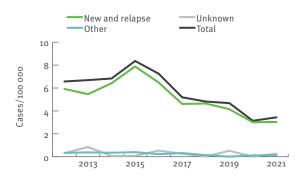
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>			DR-TB cases ed in 2019 <sup>b</sup>
Case-linked data-reporting	Yes			-
Cases notified	169			10
Success	121	(71.6%)	9	(90.0%)
Died	4	(2.4%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	1	(0.6%)	0	(0.0%)
Not evaluated	43	(25.4%)	1	(10.0%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

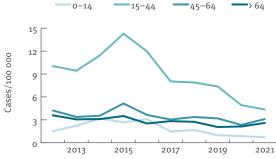
#### TB notification rates by previous treatment history, 2012-2021



#### TB cases by geographical origin, 2012-2021



### New and relapse TB cases - notification rates by age group, 2012-2021



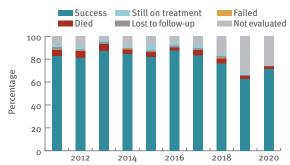
#### TB/HIV coinfection, 2012-2021

Data not reported

# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.



# **Switzerland**

Total population estimate 2021 by United Nations Statistical Database: 8 691 407

#### TB cases, 2021

Mean age of new foreign TB cases Foreign origin of all TB cases

Estimated new and relapse cases N, best [low-high]

New (not previously treated)

Estimates

Notifications		
Total number of cases	3	64
Notification rate per 100 000	4	4.2
New <sup>a</sup> and relapse	355	
New <sup>a</sup> and relapse notification rate per 100 000	A	4.2
Pulmonary	360	(98.9%)
of which microscopy-positive	-	-
of which laboratory-confirmed	327	(90.8%)
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases	42.7	years

### Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Yes	
Completeness of HIV datab		-
Case-linked data-reporting	Υ	'es
Cases with DST results	227	(87.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	10	[6-14]
Pulmonary RR/MDR-TB cases notified	5	(2.2%)
of which pre-XDR-TB cases	1	(25.0%)
Notified RR/MDR-TB	5	
of which pre-XDR-TB cases	1	(20.0%)
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	New culture-positive pulmonary TB cases notified in 2020 <sup>a</sup>		enrolled	R TB cases into DR-TB nt in 2018 <sup>b</sup>
Case-linked data-reporting	Yes			-
Cases notified	3	342		12
Success	254	(74.3%)	11	(91.7%)
Died	12	(3.5%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	21	(6.1%)	1	(8.3%)
Not evaluated	55	(16.1%)	0	(0.0%)

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

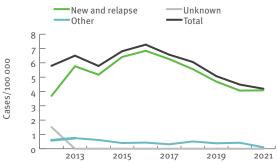
#### TB notification rates by previous treatment history, 2012-2021

355

(70.6%)

(97.5%)

[350-470]



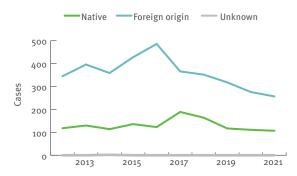
Note: starting from 2013, cases with unknown history are included in new and relapses.

#### New and relapse TB cases - notification rates by age group, 2012-2021

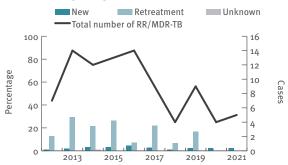


Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

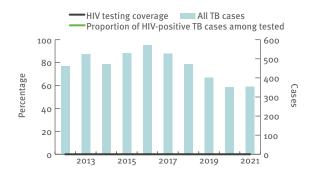


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

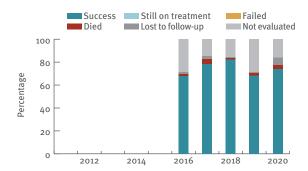


*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



### Treatment outcome, new and relapse TB cases, 2011-2020



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

Total population estimate 2021 by United Nations Statistical Database: 9 750 064

#### TB cases, 2021

Notifications			
Total number of cases	4299		
Notification rate per 100 000		44.1	
New <sup>a</sup> and relapse		4158	
New <sup>a</sup> and relapse notification rate per 100 000		42.6	
Pulmonary	2907	(67.6%)	
of which microscopy-positive	-	-	
of which laboratory-confirmed	2190	(75.3%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	38.3 years		
Mean age of new foreign TB cases		-	
Foreign origin of all TB cases	11	(0.3%)	
New (not previously treated)	3787	(88.1%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	8600	[6600-11000]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

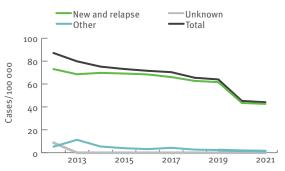
Completeness of DRS data <sup>a</sup>	,	/es
Completeness of HIV datab	Yes	
Case-linked data-reporting	,	/es
Cases with DST results	2167	(98.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	690	[660-720]
Pulmonary RR/MDR-TB cases notified	606	(28.0%)
of which pre-XDR-TB cases	129	(23.4%)
Notified RR/MDR-TB	606	
of which pre-XDR-TB cases	129	(21.3%)
TB cases tested for HIV	4103	(98.7%)
HIV-positive TB cases	118	(2.9%)
of these on ART	118	(100.0%)

 $<sup>^</sup>a$  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

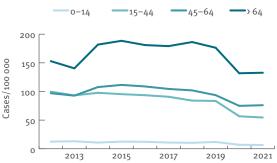
Geographical coverage	Nat	ional		
Outcome cohort	TB case	d relapse s notified 1020°	enrolled	R TB cases into DR-TB nt in 2018 <sup>b</sup>
Case-linked data-reporting	Υ	'es		-
Cases notified	3 (	646		88
Success	3332	(91.4%)	454	(77.2%)
Died	173	(4.7%)	66	(11.2%)
Failed	44	(1.2%)	14	(2.4%)
Lost to follow-up	97	(2.7%)	54	(9.2%)
Not evaluated	0	(0.0%)	0	(0.0%)

### TB notification rates by previous treatment history, 2012-2021



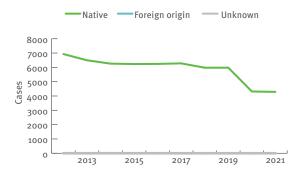
Note: starting from 2013 onward, cases with unknown history are included in new and

#### New and relapse TB cases - notification rates by age group, 2012-2021

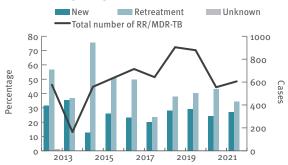


Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

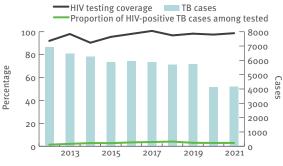


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



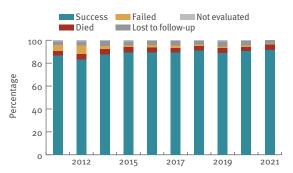
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases.

### Treatment outcome, new and relapse TB cases, 2011-2020



<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

# Türkiye

Total population estimate 2021 by United Nations Statistical Database: 84 775 404

#### TB cases, 2021

Mod	::::	4:	

MULTICALIUMS			
Total number of cases	9156		
Notification rate per 100 000	10.8		
New <sup>a</sup> and relapse	9047		
New <sup>a</sup> and relapse notification rate per 100 000	10.7		
Pulmonary	5768	(63.0%)	
of which microscopy-positive	-	-	
of which laboratory-confirmed	4478	(77.6%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	4	4.1 years	
Mean age of new foreign TB cases		-	
Foreign origin of all TB cases	1436	(15.7%)	
New (not previously treated)	8591	(93.8%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	15 0 0 0	[12000-18000]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Yes	
Completeness of HIV datab	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	3902	(87.1%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	130	[110-140]
Pulmonary RR/MDR-TB cases notified	120	(3.1%)
of which pre-XDR-TB cases	10	(9.9%)
Notified RR/MDR-TB	129	
of which pre-XDR-TB cases	10	(7.8%)
TB cases tested for HIV	7249	(80.1%)
HIV-positive TB cases	85	(1.2%)
of these on ART	64	(75.3%)

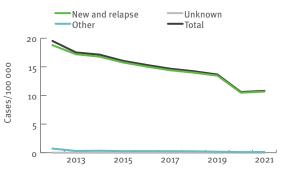
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse TB cases notified in 2020ª		RR/MDR TB car enrolled into DI treatment in 20	
Case-linked data-reporting	Yes			-
Cases notified	8820			155
Success	7125	(80.8%)	7	(4.5%)
Died	806	(9.1%)	16	(10.3%)
Failed	25	(0.3%)	0	(0.0%)
Lost to follow-up	182	(2.1%)	11	(7.1%)
Not evaluated	682	(7.7%)	121	(78.1%)

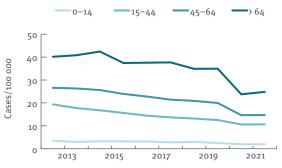
<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by previous treatment history, 2012-2021



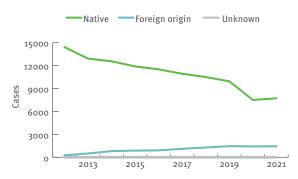
Note: starting from 2013, cases with unknown history are included in new and

#### New and relapse TB cases - notification rates by age group, 2012-2021



Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

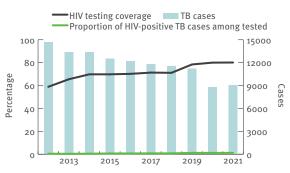


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



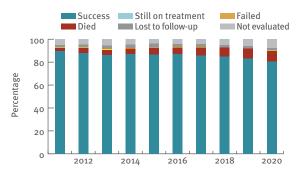
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases.

### Treatment outcome, new and relapse TB cases, 2011-2020



### Turkmenistan

Total population estimate 2021 by United Nations Statistical Database: 6 341 855

#### TB cases, 2021

Foreign origin of all TB cases

New (not previously treated)

Estimates

Notifications		
Total number of cases	2	422
Notification rate per 100 000	3	88.2
New <sup>a</sup> and relapse	1878	
New <sup>a</sup> and relapse notification rate per 100 000	2	29.6
Pulmonary	2006	(82.8%)
of which microscopy-positive	=	-
of which laboratory-confirmed	836	(41.7%)
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases	42.2	2 years
Mean age of new foreign TB cases		-

#### Estimated new and relapse cases N, 3000 [2300-3800] best [low-high] <sup>a</sup> Cases with unknown previous TB history included in new cases.

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	١	/es
Completeness of HIV datab		-
Case-linked data-reporting	١	/es
Cases with DST results	836	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	420	[390-450]
Pulmonary RR/MDR-TB cases notified	416	(49.8%)
of which pre-XDR-TB cases	-	-
Notified RR/MDR-TB	808	
of which pre-XDR-TB cases	287	(35.5%)
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.

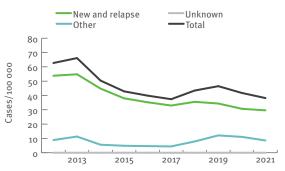
Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapse TB cases notified in 2020 <sup>a</sup>		enrolled	R TB cases into DR-TB nt in 2018 <sup>b</sup>
Case-linked data-reporting	١	'es		-
Cases notified	1	918	6	649
Success	1599	(83.4%)	358	(55.2%)
Died	86	(4.5%)	106	(16.3%)
Failed	131	(6.8%)	106	(16.3%)
Lost to follow-up	53	(2.8%)	71	(10.9%)
Not evaluated	49	(2.6%)	8	(1.2%)

### TB notification rates by previous treatment history, 2012-2021

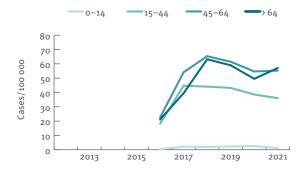
(0.0%)

(60.4%)

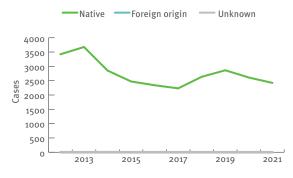


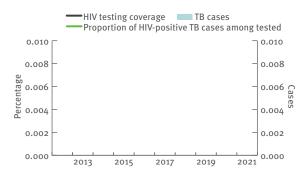
 $\it Note: starting from 2013, cases with unknown history are included in new and relapses.$ 

#### New and relapse TB cases - notification rates by age group, 2012-2021

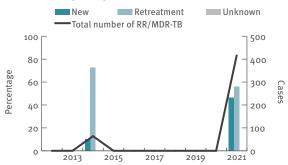


### TB cases by geographical origin, 2012-2021



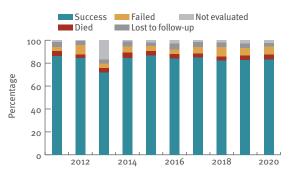


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### Treatment outcome, new and relapse TB cases, 2011-2020



Note: 2011 cohort include new cases only

TB/HIV coinfection, 2012-2021

<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

Total population estimate 2021 by United Nations Statistical Database: 43 531 422

#### TB cases, 2021

1	19793
	45.5
1	18307
	42.1
18199	(91.9%)
-	-
13571	(74.6%)
-	-
	18 199

Mean age of new native TB cases 44.8 years Mean age of new foreign TB cases Foreign origin of all TB cases 32 (0.2%) New (not previously treated) 14667 (74.1%) Estimates

Estimated new and relapse cases N, 31000 [20000-44000] best [low-high]

# Drug resistance surveillance and TB/HIV coinfection, 2021

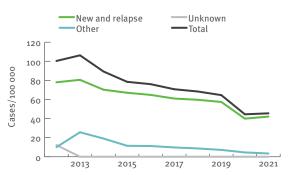
Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	13 214	(97.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	4800	[4700-4900]
Pulmonary RR/MDR-TB cases notified	4 0 2 5	(30.5%)
of which pre-XDR-TB cases	994	(30.4%)
Notified RR/MDR-TB	4046	
of which pre-XDR-TB cases	1015	(25.1%)
TB cases tested for HIV	17991	(98.3%)
HIV-positive TB cases	3646	(20.3%)
of these on ART	3354	(92.0%)

 $<sup>^</sup>a$  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	Nat	ional		
Outcome cohort	TB case:	d relapse s notified o20°	enrolled	TB cases into DR-TB it in 2018 <sup>b</sup>
Case-linked data-reporting	Υ	es		-
Cases notified	13	218	7.	259
Success	10 232	(77.4%)	4460	(61.4%)
Died	1377	(10.4%)	969	(13.3%)
Failed	852	(6.4%)	907	(12.5%)
Lost to follow-up	744	(5.6%)	918	(12.6%)
Not evaluated	13	(0.1%)	5	(0.1%)

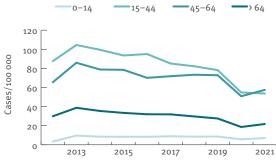
 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.



TB notification rates by previous treatment history, 2012-2021

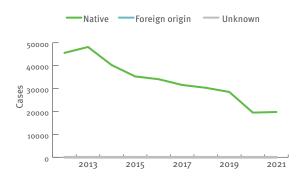
Note: starting from 2013, cases with unknown history are included in new and

#### New and relapse TB cases - notification rates by age group, 2012-2021

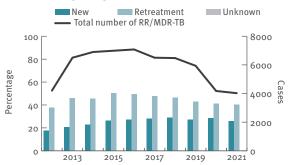


Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

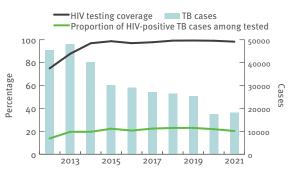


#### RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012-2021



*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases

### Treatment outcome, new and relapse TB cases, 2011-2020



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

# **United Kingdom**

Total population at 23 April 2022 by EUROSTAT: 67 281 040

#### TB cases, 2021

#### Notifications

Total number of cases		4795
Notification rate per 100 000	7.1	
New <sup>a</sup> and relapse	4795	
New <sup>a</sup> and relapse notification rate per 100 000	7.1	
Pulmonary	2532	(52.8%)
of which microscopy-positive	-	=
of which laboratory-confirmed	2073	(81.9%)
Laboratory-confirmed TB cases	-	-
Mean age of new native TB cases	42.4 years	
Mean age of new foreign TB cases		-
Foreign origin of all TB cases	3600	(75.1%)
New (not previously treated)	4571	(95.3%)
Estimates		
Estimated new and relapse cases N, best [low-high]	4300	[3900-4700]

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>	Υ	es
Completeness of HIV datab		-
Case-linked data-reporting	Υ	es
Cases with DST results	1812	(87.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary TB cases N, best [low-high]	39	[33-45]
Pulmonary RR/MDR-TB cases notified	38	(2.1%)
of which pre-XDR-TB cases	13	(36.1%)
Notified RR/MDR-TB	75	
of which pre-XDR-TB cases	37	(49.3%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-
of these on ART	-	-

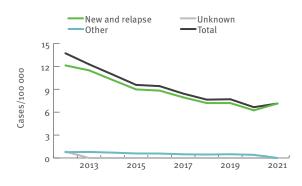
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

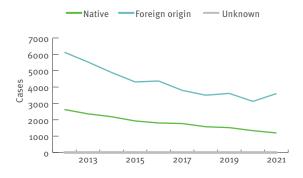
Geographical coverage	Nat	ional		
Outcome cohort	pulmonai	re-positive ry TB cases I in 2020ª	enrolled	R TB cases I into DR-TB nt in 2018 <sup>b</sup>
Case-linked data-reporting	Υ	'es		-
Cases notified	4	386		47
Success	3409	(77.7%)	31	(66.0%)
Died	320	(7.3%)	4	(8.5%)
Failed	311	(7.1%)	3	(6.4%)
Lost to follow-up	128	(2.9%)	5	(10.6%)
Still on treatment	218	(5.0%)	4	(8.5%)
Not evaluated	72	(3.7%)	7	(14.0%)

 $<sup>^{\</sup>rm a}$  Treatment outcome as presented is treatment outcome after 12 months.  $^{\rm b}$  Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by previous treatment history, 2012-2021



### TB cases by geographical origin, 2012–2021

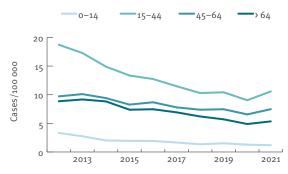


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021

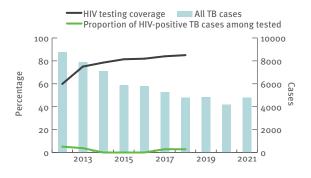


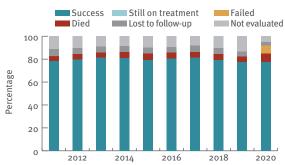
*Note:* Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

#### New and relapse TB cases - notification rates by age group, 2012-2021



### TB/HIV coinfection, 2012-2021





# Uzbekistan

Total population estimate 2021 by United Nations Statistical Database: 34 081 449

#### TB cases, 2021

No	tifi	cati	ons

Notifications			
Total number of cases	15 450		
Notification rate per 100 000	45.3		
New <sup>a</sup> and relapse	13544		
New <sup>a</sup> and relapse notification rate per 100 000	39.7		
Pulmonary	9816	(63.5%)	
of which microscopy-positive	-	-	
of which laboratory-confirmed	6797	(69.2%)	
Laboratory-confirmed TB cases	-	-	
Mean age of new native TB cases	41.6 years		
Mean age of new foreign TB cases		-	
Foreign origin of all TB cases	0	(0.0%)	
New (not previously treated)	12152	(78.7%)	
Estimates			
Estimated new and relapse cases N, best [low-high]	21000	[14000-29000]	

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

# Drug resistance surveillance and TB/HIV coinfection, 2021

Completeness of DRS data <sup>a</sup>		Yes
Completeness of HIV datab		Yes
Case-linked data-reporting		Yes
Cases with DST results	6797	(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	1652	(24.3%)
of which pre-XDR-TB cases	394	(2395.1%)
Notified RR/MDR-TB	2147	
of which pre-XDR-TB cases	394	(18.4%)
TB cases tested for HIV	15 450	(100.0%)
HIV-positive TB cases	441	(2.9%)
of these on ART	395	(89.6%)

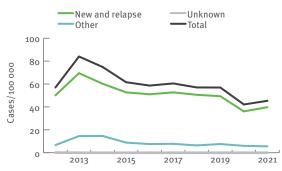
 $<sup>^</sup>a$  National coverage 100% or culturing  $\ge$  90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA  $\ge$  95%.  $^b$  More than 50% of TB cases with reported HIV status.

#### Treatment outcome monitoring

relapse notified	RR/MDR	TR cacoc
20 <sup>a</sup>		into DR-TB
S		-
54	2 (	040
(90.5%)	1422	(69.7%)
(4.5%)	223	(10.9%)
(1.4%)	113	(5.5%)
(1.7%)	162	(7.9%)
	120	(5.9%)
	(90.5%) (4.5%) (1.4%)	54 20 (90.5%) 1422 (4.5%) 223 (1.4%) 113

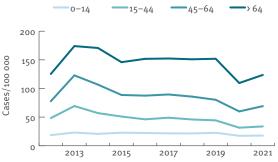
<sup>&</sup>lt;sup>a</sup> Treatment outcome as presented is treatment outcome after 12 months. <sup>b</sup> Treatment outcome as presented is treatment outcome after 24 months.

#### TB notification rates by previous treatment history, 2012-2021



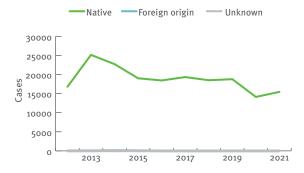
 $\textit{Note:} \ \text{starting from 2013 onward, cases with unknown history are included in new and}$ 

### New and relapse TB cases - notification rates by age group, 2012-2021



Note: 2012 data include new TB cases only.

### TB cases by geographical origin, 2012-2021

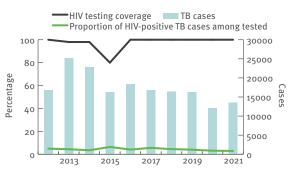


# RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2012–2021



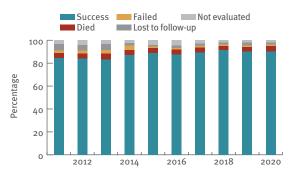
Note: Percentage is calculated on the basis of all new, retreated and unknown cases, meaning that the sum of all cases can sometimes be over 100% for a particular year.

### TB/HIV coinfection, 2012-2021



Note: data up to 2014 include all TB cases.

### Treatment outcome, new and relapse TB cases, 2011-2020





### **EU** publications

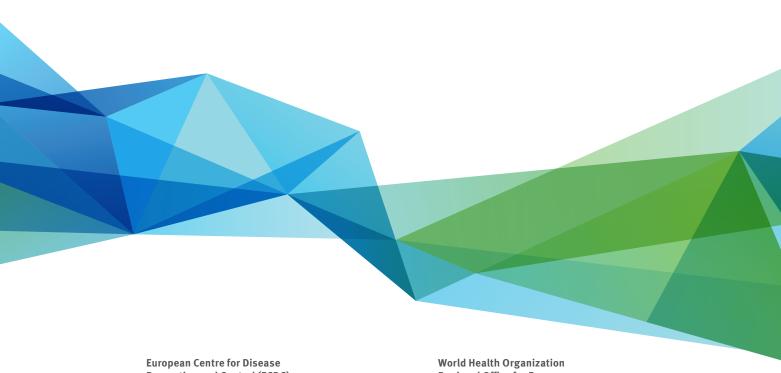
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# Prevention and Control (ECDC)

Gustav den III:s Boulevard 40, SE-169 73, Solna, Sweden

Tel. +46 858 60 10 00 Fax +46 858 60 10 01 www.ecdc.europa.eu

Contact us publications@ecdc.europa.eu

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# Regional Office for Europe

UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark

Tel. +45 45 33 70 00 Fax +45 45 33 70 01 www.euro.who.int

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