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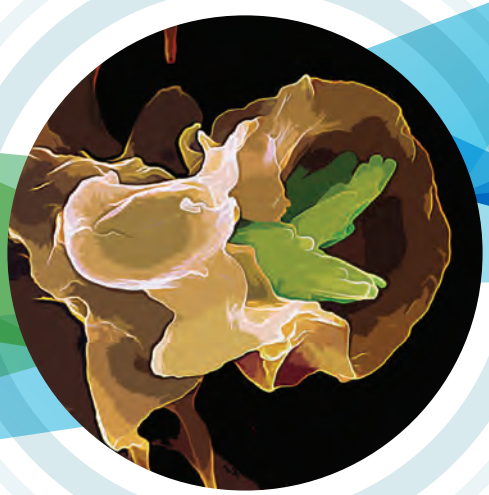

Tuberculosis surveillance and monitoring in Europe

2024

2022 data

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2024

2022 data

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. In 2022, a little over 170 000 incident TB cases were notified in countries of the WHO European Region, a slight increase from 2021. The increase in 2022 is likely due to a good recovery after the COVID-19 pandemic in access to and provision of TB services in many countries and the introduction of active TB case-finding activities. Despite the notable progress achieved in the fight against TB, countries still face various challenges in reaching the goal of ending the TB epidemic in the WHO European Region. Monitoring progress towards the targets of the new *Tuberculosis action plan for the WHO European Region 2023–2030* is difficult due to limited or no reporting on some indicators. Further improvement of data completeness and representativeness should be the focus for all countries.

Keywords
TUBERCULOSIS – EPIDEMIOLOGY
TB – EPIDEMIOLOGY
TB SURVEILLANCE

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[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).

Abbreviations

ART	antiretroviral therapy
COVID-19	coronavirus disease
CI	confidence interval
CSO	civil society organization
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
EU	European Union
EU/EEA	European Union/European Economic Area
(G)	global (indicator)
HPCs	high-priority countries (Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, Romania, the Russian Federation, Tajikistan, Türkiye, Turkmenistan, Ukraine and Uzbekistan)
MDR	multidrug resistance
MDR-TB	multidrug-resistant tuberculosis
PLHIV	people living with HIV
pre-XDR	pre-extensive drug resistance
pre-XDR-TB	pre-extensively drug-resistant tuberculosis
RR	relative risk
RR-TB	rifampicin-resistant tuberculosis
RR/MDR	rifampicin resistance and multidrug resistance
RR/MDR-TB	rifampicin-resistant and multidrug-resistant tuberculosis
TB	tuberculosis
TESSy	The European Surveillance System
TME	(WHO) Tuberculosis Monitoring and Evaluation (platform)
TPT	tuberculosis preventative treatment
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

Tuberculosis burden

An estimated 229 000 people (95% uncertainty interval (UI): 196 000–263 000) fell ill with tuberculosis (TB) in 2022 in the WHO European Region, equivalent to 25 cases (95% UI: 21–28) per 100 000 population *(1)*. The upward trend observed between 2020 and 2021 due to the disruption of essential health services caused by the coronavirus disease (COVID-19) pandemic was reversed in 2022, indicating the recovery of TB response. The net reduction of TB incidence between 2015 and 2022 was 25%.

An estimated 18 000 TB deaths occurred among HIV-negative people in the European Region in 2022, equivalent to 1.9 deaths per 100 000 population. This is a 6% year-on-year increase in the number of deaths against 2021. However, between 2013 and 2022, the TB mortality rate at the regional level fell cumulatively by 53%, from 4.1 to 1.9 deaths per 100 000 population – on average, a decline of 8% per year. In 2022, TB mortality remained largely stable, following an upward trend in 2021 as a consequence of undiagnosed and untreated TB due to disruptions to TB services caused by the COVID-19 pandemic.

Between 2021 and 2022, the burden of rifampicin-resistant and multidrug-resistant TB (RR/MDR-TB) is estimated to have decreased by 6%, with an estimated 67 000 (95% confidence interval: 50 000–83 000) new cases of RR/MDR-TB in the Region in 2022. Among newly notified bacteriologically confirmed pulmonary TB patients, there were an estimated 35 000 rifampicin-resistant cases. The proportion of RR/MDR-TB among new and previously treated TB cases in the Region significantly exceeds the global average (24% of new and 54% of previously treated cases compared to 3.3% and 17%, respectively) *(1)*.

HIV prevalence in incident TB cases was estimated to be 12% in 2022, another year with comparable stability after an unprecedented rise from 4% to 12% during the period 2007–2016. There were an estimated 28 000 HIV-positive TB cases in the Region, with around 78% of the total number estimated in the Russian Federation (50%) and Ukraine (28%).

TB disease notification and treatment outcomes

In 2022, 170 365 incident TB cases were reported in 51 of the 53 countries in the Region.2 This amounted to 75% of the estimated new and relapse cases. It represents a 3.1% increase in the number of notified TB patients against 2021, a second year of slight recovery following an unprecedented 24% drop in TB notifications between 2019 and 2020 due to the impact of the COVID-19 pandemic.

[2] Monaco and San Marino did not report. Liechtenstein is a European Economic Area Member State, but not a WHO Member State.

Among incident TB cases, 141 476 patients (83.0%) were notified with pulmonary TB, 71.5% of which were laboratory-confirmed. Among bacteriologically confirmed pulmonary TB cases, 93.1% were tested for rifampicin resistance.

Overall, 30.4% of pulmonary TB patients who were reported as having been tested for drug susceptibility had RR/MDR-TB. Prevalence of RR/MDR-TB among new and previously treated bacteriologically confirmed pulmonary TB cases was 21.6% and 50.5%, respectively.

Data on drug-susceptibility testing (DST) to fluoroquinolones were available for 82.2% of all notified pulmonary RR-TB cases. Overall, 35.1% of pulmonary RR/MDR-TB cases with DST results for fluoroquinolones had pre-extensively drug-resistant TB (pre-XDR-TB) in 2022. Among pre-XDR-TB patients tested for any other Group A drugs, the prevalence of extensively drug-resistant TB (XDR-TB) was 8.7% at the regional level.

Among new and relapse TB patients notified from countries reporting data on HIV testing, 92.4% were screened for HIV. A total of 20 120 TB cases were detected with HIV-positive status, which is 14.4% of those tested.

A total of 15 938 (81.2%) HIV-positive patients are reported to have received antiretroviral therapy (ART). Although ART coverage has been increasing over the last five years, it is still below the WHO target of universal ART coverage for TB/HIV coinfected patients.

The treatment success rate in the Region remains far below the regional targets. The successful treatment outcomes for incident TB and RR/MDR-TB cohorts were 70.0% and 57.3%, respectively.

Conclusions

The year 2022 marks the second year of recovery in the number of people diagnosed with TB and treated after an unprecedented drop in 2020 due to COVID-19-related disruptions. This has reversed the damaging impact of the pandemic on the number of people falling ill with TB. At the same time, the drop in the number of people newly diagnosed with TB in 2020 suggested that the number of people with undiagnosed and untreated TB increased in the Region, leading to an increase in the estimated number of TB deaths in 2021 and 2022. COVID-19-related disruptions are estimated to have resulted in almost 7000 excess deaths from TB in the WHO European Region in those two years, compared with the number that would have occurred if pre-pandemic trends had been maintained.

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/

MDR-TB, particularly among pre-XDR-TB patients, is slowly but consistently improving in the Region, most likely reflecting the scale-up of the use of shorter, all-oral treatment regimens for drug-resistant TB patients. Nevertheless, the treatment success rates for new and relapse cases and RR/MDR-TB patients are still below regional and global targets. Similarly, notwithstanding the efforts made, the burden 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 RR/MDR-TB.

European Union and European Economic Area countries

Epidemiology and treatment outcomes

In 2022, 36 179 cases of TB were reported in 30 European Union and European Economic Area (EU/EEA) countries, resulting in a notification rate of 8.0 per 100 000 population in the EU/EEA. The overall notification rate in most countries has decreased over the last five years.

Of all notified TB cases, 27 082 (74.9%) were newly diagnosed and 25 556 (70.6%) were confirmed by culture, or smear and nucleic acid amplification test as per EU/EEA case definition. In 2022, adults aged between 25 and 64 years accounted for 66.2% of all new and relapse TB cases, while children under 15 years accounted for 3.6% of all new and relapse TB cases. Romania reported the highest notification rates among children, with 10.7 cases per 100 000 population aged between 0 and 4 years. In 2022, new and relapse TB cases were more frequently reported in males than females, with a male-to-female ratio of 2.1 : 1. Just over one third (33.3%) of TB cases reported in the EU/EEA in 2022 were of foreign origin.

Of 18 749 cases with DST results for at least rifampicin, 809 (4.4%) had MDR-TB. Among these cases with DST results, the countries with the highest proportion of MDR-TB were Estonia (25.0%) and Lithuania (16.7%). Pre-XDR-TB was reported for 135 (26.9%) of the 502 RR/MDR-TB cases tested for fluoroquinolone susceptibility. Among the pre-XDR-TB cases, 120 (88.9%) were tested for susceptibility to any other Group A drug, and 12 (10.0%) met the XDR-TB definition.

In 2022, 21 countries reported data on HIV coinfection. In the past, the number of countries reporting data on HIV coinfection has varied, with reporting peaking at 23 countries in 2016 and 2017. Of the 13 436 new and relapse TB cases with known HIV status, 527 (3.9%) were reported as HIV-positive.

TB in prisons remains poorly reported. For the 13 EU/EEA countries reporting data, the notification rate was 134 new and relapse TB cases per 100 000 prison population, and prisoners had a relative risk of 9.7 times higher than that of the general population in the same countries.

Of all 24 468 TB cases notified in 2021 with a treatment outcome reported in 2022, 64.0% were treated successfully, 8.2% died, 0.8% experienced treatment failure, 3.4% were lost to follow-up, 2.5% were still on treatment 12 months after start of treatment, and for 21.2% the treatment outcome was not evaluated. Of 566 RR/MDR-TB cases notified in 2020 with a treatment outcome reported in 2022, 52.5% were treated successfully, 15.2% died, 8.3% experienced treatment failure, 8.5% were lost to follow-up, 7.1% were still on treatment at 24 months after the treatment started, and for 8.5% treatment was not evaluated. Of 91 pre-XDR-TB cases with a treatment outcome reported in 2022, 20 (22.0%) were treated successfully, 11 (12.1%) died, 12 (13.2%) experienced treatment failure, 15 (16.5%) were lost to follow-up, 27 (29.7%) were still on treatment 24 months after the start of treatment, and for six (6.6%) the treatment outcome was not evaluated. For the two XDR cases reported in 2019, treatment outcome was reported as failed for one (50%) and lost to follow-up for the other (50%).

Conclusions

In 2022, all EU/EEA countries reported TB notification data resulting in a notification rate of 8.0 per 100 000 population. There was a slight increase in the overall TB notification rate for 2022 compared with the previous two years. The lower rates and data for 2020 and 2021 must be interpreted with caution due to the impact of measures implemented to mitigate the COVID-19 response. Despite observing recent increases, the mean annual change rate between 2018 to 2022 is reported to be of –6.7%, and a comparison of the 2022 rate to the period before 2020 reveals an overall declining trend. However, there is significant work ahead to meet the United Nations Sustainable Development Goal 3 target of achieving an incidence rate at EU/EEA level of 2.4 per 100 000 population by 2030. Despite the increase in the number of reported MDR-TB cases, these accounted for a small proportion of all reported TB cases in 2022. Overall, when compared to the trends observed before 2020, the 2022 data shows a similar tendency across EU/EEA for most countries.

Across all cohorts, reported treatment success remains well below the 90% treatment success rate of WHO targets. Of all TB cases notified in 2021 with a treatment outcome reported in 2022, 64% were treated successfully. Treatment success was lower for RR/MDR-TB cases at 24 months (52.5%) and lower still among pre-XDR-TB cases at 24 months (22.0%), with the proportion of deaths for these cohorts reported at 15.2% and 12.1%, respectively. Moreover, neither of the two XDR-TB cases had a successful treatment outcome at 36 months.

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

Monitoring progress towards TB elimination

In 2023, the new *Tuberculosis action plan for the WHO European Region 2023–2030 (2)* came into force, operationalizing the global End TB Strategy *(3)* through Region-specific actions and 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). Ending the TB epidemic requires implementing the commitments made by Member States through actions articulated in the regional action plan.

In 2022, 20 out of 30 indications in the action plan for the WHO Region were monitored and evaluated using routine surveillance data. For the two impact indicators, namely cumulative reduction of TB incidence rate and number of TB deaths for the period 2015–2022 (which are also global indicators), the Region has the best performance (25% and 42% reduction, respectively) compared to other regions and is on track to achieve 2025 milestones of the End TB strategy as well as the targets of the regional action plan (50% and 75% reduction, respectively). The third impact indicator on the treatment success rate among MDR/RR-TB patients (57%) is still below the regional and global target of 80% by 2025.

For eight of the remaining 17 indicators, the targets were either met or there was an improvement from baseline. TB prevention efforts, including contact tracing, TB preventive treatment coverage and ART coverage among people living with HIV, need to be intensified.

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[3] All references were accessed on 7 February 2024.

Краткое резюме

Европейский регион ВОЗ

Бремя туберкулеза

По имеющимся оценкам, в 2022 г. в Европейском регионе ВОЗ туберкулезом (ТБ) заболело 229 000 человек (95% интервал неопределенности (ИН): 196 000–263 000), что соответствует 25 случаям (95% ИН: 21–28) на 100 000 населения *(1)*. Тенденция к росту показателя, которая наблюдалась в 2020–2021 гг. в связи с дестабилизацией предоставления основных услуг здравоохранения вследствие пандемии коронавирусной инфекции (COVID-19), в 2022 г. изменилась на противоположную, что свидетельствует о восстановлении мер противодействия туберкулезу. Чистое снижение заболеваемости туберкулезом в период с 2015 по 2022 гг. составило 25%.

В 2022 г. расчетное число случаев смерти от туберкулеза среди ВИЧ-отрицательных людей в Европейском регионе составило 18 000, что соответствует 1,9 смертей на 100 000 населения. Это на 6% больше, чем в 2021 г. Однако в период с 2013 по 2022 гг. смертность от туберкулеза на региональном уровне снизилась в совокупности на 53%, с 4,1 до 1,9 смертей на 100 000 населения, – в среднем на 8% в год. В 2022 г. смертность от туберкулеза оставалась практически неизменной после тенденции к росту, зарегистрированной в 2021 г., что явилось следствием пропусков в диагностике и лечении туберкулеза из-за перебоев в работе противотуберкулезных служб, вызванных пандемией COVID-19.

По оценкам, в период с 2021 по 2022 гг. заболеваемость туберкулезом с устойчивостью к рифампицину и с множественной лекарственной устойчивостью возбудителя (РУ/МЛУ-ТБ) снизилась на 6% , а расчетное число новых случаев РУ/МЛУ-ТБ составило 67 000 (95% ДИ: 50 000–83 000). Согласно расчетным данным, среди впервые зарегистрированных случаев с бактериологически подтвержденным туберкулезом легких было 35 000 случаев с устойчивостью к рифампицину. Доля РУ/МЛУ-ТБ среди новых и ранее леченных случаев туберкулеза в Регионе значительно превышает среднемировой показатель (24% среди новых и 54% среди ранее леченных случаев по сравнению с 3,3% и 17% соответственно) *(1)*.

По оценкам, в 2022 г. распространенность ВИЧ-инфекции среди больных туберкулезом составила 12%. Таким образом, этот год стал еще одним годом сравнительной стабильности после беспрецедентного роста с 4% до 12% в период с 2007 по 2016 гг. В Регионе насчитывается 28 000 расчетных случаев туберкулеза с сочетанной ВИЧ-инфекцией, причем около 78% от общего числа этих случаев приходится на Российскую Федерацию (50%) и Украину (28%).

Регистрация случаев и результаты лечения туберкулеза

В 2022 г. в 51 из 53 стран Региона было зарегистрировано 170 365 случаев заболевания туберкулезом[4]. Это составило 75% от расчетных новых случаев и рецидивов заболевания. Это на 3,1% больше числа зарегистрированных больных туберкулезом по сравнению с 2021 г.– вторым годом некоторого восстановления после беспрецедентного 24%-го сокращения регистрации случаев туберкулеза в период с 2019 по 2020 гг. вследствие пандемии COVID-19.

Среди всех случаев заболевания туберкулез легких был зарегистрирован у 141 476 случаев (83,0%), из которых лабораторное подтверждение диагноза было получено у 71,5% заболевших. Среди случаев туберкулеза легких с бактериологическим подтверждением диагноза 93,1% были протестированы на устойчивость к рифампицину.

В целом, 30,4% пациентов с туберкулезом легких и проведенным тестом на лекарственную чувствительность имели РУ/МЛУ-ТБ. Распространенность РУ/МЛУ-ТБ среди новых и ранее леченных случаев туберкулеза легких с бактериологическим подтверждением диагноза составила 21,6% и 50,5% соответственно.

Данные о тестировании на лекарственную чувствительность (ТЛЧ) к фторхинолонам были доступны для 82,2% всех зарегистрированных случаев легочного РУ-ТБ. В целом, в 2022 г. 35,1% случаев РУ/МЛУ-ТБ легких с результатами ТЛЧ к фторхинолонам имели туберкулез с пред-широкой лекарственной устойчивостью возбудителя (пред-ШЛУ-ТБ). Среди пациентов с пред-ШЛУ-ТБ, прошедших тестирование лекарственной чувствительности к другим препаратам группы А, распространенность туберкулеза с широкой лекарственной устойчивостью возбудителя (ШЛУ-ТБ) на региональном уровне составила 8,7%.

Среди новых случаев и рецидивов туберкулеза, зарегистрированных в странах, предоставляющих данные о тестировании на ВИЧ-инфекцию, 92,4% были обследованы на ВИЧ. Всего было выявлено 20 120 случаев ТБ с ВИЧ-положительным статусом, что составляет 14,4% от общего числа протестированных.

Согласно представленным данным, в общей сложности 15 938 (81,2%) ВИЧ-положительных пациентов получали АРТ. Хотя за последние пять лет охват АРТ увеличился, он остается ниже целевого ориентира ВОЗ в отношении всеобщего охвата антиретровирусной терапией пациентов с сочетанной инфекцией ТБ/ВИЧ.

[4] Монако и Сан-Марино не предоставили данные. Лихтенштейн является государством-членом ЕЭЗ, но не входит в число государств-членов ВОЗ.

Показатель успешного лечения в Регионе остается значительно ниже региональных целевых ориентиров. Успешные результаты лечения в когортах больных ТБ и РУ/МЛУ-ТБ составили 70,0% и 57,3% соответственно.

Выводы

Год 2022 стал вторым подряд годом, когда показатель числа людей с диагностированным и леченным туберкулезом начал восстанавливаться после беспрецедентного сокращения, отмеченного в 2020 г. из-за сбоев, связанных с пандемией COVID-19. Это позволило обратить вспять пагубные последствия пандемии, сказавшиеся на числе людей, заболевающих туберкулезом. В то же время снижение показателя впервые выявленных случаев туберкулеза в 2020 г. дает основание предполагать, что в Регионе увеличилось число людей с недиагностированным и нелеченным туберкулезом, что привело к увеличению расчетного числа смертей от туберкулеза в 2021 и 2022 гг. По оценкам, явления дестабилизации, связанные с COVID-19, привели к увеличению числа смертей от туберкулеза в Европейском регионе ВОЗ за эти два года почти на 7000 по сравнению с числом смертей, которые могли бы произойти при сохранении тенденций, существовавших до пандемии.

Показатель успешных результатов лечения среди новых случаев и рецидивов туберкулеза оказался ниже показателей предыдущих лет, что свидетельствует о том, что страны сталкиваются с растущими проблемами в обеспечении надлежащей медицинской помощи людям с туберкулезом. Положительным моментом является то, что в Регионе медленно, но последовательно улучшаются показатели успешного лечения РУ/МЛУ-ТБ, особенно среди пациентов с пред-ШЛУ-ТБ , что, скорее всего, является отражением расширения масштабов использования укороченных, безынъекционных режимов терапии у пациентов с лекарственно-устойчивым туберкулезом. Тем не менее, показатели успешного лечения новых случаев и рецидивов туберкулеза и МЛУ-ТБ все еще ниже региональных и глобальных целевых ориентиров. Кроме того, несмотря на предпринятые усилия, бремя РУ-ТБ и ТБ/ВИЧ остается значительным, что подчеркивает необходимость внедрения более инновационных и эффективных подходов к диагностике и лечению ТБ и РУ/МЛУ-ТБ.

Европейский союз и страны Европейской экономической зоны

Эпидемиологическая ситуация и результаты лечения

В 2022 г. в 30 странах Европейского союза и Европейской экономической зоны (ЕС/ЕЭЗ) было зарегистрировано 36 179 случаев туберкулеза, а показатель регистрации случаев в ЕС/ЕЭЗ составил 8,0 на 100 000 населения. Общий показатель заболеваемости в большинстве стран за последние пять лет снизился.

Из всех зарегистрированных случаев туберкулеза 27 082 (74,9%) были новыми случаями заболевания, 25 556 (70,6%) имели подтверждение диагноза результатами культурального исследования или мазком и тестом на амплификацию нуклеиновых кислот в соответствии с определением случая заболевания, принятым в ЕС/ЕЭЗ. В 2022 г. взрослые в возрасте от 25 до 64 лет составили 66,2% от всех новых случаев и рецидивов туберкулеза, а дети до 15 лет – 3,6% от всех новых случаев и рецидивов туберкулеза. В Румынии отмечен самый высокий уровень заболеваемости среди детей: 10,7 случаев на 100 000 населения в возрасте от 0 до 4 лет. В 2022 г. новые случаи и рецидивы туберкулеза чаще регистрировались среди мужчин, чем среди женщин, а соотношение мужчин и женщин составило 2,1: 1. Чуть более трети (33,3%) случаев туберкулеза в ЕС/ЕЭЗ в 2022 г. было зарегистрировано среди людей иностранного происхождения.

Из 18 749 случаев с результатами ТЛЧ как минимум к рифампицину 809 (4,4%) случаев имели туберкулез с множественной лекарственной устойчивостью возбудителя (МЛУ-ТБ). Наибольшая доля МЛУ-ТБ среди случаев заболевания с результатами ТЛЧ наблюдалась в Эстонии (25,0%) и Литве (16,7%). Пред-ШЛУ-ТБ был зарегистрирован у 135 (26,9%) из 502 случаев РУ/МЛУ-ТБ, протестированных на чувствительность к фторхинолонам. Среди случаев пред-ШЛУ 120 (88,9%) были протестированы на чувствительность к любому другому препарату группы А, а 12 (10,0%) соответствовали определению ШЛУ-ТБ.

В 2022 г. данные о сочетанной инфекции ТБ/ВИЧ предоставила 21 страна. В прошлом число стран, предоставляющих эти данные, варьировалось: в 2016 и 2017 гг. их было 23. Из 13 436 новых случаев и рецидивов туберкулеза с известным ВИЧ-статусом 527 (3,9%) были зарегистрированы как ВИЧ-положительные.

Информация о туберкулезе в местах лишения свободы остается недостаточно полной. В 13 странах ЕС/ЕЭЗ, предоставивших данные, показатель регистрации составил 134 новых случая и рецидива туберкулеза на 100 000 заключенных, а относительный риск заболевания туберкулезом для заключенных был в 9,7 раза выше, чем для населения в целом в тех же странах.

Из всех 24 468 случаев туберкулеза, зарегистрированных в 2021 г., о результатах лечения которых было сообщено в 2022 г., 64,0% были успешно пролечены, 8,2% умерли, 0,8% имели безуспешный результат лечения, 3,4% были потеряны для последующего наблюдения, 2,5% продолжали лечение через 12 месяцев после начала терапии, а для 21,2% результаты лечения не были оценены. Из 566 случаев РУ/МЛУ-ТБ, зарегистрированных в 2020 г., о результатах лечения которых было сообщено в 2022 г., 52,5% были успешно пролечены, 15,2% умерли, 8,3% имели безуспешный результат лечения, 8,5% были потеряны для последующего наблюдения, 7,1% все еще находились на лечении через 24 месяца после начала терапии, а для 8,5% результат лечения не был оценен. Из 91 случая пред-ШЛУ-ТБ с результатами лечения, о которых было сообщено в

2022 г., 20 (22,0%) были успешно пролечены, 11 (12,1%) умерли, 12 (13,2%) имели безуспешный результат лечения, 15 (16,5%) были потеряны для последующего наблюдения, 27 (29,7%) все еще находились на лечении спустя 24 месяца после начала терапии, а для 6 (6,6%) результаты лечения не были оценены. Из двух случаев ШЛУ-ТБ, о которых сообщалось в 2019 г., результаты лечения одного были признаны безуспешными (50%), а для другого были квалифицированы как потеря для последующего наблюдения (50%).

Выводы

В 2022 г. все страны ЕС/ЕЭЗ предоставили данные о заболеваемости туберкулезом, согласно которым показатель заболеваемости составил 8,0 на 100 000 населения. По сравнению с двумя предыдущими годами общий показатель заболеваемости туберкулезом в 2022 г. несколько увеличился. Более низкие показатели и данные за 2020 и 2021 гг. следует интерпретировать с осторожностью из-за влияния мер, предпринятых для смягчения последствий пандемии COVID-19. Несмотря на наблюдаемый в последнее время рост, показатель среднегодового изменения в период с 2018 по 2022 гг. составил –6,7%, а сравнение показателя 2022 г. с периодом до 2020 г. выявляет общую тенденцию к снижению. Тем не менее, предстоит проделать значительную работу для выполнения третьей Цели в области устойчивого развития ООН, согласно которой к 2030 г. уровень заболеваемости в ЕС/ЕЭЗ не должен превышать 2,4 на 100 000 населения. Несмотря на увеличение числа зарегистрированных случаев МЛУ-ТБ, в 2022 г. они составили небольшую долю всех зарегистрированных случаев туберкулеза. В целом, по сравнению с тенденциями, наблюдавшимися до 2020 г., в большинстве стран ЕС/ЕЭЗ данные за 2022 г. демонстрируют схожую динамику.

Во всех когортах зарегистрированные результаты лечения остаются значительно ниже целевого ориентира ВОЗ, который составляет 90%. Из всех случаев туберкулеза, зарегистрированных в 2021 г., о результатах лечения которых было сообщено в 2022 г., 64% прошли успешное лечение. Показатель успешного лечения был ниже у случаев РУ/МЛУ-ТБ на 24 месяце (52,5%) и еще ниже среди случаев пред-ШЛУ-ТБ на 24 месяце (22,0%), а доля смертей для этих когорт составила 15,2% и 12,1% соответственно. Кроме того, ни один из двух случаев ШЛУ-ТБ не имел успешного результата лечения на 36-м месяце.

Во всех странах ЕС/ЕЭЗ необходимы дальнейшие усилия для улучшения отчетности о коинфекции ВИЧ, о случаях туберкулеза в местах лишения свободы и о результатах лечения.

Мониторинг прогресса на пути к элиминации туберкулеза

В 2023 г. вступил в силу новый План действий по борьбе с туберкулезом для Европейского региона ВОЗ на 2023–2030 гг. *(2)*, направленный на практическую реализацию глобальной Стратегии по ликвидации туберкулеза *(3)* посредством осуществления необходимых для Региона действий и ориентированный на потребности людей в соответствии с Европейской программой работы на 2020–2025 гг. «Совместные действия для улучшения здоровья жителей Европы» *(4)*. Для того, чтобы положить конец эпидемии туберкулеза, необходимо выполнить обязательства, взятые на себя государствами-членами, посредством осуществления мероприятий, изложенных в региональном плане действий.

В 2022 г. 20 из 30 показателей плана действий для Европейского региона отслеживались и оценивались на основании данных планового эпиднадзора. По двум показателям воздействия, а именно по совокупному снижению уровня заболеваемости туберкулезом и числу смертей от туберкулеза за период с 2015 по 2022 гг. (которые также являются глобальными показателями), Европейски регион достиг лучших результатов (снижение на 25% и 42% соответственно) по сравнению с другими регионами и находится на пути к достижению промежуточных целей, предусмотренных Стратегией по ликвидации туберкулеза на период до 2025 г., а также целевых ориентиров регионального плана действий (снижение на 50% и 75% соответственно). Третий показатель воздействия, касающийся успешных результатов лечения пациентов с МЛУ/РУ-ТБ (57%), пока остается ниже регионального и глобального целевого ориентира (80% к 2025 г).

По восьми из оставшихся 17 показателей целевые значения были либо достигнуты, либо улучшены по сравнению с исходным уровнем. Необходимо активизировать усилия по профилактике туберкулеза, включая отслеживание контактов, охват профилактическим лечением туберкулеза и охват антиретровирусной терапией среди людей, живущих с ВИЧ.

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[5] Все ссылки предоставлены по состоянию на 16 февраля 2024 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)*. In 2022, TB was the world's second leading cause of death from a single infectious agent, after coronavirus disease (COVID-19), and caused almost twice as many deaths as HIV/AIDS *(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 (≈ 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 six-month 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, more than 10 million people fell ill with TB in 2022. Most cases were thought to have occurred in the WHO South-East Asia Region (45%), the WHO African Region (24%) and the WHO Western Pacific Region (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 *(2)*.

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

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 standardization 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 from 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 2023.

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 2022 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 2019, 2020 and 2021 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 2022 data (Annex 2) has been updated compared to the previous year.

Reporting completeness (Annexes 3 and 4) varied among countries and areas due to differences in legislation, specifics of national surveillance systems and TB case ascertainment. Readers should therefore be cautious when making comparisons across countries and areas. In recent years, the quality and comparability of reported data have improved and reporting completeness is generally high in the EU/EEA, with a few exceptions, such as HIV status and drug-susceptibility testing (DST) data.

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

For the calculation of notification rates, country total population denominators by age group and gender were obtained from Eurostat *(7)* (31 October 2023) for the EU/EEA countries and from United Nations Population Division statistics *(6)* for all other countries and areas.

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

2.1.1 TB/HIV coinfection

Case-based HIV status for 2022 was reported by Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands (Kingdom of the), 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 2022, start or continuation on antiretroviral therapy (ART) was reported by three 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 (2017–2022). 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. Data on ofloxacin, gatifloxacin and kanamycin are no longer collected in TESSy (since 2021). Case-based information on DST is collected in countries/areas where DST results are linked to TB case notifications (29 out of 30 countries in 2022).

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

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

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

EQA systems are essential for ensuring accurate diagnosis of TB and drug-resistant TB. Implementing EQA by organizing regular EQA rounds and identifying training needs is one of the key activities of the European TB Reference Laboratory Network *(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 2023 data call, for 2022 data, outcome data were collected for TB cases reported in 2021, RR/MDR-TB cases in 2020 and pre-XDR and XDR-TB cases in 2019. 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 and 4: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Luxembourg, Liechtenstein, Lithuania, Malta, Netherlands (Kingdom of the), 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[7] 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 subtotals alongside the subtotals 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.

[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).

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 has tested positive using smear microscopy, culture or WHO-recommended rapid diagnostics (WRD) (e.g. Xpert MTB/RIF). A "clinically diagnosed TB case" does not fulfil the criteria for bacteriological confirmation but has been diagnosed with active TB by a clinician or other medical practitioner who has decided to give the patient a full course of TB treatment.

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

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

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

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, rifampicin resistance/multidrug resistance (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 smear- or 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 cure 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

[8] The degree of adherence to the 12-month limit is unknown, and a number of countries are known to exceed it.

[9] 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[10] – 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".

[10] This definition is applicable to EU/EEA countries only.

References[11]

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9. Plan to stop TB in 18 high-priority countries in the WHO European Region, 2007–2015. Copenhagen: WHO Regional Office for Europe; 2007 (https://apps.who.int/iris/handle/10665/345352).

[11] All references accessed on 7 February 2024.

3. Commentary

3. Commentary

3.1 The WHO European Region

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

An estimated 229 000 new and relapse TB cases (range 196 000–263 000) occurred in countries and areas of the WHO European Region in 2022, equivalent to an average incidence of 25 cases (range 21–28) per 100 000 population. This represents about 2.2% of the total burden of TB in the world (Table 1).

The absolute number of incident TB cases in the WHO European Region decreased by 4 000 in 2022 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 100 000 population, which is almost five times higher than the EU/EEA average. The five countries with the absolute highest number of incident TB cases (10 000 and over) were the Russian Federation (56 000), Ukraine (36 000), Uzbekistan (29 000), Türkiye (12 000), Kazakhstan (15 000) and Romania (10 000). The number relative to population (incidence rate) was highest in Kyrgyzstan (130 per 100 000 population), followed by Ukraine (90), Uzbekistan (83), Kazakhstan, Tajikistan (78 each), and the Republic of Moldova (74) (Table 1).

While globally the TB incidence rate increased for the second consecutive year by 1.9% (in 2021 and 2022), reflecting the impact of the disruption to TB services caused by the COVID-19 pandemic, in the WHO European Region, an upward trend observed between 2021 and 2022 (2.5%) was reversed in 2022. During the period 2013–2022, the average annual decline in the TB incidence rate was 4.2%, which is higher than the global rate of decline for TB incidence (1.5%) and the fastest decline compared to other WHO regions *(1)*. This decline was mostly driven by the situation in the Russian Federation, where incidence fell by 6.9% per year between 2013 and 2022. 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 2013–2022, the HPCs with the highest annual rate of decline were Latvia (–10.1%), Armenia (–9.1%), Belarus, Estonia (–8.2% each), Bulgaria (–7.8%), Georgia and Lithuania (–7.3% each) (Table II).

An estimated 18 000 TB deaths occurred among HIV-negative people in the European Region in 2022, equivalent to 1.9 deaths per 100 000 population. This is a 6% year-on-year increase in the number of deaths against 2021. However, between 2013 and 2022, the TB mortality rate at regional level fell cumulatively by 53%, from 4.1 to 1.9 deaths per 100 000 population, which on average is a decline of 8.0% per year (Table I). Considerable variation was seen across the Region, ranging from under one TB death per 100 000 population in EU/EEA countries to 10 per 100 000 and higher in the HPCs. The TB mortality rate was highest in Turkmenistan (10.3 deaths per 100 000), followed by Ukraine (8.4) and Tajikistan (7.8). Together, the 18 HPCs accounted for 83% of TB deaths in the Region.

An estimated 12% (range 8.4–17%) of incident TB cases in 2022 were coinfected with HIV (Table 2). The proportion of TB cases coinfected with HIV was highest in the Russian Federation (26%), followed by Ukraine (23%), Turkmenistan (22%), and the Republic of Moldova (11%). The five countries with the highest absolute number of TB/HIV coinfection cases were the Russian Federation (14 000) and Ukraine (7900), representing 78% of the total number of cases, followed by Kazakhstan (990), Uzbekistan (950) and Turkmenistan (690).

Nine of the 30 countries with the highest RR/MDR-TB burden in the world are in the WHO European Region.[12] In 2022, the WHO European Region had an estimated 35 000 incident cases of RR/MDR-TB among notified bacteriologically confirmed pulmonary TB cases (Table 2). An estimated 24% (95% CI: 17–31%) of newly diagnosed patients and 54% (95% CI: 26–81%) of previously treated patients had RR/MDR-TB. Overall, an estimated 67 000 (range 50 000–83 000) incident cases of RR/MDR-TB occurred in the Region in 2022.

3.1.2 TB notification and trends

In 2022, 199 189 TB patients were reported from 52 countries and areas[13] in the WHO European Region (Table 3). Of these, 170 365 were incident TB patients (Table III). This represents a 3.1% increase in the number of notified TB patients against 2021; a second year of 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 75% (95% CI: 65–87%) in 2022 (approximated as notifications divided by estimated incidence), down from 88% (95% CI: 77–100%) in 2019. In the 18 HPCs the trajectories in notifications varied considerably. Kazakhstan, Romania, the Republic of Moldova, Tajikistan, Türkiye, Ukraine and Uzbekistan, which all experienced large reductions in 2020, for the second consecutive year continued to show increased notification compared to the previous year, from 1% in Ukraine to 7% in Türkiye. The declining trends of TB notification observed both in 2020 and 2021, was reversed in 2022 in Armenia, Azerbaijan, Belarus, Estonia, Georgia, Lithuania and Turkmenistan. Most of these countries showed remarkable recovery, reaching up to 33% in Turkmenistan. Kyrgyzstan reported a lower number of cases in 2022 compared to 2021, after slight recovery

[12] 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.

[13] San Marino and Monaco did not report in 2021.

between 2020 and 2021. Meanwhile, despite a large drop in notifications in 2020 compared to 2019, Bulgaria and the Russian Federation for the second consecutive year after the pandemic reported a further decline in the number of TB cases.

The notification rate of new and relapse cases in 2022 varies widely among countries, from 2.2 (Israel) to 69 (Kyrgyzstan) per 100 000 population (Map 1 and Table III). Forty 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 2022. Nine 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 (69.8), Republic of Moldova (64.8), and Kazakhstan (51.6)). The new and relapse case notifications from the 18 HPCs account for about 82% of the regional burden. A third of new and relapse cases (55 906) 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 (34 cases per 100 000, compared to 18 cases per 100 000 for the Region) and over five times higher than the rate in the EU/EEA (seven cases per 100 000 population) (Fig. 3.1.1).

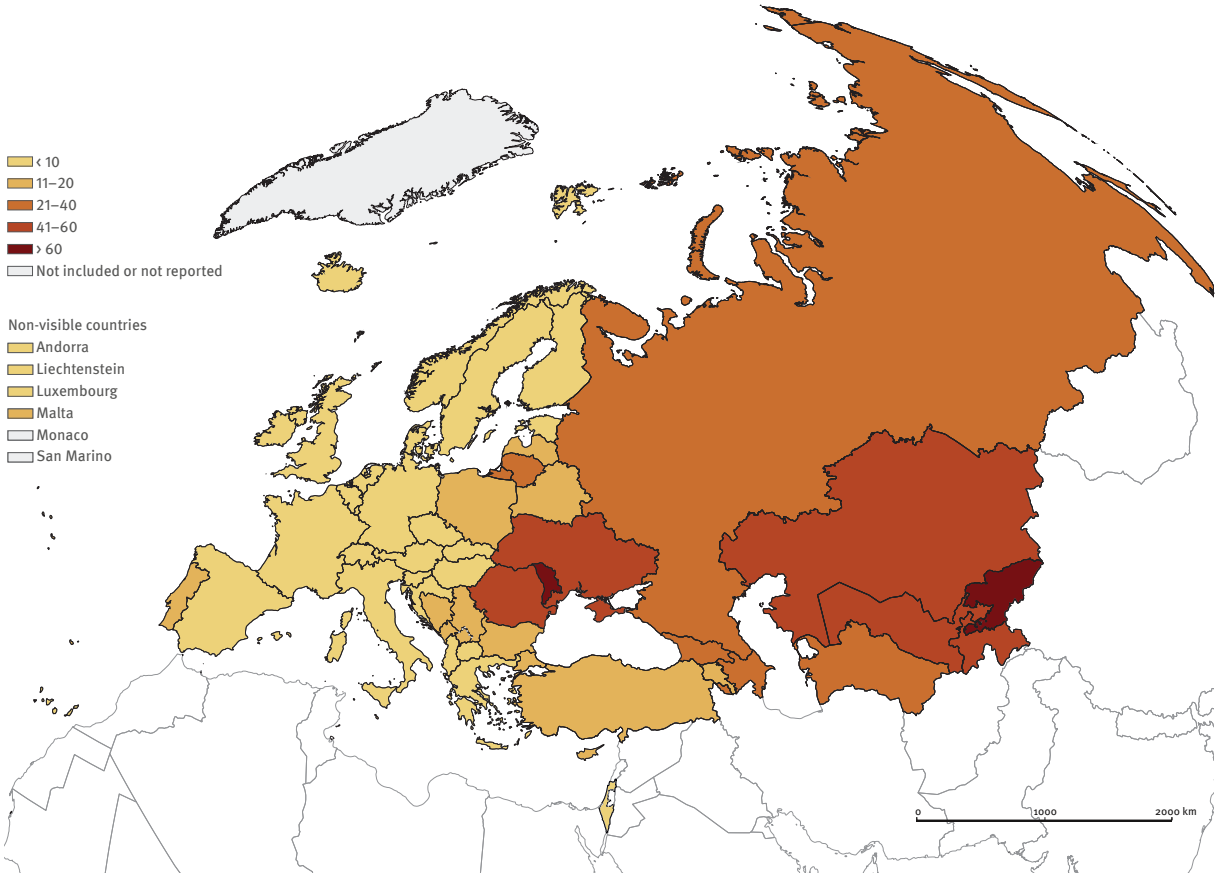
3.1.3 Previous treatment history

In 2022, previously treated cases represented 13.2% and 30.8% in the EU/EEA and non-EU/EEA, respectively (Table 4). The average in the 18 HPCs was 31.2%, which is above the pan-European average of 27.6%. Previously treated cases accounted for 15% or more of all TB cases in 15 countries: Azerbaijan (44.3%), the Russian Federation (41.5%), Turkmenistan (47.8%), Spain (30.2%), Belarus (27.6%), Kazakhstan (27.9%), the Republic of Moldova (27.7%), Ukraine (22.9%), Kyrgyzstan (21%), Uzbekistan (22.2%), Georgia (20.4%), Romania (19.6%), Estonia (19.4%), Slovakia (18.7%), and Lithuania (15%). 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 localization

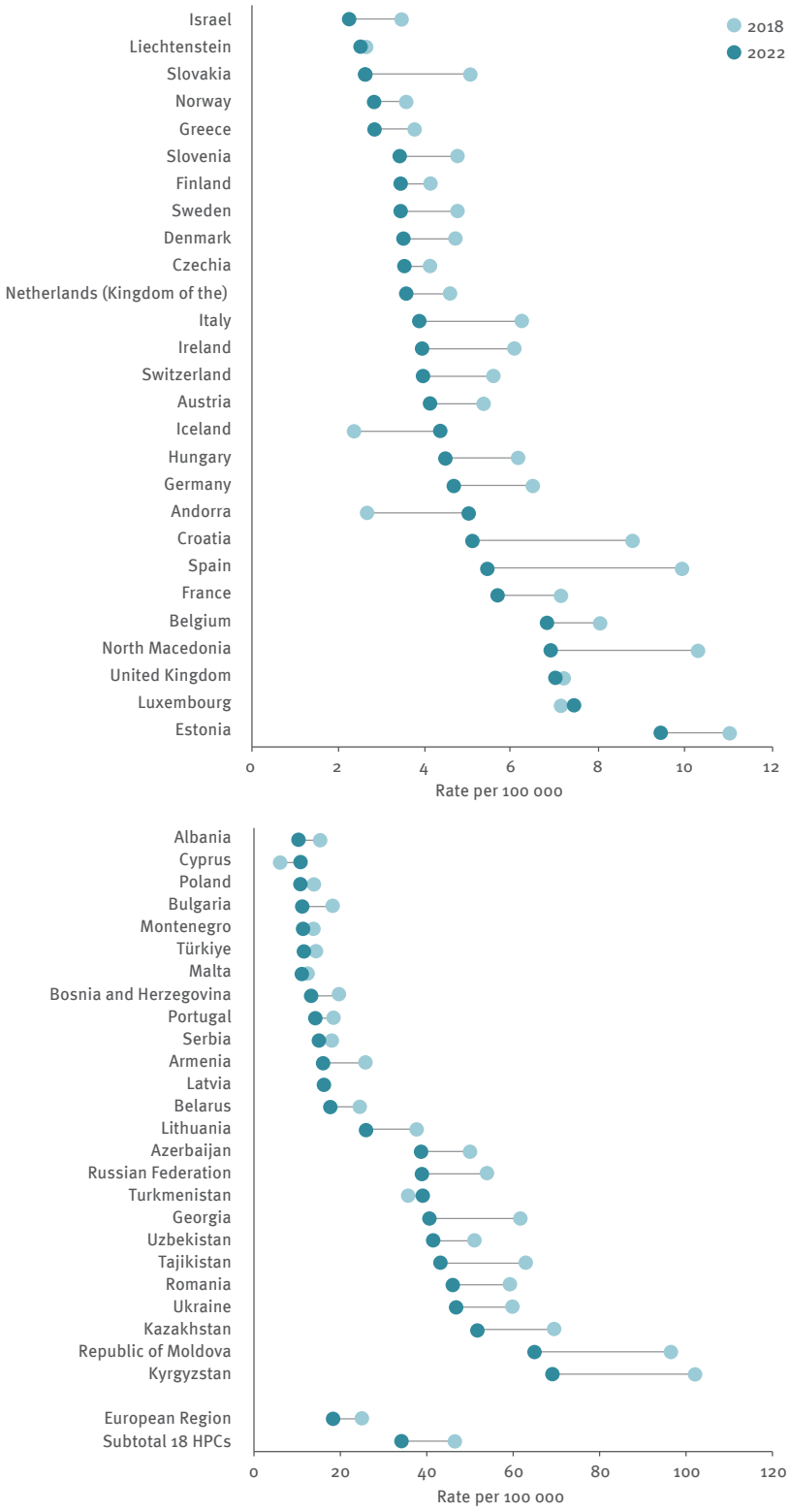
Pulmonary localization was notified in 83% of the incident TB cases in the Region in 2022 (Table 6). The proportion of patients with pulmonary localization in the non-EU/EEA countries and areas was higher than in the EU/EEA. Ten countries reported more than 30% of their TB cases having extrapulmonary localization: Belgium, Finland, Iceland, Italy, Netherlands (Kingdom of the), Norway, Sweden, Türkiye, the United Kingdom and Uzbekistan.

Map 1. TB notification rates of new TB cases and relapses per 100 000 population, European Region, 2022



Sources: 2022 data from the European Surveillance Systems (TESSy) and 2022 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 2018 and 2022 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 and San Marino did not report data in 2022 and are not included.

3.1.5 Bacteriological confirmation

Bacteriological confirmation of TB diagnosis was reported for 101 111 (71.5%) of all 141 476 new and relapse pulmonary cases in the Region (Table 6). Although testing rates with WRD were much lower in the EU/EEA countries (37.2%) than in the non-EU/EEA countries and areas (89.9%), the five-year trend shows a continuing increase in the use of WRD across the Region, from 65.8% in 2018 to 78.8% in 2022 (Fig. 3.1.2 and Table XIV). Testing also varied considerably among countries and areas, from 0% in France, Hungary, Lithuania, Luxembourg and Malta to 99.7% in Kazakhstan. Bacteriological confirmation of new and relapse pulmonary cases was below 60% in five countries and areas: Bulgaria (59.7%), Hungary (58.7%), Kosovo[14] (43.9%), the Russian Federation (58.1%) and Turkmenistan (47.6%), underlining the need to strengthen diagnostics. In 38 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 3.9%.

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 and greater in Armenia, Belarus 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).

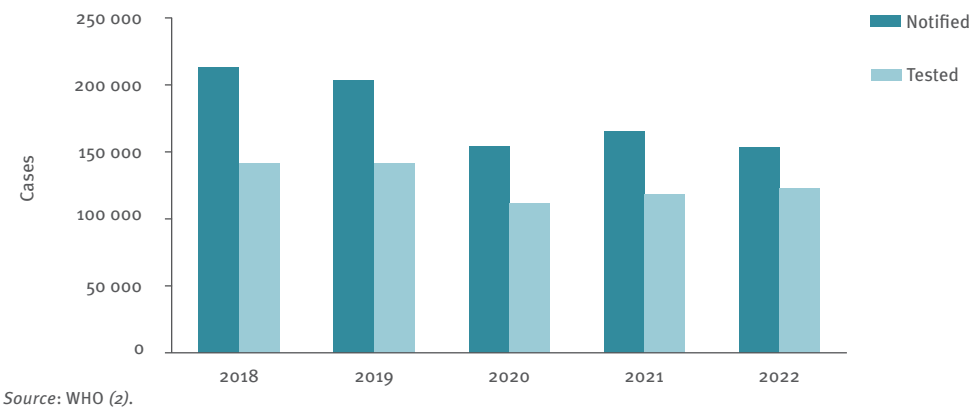
3.1.7 Drug resistance

Fifty-two countries in the Region reported test results for rifampicin resistance in 2022. Overall, DST coverage in the Region, at least for rifampicin among bacteriologically confirmed pulmonary TB cases, was 93.8%, with 44 countries achieving coverage of 85% or higher. The percentage of confirmed RR-TB cases among 74 180 new pulmonary TB cases tested for rifampicin resistance in the Region was 21.6% (Map 2, Fig. 3.1.3, Table 11 and Table V). Although nine countries reported no RR-TB or less than 1% among new TB cases, the rate was over 20% in 10 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 3.9%, while the RR-TB proportion among previously treated pulmonary cases was higher at 10.0% (Fig. 3.1.4).

Six HPCs had an RR/MDR-TB prevalence ranging from 10% to 19% among new cases tested for rifampicin resistance: Uzbekistan (15.8%), Armenia (15.5%), Lithuania (15.1%), Azerbaijan (11.9%), Georgia (10.7%), and Latvia (10.3%).

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

Fig. 3.1.2. New and relapse TB cases tested using WRD, European Region, 2018–2022



Source: WHO *(2)*.

Six had 20–29% RR/MDR-TB among new cases: Ukraine (25.2%), Tajikistan (23.4%), Kyrgyzstan (23.3%), Estonia (21.8%), the Republic of Moldova (21.7%) and Turkmenistan (21.0%), and three had an RR/MDR-TB prevalence of over 30%: Belarus (41.5%), the Russian Federation (36.5%) and Kazakhstan (33.5%). The percentage of RR/MDR-TB reported for France is misleading, as DST results are only documented for RR-TB cases.

Among 32 512 previously treated pulmonary bacteriologically confirmed TB cases whose isolates were tested for first-line DST, 50.5% had RR/MDR-TB (Fig. 3.1.3, Table 11 and Table VI).

Eighteen 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: the Russian Federation (67.3%), Republic of Moldova (58.1%) and Kazakhstan (57.9%) (Fig. 3.1.5, Table 11).

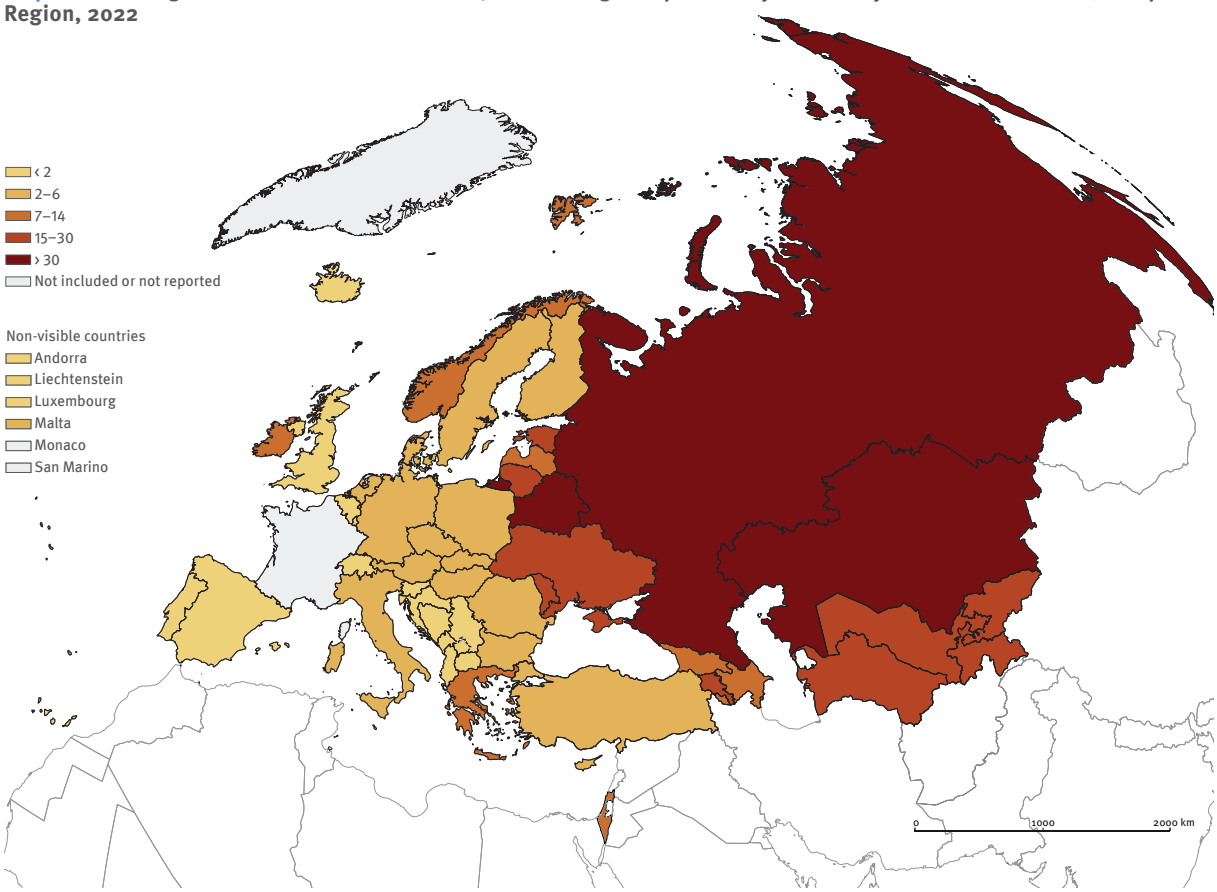
The rates of RR/MDR-TB notification among new and previously treated patients in 2022 at regional level were 1.7 and 1.8 per 100 000 respectively (Table V, Table VI).

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 subregional 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 non-EU/EEA countries and areas decreased slightly from 26.4% to 26.1%. Before the pandemic, the RR/MDR-TB notification rate among new TB patients was 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 and 2022.

In 2022, forty countries reported data on DST to fluoroquinolones among pulmonary RR/MDR-TB patients. Data on DST to fluoroquinolones were available for about 82.2% of all notified pulmonary RR/MDR-TB cases. Of the 26 407 pulmonary RR/MDR-TB cases subjected to DST to fluoroquinolones, 9 259 (35.1%) were pre-XDR-TB (Table 12).

Twenty-seven countries additionally reported DST results for any other Group A drugs among pre-XDR-TB patients. Of 5 048 pre-XDR-TB patients tested for resistance against any other Group A drugs, the prevalence of XDR-TB was 8.7% at regional level (Table 12). In EU/EEA countries, where 88.9% of pre-XDR-TB cases were tested for

Map 2. Percentage of notified TB cases with RR/MDR among new pulmonary laboratory-confirmed TB cases, European Region, 2022



Sources: 2022 data from the European Surveillance Systems (TESSy) and 2022 data from the WHO global TB data-collection system. Map production: ©ECDC.

Group A drugs, the prevalence of XDR among pre-XDR cases was 10%, while in non-EU/EEA countries and areas where DST coverage for other Group A drugs was only 54.0%, the XDR prevalence among pre-XDR patients was 8.7%. Among countries and areas reporting at least 30 pre-XDR cases with Group A DST results, two reported over 20% XDR prevalence among pre-XDR-TB cases: Georgia (33.3%) and the Republic of Moldova (25.7%).

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 29.4 in 2018 to 35.8% in 2022 (Table VIII).

A total of 30 147 RR/MDR-TB and 8 803 pre-XDR/XDR-TB patients were enrolled in respective treatment programmes. The number of cases starting RR/MDR-TB treatment in 2022 exceeded the total number of patients notified during

Fig. 3.1.3. Percentages of RR/MDR-TB among laboratory-confirmed pulmonary TB cases, European Region, 2018–2022

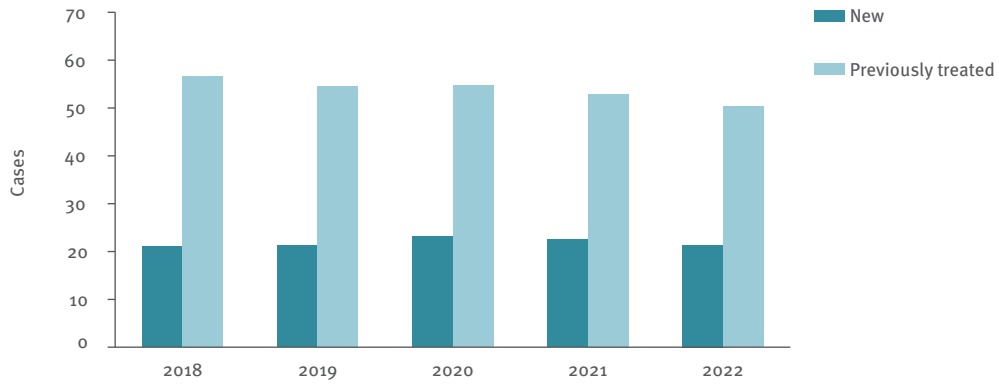


Fig. 3.1.4. Percentages of RR/MDR-TB among laboratory-confirmed pulmonary TB cases by previous treatment history, EU/EEA, 2018–2022

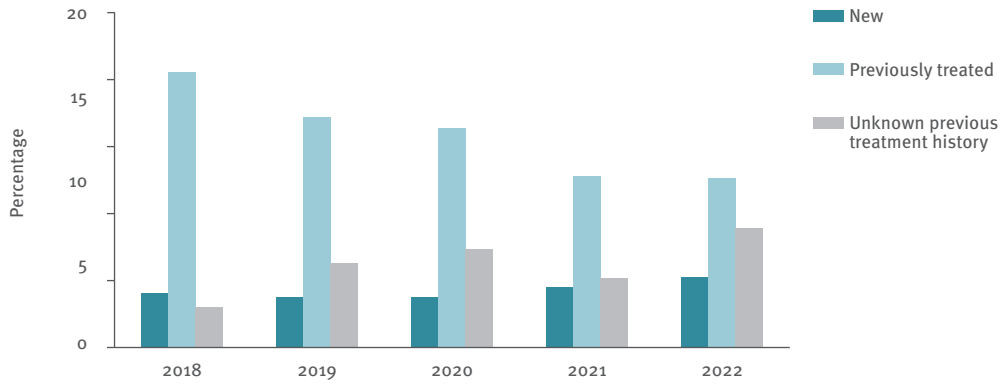
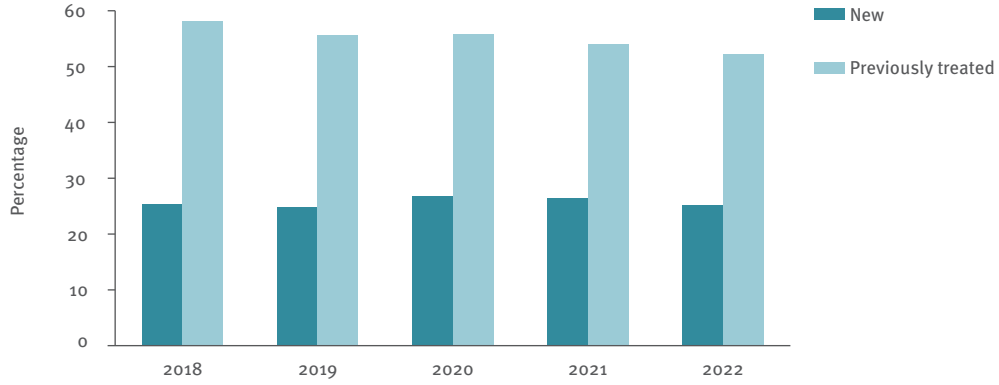


Fig. 3.1.5. Percentages of RR/MDR-TB among laboratory-confirmed pulmonary TB cases, 18 HPCs, 2018–2022



the same period, as few HPCs (the Republic of Moldova, the Russian Federation and Ukraine) 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 treatment interruptions leading to re-enrolment of the same patients in the same year's cohort, and weakness of surveillance. Seven 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 (75.6%), Latvia (78.3%), Türkiye (89.5%), Azerbaijan (90.3%), Kyrgyzstan (91.6%), Georgia (93.2%) and Belarus (93.7%) (Table 13).

In 2022, access to pre-XDR/XDR-TB treatment at regional level was 93.3%. Seven HPCs (Belarus, 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

Forty countries and areas provided surveillance data on TB/HIV coinfection (Table 14). Of the 150 863 new and relapse TB patients, 139 461 (92.4%) were screened for HIV. Thirteen HPCs achieved a testing level above 90%: Armenia, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, the Russian Federation, Tajikistan, Ukraine and Uzbekistan. A total of 20 120 TB cases were detected with HIV-positive status, representing 14.4% of those tested, comparable with the 14.7% recorded in 2021.

Among countries/areas reporting representative HIV testing (above 50% HIV testing coverage), five documented a significant overlap in the HIV and TB epidemics by exceeding 10% HIV prevalence among new and relapse TB cases (Table 14): the Russian Federation (25.7%), Ukraine (18.2%), Cyprus (19.2%), the Republic of Moldova and Spain (11.5% each). Six countries with representative routine surveillance had 5–10% HIV prevalence among TB patients: Armenia, Portugal (9.5% each), Latvia (9.1%), Belarus (7.7%), Kazakhstan (6.6%) and Estonia (5.1%).

Twenty countries/areas in the Region provided information on ART enrolment among TB cases with HIV-positive status in 2022. Of 19 622 HIV-positive TB cases, 15 938 (81.2%) had received ART. Six HPCs achieved ART coverage of over 90%: Azerbaijan, Belarus, Estonia, Republic of Moldova, Tajikistan and Ukraine.

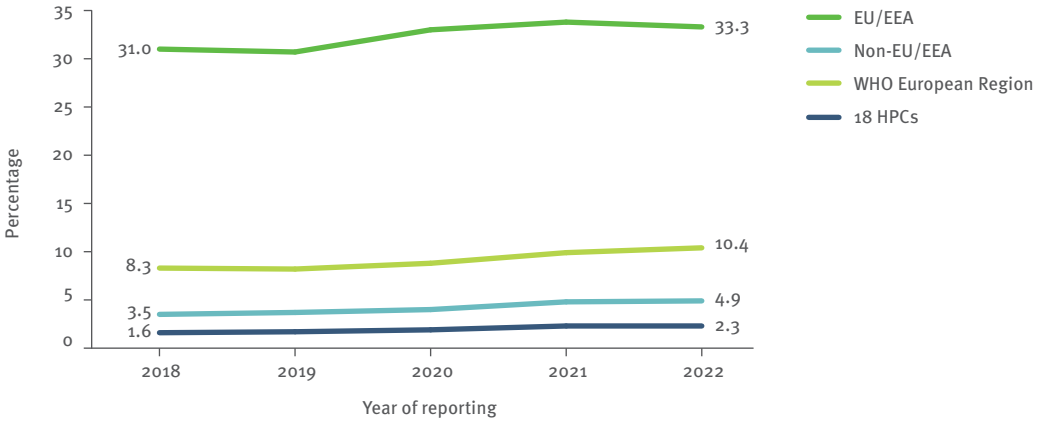
3.1.9 Country of origin

TB patients of foreign origin represent 10.4% of all TB cases notified Region-wide: 33.3% in EU/EEA countries and 4.9% 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: Cyprus (93.8%), Malta and Norway (90.2% each), Luxembourg (89.6%), Sweden (83.6%), Netherlands (Kingdom of the) (80.2%), the United Kingdom (77.7%), Switzerland (77.0%), Iceland (76.5%), Denmark (73.8%) and Germany (72.4%).

3.1.10 TB in prisons

Twenty-seven countries/areas in the Region provided information on TB case detection and treatment in prisons during 2022 (Table 15). Overall, 6044 (4.4%) of the new and relapse TB cases in the Region were reported from prisons, with 5 785 (95.7%) of these in the HPCs. The proportion of TB cases in prisons represented around 1.3% of the country total in EU/EEA countries; in non-EU/EEA countries and areas, the proportion was 4.9%. The notification rate in prisons in the non-EU/EEA countries and areas was 134 new TB cases per 100 000 population, which is about ten times higher than in the EU/EEA subregion. The overall notification rate for new TB cases in prisons in the WHO European Region was 462 per 100 000 population. The TB notification rate exceeded 1000 cases per 100 000 detainees in two countries: the Republic of Moldova and the Russian Federation. The highest TB-related risks in prison (relative to incidence in the general population) are calculated to be in Luxembourg (RR 34.1) followed by the Russian Federation (RR 27.0), Republic of Moldova (RR 19.1) and Ukraine (RR 18.5).

Fig. 3.1.6. TB cases of foreign origin, European Region, 2018–2022



3.1.11 Treatment outcome

The treatment success rate among new and relapse TB cases having started treatment with first-line drugs in 2021 was 70.0%, comparable to the 2020 cohort (Table 16, Table X). In the HPCs, the average rate of cases cured or for whom treatment was completed was 71.6%. The treatment success rate was lower in the EU/EEA countries than in non-EU/EEA countries and areas (64.0% versus 71.6%). Only six countries achieved at least 90% treatment success rate in this treatment cohort. Another eleven were close to the target, with success rates of 85–89%. Nine countries had treatment success rates below 60%, with a very high proportion of cases not being evaluated.

A total of 12 261 (10.3%) cases were reported to have died in the 2021 cohort, 4.3% to have been lost to follow-up and 6.3% to have had treatment that failed. These unfavourable outcomes were lower in the EU/EEA countries than in the rest of the Region, exemplified by the proportion of patients with failed treatment – 0.8% in the EU/EEA versus 7.8% in non-EU/EEA countries and areas (Table 16). Countries reporting fatal outcomes in excess of 10% were Czechia (18.4%), Slovenia (15.4%), Iceland (14.3%), Estonia (14.0%), the Russian Federation (13.8%), Croatia (12.9%), the Republic of Moldova and Hungary (12.5% each), Romania (12.3%), Ukraine (12.0%) and Lithuania (10.8%).

The treatment success rate among the 4067 child TB cases (aged 0–14 years) in the 2021 cohort was 88.2% (Table 18). The treatment success rate in EU/EEA countries was remarkably lower than in the non-EU/EEA countries and areas (72.7% versus 92.9%). Among child TB cases in the Region, 1.0% died, 1.2% failed and 1.3% were lost to follow-up.

Of the 14 156 TB/HIV coinfected patients who started treatment throughout the Region in 2021, only 6853 (48.4%) had a successful treatment outcome (Table 20).

In the 2020 cohort, treatment outcome was notified for 33 982 laboratory-confirmed RR/MDR-TB cases reported by 34 countries (Table 22). The treatment success rate for the whole Region was 57.3%, which is slightly lower than the 58.6% rate reported for the 2019 RR/MDR-TB treatment cohort. The treatment success rate for RR/MDR-TB patients was higher in non-EU/EEA countries and areas than in the EU/EEA (57.4% versus 52.5%). In the Region as a whole, 15.2% of RR/MDR-TB cases died, 10.5% failed and 11.4% were lost to follow-up.

3.1.12 Conclusions for the WHO European Region

The reported number of people newly diagnosed with TB was more than 170 000 in 2022 – a second year of slight recovery following an unprecedented 24% drop in TB notifications in 2020 compared to 2019. This has reversed the damaging impact of the pandemic on the estimated number of incident TB cases. At the same time, the drop in the number of people newly diagnosed with TB in 2020 suggested that the number of people with undiagnosed and untreated TB increased in the Region, leading to an increase in the estimated number of TB deaths in 2021 and 2022. COVID-19-related disruptions are estimated to have resulted in almost 7000 excess deaths from TB in the WHO European Region in those two years, compared with the number that would have occurred if pre-pandemic trends had been maintained.

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. This underlines the need to introduce and/or scale up innovative and adaptive models of care and ensure the provision of timely, good-quality TB services.

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 the use of shorter, all-oral treatment regimens for drug-resistant TB patients. Nevertheless, despite the slow improvement, the treatment success rate for RR/MDR-TB patients is still below regional and global targets. Similarly, notwithstanding the efforts made, the burden in relation to RR-TB and TB/HIV remains considerable.

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 deliver TB diagnostic, treatment and preventive services. Reviving political commitment, allocating adequate national and international resources, and implementing innovative approaches articulated in the *Tuberculosis action plan for the WHO European Region, 2023–2030* are crucial to avoid losing the gains made during the past decade *(2)*.

3.2 EU/EEA countries

3.2.1 Data completeness

TB notification data for 2022 were reported by all EU/EEA countries. The reporting of non-mandatory variables in 2022 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 88.1% of cases reported in 2022, but completeness ranged from below 70% in three countries (Iceland 11.8%, Ireland 60.2% and Luxembourg 4.2%) to 100% in 12 countries (Annex 3).

Among TB cases reported in 2022, 83.4% had culture results reported (Annex 3), which was a slight decrease compared to the proportion that was reported in 2021 (84.2%). Five countries had less than 75% of cases with culture results reported: France (50.2%), Ireland (58.3%), Italy (66.1%), Latvia (48.3%) and Portugal (66.2%). Reporting completeness for microscopy in 2022 (84.2%) was comparable to 2021 data (84.3%) and ranged from 37.8% in Belgium to 100% in Liechtenstein and Lithuania. For 2022, DST reporting completeness was 75.2% 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 27 countries that reported at least one MDR-TB case (Annex 3).

In 2022, the number of countries reporting HIV status was the same as in 2021 (21 of 30). HIV status was available only for 41.4% of all TB cases reported in 2022, but eight countries reported HIV status for more than 75% of their TB cases: Estonia (93.8%), Latvia (100%), Lithuania (96.1%), Malta (100%), Norway (78.2%), Portugal (75.8%), Romania (83.5%) and Slovenia (85.1%) (Annex 3).

Treatment outcome at 12 months was available for 64.7% of all cases reported in 2022. Among RR/MDR-TB cases reported in 2020, 95.3% had treatment outcome reported at 24 months (Annex 3). Completeness of treatment outcomes across these two cohorts are comparable to treatment outcome rates in 2021.

3.2.2 TB notification rates and trends

In 2022, 36 179 cases of TB were reported in all EU/EEA countries (Table 3). The number of cases reported in Romania (9270) accounted for 25.6% of all TB cases reported in 2022, and a rate per 100 000 population of more than six times the EU/EEA rate.

The EU/EEA notification rate in 2022 was 8.0 per 100 000 population (Table 3), a slight increase compared to 2020 and 2021 rates (7.5 and 7.4 per 100 000 population, respectively). Despite this increase, if compared to the period before 2020, the overall downward trend observed since the launch of European enhanced TB surveillance in 1996 continued (Fig. 3.2.1). During the period 2018–2022, the overall average annual decline in the notification rate was 6.7% (Table 3).

As reported for previous years, country-specific notification rates differed considerably in 2022, ranging from 2.5 per 100 000 population in Liechtenstein to 48.7 per 100 000 population in Romania (Table 3). Rates were below 10.0 per 100 000 in 22 countries (Map 3).

In 25 out of 29 countries for which the change in rate between 2018 and 2022 was calculated (Latvia's rate was not calculated due to missing data from 2018–2020), the notification rates have fallen compared to 2018 (Table 3). In five countries the annual rate of decrease exceeded 10%. Meanwhile, in the other countries the notification rates increased compared to 2018, with the upward trend being particularly pronounced in Cyprus and Iceland, where the average annual rate of increase exceeded 15%.

3.2.3 Previous treatment, laboratory confirmation and TB site

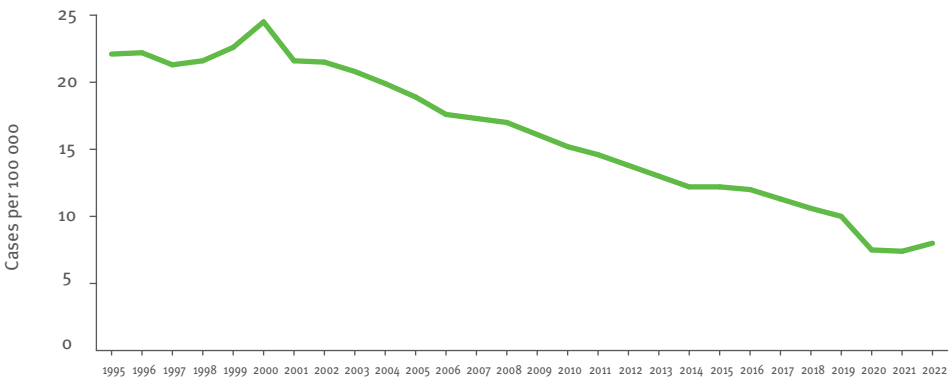
The distribution of cases by previous treatment history was similar in 2022 to that reported in previous years: 27 082 (74.9%) of 36 179 TB cases reported in 2022 were newly diagnosed, 4777 (13.2%) had previously been treated for TB and 4320 (11.9%) had an unknown previous treatment status (Table 4). The proportion of previously treated cases was more than 10% in nine countries: Bulgaria, Estonia, Iceland, Lithuania, Norway, Poland, Romania, Slovakia and Spain.

Of all 36 179 TB cases reported in 2022, 26 717 (73.8%) were diagnosed with pulmonary TB, 6885 (19.0%) with extrapulmonary TB, 2293 (6.3%) with a combination of both and 284 (0.8%) had no TB site reported (Table 5). The proportion of extrapulmonary TB was above 30% in seven countries: Belgium (31.9%), Finland (32.6%), Iceland (47.1%), Italy (31.0%), Netherlands (Kingdom of the) (40.8%), Norway (33.3%) and Sweden (31.0%).

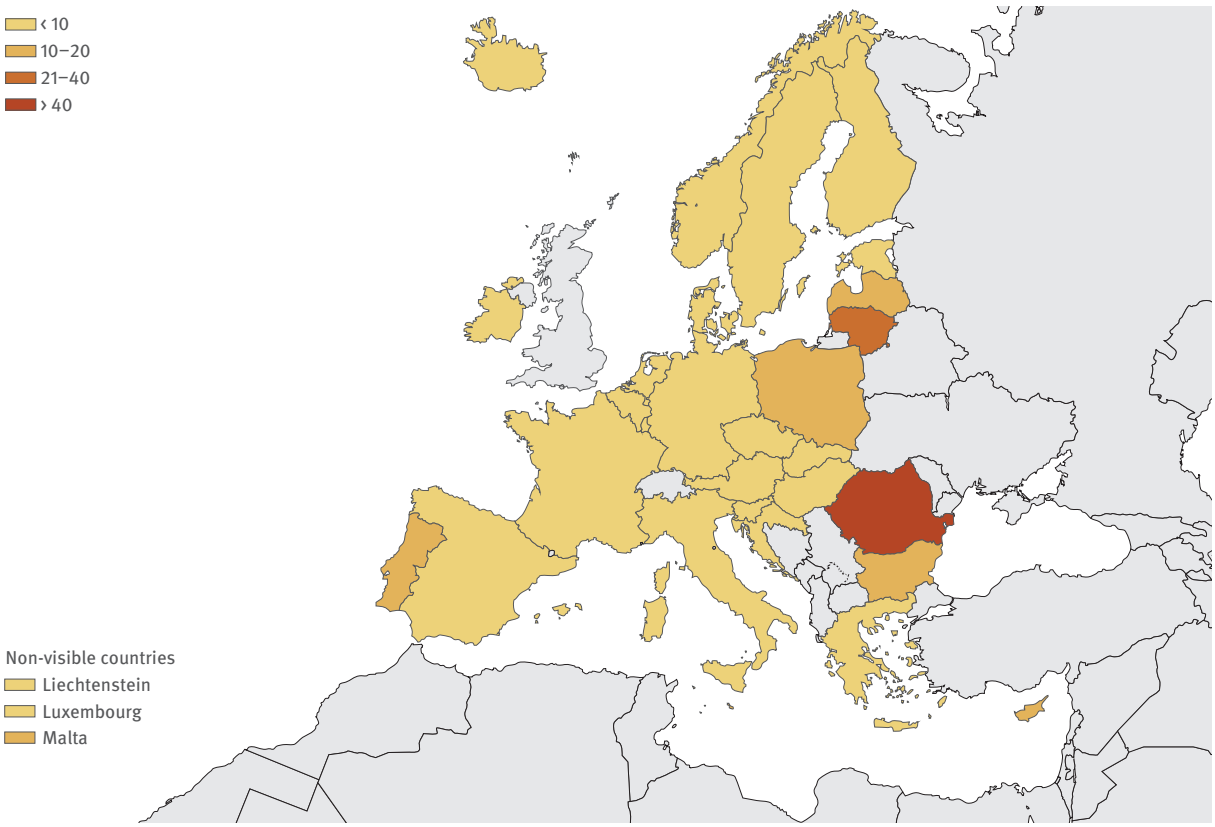
Of 33 480 new and relapse pulmonary TB cases reported in 2022, 23 137 (85.5%) were confirmed by culture and/or smear and nucleic acid amplification test (Table 6). In six countries, over 30% of reported new and relapse pulmonary TB cases were diagnosed clinically: Bulgaria (40.3%), France (32.0%) Hungary (41.3%), Ireland (37.6%), Malta (31.1%) and Slovakia (38.3%).

According to the EU case definition, 25 556 (70.6%) of 36 179 TB cases reported in 2022 were classified as confirmed, 4146 (11.5%) as probable and 6477 (17.9%) as possible cases (Table 7). The proportion of confirmed TB cases slightly decreased in 2022 (70.6%) compared to 2021 (72.0%) but increased when compared to 2020 and 2019

Fig. 3.2.1. TB notification rate per 100 000 population by year of reporting, EU/EEA, 1995–2022



Map 3. TB notification rates of new TB cases and relapses per 100 000 population, EU/EEA, 2022



Sources: 2022 data from the European Surveillance Systems (TESSy) and 2022 data from the WHO global TB data-collection system. Map production: ©ECDC.

(67.3% and 67.1%, respectively). Country-specific proportions of confirmed cases ranged from 39.8% in France to 100% in Liechtenstein. 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 (45.7%), France (41.6%) and Hungary (42.0%). The high proportion of clinically diagnosed cases may reflect underreporting of laboratory results to the national surveillance systems in these countries, or alternatively could indicate that TB is over-diagnosed in these countries.

3.2.4 Age and sex

Of 33 480 new and relapse TB cases reported in 2022, 22 167 (66.2%) were aged between 25 and 64 years and 6555 cases (19.6%) were in adults aged over 64 years (Table 8). Notification rates per 100 000 population were higher among the 25–44 years age group (9.5 per 100 000 population) and the 45–64 years age group (8.9 per 100 000 population), than for the 15–24 years age group (7.4 per 100 000 population) and those aged over 64 years (7.0 per 100 000 population).

There was variation in the age distribution of TB cases among countries. In most, cases were predominantly aged between 25 and 64 years, but cases were younger in Cyprus (36.2% were aged between 15 and 24 years) and older in Estonia, Hungary and Slovenia (where over 30% of cases were aged over 64 years; Table 8).

Children under 15 years accounted for 1214 (3.6%) of 33 480 new and relapse TB cases, which was similar to the number reported in 2021 (1106, rate per 100 000 of 3.5%) (Table 8). Children aged between 5 and 14 years had the lowest notification rate of all age groups at 1.5 per 100 000 population. Romania reported the highest notification rates among children under 15 years: 10.7 cases per 100 000 children aged between 0–4 years, and 10.8 cases per 100 000 aged between 5 and 14 years. Overall, 33 470 new and relapse TB cases had age reported in 2022.

In 2022, the male-to-female ratio in new and relapse TB cases was 2.1 : 1 (Table 8), which was similar to the ratio reported in 2021 (2.0 : 1). One country (Norway) reported slightly more female than male cases (male-to-female ratio of 0.9 : 1). For children under 15 years, the male-to-female ratio among new and relapse cases was almost equal.

3.2.5 Origin of cases

Of the 36 179 TB cases notified in 2022, 23 357 (64.6%) were born in, or were citizens of the reporting country (referred to as "native"), 12 015 (33.3%) were of foreign origin and 771 (2.1%) were of unknown origin (Table 9). In 2022, three countries reported over 10% of their cases as being of unknown origin (Finland (10.5%), France (11.8%) and Ireland (25.0%)), accounting for 550 cases out of the total of 771 cases. Country-specific proportions of foreign-origin TB cases ranged from below 2% in three countries (Bulgaria, Lithuania and Romania) to above 85% in four

countries (Cyprus, Luxembourg, Malta and Norway). The overall proportion of native TB cases increased from 61.7% in 2021 to 64.4% in 2022 (Table 9).

3.2.6 Drug resistance

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

Of 29 001 pulmonary TB cases notified in 2022, 22 533 (77.7%) were bacteriologically confirmed and 18 749 (83.2%) had DST 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 4.0% in France to 100% in six countries (Estonia, Iceland, Lithuania, Malta, Slovakia and Slovenia). Among the cases with rifampicin DST results, 809 (4.4%) were reported as MDR-TB.

The proportion of MDR-TB cases varied by country (Table 10). Three countries reported no MDR-TB cases in 2022 (Croatia, Liechtenstein and Luxembourg), and another four countries reported that the proportion of MDR-TB cases (among cases with DST results) was below 2% (Belgium, Portugal, Slovenia and Spain). France reported 98% of cases with DST results as MDR-TB, however, DST results are reported only for MDR-TB cases in France. The highest proportion of MDR-TB cases (among cases with DST results) was reported by Estonia and Lithuania, with 25.0% and 16.7% reported as MDR-TB, respectively.

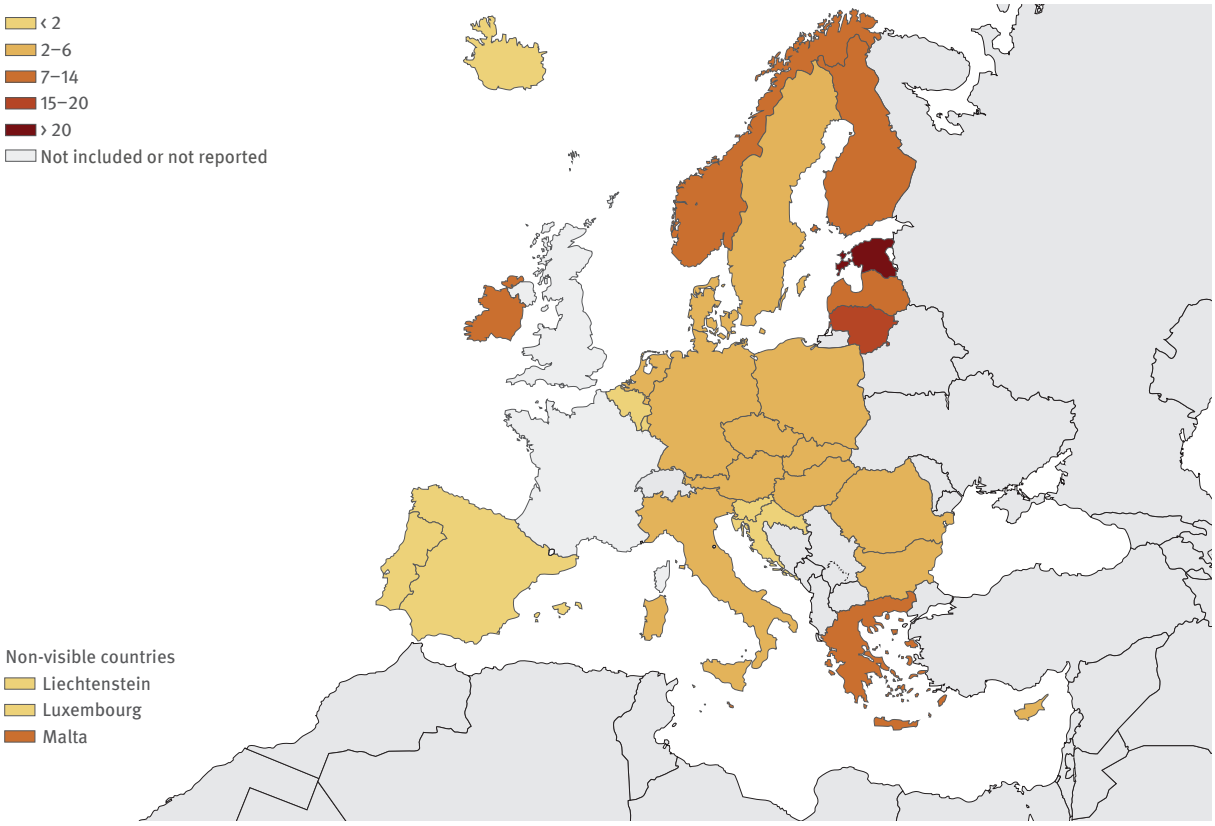
The proportion of RR/MDR-TB among all bacteriologically confirmed pulmonary TB cases with DST results for rifampicin was 4.9% (863 of 17 764; Table 11). When the data were analysed by previous treatment history, the proportion of RR/MDR-TB was higher among previously treated cases (10.0%, 282 of 2814) compared to new cases (3.9%, 581 of 14 950) (Map 4).

In 2022, 53.8% of RR/MDR-TB cases (502 of 933) had DST results for any fluoroquinolone (Table 12), and among these, 135 (26.9%) met the definition for pre-XDR. The majority of the pre-XDR cases were reported by Lithuania (38.1%, n=24) and Germany (25.9%, n=29). The majority of pre-XDR cases (88.9%, 120 of 135) had DST results reported for at least one other Group A drug (Table 12). Among these cases, 12 (10.0%) met the new XDR-case definition. All XDR-TB cases were reported by six EU/EEA countries: Estonia (28.6%, n=2), France (33.3%, n=3), Germany (6.9%, n=2), Lithuania (12.5%, n=3), Poland (9.1%, n=1) and Sweden (50.0%, n=1).

3.2.7 TB/HIV coinfection

HIV status was notified for 14 970 (73.6%) of 20 352 TB cases reported from the 21 countries that reported HIV status of TB cases (Table IX). Of the cases with known HIV status, 620 (4.1%) were reported as HIV positive. Among the 18 countries with at least 50% reporting completeness for HIV status, the proportion of coinfected cases was highest in Cyprus (18.5%), Hungary (12.5%) and Portugal

Map 4. Percentage of notified TB cases with RR/MDR among new pulmonary laboratory-confirmed TB cases, EU/EEA, 2022



Sources: 2022 data from the European Surveillance Systems (TESSy) and 2022 data from the WHO global TB data-collection system. Map production: ©ECDC.

(10.1%). There was a slight increase in the proportion of HIV-coinfected TB cases, from 4.0% in 2021 to 4.1% in 2022. The proportion of coinfected in 2021 and 2022 was higher than in the years before (3.5% in 2018, 3.9% in 2019 and 3.6% in 2020; Table IX).

3.2.8 TB in prisons

In 2022, 13 EU/EEA countries reported 345 new and relapse TB cases in prisons, resulting in a notification rate of 134 per 100 000 prison population and a RR of 9.7 compared to the general population in the same countries (Table 15). Overall, TB cases in prisons accounted for 1.3% of all new and relapse cases notified in the 13 reporting EU/EEA countries, with the proportion being highest in Luxembourg (6.3%).

3.2.9 Treatment outcome

Of all 24 468 new and relapse TB cases notified in 2021 with a treatment outcome reported in 2022, 15 649 (64.0%) were treated successfully, 1998 (8.2%) died, 194 (0.8%) experienced treatment failure, 843 (3.4%) were lost to follow up, 601 (2.5%) were still on treatment in 2022 and 5183 cases (21.2%) had not been evaluated (Table 16). Among the 25 countries that reported treatment outcome for the 2021 cohort, nine countries reported successful treatment for over 80.0% of cases: Estonia (83.7%), Liechtenstein (100%), Lithuania (86.4%), Malta (98.1%), Netherlands (Kingdom of the) (81.8%), Norway (86.8%), Romania (81.2%), Slovakia (87.8%) and Sweden (85.0%). In contrast, eight countries reported death as the outcome for over 10% of cases: Croatia (12.9%), Czechia (18.4%), Estonia (14.0%), Hungary (12.5%), Iceland (14.3%), Lithuania (10.8%), Romania (12.3%) and Slovenia (15.4%; Table 16).

Treatment success among the 1856 previously treated TB cases notified in 2021 was 66.6% (Table 17), which was higher compared to new and relapse cases (64.0%). A higher proportion of previously treated cases was reported to have treatment failure (3.3%) or have been lost to follow-up (7.0%) compared to new and relapse cases.

Treatment outcome at 12 months was reported for 417 HIV-positive TB cases who were notified in 2021 (Table 20). Of these HIV-positive TB cases, 225 (54.0%) were reported as successfully treated, 54 (12.9%) died, six (1.4%) experienced treatment failure, 33 (7.9%) were lost to follow-up, 40 (9.6%) were still on treatment in 2022 and 59 (14.1%) had not been evaluated (Table 20).

Treatment outcome at 24 months for RR/MDR-TB was evaluated for the 566 RR/MDR-TB cases notified in 2020 with a treatment outcome reported in 2022. Out of those, 297 (52.5%) were treated successfully, 86 (15.2%) died, 47 (8.3%) experienced treatment failure, 48 (8.5%) were lost to follow-up, 40 (7.1%) were still on treatment in 2022 and 48 (8.5%) had not been evaluated (Table 22). Of the 16 countries that reported RR/MDR-TB cases in 2020 and treatment outcomes in 2022, nine countries had treatment success above the target of 75%: Croatia (100%), Estonia (80.0%), Malta (100%), Netherlands (Kingdom of the) (100%), Norway (100%), Portugal (81.3%), Slovakia (100%), Slovenia (100%) and Sweden (83.3%). Between 2016 and 2017, the 24-month treatment success rate for RR/MDR-TB was below 50% for cases reported, however, in more recent years it has increased to over 50% (Table XI).

Among the 91 cases categorized as pre-XDR-TB notified in 2020 and reporting a treatment outcome at 24 months in 2022, 20 cases were reported as having treatment success (22.0%) while 11 (12.1%) were reported to have died, 12 (13.2%) had treatment failure, 27 (29.7%) were still on treatment and six (6.6%) had not been evaluated (Table 23). During the previous five years (2016–2020), treatment success among the pre-XDR-TB cohort has been below 35% each year (Table XII).

In 2022, treatment outcome at 36 months for XDR-TB cases notified in 2019 was reported by one country for a total of two XDR-TB cases. Eighteen countries reported zero XDR-TB cases in 2019. Of the two XDR-TB cases: one (50%) experienced treatment failure, while the other was reported as lost to follow-up (Table 24).

3.2.10 WHO disease burden estimates

According to WHO, the estimated TB incidence in the EU/EEA overall (excluding Liechtenstein) was 8.6 per 100 000 population in 2022 (Table 1 and Table II). Of the 29 countries with estimates, 23 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 3300 for the EU/EEA in 2022, an increase when compared with 2021 (3200) and almost a 4% reduction on the 4700 estimated for 2013 (Table 1 and Table I).

3.2.11 Conclusions for the EU/EEA

In 2022, all EU/EEA countries reported TB notification data and a total of 36 179 TB cases. The overall TB notification rate increased from 7.4 per 100 000 population in 2021 to 8.0 in 2022. Despite the recovery observed in the notification rate in 2022, the decrease trend in notifications, observed since 2002, has continued following the two years of COVID-19 related disruptions. 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 2022.

The increase in total case numbers and notification rates in 2022 shows the effect of the COVID-19 disruptions on the health-care system. As a result, some countries have experienced an increase in the number of cases they recovered from the pandemic period. The analysis of data completeness (presented in Annex 3) indicated a decrease for four of the 17 variables in 2022 compared with 2021, most notably for HIV status, results to other tests and outcome at 12 months.

The previously identified diversion of TB resources – clinical, laboratory or public health – to COVID-19 activities (including surveillance and contact tracing) and the difficulties in accessing patient's clinical services, due to lockdown/movement restrictions and overburdened health services, alongside fear of COVID-19 (identified through the survey conducted alongside the 2020 data collection)

may have resulted in delayed presentation and/or diagnosis of some TB cases during 2020 and 2021. This may have had an impact on the number of cases notified in the Member States. Delayed diagnosis may also 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, as it previously was hypothesized, an increased number of cases can now be observed in some countries in 2022.

Although an increase in TB notification rate was observed after the pandemic years 2020 and 2021, the 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 was sustained. 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 recovery of diagnostic services resulted in an increased rate in 2022, the current rate of decline in most EU/EEA countries is still insufficient to reach the 80% reduction target by 2030, or the TB elimination target by 2050 *(3)*.

Despite the slow improvement in the treatment success rates in recent years, additional effort is required to achieve the 80% treatment success rate of RR/MDR-TB regional milestone by 2025 (2) and the 90% rate recommended by WHO priority indicators and targets for monitoring the implementation of the End TB Strategy (4) in the EU/EEA. Additional resources may be required to accelerate progress towards achieving these goals.

After the accelerated decrease in the number of TB cases reported at EU/EEA level and globally observed during 2020 (7.5 per 100 000 population) and 2021 (7.4 per 100 000 population) compared to 2019 (10.0 per 100 000 population), the increase in case numbers in 2022 may be explained by countries catching up on diagnosis and reporting cases after the pandemic.

The observed number of drug-resistant TB cases in the EU/EEA increased in 2022, after a steady decline over the previous four years. The increase in the number of drug-resistant TB cases can be attributed to a range of factors, including the resumption of normal testing services after the COVID-19 pandemic, and the expansion of more targeted TB testing services in certain settings and among populations at risk.

DST results for first-line drugs were reported for over 75% of laboratory-confirmed TB cases in 2022.Even though this is an increase compared to just over 70% in 2021, there is still considerable room for improvement. The changes implemented to the definitions of drug-resistant TB *(2)* in 2020 – in particular the definition for XDR-TB – and the introduction of the pre-XDR-TB category, along with the updated WHO treatment guidelines for drug-resistant TB in 2022 *(5)*, emphasize the need for DST against second-line drugs, particularly fluoroquinolones, bedaquiline and linezolid.

Overall, the increase in the TB notification rate seen across the EU/EEA in 2022 indicates the substantial impact of the COVID-19 pandemic on the reduction of TB notification rate during 2020 and 2021 compared to pre-pandemic years. This suggests an increase in the recovery of the number of people with undiagnosed, untreated and MDR-TB reported in 2022. Nevertheless, there is still considerable work to be done to achieve the United Nations Sustainable Development Goals. Following the disruption of TB services during the pandemic and in order to prepare for long-term consequences of a large post-pandemic population movement, intensified efforts are needed. TB services should be prioritized and appropriately resourced to support intensified public health measures to fight the disease. As always, ECDC remains committed to supporting EU/EEA countries in their efforts to end the TB epidemic.

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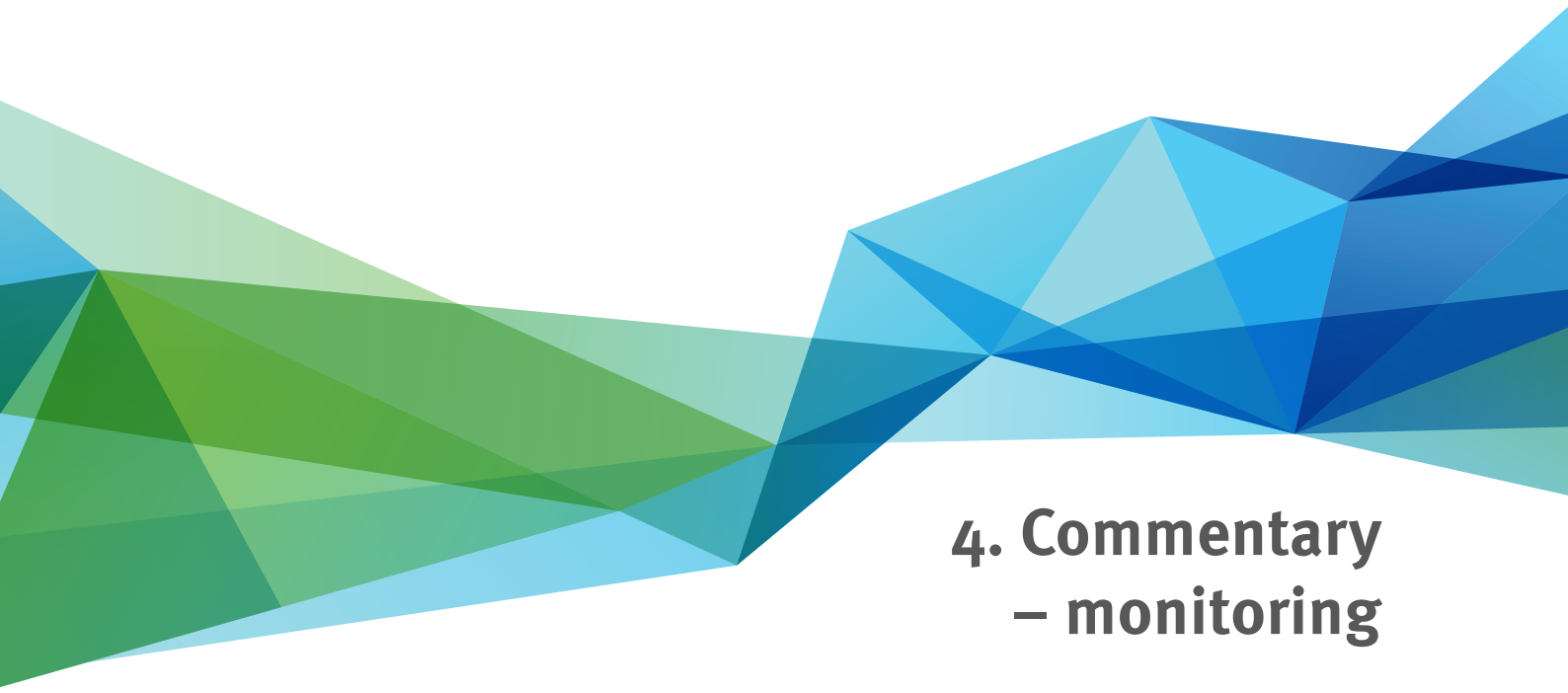
[15] All references accessed on 7 February 2024.



4. Commentary – monitoring

4. Commentary – monitoring

4.1 WHO European Region

In 2023, the new *Tuberculosis action plan for the WHO European Region 2023–2030 (1)*, came into force, operationalizing the global End TB Strategy *(2)* through Region-specific actions and placing people at the heart of the response, in line with the European Programme of Work, 2020–2025 – "United Action for Better Health" *(3)*. Ending the TB epidemic requires implementing the commitments made by Member States through actions articulated in the regional action plan.

The *Tuberculosis Action Plan for the WHO European Region 2023–2030 (1)* is supported by a monitoring framework that facilitates a harmonized 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, labelled with (E) below. In addition, the selection of indicators was harmonized with the End TB Strategy's recommended top 10 global indicators to focus on indicators that are collected regularly through routine recording and reporting – these are labelled with (G) below. To prioritize the area of intervention, indicators are to be measured according to the following layers: 18 HPCs for ending TB in the WHO European Region; EU/EEA countries; and the average for the WHO European Region.

This is the first report analysing recent developments to follow-up on the monitoring indicators of the *Tuberculosis Action Plan for the WHO European Region 2023–2030 (1)*.

Indicator 1.B.1 Tuberculosis preventative treatment coverage (%) among PLHIV (G)

Data for this indicator is supplied by National AIDS Program respondents into the UNAIDS Global AIDS monitoring database *(4)*. In 2022, a total of eight countries reported on TB preventative treatment (TPT) coverage among the total number of new HIV patients eligible for TPT. Overall, only 68% of eligible PLHIV were enrolled into TPT. The indicator ranged from 15.2% in Belarus to 90.6% in Tajikistan, and none of the reporting countries achieved the targeted 99% TPT coverage.

Indicator 1.B.2 TPT coverage in childhood TB contacts aged under 5 years (E)(G)

WHO recommends that children under 5 years of age who are household or close contacts of people with TB and who, after an appropriate clinical evaluation, are found not to have active TB should be treated for presumed TB infection. The regional action plan aims to achieve at least 95% TPT coverage of childhood TB contacts aged under five years. This indicator is calculated as the number of children aged under 5 years who are household contacts of bacteriologically confirmed pulmonary TB cases started on TPT, divided by the estimated number of children under five years who are household contacts of bacteriologically confirmed pulmonary TB patients. In 2022, a total of 22 countries provided information in the Global TB database *(5)* on TPT treatment among children under five years. At Regional level, TPT coverage of childhood TB contacts aged under 5 years was 72.2%. Fourteen countries achieved the 95% target (Fig. 4.1.2).

Fig. 4.1.1. Percentage of newly detected PLHIV enrolled into TPT in reporting HPCs, and the average for the WHO European Region, 2022 (G)

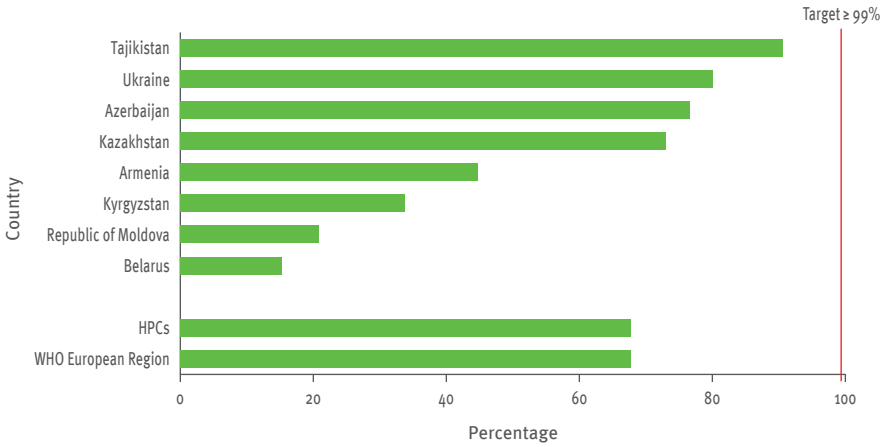
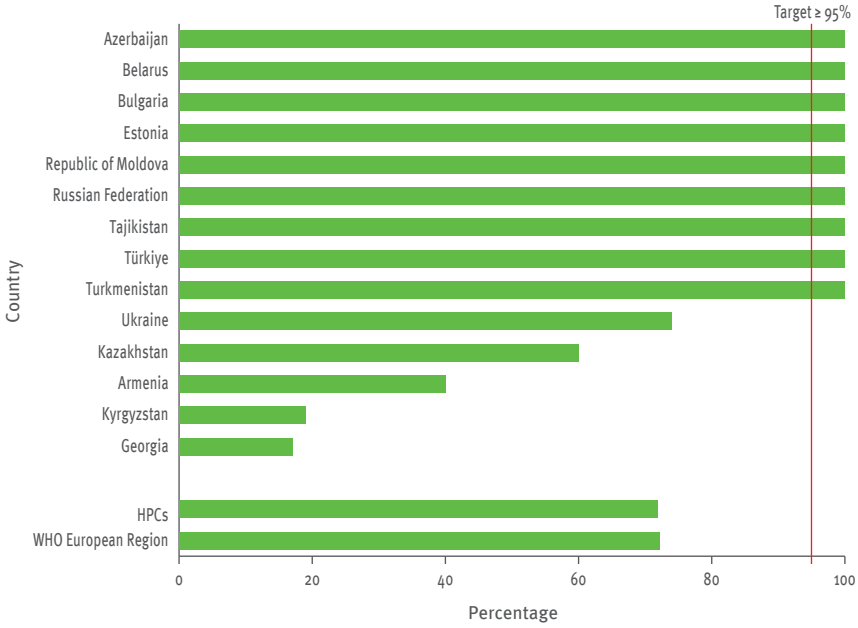


Fig. 4.1.2. TPT coverage in childhood TB contacts aged under five years in reporting HPCs and the average in the WHO European Region, 2022 (E) (G)

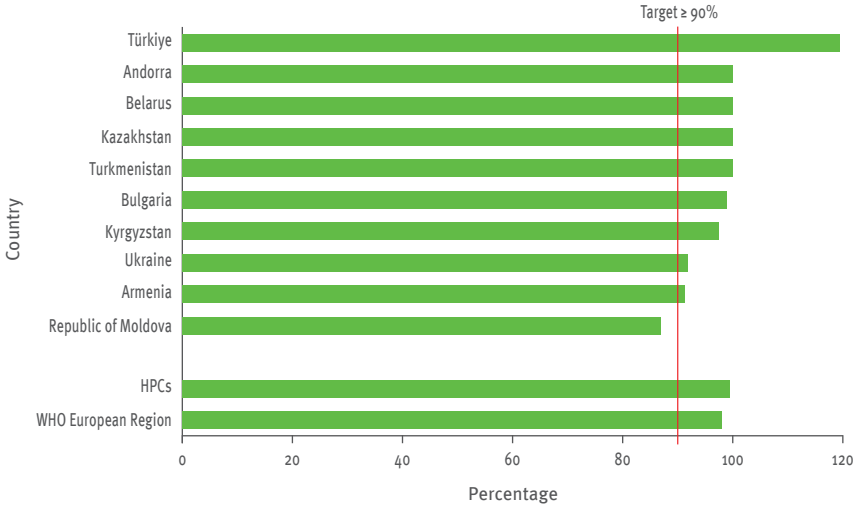


Indicator 1.C.1 Coverage of contacts with systematic screening for active TB (G)

Systematic screening for active TB among household contacts of bacteriologically confirmed pulmonary TB cases is a key component of TB prevention, especially in children. Contact screening may result in the earlier identification of people who are ill or infected with TB, possibly decreasing disease severity and reducing transmission of *M. tuberculosis*. WHO recommends that all contacts of bacteriologically confirmed TB patients be followed up and screened for TB.

This indicator is calculated as the number of contacts of people with bacteriologically confirmed TB evaluated for TB, divided by the total number of household contacts. Only 18 countries in the Region reported contact-tracing data to the WHO Global TB Database, and 98% of all contacts with TB cases were investigated for active TB in 2022. The target of at least 90% was achieved by eight of nine HPCs reporting data on contact tracing coverage (Fig. 4.1.3).

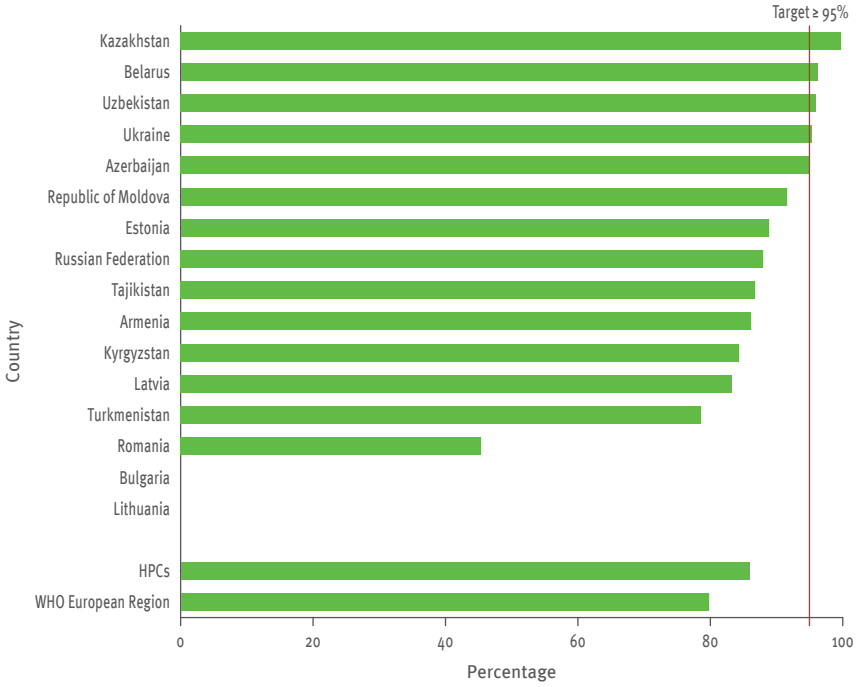
Fig. 4.1.3. Coverage of contacts with systematic screening for active TB in reporting HPCs and the average for the WHO European Region, 2022 (G)



Indicator 1.D.1 Percentage of notified new and relapse TB patients tested using WRD (G)

In 2022, a total of 43 countries reported data on the proportion of newly-notified patients diagnosed using WRD. As is shown in Fig. 4.1.4, at regional level the target has not been achieved: only 79% of new and relapse cases were diagnosed using rapid tests. This figure was higher for the 18 HPCs, reaching 86%. Of the 18 HPCs, five met the target, 11 countries did not meet the target and two (Georgia and Türkiye) did not provide information. At EU/EEA subregional level, only 43% of cases were diagnosed using rapid tests (Fig. 4.1.4).

Fig. 4.1.4. Percentage of new and relapse TB patients notified in 2022 that were diagnosed using WRD in reporting HPCs and the average for the WHO European Region, 2022 (G)



Indicator 1.D.2 Bacteriological confirmation: Percentage of new and relapse pulmonary TB patients who are bacteriologically confirmed

The bacteriological confirmation of TB is essential because it allows people to be correctly diagnosed and started on the most effective treatment regimen as early as possible. In addition, bacteriological confirmation of TB is necessary to test for resistance to anti-TB drugs. Despite positive progress, at regional level the target of at least 90% bacteriological confirmation among incident pulmonary TB cases has not been achieved: only 72% of new and relapse cases were laboratory confirmed. This figure was lower for the 18 HPCs. Of the 18 HPCs, seven met the target and another six HPCs reported above 70% of bacteriological confirmation (Fig. 4.1.5).

Indicator 1.D.3 Testing for drug resistance: Percentage of people diagnosed with bacteriologically confirmed pulmonary TB who had a documented susceptibility test result for rifampicin (G).

The action plan aimed to ensure provision of DST for all bacteriologically confirmed tuberculosis cases. In 2022, a total of 52 countries reported on DST routine surveillance data. Coverage of DST among all bacteriologically confirmed TB cases confirmed was 93%. In all, 15 of the 18 HPCs had DST coverage above 90% and eight countries reached the target of 100% DST coverage for rifampicin (Fig. 4.1.6).

Indicator 1.D.4 Testing for additional drug resistance: Percentage of people with RR-TB who had a documented susceptibility test result for fluoroquinolones

To determine the most appropriate treatment regimen, RR-TB patients should be tested for susceptibility to fluoroquinolones. Coverage of DST for fluoroquinolones among confirmed RR/MDR-TB cases was 81%. In all, 12 of the 18 HPCs had DST coverage above 85% and four countries reached the target of 100% DST coverage for fluoroquinolones (Fig. 4.1.7).

Indicator 1.D.5 RR/MDR-TB case-detection rate (%)

This indicator is calculated by dividing the total number of notified RR/MDR TB cases among bacteriologically confirmed pulmonary TB patients by the total number of estimated RR/MDR-TB among notified bacteriologically confirmed pulmonary TB patients. In 2022, a total of 34 447 RR/MDR TB cases were detected among bacteriologically confirmed pulmonary TB patients notified in the WHO European Region. In all, nine of the 18 HPCs attained above 85% and four countries reached the target of 100% RR/MDR-TB case detection rate (Fig. 4.1.8).

Fig. 4.1.5. Percentage of new and relapse pulmonary TB patients notified in 2022 that were bacteriologically confirmed in reporting HPCs and the average for the WHO European Region, 2022

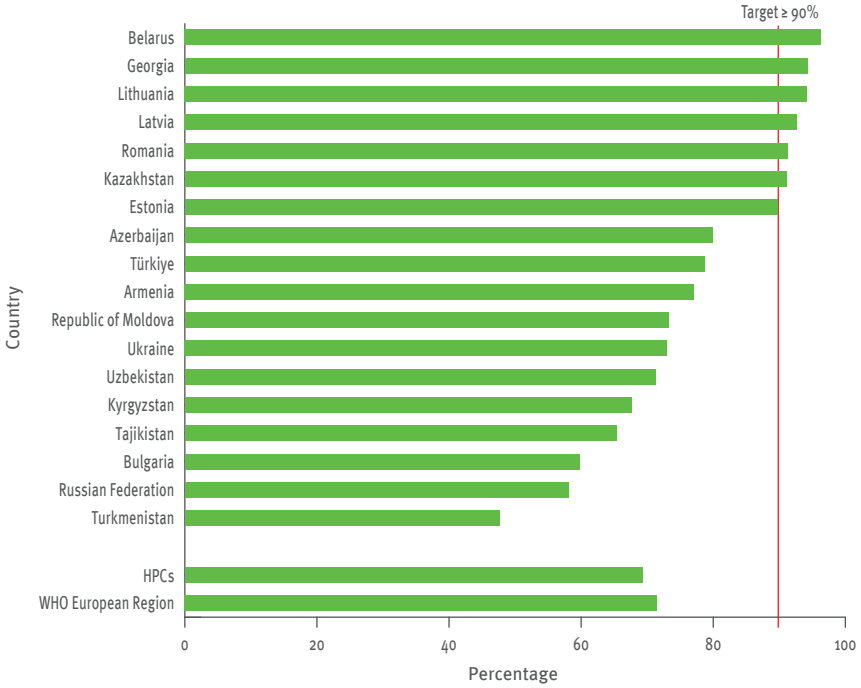


Fig. 4.1.6. Percentage of people diagnosed with bacteriologically confirmed pulmonary TB who had a documented susceptibility test result for rifampicin in reporting HPCs and the average for the WHO European Region, 2022

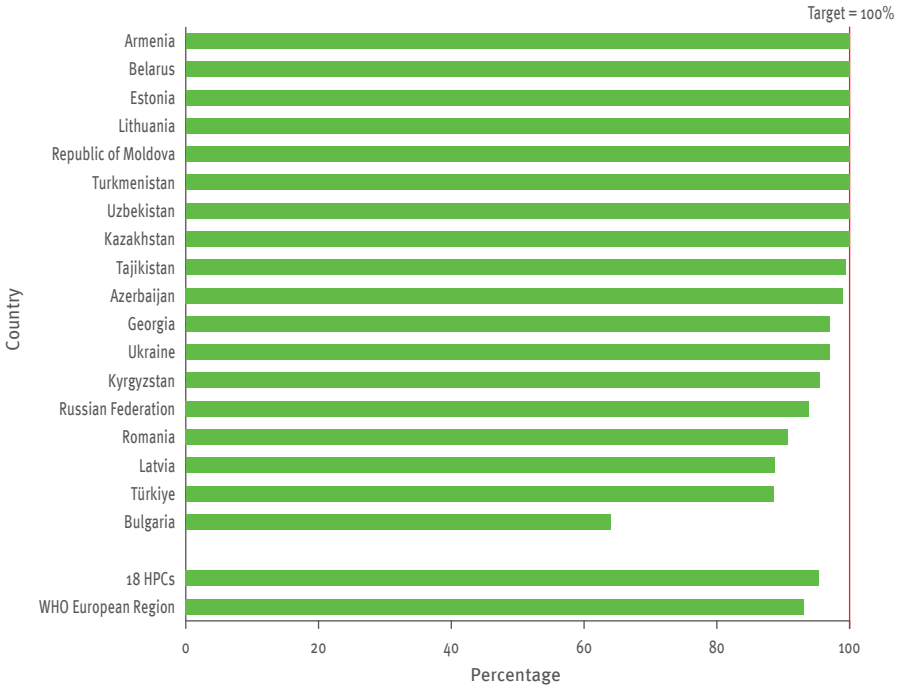


Fig. 4.1.7. Percentage of people with RR-TB who had a documented susceptibility test result for fluoroquinolones in reporting HPCs and the average for the WHO European Region, 2022

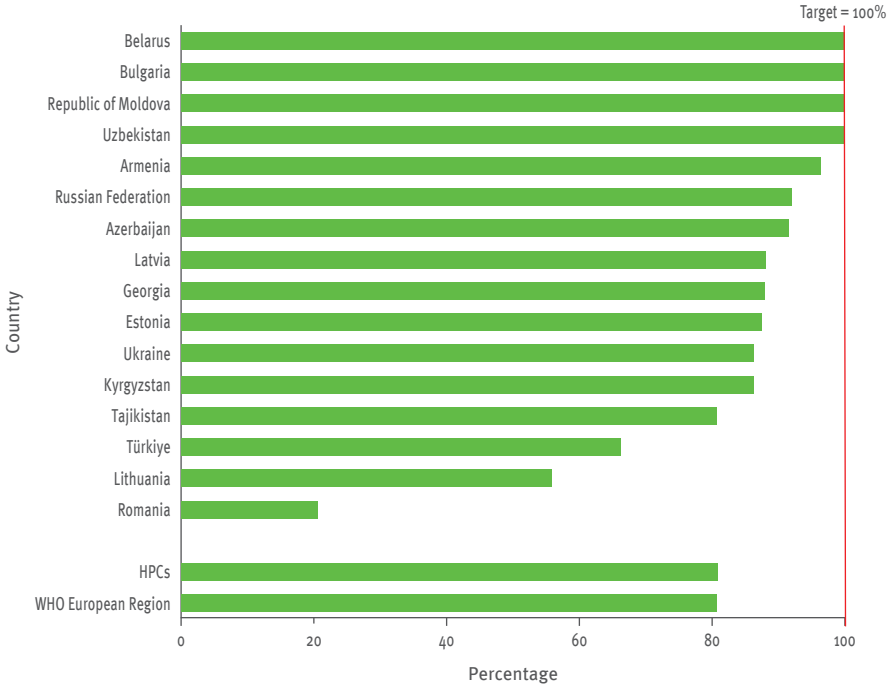
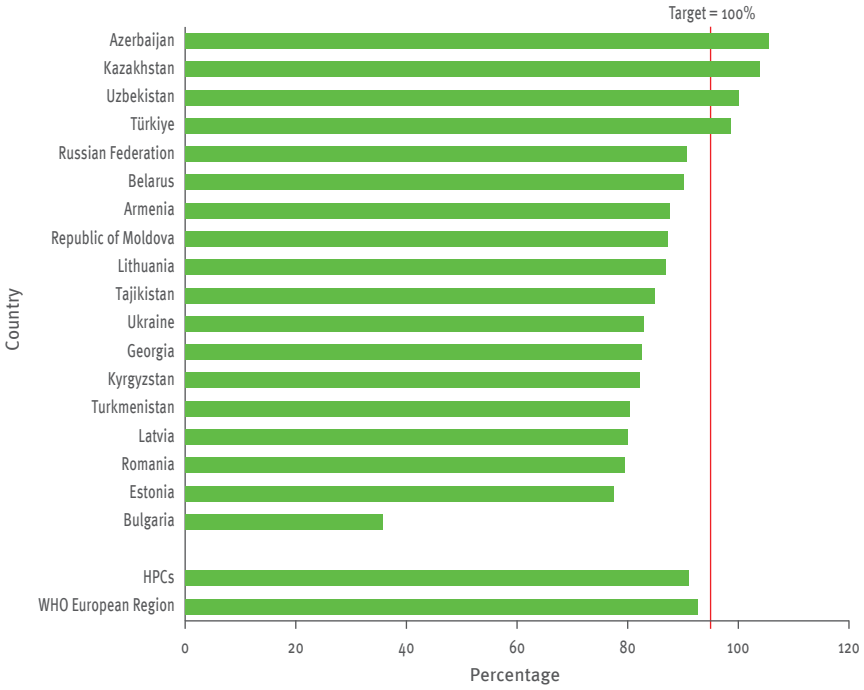


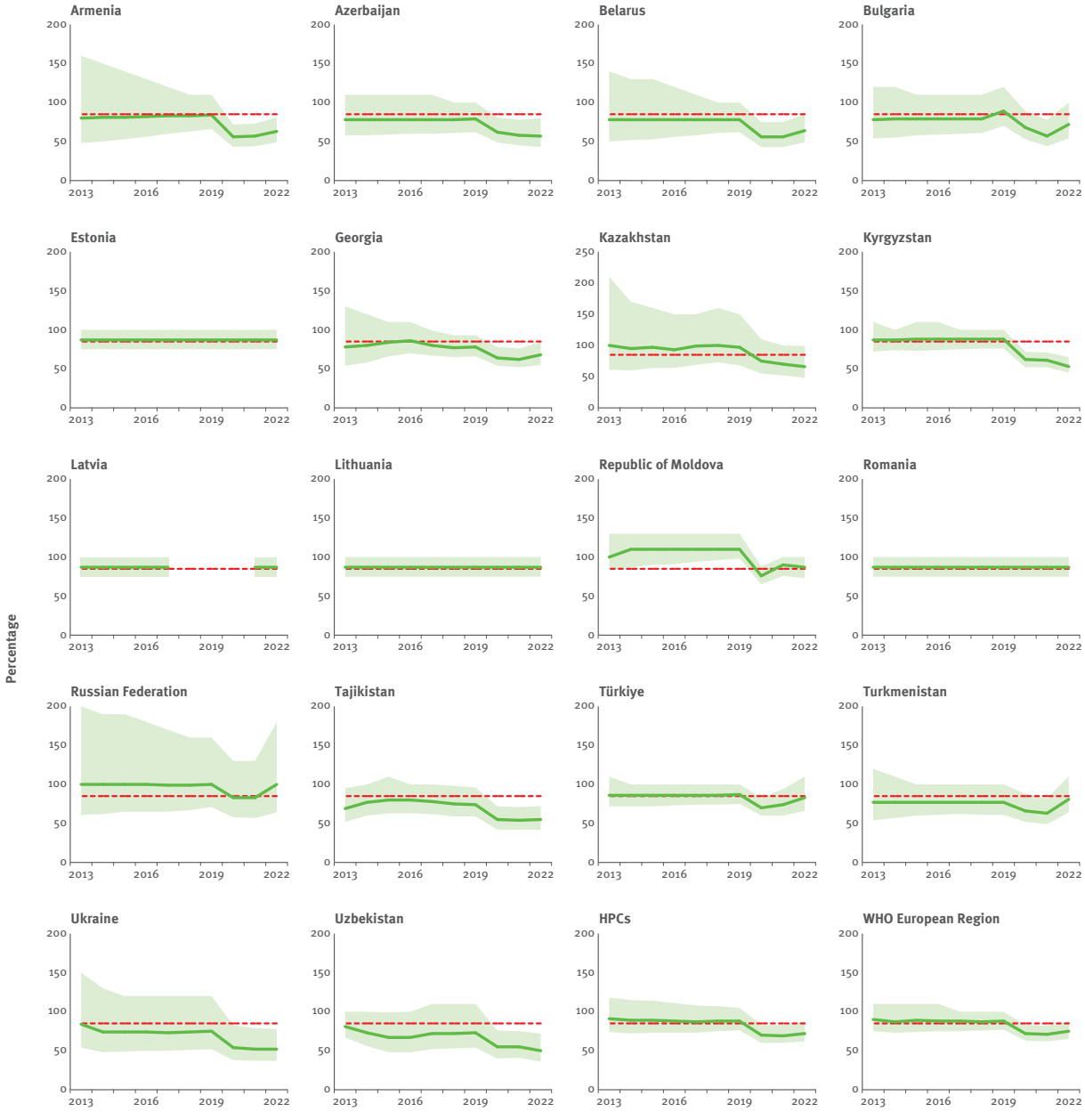
Fig. 4.1.8. RR/MDR-TB case-detection rate (%) in reporting HPCs and the average rate for the WHO European Region, 2022



Indicator 1.D.6 TB case-detection rate (%)

The TB case-detection rate provides an indication of the effectiveness of national TB programmes in finding, diagnosing and treating people with TB. In 2022, 170 365 incident TB cases were notified in 52 countries/areas across the WHO European Region, compared with an estimated 229 000 cases (range: 196 000–263 000) (Fig. 4.1.9). This represents a case-detection rate of 75% (95% CI: 65–87%), which is slightly higher than the 72% (95% CI: 63–83%) baseline measured in 2020, but remarkably lower than the pre-pandemic level. As of 2022 only six HPCs achieved the target of at least a 85% case-detection rate.

Fig. 4.1.9. TB case detection rate (%) in 18 HPCs and the average rate for the WHO European Region, 2013–2022



Note: The horizontal red line shows 85% case-detection rate target set by the Regional 2023–2030 action plan *(1)*.
Shaded areas represent uncertainty intervals around the best estimate.

Indicator 1.D.7 TB incidence rate per 100 000 population (E)

The 2025 milestone of the TB action plan for the European Region is a 50% reduction of TB incidence between 2015 and 2025. The net reduction of TB incidence in 2022 compared to baseline was 25%. This is the largest reduction across all WHO Regions *(6)*. While before the pandemic all HPCs successively reduced TB incidence, after 2020 the trajectories of directions of trends of TB incidence varies considerably (Fig. 4.1.10). At regional level the upward trend seen between 2020 and 2021 was reversed in 2022. Eight HPCs continue to show steady reduction of incidence and or are on the track to achieve the milestone target, while in the rest of the ten HPCs, the TB incidence as of 2022 has either increased compared to 2020 or stagnated.

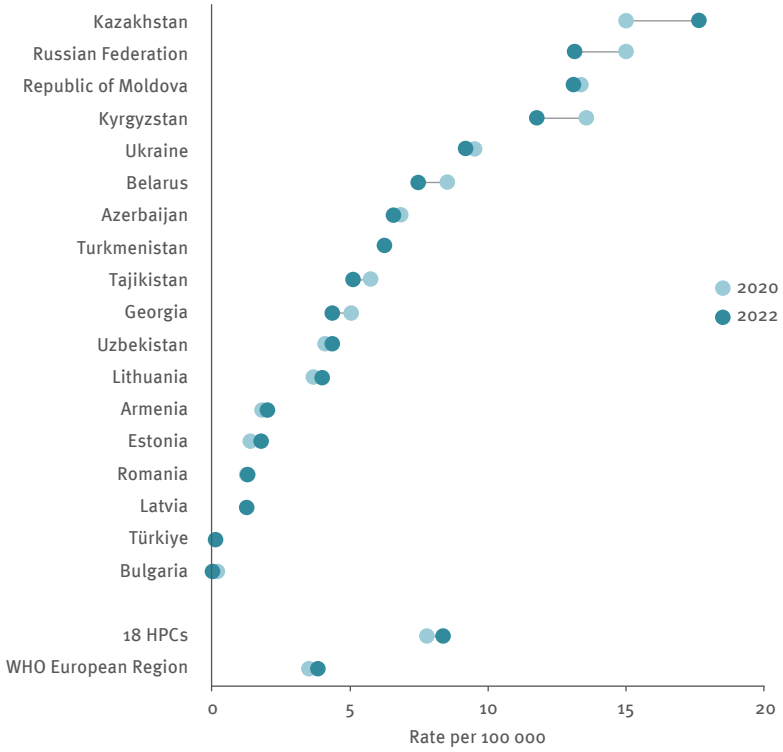
Fig. 4.1.10. TB incidence rate per 100 000 population in HPCs and the average for the WHO European Region, 2013–2022

Shaded areas represent uncertainty intervals around the best estimate.

Indicator 1.D.8 RR/MDR-TB notification rate per 100 000 population

RR/MDR TB notification rate is largely related to the overall TB notification rate, and in 2020 many people were under-notified because of the disruption of TB services due to the pandemic. Therefore, the increased RR/MDR-TB notification rate in 2022 compared to the 2020 level observed in most countries as well as at regional level reflects the recovery of these services (Fig. 4.1.11). Overall, nine HPCs reduced the RR/MDR-TB notification rate in 2022 compared to the 2020 level.

Fig. 4.1.11. RR/MDR-TB notification rate per 100 000 population in 18 HPCs and the average for the WHO European Region, 2020 and 2022



Indicator 1.E.2 Percentage of notified RR/MDR-TB patients enrolled in treatment (E)(G)

Achieving universal second-line treatment coverage for all detected RR/MDR-TB patients is a fundamental requirement for reducing TB transmission in the community and TB-related deaths (Fig. 4.1.12). The number of cases starting RR/MDR-TB treatment in 2022 was computed to be above 100%, as a few HPCs reported higher numbers of cases enrolled in treatment than detected. The reasons for such discrepancies include incomplete reporting, backlogs of RR/MDR-TB patients, frequent treatment failures and treatment interruptions leading to re-enrolment of the same patients in the same yearly cohort, and weakness of TB surveillance. At country level, eleven HPCs achieved at least a 99% enrolment rate.

Indicator 1.E.3 Treatment success rate (%) among all new and relapse TB patients (E) (G)

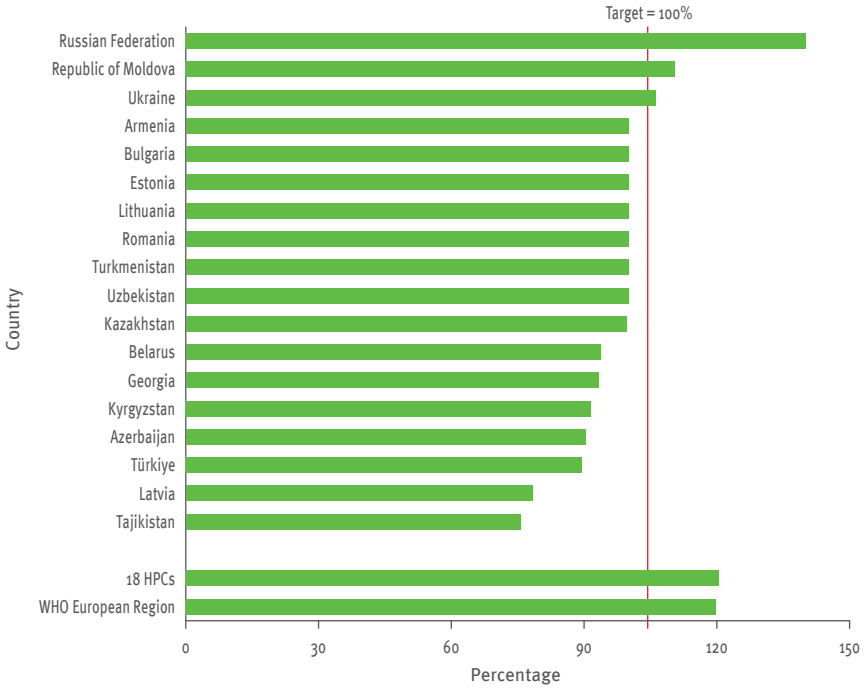
Effective TB treatment is essential to prevent death and cut transmission. The treatment success rate serves as a key indicator for monitoring progress towards the End TB Strategy. According to the action plan, the WHO European Region needs to increase the treatment success rate for new and relapse TB cases to at least 90% by 2030.

In 2021, the treatment success rate for new and relapse patients enrolled in treatment at regional level was 70%, compared to the baseline rate of 77%. Only one of the 17 HPCs reporting data achieved the targeted level of a 90% treatment success rate. Another six HPCs showed a trend towards improvement in treatment success, however most countries show declining trends (Fig. 4.1.13).

Indicator 1.E.4 Treatment success rate (%) among the RR/MDR-TB treatment cohort (E) (G)

Treatment success rate is an indicator of high-quality TB care. Following some increase over the past 5 years, the RR/MDR-TB treatment success rate ranges between 57% and 59% at regional level. Three of the HPCs – Belarus, Estonia and Tajikistan – attained the 80% treatment success rate, which is the milestone for the 2025 reporting year, but none of the HPCs reporting data achieved the benchmark of having a treatment success rate of at least 85% for RR/MDR-TB patients (Fig. 4.1.14).

Fig. 4.1.12. Percentage of notified RR/MDR-TB patients enrolled in treatment in 18 HPCs and the average for the WHO European Region, 2022



Indicator 1.E.5 Treatment success rate (%) among the pre-XDR-TB treatment cohort (E) (G)

The introduction and scale-up of new and re-purposed drugs and short all-oral regimens to treat pre-XDR-TB, provides an opportunity to improve the treatment outcomes of people infected with fluoroquinolone resistant RR-TB. In the pre-XDR cohort that started treatment in 2020 the treatment success rate at regional level was 53.2% against a 50.9% baseline. This is the highest level ever reported in the Region, reflecting the impact of the introduction of new TB drugs and new treatment regimens. The action plan set an ambitious target to increase the treatment success of pre-XDR-TB cases to at least to 80% by 2030. Only two countries – Belarus and Kazakhstan – reached at least a 75% treatment success rate, a milestone set for the 2025 reporting year. On a positive note, most of the HPCs show a stable increasing trend in the pre-XDR-TB treatment success rate over the time period (Fig. 4.1.15).

Indicator 1.E.6 Total number of TB deaths (E) (G)

The total number of TB deaths is an indicator measuring the burden of tuberculosis. Mortality responds quickly to improvements in TB response, as timely and effective treatment reduces the average duration of the disease and the likelihood of dying from the disease. Over the past decade the WHO European Region demonstrated impressive performance in reducing the number of deaths. The current action plan aims as of 2030 to reduce the total number of deaths by at least 85% compared to the 2015 level. To achieve this target, the countries with high mortality should attain at least a 12% annual reduction in TB deaths. In 2022, there were an estimated 18 000 deaths among people with TB excluding TB/HIV coinfection, which was 42% lower than the 32 000 deaths estimated to have occurred in 2015 (Fig. 4.1.16). The decline of mortality at regional level was reversed in 2021 due to the COVID-19 pandemic, therefore, to achieve the milestones and targets of the action plan, a much faster decline in the total number of deaths is required in the coming years.

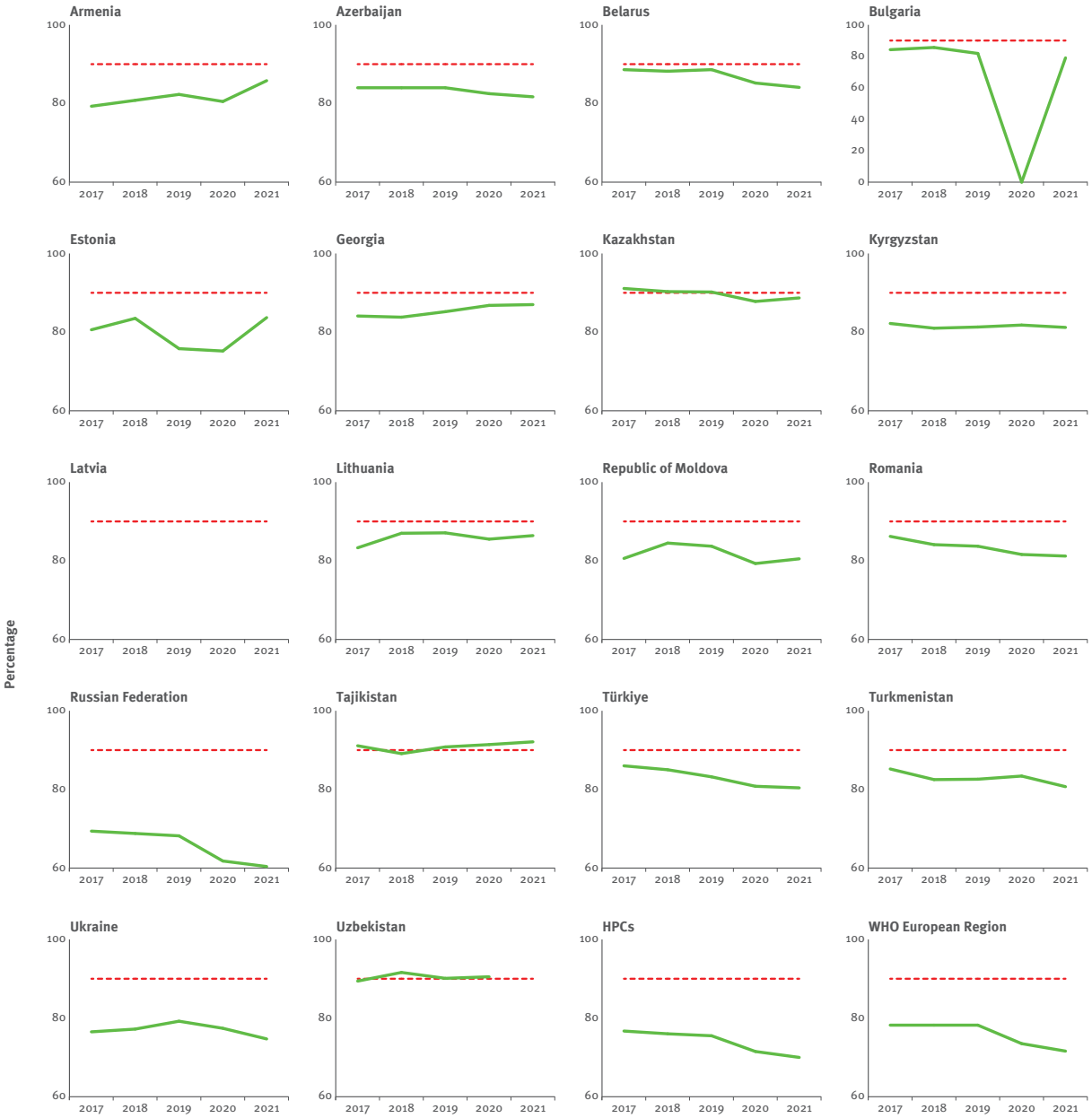
Indicator 1.E.7 TB/HIV case-detection rate (%)

In 2022, only 78% of the estimated number of TB/HIV coinfected people were detected by health systems in the Region, which is comparatively better than the 68% baseline recorded in 2020, but still far below the close to 100% target (Fig 4.1.17). Of the HPCs only the Russian Federation achieved close to a 100% TB/HIV case-detection rate.

Indicator 1.E.8 HIV testing coverage (%)(E)(G)

HIV testing among people with TB is crucial, as the knowledge of HIV status enables HIV-positive TB patients to access the most appropriate HIV prevention, treatment care and support services and remarkably improve TB treatment outcome. The aim of the action plan is for countries to achieve HIV testing coverage of close to 100%. In 2022, HIV testing coverage at regional level was 92.4%, which is comparable with the 93% testing coverage at baseline in 2020. Six HPCs reported at least 99% HIV testing coverage (Fig. 4.1.18).

Fig. 4.1.13. Trend in treatment success rate among the new and relapse TB cohort notified between 2017 and 2021 in 18 HPCs and the average for the WHO European Region (G) (E)



Note: Data from Latvia is missing.

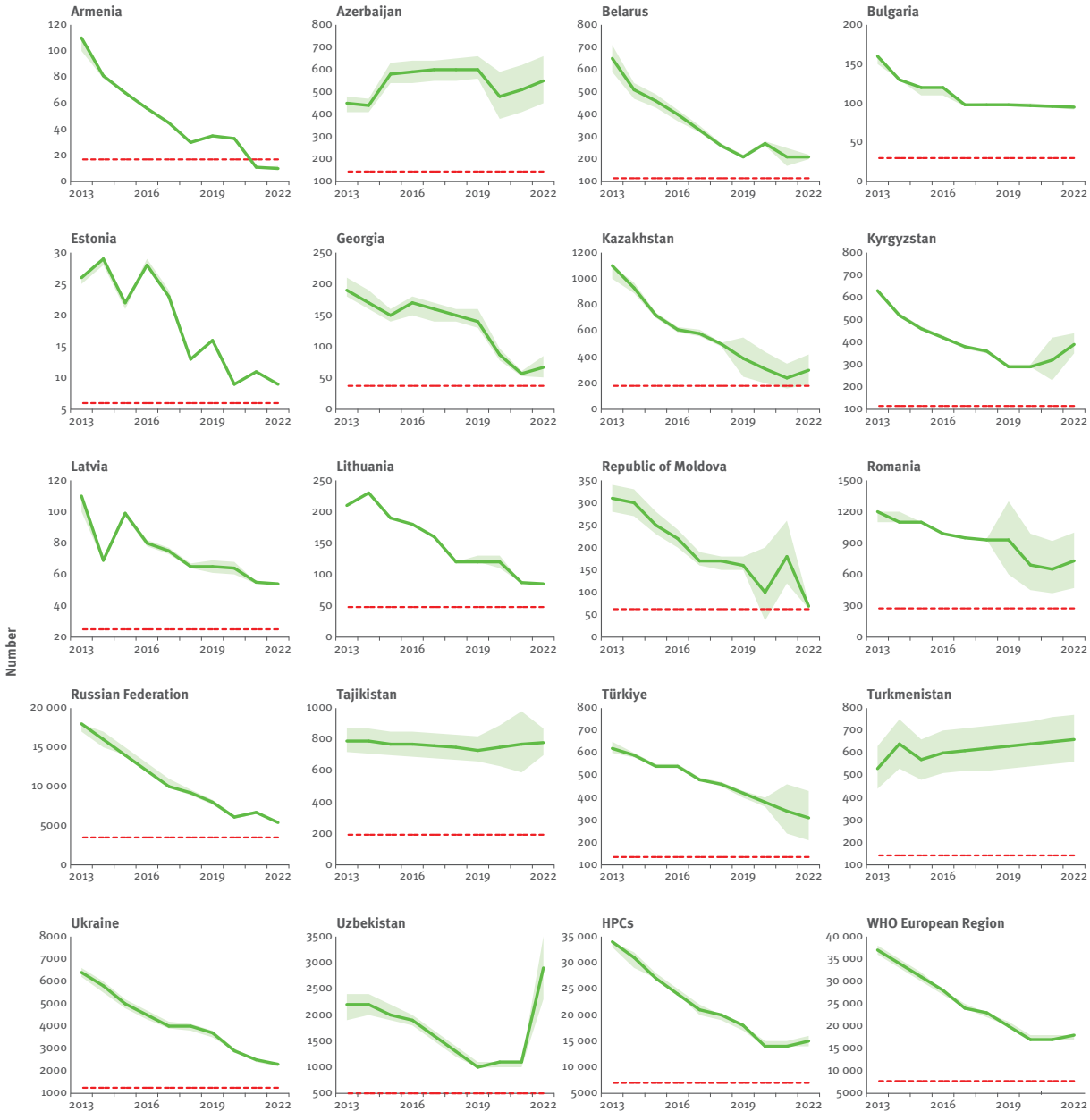
Fig. 4.1.14. Trend in treatment success rate among the RR/MDR TB cohort enrolled in treatment between 2016 and 2020 in 18 HPCs and the average for the WHO European Region (E) (G)

Note: Data from Latvia is missing.

Fig. 4.1.15. Trend in treatment success rate among the pre-XDR-TB treatment cohort enrolled in treatment between 2016 and 2020 in 18 HPCs and the average for the WHO European Region (E) (G)

Note: Data from Latvia is missing.

Fig. 4.1.16. Total number of TB deaths in 18 HPCs and the average for the WHO European Region, 2013–2022 (E) (G)



Shaded areas represent uncertainty intervals around the best estimate.

Fig. 4.1.17. TB/HIV case-detection rate (%) in reporting HPCs and the average for the WHO European Region, 2022

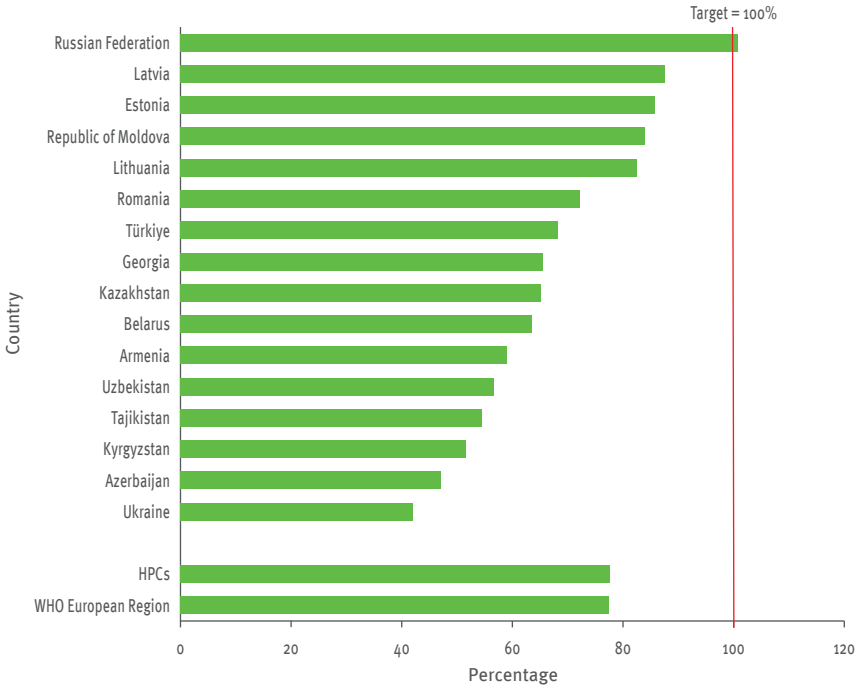
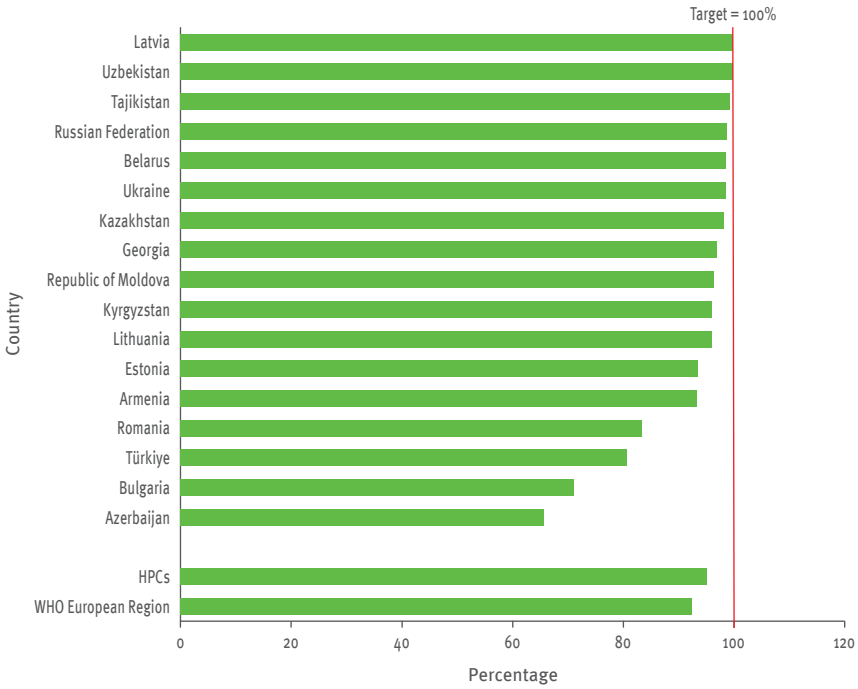


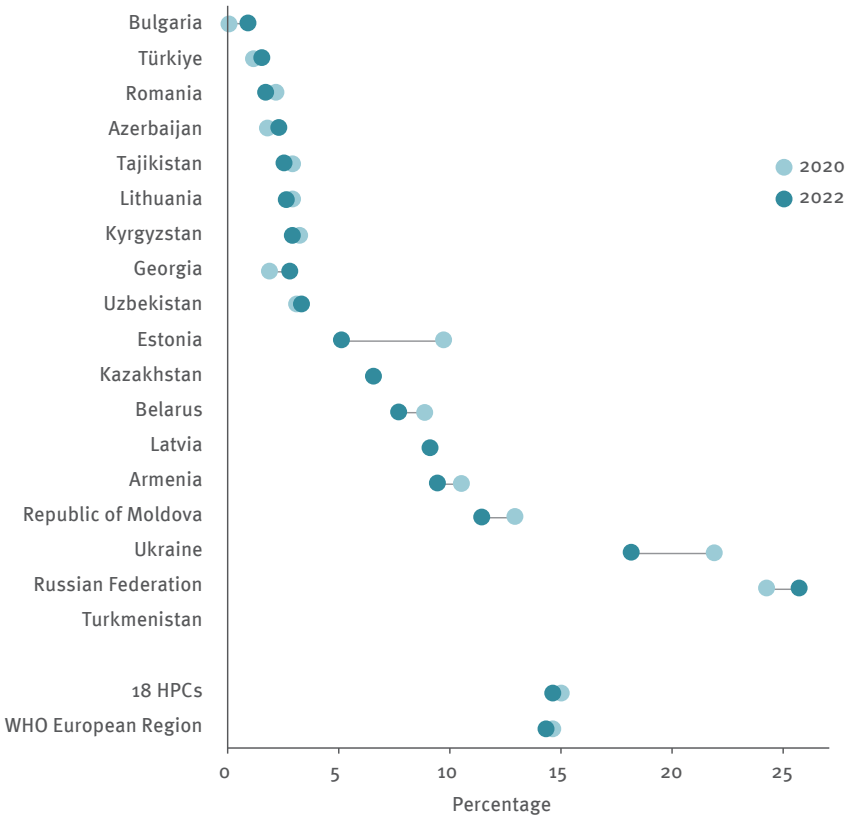
Fig. 4.1.18. HIV testing coverage (%) in reporting HPCs and the average for the WHO European Region, 2022 (E)(G)



Indicator 1.E.9 Percentage of HIV-positive cases among new and relapse TB patients with documented test results (E)

In 2022, 14.3% of new TB patients with known HIV status were HIV-positive, comparable to the 14.5% baseline in 2020. Four HPCs reported over a 10% increase of TB/HIV coinfection compared to the baseline value: Azerbaijan, Bulgaria, Georgia, and Türkiye, while Armenia, Belarus, Estonia, Kyrgyzstan, Moldova, Romania, Tajikistan, and Ukraine reported a decline in the percentage of HIV among people notified with TB (Fig. 4.1.19). However, none of the HPC countries show a clear declining trend from 2020 to 2022, indicating that efforts towards the early identification of PLHIV and the administration of TPT are inadequate and need to be expanded.

Fig. 4.1.19. Percentage of HIV-positive cases among new and relapse TB patients with documented test results in 18 HPCs and the average for the WHO European Region, 2020–2022 (E)



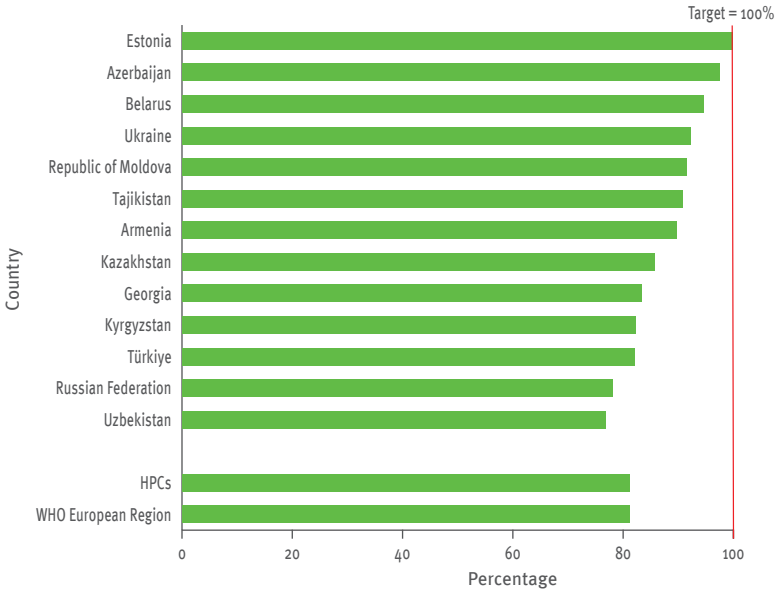
Indicator 1.E.10 ART coverage (%) among TB/HIV patients.

This indicator measures the commitment and capacity of TB services to ensure that HIV-positive TB patients are able to access ART. ART significantly improves the quality of life, reduces morbidity and enhances the survival of people with advanced HIV infection or AIDS. The *Tuberculosis action plan for the WHO European Region*, 2023–2030 *(1)* aims to achieve full coverage with ART for all patients detected with TB/HIV coinfection, as per WHO recommendations *(7)*. In 2022, 22 countries/areas in the Region provided information on ART enrolment among TB cases with positive HIV status, with ART coverage at 81.2% among those reporting. This is an improvement on the 2020 baseline of 74%, but still below the universal coverage target in the action plan. Six of the HPCs attained coverage above 90% (Azerbaijan, Belarus, Estonia, Republic of Moldova, Tajikistan and Ukraine) (Fig. 4.1.20).

Conclusions and monitoring recommendations

In 2022, 20 out of 30 indicators in the *Tuberculosis action plan for the WHO European Region, 2023–2030 (1)* were monitored and evaluated using routine surveillance data. Of the 20 targets monitored, three indicators were either achieved or on track to be achieved at the regional level. The progress in achieving an increasing coverage of contacts with systematic screening for active TB and enrolment into second-line treatment for people identified with RR-TB was particularly impressive. With a cumulative reduction in TB incidence rate and in the number of TB deaths for the period 2015–2022 the WHO European Region has the best performance compared to other WHO regions and is on track to achieve the 2025 milestones of the End TB strategy *(2)* as well as the targets of the Regional action plan *(1)*. For eight of the remaining 18 indicators, the targets were either already met or there was an improvement from baseline. In the past few years, an increase in testing

Fig. 4.1.20. ART coverage (%) among TB/HIV patients in reporting HPCs and the average for the WHO European Region, 2022



coverage using WRD has been documented. The increase in the rate of RR/MDR-TB per 100 000 population as well as the percentage of HIV/TB coinfection observed over the past decade has plateaued. The treatment success rates for new and relapse TB cases and RR/MDR TB cases are still below the global and regional targets, however, a slow but sustainable increase can be seen in both RR/MDR TB and pre-XDR TB cohorts, indicating the need to introduce new, more innovative and effective approaches to address these cases. TB prevention efforts, including contact tracing, TPT coverage and ART coverage among PLHIV, need to be intensified.

4.2 EU/EEA countries

In 2023, WHO's Regional Office for Europe, working closely with representatives from countries, experts and communities, developed the *Tuberculosis action plan for the WHO European Region 2023–2030 (1)*. This output is based on lessons learnt implementing the Regional Committee Resolution on the *Tuberculosis action plan for the WHO European Region 2016–2020 (8)*. Developed through a Region-wide participatory consultation process, the *Tuberculosis action plan for the WHO European Region 2023–2023 (1)* aims to support Member States in implementing their national responses to the TB epidemic. It provides strategies to enable the Region to reach the global End TB Strategy *(2)* targets as well as aligning to the priorities of the European Programme of Work, 2020–2025 – "United Action for Better Health in Europe"*(3)*. The indicators apply to three different groupings of countries: HPCs, the average of the WHO European Region and EU/EEA countries.

The monitoring framework, to follow up the implementation of the *Tuberculosis action plan for the WHO European Region 2023–2030 (1)*, established three areas of intervention with 30 indicators to assess the performance of the countries in tackling TB. Out of the 30 indicators, only 20 indicators are monitored at the EU/EEA level.

A summary of the findings by EU/EEA Member States and relevant indicators is provided in Table 25, while indicator definitions and targets can be found in Annex 6.

4.2.1. Integrated patient-centred care and prevention

1.A. People at the centre: a shared approach on partnerships with PHC, public health, civil society and affected communities for united action

Indicator 1.A.1 Number of Member States with adopted standards and operational procedures for civil society organizations (CSOs) in the provision of psychosocial support services to ensure treatment adherence for people with TB

Indicator 1.A.2 Number of Member States with adopted procedures of subcontracting mechanisms under the state funds or other relevant funding mechanisms for CSOs in the provision of psychosocial support and active case finding services for people with TB

Indicators 1.A.1 and 1.A.2 are not monitored at EU/EEA level.

1.B. Comprehensive TB prevention, including programmatic management of TPT, infection prevention and control and vaccination against TB

Indicator 1.B.1 TPT coverage (%) among PLHIV (G)

The target for TPT coverage (%) among PLHIV is ≥ 99%. No relevant data were available in the WHO Global TB database for any EU/EEA Member State in 2022, therefore this indicator could not be monitored.

Indicator 1.B.2 TPT coverage (%) in childhood TB contacts aged under 5 years (E)(G)

Eight EU/EEA Member States reported TPT treatment coverage data for childhood TB contacts aged under 5 years. Only six countries (Bulgaria, Estonia, France, Norway, Portugal and Slovenia) reported 100% of these contacts to have started TPT in 2022 (Table 25), while Netherlands (Kingdom of the) (79.0%) and Malta (0.0%) did not achieve the 95% target.

1.C. Systematic screening for TB disease among contact people, high-risk groups and other people who are vulnerable or in vulnerable situations

1.C.1 Coverage of contacts with systematic screening for active TB (G)

Screening of the contacts of TB patients for active TB should be promoted. This indicator is a direct measure of the level of screening in the community. Strategies for screening should be developed and/or revised, taking into account WHO recommendations *(9–10)* and ECDC guidance *(11)*. Of the five countries that reported data (Bulgaria, France, Malta, Portugal and Slovenia), three reported screening coverage of over 90% of the contacts (Table 25), while France (78.5%) and Portugal (80.1%) did not achieve the target.

1.D. Early diagnosis of all forms of TB and universal access to DST, including the use of rapid tests

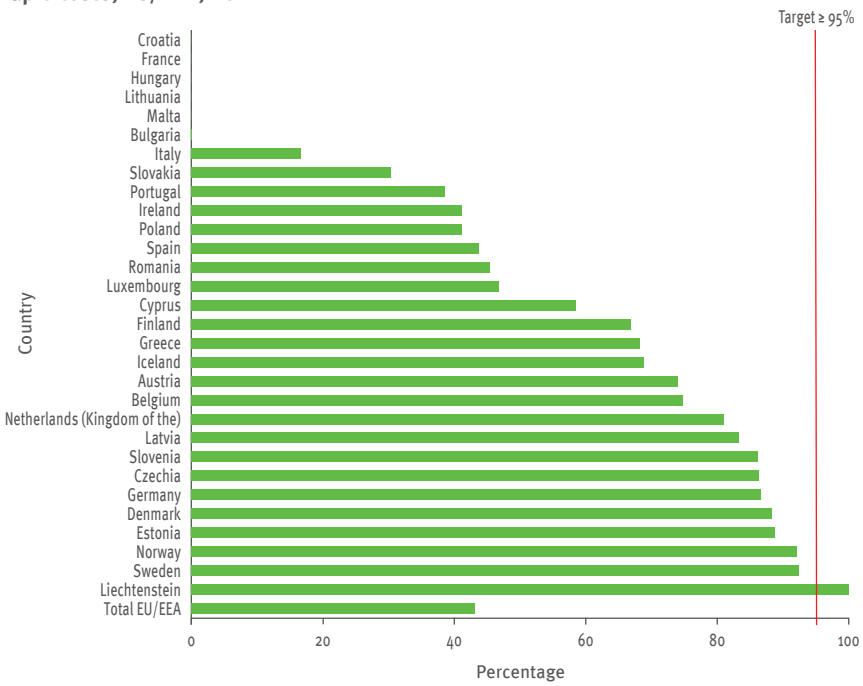
Indicator 1.D.1 Percentage of notified new and relapse TB patients tested using WHO recommended rapid tests (G)

All EU/EEA Member States reported on the proportion of patients notified with new and relapse TB in 2022 who were diagnosed using WHO-recommended rapid tests (Table XIV). Overall, 43.1% of cases reported in the EU/EEA are diagnosed using WHO-recommended rapid tests. The target for 2022 was ≥ 95%, which was met by only one Member State (Liechtenstein; 100%) (Fig. 4.2.1; Table 25). Despite not reaching the target, eleven countries (Austria, Belgium, Czechia, Denmark, Estonia, Germany, Latvia, Netherlands (Kingdom of the), Norway, Slovenia and Sweden) reported using WHO-recommended rapid tests for over 70% of the reported cases.

Indicator 1.D.2 Bacteriological confirmation: Percentage of new and relapse pulmonary TB patients who are bacteriologically confirmed

In 2022, 23 137 new and relapse pulmonary TB cases were bacteriologically confirmed in the EU/EEA Member States (Table 6) accounting for 85.5% of reported cases at the EU/EEA level. The target (90%) was achieved by fifteen countries (Austria, Belgium, Cyprus, Czechia, Finland,

Fig. 4.2.1. Percentage of new and relapse TB patients notified in 2022 that were diagnosed using WHO-recommended rapid tests, EU/EEA, 2022



Note: Bulgaria, Croatia, France, Hungary, Lithuania and Malta reported zero cases diagnosed using WHO-recommended rapid tests.

Greece, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Norway, Romania, Slovenia and Sweden) and an additional nine countries achieved above 80% (Croatia, Denmark, Estonia, Germany, Ireland, Netherlands (Kingdom of the), Poland, Portugal and Spain) (Fig. 4.2.2; Table 25).

Indicator 1.D.3 Testing for drug resistance: percentage of people diagnosed with bacteriologically confirmed pulmonary TB who had a documented susceptibility test result for rifampicin (G)

A total of 22 533 TB cases were bacteriologically confirmed in the EU/EEA Member States. DST results for rifampicin were provided for 18 749 (83.2%) of them (Table 10). The target (100%) was achieved by six countries (Estonia, Iceland, Lithuania, Malta, Slovakia and Slovenia) and an additional eight countries achieved above 95% (Belgium, Croatia, Cyprus, Denmark, Finland, Netherlands (Kingdom of the), Norway and Sweden) (Fig. 4.2.3; Table 25).

Fig. 4.2.2. Percentage of new and relapse pulmonary TB patients notified in 2022 that were bacteriologically confirmed, EU/EEA, 2022

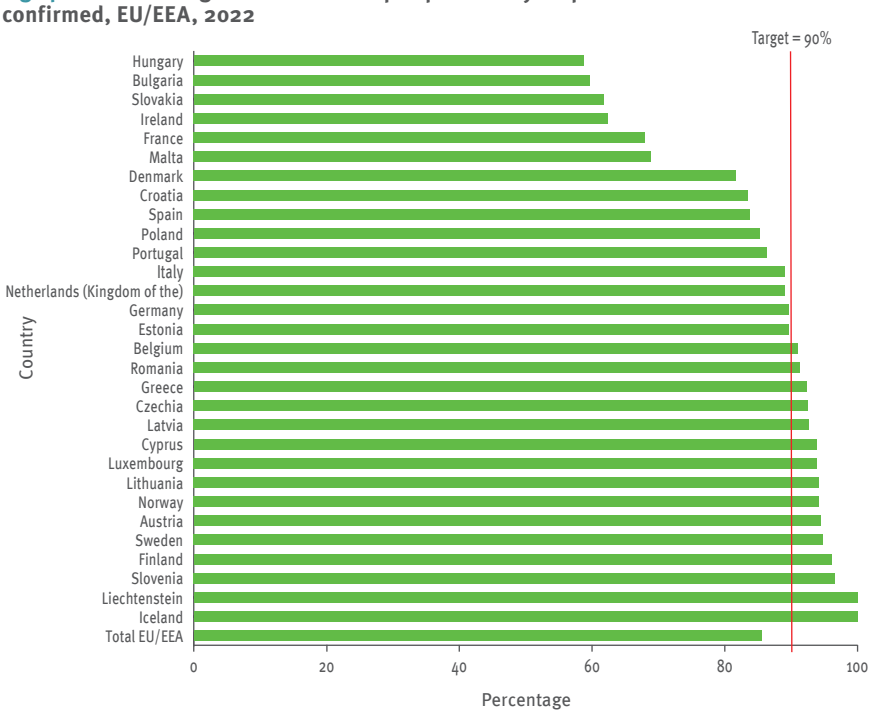
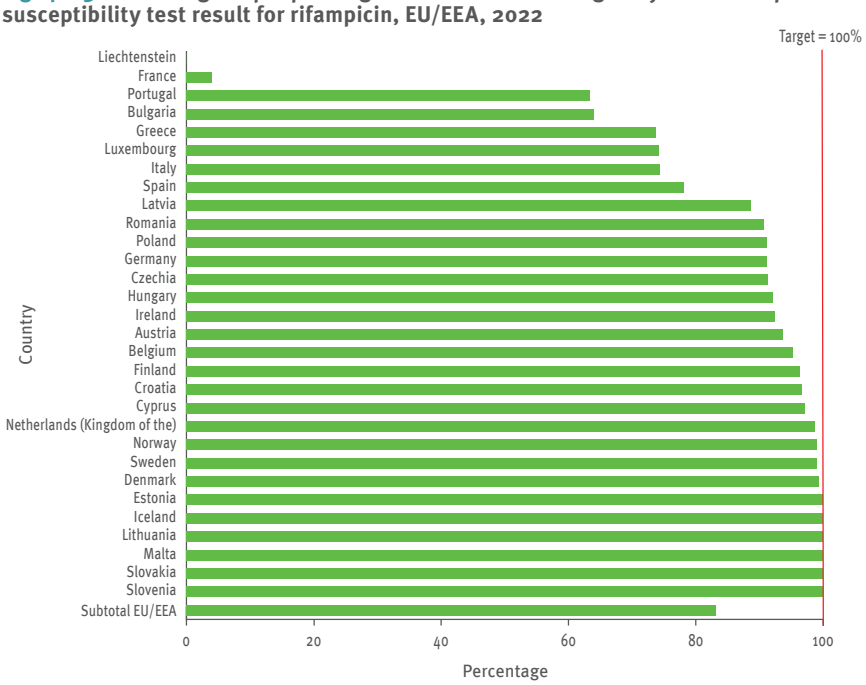


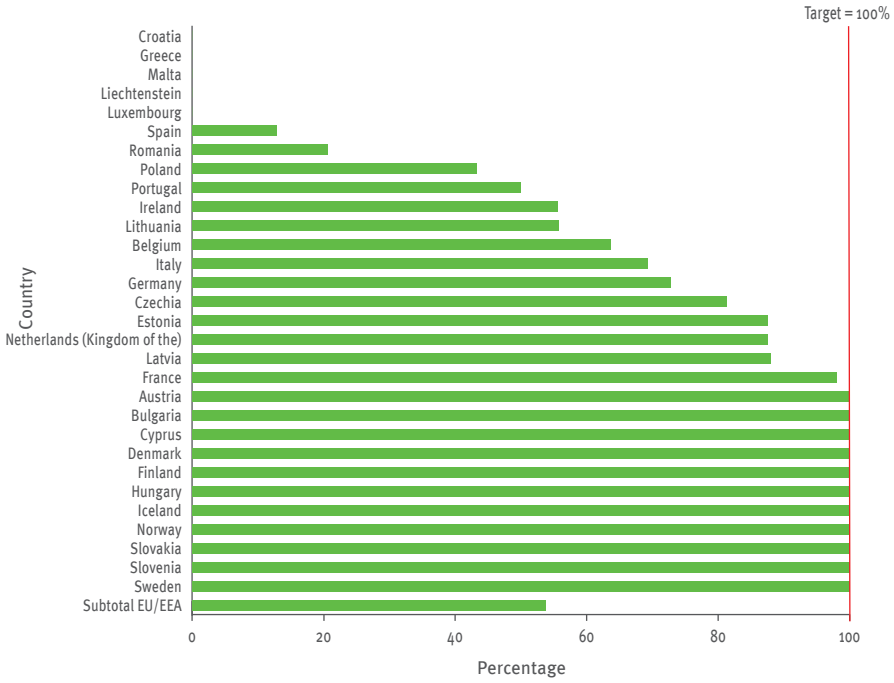
Fig. 4.2.3. Percentage of people diagnosed with bacteriologically confirmed pulmonary TB who had a documented susceptibility test result for rifampicin, EU/EEA, 2022



Indicator 1.D.4 Testing for additional drug resistance: Percentage of people with RR-TB who had a documented susceptibility test result for fluoroquinolones

In 2022, a total of 933 cases were reported as RR/MDR-TB by all EU/EEA countries. DST results for fluoroquinolones were reported for 502 (53.8%) of them (Table 12). The target (100%) was achieved by eleven countries (Austria, Bulgaria, Cyprus, Denmark, Finland, Hungary, Iceland, Norway, Slovakia, Slovenia and Sweden). Of the remaining nineteen countries, only four reported having achieved over 85% of the target (Estonia, France, Latvia and Netherlands (Kingdom of the)) (Fig. 4.2.4; Table 25).

Fig. 4.2.4. Percentage of people with RR-TB who had a documented susceptibility test result for fluoroquinolones, EU/EEA, 2022



Note: Croatia, Greece, Liechtenstein, Luxembourg and Malta reported zero cases.

Indicator 1.D.5 RR/MDR-TB case-detection rate (%)

Indicator 1.D.5 has not been analysed as this is described as an indicator monitored for the HPCs not at the EU/EEA level (Annex 6).

Indicator 1.D.6 TB case-detection rate (%)

In 2022, 33 480 new and relapsed TB-cases (Table III) were notified in 29[16] EU/EEA Member States compared to an estimated 39 000 TB cases (Table II) representing a case-detection rate of 85.8%. Twenty-four countries had a case detection rate of ≥ 85% (Austria, Belgium, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, Germany, Greece, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands (Kingdom of the), Poland, Portugal, Romania, Slovakia, Slovenia and Sweden). Two countries (Croatia and Greece) had more reported than estimated cases and therefore exceeded the 100% target (Fig. 4.2.5; Table 25).

Indicator 1.D.7 TB incidence rate per 100 000 population (E)

One target of the *Tuberculosis action plan for the WHO European Region 2023–2030 (1)* is to reduce the TB incidence rate by 50% against the 2015 baseline by 2025 and to achieve a reduction of ≥ 85% by 2030. To achieve this, countries in the Region should have at least a 5.8% annual reduction in the notification of new and relapse TB cases.

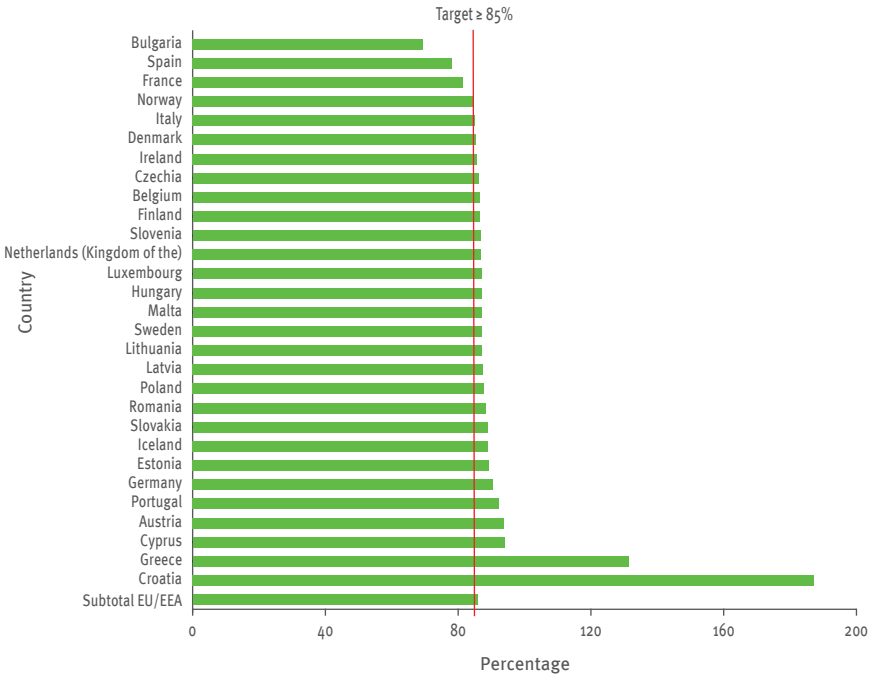
Rates were below the 2025 milestone target (50% reduction compared with 2015) and the regional target (≥ 85%) set to be achieved by 2030 in all reporting countries (Fig. 4.2.6; Table 25). All countries with the exception of one (Romania; 52 per 100 000) are reporting an incidence below the 25 per 100 000 population baseline (2020) for the WHO European Region.

Indicator 1.D.8 RR-MDR/TB notification rate per 100 000 population

Indicator 1.D.8 has not been analysed as this is an indicator monitored for the HPCs and not at the EU/EEA level (Annex 6).

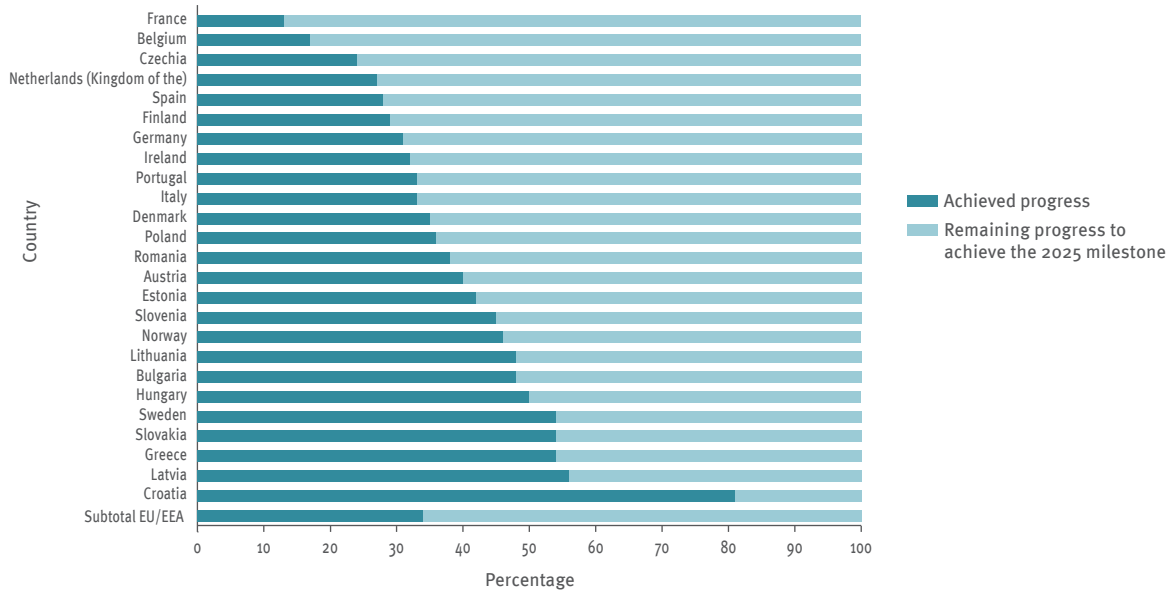
[16] Liechtenstein data are not displayed at EU/EEA level but included in data presented for Switzerland.

Fig. 4.2.5. TB case detection rate (%), EU/EEA, 2022



Note: Liechtenstein data is not included in the graph as this is presented under Switzerland.

Fig. 4.2.6. TB incidence rate per 100 000 population, EU/EEA, 2022



Note: Cyprus, Iceland, Luxembourg and Malta are not represented in this graph as the estimated TB incidence rate per 100 000 population increased compared to 2015. Liechtenstein data is not included in the graph as this is presented under Switzerland.

1.E. Equitable access to quality treatment and care for all people with TB, including those with drug-resistant TB and TB comorbidities; and support for patients to facilitate treatment adherence

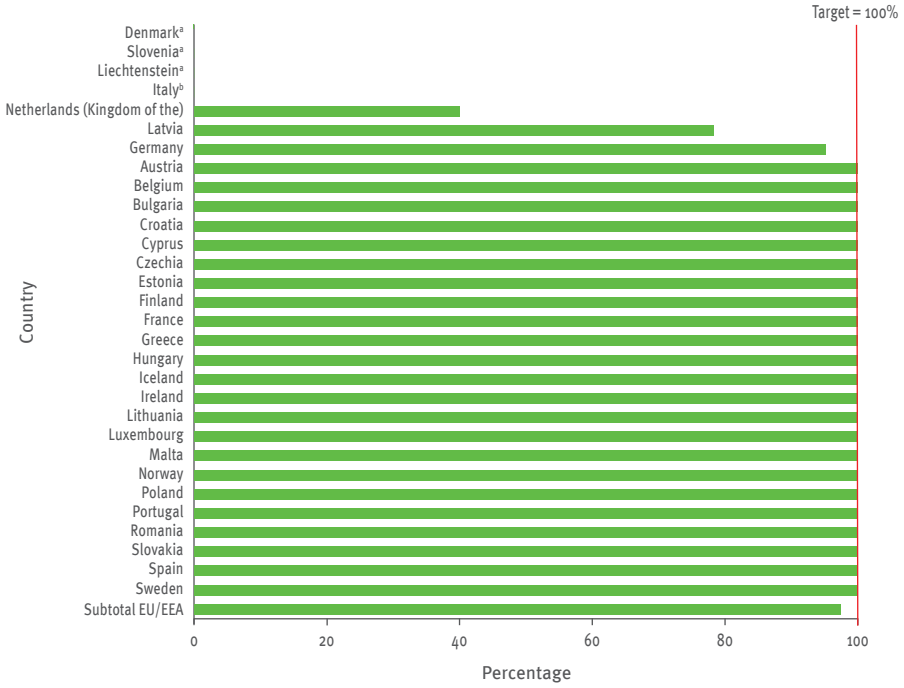
Indicator 1.E.1 Percentage of patients starting first-line TB treatment at the outpatient health-care level (E)

Indicator 1.E.1 has not been analysed as this is an indicator monitored for the HPCs and not at the EU/EEA level (Annex 6).

Indicator 1.E.2 Percentage of notified RR/MDR-TB patients enrolled in treatment (E) (G)

In 2022, 27 EU/EEA countries reported RR/MDR-TB patients enrolled in treatment (Table 13). In total, 23 of these countries reported having achieved the ≥ 99% target (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Romania, Slovakia, Spain and Sweden). Two countries (Liechtenstein and Slovenia; Table 13) did not diagnose any RR/MDR TB cases in 2022, while one (Italy; Table 13) did not report enrolment in treatment. Overall, 97.4% of RR/MDR TB cases reported in the EU/EEA started treatment with second-line anti-TB drugs in accordance with WHO guidelines (Fig. 4.2.7; Table 25).

Fig. 4.2.7. Percentage of notified RR/ MDR-TB patients enrolled in treatment, EU/EEA, 2022



Note: [a] Liechtenstein, Denmark and Slovenia reported zero RR/MDR-TB cases in 2022.
[b] Italy did not report information on enrolment to treatment.

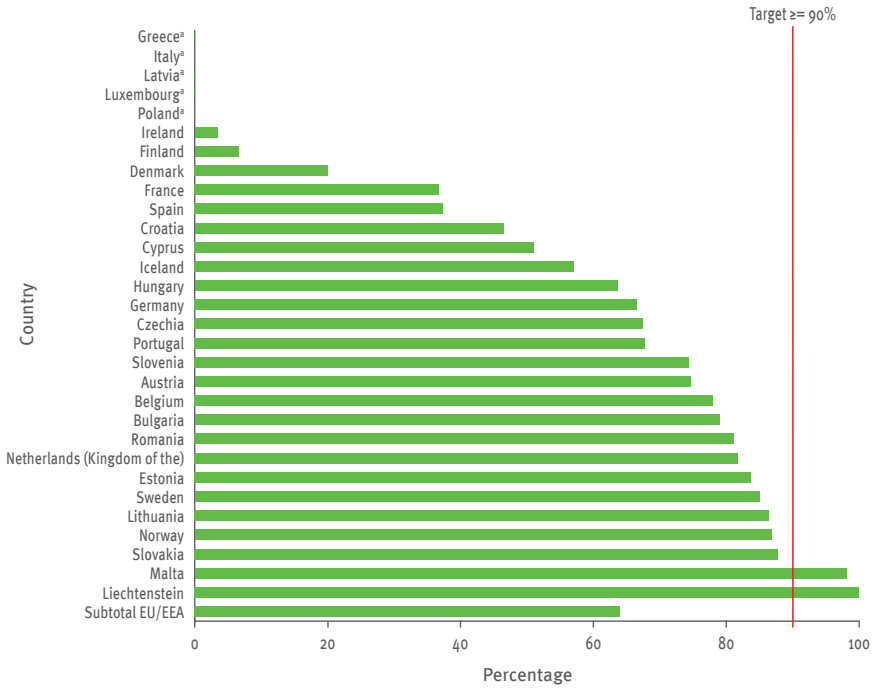
Indicator 1.E.3 Treatment success rate (%) among all new and relapse TB patients (E) (G)

Of the 24 468 new and relapse TB cases notified in 2021 with a treatment outcome reported in 2022 in the EU/EEA, 15 649 (64.0%) were treated successfully (Table 16). Greece, Italy, Latvia, Luxembourg and Poland did not report treatment outcome data. Only two countries (Lichtenstein and Malta) met the treatment success target of 90% (Fig. 4.2.7; Table 25).

Indicator 1.E.4 Treatment success rate (%) among the RR/MDR-TB treatment cohort (E) (G)

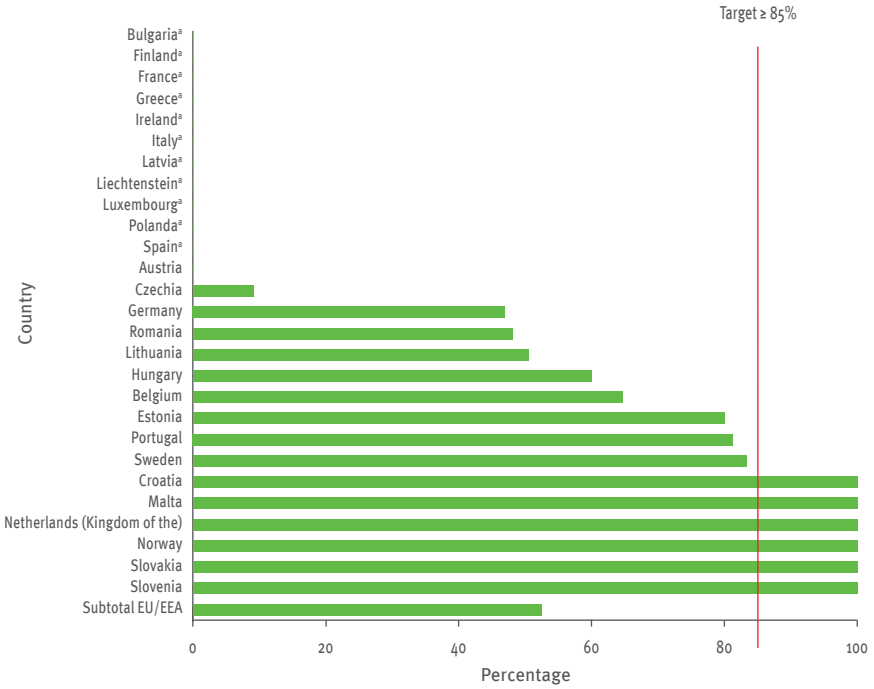
Of the 566 RR/MDR-TB cases notified in 2020 with a treatment outcome reported in 2022 in the EU/EEA, 297 (52.5%) were treated successfully (Table 22). Of 16 Member States reporting treatment success for RR/MDR-TB cases diagnosed in 2020, only six countries (Croatia, Malta, Netherlands (Kingdom of the), Norway, Slovakia and Slovenia) met the treatment success target of ≥ 85%, while nine countries (Croatia, Estonia, Malta, Netherlands (Kingdom of the), Norway, Portugal, Slovakia, Slovenia and Sweden) met the 2025 milestone target of ≥ 80%. Treatment success ranged from 0.0% in one country (Austria; n=2) to 100% in these six countries (Fig. 4.2.9; Table 25).

Fig. 4.2.8. Treatment success rate (%) among all new and relapse TB patients, EU/EEA, 2022



[a] Greece, Italy, Latvia, Luxembourg and Poland did not report treatment outcome data in 2022.

Fig. 4.2.9. Trend in treatment success rate among RR/MDR TB cohort enrolled in treatment, EU/EEA, 2022

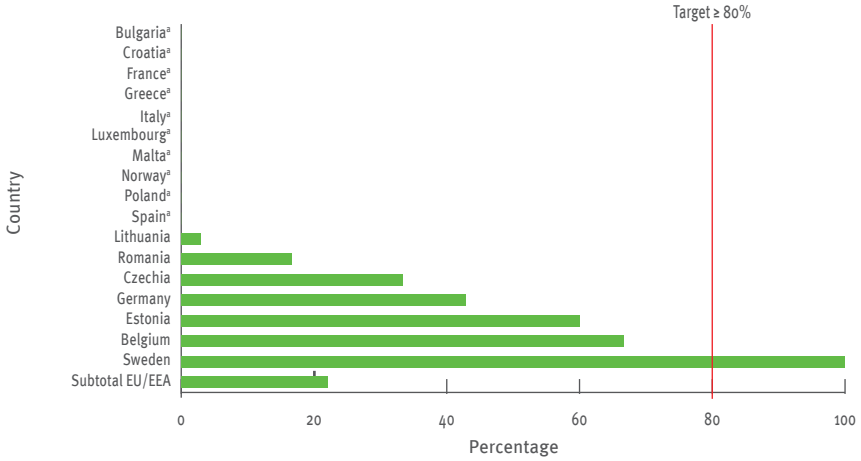


Note: [a] Countries did not report treatment outcome data in 2022 or reported zero RR/MDR TB cases in 2020. Cyprus, Denmark and Iceland reported zero RR/MDR TB cases in 2020.

Indicator 1.E.5 Treatment success rate (%) among the pre-XDR-TB treatment cohort (E) (G)

Of the 91 pre-XDR-TB cases notified in 2020 with a treatment outcome reported in 2022 in the EU/EEA, 20 (22.0%) were treated successfully (Table 23). Of seven Member States reporting treatment success for pre-XDR-TB cases diagnosed in 2020, only one country (Sweden) met the treatment success target for 2030 of ≥ 80%. In the remaining six countries treatment success ranged from 2.9% in Lithuania to 66.7% in Belgium (Fig. 4.2.10; Table 25).

Fig. 4.2.10. Treatment success rate (%) among the pre-XDR-TB treatment cohort, EU/EEA, 2022



Note: [a] Countries did not report treatment outcome data in 2022 or reported zero pre-XDR-TB cases in 2020 .

Austria, Cyprus, Denmark, Finland, Hungary, Iceland, Ireland, Latvia, Liechtenstein, Netherlands (Kingdom of the), Portugal, Slovakia and Slovenia reported zero pre-XDR TB cases in 2020.

Indicator 1.E.6 Total number of TB deaths (E) (G)

For 2022, WHO estimated 3300 TB deaths among HIV-negative people in the EU/EEA (Table 1), ranging from one in Luxembourg and Malta to 730 in Romania. The Regional milestone of a 75% reduction compared with 2015 was not met by any of the EU/EEA Member States (Fig. 4.2.11; Table 25).

Indicator 1.E.7 TB/HIV case-detection rate (%)

Indicators 1.E.7 has not been analysed as this is an indicator monitored for the HPCs and not at the EU/EEA level (Annex 6).

Indicator 1.E.8 HIV testing coverage (%) (E) (G)

Twenty-one EU/EEA countries provided information on the HIV status of their TB cases and 72.6% of cases had a known HIV status (Table 14). The target testing coverage of close to 100% was achieved by Latvia and Malta, while in the other nineteen reporting countries HIV testing coverage ranged from 2.9% (Croatia) to 96.0% (Lithuania) (Fig. 4.2.12; Table 25).

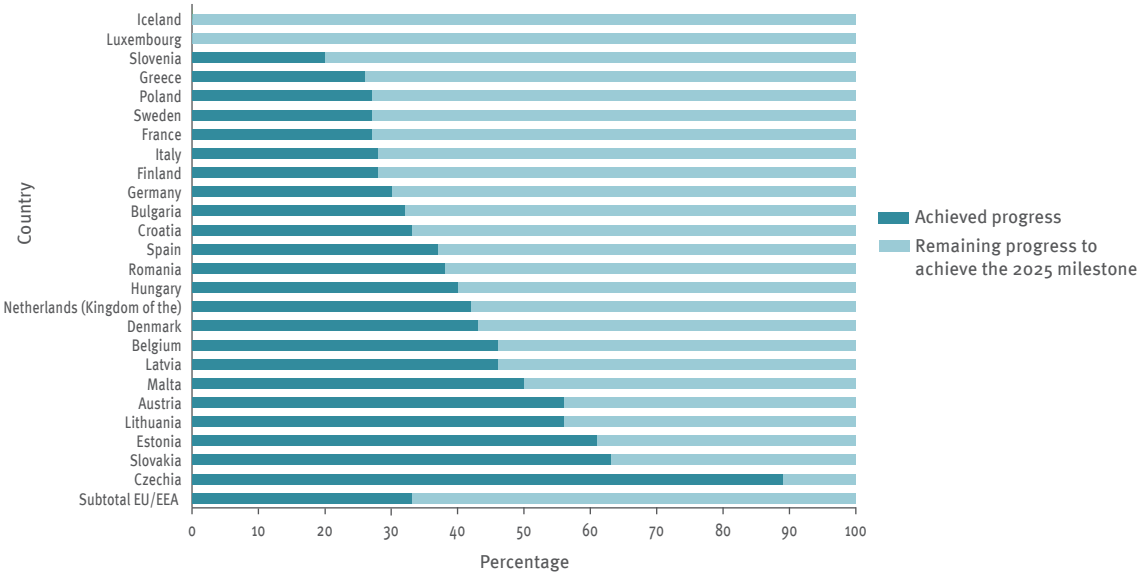
Indicator 1.E.9 Percentage of HIV positives among new and relapse TB patients with documented test results (E)

In 2022, 21 EU/EEA Member States reported 620 TB cases with HIV infection (Table 14), accounting for 3.9% of the TB cases reported with an HIV test result. Country-specific proportions ranged from 0.0% in Croatia and Malta to just over 18% in Cyprus (Table 14). Among the 18 countries with at least 50% reporting completeness for HIV in 2022, 17 countries reached the target of a decrease in the percentage of HIV among all TB cases reported (compared with 2020).

Indicator 1.E.10 ART coverage (%) among TB/HIV patients

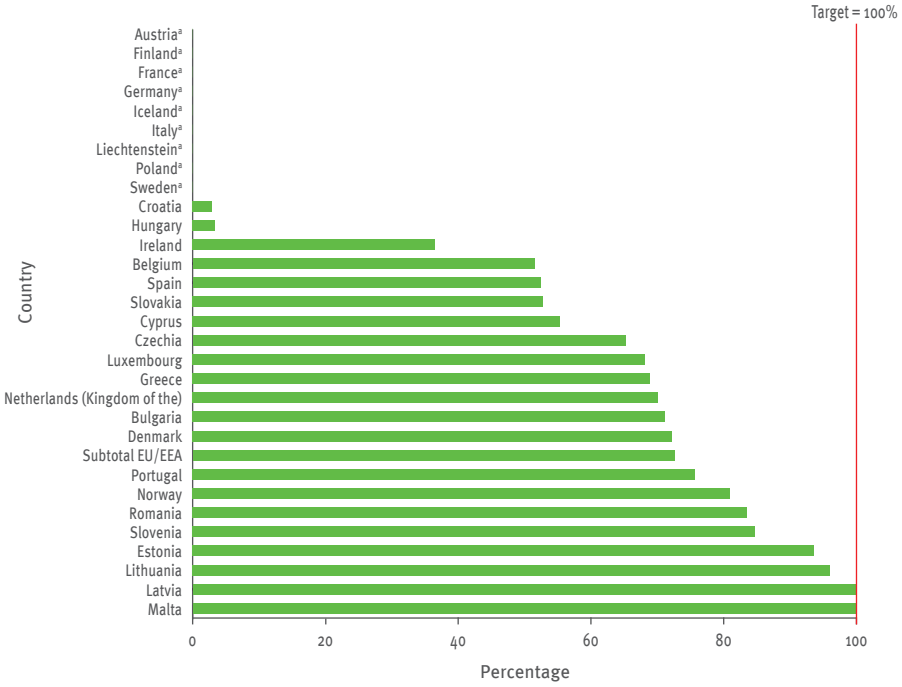
Three EU/EEA Member States reported ART enrolment to the WHO Global TB Database (Table 14). The target for enrolment coverage of close to 100% was achieved by one EU/EEA Member State (Estonia). In the other two countries just over 60% of HIV-coinfected TB cases had started ART in 2022 (60.0% in Ireland and 61.1% in Netherlands (Kingdom of the)).

Fig. 4.2.11. Total number of TB deaths, EU/EEA, 2022



Note: Liechtenstein data is not included in the graph as this is presented under Switzerland. Cyprus, Ireland, Norway and Portugal are not represented in this graph as the total number of estimated deaths has increased compared to data from 2015.

Fig. 4.2.12. HIV testing coverage (%), EU/EEA, 2022



Note: [a] Countries did not report HIV testing coverage.

Indicator 1.E.11 Screening of TB patients for mental health and substance use disorders

The target for the screening of TB patients for mental health and substance use disorders is close to 100%. No data were available through the special survey for any EU/EEA Member State in 2022, therefore, this indicator could not be monitored.

4.2.2 Bold policies and supportive systems

2.A. Governance and leadership

Indicator 2.A.1 Number of Member States that have a TB control strategy document publicly available that includes targets for reduction in TB mortality and incidence in line with the regional and global targets set in the resolutions WHA67.1 and EUR/RXRC65/R6 (E)

No data were available through the special survey for any EU/EEA Member State in 2022, therefore, this indicator could not be monitored. Data will be assessed cumulatively for 2020–2025.

2.B. Health finance and universal health coverage

Indicator 2.B.1 Percentage of TB-affected households that experience catastrophic costs due to TB (E) (G)

Indicator 2.B.1 has not been analysed as this is an indicator monitored for the HPCs and not at the EU/EEA level (Annex 6).

2.C. Health workforce including community health workers

Indicator 2.C.1 Proportion of people with TB found through active case-finding activities implemented through CSOs

Indicator 2.C.2 Proportion of people with TB who started TB treatment and who received any form of treatment adherence support from CSOs (including psychosocial support)

Indicator 2.C.1 and 2.C.2 have not been analysed as these are indicators monitored for the HPCs and not at the EU/EEA level (Annex 6).

2.D. Strategic information and digital health

Indicator 2.D.1 Proportion of individuals who received TB treatment and care using digital adherence technologies (e.g. video-supported treatment of TB)

Indicator 2.D.1 has not been analysed as this is an indicator monitored for the HPCs and not at the EU/EEA level (Annex 6).

4.2.3 Intensified research and innovation

3.A. Intensified research and innovation

Indicator 3.A.1 Number of Member States with a standalone national TB research agenda or research priorities integrated in the national TB strategic plans or relevant policies

No data were available through the special survey for any EU/EEA Member State in 2022, therefore, this indicator could not be monitored. Data will be assessed cumulatively for 2020–2025.

4.2.4 Conclusions and monitoring recommendations

In 2022, 14 of 20 WHO targets recommended for the EU/EEA were monitored based on the data available from EU/EEA Member States. Of the indicators, for which Member States reported data, only three targets were met (Indicators 1.B.2, 1.D.6 and 1.E.9), and three targets were close to being met (Indicators 1.C.1, 1.D.2 and 1.E.2), while for the remaining eight indicators efforts are needed to complete the data and meet the expected targets. The most significant indicator is the TB case-detection rate, with a target above 85%. This target was met by 24 of the 30 reporting countries. The majority of reporting EU/EEA Member States also met or were close to meeting the targets on bacteriological confirmation of the new and relapse pulmonary TB patients (target 90% of patients) and for RR/MDR-TB patients enrolled to treatment (target ≥ 99% of patients).

All Member States reported data in 2022, compared to 29 in 2020. However, monitoring the progress against WHO targets was challenging due to limited or no reporting for some of the indicators.

Despite the progress made in achieving some of the targets, more efforts are required to recover from setbacks to progress during 2020 and 2021, particularly in contact tracing, improving TPT and contacts coverage data and HIV testing data, as well as raising the percentage of people with a successful TB treatment outcome, which remains worryingly low in EU/EEA countries.

Further improvement of data completeness and representativeness will be the focus for the EU/EEA in the near future. Information obtained from different sources will be used to complement existing surveillance information. Failure to improve in these areas will limit the extent to which progress towards TB elimination can be measured.

Overall, in the EU/EEA the monitoring figures indicate that several aspects could be improved from the TB clinical service delivery perspective (to meet the indicator targets) and also from the surveillance/data reporting perspective (to have data for indicators). This information is necessary to help each country understand how to maintain, achieve and increase rates of progress.

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5. Annexes

Annex 1. TB surveillance system overview, EU/EEA, 2022

Country	Data source	Legal character	Comprehensiveness	Type	National coverage	Data available	
						EuroTB aggregated data	TESSy case-based data[a]
Austria	AT-TUBERKULOSEGESETZ	Cp	Co	C	Yes	–	1995–2022
Belgium	BE-TUBERCULOSIS	Cp	Co	C	Yes	–	1995–2022
Bulgaria	BG-MOH	Cp	Co	C	Yes	1995–2006	2007–2022
Croatia[b]	HR-CNIPH	Cp	Co	C	Yes	1995–2007	2012–2022
Cyprus	CY-NOTIFIED_DISEASES	Cp	Co	C	Yes	1995–2001	2002–2022
Czechia	CZ-TUBERCULOSIS	Cp	Co	C	Yes	–	1995–2022
Denmark	DK-MIS	Cp	Co	C	Yes	–	1995–2022
Estonia	EE-TBC	Cp	Co	C	Yes	–	1995–2022
Finland	FI-NIDR	Cp	Co	C	Yes	–	1995–2022
France	FR-MANDATORY_INFECTIOUS_DISEASES	Cp	Co	C	Yes	–	1995–2022
Germany	DE-SURVNET@RKI-7.1/6	Cp	Co	C	Yes	1995–2000	2001–2022
Greece	EL-NOTIFIABLE_DISEASES	Cp	Co	C	Yes	1995–2001	2002–2022
Hungary	HU-TUBERCULOSIS	Cp	Co	C	Yes	1995–1998	1999–2022
Iceland	IS-TUBERCULOSIS	Cp	Co	C	Yes	–	1995–2022
Ireland	IE-CIDR	Cp	Co	C	Yes	1995–1997	1998–2022
Italy	IT-NRS	Cp	Co	C	Yes	–	1995–2022
Latvia[c]	LV-TB	Cp	Co	C	Yes	1995–2000	2001–2022
Liechtenstein[d]	CH-SFOPH-LI	Cp	Co	C	Yes	–	1995–2022
Lithuania	LT-TB_REGISTER	Cp	Co	C	Yes	1995–2002	2003–2022
Luxembourg	LU-SYSTEM1	Cp	Co	C	Yes	–	1995–2022
Malta	MT-DISEASE_SURVEILLANCE	Cp	Co	C	Yes	–	1995–2022
Netherlands (Kingdom of the)	NL-NTR	Cp	Co	C	Yes	–	1995–2022
Norway	NO-MSIS_A	Cp	Co	C	Yes	–	1995–2022
Poland	PL_CR	Cp	Co	C	Yes	1995–1999	2000–2022
Portugal	PT-TUBERCULOSIS	Cp	Co	C	Yes	1995–1999	2000–2022
Romania	RO-NTBSy	Cp	Co	C	Yes	–	1995–2022
Slovakia	SK-NRT	Cp	Co	C	Yes	1995	1996–2022
Slovenia	SI-TUBERCULOSIS	Cp	Co	C	Yes	–	1995–2022
Spain	ES-STATUTORY_DISEASES	Cp	Co	C	Yes	1995–2006	2007–2022
Sweden	SE-SweTBReg	Cp	Co	C	Yes	–	1995–2022

Note: C: Case-based; Co: Comprehensive; Cp: Compulsory reporting; EEA: Eurropean Economic Area; EU: European Union; TB: tuberculosis; TESSy: The European Surveillance System.
[a] For some years, data from France, Italy and Spain related to drug susceptibility testing are collected in aggregated format from the WHO TB Monitoring and Evaluation data.
[b] Data reported since 2012 to TESSy, historical data extracted from WHO TB Monitoring and Evaluation data.
[c] Data reported from Latvia during 2017–2020 are not available in this report.
[d] Data reported from Liechtenstein during 2018–2019 are not available in this report.

Annex 2. List of variables for 2022 tuberculosis data collection[a]

	List	Description
Common 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
8	PlaceOfNotification	Place of the first notification of the case to a regional authority
9	PlaceOfResidence	Place of residence of patient at the time of disease onset
10	Age	Age of patient in years as reported in the national system
11	Gender	Gender of the reported case
12	DateOfDiagnosis	First date of clinical or lab diagnosis
13	DateOfNotification	Date when the case is first reported to public health authorities
14	DateUsedForStatistics	The reference date used for standard reports. Usually one of the above
Disease-specific variables		
15	BornReportingCountry	The patient was born in the country of report
16	CountryOfBirth	Country of birth of patient
17	CountryOfNationality	Country of nationality of patient
18	DateOfEntryToCountry	Date of entry to country – for TB cases not born in the reporting country
19	NationalityReportingCountry	Origin of the patient (based on citizenship)
20	MajorSiteOfTB	Major site of the disease
21	MinorSiteOfTB	Minor site of the disease
22	PrevDiagnosis	Previous diagnosis of tuberculosis in the past
23	PrevDiagnosisYear	Year of previous diagnosis
24	PrevTreatment	Previous anti-TB drug treatment (at least one month of drug combination)
25	PrevTreatmentCompletion	Completion of the previous anti-TB drug treatment
26	DiagnosedAnteMortem	Vital status of the patient at the time of diagnosis
27	EnrolledToTreatment	Patient started appropriate TB treatment according to international recommendations
28	Outcome12Months	Patient first outcome at 12 months from the start of the treatment
29	Outcome24Months	The first outcome observed 13 to 24 months from the start of treatment
30	Outcome36Months	The first outcome observed 25 to 36 months from the start of treatment
31	ResultCulture	The result of the culture test for *Mycobacterium tuberculosis* complex
32	ResultMicroscopy	The result of the microscopy test performed
33	ResultOtherTest	Additional lab test results
34	Pathogen	Species and gene (*Mycobacterium tuberculosis* complex) of the pathogen which is the cause of the reported disease
35	HIVStatus	Result of the last HIV test
36	SIR_AMK	Susceptibility to amikacin
37	SIR_BDQ	Susceptibility to bedaquiline
38	SIR_CFZ	Susceptibility to clofazimine
39	SIR_DLM	Susceptibility to delamanid
40	SIR_ETH	Susceptibility to ethambutol
41	SIR_ETO	Susceptibility to ethionamide
42	SIR_INH	Susceptibility to isoniazid
43	SIR_LZD	Susceptibility to linezolid
44	SIR_LVX	Susceptibility to levofloxacin
45	SIR_MFX	Susceptibility to moxifloxacin
46	SIR_PZA	Susceptibility to pyrazinamide
47	SIR_RIF	Susceptibility to rifampicin
48	SIR_STR	Susceptibility to streptomycin
49	IsolateID	Unique identifier for each isolate within the data source/lab system related to the case
50	ECDCIsolateID	Identifier for each isolate record that is guaranteed to be unique across countries/labs/pathogens and not contain additional encoded information
51	SpoligoCode[b]	Spoligo pattern code
52	MiruCode[b]	MIRU pattern code
53	BeijingGenotype[b]	Beijing genotype identification

Note: [a] Notification of tuberculosis cases for 2022, treatment outcome data updated for cohort 2021, rifampicin-resistance/multidrug-resistance treatment outcome data updated for cohort 2020 and extensively drug-resistant tuberculosis treatment outcome data updated for cohort 2019.
[b] Optional variable. No need to be reported if the "IsolateID" or "ECDCIsolateID" is provided.

Annex 3. Completeness of data reported for 2022, EU/EEA

Country	Age (%)	Gender (%)	Origin[a] (%)	Country of origin (%)	Site (%)	Previous treatment history[b] (%)	Diagnosed antemortem (%)	Result culture (%)	Result microscopy (%)	Result other test (%)	DST FLD (%)	DST SLD (%)	HIV status (%)	Enrolled in treatment (%)	Outcome 12 months[c] (%)	Outcome 24 months[d] (%)	Outcome 36 months[e] (%)
Austria	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(74.7)	(100.0)	(93.5)	(69.1)	(75.8)	(92.5)	(100.0)	(0.0)	(0.0)	(100.0)	–	–
Belgium	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(79.9)	(100.0)	(95.3)	(37.8)	(81.2)	(95.6)	(100.0)	(51.3)	(98.7)	(93.0)	(100.0)	–
Bulgaria	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(99.1)*	*(100.0)*	*(83.8)*	*(87.4)*	*(4.7)*	*(64.3)*	*(100.0)*	*(71.0)*	*(100.0)*	*(98.7)*	–	–
Croatia	(100.0)	(100.0)	(100.0)	(100.0)	(88.2)	(75.0)	(84.4)	(84.0)	(74.1)	(0.0)	(96.4)	–	(2.8)	(81.1)	(68.2)	–	–
Cyprus	(100.0)	(100.0)	(100.0)	(97.9)	(100.0)	(100.0)	(100.0)	(82.3)	(93.8)	(64.6)	(94.9)	(100.0)	(56.3)	(100.0)	(66.7)	–	–
Czechia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(98.7)	(90.1)	(91.7)	(90.3)	(100.0)	(65.6)	(100.0)	(99.7)	(100.0)	–
Denmark	(100.0)	(100.0)	(100.0)	(99.6)	(100.0)	(98.2)	(100.0)	(90.2)	(90.2)	(88.4)	(99.4)	(100.0)	(71.6)	(0.0)	(23.4)	–	–
Estonia	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(98.4)*	*(98.4)*	*(93.0)*	*(93.9)*	*(100.0)*	*(93.8)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*
Finland	(100.0)	(100.0)	(89.5)	(88.9)	(100.0)	(98.9)	(100.0)	(79.5)	(43.7)	(70.5)	(95.4)	(100.0)	(0.0)	(76.3)	(6.5)	–	–
France	(100.0)	(100.0)	(88.2)	(89.5)	(98.5)	(73.0)	(0.5)	(50.2)	(73.8)	(0.0)	(3.8)	(100.0)	(0.0)	(0.0)	(44.1)	(0.0)	–
Germany	(100.0)	(99.9)	(95.7)	(96.5)	(98.0)	(73.8)	(97.2)	(86.8)	(90.2)	(86.8)	(89.5)	(100.0)	(0.0)	(97.0)	(85.3)	(100.0)	–
Greece	(97.8)	(99.1)	(98.8)	(88.1)	(85.9)	(72.8)	(100.0)	(76.6)	(59.4)	(69.4)	(75.7)	(100.0)	(69.1)	(90.3)	(0.0)	–	–
Hungary	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(87.3)	(86.6)	(0.0)	(90.9)	(100.0)	(3.6)	(100.0)	(97.9)	(100.0)	–
Iceland	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(11.8)	(100.0)	(82.4)	(70.6)	(64.7)	(92.9)	(100.0)	(0.0)	(100.0)	(71.4)	–	–
Ireland	(100.0)	(98.1)	(75.0)	(75.0)	(81.9)	(60.2)	(100.0)	(58.3)	(40.3)	(48.1)	(91.8)	(100.0)	(36.1)	(100.0)	(8.3)	–	–
Italy	(100.0)	(100.0)	(98.4)	(82.9)	(100.0)	(74.2)	(0.0)	(66.1)	(53.7)	(16.9)	(0.0)	–	(0.0)	(0.0)	(0.0)	–	–
Latvia	*(100.0)*	*(100.0)*	*(100.0)*	*(96.6)*	*(98.4)*	*(94.7)*	*(100.0)*	*(48.3)*	*(71.2)*	*(85.3)*	*(88.8)*	*(100.0)*	*(100.0)*	*(76.8)*	*(0.0)*	–	–
Liechtenstein	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(0.0)	(100.0)	(100.0)	(100.0)	(0.0)	–	(0.0)	(100.0)	(100.0)	–	–
Lithuania	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(1.6)*	*(100.0)*	*(100.0)*	*(96.1)*	*(100.0)*	*(100.0)*	*(100.0)*	–
Luxembourg	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(4.2)	(100.0)	(85.4)	(95.8)	(45.8)	(79.5)	(100.0)	(68.8)	(100.0)	(0.0)	–	–
Malta	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(0.0)	(88.5)	(63.9)	(0.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	–	–
Netherlands (Kingdom of the)	(100.0)	(100.0)	(99.8)	(99.8)	(99.4)	(99.8)	(98.6)	(81.3)	(76.4)	(85.5)	(98.7)	(100.0)	(70.2)	(79.7)	(93.2)	(100.0)	–
Norway	(100.0)	(100.0)	(100.0)	(100.0)	(98.3)	(100.0)	(100.0)	(97.1)	(87.9)	(96.6)	(98.6)	(100.0)	(78.2)	(100.0)	(98.7)	(100.0)	–
Poland	(100.0)	(100.0)	(100.0)	(99.9)	(100.0)	(100.0)	(100.0)	(89.5)	(94.0)	(41.1)	(90.7)	(100.0)	(0.0)	(0.0)	(0.0)	–	–
Portugal	(99.9)	(100.0)	(99.9)	(73.5)	(98.6)	(100.0)	(100.0)	(66.2)	(72.6)	(45.3)	(61.3)	(100.0)	(75.8)	(100.0)	(100.0)	(100.0)	–
Romania	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(100.0)*	*(95.6)*	*(97.0)*	*(50.3)*	*(84.6)*	*(100.0)*	*(83.5)*	*(100.0)*	*(100.0)*	*(100.0)*	–
Slovakia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(97.4)	(100.0)	(90.3)	(92.3)	(36.8)	(100.0)	(100.0)	(53.5)	(100.0)	(93.4)	(100.0)	–
Slovenia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(98.6)	(98.6)	(91.9)	(100.0)	(100.0)	(85.1)	(100.0)	(100.0)	–	–
Spain	(100.0)	(100.0)	(100.0)	(99.6)	(100.0)	(75.4)	(0.0)	(89.5)	(88.0)	(47.3)	(75.1)	(100.0)	(62.7)	(73.9)	(58.6)	(0.0)	–
Sweden	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(91.0)	(100.0)	(100.0)	(62.2)	(92.9)	(99.4)	(100.0)	(0.0)	(100.0)	(93.5)	(100.0)	–
Total EU/EEA	**(100.0)**	**(100.0)**	**(97.9)**	**(95.8)**	**(99.2)**	**(88.1)**	**(71.3)**	**(83.4)**	**(84.2)**	**(45.7)**	**(75.2)**	**(100.0)**	**(41.4)**	**(64.6)**	**(64.7)**	**(95.3)**	**(100.0)**

Note: The five EU/EEA WHO European Region tuberculosis high-priority countries presented in italics.
DST FLD: drug susceptibility testing for first line anti-tuberculosis drugs, calculated for confirmed tuberculosis cases (FLD included in calculation are: isoniazid, rifampacin); DST SLD: drug susceptibility testing for second-line anti-tuberculosis drugs, calculated only for multidrug-resistant tuberculosis cases (SLD included in calculation are: bedaquiline, moxifloxacin, levofloxacin); EEA: European Economic Area; EU: European Union.
[a] For determining the origin two variables have been merged: BornReportingCountry and NationalityReportingCountry, depending on country preference.
[b] History of previous treatment defined by previous diagnosis of tuberculosis for cases reported by Belgium, Denmark, Ireland, Norway and the United Kingdom.
[c] Data for the 2021 cohort.
[d] Data for the multidrug-resistant tuberculosis 2020 cohort cases that are previously reported as still on treatment.
[e] Data for the extensively drug-resistant tuberculosis 2019 cohort cases that are previously reported as still on treatment.

Annex 4. Reporting completeness into the Global TB Database, 2022

Country/area	Identification (%) (16 fields)	Notification (%) (51 fields)	Anti-TB drug resistance surveillance (%) (34 fields)	Treatment outcome of TB cases by risk categories (%) (67 fields)	Implementing End TB Strategy (%) (74 fields)	Budget and expenditure (%) (74 fields)
EU/EEA						
Austria	(0.0)	(72.5)	(100.0)	(55.2)	(0.0)	(0.0)
Belgium	(25.0)	(82.4)	(100.0)	(91.0)	(9.5)	(4.1)
Bulgaria	*(93.8)*	*(76.5)*	*(100.0)*	*(71.6)*	*(68.9)*	*(94.6)*
Croatia	(0.0)	(76.5)	(100.0)	(64.2)	(0.0)	(0.0)
Cyprus	(0.0)	(76.5)	(100.0)	(44.8)	(0.0)	(0.0)
Czechia	(68.8)	(90.2)	(100.0)	(91.0)	(41.9)	(9.5)
Denmark	(0.0)	(70.6)	(100.0)	(44.8)	(0.0)	(0.0)
Estonia	*(93.8)*	*(94.1)*	*(100.0)*	*(71.6)*	*(78.4)*	*(10.8)*
Finland	(68.8)	(88.2)	(100.0)	(35.8)	(44.6)	(9.5)
France	(87.5)	(82.4)	(100.0)	(55.2)	(43.2)	(8.1)
Germany	(0.0)	(72.5)	(100.0)	(55.2)	(21.6)	(1.4)
Greece	(0.0)	(76.5)	(100.0)	(0.0)	(0.0)	(0.0)
Hungary	(37.5)	(88.2)	(100.0)	(91.0)	(56.8)	(9.5)
Iceland	(0.0)	(72.5)	(100.0)	(35.8)	(0.0)	(0.0)
Ireland	(100.0)	(82.4)	(100.0)	(71.6)	(59.5)	(5.4)
Italy	(31.3)	(62.7)	(100.0)	(0.0)	(27.0)	(0.0)
Latvia	*(100.0)*	*(88.2)*	*(100.0)*	*(0.0)*	*(62.2)*	*(5.4)*
Liechtenstein	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Lithuania	*(6.3)*	*(76.5)*	*(100.0)*	*(64.2)*	*(0.0)*	*(0.0)*
Luxembourg	(93.8)	(76.5)	(100.0)	(10.4)	(54.1)	(5.4)
Malta	(81.3)	(88.2)	(100.0)	(91.0)	(48.6)	(4.1)
Netherlands (Kingdom of the)	(87.5)	(86.3)	(100.0)	(91.0)	(48.6)	(6.8)
Norway	(81.3)	(84.3)	(100.0)	(64.2)	(28.4)	(4.1)
Poland	(93.8)	(82.4)	(100.0)	(0.0)	(40.5)	(0.0)
Portugal	(93.8)	(90.2)	(100.0)	(91.0)	(62.2)	(9.5)
Romania	*(100.0)*	*(88.2)*	*(100.0)*	*(91.0)*	*(71.6)*	*(10.8)*
Slovakia	(68.8)	(76.5)	(100.0)	(91.0)	(62.2)	(10.8)
Slovenia	(93.8)	(88.2)	(100.0)	(64.2)	(71.6)	(9.5)
Spain	(0.0)	(76.5)	(100.0)	(64.2)	(0.0)	(0.0)
Sweden	(68.8)	(84.3)	(100.0)	(55.2)	(47.3)	(8.1)
Subtotal EU/EEA	**(52.5)**	**(78.4)**	**(96.7)**	**(55.2)**	**(35.0)**	**(7.6)**
Non-EU/EEA						
Albania	(100.0)	(84.3)	(47.1)	(64.2)	(67.6)	(10.8)
Andorra	(62.5)	(37.3)	(32.4)	(16.4)	(51.4)	(5.4)
Armenia	*(93.8)*	*(90.2)*	*(85.3)*	*(91.0)*	*(68.9)*	*(58.1)*
Azerbaijan	*(87.5)*	*(82.4)*	*(47.1)*	*(64.2)*	*(52.7)*	*(59.5)*
Belarus	*(93.8)*	*(92.2)*	*(94.1)*	*(82.1)*	*(70.3)*	*(45.9)*
Bosnia and Herzegovina	(81.3)	(78.4)	(50.0)	(16.4)	(45.9)	(31.1)
Georgia	*(93.8)*	*(94.1)*	*(100.0)*	*(82.1)*	*(87.8)*	*(25.7)*
Israel	(93.8)	(76.5)	(70.6)	(71.6)	(51.4)	(6.8)
Kazakhstan	*(93.8)*	*(88.2)*	*(70.6)*	*(35.8)*	*(86.5)*	*(87.8)*
Kyrgyzstan	*(93.8)*	*(92.2)*	*(85.3)*	*(82.1)*	*(67.6)*	*(100.0)*
Monaco	*(0.0)*	*(0.0)*	*(0.0)*	*(0.0)*	*(0.0)*	*(0.0)*
Montenegro	(93.8)	(76.5)	(100.0)	(50.7)	(51.4)	(10.8)
North Macedonia	*(93.8)*	*(88.2)*	*(100.0)*	*(82.1)*	*(43.2)*	*(10.8)*
Republic of Moldova	*(93.8)*	*(90.2)*	*(100.0)*	*(100.0)*	*(91.9)*	*(100.0)*
Russian Federation	*(62.5)*	*(82.4)*	*(100.0)*	*(82.1)*	*(48.6)*	*(94.6)*
San Marino	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Serbia	(68.8)	(88.2)	(50.0)	(46.3)	(82.4)	(9.5)
Serbia excluding Kosovo[1]	(68.8)	(88.2)	(50.0)	(26.9)	(82.4)	(9.5)
Kosovo[1]	(18.8)	(78.4)	(0.0)	(26.9)	(0.0)	(0.0)
Switzerland	(93.8)	(82.4)	(100.0)	(46.3)	(52.7)	(10.8)
Tajikistan	*(93.8)*	*(90.2)*	*(100.0)*	*(100.0)*	*(81.1)*	*(100.0)*
Türkiye	*(100.0)*	*(92.2)*	*(100.0)*	*(91.0)*	*(74.3)*	*(9.5)*
Turkmenistan	*(93.8)*	*(74.5)*	*(20.6)*	*(37.3)*	*(78.4)*	*(25.7)*
Ukraine	*(93.8)*	*(92.2)*	*(100.0)*	*(91.0)*	*(94.6)*	*(100.0)*
United Kingdom	(100.0)	(82.4)	(61.8)	(67.2)	(31.1)	(0.0)
Uzbekistan	*(93.8)*	*(92.2)*	*(47.1)*	*(0.0)*	*(24.3)*	*(0.0)*
Subtotal non-EU/EEA	**(82.3)**	**(77.0)**	**(69.2)**	**(58.3)**	**(58.5)**	**(37.6)**
Total European Region	**(65.7)**	**(77.7)**	**(84.5)**	**(56.6)**	**(45.4)**	**(20.9)**
Subtotal 18 HPCs	***(87.8)***	***(87.6)***	***(86.1)***	***(68.7)***	***(67.1)***	***(51.6)***

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-piority country: TB: Tuberculosis.
[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, 2022[a]

Country/area	Country/area laboratory network										
	Microscopy		Culture	DST for isoniazid and rifampicin		Line probe assay (N)	Xpert MTB/RIF (N)	International proficiency testing of national reference laboratory			
								Year	Percentage agreement of results for:		Acceptable performance[b]
	Number of laboratories performing	EQA passed	Number of laboratories performing	Number of laboratories performing	EQA passed				isoniazid	rifampicin	
EU/EEA											
Austria	–	–	–	–	–	–	–	–	–	–	–
Belgium	–	–	–	–	–	–	–	–	–	–	–
Bulgaria	*33*	–	*30*	–	–	–	*8*	*2017*	*100*	*100*	–
Croatia	–	–	–	–	–	–	–	–	–	–	–
Cyprus	–	–	–	–	–	–	–	–	–	–	–
Czechia	37	–	37	–	–	–	12	2022	100	100	Yes
Denmark	–	–	–	–	–	–	–	–	–	–	–
Estonia	*2*	–	*2*	–	–	–	*6*	*2022*	*100*	*100*	*Yes*
Finland	9	–	9	–	–	–	9	2022	100	100	Yes
France	140	–	140	–	–	–	60	2022	100	100	Yes
Germany	–	–	–	–	–	–	–	–	100	100	–
Greece	–	–	–	–	–	–	–	–	–	–	–
Hungary	11	–	11	–	–	–	6	2022	100	100	Yes
Iceland	–	–	–	–	–	–	–	–	–	–	–
Ireland	10	–	10	–	–	–	8	2021	100	100	Yes
Italy	38	–	38	–	–	–	38	2019	100	100	–
Latvia	*11*	–	*4*	–	–	–	*2*	*2022*	*100*	*95*	*Yes*
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–
Lithuania	–	–	–	–	–	–	–	–	–	–	Yes
Luxembourg	1	–	1	–	–	–	0	2022	100	100	Yes
Malta	1	–	1	–	–	–	1	–	–	–	–
Netherlands (Kingdom of the)	–	–	30	–	–	–	·	2022	100	100	Yes
Norway	13	–	8	–	–	–	9	–	–	–	–
Poland	53	–	53	–	–	–	36	2022	100	100	Yes
Portugal	45	–	41	–	–	–	14	2022	100	100	Yes
Romania	*88*	–	*85*	–	–	–	*57*	*2022*	*94*	*100*	*No*
Slovakia	7	–	3	–	–	–	1	2022	100	100	Yes
Slovenia	2	–	2	–	–	–	2	2020	100	100	–
Spain	–	–	–	–	–	–	–	–	–	–	–
Sweden	4	–	4	–	–	–	–	2022	100	100	Yes
Subtotal EU/EEA	**505**	**–**	**509**	**–**	**–**	**–**	**269**	**–**	**–**	**–**	**–**
Non-EU/EEA											
Albania	12	–	1	–	–	–	1	2016	100	100	–
Andorra	7	–	7	–	–	–	3	–	–	–	–
Armenia	*15*	–	*1*	–	–	–	*12*	*2022*	*100*	*100*	*Yes*
Azerbaijan	*23*	–	*7*	–	–	–	*16*	–	–	–	–
Belarus	*72*	–	*12*	–	–	–	*43*	*2022*	*100*	*100*	*Yes*
Bosnia and Herzegovina	18	–	16	–	–	–	3	–	–	–	–
Georgia	10	–	2	–	–	–	28	2022	100	100	Yes
Israel	15	–	15	–	–	–	15	2022	–	–	–
Kazakhstan	*245*	–	*20*	–	–	–	*128*	*2022*	*100*	*100*	*Yes*
Kyrgyzstan	*89*	–	*7*	–	–	–	*25*	*2022*	*100*	*100*	*Yes*
Monaco	–	–	–	–	–	–	–	–	–	–	–
Montenegro	1	–	1	–	–	–	1	2022	100	100	Yes
North Macedonia	6	–	3	–	–	–	2	2022	–	–	–
Republic of Moldova	57	–	4	–	–	–	57	2022	100	100	Yes
Russian Federation	*4 887*	–	*313*	–	–	–	*216*	–	–	–	–
San Marino	–	–	–	–	–	–	–	–	–	–	–
Serbia	30	–	28	–	–	–	3	2019	100	100	–
Serbia excluding Kosovo[1]	30	–	28	–	–	–	3	2019	100	100	–
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–
Switzerland	30	–	21	–	–	–	54	2022	100	100	Yes
Tajikistan	*84*	–	*6*	–	–	–	*59*	*2022*	*100*	*100*	*Yes*
Türkiye	*234*	–	*112*	–	–	–	*33*	*2021*	*100*	*100*	*Yes*
Turkmenistan	*74*	–	*66*	–	–	–	*10*	2019	·	·	–
Ukraine	*142*	–	*26*	–	–	–	*238*	*2022*	*100*	*100*	*Yes*
United Kingdom	–	–	–	–	–	–	–	2022	–	–	–
Uzbekistan	*289*	–	*8*	–	–	–	*97*	–	–	–	–
Subtotal non-EU/EEA	**6 340**	**–**	**676**	**–**	**–**	**–**	**1 044**	**–**	**–**	**–**	**–**
Total European Region	**6 845**	**–**	**1 185**	**–**	**–**	**–**	**1 313**	**–**	**–**	**–**	**–**
Subtotal 18 HPCs	*6 355*	**–**	*705*	**–**	**–**	**–**	*1 035*	**–**	**–**	**–**	**–**

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics.
DST: drug-susceptibility testing; EEA: European Economic Area; EQA: external quality assessment; EU: European Union; HPCs: high-piority country; N: number; TB: Tuberculosis.
[a] Data obtained from WHO Tuberculosis Monitoring and Evaluation database.
[b] Acceptable performance defined as reference laboratory achieving 95% agreement of results both isoniazid and rifampicin in annual international proficiency testing.
[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 6. Monitoring framework for follow up of the Tuberculosis Action Plan for the WHO European Region, 2023–2030

Area of intervention	Indicator	Baseline for WHO European Region (2020)	Milestones (2025)	Targets[a] (2030)	Frequency of assessment	Data source	Analysis layer	Monitoring mechanism[b]	Indicator definition	Indicator level
1. Integrated, people-centred care and prevention										
1.A People at the centre: a shared approach on partnerships with PHC, public health, civil society and affected communities for united action										
1.A.1	Number of Member States with adopted standards and operational procedures for CSOs in the provision of psychosocial support services to ensure treatment adherence for people with TB	N/A	≥ 60%	TBD	annual	Special surveys	HPC	Desk review	Number of Member States with adopted standards and operational procedures for CSOs in the provision of psychosocial support services to ensure treatment adherence for people with TB	Output
1.A.2	Number of Member States with adopted procedures of subcontracting mechanisms under the state funds or other relevant funding mechanisms for CSOs in the provision of psychosocial support and active case-finding services for people with TB	N/A	≥ 60%	TBD	annual	Special surveys	HPC	Desk review	Number of Member States with adopted procedures of subcontracting mechanisms under the state funds or other relevant funding mechanisms for CSOs in the provision of psychosocial support and active case-finding services for people with TB	Output
1.B Comprehensive TB prevention, PMTPT, infection prevention and control and vaccination against TB										
1.B.1	TPT coverage (%) among PLHIV (G)	80%	≥ 99%	≥ 99%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Total number of new HIV patients enrolled in TPT in a specified period Denominator: Total number of new HIV patients eligible for TPT in the specified period	Output
1.B.2	TPT coverage (%) in childhood TB contacts aged under 5 years (G) (E)	30%	≥ 90%	≥ 95%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Total number of child TB contacts age < 5 years enrolled in TPT in the specified period Denominator: Estimated number of child TB contacts eligible for TPT in the specified period	Output
1.C Systematic screening for TB disease in contact people and other high-risk and vulnerable populations										
1.C.1	Coverage of contacts with systematic screening for active TB (G)	98%	≥ 90%	≥ 90%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Number of contacts of TB patients identified in the reporting year who were evaluated for active TB disease and TB infection[c] Denominator 1: Number of contacts of active TB patients identified in the reporting year Denominator 2: Estimated number of household contacts of TB patients in the reporting year[d]	Output
1.D Early diagnosis of all forms of TB and universal access to DST, including the use of rapid tests										
1.D.1	Percentage of notified new and relapse TB patients tested using WHO-recommended rapid diagnostic tests (G)	72%	≥ 90%	≥ 95%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Number of new and relapse patients tested using WHO-recommended rapid diagnostic tests[e] as the initial diagnostic test (regardless of test result) Denominator: Total number of new and relapse patients notified	Output
1.D.2	Bacteriological confirmation: Percentage of new and relapse pulmonary TB patients who are bacteriologically confirmed	67%	> 90%	> 90%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Number of new and relapse bacteriologically confirmed pulmonary TB cases (smear positive or culture positive or positive by WHO-recommended rapid diagnostics test) during the reporting period Denominator: Number of notified new and relapse pulmonary TB cases (bacteriologically confirmed plus clinically diagnosed) during the reporting period	Output
1.D.3	Testing for drug resistance: Percentage of people diagnosed with bacteriologically confirmed TB who had a documented susceptibility test result for rifampicin (G)	92%	100%	100%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Number of patients with drug susceptibility test results for at least rifampicin among bacteriologically confirmed TB patients[f] Denominator: Total number of bacteriologically confirmed TB patients	Output
1.D.4	Testing for additional drug resistance: Percentage of people with RR-TB who had a documented susceptibility test result for fluoroquinolones	94%	100%	100%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Number of patients diagnosed with RR-TB with susceptibility test results for fluoroquinolones Denominator: Total number of RR-TB patients	Output
1.D.5	RR/MDR-TB case detection rate (%)	94%	≥ 90%	≥ 95%	annual	WHO Global TB database/ WHO TB burden estimates	HPC	Routine reporting/WHO estimates	Numerator: Total number of bacteriologically confirmed pulmonary RR/MDR-TB patients notified Denominator: Total number of estimated RR/MDR-TB patients among notified pulmonary TB	Output

Annex 6. contd.

Area of intervention	Indicator	Baseline for WHO European Region (2020)	Milestones (2025)	Targets[a] (2030)	Frequency of assessment	Data source	Analysis layer	Monitoring mechanism[b]	Indicator definition	Indicator level
1. Integrated, people-centred care and prevention										
1.D Early diagnosis of all forms of TB and universal access to DST, including the use of rapid tests										
1.D.6	TB case detection rate (%)	71%	≥ 95%	≥ 95%	annual	WHO Global TB database / WHO TB burden estimates	EUR HPC EU/EEA	Routine reporting/WHO estimates	Numerator: Total number of new and relapse TB patients notified Denominator: Total number of estimated new and relapse TB patients	Output
1.D.7	TB incidence rate per 100 000 population (E)	25	50% reduction compared to 2015	80% reduction compared to 2015	annual	WHO TB burden estimates	EUR HPC EU/EEA	WHO estimates	Numerator: Total estimated number of new and relapse TB patients Denominator: Population number/100 000	Impact
1.D.8	RR-MDR/TB notification rate per 100 000 population	N/A	1–5% annual reduction[h]	1–5% annual reduction[h]	annual	WHO Global TB database	HPC	Routine reporting	Numerator: Total number of bacteriologically confirmed RR-TB or MDR-TB patients notified Denominator: Population number/100 000	Outcome
1.E Equitable access to quality treatment and care for all people with TB, including those with drug-resitant TB and TB comorbidities; and support for patients to facilitate treatment adherence										
1.E.1	Percentage of patients starting first line TB treatment at the outpatient health-care level (E)	To be calculated at the country level	Documented increase	Documented increase	2020 and 2025	WHO Global TB database	HPC	Routine reporting	Estimated percentage of patients that are receiving TB treatment at the ambulatory (outpatient) level (%) among patients starting first-line TB treatment Additional indicator: Estimated percentage of patients that are receiving TB treatment at the ambulatory (outpatient) level (%) among patients starting second-line TB treatment	Output
1.E.2	Percentage of notified RR/MDR TB patients enrolled in treatment (G)(E)	100%	≥ 99%	≥ 99%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Total number of RR/MDR TB patients enrolled into SLD treatment Denominator: Total number of RR/MDR TB patients notified	Output
1.E.3	Treatment success rate (%) among all new and relapse TB patients (G)	77%	≥ 90%	≥ 90%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: New and relapse TB patients notified in a specified period who were successfully treated Denominator: Total number of new and relapse TB patients notified in the same period[g]	Outcome
1.E.4	Treatment success rate (%) among the RR/MDR-TB treatment cohort (G) (E)	56%	≥ 80%	≥ 85%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Number of bacteriologically confirmed RR/MDR-TB patients during the specified period that were successfully treated Denominator: Number of bacteriologically confirmed RR/MDR-TB patients that started on a prescribed TB treatment regimen during the specified period	impact
1.E.5	Treatment success rate (%) among pre-XDR-TB treatment cohort (G) (E)	51%	≥ 75%	≥ 80%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Number of bacteriologically confirmed pre-XDR-TB patients during the specified period that were successfully treated Denominator: Number of bacteriologically confirmed pre-XDR-TB patients that started on a prescribed TB treatment regimen during the specified period Additional disaggregation by XDR-TB treatment outcomes	Outcome
1.E.6	Total number of TB deaths (G) (E)	21 000	75% reduction compared to 2015	90% reduction compared to 2015	annual	WHO TB burden estimates	EUR HPC EU/EEA	WHO estimates	Estimated number of TB deaths (HIV-negative)	Output
1.E.7	TB/HIV case-detection rate (%)	68%	Close to 100%	Close to 100%	annual	WHO Global TB database/ WHO TB burden estimates	HPC	Routine reporting/WHO estimates	Numerator: Total number of notified HIV co-infected TB patients among new and relapse TB patients in a specified period Denominator: Total number of estimated TB/HIV coinfected patients among new and relapse TB patients	Output

Annex 6. contd.

Area of intervention	Indicator	Baseline for WHO European Region (2020)	Milestones (2025)	Targets[a] (2030)	Frequency of assessment	Data source	Analysis layer	Monitoring mechanism[b]	Indicator definition	Indicator level
1. Integrated, people-centred care and prevention										
1.E Equitable access to quality treatment and care for all people with TB, including those with drug-resistant TB and TB comorbidities; and support for patients to facilitate treatment adherence										
1.E.8	HIV testing coverage (%) (G) (E)	93%	100%	100%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Total number of notified new and relapse TB patients in a specified period with reported HIV status Denominator: Total number of notified new and relapse TB patients in the specified period	Output
1.E.9	Percentage of HIV positives among new and relapse TB patients with documented test results	15%	Decrease[h]	Decrease[h]	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Total number of notified new and relapse TB patients in a specified period who are HIV positive Denominator: Total number of notified new and relapse TB patients in the specified period with documented HIV test results	Output
1.E.10	ART coverage (%) among TB/HIV patients	74%	Close to 100%	Close to 100%	annual	WHO Global TB database	EUR HPC EU/EEA	Routine reporting	Numerator: Total number of notified new and relapse TB/HIV patients in a specified period who are enrolled in ART[i] Denominator: Total number of notified new and relapse TB patients in the specified period who are HIV positive	Output
1.E.11	Screening of TB patients for mental and substance use disorders	N/A	Close to 100%	Close to 100%	annual	Special surveys	EUR HPC EU/EEA	Desk review	Numerator 1: Number of new and relapse TB patients screened for mental disorders (using WHO recommended assessment tools) Numerator 2: Number of new and relapse TB patients screened for substance use disorders Denominator: Total number of notified new and relapse TB patients in the specified period	Output
2. Bold policies and supportive systems										
2.A Governance and leadership										
2.A.1	Number of Members States that have a TB control strategy document publicly available that includes targets for reduction in TB mortality and incidence in line with the regional and global targets set in the resolution WHA67.1 and EUR/RC70/RX[j,k] (E)	N/A	–	–	cumulative 2020–2025	Special surveys	EUR HPC EU/EEA	Desk review	Method of measurement: review (53 Member States, this includes the example of TB control measures integrated in overall strategy or standalone document)	Output
2.B Health finance and financial management										
2.B.1	Percentage of TB-affected households that experience catastrophic costs due to TB (G) (E)	N/A	0%	0%	Survey conducted between 2020–2025	Special Survey	HPC	Desk review	Source: TB catastrophic cost surveys	Impact
2.C Health workforce including community health workers										
2.C.1	Proportion of people with TB found through active case-finding activities implemented through CSOs	N/A	≥ 40%	TBD	annual	Special survey/ WHO Global TB database	HPC	Desk review	Numerator: Number of people with TB from key affected population referred by community volunteers/NGOs for TB diagnosis and treatment Denominator: Total number of people with TB notified during the same period	Output
2.C.2	Proportion of people with TB who started TB treatment and who received any form of treatment adherence support from CSO (including psychosocial support)	N/A	≥ 60%	TBD	annual	Special survey/ WHO Global TB database	HPC	Desk review	Numerator: number of people with TB who started TB treatment and who received any form of treatment adherence support from CSO (including psychosocial support) Denominator: Total number of people with TB started treatment during the same period	Output

Annex 6. contd.

Area of intervention	Indicator	Baseline for WHO European Region (2020)	Milestones (2025)	Targets[a] (2030)	Frequency of assessment	Data source	Analysis layer	Monitoring mechanism[b]	Indicator definition	Indicator level
2. Bold policies and supportive systems										
2.D Strategic information and digital health										
2.D.1	Proportion of individuals who received TB treatment and care using digital adherence technologies (e.g. video-supported treatment of TB)	N/A	≥ 30%	≥ 40%	annual	Special surveys	HPC	Desk review	Numerator: Number of patients using digital adherence technologies (e.g. video-supported treatment) during the period of outpatient treatment and care Denominator: Total number of patients in outpatient care who completed treatment	Outcome
3. Intensified research and innovation										
3.A Intensified research and innovation										
3.A.1	Number of Member States with a standing alone national TB research agenda or research priorities integrated in the national TB strategic plans or relevant policies	N/A	–	–	cumulative 2020–2025	Special surveys	EUR HPC EU/EEA	Desk review	Method of measurement: desk review	Output

Note: CSO: civil society organization; DST: drug-susceptibility testing; HPC: high-priority country; E: European (indicator); EEA: European Economic Area; EU: European Union; EUR: WHO European Region; G: global (indicator); HPC: high-priority country; MDR-TB: multidrug-resistant tuberculosis; N/A: not applicable; NGO: nongovernmental organization; PHC: primary health care; PLHIV: people living with HIV; PMTPT: programmatic management of TB preventive treatment; SLD: second-line drug; RR-TB; rifampicin-resistant tuberculosis; TB: tuberculosis; TBD: to be determined; TPT: TB preventative treatment; XDR-TB: Extensively drug-resistant TB.

[a] Targets to be revised in 2024.

[b] Some of the data for the "desk review" assessment are collected through routine reporting at the European level.

[c] According to national guidelines.

[d] For measuring the coverage of the contact investigation. Available at: Household size and composition [online database]. New York: United Nations; 2022 (https://www.un.org/development/desa/pd/data/household-size-and-composition, accessed 9 February 2024).

[e] The Molecular WHO-recommended rapid diagnostic tests currently recommended by WHO are listed in the manual for selection of molecular WHO-recommended rapid diagnostic tests for detecting tuberculosis and drug-resistant tuberculosis. Geneva: World Health Organization; 2022 (https://apps.who.int/iris/handle/10665/353596, accessed 9 February 2024).

[f] Including results from molecular tests (e.g. WHO-recommended rapid diagnostic test) as well as conventional phenotypic DST results.

[g] Following the revised treatment outcome definitions applicable to all patients treated for TB, regardless of regimen used. A patient started on treatment for drug-susceptible TB and then later changed to treatment for drug-resistant TB is not now removed from the initial drug-susceptible TB treatment cohort. Instead, an outcome of treatment failure is assigned to the drug-susceptible treatment and the patient is re-registered and added to the drug-resistant TB treatment cohort. Source: Meeting report of the WHO expert consultation on drug-resistant tuberculosis treatment outcome definitions, 17–19 November 2020. Geneva: World Health Organization; 2021 (https://apps.who.int/iris/handle/10665/340284, accessed 7 February 2024).

[h] Any documented reduction is acceptable.

[i] Within 8 weeks of starting TB treatment.

[j] Sixty-seventh World Health Assembly. Global strategy and targets for tuberculosis prevention, care and control after 2015. Geneva: World Health Organization; 2014 (WHA67.1; https://apps.who.int/iris/handle/10665/162760, accessed 7 February 2024).

[k] Regional Committee for Europe, 65th session. Sixty-fifth Regional Committee for Europe: Vilnius, 14–17 September 2015: resolution: tuberculosis action plan for the WHO European Region 2016–2020. Copenhagen: WHO Regional Office for Europe; 2015 (https://apps.who.int/iris/handle/10665/337864, accessed 7 February 2024).

6. Tables

Summary table. TB surveillance data by region, European Region, 2022

Data item	Table showing data by country/area	Region							
		EU/EEA		Non-EU/EEA		Total		18 high-priority countries[a]	
		Number of reporting countries/areas[b]	Value	Number of reporting countries/areas[b]	Value	Number of reporting countries/areas[b]	Value	Number of reporting countries/areas[b]	Value
Total population (millions)	**1**	**29**	**518.1**	**24**	**480.0**	**53**	**930.9**	**18**	**411.0**
Estimates of TB disease burden, 2022[c]									
Estimated TB mortality rate (excluding HIV-related deaths) per 100 000 population	1	29	0.7	24	2.9	53	1.9	18	3.7
Estimated TB incidence rate per 100 000 population	1	29	8.6	24	40.0	53	24.6	18	47.7
Estimated RR-TB cases among notified bacteriologically confirmed pulmonary TB patients	2	29	1 100	24	35 000	53	35 000	18	35 100
Estimated percentage of HIV infection among incident TB cases (new and relapse)	2	29	3.3	21	13.6	50	12.0	18	13.3
Notifications of TB cases, 2022									
Total number of TB cases	3	30	36 179	22	163 010	52	199 189	18	166 942
All TB cases per 100 000 population	3	30	8.0	22	34.1	52	21.4	18	40.9
Mean annual percentage change of notification rate (2018–2022)	3	29	-6.7%	22	-7.6%	51	-7.4%	17	-8.2%
Number of new and relapse TB cases	III	30	33 480	22	136 885	52	170 365	18	140 340
New and relapse TB cases per 100 000 population	III	30	7.4	22	28.6	52	18.3	18	34.3
Mean annual percentage change of notification rate of new and relapse TB cases (2018–2022)	III	29	-7.5%	22	-7.0%	51	-7.1%	17	-7.1%
Percentage of new cases among all TB cases	4	30	74.9%	22	69.2%	52	70.2%	18	68.8%
Percentage of retreatment cases among all TB cases	4	30	25.1%	22	30.8%	52	29.8%	18	31.2%
Percentage of pulmonary TB among all TB cases	5	30	73.8%	–	–	–	–	–	–
Percentage of laboratory-confirmed TB cases among all TB cases	7	30	70.6%	–	–	–	–	–	–
Male-to-female ratio of new and relapse TB cases	8	30	2.1	22	2.0	52	2.0	18	2.1
Percentage of foreign TB cases among all TB cases	9	30	33.3%	19	4.9%	49	10.4%	15	2.3%
TB case laboratory confirmation, RR/MDR and XDR, 2022									
Percentage of laboratory-confirmed cases among new pulmonary TB cases[d]	11	30	79.3%	22	67.9%	52	70.1%	18	68.4%
Percentage of DST results reported among new bacteriologically confirmed pulmonary TB cases	11	30	86.1%	22	95.3%	52	93.3%	18	95.3%
Percentage of RR/MDR-TB among new pulmonary TB cases	11	30	3.9%	22	26.1%	52	21.6%	18	25.2%
Percentage of RR/MDR-TB among previously treated pulmonary TB cases	11	30	10.0%	22	54.3%	52	50.5%	18	52.5%
Percentage of Pre-XDR-TB among all RR/MDR-TB cases with DST for fluoroquinolone	12	30	26.9%	15	35.2%	45	35.1%	17	35.2%
Percentage of XDR-TB among all pre-XDR-TB cases with DST for any other Group A drugs	12	29	10.0%	10	8.7%	39	8.7%	14	8.7%
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, 2022									
Percentage of new and relapse TB cases with known HIV status	14	21	72.6%	18	95.2%	39	92.4%	17	95.2%
Percentage of HIV-positive cases among new and relapse TB cases with known HIV status	14	21	3.9%	17	15.5%	38	14.4%	17	14.7%
Percentage of HIV-positive new and relapse TB cases started on ART	14	3	69.0%	17	81.2%	20	81.2%	13	81.2%
Treatment outcome									
Treatment success of new and relapse TB cases notified in 2021	16	25	64.0%	21	71.6%	46	70.0%	16	71.6%
Treatment success rate among previously treated TB cases reported in 2021	17	19	66.6%	16	57.5%	35	58.7%	14	56.9%
Treatment success of childhood TB cases notified in 2021	18	19	72.7%	16	92.9%	35	88.2%	13	92.9%
Treatment success of TB/HIV cases notified in 2021	20	16	54.0%	14	48.2%	30	48.4%	13	48.4%
Treatment success of RR/MDR-TB cases enrolled in SLD treatment in 2020	22	19	52.5%	19	57.4%	38	57.3%	15	57.3%
Treatment success of all pre-XDR-TB cases notified in 2020	23	23	22.0%	18	53.5%	41	53.2%	14	53.1%
Treatment success rate among all XDR-TB cases notified in 2020	24	18	0.0%	–	–	–	–	–	–

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein.
ART: antiretroviral therapy; DST: drug-susceptibility testing; EEA: European Economic Area; EU: European Union; MDR: multidrug-resistant; RR: rifampicin-resistant; SLD: second-line antiTB drugs; TB: tuberculosis; XDR: extensively drug-resistant.
[a] The 18 high-priority countries 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.
[b] Number of countries/areas with available data included in the statistics.
[c] WHO estimates, as published in: Global tuberculosis report 2023. Geneva: World Health Organization; 2023 (https://iris.who.int/handle/10665/373828, accessed 8 February 2024).
[d] 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, 2022

Country	Population[a]	Estimated number of deaths from TB (all forms, excluding HIV)						Estimated number of incident cases (all forms)					
		Number			Per 100 000			Number			Per 100 000		
		Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA													
Austria	8 939 617	29	28	29	0.3	0.3	0.3	390	330	450	4.4	3.7	5.1
Belgium	11 655 930	33	32	35	0.3	0.3	0.3	910	770	1 000	7.8	6.6	9
Bulgaria	*6 781 953*	*95*	*92*	*97*	*1.4*	*1.4*	*1.4*	*1 100*	*750*	*1 400*	*16*	*11*	*21*
Croatia	4 030 358	35	35	36	0.9	0.9	0.9	110	92	120	2.7	2.3	3.1
Cyprus	1 251 488	5	5	5	0.4	0.4	0.4	100	89	120	8.3	7.1	9.6
Czechia	10 493 986	16	16	17	0.2	0.2	0.2	440	370	500	4.2	3.6	4.8
Denmark	5 882 261	10	10	11	0.2	0.2	0.2	240	200	270	4	3.4	4.6
Estonia	*1 326 062*	*9*	*9*	*9*	*0.7*	*0.7*	*0.7*	*140*	*120*	*170*	*11*	*9.3*	*13*
Finland	5 540 745	30	30	30	0.5	0.5	0.6	220	190	250	3.9	3.4	4.6
France	64 626 628	440	410	460	0.7	0.6	0.7	4 700	4 100	5 300	7.2	6.4	8.2
Germany	83 369 843	270	260	270	0.3	0.3	0.3	4 300	3 900	4 700	5.1	4.6	5.7
Greece	10 384 971	43	41	45	0.4	0.4	0.4	230	190	260	2.2	1.9	2.5
Hungary	9 967 308	63	63	63	0.6	0.6	0.6	500	430	580	5	4.3	5.8
Iceland	372 899	2	2	2	0.6	0.6	0.6	18	16	21	4.9	4.2	5.7
Ireland	5 023 109	19	18	19	0.4	0.4	0.4	230	190	260	4.5	3.9	5.2
Italy	59 037 474	300	290	300	0.5	0.5	0.5	2 700	2 300	3 100	4.6	3.9	5.3
Latvia	*1 850 651*	*54*	*54*	*54*	*2.9*	*2.9*	*2.9*	*350*	*300*	*410*	*19*	*16*	*22*
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*2 750 055*	*85*	*85*	*86*	*3.1*	*3.1*	*3.1*	*830*	*710*	*960*	*30*	*26*	*35*
Luxembourg	647 599	1	1	1	0.2	0.2	0.2	54	46	62	8.3	7.1	9.6
Malta	533 286	1	1	1	0.2	0.2	0.2	69	59	80	13	11	15
Netherlands (Kingdom of the)	17 564 014	22	21	22	0.1	0.1	0.1	720	610	830	4.1	3.5	4.7
Norway	5 434 319	19	18	19	0.3	0.3	0.4	180	150	210	3.3	2.8	3.8
Poland	39 857 145	530	500	560	1.3	1.3	1.4	4 600	3 900	5 300	12	9.8	13
Portugal	10 270 865	240	230	250	2.4	2.3	2.4	1 600	1 400	1 900	16	13	18
Romania	*19 659 267*	*730*	*470*	*1000*	*3.7*	*2.4*	*5.3*	*10 000*	*8 700*	*12 000*	*52*	*44*	*60*
Slovakia	5 643 453	14	14	15	0.3	0.3	0.3	160	140	190	2.9	2.5	3.3
Slovenia	2 119 844	14	14	15	0.7	0.7	0.7	83	71	96	3.9	3.3	4.5
Spain	47 558 630	170	170	170	0.4	0.4	0.4	3 300	2 800	3 800	6.9	5.9	8
Sweden	10 549 347	23	23	23	0.2	0.2	0.2	410	350	470	3.9	3.3	4.5
Subtotal EU/EEA	**453 123 107**	**3 300**	**3 000**	**3 600**	**0.7**	**0.7**	**0.8**	**39 000**	**37 000**	**41 000**	**8.6**	**8.2**	**9.0**
Non-EU/EEA													
Albania	2 842 321	7	4	11	0.3	0.1	0.4	430	380	520	15	13	18
Andorra	79 824	0	0	1	0.5	0.3	0.7	5	4	5	5.8	4.9	6.7
Armenia	*2 780 469*	*10*	*9*	*12*	*0.4*	*0.3*	*0.4*	*690*	*540*	*890*	*25*	*19*	*32*
Azerbaijan	*10 358 074*	*550*	*450*	*660*	*5.3*	*4.3*	*6.3*	*7 000*	*5 000*	*9 200*	*68*	*48*	*89*
Belarus	*9 534 954*	*210*	*200*	*220*	*2.2*	*2.1*	*2.3*	*2 600*	*2 000*	*3 400*	*28*	*21*	*36*
Bosnia and Herzegovina	3 233 526	74	68	81	2.3	2.1	2.5	780	580	1 000	24	18	31
Georgia	*3 744 385*	*67*	*51*	*85*	*1.8*	*1.4*	*2.3*	*2 200*	*1 800*	*2 700*	*60*	*48*	*73*
Israel	9 038 309	22	21	22	0.2	0.2	0.3	230	200	270	2.6	2.2	3
Kazakhstan	*19 397 998*	*300*	*190*	*420*	*1.5*	*1.0*	*2.2*	*15 000*	*10 000*	*21 000*	*78*	*52*	*108*
Kyrgyzstan	*6 630 623*	*390*	*350*	*440*	*5.9*	*5.2*	*6.7*	*8 600*	*7 100*	*10 000*	*130*	*106*	*152*
Monaco	36 469	0	0	0	0.1	0.1	0.1	0	0	0	1.1	0.93	1.3
Montenegro	627 082	1	1	1	0.2	0.2	0.2	90	79	100	14	13	16
North Macedonia	2 093 599	11	10	11	0.5	0.5	0.5	220	170	290	11	7.9	14
Republic of Moldova	*3 272 996*	*69*	*63*	*76*	*2.1*	*1.9*	*2.3*	*2 400*	*2 100*	*2 900*	*74*	*64*	*89*
Russian Federation	*144 713 314*	*5 400*	*5 300*	*5 500*	*3.7*	*3.7*	*3.8*	*56 000*	*31 000*	*87 000*	*39*	*22*	*60*
San Marino	33 660	0	0	0	0.0	0.0	0.0	0	0	0	0	0	0
Serbia	7 221 365	34	33	35	0.5	0.5	0.5	1 000	890	1 200	14	12	17
Switzerland	8 740 472	18	17	18	0.2	0.2	0.2	400	340	460	4.6	3.9	5.3
Tajikistan	*9 952 787*	*780*	*700*	*870*	*7.9*	*7.0*	*8.8*	*7 800*	*5 900*	*10 000*	*78*	*60*	*102*
Türkiye	*85 341 241*	*310*	*210*	*430*	*0.4*	*0.3*	*0.5*	*12 000*	*9 200*	*15 000*	*14*	*11*	*17*
Turkmenistan	*6 430 770*	*660*	*560*	*770*	*10.0*	*8.6*	*12.0*	*3 100*	*2 400*	*3 900*	*48*	*37*	*61*
Ukraine	*39 701 739*	*2 300*	*2 200*	*2 300*	*5.7*	*5.6*	*5.8*	*36 000*	*24 000*	*50 000*	*90*	*60*	*126*
United Kingdom	67 508 936	230	230	240	0.3	0.3	0.4	5 100	4 600	5 600	7.6	6.8	8.3
Uzbekistan	*34 627 652*	*2 900*	*2 300*	*3 500*	*8.2*	*6.6*	*10.0*	*29 000*	*20 000*	*40 000*	*83*	*57*	*115*
Subtotal non-EU/EEA	**477 942 565**	**14 000**	**13 000**	**15 000**	**2.9**	**2.7**	**3.1**	**191 000**	**158 000**	**224 000**	**40**	**33**	**47**
Total European Region	**931 122 138**	**18 000**	**17 000**	**18 000**	**1.9**	**1.8**	**2.0**	**229 000**	**196 000**	**263 000**	**25**	**21**	**28**
Subtotal 18 HPCs	***408 854 990***	***15 000***	***14 000***	***16 000***	***3.7***	***3.4***	***3.9***	***195 000***	***162 000***	***228 000***	***48***	***40***	***56***

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; TB: tuberculosis.
[a] Population estimate 2021 by United Nations statistical database for all countries.

Estimated incidence of child TB cases						Estimated incidence of TB among females						Country
Number			Per 100 000			Number			Per 100 000			
Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	
												EU/EEA
14	12	16	1.1	0.9	1.2	130	100	150	2.9	2.2	3.3	Austria
45	38	53	2.3	2.0	2.8	290	230	350	4.9	3.9	5.9	Belgium
28	*19*	*37*	*2.9*	*2.0*	*3.9*	*360*	*210*	*520*	*10.3*	*6.0*	*14.9*	*Bulgaria*
0	0	0	0.0	0.0	0.0	38	30	45	1.8	1.5	2.2	Croatia
2	2	3	1.0	1.0	1.5	38	30	46	6.1	4.8	7.4	Cyprus
13	11	15	0.8	0.7	0.9	110	91	130	2.1	1.7	2.4	Czechia
6	5	7	0.6	0.5	0.7	79	63	95	2.7	2.1	3.2	Denmark
0	0	0	0.0	0.0	0.0	44	35	52	6.3	5.0	7.5	Estonia
8	7	9	1.0	0.8	1.1	110	85	130	3.9	3.0	4.6	Finland
290	260	330	2.6	2.3	3.0	1 600	1 400	1 900	4.8	4.2	5.7	France
210	180	230	1.8	1.5	2.0	1 500	1 300	1 700	3.6	3.1	4.0	Germany
6	5	7	0.4	0.3	0.5	58	47	69	1.1	0.9	1.3	Greece
7	6	8	0.5	0.4	0.6	190	150	230	3.7	2.9	4.4	Hungary
0	0	0	0.0	0.0	0.0	6	5	7	3.3	2.8	3.9	Iceland
6	5	7	0.6	0.5	0.7	92	72	110	3.6	2.8	4.3	Ireland
86	72	99	1.2	1.0	1.3	930	740	1 100	3.1	2.4	3.6	Italy
6	*5*	*7*	*2.1*	*1.7*	*2.4*	*100*	*83*	*120*	*10.1*	*8.4*	*12.1*	*Latvia*
–	–	–	–	–	–	–	–	–	–	–	–	Liechtenstein
17	*15*	*20*	*4.0*	*3.6*	*4.7*	*230*	*180*	*270*	*15.8*	*12.3*	*18.5*	*Lithuania*
1	1	1	1.0	1.0	1.0	16	13	19	5.0	4.0	5.9	Luxembourg
1	1	1	1.4	1.4	1.4	21	17	25	8.2	6.7	9.8	Malta
24	20	28	0.9	0.7	1.0	270	220	330	3.1	2.5	3.7	Netherlands (Kingdom of the)
9	8	11	1.0	0.9	1.2	93	73	110	3.5	2.7	4.1	Norway
47	40	54	0.8	0.7	0.9	1 200	990	1 500	5.8	4.8	7.3	Poland
58	49	66	4.3	3.6	4.9	560	440	670	10.3	8.1	12.4	Portugal
370	*320*	*430*	*11.8*	*10.2*	*13.7*	*2 900*	*2 300*	*3 400*	*28.6*	*22.7*	*33.5*	*Romania*
46	37	55	5.2	4.2	6.2	61	48	73	2.1	1.7	2.5	Slovakia
2	2	3	0.6	0.6	0.9	36	28	43	3.4	2.7	4.1	Slovenia
140	120	160	2.1	1.8	2.4	1 200	980	1 500	4.9	4.0	6.2	Spain
22	18	25	1.2	1.0	1.3	200	160	240	3.8	3.1	4.6	Sweden
1 500	**1 400**	**1 600**	**2.2**	**2.1**	**2.4**	**12 000**	**11 000**	**13 000**	**5.2**	**4.7**	**5.6**	**Subtotal EU/EEA**
												Non-EU/EEA
9	7	10	2.0	1.5	2.2	130	7	10	9.1	0.5	0.7	Albania
0	0	0	0.0	0.0	0.0	1	0	0	2.6	0.0	0.0	Andorra
27	*20*	*34*	*4.7*	*3.5*	*6.0*	*150*	*20*	*34*	*9.8*	*1.3*	*2.2*	*Armenia*
420	*290*	*550*	*17.3*	*11.9*	*22.6*	*2 500*	*290*	*550*	*47.6*	*5.5*	*10.5*	*Azerbaijan*
120	*84*	*150*	*7.5*	*5.3*	*9.4*	*730*	*84*	*150*	*14.2*	*1.6*	*2.9*	*Belarus*
0	0	0	0.0	0.0	0.0	290	0	0	17.7	0.0	0.0	Bosnia and Herzegovina
130	100	160	16.3	12.6	20.1	810	100	160	40.8	5.0	8.1	Georgia
30	25	35	1.2	1.0	1.4	100	25	35	2.2	0.6	0.8	Israel
810	*500*	*1 100*	*14.1*	*8.7*	*19.1*	*6 000*	*500*	*1 100*	*59.6*	*5.0*	*10.9*	*Kazakhstan*
880	*700*	*1 000*	*38.5*	*30.6*	*43.8*	*3 700*	*700*	*1 000*	*109.6*	*20.7*	*29.6*	*Kyrgyzstan*
0	0	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	28	0	0	8.7	0.0	0.0	Montenegro
11	8	14	3.3	2.4	4.2	67	8	14	6.4	0.8	1.3	North Macedonia
95	*79*	*110*	*15.0*	*12.5*	*17.4*	*610*	*79*	*110*	*35.6*	*4.6*	*6.4*	*Republic of Moldova*
1 800	*840*	*2 700*	*7.0*	*3.3*	*10.5*	*16 000*	*840*	*2 700*	*20.6*	*1.1*	*3.5*	*Russian Federation*
0	0	0	0.0	0.0	0.0	0	0	0	0.0	0.0	0.0	San Marino
52	44	61	5.0	4.2	5.9	420	44	61	11.2	1.2	1.6	Serbia
19	16	21	1.4	1.2	1.6	150	16	21	3.4	0.4	0.5	Switzerland
580	*410*	*750*	*16.1*	*11.4*	*20.8*	*3 700*	*410*	*750*	*74.8*	*8.3*	*15.2*	*Tajikistan*
740	*560*	*920*	*3.7*	*2.8*	*4.6*	*5 200*	*560*	*920*	*12.2*	*1.3*	*2.2*	*Türkiye*
120	*91*	*160*	*6.0*	*4.5*	*8.0*	*1 300*	*91*	*160*	*40.1*	*2.8*	*4.9*	*Turkmenistan*
1 700	*1 000*	*2 300*	*27.8*	*16.3*	*37.6*	*11 000*	*1 000*	*2 300*	*51.2*	*4.7*	*10.7*	*Ukraine*
150	130	160	1.3	1.1	1.4	2 000	130	160	5.9	0.4	0.5	United Kingdom
3 700	*2 200*	*5 100*	*35.4*	*21.0*	*48.8*	*13 000*	*2 200*	*5 100*	*75.1*	*12.7*	*29.5*	*Uzbekistan*
11 000	**9 000**	**13 000**	**11.0**	**9.0**	**13.0**	**68 000**	**66 000**	**70 000**	**27.5**	**26.7**	**28.3**	**Subtotal non-EU/EEA**
13 000	**11 000**	**15 000**	**7.8**	**6.6**	**9.0**	**80 000**	**64 000**	**96 000**	**16.7**	**13.4**	**20.0**	**Total European Region**
12 000	*10 000*	*14 000*	*13.8*	*11.5*	*16.1*	*68 000*	*66 000*	*70 000*	*31.9*	*31.0*	*32.9*	***Subtotal 18 HPCs***

Table 2. Estimates for TB/HIV coinfection and RR-TB, European Region, 2022

Country	Estimated HIV infection among incident TB cases (new and relapse)						Estimated percentage of RR-TB cases among new TB cases			Estimated percentage of RR-TB cases among retreated TB patients			Estimated RR-TB cases among notified bacteriologically confirmed pulmonary TB patients			Estimated number of incident RR-TB cases		
	Number			%			%			%			Number			Number		
	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA																		
Austria	9	5	14	2.2	1.2	3.4	5	3.0	7.9	53.0	37.0	69.0	20	13	27	28	16	40
Belgium	33	12	65	3.7	1.4	7.1	1.6	1.1	2.2	14.0	5.7	27.0	13	8	19	26	16	36
Bulgaria	*0*	*0*	*3*	*0.0*	*0.0*	*0.3*	*2.1*	*1.2*	*3.3*	*16.0*	*8.8*	*24.0*	*14*	*9*	*19*	*36*	*16*	*56*
Croatia	1	1	2	1.0	0.5	1.5	0.5	0.2	1.0	6.4	2.0	15.0	1	1	2	1	0	1
Cyprus	5	3	8	4.6	2.5	7.3	2.0	0.9	3.8	6.9	0.8	23.0	2	1	3	2	1	4
Czechia	3	2	5	0.7	0.4	1.2	3.8	2.7	5.1	14.0	5.3	26.0	14	10	19	19	12	26
Denmark	6	2	14	2.7	0.8	5.8	2.0	1.1	3.3	3.5	1.0	8.4	3	2	5	5	3	8
Estonia	*7*	*3*	*15*	*5.1*	*1.8*	*10.0*	*22*	*19*	*25*	*53.0*	*45.0*	*60.0*	*31*	*28*	*34*	*39*	*31*	*48*
Finland	3	2	5	1.5	0.8	2.3	3.9	2.7	5.5	18.0	4.3	44.0	6	4	8	9	6	13
France	220	170	270	4.6	3.7	5.6	0.7	0.3	1.3	16.0	5.5	36.0	30	11	49	79	29	130
Germany	110	60	180	2.6	1.4	4.1	2.1	1.5	2.9	26.0	19.0	33.0	110	83	130	140	94	180
Greece	8	5	13	3.6	2.1	5.5	2.2	1.1	4.1	8.5	1.5	22.0	7	3	11	6	2	10
Hungary	5	3	9	1.1	0.6	1.7	4.0	2.6	5.4	17.0	8.2	29.0	12	8	16	27	17	37
Iceland	0	0	1	2.1	0.8	4.0	1.1	0.2	3.2	13.0	1.0	42.0	0	0	0	0	0	1
Ireland	8	4	13	3.6	2.0	5.7	1.5	0.6	3.1	10.0	2.9	22.0	3	1	5	5	2	9
Italy	140	79	220	5.2	3.0	8.0	2.8	2.1	3.6	3.3	2.0	5.0	42	32	53	77	55	100
Latvia	*32*	*21*	*46*	*9.2*	*6.0*	*13.0*	*9.6*	*8.3*	*11.0*	*25.0*	*20.0*	*30.0*	*30*	*26*	*34*	*39.0*	*30.0*	*48.0*
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*23*	*13*	*35*	*2.7*	*1.6*	*4.1*	*15*	*14*	*16*	*43.0*	*40.0*	*46.0*	*130*	*120*	*140*	*170*	*140*	*200*
Luxembourg	2	0	6	3	0.0	11.0	1.3	0.4	3.3	9.5	1.1	31.0	1	0	1	1	0	2
Malta	0	0	2	0.0	0.0	3.0	1.4	0.4	3.2	9.3	1.1	31.0	1	0	1	1	0	2
Netherlands (Kingdom of the)	21	12	33	2.9	1.7	4.4	2.5	1.8	3.3	21.0	12.0	34.0	12	9	15	23	15	30
Norway	4	1	11	2.4	0.5	6.0	4.9	3.4	6.5	8.6	2.8	19.0	6	4	8	10	6	13
Poland	52	29	83	1.1	0.7	1.8	1.3	1.2	1.6	2.9	2.4	3.7	55	48	62	71	57	86
Portugal	170	140	210	11.0	9.0	12.0	0.9	0.5	1.4	7.1	3.0	13.0	12	7	17	20	11	29
Romania	*180*	*140*	*220*	*1.8*	*1.5*	*2.1*	*2.3*	*2.1*	*2.5*	*12.0*	*11.0*	*13.0*	*330*	*320*	*350*	*450*	*360*	*530*
Slovakia	5	1	12	3.1	0.7	7.2	2.3	1.2	3.9	15.0	7.8	26.0	4	2	6	6	2	10
Slovenia	0	0	2	0.0	0.0	2.5	0.5	0.2	1.2	4.7	1.0	11.0	1	0	1	1	0	1
Spain	220	85	430	6.8	2.6	13.0	3.7	1.9	6.4	19.0	3.8	46.0	190	39	350	170	71	260
Sweden	9	5	15	2.2	1.2	3.5	3.8	2.8	5.0	18.0	9.7	27.0	12	9	15	19	13	25
Subtotal EU/EEA	**1 300**	**1 000**	**2 000**	**3.3**	**2.4**	**5.4**	**3.1**	**2.1**	**4.1**	**19.0**	**12.0**	**24.0**	**1 100**	**800**	**1 400**	**1 500**	**1 400**	**1 600**
Albania	2	0	7	0.4	0.0	1.7	1.6	0.8	2.7	16.0	5.7	30.0	5	3	8	11	5	17
Andorra	–	–	–	–	–	–	2.2	0.5	6.2	25.0	3.1	72.0	0	0	0	0	0	0
Armenia	*66*	*42*	*94*	*9.5*	*6.8*	*13.0*	*18.0*	*16.0*	*21.0*	*47.0*	*41.0*	*53.0*	*64*	*57*	*71*	*160*	*110*	*210*
Azerbaijan	*170*	*110*	*230*	*2.4*	*1.9*	*2.9*	*12.0*	*11.0*	*13.0*	*21.0*	*20.0*	*22.0*	*650*	*620*	*680*	*1 200*	*840*	*1 600*
Belarus	*200*	*140*	*270*	*7.7*	*6.4*	*9.1*	*40.0*	*38.0*	*41.0*	*62.0*	*60.0*	*64.0*	*800*	*780*	*830*	*1 300*	*900*	*1 600*
Bosnia and Herzegovina	2	1	3	0.2	0.1	0.3	0.3	0.1	0.4	2.8	1.2	5.6	2	1	2	3	1	5
Georgia	*64*	*42*	*90*	*2.9*	*2.1*	*3.8*	*12.0*	*11.0*	*13.0*	*29.0*	*27.0*	*32.0*	*200*	*190*	*210*	*360*	*270*	*440*
Israel	8	3	16	3.5	1.3	6.8	8.5	6.2	11.0	10.0	2.8	24.0	9	7	12	20	13	26
Kazakhstan	*990*	*660*	*1 400*	*6.6*	*6.1*	*7.1*	*34.0*	*33.0*	*34.0*	*51.0*	*51.0*	*52.0*	*3 300*	*3 200*	*3 300*	*5 900*	*3 700*	*8 100*
Kyrgyzstan	*240*	*190*	*310*	*2.8*	*2.4*	*3.3*	*26.0*	*24.0*	*27.0*	*55.0*	*53.0*	*58.0*	*950*	*910*	*980*	*3 000*	*2 400*	*3 600*
Monaco	–	–	–	–	–	–	2.1	0.3	7.1	21.0	1.8	64.0	0	0	0	–	–	–
Montenegro	3	0	8	3	0.0	9.2	0.6	0.2	1.2	5.4	1.5	12.0	1	0	1	1	0	1
North Macedonia	*1*	*0*	*6*	*0.7*	*0.0*	*2.6*	1.1	0.6	1.8	5.6	1.7	12.0	2	1	3	4	1	6
Republic of Moldova	*280*	*220*	*340*	*11.0*	*10.0*	*13.0*	*28.0*	*27.0*	*30.0*	*57.0*	*54.0*	*59.0*	*490*	*480*	*510*	*900*	*730*	*1 100*
Russian Federation	*14 000*	*8 000*	*22 000*	*26*	*25*	*26*	*37.0*	*37.0*	*38.0*	*68.0*	*68.0*	*69.0*	*21 000*	*20 000*	*21 000*	*31 000*	*15 000*	*47 000*
San Marino	–	–	–	–	–	–	2.4	0.4	8.2	18.0	1.7	59.0	0	0	0	0	0	0
Serbia	2	1	4	0.3	0.2	0.5	1.0	0.5	2.0	6.4	2.0	14.0	8	3	12	15	4	25
Switzerland	18	10	29	4.6	2.6	7.1	2.3	1.1	3.9	31.0	17.0	48.0	13	8	18	19	9	30
Tajikistan	*200*	*140*	*270*	*2.6*	*2.1*	*3.1*	*28.0*	*27.0*	*29.0*	*33.0*	*31.0*	*36.0*	*610*	*590*	*630*	*2 200*	*1 600*	*2 900*
Türkiye	*180*	*140*	*240*	*1.6*	*1.3*	*1.8*	*2.6*	*2.3*	*2.8*	*8.9*	*7.3*	*10.0*	*150*	*130*	*160*	*350*	*260*	*440*
Turkmenistan	*690*	*370*	*1 100*	*22*	*13*	*34*	*31.0*	*29.0*	*34.0*	*52.0*	*49.0*	*56.0*	*500*	*470*	*520*	*1 300*	*930*	*1 700*
Ukraine	*7 900*	*4 300*	*13 000*	*23*	*10*	*39*	*29.0*	*29.0*	*30.0*	*43.0*	*42.0*	*44.0*	*4 400*	*4 300*	*4 400*	*12 000*	*7 500*	*16 000*
United Kingdom	180	66	340	3.5	1.3	6.6	1.7	1.5	2.1	5.6	3.8	8.0	36	31	43	100	77	120
Uzbekistan	*950*	*640*	*1 300*	*3.3*	*3.0*	*3.6*	*16.0*	*16.0*	*17.0*	*31.0*	*29.0*	*32.0*	*1 500*	*1 400*	*1 500*	*5 800*	*3 700*	*7 800*
Subtotal non-EU/EEA	**26 000**	**15 000**	**41 000**	**13.6**	**9.5**	**18.3**	**26**	**19**	**33**	**54**	**26**	**81**	**35 000**	**34 000**	**36 000**	**66 000**	**38 000**	**93 000**
Total European Region	**28 000**	**20 000**	**37 000**	**12.0**	**8.4**	**17.0**	**24**	**17**	**31**	**54**	**26**	**81**	**35 000**	**35 000**	**36 000**	**67 000**	**50 000**	**83 000**
Subtotal 18 HPCs	*26 000*	*18 000*	*34 000*	*13.3*	*7.9*	*21.0*	*27*	*20*	*34*	*55*	*27*	*82*	*35 100*	*35 000*	*36 000*	*66 000*	*49 000*	*83 000*

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

Table 3. TB cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2018–2022

Country/area	2018		2019		2020		2021		2022		Mean annual % change in rate, 2018–2022
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
EU/EEA											
Austria	482	5.5	474	5.4	388	4.4	396	4.4	372	4.1	-6.7%
Belgium	977	8.6	963	8.4	825	7.2	868	7.5	852	7.3	-3.8%
Bulgaria	*1 358*	*19.3*	*1 344*	*19.2*	*930*	*13.4*	*687*	*9.9*	*792*	*11.6*	*-11.9%*
Croatia	372	9.1	305	7.5	198	4.9	173	4.3	212	5.5	-11.8%
Cyprus	52	6.0	69	7.9	36	4.1	48	5.4	96	10.6	15.2%
Czechia	443	4.2	461	4.3	363	3.4	357	3.4	384	3.7	-3.3%
Denmark	291	5.0	284	4.9	221	3.8	218	3.7	225	3.8	-6.6%
Estonia	*147*	*11.1*	*150*	*11.3*	*124*	*9.3*	*112*	*8.4*	*129*	*9.7*	*-3.4%*
Finland	227	4.1	226	4.1	174	3.1	170	3.1	190	3.4	-4.5%
France	5 048	7.5	5 183	7.7	4 515	6.7	4 207	6.2	4 040	6.0	-5.7%
Germany	5 495	6.6	4 817	5.8	4 186	5.0	3 939	4.7	4 076	4.9	-7.3%
Greece	432	4.0	459	4.3	396	3.7	206	1.9	320	3.1	-6.6%
Hungary	640	6.5	552	5.6	406	4.2	335	3.4	440	4.5	-8.7%
Iceland	8	2.3	13	3.6	12	3.3	7	1.9	17	4.5	18.4%
Ireland	310	6.4	257	5.2	236	4.8	217	4.3	216	4.3	-9.7%
Italy	3 912	6.5	3 346	5.6	2 287	3.8	2 480	4.2	2 439	4.1	-10.6%
Latvia	–	–	–	–	–	–	*261*	*13.8*	*319*	*17.0*	–
Liechtenstein	1	2.6	–	–	2	5.2	1	2.6	1	2.5	-0.8%
Lithuania	*1 142*	*40.7*	*1 058*	*37.9*	*726*	*26.0*	*646*	*23.1*	*738*	*26.3*	*-10.3%*
Luxembourg	42	7.0	50	8.1	34	5.4	35	5.5	48	7.4	1.6%
Malta	55	11.6	98	19.9	140	27.2	54	10.5	61	11.7	0.3%
Netherlands (Kingdom of the)	795	4.6	754	4.4	622	3.6	681	3.9	635	3.6	-6.0%
Norway	208	3.9	166	3.1	157	2.9	155	2.9	174	3.2	-4.9%
Poland	5 487	14.4	5 321	14.0	3 388	8.9	3 704	9.8	4 314	11.5	-5.6%
Portugal	1 926	18.7	1 907	18.6	1 521	14.8	1 533	14.9	1 514	14.6	-6.0%
Romania	*12 199*	*62.5*	*11 618*	*59.8*	*7 693*	*39.8*	*7 976*	*41.5*	*9 270*	*48.7*	*-6.0%*
Slovakia	281	5.2	214	3.9	158	2.9	137	2.5	155	2.9	-13.8%
Slovenia	99	4.8	101	4.9	77	3.7	80	3.8	74	3.5	-7.5%
Spain	4 766	10.2	4 532	9.7	3 666	7.7	3 640	7.7	3 698	7.8	-6.5%
Sweden	488	4.8	479	4.7	324	3.1	353	3.4	378	3.6	-6.9%
Subtotal EU/EEA	**47 683**	**10.6**	**45 201**	**10.0**	**33 805**	**7.5**	**33 676**	**7.4**	**36 179**	**8.0**	**-6.7%**
Non-EU/EEA											
Albania	440	15.3	412	14.3	240	8.4	269	9.4	292	10.3	-9.5%
Andorra	2	2.7	5	6.5	2	2.6	2	2.5	4	5.0	17.1%
Armenia	*796*	*28.1*	*670*	*23.8*	*444*	*15.8*	*426*	*15.3*	*472*	*17.0*	*-11.8%*
Azerbaijan	*6 896*	*67.9*	*6 533*	*63.8*	*4 991*	*48.5*	*4 944*	*47.9*	*5 169*	*49.9*	*-7.4%*
Belarus	2 542	26.2	2 615	27.0	1 778	18.5	1 696	17.7	1 903	20.0	-6.6%
Bosnia and Herzegovina	669	19.7	580	17.3	357	10.8	363	11.1	434	13.4	-9.1%
Georgia	*2 590*	*68.7*	*2 451*	*65.0*	*1 842*	*48.9*	*1 645*	*43.8*	*1 654*	*44.2*	*-10.4%*
Israel	292	3.5	217	2.5	158	1.8	213	2.4	207	2.3	-9.8%
Kazakhstan	*13 361*	*72.1*	*12 990*	*69.3*	*10 020*	*52.8*	*10 008*	*52.1*	*10 203*	*52.6*	*-7.6%*
Kyrgyzstan	*7 585*	*121.9*	*7 039*	*111.3*	*4 885*	*76.0*	*5 199*	*79.6*	*5 117*	*77.2*	*-10.8%*
Monaco	1	2.7	0	0.0	0	0.0	0	0.0	–	–	–
Montenegro	84	13.3	82	13.0	*40*	*6.4*	*83*	*13.2*	*71*	*11.3*	*-3.9%*
North Macedonia	217	10.3	199	9.4	148	7.0	146	6.9	144	6.9	-9.5%
Republic of Moldova	*3 465*	*110.3*	*3 255*	*104.7*	*1 906*	*61.8*	*2 248*	*73.4*	*2 191*	*66.9*	*-11.7%*
Russian Federation	*106 913*	*73.4*	*103 979*	*71.3*	*84 956*	*58.3*	*79 686*	*54.9*	*75 589*	*52.2*	*-8.2%*
San Marino	*0*	*0.0*	*0*	*0.0*	0	0.0	0	–	–	–	–
Serbia	1 358	18.3	1 179	15.9	441	6.0	447	6.1	1 083	15.0	-4.8%
Serbia excluding Kosovo[1]	656	9.4	567	8.1	–	–	–	–	468	6.9	-7.4%
Kosovo[1]	702	39.0	612	34.1	441	24.7	447	24.9	615	34.9	-2.7%
Switzerland	516	6.1	435	5.1	387	4.5	364	4.2	365	4.2	-8.9%
Tajikistan	*5 975*	*65.5*	*5 976*	*64.0*	*4 316*	*45.2*	*4 299*	*44.1*	*4 421*	*44.4*	*-9.2%*
Türkiye	*11 786*	*14.2*	*11 401*	*13.7*	*8 925*	*10.6*	*9 156*	*10.8*	*9 851*	*11.5*	*-5.1%*
Turkmenistan	*2 636*	*43.5*	*2 863*	*46.5*	*2 610*	*41.8*	*2 422*	*38.2*	*3 384*	*52.6*	*4.9%*
Ukraine	*30 378*	*68.3*	*28 539*	*64.6*	*19 521*	*44.5*	*19 793*	*45.5*	*19 566*	*49.3*	*-7.9%*
United Kingdom	5 075	7.6	5 132	7.7	4 458	6.6	4 795	7.1	4 716	7.0	-2.2%
Uzbekistan	*18 496*	*57.0*	*18 774*	*56.9*	*14 127*	*42.1*	*15 450*	*45.3*	*16 174*	*46.7*	*-4.9%*
Subtotal non-EU/EEA	**222 073**	**46.8**	**215 326**	**45.1**	**166 552**	**34.8**	**163 654**	**34.1**	**163 010**	**34.1**	**-7.6%**
Total European Region	**269 756**	**29.2**	**260 527**	**28.1**	**200 357**	**21.5**	**197 330**	**21.2**	**199 189**	**21.4**	**-7.4%**
Subtotal 18 HPCs	*233 340*	*57.5*	*221 255*	*54.3*	*169 794*	*41.6*	*166 654*	*40.6*	*166 942*	*40.9*	*-8.2%*

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[1]All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

The data published in this report might differ from figures in national reports due to different times of reporting. The deadline for correcting and updating the data used in this report in the joint database was 15 November 2023.

Table 4. TB cases by history of previous TB treatment, European Region, 2022

Country/area	New[a]		Unknown previous TB history		Previously treated				All TB cases
					Previous treatment completed		Other previously treated		
	N	(%)[b]	N	(%)[b]	N	(%)[b]	N	(%)[b]	N
EU/EEA									
Austria	265	(71.2)	94	(25.3)	7	(1.9)	6	(1.6)	372
Belgium[c]	615	(72.2)	171	(20.1)	0	(0.0)	66	(7.7)	852
Bulgaria	*696*	*(87.9)*	*7*	*(0.9)*	*61*	*(7.7)*	*28*	*(3.5)*	*792*
Croatia	148	(69.8)	53	(25.0)	5	(2.4)	6	(2.8)	212
Cyprus	91	(94.8)	0	(0.0)	3	(3.1)	2	(2.1)	96
Czechia	354	(92.2)	0	(0.0)	25	(6.5)	5	(1.3)	384
Denmark[c]	201	(89.3)	4	(1.8)	0	(0.0)	20	(8.9)	225
Estonia	*104*	*(80.6)*	*0*	*(0.0)*	*21*	*(16.3)*	*4*	*(3.1)*	*129*
Finland	183	(96.3)	2	(1.1)	5	(2.6)	0	(0.0)	190
France	2 739	(67.8)	1 092	(27.0)	0	(0.0)	209	(5.2)	4 040
Germany	2 732	(67.0)	1 067	(26.2)	94	(2.3)	183	(4.5)	4 076
Greece	209	(65.3)	87	(27.2)	6	(1.9)	18	(5.6)	320
Hungary	413	(93.9)	0	(0.0)	22	(5.0)	5	(1.1)	440
Iceland	0	(0.0)	15	(88.2)	1	6	1	(5.9)	17
Ireland[c]	111	(51.4)	86	(39.8)	0	(0.0)	19	(8.8)	216
Italy	1 665	(68.3)	629	(25.8)	0	(0.0)	145	(5.9)	2 439
Latvia	*279*	*(87.5)*	*17*	*(5.3)*	*10*	*(3.1)*	*13*	*(4.1)*	*319*
Liechtenstein	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1
Lithuania	*627*	*(85.0)*	*0*	*(0.0)*	*97*	*(13.1)*	*14*	*(1.9)*	*738*
Luxembourg	1	(2.1)	46	(95.8)	0	(0.0)	1	(2.1)	48
Malta	60	(98.4)	0	(0.0)	0	(0.0)	1	(1.6)	61
Netherlands (Kingdom of the)	607	(95.6)	1	(0.2)	17	(2.7)	10	(1.6)	635
Norway[c]	152	(87.4)	0	(0.0)	0	(0.0)	22	(12.6)	174
Poland	3 788	(87.8)	0	(0.0)	249	(5.8)	277	(6.4)	4 314
Portugal	1 418	(93.7)	0	(0.0)	58	(3.8)	38	(2.5)	1 514
Romania	*7 450*	*(80.4)*	*0*	*(0.0)*	*1 368*	*(14.8)*	*452*	*(4.9)*	*9 270*
Slovakia	122	(78.7)	4	(2.6)	16	(10.3)	13	(8.4)	155
Slovenia	68	(91.9)	0	(0.0)	4	(5.4)	2	(2.7)	74
Spain	1 669	(45.1)	911	(24.6)	0	(0.0)	1 118	(30.2)	3 698
Sweden	314	(83.1)	34	(9.0)	9	(2.4)	21	(5.6)	378
Subtotal EU/EEA	**27 082**	**(74.9)**	**4 320**	**(11.9)**	**2 078**	**(5.7)**	**2 699**	**(7.5)**	**36 179**
Non-EU/EEA									
Albania	266	(91.1)	–	–	26	(8.9)	0	(0.0)	292
Andorra	4	(100.0)	–	–	0	(0.0)	0	(0.0)	4
Armenia	*411*	*(87.1)*	–	–	*29*	*(6.1)*	*32*	*(6.8)*	*472*
Azerbaijan	*2 877*	*(55.7)*	–	–	*1 112*	*(21.5)*	*1 180*	*(22.8)*	*5 169*
Belarus	*1 377*	*(72.4)*	–	–	*293*	*(15.4)*	*233*	*(12.2)*	*1 903*
Bosnia and Herzegovina	402	(92.6)	–	–	30	(6.9)	2	(0.5)	434
Georgia	*1 317*	*(79.6)*	–	–	*194*	*(11.7)*	*143*	*(8.6)*	*1 654*
Israel	202	(97.6)	–	–	1	(0.5)	4	(1.9)	207
Kazakhstan	*7 352*	*(72.1)*	–	–	*2 657*	*(26.0)*	*194*	*(1.9)*	*10 203*
Kyrgyzstan	*4 042*	*(79.0)*	–	–	*526*	*(10.3)*	*549*	*(10.7)*	*5 117*
Monaco	–	–	–	–	–	–	–	–	–
Montenegro	62	(87.3)	–	–	9	(12.7)	0	(0.0)	71
North Macedonia	131	(91.0)	–	–	13	(9.0)	0	(0.0)	144
Republic of Moldova	*1 585*	*(72.3)*	–	–	*536*	*(24.5)*	*70*	*(3.2)*	*2 191*
Russian Federation	*44 185*	*(58.5)*	–	–	*11 721*	*(15.5)*	*19 683*	*(26.0)*	*75 589*
San Marino	–	–	–	–	–	–	–	–	–
Serbia	1 016	(93.8)	–	–	58	(5.4)	9	(0.8)	1 083
Serbia excluding Kosovo[1]	433	(92.5)	–	–	26	(5.6)	9	(1.9)	468
Kosovo[1]	583	(94.8)	–	–	32	(5.2)	0	(0.0)	615
Switzerland	346	(94.8)	–	–	0	(0.0)	19	(5.2)	365
Tajikistan	*3 925*	*(88.8)*	–	–	*369*	*(8.3)*	*127*	*(2.9)*	*4 421*
Türkiye	*9 235*	*(93.7)*	–	–	*488*	*(5.0)*	*128*	*(1.3)*	*9 851*
Turkmenistan	*1 766*	*(52.2)*	–	–	*737*	*(21.8)*	*881*	*(26.0)*	*3 384*
Ukraine	*15 080*	*(77.1)*	–	–	*3 487*	*(17.8)*	*999*	*(5.1)*	*19 566*
United Kingdom[c]	4 559	(96.7)	–	–	157	(3.3)	0	(0.0)	4 716
Uzbekistan	*12 589*	*(77.8)*	–	–	*1 713*	*(10.6)*	*1 872*	*(11.6)*	*16 174*
Subtotal non-EU/EEA	**112 729**	**(69.2)**	**0**	**(0.0)**	**24156**	**(14.8)**	**26 125**	**(16.0)**	**163010**
Total European Region	**139 811**	**(70.2)**	**4 320**	**(2.2)**	**26 234**	**(13.2)**	**28 824**	**(14.5)**	**199 189**
Subtotal 18 HPCs	*114 897*	*(68.8)*	*24*	*(0.0)*	*25 419*	*(15.2)*	*26 602*	*(15.9)*	*166 942*

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] For non-EU/EEA countries, cases with unknown previous TB history are included among new TB cases.
[b] Proportion of all TB cases.
[c] Previous TB history is defined by previous diagnosis. Treatment completion is not analysed for these 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 5. TB cases by site of disease, EU/EEA, 2022

Country	Pulmonary				Extrapulmonary		No site reported		Total
	Pulmonary only		Pulmonary and extrapulmonary						
	N	(%)	N	(%)	N	(%)	N	(%)	N
EU/EEA									
Austria	266	(71.5)	41	(11.0)	65	(17.5)	0	(0.0)	372
Belgium	466	(54.7)	114	(13.4)	272	(31.9)	0	(0.0)	852
Bulgaria	*624*	*(78.8)*	*30*	*(3.8)*	*138*	*(17.4)*	*0*	*(0.0)*	*792*
Croatia	164	(77.4)	10	(4.7)	13	(6.1)	25	(11.8)	212
Cyprus	75	(78.1)	7	(7.3)	14	(14.6)	0	(0.0)	96
Czechia	302	(78.6)	36	(9.4)	46	(12.0)	0	(0.0)	384
Denmark	172	(76.4)	7	(3.1)	46	(20.4)	0	(0.0)	225
Estonia	*109*	*(84.5)*	*12*	*(9.3)*	*8*	*(6.2)*	*0*	*(0.0)*	*129*
Finland	128	(67.4)	0	(0.0)	62	(32.6)	0	(0.0)	190
France	2 882	(71.3)	0	(0.0)	1 097	(27.2)	61	(1.5)	4 040
Germany	2 544	(62.4)	498	(12.2)	953	(23.4)	81	(2.0)	4 076
Greece	198	(61.9)	32	(10.0)	45	(14.1)	45	(14.1)	320
Hungary	414	(94.1)	14	(3.2)	12	(2.7)	0	(0.0)	440
Iceland	8	(47.1)	1	(5.9)	8	(47.1)	0	(0.0)	17
Ireland	111	(51.4)	14	(6.5)	52	(24.1)	39	(18.1)	216
Italy	1 626	(66.7)	57	(2.3)	756	(31.0)	0	(0.0)	2 439
Latvia	*283*	*(88.7)*	*14*	*(4.4)*	*17*	*(5.3)*	*5*	*(1.6)*	*319*
Liechtenstein	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1
Lithuania	*681*	*(92.3)*	*4*	*(0.5)*	*53*	*(7.2)*	*0*	*(0.0)*	*738*
Luxembourg	34	(70.8)	0	(0.0)	14	(29.2)	0	(0.0)	48
Malta	44	(72.1)	2	(3.3)	15	(24.6)	0	(0.0)	61
Netherlands (Kingdom of the)	305	(48.0)	67	(10.6)	259	(40.8)	4	(0.6)	635
Norway	95	(54.6)	18	(10.3)	58	(33.3)	3	(1.7)	174
Poland	4 125	(95.6)	23	(0.5)	166	(3.8)	0	(0.0)	4 314
Portugal	876	(57.9)	197	(13.0)	420	(27.7)	21	(1.4)	1 514
Romania	*7 555*	*(81.5)*	*589*	*(6.4)*	*1 126*	*(12.1)*	*0*	*(0.0)*	*9 270*
Slovakia	101	(65.2)	40	(25.8)	14	(9.0)	0	(0.0)	155
Slovenia	49	(66.2)	12	(16.2)	13	(17.6)	0	(0.0)	74
Spain	2 269	(61.4)	403	(10.9)	1 026	(27.7)	0	(0.0)	3 698
Sweden	210	(55.6)	51	(13.5)	117	(31.0)	0	(0.0)	378
Total EU/EEA	**26 717**	**(73.8)**	**2 293**	**(6.3)**	**6 885**	**(19.0)**	**284**	**(0.8)**	**36 179**

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

Table 6. TB cases by history of previous TB treatment, site of disease and diagnostic method, according to the WHO definitions,[a] European Region, 2022

Country/area	New[b] and relapse TB cases										Previously treated cases		All TB cases
	N	(%)[c]	Pulmonary[d]						Extrapulmonary				
			N	(%)[e]	Laboratory-confirmed[f]		Clinically diagnosed						
					N	(%)[g]	N	(%)[g]	N	(%)[e]	N	(%)[c]	N
EU/EEA													
Austria	366	(98.4)	301	(82.2)	284	(94.4)	17	(5.6)	65	(17.8)	6	(1.6)	372
Belgium[h]	786	(92.3)	533	(67.8)	485	(91.0)	48	(9.0)	253	(32.2)	66	(7.7)	852
Bulgaria	*764*	*(96.5)*	*632*	*(82.7)*	*377*	*(59.7)*	*255*	*(40.3)*	*132*	*(17.3)*	*28*	*(3.5)*	*792*
Croatia	206	(97.2)	194	(94.2)	162	(83.5)	32	(16.5)	12	(5.8)	6	(2.8)	212
Cyprus	94	(97.9)	80	(85.1)	75	(93.8)	5	(6.3)	14	(14.9)	2	(2.1)	96
Czechia	379	(98.7)	333	(87.9)	308	(92.5)	25	(7.5)	46	(12.1)	5	(1.3)	384
Denmark[h]	205	(91.1)	164	(80.0)	134	(81.7)	30	(18.3)	41	(20.0)	20	(8.9)	225
Estonia	*125*	*(96.9)*	*117*	*(93.6)*	*105*	*(89.7)*	*12*	*(10.3)*	*8*	*(6.4)*	*4*	*(3.1)*	*129*
Finland	190	(100.0)	128	(67.4)	123	(96.1)	5	(3.9)	62	(32.6)	0	(0.0)	190
France	3 831	(94.8)	2 777	(72.5)	1 888	(68.0)	889	(32.0)	1 054	(27.5)	209	(5.2)	4 040
Germany	3 893	(95.5)	2 964	(76.1)	2 655	(89.6)	309	(10.4)	929	(23.9)	183	(4.5)	4 076
Greece	302	(94.4)	259	(85.8)	239	(92.3)	20	(7.7)	43	(14.2)	18	(5.6)	320
Hungary	435	(98.9)	424	(97.5)	249	(58.7)	175	(41.3)	11	(2.5)	5	(1.1)	440
Iceland	16	(94.1)	9	(56.3)	9	(100.0)	0	(0.0)	7	(43.8)	1	(5.9)	17
Ireland[h]	197	(91.2)	149	(75.6)	93	(62.4)	56	(37.6)	48	(24.4)	19	(8.8)	216
Italy	2 294	(94.1)	1 564	(68.2)	1 394	(89.1)	170	(10.9)	730	(31.8)	145	(5.9)	2 439
Latvia	*306*	*(95.9)*	*289*	*(94.4)*	*268*	*(92.7)*	*21*	*(7.3)*	*17*	*(5.6)*	*13*	*(4.1)*	*319*
Liechtenstein	1	(100.0)	1	(100.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1
Lithuania	*724*	*(98.1)*	*671*	*(92.7)*	*632*	*(94.2)*	*39*	*(5.8)*	*53*	*(7.3)*	*14*	*(1.9)*	*738*
Luxembourg	47	(97.9)	33	(70.2)	31	(93.9)	2	(6.1)	14	(29.8)	1	(2.1)	48
Malta	60	(98.4)	45	(75.0)	31	(68.9)	14	(31.1)	15	(25.0)	1	(1.6)	61
Netherlands (Kingdom of the)	625	(98.4)	368	(58.9)	328	(89.1)	40	(10.9)	257	(41.1)	10	(1.6)	635
Norway[h]	152	(87.4)	103	(67.8)	97	(94.2)	6	(5.8)	49	(32.2)	22	(12.6)	174
Poland	4 037	(93.6)	3 876	(96.0)	3 304	(85.2)	572	(14.8)	161	(4.0)	277	(6.4)	4 314
Portugal	1 476	(97.5)	1 061	(71.9)	916	(86.3)	145	(13.7)	415	(28.1)	38	(2.5)	1 514
Romania	*8 818*	*(95.1)*	*7 700*	*(87.3)*	*7 028*	*(91.3)*	*672*	*(8.7)*	*1 118*	*(12.7)*	*452*	*(4.9)*	*9 270*
Slovakia	142	(91.6)	128	(90.1)	79	(61.7)	49	(38.3)	14	(9.9)	13	(8.4)	155
Slovenia	72	(97.3)	59	(81.9)	57	(96.6)	2	(3.4)	13	(18.1)	2	(2.7)	74
Spain	2 580	(69.8)	1 850	(71.7)	1 550	(83.8)	300	(16.2)	730	(28.3)	1 118	(30.2)	3 698
Sweden	357	(94.4)	248	(69.5)	235	(94.8)	13	(5.2)	109	(30.5)	21	(5.6)	378
Subtotal EU/EEA	**33 480**	**(92.5)**	**27 060**	**(80.8)**	**23 137**	**(85.5)**	**3 923**	**(14.5)**	**6 420**	**(19.2)**	**2 699**	**(7.5)**	**36 179**
Non-EU/EEA													
Albania	292	(100.0)	246	(84.2)	188	(76.4)	58	(23.6)	46	(15.8)	0	(0.0)	292
Andorra	4	(100.0)	4	(100.0)	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	4
Armenia	440	(93.2)	327	(74.3)	252	(77.1)	75	(22.9)	113	(25.7)	32	(6.8)	472
Azerbaijan	*3 989*	*(77.2)*	*3 357*	*(84.2)*	*2 683*	*(79.9)*	*674*	*(20.1)*	*632*	*(15.8)*	*1 180*	*(22.8)*	*5 169*
Belarus	*1 670*	*(87.8)*	*1 548*	*(92.7)*	*1 490*	*(96.3)*	*58*	*(3.7)*	*122*	*(7.3)*	*233*	*(12.2)*	*1 903*
Bosnia and Herzegovina	432	(99.5)	404	(93.5)	372	(92.1)	32	(7.9)	28	(6.5)	2	(0.5)	434
Georgia	*1 511*	*(91.4)*	*1 215*	*(80.4)*	*1 146*	*(94.3)*	*69*	*(5.7)*	*296*	*(19.6)*	*143*	*(8.6)*	*1 654*
Israel	203	(98.1)	143	(70.4)	102	(71.3)	41	(28.7)	60	(29.6)	4	(1.9)	207
Kazakhstan	*10 009*	*(98.1)*	*9 018*	*(90.1)*	*8 211*	*(91.1)*	*807*	*(8.9)*	*991*	*(9.9)*	*194*	*(1.9)*	*10 203*
Kyrgyzstan	*4 568*	*(89.3)*	*3 698*	*(81.0)*	*2 501*	*(67.6)*	*1 197*	*(32.4)*	*870*	*(19.0)*	*549*	*(10.7)*	*5 117*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	71	(100.0)	64	(90.1)	59	(92.2)	5	(7.8)	7	(9.9)	0	(0.0)	71
North Macedonia	144	(100.0)	125	(86.8)	121	(96.8)	4	(3.2)	19	(13.2)	0	(0.0)	144
Republic of Moldova	*2 121*	*(96.8)*	*1 944*	*(91.7)*	*1 423*	*(73.2)*	*521*	*(26.8)*	*177*	*(8.3)*	*70*	*(3.2)*	*2 191*
Russian Federation	*55 906*	*(74.0)*	*51 486*	*(92.1)*	*29 888*	*(58.1)*	*21 598*	*(41.9)*	*4 420*	*(7.9)*	*19 683*	*(26.0)*	*75 589*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	1 074	(99.2)	897	(83.5)	596	(66.4)	301	(33.6)	177	(16.5)	9	(0.8)	1 083
Serbia excluding Kosovo[1]	459	(98.1)	428	(93.2)	390	(91.1)	38	(8.9)	31	(6.8)	9	(1.9)	468
Kosovo[1]	615	(100.0)	469	(76.3)	206	(43.9)	263	(56.1)	146	(23.7)	0	(0.0)	615
Switzerland	346	(94.8)	334	(96.5)	309	(92.5)	25	(7.5)	12	(3.5)	19	(5.2)	365
Tajikistan	*4 294*	*(97.1)*	*3 082*	*(71.8)*	*2 017*	*(65.4)*	*1 065*	*(34.6)*	*1 212*	*(28.2)*	*127*	*(2.9)*	*4 421*
Türkiye	*9 723*	*(98.7)*	*6 092*	*(62.7)*	*4 793*	*(78.7)*	*1 299*	*(21.3)*	*3 631*	*(37.3)*	*128*	*(1.3)*	*9 851*
Turkmenistan	*2 503*	*(74.0)*	*2 048*	*(81.8)*	*974*	*(47.6)*	*1 074*	*(52.4)*	*455*	*(18.2)*	*881*	*(26.0)*	*3 384*
Ukraine	*18 567*	*(94.9)*	*17 005*	*(91.6)*	*12 420*	*(73.0)*	*4 585*	*(27.0)*	*1 562*	*(8.4)*	*999*	*(5.1)*	*19 566*
United Kingdom[h]	4 716	(100.0)	2 579	(54.7)	2 152	(83.4)	427	(16.6)	2 137	(45.3)	0	(0.0)	4 716
Uzbekistan	*14 302*	*(88.4)*	*8 800*	*(61.5)*	*6 273*	*(71.3)*	*2 527*	*(28.7)*	*5 502*	*(38.5)*	*1 872*	*(11.6)*	*16 174*
Subtotal non-EU/EEA	**136 885**	**(84.0)**	**114 416**	**(83.6)**	**77 974**	**(68.1)**	**36 442**	**(31.9)**	**22 469**	**(16.4)**	**26 125**	**(16.0)**	**163 010**
Total European Region	**170 365**	**(85.5)**	**141 476**	**(83.0)**	**101 111**	**(71.5)**	**40 365**	**(28.5)**	**28 889**	**(17.0)**	**28 824**	**(14.5)**	**199 189**
Subtotal 18 HPCs	***140 340***	***(84.1)***	***119 029***	***(84.8)***	***82 481***	***(69.3)***	***36 548***	***(30.7)***	***21 311***	***(15.2)***	***26 602***	***(15.9)***	***166 942***

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] World Health Organization (2013). Definitions and reporting framework for tuberculosis – 2013 revision: updated December 2014 and January 2020. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241505345, accessed 30 January 2024).
[b] Cases with unknown previous TB history are included among new TB cases.
[c] Proportion of all TB cases.
[d] For the EU/EEA countries, cases with no disease site reported are included among pulmonary TB cases.
[e] Proportion of all new and relapse TB cases.
[f] Confirmed by culture, smear and/or nucleic acid amplification test. Microscopy results from any specimen are included for EU/EEA countries.
[g] Proportion of all new and relapse pulmonary TB cases.
[h] Previous TB history is defined by previous diagnosis.
[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 7. TB cases according to EU case definition, EU/EEA, 2022

Country	All laboratory-confirmed cases[a]						Confirmed cases[b]		Probable cases		Possible cases		All TB cases
	Meeting only the smear-positive and nucleic acid test-positive criterion		Meeting only the culture-positive criterion		Meeting both criteria								
	N	(%)[c]	N	(%)[c]	N	(%)[c]	N	(%)[d]	N	(%)[d]	N	(%)[d]	N
Austria	4	(1.4)	211	(71.8)	79	(26.9)	294	(79.0)	51	(13.7)	27	(7.3)	372
Belgium	11	(1.7)	376	(56.7)	276	(41.6)	663	(77.8)	118	(13.8)	71	(8.3)	852
Bulgaria	*0*	*(0.0)*	*350*	*(100.0)*	*0*	*(0.0)*	*350*	*(44.2)*	*80*	*(10.1)*	*362*	*(45.7)*	*792*
Croatia	0	(0.0)	169	(100.0)	0	(0.0)	169	(79.7)	5	(2.4)	38	(17.9)	212
Cyprus	0	(0.0)	59	(74.7)	20	(25.3)	79	(82.3)	10	(10.4)	7	(7.3)	96
Czechia	7	(2.2)	140	(44.0)	171	(53.8)	318	(82.8)	45	(11.7)	21	(5.5)	384
Denmark	1	(0.6)	84	(49.1)	86	(50.3)	171	(76.0)	7	(3.1)	47	(20.9)	225
Estonia	*5*	*(5.1)*	*48*	*(48.5)*	*46*	*(46.5)*	*99*	*(76.7)*	*24*	*(18.6)*	*6*	*(4.7)*	*129*
Finland	0	(0.0)	126	(83.4)	25	(16.6)	151	(79.5)	33	(17.4)	6	(3.2)	190
France	0	(0.0)	1 606	(100.0)	0	(0.0)	1 606	(39.8)	754	(18.7)	1 680	(41.6)	4 040
Germany	142	(4.4)	1 538	(48.1)	1 519	(47.5)	3 199	(78.5)	398	(9.8)	479	(11.8)	4 076
Greece	11	(4.4)	168	(66.9)	72	(28.7)	251	(78.4)	40	(12.5)	29	(9.1)	320
Hungary	0	(0.0)	242	(100.0)	0	(0.0)	242	(55.0)	13	(3.0)	185	(42.0)	440
Iceland	0	(0.0)	11	(78.6)	3	(21.4)	14	(82.4)	0	(0.0)	3	(17.6)	17
Ireland	3	(2.7)	82	(74.5)	25	(22.7)	110	(50.9)	35	(16.2)	71	(32.9)	216
Italy	97	(5.8)	1 535	(92.2)	32	(1.9)	1 664	(68.2)	432	(17.7)	343	(14.1)	2 439
Latvia	*121*	*(46.7)*	*125*	*(48.3)*	*13*	*(5.0)*	*259*	*(81.2)*	*36*	*(11.3)*	*24*	*(7.5)*	*319*
Liechtenstein	0	(0.0)	0	(0.0)	1	(100.0)	1	(100.0)	0	(0.0)	0	(0.0)	1
Lithuania	*0*	*(0.0)*	*665*	*(100.0)*	*0*	*(0.0)*	*665*	*(90.1)*	*11*	*(1.5)*	*62*	*(8.4)*	*738*
Luxembourg	0	(0.0)	27	(69.2)	12	(30.8)	39	(81.3)	2	(4.2)	7	(14.6)	48
Malta	0	(0.0)	38	(100.0)	0	(0.0)	38	(62.3)	0	(0.0)	23	(37.7)	61
Netherlands (Kingdom of the)	3	(0.7)	258	(57.8)	185	(41.5)	446	(70.2)	67	(10.6)	122	(19.2)	635
Norway	2	(1.4)	81	(57.9)	57	(40.7)	140	(80.5)	24	(13.8)	10	(5.7)	174
Poland	12	(0.3)	2 293	(65.7)	1 183	(33.9)	3 488	(80.9)	164	(3.8)	662	(15.3)	4 314
Portugal	51	(5.3)	730	(75.3)	188	(19.4)	969	(64.0)	223	(14.7)	322	(21.3)	1 514
Romania	*131*	*(1.8)*	*4 371*	*(61.3)*	*2 630*	*(36.9)*	*7 132*	*(76.9)*	*1 038*	*(11.2)*	*1 100*	*(11.9)*	*9 270*
Slovakia	0	(0.0)	48	(64.0)	27	(36.0)	75	(48.4)	21	(13.5)	59	(38.1)	155
Slovenia	0	(0.0)	37	(55.2)	30	(44.8)	67	(90.5)	7	(9.5)	0	(0.0)	74
Spain	74	(2.9)	1 749	(69.0)	710	(28.0)	2 533	(68.5)	481	(13.0)	684	(18.5)	3 698
Sweden	2	(0.6)	229	(70.7)	93	(28.7)	324	(85.7)	27	(7.1)	27	(7.1)	378
Total EU/EEA	**677**	**(2.6)**	**17 396**	**(68.1)**	**7 483**	**(29.3)**	**25 556**	**(70.6)**	**4 146**	**(11.5)**	**6 477**	**(17.9)**	36 179

Note: WHO European Region five TB high-priority countries in the EU/EEA are presented in italics.
EEA: European Economic Area; EU: European Union; N: number; TB: tuberculosis.
[a] Laboratory-confirmed TB cases according to the EU case definition.
[b] Culture-positive or microscopy-positive and nucleic acid amplification test-positive.
[c] Proportion of all laboratory-confirmed TB cases.
[d] Proportion of all TB cases.

Table 8. New and relapse TB cases, by age group and male-to-female ratio, European Region, 2022[a]

Country/area	0–4				5–14				15–24				25–44			
	N	(%)	Rate per 100 000	M/F ratio	N	(%)	Rate per 100 000	M/F ratio	N	(%)	Rate per 100 000	M/F ratio	N	(%)	Rate per 100 000	M/F ratio
EU/EEA																
Austria	8	(2.2)	1.8	1.0	5	(1.4)	0.6	0.3	68	(18.6)	7.2	3.9	100	(27.3)	4.2	1.4
Belgium[b]	27	(3.4)	4.5	0.6	22	(2.8)	1.6	0.6	182	(23.2)	13.8	3.4	305	(38.8)	10.2	1.8
Bulgaria	*15*	*(2.0)*	*4.8*	*2.0*	*22*	*(2.9)*	*3.2*	*0.5*	*40*	*(5.2)*	*6.4*	*1.2*	*191*	*(25.0)*	*10.4*	*1.7*
Croatia	0	(0.0)	0.0	–	1	(0.5)	0.3	N/M	13	(6.3)	3.0	2.3	36	(17.5)	3.4	2.0
Cyprus	1	(1.1)	2.1	N/F	1	(1.1)	1.0	N/F	34	(36.2)	30.8	2.8	44	(46.8)	15.6	1.4
Czechia	4	(1.1)	0.7	3.0	7	(1.8)	0.6	1.3	17	(4.5)	1.8	1.8	130	(34.3)	4.4	2.9
Denmark[b]	2	(1.0)	0.6	N/F	3	(1.5)	0.5	N/M	21	(10.2)	2.9	1.1	81	(39.5)	5.6	1.5
Estonia	*0*	*(0.0)*	*0.0*	–	*0*	*(0.0)*	*0.0*	–	*3*	*(2.4)*	*2.4*	*0.5*	*31*	*(24.8)*	*8.5*	*6.8*
Finland	4	(2.1)	1.6	N/M	3	(1.6)	0.5	0.5	18	(9.5)	3.0	2.0	51	(26.8)	3.6	0.6
France	83	(2.2)	2.3	1.2	94	(2.5)	1.1	1.5	671	(17.5)	8.3	3.1	1 554	(40.6)	9.6	2.1
Germany	85	(2.2)	2.1	1.4	103	(2.6)	1.4	1.1	590	(15.2)	7.0	2.1	1 480	(38.0)	7.1	1.9
Greece	2	(0.7)	0.4	N/F	4	(1.3)	0.4	3.0	46	(15.2)	4.1	3.2	91	(30.1)	3.4	4.0
Hungary	0	(0.0)	0.0	–	6	(1.4)	0.6	1.0	27	(6.2)	2.7	1.7	89	(20.5)	3.3	1.4
Iceland	0	(0.0)	0.0	–	0	(0.0)	0.0	–	1	(6.3)	2.1	N/F	8	(50.0)	7.3	1.7
Ireland[b]	3	(1.5)	1.0	0.5	2	(1.0)	0.3	1.0	22	(11.2)	3.5	1.3	95	(48.2)	6.8	1.4
Italy	30	(1.3)	1.4	1.1	44	(1.9)	0.8	1.0	343	(15.0)	5.9	2.0	828	(36.1)	6.0	1.9
Latvia	*2*	*(0.7)*	*2.0*	*1.0*	*3*	*(1.0)*	*1.5*	*2.0*	*18*	*(5.9)*	*10.4*	*2.0*	*91*	*(29.7)*	*18.3*	*2.4*
Liechtenstein	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–	1	(100.0)	10.1	N/F
Lithuania	*3*	*(0.4)*	*2.1*	*N/F*	*12*	*(1.7)*	*4.3*	*0.7*	*33*	*(4.6)*	*11.8*	*3.1*	*182*	*(25.1)*	*25.0*	*1.9*
Luxembourg	0	(0.0)	0.0	–	1	(2.1)	1.5	N/F	8	(17.0)	11.1	1.7	21	(44.7)	10.7	4.3
Malta	1	(1.7)	4.3	N/M	0	(0.0)	0.0	–	10	(16.7)	19.3	4.0	35	(58.3)	20.1	1.9
Netherlands (Kingdom of the)	10	(1.6)	1.2	2.3	11	(1.8)	0.6	1.2	99	(15.8)	4.6	1.5	257	(41.1)	5.9	1.4
Norway[b]	6	(3.9)	2.1	1.0	0	(0.0)	0.0	–	15	(9.9)	2.3	1.5	73	(48.0)	5.0	0.7
Poland	12	(0.3)	0.6	1.4	29	(0.7)	0.7	0.5	165	(4.1)	4.4	1.4	1 175	(29.1)	10.4	2.5
Portugal	25	(1.7)	5.7	0.9	25	(1.7)	2.6	1.1	105	(7.1)	9.5	1.5	438	(29.7)	17.3	1.8
Romania	*109*	*(1.2)*	*10.7*	*1.3*	*217*	*(2.5)*	*10.8*	*0.8*	*695*	*(7.9)*	*34.2*	*1.3*	*2 602*	*(29.5)*	*50.5*	*2.3*
Slovakia	14	(9.9)	4.7	0.6	26	(18.3)	4.5	1.0	13	(9.2)	2.4	0.9	28	(19.7)	1.7	3.0
Slovenia	1	(1.4)	1.0	N/M	1	(1.4)	0.5	N/F	5	(6.9)	2.5	4.0	17	(23.6)	3.0	0.9
Spain	44	(1.7)	2.3	1.1	62	(2.4)	1.3	1.2	216	(8.4)	4.5	1.5	773	(30.0)	6.3	1.5
Sweden	8	(2.2)	1.3	1.0	11	(3.1)	0.9	0.8	56	(15.7)	4.8	1.2	128	(35.9)	4.7	1.0
Subtotal EU/EEA	**499**	**(1.5)**	**2.3**	**1.2**	**715**	**(2.1)**	**1.5**	**1.0**	**3 534**	**(10.6)**	**7.4**	**1.9**	**10 935**	**(32.7)**	**9.5**	**2.0**
Non-EU/EEA																
Albania	4	(1.4)	2.9	1.0	2	(0.7)	0.6	1.0	40	(13.7)	10.4	1.5	75	(25.7)	9.5	2.9
Andorra	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–	4	(100.0)	17.6	3.0
Armenia	*4*	*(0.9)*	*2.3*	*N/F*	*13*	*(3.0)*	*3.3*	*3.3*	*31*	*(7.0)*	*9.7*	*1.4*	*170*	*(38.6)*	*19.5*	*3.5*
Azerbaijan[c]	*26*	*(0.9)*	*3.9*	*1.0*	*84*	*(2.9)*	*4.8*	*1.0*	*547*	*(19.0)*	*39.7*	*1.8*	*1 034*	*(35.9)*	*30.5*	*2.2*
Belarus	*0*	*(0.0)*	*0.0*	–	*7*	*(0.4)*	*0.6*	*0.8*	*46*	*(2.8)*	*4.9*	*1.2*	*556*	*(33.3)*	*20.3*	*2.9*
Bosnia and Herzegovina	0	(0.0)	0.0	–	0	(0.0)	0.0	–	30	(6.9)	8.6	1.3	97	(22.5)	11.1	1.7
Georgia	*14*	*(0.9)*	*5.5*	*1.3*	*31*	*(2.1)*	*5.7*	*1.8*	*156*	*(10.3)*	*36.9*	*0.9*	*586*	*(38.8)*	*56.6*	*1.5*
Israel	18	(8.9)	2.0	1.0	8	(3.9)	0.5	1.7	13	(6.4)	1.0	0.9	82	(40.4)	3.5	1.6
Kazakhstan	*85*	*(0.8)*	*4.2*	*1.1*	*208*	*(2.1)*	*5.6*	*0.6*	*1 083*	*(10.8)*	*43.1*	*1.0*	*3 592*	*(35.9)*	*64.8*	*1.6*
Kyrgyzstan	*81*	*(1.8)*	*10.2*	*1.4*	*252*	*(5.5)*	*17.0*	*1.2*	*809*	*(17.7)*	*77.0*	*1.3*	*1 512*	*(33.1)*	*77.7*	*1.2*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	*0*	*(0.0)*	*0.0*	–	*0*	*(0.0)*	*0.0*	–	*8*	*(11.3)*	*10.3*	*1.0*	*20*	*(28.2)*	*11.6*	*4.0*
North Macedonia	3	(2.1)	2.9	0.0	4	(2.8)	1.7	0.3	18	(12.5)	7.1	2.0	43	(29.9)	6.8	2.3
Republic of Moldova	*33*	*(1.6)*	*15.8*	*0.9*	*50*	*(2.4)*	*11.8*	*1.0*	*106*	*(5.0)*	*26.3*	*1.7*	*900*	*(42.4)*	*86.7*	*3.1*
Russian Federation	*556*	*(1.0)*	*7.4*	*0.8*	*1 186*	*(2.1)*	*6.5*	*0.9*	*2 674*	*(4.8)*	*18.3*	*1.3*	*26 306*	*(47.1)*	*60.6*	*3.1*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	18	(1.7)	5.3	1.0	36	(3.4)	5.1	1.3	110	(10.2)	15.2	1.3	266	(24.8)	13.6	1.4
Serbia excluding Kosovo[1]	4	(0.9)	1.4	N/M	17	(3.7)	2.8	1.1	35	(7.6)	5.3	1.1	102	(22.2)	6.5	1.3
Kosovo[1]	14	(2.3)	10.5	1.8	19	(3.1)	6.6	1.4	75	(12.2)	25.7	1.5	164	(26.7)	34.5	1.4
Switzerland	11	(3.2)	2.5	0.8	5	(1.4)	0.6	0.7	69	(19.9)	7.8	3.1	104	(30.1)	4.3	1.0
Tajikistan	*76*	*(1.8)*	*6.0*	*1.2*	*181*	*(4.2)*	*7.7*	*0.9*	*959*	*(22.3)*	*54.2*	*1.8*	*1 585*	*(36.9)*	*55.9*	*1.4*
Türkiye	*127*	*(1.3)*	*2.0*	*1.3*	*265*	*(2.7)*	*2.0*	*0.7*	*1 478*	*(15.2)*	*11.4*	*1.2*	*2 729*	*(28.1)*	*10.3*	*1.2*
Turkmenistan[d]	*11*	*(0.4)*	*1.6*	*1.4*	*30*	*(1.2)*	*2.3*	*1.4*	*309*	*(12.3)*	*31.0*	*0.9*	*1 045*	*(41.7)*	*53.4*	*1.3*
Ukraine	*116*	*(0.6)*	*7.6*	*1.2*	*336*	*(1.8)*	*7.3*	*1.1*	*708*	*(3.8)*	*22.9*	*1.5*	*8 108*	*(43.7)*	*71.6*	*3.3*
United Kingdom[b]	44	(0.9)	1.2	1.2	100	(2.1)	1.2	0.7	579	(12.3)	7.4	1.5	2 074	(44.0)	11.7	1.4
Uzbekistan	*301*	*(2.1)*	*7.7*	*1.6*	*1 188*	*(8.3)*	*18.1*	*1.2*	*1 265*	*(8.8)*	*24.3*	*1.1*	*3 962*	*(27.7)*	*36.1*	*1.2*
Subtotal non-EU/EEA	**1 528**	**(1.1)**	**4.8**	**1.1**	**3 986**	**(2.9)**	**5.8**	**1.0**	**11 038**	**(8.1)**	**19.2**	**1.3**	**54 850**	**(40.4)**	**39.1**	**2.3**
Total European Region	**2 027**	**(1.2)**	**3.9**	**1.1**	**4 701**	**(2.8)**	**4.1**	**1.0**	**14 572**	**(8.6)**	**13.8**	**1.4**	**65 785**	**(38.9)**	**25.7**	**2.2**
Subtotal 18 HPCs	***1 559***	***(1.1)***	***5.7***	***1.1***	***4 085***	***(2.9)***	***6.9***	***1.0***	***10 960***	***(7.9)***	***22.4***	***1.3***	***55 182***	***(39.6)***	***45.3***	***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.
EEA: European Economic Area; EU: European Union; F: female; HPCs: high-priority countries; M: male; N: number; N/F: no female in the subgroup; N/M: no male in the subgroup; TB: tuberculosis.

[a] Cases with unknown previous TB history are included among new TB cases.
[b] Previous TB history is defined by previous diagnosis.
[c] Azerbaijan provided age distribution for new cases only.
[d] Turkmenistan reported child TB for 0–14 years, data for 0–4 and 5–14 years were imputed based on 18 HPCs pattern.
[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).

45–64				> 64				Unknown			Total		Country/area
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	
													EU/EEA
108	(29.5)	4.2	2.5	77	(21.0)	4.5	2.0	0	(0.0)	–	366	2.0	Austria
157	(20.0)	5.1	2.7	93	(11.8)	4.2	3.7	0	(0.0)	–	786	2.2	Belgium[b]
328	*(42.9)*	*16.8*	*2.5*	*168*	*(22.0)*	*11.2*	*1.5*	*0*	*(0.0)*	–	*764*	*1.8*	*Bulgaria*
71	(34.5)	6.3	2.7	85	(41.3)	9.8	1.6	0	(0.0)	–	206	2.0	Croatia
9	*(9.6)*	*4.2*	*1.3*	*5*	*(5.3)*	*3.4*	*1.5*	*0*	*(0.0)*	–	*94*	*1.8*	*Cyprus*
141	(37.2)	4.9	4.4	80	(21.1)	3.7	1.8	0	(0.0)	–	379	2.9	Czechia
67	(32.7)	4.3	3.5	31	(15.1)	2.6	2.4	0	(0.0)	–	205	2.0	Denmark[b]
53	*(42.4)*	*15.2*	*3.8*	*38*	*(30.4)*	*14.0*	*0.8*	*0*	*(0.0)*	–	*125*	*2.3*	*Estonia*
32	(16.8)	2.3	1.1	82	(43.2)	6.5	1.3	0	(0.0)	–	190	1.0	Finland
823	(21.5)	4.7	2.0	606	(15.8)	4.3	1.9	0	(0.0)	–	3 831	2.1	France
934	(24.0)	3.9	2.3	700	(18.0)	3.8	1.5	1	(0.0)	N/F	3 893	1.9	Germany
65	(21.5)	2.2	2.3	87	(28.8)	3.6	1.7	7	(2.3)	N/F	302	2.6	Greece
169	(38.9)	6.4	2.4	144	(33.1)	7.3	1.3	0	(0.0)	–	435	1.7	Hungary
3	(18.8)	3.4	2.0	4	(25.0)	7.4	3.0	0	(0.0)	–	16	2.2	Iceland
50	(25.4)	4.0	1.8	25	(12.7)	3.4	1.8	0	(0.0)	–	197	1.5	Ireland[b]
602	(26.2)	3.3	2.2	447	(19.5)	3.2	2.4	0	(0.0)	–	2 294	2.0	Italy
138	*(45.1)*	*26.3*	*2.6*	*54*	*(17.6)*	*13.7*	*2.2*	*0*	*(0.0)*	–	*306*	*2.4*	*Latvia*
0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	–	1	N/F	Liechtenstein
371	*(51.2)*	*45.9*	*4.0*	*123*	*(17.0)*	*22.1*	*1.6*	*0*	*(0.0)*	–	*724*	*2.6*	*Lithuania*
14	(29.8)	8.1	2.5	3	(6.4)	3.2	N/M	0	(0.0)	–	47	2.4	Luxembourg
9	(15.0)	7.3	2.0	5	(8.3)	5.1	N/F	0	(0.0)	–	60	2.3	Malta
166	(26.6)	3.4	1.7	82	(13.1)	2.4	2.4	0	(0.0)	–	625	1.6	Netherlands (Kingdom of the)
38	(25.0)	2.7	1.1	20	(13.2)	2.1	1.2	0	(0.0)	–	152	0.9	Norway[b]
1 691	(41.9)	17.2	4.5	965	(23.9)	13.6	1.8	0	(0.0)	–	4 037	2.7	Poland
532	(36.0)	17.9	2.7	350	(23.7)	15.2	1.6	1	(0.1)	N/F	1 476	1.9	Portugal
3 662	*(41.5)*	*69.2*	*4.8*	*1 533*	*(17.4)*	*41.4*	*1.5*	*0*	*(0.0)*	–	*8 818*	*2.5*	*Romania*
35	(24.6)	2.4	2.9	26	(18.3)	2.8	2.3	0	(0.0)	–	142	1.7	Slovakia
16	(22.2)	2.7	2.2	32	(44.4)	7.3	1.1	0	(0.0)	–	72	1.3	Slovenia
864	(33.5)	6.1	1.9	620	(24.0)	6.6	2.0	1	(0.0)	N/F	2 580	1.7	Spain
84	(23.5)	3.3	1.0	70	(19.6)	3.4	1.0	0	(0.0)	–	357	1.1	Sweden
11 232	**(33.5)**	**8.9**	**3.1**	**6 555**	**(19.6)**	**7.0**	**1.7**	**10**	**(0.0)**	**NA**	**33 480**	**2.1**	**Subtotal EU/EEA**
													Non-EU/EEA
75	(25.7)	10.2	3.2	96	(32.9)	20.3	1.9	0	(0.0)	–	292	2.3	Albania
0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	–	4	3.0	Andorra
161	*(36.6)*	*24.6*	*4.8*	*61*	*(13.9)*	*16.7*	*3.4*	*0*	*(0.0)*	–	*440*	*3.6*	*Armenia*
900	*(31.3)*	*37.2*	*2.2*	*286*	*(9.9)*	*38.8*	*1.3*	*0*	*(0.0)*	–	*2 877*	*1.9*	*Azerbaijan[c]*
783	*(46.9)*	*29.9*	*4.8*	*278*	*(16.6)*	*17.0*	*1.5*	*0*	*(0.0)*	–	*1 670*	*3.0*	*Belarus*
148	(34.3)	15.9	3.0	157	(36.3)	26.4	1.2	0	(0.0)	–	432	1.7	Bosnia and Herzegovina
518	*(34.3)*	*55.0*	*3.8*	*206*	*(13.6)*	*37.7*	*1.5*	*0*	*(0.0)*	–	*1 511*	*1.9*	*Georgia*
41	(20.2)	2.4	1.1	41	(20.2)	3.8	1.3	0	(0.0)	–	203	1.3	Israel
3 519	*(35.2)*	*87.3*	*2.6*	*1 522*	*(15.2)*	*97.6*	*0.9*	*0*	*(0.0)*	–	*10 009*	*1.6*	*Kazakhstan*
1 293	*(28.3)*	*123.3*	*1.8*	*621*	*(13.6)*	*206.2*	*0.9*	*0*	*(0.0)*	–	*4 568*	*1.3*	*Kyrgyzstan*
–	–	–	–	–	–	–	–	–	–	–	–	–	Monaco
26	*(36.6)*	*16.2*	*3.3*	*16*	*(22.5)*	*15.4*	*1.0*	*1*	*(1.4)*	–	*71*	*2.2*	Montenegro
51	(35.4)	9.1	4.7	25	(17.4)	8.0	1.8	0	(0.0)	–	144	2.3	North Macedonia
832	*(39.2)*	*107.4*	*4.8*	*200*	*(9.4)*	*47.1*	*1.4*	*0*	*(0.0)*	–	*2 121*	*3.0*	*Republic of Moldova*
19 740	*(35.3)*	*51.6*	*3.3*	*5 106*	*(9.1)*	*22.3*	*1.2*	*338*	*(0.6)*	*15.9*	*55 906*	*2.6*	*Russian Federation*
–	–	–	–	–	–	–	–	–	–	–	–	–	San Marino
377	(35.1)	18.7	2.0	267	(24.9)	18.0	1.1	0	(0.0)	–	1 074	1.5	Serbia
180	(39.2)	9.1	3.3	121	(26.4)	7.1	1.6	0	(0.0)	–	459	1.9	Serbia excluding Kosovo[1]
197	(32.0)	50.1	1.3	146	(23.7)	81.0	0.8	0	(0.0)	–	615	1.2	Kosovo[1]
96	(27.7)	3.9	2.1	59	(17.1)	3.5	2.1	2	(0.6)	–	346	1.7	Switzerland
999	*(23.3)*	*71.8*	*1.2*	*494*	*(11.5)*	*142.9*	*0.8*	*0*	*(0.0)*	–	*4 294*	*1.3*	*Tajikistan*
2 986	*(30.7)*	*15.9*	*1.6*	*2 137*	*(22.0)*	*29.0*	*1.3*	*1*	*(0.0)*	–	*9 723*	*1.3*	*Türkiye*
901	*(36.0)*	*78.7*	*1.8*	*207*	*(8.3)*	*62.5*	*1.2*	*0*	*(0.0)*	–	*2 503*	*1.4*	*Turkmenistan[d]*
7 432	*(40.0)*	*63.6*	*3.6*	*1 867*	*(10.1)*	*25.0*	*1.4*	*0*	*(0.0)*	–	*18 567*	*2.9*	*Ukraine*
1 256	(26.6)	7.3	1.7	663	(14.1)	5.1	1.2	0	(0.0)	–	4 716	1.4	United Kingdom[b]
4 711	*(32.9)*	*75.8*	*1.4*	*2 875*	*(20.1)*	*161.6*	*0.8*	*0*	*(0.0)*	–	*14 302*	*1.2*	*Uzbekistan*
46 845	**(34.5)**	**40.4**	**2.6**	**17 184**	**359**	**26.7**	**1.1**	**342**	**(0.3)**	**15.3**	**135 773**	**2.0**	**Subtotal non-EU/EEA**
58 077	**(34.3)**	**24.0**	**2.7**	**23 739**	**378**	**14.8**	**1.2**	**352**	**(0.2)**	**15.7**	**169 253**	**2.0**	**Total European Region**
49 327	*(35.4)*	*49.8*	*2.8*	*17 776*	*(12.8)*	*34.1*	*1.1*	*339*	*(0.2)*	**16.0**	*139 228*	*2.1*	*Subtotal 18 HPCs*

[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 9. TB cases by origin, European Region, 2022

Country/area	Origin criterion	Native		Foreign		Unknown origin		All TB cases
		N	(%)	N	(%)	N	(%)	N
EU/EEA								
Austria	Citizenship	132	(35.5)	240	(64.5)	0	(0.0)	372
Belgium	Citizenship	320	(37.6)	532	(62.4)	0	(0.0)	852
Bulgaria	*Birthplace*	*783*	*(98.9)*	*9*	*(1.1)*	*0*	*(0.0)*	*792*
Croatia	Birthplace	192	(90.6)	20	(9.4)	0	(0.0)	212
Cyprus	Birthplace	6	(6.3)	90	(93.8)	0	(0.0)	96
Czechia	Birthplace	218	(56.8)	166	(43.2)	0	(0.0)	384
Denmark	Birthplace	59	(26.2)	166	(73.8)	0	(0.0)	225
Estonia	*Birthplace*	*94*	*(72.9)*	*35*	*(27.1)*	*0*	*(0.0)*	*129*
Finland	Birthplace	100	(52.6)	70	(36.8)	20	(10.5)	190
France	Birthplace	1 010	(25.0)	2 554	(63.2)	476	(11.8)	4 040
Germany	Birthplace	949	(23.3)	2 953	(72.4)	174	(4.3)	4 076
Greece	Citizenship	141	(44.1)	175	(54.7)	4	(1.3)	320
Hungary	Citizenship	404	(91.8)	36	(8.2)	0	(0.0)	440
Iceland	Birthplace	4	(23.5)	13	(76.5)	0	(0.0)	17
Ireland	Birthplace	55	(25.5)	107	(49.5)	54	(25.0)	216
Italy	Birthplace	1 000	(41.0)	1 399	(57.4)	40	(1.6)	2 439
Latvia	*Birthplace*	*279*	*(87.5)*	*40*	*(12.5)*	*0*	*(0.0)*	*319*
Liechtenstein	Birthplace	1	(100.0)	0	(0.0)	0	(0.0)	1
Lithuania	*Birthplace*	*724*	*(98.1)*	*14*	*(1.9)*	*0*	*(0.0)*	*738*
Luxembourg	Birthplace	5	(10.4)	43	(89.6)	0	(0.0)	48
Malta	Birthplace	6	(9.8)	55	(90.2)	0	(0.0)	61
Netherlands (Kingdom of the)	Birthplace	125	(19.7)	509	(80.2)	1	(0.2)	635
Norway	Birthplace	17	(9.8)	157	(90.2)	0	(0.0)	174
Poland	Citizenship	4 020	(93.2)	294	(6.8)	0	(0.0)	4 314
Portugal	Birthplace	1 059	(69.9)	453	(29.9)	2	(0.1)	1 514
Romania	*Birthplace*	*9 219*	*(99.4)*	*51*	*(0.6)*	*0*	*(0.0)*	*9 270*
Slovakia	Birthplace	138	(89.0)	17	(11.0)	0	(0.0)	155
Slovenia	Birthplace	43	(58.1)	31	(41.9)	0	(0.0)	74
Spain	Birthplace	2 192	(59.3)	1 506	(40.7)	0	(0.0)	3 698
Sweden	Birthplace	62	(16.4)	316	(83.6)	0	(0.0)	378
Subtotal EU/EEA	–	**23 357**	**(64.6)**	**12 051**	**(33.3)**	**771**	**(2.1)**	**36 179**
Non-EU/EEA								
Albania	Citizenship	292	(100.0)	0	(0.0)	–	–	292
Andorra	Citizenship	1	(25.0)	3	(0.0)	–	–	4
Armenia	*Citizenship*	*466*	*(98.7)*	*6*	*(1.3)*	–	–	*472*
Azerbaijan	–	–	–	–	–	–	–	–
Belarus	*Citizenship*	*1 903*	*(100.0)*	*0*	*(0.0)*	–	–	*1 903*
Bosnia and Herzegovina	Birthplace	430	(99.1)	4	(0.9)	–	–	434
Georgia	–	–	–	–	–	–	–	–
Israel	Birthplace	148	(71.5)	59	(28.5)	–	–	207
Kazakhstan	*Citizenship*	*10 048*	*(98.5)*	*155*	*(1.5)*	–	–	*10 203*
Kyrgyzstan	*Birthplace*	*5 117*	*(100.0)*	*0*	*(0.0)*	–	–	*5 117*
Monaco	–	–	–	–	–	–	–	–
Montenegro	Citizenship	66	(93.0)	5	(7.0)	–	–	71
North Macedonia	Birthplace	141	(97.9)	3	(2.1)	–	–	144
Republic of Moldova	*Citizenship*	*2 171*	*(99.1)*	*20*	*(0.9)*	–	–	*2 191*
Russian Federation	*Citizenship*	*73 878*	*(97.7)*	*1 711*	*(2.3)*	–	–	*75 589*
San Marino	–	–	–	–	–	–	–	0
Serbia		1 079	(99.6)	4	(0.4)	–	–	1 083
Serbia excluding Kosovo[1]	Citizenship	464	(99.1)	4	(0.9)	–	–	468
Kosovo[1]	Birthplace	–	–	–	–	–	–	–
Switzerland	Birthplace	84	(23.0)	281	(77.0)	–	–	365
Tajikistan	–	–	–	–	–	–	–	–
Türkiye	*Birthplace*	*8 313*	*(84.4)*	*1 538*	*(15.6)*	–	–	*9 851*
Turkmenistan	*Citizenship*	*3 384*	*(100.0)*	*0*	*(0.0)*	–	–	*3 384*
Ukraine	*Citizenship*	*19 555*	*(99.9)*	*11*	*(0.1)*	–	–	*19 566*
United Kingdom	Birthplace	1 053	(22.3)	3 663	(77.7)	–	–	4 716
Uzbekistan	*Birthplace*	*16 174*	*(100.0)*	*0*	*(0.0)*	–	–	*16 174*
Subtotal non-EU/EEA	–	**144 303**	**(95.1)**	**7 463**	**(4.9)**	**0**	**(0.0)**	**151 766**
Total European Region	–	**167 660**	**(89.2)**	**19 514**	**(10.4)**	**771**	**(0.4)**	**187 945**
Subtotal 18 HPCs	–	*152 108*	*(97.7)*	*3 590*	*(2.3)*	*0*	**(0.0)**	*155 698*

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[1] 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, 2022

Country/area	Source of data	Coverage	Bacteriologically confirmed cases[a]		Cases with DST results at least for RIF		Cases resistant to RIF		MDR-TB cases[b]		All pulmonary TB cases	Reporting completeness[d]
			N	(%)	N	(%)	N	(%)	N	(%)[c]	N	
EU/EEA												
Austria	TESSy	National	252	(82.1)	236	(93.7)	11	(4.7)	11	(4.7)	307	Yes
Belgium	TESSy	National	485	(83.6)	462	(95.3)	11	(2.4)	7	(1.5)	580	Yes
Bulgaria	*TESSy*	*National*	*347*	*(53.1)*	*222*	*(64.0)*	*5*	*(2.3)*	*5*	*(2.3)*	*654*	*Yes*
Croatia	TESSy	National	152	(87.4)	147	(96.7)	2	(1.4)	0	(0.0)	174	Yes
Cyprus	TESSy	National	70	(85.4)	68	(97.1)	2	(2.9)	2	(3.0)	82	Yes
Czechia	TESSy	National	286	(84.6)	261	(91.3)	16	(6.1)	16	(6.2)	338	Yes
Denmark	TESSy	National	145	(81.0)	144	(99.3)	6	(4.2)	5	(3.5)	179	Yes
Estonia	*TESSy*	*National*	*94*	*(77.7)*	*94*	*(100.0)*	*24*	*(25.5)*	*22*	*(25.0)*	*121*	*Yes*
Finland	TESSy	National	110	(85.9)	106	(96.4)	8	(7.5)	8	(7.5)	128	Yes
France	TESSy	*National*	1 238	(43.0)	49	(4.0)	49	(100.0)	48	(98.0)	2 882	Yes
Germany	TESSy	National	2 525	(83.0)	2 302	(91.2)	154	(6.7)	142	(6.2)	3 042	Yes
Greece	TESSy	National	179	(77.8)	132	(73.7)	9	(6.8)	6	(4.6)	230	Yes
Hungary	TESSy	National	240	(56.1)	221	(92.1)	14	(6.3)	14	(6.4)	428	Yes
Iceland	TESSy	National	9	(100.0)	9	(100.0)	1	(11.1)	1	(11.1)	9	Yes
Ireland	TESSy	National	80	(64.0)	74	(92.5)	9	(12.2)	9	(12.3)	125	Yes
Italy[e]	NRL-TME[d]	Partial	1 499	(89.1)	1 116	(74.4)	39	(3.5)	31	(2.8)	1 683	No
Latvia	*TESSY*	*National*	*257*	*(86.5)*	*228*	*(88.7)*	*25*	*(11.0)*	*25*	*(11.0)*	*297*	*Yes*
Liechtenstein	TESSy	National	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	Yes
Lithuania	*TESSy*	*National*	*646*	*(94.3)*	*646*	*(100.0)*	*113*	*(17.5)*	*108*	*(16.7)*	*685*	*Yes*
Luxembourg	TESSy	National	31	(91.2)	23	(74.2)	0	(0.0)	0	(0.0)	34	Yes
Malta	TESSy	National	32	(69.6)	32	(100.0)	2	(6.3)	1	(3.1)	46	Yes
Netherlands (Kingdom of the)	TESSy	National	311	(83.6)	307	(98.7)	8	(2.6)	8	(2.6)	372	Yes
Norway	TESSy	National	98	(86.7)	97	(99.0)	8	(8.2)	8	(8.2)	113	Yes
Poland	TESSy	National	3 397	(81.9)	3 096	(91.1)	97	(3.1)	91	(3.0)	4 148	Yes
Portugal	TESSy	National	802	(74.7)	508	(63.3)	10	(2.0)	9	(1.8)	1 073	Yes
Romania	*TESSy*	*National*	*6 866*	*(84.3)*	*6 229*	*(90.7)*	*262*	*(4.2)*	*200*	*(3.4)*	*8 144*	*Yes*
Slovakia	TESSy	National	72	(51.1)	72	(100.0)	5	(6.9)	5	(6.9)	141	Yes
Slovenia	TESSy	National	58	(95.1)	58	(100.0)	1	(1.7)	1	(1.7)	61	Yes
Spain	TESSy	National	2 016	(75.4)	1 577	(78.2)	31	(2.0)	16	(1.0)	2 672	Yes
Sweden	TESSy	National	235	(90.0)	233	(99.1)	11	(4.7)	10	(4.3)	261	Yes
Subtotal EU/EEA	–	–	**22 533**	**(77.7)**	**18 749**	**(83.2)**	**933**	**(5.0)**	**809**	**(4.4)**	**29 001**	–
Non-EU/EEA												
Albania	NRL-TME	National	188	(78.0)	174	(92.6)	3	(1.7)	*2*	*(1.9)*	*241*	Yes
Andorra	NRL-TME	National	4	(100.0)	4	(100.0)	0	(0.0)	*0*	*(0.0)*	*4*	Yes
Armenia	*NRL-TME*	*National*	*279*	*(79.0)*	*279*	*(100.0)*	*56*	*(20.1)*	*52*	*(18.6)*	*353*	*Yes*
Azerbaijan	*NRL-TME*	*National*	*3 863*	*(87.0)*	*3 824*	*(99.0)*	*686*	*(17.9)*	*358*	*(9.4)*	*4 442*	*Yes*
Belarus	*NRL-TME*	*National*	*1 723*	*(96.5)*	*1 723*	*(100.0)*	*721*	*(41.8)*	*640*	*(37.1)*	*1 785*	*Yes*
Bosnia and Herzegovina	NRL-TME	National	372	(92.1)	366	(98.4)	3	(0.8)	*3*	*(0.8)*	*404*	Yes
Georgia	*NRL-TME*	*National*	*1 274*	*(95.4)*	*1 236*	*(97.0)*	*165*	*(13.3)*	*143*	*(13.9)*	*1 336*	*Yes*
Israel	NRL-TME	National	106	(72.1)	*106*	(100.0)	11	(10.4)	10	(9.4)	147	Yes
Kazakhstan	*NRL-TME*	*National*	*8 401*	*(93.6)*	*8 397*	*(100.0)*	*3 428*	*(40.8)*	*2 901*	*(34.5)*	*8 977*	*Yes*
Kyrgyzstan	*NRL-TME*	*National*	*2 874*	*(71.1)*	*2 746*	*(95.5)*	*781*	*(28.4)*	*661*	*(24.1)*	*4 042*	*Yes*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	NRL-TME	National	59	(93.7)	*59*	(100.0)	0	(0.0)	0	(0.0)	63	Yes
North Macedonia	NRL-TME	National	121	(95.3)	*116*	(95.9)	4	(3.4)	1	(25.0)	127	Yes
Republic of Moldova	*NRL-TME*	–	*1 423*	*(78.7)*	*1 423*	*(100.0)*	*428*	*(30.1)*	*340*	*(27.2)*	*1 807*	*Yes*
Russian Federation	*NRL-TME*	*National*	*40 862*	*(61.8)*	*38 363*	*(93.9)*	*19 045*	*(49.6)*	*18 042*	*(47.0)*	*66 116*	*Yes*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	NRL-TME	National	397	(91.3)	135	(34.0)	2	(1.5)	*2*	*(1.5)*	*435*	No
Serbia excluding Kosovo[1]	NRL-TME	–	397	(91.3)	135	(34.0)	2	(1.5)	*2*	*(1.5)*	*435*	No
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	NRL-TME	*Subnational*	309	(87.5)	309	(100.0)	2	(0.6)	*2*	*(1.0)*	*353*	Yes
Tajikistan	*NRL-TME*	*National*	*2 106*	*(67.0)*	*2 093*	*(99.4)*	*518*	*(24.7)*	*369*	*(19.6)*	*3 145*	*Yes*
Türkiye	*NRL-TME*	*National*	*4 855*	*(79.3)*	*4 295*	*(88.5)*	*148*	*(3.4)*	*124*	*(2.9)*	*6 123*	*Yes*
Turkmenistan	*NRL-TME*	*National*	*1 250*	*(62.5)*	*1 250*	*(100.0)*	*402*	*(32.2)*	–	–	*1 999*	*Yes*
Ukraine	*NRL-TME*	*National*	*13 278*	*(76.2)*	*12 876*	*(97.0)*	*3 647*	*(28.3)*	*2 686*	*(20.9)*	*17 434*	*Yes*
United Kingdom	TESSy	National	2 152	(84.3)	1 949	(90.6)	34	(1.7)	26	(1.3)	2 554	Yes
Uzbekistan	*NRL-TME*	*National*	*7 205*	*(71.9)*	*7 205*	*(100.0)*	*1 500*	*(20.8)*	*1 396*	*(27.4)*	*10 015*	*Yes*
Subtotal non-EU/EEA	–	–	**93 101**	**(70.6)**	**88 928**	**(95.5)**	**31 584**	**(35.5)**	**27 758**	**(32.8)**	**131 902**	–
Total European Region	–	–	**115 634**	**(71.9)**	**107 677**	**(93.1)**	**32 517**	**(30.2)**	**28 567**	**(28.0)**	**160 903**	–
Subtotal 18 HPCs	–	–	*97 603*	*(71.0)*	**93 129**	*(95.4)*	*31 954*	*(34.3)*	*28 072*	*(31.6)*	*137 475*	–

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. The resistance pattern at the initiation of treatment is reported to TESSy irrespective of the method used for drug-susceptibility testing or resistance prediction.
DST: drug-susceptibility testing; EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; MDR-TB: multidrug-resistant tuberculosis; N: number; NRL: national reference laboratory; RIF: rifampicin; TB: tuberculosis; TESSy: the European surveillance system; TME: WHO global TB data-collection system.

[a] Bacteriologically confirmed cases – cases from whom a biological specimen is positive by smear microscopy, culture or WHO-recommended rapid diagnostics for non-EU/EEA countries. For EU/EEA countries: cases with positive identification for *Mycobacterium tuberculosis* complex confirmed by culture and/or line probe assay.

[b] 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).

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

[d] 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.

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

[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 11. Drug-resistance surveillance of bacteriologically confirmed[a] pulmonary TB cases by previous TB treatment history, European Region, 2022

Country/area	New cases with DST results to RIF[b]		New RR/MDR-TB cases[c]		New bacteriologically confirmed pulmonary TB cases		New pulmonary TB cases[c]		Previously treated cases with DST results to RIF		Previously treated RR/MDR-TB cases[c]		Previously treated bacteriologically confirmed pulmonary TB cases		Previously treated pulmonary TB cases	
	N	(%)[d]	N	(%)[e]	N	(%)[f]	N	(%)[g]	N	(%)[d]	N	(%)[e]	N	(%)[f]	N	(%)[g]
EU/EEA																
Austria	167	(93.8)	8	(4.8)	178	(82.8)	215	(94.7)	5	(83.3)	0	(0.0)	6	(50.0)	12	(5.3)
Belgium[k]	335	(96.3)	5	(1.5)	348	(83.9)	415	(89.8)	30	(90.9)	2	(6.7)	33	(70.2)	47	(10.2)
Bulgaria	*196*	*(63.4)*	*4*	*(2.0)*	*309*	*(54.2)*	*570*	*(87.8)*	*26*	*(68.4)*	*1*	*(3.8)*	*38*	*(48.1)*	*79*	*(12.2)*
Croatia	119	(96.7)	1	(0.8)	123	(89.8)	137	(93.2)	7	(100.0)	1	(14.3)	7	(70.0)	10	(6.8)
Cyprus	65	(97.0)	2	(3.1)	67	(85.9)	78	(95.1)	3	(100.0)	0	(0.0)	3	(75.0)	4	(4.9)
Czechia	244	(91.4)	15	(6.1)	267	(85.6)	312	(92.3)	17	(89.5)	1	(5.9)	19	(73.1)	26	(7.7)
Denmark[k]	130	(99.2)	6	(4.6)	131	(80.4)	163	(91.6)	13	(100.0)	0	(0.0)	13	(86.7)	15	(8.4)
Estonia	*78*	*(100.0)*	*17*	*(21.8)*	*78*	*(80.4)*	*97*	*(80.2)*	*16*	*(100.0)*	*7*	*(43.8)*	*16*	*(66.7)*	*24*	*(19.8)*
Finland	102	(96.2)	7	(6.9)	106	(86.9)	122	(96.1)	3	(100.0)	1	(33.3)	3	(60.0)	5	(3.9)
France	26	(3.0)	26	(100.0)	867	(44.8)	1 937	(92.1)	12	(18.8)	12	(100.0)	64	(38.6)	166	(7.9)
Germany	1 618	(92.3)	89	(5.5)	1 753	(85.1)	2 061	(89.7)	136	(88.3)	20	(14.7)	154	(65.3)	236	(10.3)
Greece	97	(75.8)	7	(7.2)	128	(74.9)	171	(88.6)	14	(77.8)	2	(14.3)	18	(81.8)	22	(11.4)
Hungary	208	(92.4)	13	(6.3)	225	(55.8)	403	(94.2)	13	(86.7)	1	(7.7)	15	(60.0)	25	(5.8)
Iceland	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)	0	(0.0)	1	(100.0)	1	(100.0)
Ireland[k]	53	(98.1)	7	(13.2)	54	(66.7)	81	(84.4)	8	(80.0)	2	(25.0)	10	(66.7)	15	(15.6)
Italy	1 095	(100.0)	36	(3.3)	1 095	(92.9)	1 179	(90.8)	21	(20.0)	3	(14.3)	105	(88.2)	119	(9.2)
Latvia	*204*	*(89.5)*	*21*	*(10.3)*	*228*	*(86.4)*	*264*	*(92.3)*	*16*	*(84.2)*	*3*	*(18.8)*	*19*	*(86.4)*	*22*	*(7.7)*
Liechtenstein	0	(0.0)	0	(0.0)	1	(100.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Lithuania	*535*	*(100.0)*	*81*	*(15.1)*	*535*	*(93.2)*	*574*	*(83.8)*	*111*	*(100.0)*	*32*	*(28.8)*	*111*	*(100.0)*	*111*	*(16.2)*
Luxembourg	*1*	*(100.0)*	*0*	*(0.0)*	*1*	*(100.0)*	*1*	*(50.0)*	*1*	*(100.0)*	*0*	*(0.0)*	*1*	*(100.0)*	*1*	*(50.0)*
Malta	31	(100.0)	2	(6.5)	31	(68.9)	45	(97.8)	1	(100.0)	0	(0.0)	1	(100.0)	1	(2.2)
Netherlands (Kingdom of the)	289	(98.6)	6	(2.1)	293	(83.5)	351	(94.6)	17	(100.0)	2	(11.8)	17	(85.0)	20	(5.4)
Norway[k]	89	(98.9)	7	(7.9)	90	(90.0)	100	(88.5)	8	(100.0)	1	(12.5)	8	(61.5)	13	(11.5)
Poland	2 729	(91.4)	64	(2.3)	2 985	(82.3)	3 628	(87.5)	367	(89.1)	33	(9.0)	412	(79.2)	520	(12.5)
Portugal	485	(64.6)	8	(1.6)	751	(75.2)	999	(93.1)	23	(45.1)	2	(8.7)	51	(68.9)	74	(6.9)
Romania	*4 900*	*(90.9)*	*122*	*(2.5)*	*5 391*	*(84.4)*	*6 389*	*(78.5)*	*1 329*	*(90.1)*	*140*	*(10.5)*	*1 475*	*(84.0)*	*1 755*	*(21.5)*
Slovakia	57	(100.0)	3	(5.3)	57	(52.3)	109	(79.0)	14	(100.0)	2	(14.3)	14	(48.3)	29	(21.0)
Slovenia	53	(100.0)	0	(0.0)	53	(96.4)	55	(90.2)	5	(100.0)	1	(20.0)	5	(83.3)	6	(9.8)
Spain	841	(82.9)	15	(1.8)	1 014	(83.8)	1 210	(59.5)	584	(89.7)	11	(1.9)	651	(79.2)	822	(40.5)
Sweden	203	(100.0)	9	(4.4)	203	(91.9)	221	(92.5)	13	(92.9)	2	(15.4)	14	(77.8)	18	(7.5)
Subtotal EU/EEA	**14 950**	**(86.1)**	**581**	**(3.9)**	**17 362**	**(79.3)**	**21 888**	**(83.9)**	**2 814**	**(85.7)**	**282**	**(10.0)**	**3 284**	**(78.2)**	**4 198**	**(16.1)**
Non-EU/EEA																
Albania	161	(94.2)	1	(0.6)	171	(76.3)	224	(92.9)	13	(76.5)	2	(15.4)	17	(100.0)	17	(7.1)
Andorra	4	(100.0)	0	(0.0)	4	(100.0)	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Armenia	*233*	*(100.0)*	*36*	*(15.5)*	*233*	*(76.4)*	*305*	*(86.4)*	*46*	*(100.0)*	*20*	*(43.5)*	*46*	*(95.8)*	*48*	*(13.6)*
Azerbaijan	*1 671*	*(98.0)*	*199*	*(11.9)*	*1 705*	*(74.6)*	*2 284*	*(51.4)*	*2 153*	*(99.8)*	*487*	*(22.6)*	*2 158*	*(100.0)*	*2 158*	*(48.6)*
Belarus	*1 203*	*(100.0)*	*499*	*(41.5)*	*1 203*	*(95.4)*	*1 261*	*(70.6)*	*520*	*(100.0)*	*222*	*(42.7)*	*520*	*(99.2)*	*524*	*(29.4)*
Bosnia and Herzegovina	339	(98.3)	1	(0.3)	345	(92.0)	375	(92.8)	27	(100.0)	2	(7.4)	27	(93.1)	29	(7.2)
Georgia	*982*	*(98.9)*	*105*	*(10.7)*	*993*	*(94.6)*	*1 050*	*(78.6)*	*254*	*(90.4)*	*60*	*(23.6)*	*281*	*(98.3)*	*286*	*(21.4)*
Israel	101	(100.0)	11	(10.9)	101	(71.1)	142	(96.6)	5	(100.0)	0	(0.0)	5	(100.0)	5	(3.4)
Kazakhstan	*5 874*	*(100.0)*	*1 967*	*(33.5)*	*5 874*	*(91.1)*	*6 446*	*(71.8)*	*2 523*	*(99.8)*	*1 461*	*(57.9)*	*2 527*	*(99.8)*	*2 531*	*(28.2)*
Kyrgyzstan	*2 092*	*(96.3)*	*487*	*(23.3)*	*2 173*	*(67.6)*	*3 215*	*(79.5)*	*654*	*(93.3)*	*294*	*(45.0)*	*701*	*(84.8)*	*827*	*(20.5)*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	*51*	*(100.0)*	*0*	*(0.0)*	*51*	*(92.7)*	*55*	*(87.3)*	*8*	*(100.0)*	*0*	*(0.0)*	*8*	*(100.0)*	*8*	*(12.7)*
North Macedonia	106	(96.4)	2	(1.9)	110	(96.5)	114	(89.8)	10	(90.9)	2	(20.0)	11	(84.6)	13	(10.2)
Republic of Moldova	*1 096*	*(100.0)*	*238*	*(21.7)*	*1 096*	*(76.9)*	*1 426*	*(78.9)*	*327*	*(100.0)*	*190*	*(58.1)*	*327*	*(85.8)*	*381*	*(21.1)*
Russian Federation	*21 985*	*(93.6)*	*8 023*	*(36.5)*	*23 498*	*(58.3)*	*40 338*	*(61.0)*	*16 378*	*(94.3)*	*11 022*	*(67.3)*	*17 364*	*(67.4)*	*25 778*	*(39.0)*
San Marino	-	-	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	125	(34.2)	2	(1.6)	366	(90.8)	403	(92.6)	10	(32.3)	0	(0.0)	31	(96.9)	32	(7.4)
Serbia excluding Kosovo[1]	125	(34.2)	2	(1.6)	366	(90.8)	403	(92.6)	10	(32.3)	0	(0.0)	31	(96.9)	32	(7.4)
Kosovo[1]	-	-	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	309	(100.0)	2	(0.6)	309	(92.5)	334	(94.6)	0	(0.0)	0	(0.0)	0	(0.0)	19	(5.4)
Tajikistan	*1 777*	*(100.0)*	*416*	*(23.4)*	*1 777*	*(64.0)*	*2 778*	*(88.3)*	*316*	*(96.0)*	*102*	*(32.3)*	*329*	*(89.6)*	*367*	*(11.7)*
Türkiye	*4 006*	*(88.9)*	*115*	*(2.9)*	*4 506*	*(78.5)*	*5 740*	*(93.7)*	*289*	*(82.8)*	*33*	*(11.4)*	*349*	*(91.1)*	*383*	*(6.3)*
Turkmenistan	746	(100.0)	*157*	*(21.0)*	*746*	*(54.5)*	*1 368*	*(68.4)*	*504*	*(100.0)*	*245*	*(48.6)*	*504*	*(79.9)*	*631*	*(31.6)*
Ukraine	9 370	(96.9)	2 360	(25.2)	9 668	(70.5)	13 714	(78.7)	3 506	(97.1)	1 287	(36.7)	3 610	(97.0)	3 720	(21.3)
United Kingdom[k]	1 888	(90.7)	32	(1.7)	2 082	(83.8)	2 484	(97.3)	61	(87.1)	2	(3.3)	70	(100.0)	70	(2.7)
Uzbekistan	*5 111*	*(100.0)*	*807*	*(15.8)*	*5 111*	*(68.9)*	*7 416*	*(74.0)*	*2 094*	*(100.0)*	*693*	*(33.1)*	*2 094*	*(80.6)*	*2 599*	*(26.0)*
Subtotal non-EU/EEA	**59 230**	**(95.3)**	**15 460**	**(26.1)**	**62 122**	**(67.9)**	**91 476**	**(69.4)**	**29 698**	**(95.9)**	**16 124**	**(54.3)**	**30 979**	**(76.6)**	**40 426**	**(30.6)**
Total European Region	**74 180**	**(93.3)**	**16 041**	**(21.6)**	**79 484**	**(70.1)**	**113 364**	**(71.8)**	**32 512**	**(94.9)**	**16 406**	**(50.5)**	**34 263**	**(76.8)**	**44 624**	**(28.2)**
Subtotal 18 HPCs	*62 059*	*(95.3)*	*15 654*	*(25.2)*	*65 124*	*(68.4)*	*95 235*	*(69.3)*	*31 062*	*(95.7)*	*16 299*	*(52.5)*	*32 469*	*(76.9)*	*42 224*	*(30.7)*

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

[a] Bacteriologically 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.
[b] Pulmonary TB cases with unknown previous TB treatment history are excluded.
[c] 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).
[d] Proportion of bacteriologically confirmed pulmonary TB cases with DST results with the respective previous TB treatment history.
[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).

Total cases with DST results to RIF		Total RR/MDR-TB cases		Total bacteriologically confirmed pulmonary TB cases		Total pulmonary TB cases		
N	(%)[h]	N	(%)[i]	N	(%)[g]	N	(%)[j]	
								EU/EEA
172	(93.5)	8	(4.7)	184	(81.1)	227	(61.0)	Austria
365	(95.8)	7	(1.9)	381	(82.5)	462	(54.2)	Belgium[k]
222	*(64.0)*	*5*	*(2.3)*	*347*	*(53.5)*	*649*	*(81.9)*	*Bulgaria*
126	(96.9)	2	(1.6)	130	(88.4)	147	(69.3)	Croatia
68	(97.1)	2	(2.9)	70	(85.4)	82	(85.4)	Cyprus
261	(91.3)	16	(6.1)	286	(84.6)	338	(88.0)	Czechia
143	(99.3)	6	(4.2)	144	(80.9)	178	(79.1)	Denmark[k]
94	*(100.0)*	*24*	*(25.5)*	*94*	*(77.7)*	*121*	*(93.8)*	*Estonia*
105	(96.3)	8	(7.6)	109	(85.8)	127	(66.8)	Finland
38	(4.1)	38	(100.0)	931	(44.3)	2 103	(52.1)	France
1 754	(92.0)	109	(6.2)	1 907	(83.0)	2 297	(56.4)	Germany
111	(76.0)	9	(8.1)	146	(75.6)	193	(60.3)	Greece
221	(92.1)	14	(6.3)	240	(56.1)	428	(97.3)	Hungary
1	(100.0)	0	(0.0)	1	(100.0)	1	(5.9)	Iceland
61	(95.3)	9	(14.8)	64	(66.7)	96	(44.4)	Ireland[k]
1 116	(93.0)	39	(3.5)	1 200	(92.4)	1 298	(53.2)	Italy
220	*(89.1)*	*24*	*(10.9)*	*247*	*(86.4)*	*286*	*(89.7)*	*Latvia*
0	(0.0)	0	(0.0)	1	(100.0)	1	(100.0)	Liechtenstein
646	*(100.0)*	*113*	*(17.5)*	*646*	*(94.3)*	*685*	*(92.8)*	*Lithuania*
2	*(100.0)*	*0*	*(0.0)*	*2*	*(100.0)*	*2*	*(4.2)*	Luxembourg
32	(100.0)	2	(6.3)	32	(69.6)	46	(75.4)	Malta
306	(98.7)	8	(2.6)	310	(83.6)	371	(58.4)	Netherlands (Kingdom of the)
97	(99.0)	8	(8.2)	98	(86.7)	113	(64.9)	Norway[k]
3 096	(91.1)	97	(3.1)	3 397	(81.9)	4 148	(96.2)	Poland
508	(63.3)	10	(2.0)	802	(74.7)	1 073	(70.9)	Portugal
6 229	*(90.7)*	*262*	*(4.2)*	*6 866*	*(84.3)*	*8 144*	*(87.9)*	*Romania*
71	(100.0)	5	(7.0)	71	(51.4)	138	(89.0)	Slovakia
58	(100.0)	1	(1.7)	58	(95.1)	61	(82.4)	Slovenia
1 425	(85.6)	26	(1.8)	1 665	(81.9)	2 032	(54.9)	Spain
216	(99.5)	11	(5.1)	217	(90.8)	239	(63.2)	Sweden
17 764	**(86.0)**	**863**	**(4.9)**	**20 646**	**(79.1)**	**26 086**	**(72.8)**	**Subtotal EU/EEA**
								Non-EU/EEA
174	(92.6)	3	(1.7)	188	(78.0)	241	(82.5)	Albania
4	(100.0)	0	(0.0)	4	(100.0)	4	(100.0)	Andorra
279	*(100.0)*	*56*	*(20.1)*	*279*	*(79.0)*	*353*	*(74.8)*	*Armenia*
3 824	*(99.0)*	*686*	*(17.9)*	*3 863*	*(87.0)*	*4 442*	*(85.9)*	*Azerbaijan*
1 723	*(100.0)*	*721*	*(41.8)*	*1 723*	*(96.5)*	*1 785*	*(93.8)*	*Belarus*
366	(98.4)	3	(0.8)	372	(92.1)	404	(93.1)	Bosnia and Herzegovina
1 236	*(97.0)*	*165*	*(13.3)*	*1 274*	*(95.4)*	*1 336*	*(80.8)*	*Georgia*
106	(100.0)	11	(10.4)	106	(72.1)	147	(71.0)	Israel
8 397	*(100.0)*	*3 428*	*(40.8)*	*8 401*	*(93.6)*	*8 977*	*(88.0)*	*Kazakhstan*
2 746	*(95.5)*	*781*	*(28.4)*	*2 874*	*(71.1)*	*4 042*	*(79.0)*	*Kyrgyzstan*
–	–	–	–	–	–	–	–	Monaco
59	(100.0)	0	(0.0)	59	(93.7)	63	(88.7)	Montenegro
116	(95.9)	4	(3.4)	121	(95.3)	127	(88.2)	North Macedonia
1 423	*(100.0)*	*428*	*(30.1)*	*1 423*	*(78.7)*	*1 807*	*(82.5)*	*Republic of Moldova*
38 363	*(93.9)*	*19 045*	*(49.6)*	*40 862*	*(61.8)*	*66 116*	*(87.5)*	*Russian Federation*
–	–	–	–	–	–	–	–	San Marino
135	(34.0)	2	(1.5)	397	(91.3)	435	(92.9)	Serbia
135	(34.0)	2	(1.5)	397	(91.3)	435	*(92.9)*	Serbia excluding Kosovo[1]
–	–	–	–	–	–	–	–	Kosovo[1]
309	(100.0)	2	(0.6)	309	(87.5)	353	(96.7)	Switzerland
2 093	*(99.4)*	*518*	*(24.7)*	*2 106*	*(67.0)*	*3 145*	*(71.1)*	*Tajikistan*
4 295	*(88.5)*	*148*	*(3.4)*	*4 855*	*(79.3)*	*6 123*	*(62.2)*	*Türkiye*
1 250	*(100.0)*	*402*	*(32.2)*	*1 250*	*(62.5)*	*1 999*	*(59.1)*	*Turkmenistan*
12 876	*(97.0)*	*3 647*	*(28.3)*	*13 278*	*(76.2)*	*17 434*	*(89.1)*	Ukraine
1 949	*(90.6)*	*34*	*(1.7)*	*2 152*	*(84.3)*	*2 554*	*(54.2)*	United Kingdom[k]
7 205	*(100.0)*	*1 500*	*(20.8)*	*7 205*	*(71.9)*	*10 015*	*(61.9)*	*Uzbekistan*
88 928	**(95.5)**	**31 584**	**(35.5)**	**93 101**	**(70.6)**	**131 902**	**(81.2)**	**Subtotal non-EU/EEA**
106 692	**(93.8)**	**32 447**	**(30.4)**	**113 747**	**(72.0)**	**157 988**	**(79.6)**	**Total European Region**
93 121	*(95.4)*	*31 953*	*(34.3)*	*97 593*	*(71.0)*	*137 459*	*(82.3)*	***Subtotal 18 HPCs***

[e] Proportion of bacteriologically confirmed pulmonary RR/MDR-TB cases with DST results and the respective previous TB treatment history.
[f] Proportion of all pulmonary TB cases with the respective previous TB treatment history.
[g] Proportion of all pulmonary TB cases. For EU/EEA, excluding the cases with unknown previous TB treatment history.
[h] Proportion of all bacteriologically confirmed pulmonary TB cases with DST results. For EU/EEA, excluding the cases with unknown previous TB treatment history.
[i] 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.
[j] Proportion of all TB cases.
[k] Previous TB history is defined by previous diagnosis.
[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 12. Pre-XDR-TB and XDR-TB cases among bacteriologically confirmed[a] pulmonary RR/MDR-TB cases, European Region, 2022

Country/area	Source of data	Coverage	Bacteriologically confirmed pulmonary RR/MDR-TB cases[b]		Cases with DST results for any fluoroquinolone		Pre-XDR-TB cases[c]	
			N	(%)	N	(%)	N	(%)
EU/EEA								
Austria	TESSy	National	11	(4.7)	11	(100.0)	1	(9.1)
Belgium	TESSy	National	11	(2.4)	7	(63.6)	0	(0.0)
Bulgaria	*TESSy*	*National*	*5*	*(2.3)*	*5*	*(100.0)*	*1*	*(20.0)*
Croatia	TESSy	National	2	(1.4)	0	(0.0)	0	(0.0)
Cyprus	TESSy	National	2	(3.0)	2	(100.0)	0	(0.0)
Czechia	TESSy	National	16	(6.2)	13	(81.3)	4	(30.8)
Denmark	TESSy	National	6	(4.2)	6	(100.0)	0	(0.0)
Estonia	*TESSy*	*National*	*24*	*(25.5)*	*21*	*(87.5)*	*7*	*(33.3)*
Finland	TESSy	National	8	(7.5)	8	(100.0)	3	(37.5)
France	TESSy	National	49	(100.0)	48	(98.0)	9	(18.8)
Germany	TESSy	National	154	(6.7)	112	(72.7)	29	(25.9)
Greece	TESSy	National	9	(6.9)	0	(0.0)	0	(0.0)
Hungary	TESSy	National	14	(6.4)	14	(100.0)	5	(35.7)
Iceland	TESSy	National	1	(11.1)	1	(100.0)	0	(0.0)
Ireland	TESSy	National	9	(11.5)	5	(55.6)	2	(40.0)
Italy	NRL–TME	Partial	39	(3.5)	27	(69.2)	10	(37.0)
Latvia	*TESSy*	*National*	*25*	*(10.4)*	*22*	*(88.0)*	*2*	*(9.1)*
Liechtenstein	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)
Lithuania	*TESSy*	*National*	*113*	*(17.5)*	*63*	*(55.8)*	*24*	*(38.1)*
Luxembourg	TESSy	National	0	(0.0)	0	(0.0)	0	(0.0)
Malta	TESSy	National	2	6.25	0	0	0	(0.0)
Netherlands (Kingdom of the)	TESSy	National	8	(2.6)	7	(87.5)	4	(57.1)
Norway	TESSy	National	8	(8.2)	8	(100.0)	2	(25.0)
Poland	TESSy	National	97	(3.1)	42	(43.3)	11	(26.2)
Portugal	TESSy	National	10	(2.0)	5	(50.0)	0	(0.0)
Romania	*TESSy*	*National*	*262*	*(4.5)*	*54*	*(20.6)*	*16*	*(29.6)*
Slovakia	TESSy	National	5	(6.9)	5	(100.0)	2	(40.0)
Slovenia	TESSy	National	1	(1.7)	1	(100.0)	1	(100.0)
Spain	TESSy	National	31	(2.0)	4	(12.9)	0	(0.0)
Sweden	TESSy	National	11	(4.7)	11	(100.0)	2	(18.2)
Subtotal EU/EEA	–	–	**933**	**(5.4)**	**502**	**(53.8)**	**135**	**(26.9)**
Non-EU/EEA								
Albania	NRL–TME	National	3	(1.7)	0	–	–	–
Andorra	NRL–TME	National	0	–	0	–	–	–
Armenia	*NRL–TME*	*National*	*56*	*(20.1)*	*54*	*(96.4)*	*8*	*(14.8)*
Azerbaijan	*NRL–TME*	*National*	*686*	*(17.9)*	*628*	*(91.5)*	*97*	*(15.4)*
Belarus	*NRL–TME*	*National*	*721*	*(41.8)*	*721*	*(100.0)*	*314*	*(43.6)*
Bosnia and Herzegovina	NRL–TME	National	3	(0.8)	0	–	–	–
Georgia	*NRL–TME*	*National*	*165*	*(13.3)*	*145*	*(87.9)*	*55*	*(37.9)*
Israel	NRL–TME	National	11	(10.4)	11	(100.0)	1	(9.1)
Kazakhstan	*NRL–TME*	*National*	*3 428*	*(40.8)*	*517*	–	*517*	–
Kyrgyzstan	*NRL–TME*	*National*	*781*	*(28.4)*	*674*	*(86.3)*	*114*	*(16.9)*
Monaco	–	–	–	–	–	–	–	–
Montenegro	NRL–TME	National	0	(0.0)	0	(0.0)	–	–
North Macedonia	NRL–TME	National	4	(3.4)	0	(0.0)	–	–
Republic of Moldova	*NRL–TME*	*National*	*428*	*(30.1)*	*428*	*(100.0)*	*70*	*(16.4)*
Russian Federation	*NRL–TME*	*National*	*19 045*	*(49.6)*	*17 527*	*(92.0)*	*6 191*	*(35.3)*
San Marino	–	National	–	–	–	–	–	–
Serbia	–	–	2	1	0	(0.0)	–	–
Serbia excluding Kosovo[1]	NRL–TME	National	2	1	0	(0.0)	–	–
Kosovo[1]	–	–	–	–	–	–	–	–
Switzerland	NRL–TME	National	2	(0.6)	2	(100.0)	0	(0.0)
Tajikistan	*NRL–TME*	*National*	*518*	*(24.7)*	*418*	*(80.7)*	*109*	*(26.1)*
Türkiye	*NRL–TME*	*National*	*148*	*(3.4)*	*98*	*(66.2)*	*12*	*(12.2)*
Turkmenistan	*NRL–TME*	*National*	–	–	–	–	–	–
Ukraine	*NRL–TME*	*National*	*3 647*	*(28.3)*	*3 148*	*(86.3)*	*1 009*	*(32.1)*
United Kingdom	TESSy	National	34	(1.7)	34	(100.0)	5	(14.7)
Uzbekistan	*NRL–TME*	*National*	*1 500*	*(20.8)*	*1 500*	*(100.0)*	*622*	*(41.5)*
Subtotal non-EU/EEA	–	–	**31 182**	**(37.7)**	**25 905**	**(83.1)**	**9 124**	**(35.2)**
Total European Region	–	–	**32 115**	**(32.5)**	**26 407**	**(82.2)**	**9 259**	**(35.1)**
Subtotal 18 HPCs	–	–	*31 552*	*(36.5)*	*26 023*	*(82.5)*	*9 168*	*(35.2)*

Note: WHO European Region 18 TB HPCs presented in italics. The resistance pattern at the initiation of treatment is reported to TESSy irrespective of the method used for drug susceptibility testing or resistance prediction.DST: drug-susceptibility testing; EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; NRL: national reference laboratory; RIF: rifampicin; RR/MDR: rifampicin-resitant or multidrug-resistant; TB: tuberculosis; TESSy: The European surveillance system; TME: WHO global TB data-collection system; XDR-TB: extensively drug-resistant tuberculosis; Y: yes.N: no.

[a] For EU/EEA countries, laboratory-confirmed cases are culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases. For non-EU/EEA countries, cases with positive identification for *M. tuberculosis* complex confirmed by culture and/or line probe assay.

[b] 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).

[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).

Cases with DST results for any other Group A drugs		XDR-TB cases[d]		Reporting completeness[e]	Country/area
N	(%)	N	(%)		
1	(100.0)	0	(0.0)	Yes	Austria
0	(0.0)	0	(0.0)	Yes	Belgium
1	*(100.0)*	*0*	*(0.0)*	*Yes*	*Bulgaria*
0	(0.0)	0	(0.0)	Yes	Croatia
0	(0.0)	0	(0.0)	Yes	Cyprus
4	(100.0)	0	(0.0)	Yes	Czechia
0	(0.0)	0	(0.0)	Yes	Denmark
7	*(100.0)*	*2*	*(28.6)*	*Yes*	*Estonia*
3	(100.0)	0	(0.0)	Yes	Finland
9	(100.0)	3	(33.3)	Yes	France
29	*(100.0)*	2	(6.9)	Yes	Germany
0	(0.0)	0	(0.0)	Yes	Greece
0	(0.0)	0	(0.0)	Yes	Hungary
0	(0.0)	0	(0.0)	Yes	Iceland
2	(100.0)	0	(0.0)	Yes	Ireland
–	–	–	–	No	Italy
2	*(100.0)*	*0*	*(0.0)*	*Yes*	*Latvia*
0	(0.0)	0	(0.0)	Yes	Liechtenstein
24	*(100.0)*	*3*	*(12.5)*	*Yes*	*Lithuania*
0	(0.0)	0	(0.0)	Yes	Luxembourg
0	(0.0)	0	(0.0)	Yes	Malta
4	(100.0)	0	(0.0)	Yes	Netherlands (Kingdom of the)
2	(100.0)	0	(0.0)	Yes	Norway
11	(100.0)	1	(9.1)	Yes	Poland
0	(0.0)	0	(0.0)	Yes	Portugal
16	*(100.0)*	*0*	*(0.0)*	*Yes*	*Romania*
2	(100.0)	0	(0.0)	Yes	Slovakia
1	(100.0)	0	(0.0)	Yes	Slovenia
0	(0.0)	0	(0.0)	Yes	Spain
2	(100.0)	1	(50.0)	Yes	Sweden
120	**(88.9)**	**12**	**(10.0)**	**–**	**Subtotal EU/EEA**
					Non-EU/EEA
–	–	–	–	Yes	Albania
–	–	–	–	Yes	Andorra
6	*(75.0)*	*1*	*(16.7)*	*Yes*	*Armenia*
0	*(0.0)*	–	–	*Yes*	*Azerbaijan*
313	*(99.7)*	*25*	*(8.0)*	*Yes*	*Belarus*
–	–	–	–	No	Bosnia and Herzegovina
54	*(98.2)*	*18*	*(33.3)*	*Yes*	*Georgia*
0	(0.0)	–	–	Yes	Israel
–	–	–	–	*No*	*Kazakhstan*
110	*(96.5)*	*19*	*(17.3)*	*Yes*	*Kyrgyzstan*
–	–	–	–	Yes	Monaco
–	–	–	–	Yes	Montenegro
–	–	–	–	Yes	North Macedonia
70	*(100.0)*	*18*	*(25.7)*	*Yes*	*Republic of Moldova*
3325	*(53.7)*	*303*	*(9.1)*	*Yes*	*Russian Federation*
–	–	–	–	Yes	San Marino
–	–	–	–	–	Serbia
–	–	–	–	No	Serbia excluding Kosovo[1]
–	–	–	–	No	Kosovo[1]
–	–	–	–	Yes	Switzerland
109	*(100.0)*	*12*	*(11.0)*	*Yes*	*Tajikistan*
10	*(83.3)*	*0*	*(0.0)*	*Yes*	*Türkiye*
–	–	–	–	*No*	*Turkmenistan*
926	*(91.8)*	*32*	*(3.5)*	*Yes*	*Ukraine*
5	(100.0)	0	(0.0)	Yes	United Kingdom
–	–	–	–	*Yes*	*Uzbekistan*
4 928	**(54.0)**	**428**	**(8.7)**	**–**	**Subtotal non-EU/EEA**
5 048	**(54.5)**	**440**	**(8.7)**	**–**	**Total European Region**
4 973	***(54.2)***	***433***	***(8.7)***	**–**	***Subtotal 18 HPCs***

[c] Pre-XDR-TB defined as RR/MDR-TB as well as resistance to any fluoroquinolone.
[d] XDR-TB is defined as resistance to rifampicin and to at least one fluoroquinolone (pre-XDR-TB), as well as resistance to at least one additional Group A drug. For EU/EEA countries, XDR-TB is assessed on resistance to levofloxacin, moxifloxacin and/or bedaquiline, linezolid (in addition to meeting pre-XDR-TB criteria).
[e] 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.
[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 13. RR/MDR-TB and pre-XDR/XDR-TB cases enrolled to treatment, European Region, 2022

Country/area	Total number of RR/MDR-TB cases detected[a]	RR/MDR-TB cases enrolled to treatment[bc]		Total number of pre-XDR[d]/XDR-TB[e] cases detected	Pre-XDR[d]/XDR-TB[e] cases enrolled to treatment[bc]	
	N	N	(%)	N	N	(%)
EU/EEA						
Austria	11	11	(100.0)	1	1	(100.0)
Belgium	14	14	(100.0)	0	0	(0.0)
Bulgaria	*4*	*4*	*(100.0)*	*1*	*1*	(100.0)
Croatia	2	2	(100.0)	0	0	(0.0)
Cyprus	3	3	(100.0)	0	0	(0.0)
Czechia	12	12	(100.0)	4	4	(100.0)
Denmark	7	0	(0.0)	0	0	(0.0)
Estonia	*17*	*17*	*(100.0)*	*7*	*7*	*(100.0)*
Finland	5	5	(100.0)	3	3	(100.0)
France	52	52	(100.0)	9	9	(100.0)
Germany	143	136	(95.1)	30	28	(93.3)
Greece	10	10	(100.0)	0	0	(0.0)
Hungary	9	9	(100.0)	5	5	(100.0)
Iceland	1	1	(100.0)	0	0	(0.0)
Ireland	8	8	(100.0)	2	2	(100.0)
Italy	39	–	–	10	–	–
Latvia	*23*	*18*	*(78.3)*	*2*	*1*	*(50.0)*
Liechtenstein	0	0	(0.0)	0	0	(0.0)
Lithuania	*91*	*91*	*(100.0)*	*24*	*24*	*(100.0)*
Luxembourg	1	1	(100.0)	0	0	(0.0)
Malta	2	2	(100.0)	0	0	(0.0)
Netherlands (Kingdom of the)	5	2	(40.0)	4	3	(75.0)
Norway	9	9	(100.0)	2	2	(100.0)
Poland	91	91	(100.0)	12	12	(100.0)
Portugal	10	10	(100.0)	0	0	(0.0)
Romania	*249*	*249*	*(100.0)*	*16*	*16*	*(100.0)*
Slovakia	3	3	(100.0)	2	2	(100.0)
Slovenia	0	0	(0.0)	1	1	(100.0)
Spain	37	37	(100.0)	0	0	(0.0)
Sweden	13	13	(100.0)	3	3	(100.0)
Subtotal EU/EEA	**871**	**810**	**(97.4)**	**138**	**124**	**(89.9)**
Non-EU/EEA						
Albania	3	3	(100.0)	0	0	(0.0)
Andorra	0	0	(0.0)	0	0	(0.0)
Armenia	*52*	*52*	*(100.0)*	*8*	*8*	*(100.0)*
Azerbaijan	*958*	*865*	*(90.3)*	*171*	*166*	*(97.1)*
Belarus	*507*	*475*	*(93.7)*	*314*	*287*	*(91.4)*
Bosnia and Herzegovina	3	3	(100.0)	0	0	(0.0)
Georgia	*117*	*109*	*(93.2)*	*55*	*49*	*(89.1)*
Israel	11	11	(100.0)	2	2	(100.0)
Kazakhstan	*3 033*	*3 022*	*(99.6)*	*534*	*534*	*(100.0)*
Kyrgyzstan	*702*	*643*	*(91.6)*	*135*	*116*	*(85.9)*
Monaco	–	–	–	–	–	–
Montenegro	0	0	–	0	0	(0.0)
North Macedonia	4	4	(100.0)	0	0	(0.0)
Republic of Moldova	*370*	*409*	*(110.5)*	*70*	*69*	*(98.6)*
Russian Federation	*12 854*	*18 006*	*(140.1)*	*6 191*	*5 575*	*(90.1)*
San Marino	–	–	–	–	–	–
Serbia	2	2	(100.0)	0	0	(0.0)
Serbia excluding Kosovo[1]	2	2	(100.0)	0	0	(0.0)
Kosovo[1]	0	0	–	–	–	–
Switzerland	3	3	(100.0)	0	0	(0.0)
Tajikistan	*409*	*309*	*(75.6)*	*109*	*91*	*(83.5)*
Türkiye	*143*	*128*	*(89.5)*	*12*	*11*	*(91.7)*
Turkmenistan	*514*	*514*	*(100.0)*	*228*	*228*	*(100.0)*
Ukraine	*2 900*	*3 078*	*(106.1)*	*1 009*	*1 080*	*(107.0)*
United Kingdom	43	41	(95.3)	7	6	(85.7)
Uzbekistan	*1 660*	*1 660*	*(100.0)*	*457*	*457*	*(100.0)*
Subtotal non-EU/EEA	**24 288**	**29 337**	**(120.8)**	**9 302**	**8 679**	**(93.3)**
Total European Region	**25 159**	**30 147**	**(119.8)**	**9 440**	**8 803**	**(93.3)**
Subtotal 18 HPCs	***24 603***	***29 649***	***(120.5)***	***9 343***	***8 720***	***(93.3)***

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

[a] Excluding pre-XDR and XDR-TB cases.
[b] For countries that do not provide information on treatment start, all reported cases are used as proxy.
[c] For some non-EU/EEA countries and areas, patients who were diagnosed before 2022 but started on treatment in 2022 are included, resulting in an over 100% coverage.
[d] Pre-XDR-TB defined as resistance to rifampicin (RR/MDR-TB) as well as resistance to any fluoroquinolone.
[e] XDR-TB is defined as resistance to rifampicin and to at least one fluoroquinolone (pre-XDR-TB) as well as resistance to at least one additional Group A drug. For EU/EEA countries, XDR-TB is assessed on resistance to levofloxacin, moxifloxacin and/or bedaquiline, linezolid (in addition to meeting pre-XDR-TB criteria). 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).
[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 14. New and relapse[a] TB cases with HIV infection, European Region, 2022

Country/area	New and relapse TB cases[b]	TB cases with known HIV status		HIV-positive TB cases		HIV-positive cases started ART[c]	
	N	N	(%)	N	(%)	N	(%)
EU/EEA							
Austria	–	–	–	–	–	–	–
Belgium[d]	786	405	(51.5)	18	(4.4)	–	–
Bulgaria	*764*	*544*	*(71.2)*	*5*	*(0.9)*	–	–
Croatia	206	6	(2.9)	0	(0.0)	–	–
Cyprus	94	52	(55.3)	10	(19.2)	–	–
Czechia	379	247	(65.2)	5	(2.0)	–	–
Denmark[d]	205	148	(72.2)	4	(2.7)	–	–
Estonia	*125*	*117*	*(93.6)*	*6*	*(5.1)*	*6*	*(100.0)*
Finland	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–
Greece	302	208	(68.9)	9	(4.3)	–	–
Hungary	435	15	(3.4)	2	(13.3)	–	–
Iceland	–	–	–	–	–	–	–
Ireland[d]	197	72	(36.5)	5	(6.9)	3	(60.0)
Italy	–	–	–	–	–	–	–
Latvia	*306*	*306*	*(100.0)*	*28*	*(9.2)*	–	–
Liechtenstein	–	–	–	–	–	–	–
Lithuania	*724*	*695*	*(96.0)*	*19*	*(2.7)*	–	–
Luxembourg	47	32	(68.1)	1	(3.1)	–	–
Malta	60	60	(100.0)	0	(0.0)	–	–
Netherlands (Kingdom of the)	625	438	(70.1)	18	(4.1)	11	(61.1)
Norway[d]	152	123	(80.9)	4	(3.3)	–	–
Poland	–	–	–	–	–	–	–
Portugal	1 476	1 118	(75.7)	106	(9.5)	–	–
Romania	*8 818*	*7 362*	*(83.5)*	*130*	*(1.8)*	–	–
Slovakia	142	75	(52.8)	2	(2.7)	–	–
Slovenia	72	61	(84.7)	0	(0.0)	–	–
Spain	2 580	1 352	(52.4)	155	(11.5)	–	–
Sweden	–	–	–	–	–	–	–
Subtotal EU/EEA	**18 495**	**13 436**	**(72.6)**	**527**	**(3.9)**	**20**	**(3.8)**
Non-EU/EEA							
Albania	292	263	(90.1)	1	(0.4)	1	(100.0)
Andorra	–	–	–	–	–	–	–
Armenia	*440*	*411*	*(93.4)*	*39*	*(9.5)*	*35*	*(89.7)*
Azerbaijane	*5 169*	*3 399*	*(65.8)*	*80*	*(2.4)*	*78*	*(97.5)*
Belarus	*1 670*	*1 649*	*(98.7)*	*127*	*(7.7)*	*120*	*(94.5)*
Bosnia and Herzegovina	432	29	(6.7)	0	(0.0)	0	(0.0)
Georgia	*1 511*	*1 466*	*(97.0)*	*42*	*(2.9)*	*35*	*(83.3)*
Israel	203	199	(98.0)	7	(3.5)	7	(100.0)
Kazakhstan	*10 009*	*9 829*	*(98.2)*	*645*	*(6.6)*	*552*	*(85.6)*
Kyrgyzstan	*4 568*	*4 389*	*(96.1)*	*124*	*(2.8)*	*102*	*(82.3)*
Monaco	–	–	–	–	–	–	–
Montenegro	71	66	(93.0)	2	(3.0)	1	(50.0)
North Macedonia	144	0	(0.0)	–	–	–	–
Republic of Moldova	*2 121*	*2 047*	*(96.5)*	*235*	*(11.5)*	*215*	*(91.5)*
Russian Federation	*55 906*	*55 225*	*(98.8)*	*14 191*	*(25.7)*	*11 088*	*(78.1)*
San Marino	–	–	–	–	–	–	–
Serbia	1 074	426	(39.7)	2	(0.5)	2	(100.0)
Serbia excluding Kosovo[1]	459	39	(8.5)	2	(5.1)	2	(100.0)
Kosovo[1]	615	387	(62.9)	0	(0.0)	–	–
Switzerland	–	–	–	–	–	–	–
Tajikistan	*4 294*	*4 269*	*(99.4)*	*109*	*(2.6)*	*99*	*(90.8)*
Türkiye	*9 723*	*7 860*	*(80.8)*	*123*	*(1.6)*	*101*	*(82.1)*
Turkmenistan	–	–	–	–	–	–	–
Ukraine	*18 567*	*18 324*	*(98.7)*	*3 328*	*(18.2)*	*3 069*	*(92.2)*
United Kingdom[d]	–	–	–	–	–	–	–
Uzbekistan[e]	*16 174*	*16 174*	*(100.0)*	*538*	*(3.3)*	*413*	*(76.8)*
Subtotal non-EU/EEA	**132 368**	**126 025**	**(95.2)**	**19 593**	**(15.5)**	**15 918**	**(81.2)**
Total European Region	**150 863**	**139 461**	**(92.4)**	**20 120**	**(14.4)**	**15 938**	**(81.2)**
Subtotal 18 HPCs	*140 889*	*134 066*	*(95.2)*	*19 769*	*(14.7)*	*15 913*	*(81.2)*

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics.
ART: antiretroviral therapy; EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] Cases with unknown previous TB history are included among new TB cases.
[b] Countries are only included in this analysis if the 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.
[c] Data from: The WHO global TB collection system. Geneva: World Health Organization; 2024 (https://extranet.who.int/tme/, accessed 5 February 2024).
[d] Previous TB history is defined by previous diagnosis.
[e] Data are for all TB cases.
[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 15. TB in prisons, European Region, 2022[a]

Country/area	Prison population[b]	New and relapse TB cases (all forms) notified in prisons		Proportion of new and relapse TB cases in prisons out of the country total	TB relative risk in prisons[c]
	N	N	Rate per 100 000 prisoners	%	
EU/EEA					
Austria	–	–	–	–	–
Belgium	10 381	6	58	(0.7)	7.4
Bulgaria	*5 746*	*8*	*139*	*(0.6)*	*7.6*
Croatia	–	–	–	–	–
Cyprus	–	–	–	–	–
Czechia	19 052	13	68	(2.6)	15.9
Denmark	–	–	–	–	–
Estonia	*2 600*	*3*	*115*	*(1.7)*	*10.4*
Finland	–	–	–	–	–
France	69 448	61	88	(1.2)	12.1
Germany	–	–	–	–	–
Greece	–	–	–	–	–
Hungary	–	–	–	–	–
Iceland	–	–	–	–	–
Ireland	5 801	2	34	(0.7)	6.8
Italy	–	–	–	–	–
Latvia	–	–	–	–	–
Liechtenstein	–	–	–	–	–
Lithuania	–	–	–	–	–
Luxembourg	750	2	267	(6.3)	34.1
Malta	–	–	–	–	–
Netherlands (Kingdom of the)	24 152	3	12	(0.4)	2.9
Norway	–	–	–	–	–
Poland	72 513	124	171	(2.2)	13.0
Portugal	12 198	23	189	(1.2)	11.3
Romania	*23 310*	*97*	*416*	*(0.8)*	*7.3*
Slovakia	8 800	3	34	(1.3)	8.7
Slovenia	3 490	0	0	(0.0)	0.0
Spain	–	–	–	–	–
Sweden	–	–	–	–	–
Subtotal EU/EEA[c]	**258 241**	**345**	**134**	**(1.3)**	**9.7**
Non EU/EEA					
Albania	6 200	1	16	(0.3)	1.6
Andorra	0	0	0	(0.0)	0.0
Armenia	2 407	*2*	83	*(0.5)*	5.3
Azerbaijan	*23 820*	*158*	*663*	*(4.0)*	*17.2*
Belarus	–	–	–	–	–
Bosnia and Herzegovina	–	–	–	–	–
Georgia	*9 542*	*20*	*210*	*(1.3)*	*5.2*
Israel	–	–	–	–	–
Kazakhstan	*34 000*	*142*	*418*	*(1.4)*	*8.1*
Kyrgyzstan	*6 750*	*31*	*459*	*(0.7)*	*6.7*
Monaco	–	–	–	–	–
Montenegro	–	–	–	–	–
North Macedonia	–	–	–	–	–
Republic of Moldova	*6 396*	*79*	*1 235*	*(3.7)*	*19.1*
Russian Federation	*446 835*	*4 657*	*1 042*	*(8.3)*	*27.0*
San Marino	–	–	–	–	–
Serbia	34 200	0	0	(0.0)	0.0
Serbia excluding Kosovo[1]	34 200	0	0	(0.0)	0.0
Kosovo[1]	–	–	–	–	–
Switzerland	–	–	–	–	–
Tajikistan	*12 000*	*70*	*583*	*(1.6)*	*13.5*
Türkiye	*340 793*	*156*	*46*	*(1.6)*	*4.0*
Turkmenistan	–	–	–	–	–
Ukraine	*41 810*	*362*	*866*	*(1.9)*	*18.5*
United Kingdom	81 806	21	26	(0.4)	3.7
Uzbekistan	–	–	–	–	–
Subtotal non-EU/EEA	**1 046 559**	**5 699**	**545**	**(4.9)**	**19.3**
Total European Region	**1 304 800**	**6 044**	**463**	**(4.4)**	**20.5**
Subtotal 18 HPCs	***956 009***	***5 785***	***605***	***(4.8)***	***17.7***

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

[a] Data from the WHO global TB database.

[b] Belarus, Kazakhstan, Montenegro and Kosovo[1] prison population data are from: World Prison Brief [online database]. London: Institute for Crime & Justice Policy Research; 2024 (prisonstudies.org, accessed 5 February 2024).

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

[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 16. Treatment outcome of new and relapse TB cases[a] notified in 2021, European Region, 2022

Country/area	New and relapse TB cases notified in 2021[b]	Success		Died		Failed		Lost to follow-up[c]		Still on treatment		Not evaluated[d]	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	378	282	(74.6)	35	(9.3)	0	(0.0)	35	(9.3)	26	(6.9)	0	(0.0)
Belgium[e]	806	629	(78.0)	39	(4.8)	3	(0.4)	61	(7.6)	14	(1.7)	60	(7.4)
Bulgaria	*671*	*530*	*(79.0)*	*67*	*(10.0)*	*1*	*(0.1)*	*65*	*(9.7)*	*0*	*(0.0)*	*8*	*(1.2)*
Croatia	170	79	(46.5)	22	(12.9)	0	(0.0)	5	(2.9)	7	(4.1)	57	(33.5)
Cyprus	45	23	(51.1)	1	(2.2)	1	(2.2)	3	(6.7)	1	(2.2)	16	(35.6)
Czechia	342	231	(67.5)	63	(18.4)	0	(0.0)	31	(9.1)	8	(2.3)	9	(2.6)
Denmark[e]	199	40	(20.1)	4	(2.0)	0	(0.0)	1	(0.5)	0	(0.0)	154	(77.4)
Estonia	*86*	*72*	*(83.7)*	*12*	*(14.0)*	*0*	*(0.0)*	*2*	*(2.3)*	*0*	*(0.0)*	*0*	*(0.0)*
Finland	167	11	(6.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	156	(93.4)
France	3 942	1 449	(36.8)	113	(2.9)	0	(0.0)	124	(3.1)	23	(0.6)	2 233	(56.6)
Germany	3 738	2 491	(66.6)	341	(9.1)	3	(0.1)	94	(2.5)	109	(2.9)	700	(18.7)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	305	194	(63.6)	38	(12.5)	15	(4.9)	28	(9.2)	14	(4.6)	16	(5.2)
Iceland	7	4	(57.1)	1	(14.3)	0	(0.0)	0	(0.0)	0	(0.0)	2	(28.6)
Ireland[e]	204	7	(3.4)	8	(3.9)	0	(0.0)	1	(0.5)	0	(0.0)	188	(92.2)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Lithuania	*528*	*456*	*(86.4)*	*57*	*(10.8)*	*3*	*(0.6)*	*11*	*(2.1)*	*1*	*(0.2)*	*0*	*(0.0)*
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	53	52	(98.1)	1	(1.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands (Kingdom of the)	659	539	(81.8)	30	(4.6)	3	(0.5)	19	(2.9)	13	(2.0)	55	(8.3)
Norway[e]	129	112	(86.8)	3	(2.3)	1	(0.8)	0	(0.0)	6	(4.7)	7	(5.4)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	1 480	1 003	(67.8)	79	(5.3)	2	(0.1)	70	(4.7)	288	(19.5)	38	(2.6)
Romania	*7 396*	*6 007*	*(81.2)*	*912*	*(12.3)*	*160*	*(2.2)*	*257*	*(3.5)*	*57*	*(0.8)*	*3*	*(0.0)*
Slovakia	131	115	(87.8)	6	(4.6)	0	(0.0)	1	(0.8)	0	(0.0)	9	(6.9)
Slovenia	78	58	(74.4)	12	(15.4)	0	(0.0)	0	(0.0)	7	(9.0)	1	(1.3)
Spain	2 619	980	(37.4)	131	(5.0)	2	(0.1)	32	(1.2)	27	(1.0)	1 447	(55.3)
Sweden	334	284	(85.0)	23	(6.9)	0	(0.0)	3	(0.9)	0	(0.0)	24	(7.2)
Subtotal EU/EEA	**24 468**	**15 649**	**(64.0)**	**1 998**	**(8.2)**	**194**	**(0.8)**	**843**	**(3.4)**	**601**	**(2.5)**	**5 183**	**(21.2)**
Albania	269	242	(90.0)	9	(3.3)	0	(0.0)	16	(5.9)	–	–	2	(0.7)
Andorra	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Armenia	*317*	*272*	*(85.8)*	*14*	*(4.4)*	*8*	*(2.5)*	*23*	*(7.3)*	–	–	*0*	*(0.0)*
Azerbaijan	*1 276*	*1 043*	*(81.7)*	*56*	*(4.4)*	*63*	*(4.9)*	*106*	*(8.3)*	–	–	*8*	*(0.6)*
Belarus	*903*	*759*	*(84.1)*	*81*	*(9.0)*	*19*	*(2.1)*	*44*	*(4.9)*	–	–	*0*	*(0.0)*
Bosnia and Herzegovina	361	166	(46.0)	9	(2.5)	0	(0.0)	5	(1.4)	–	–	181	(50.1)
Georgia	*1 343*	*1 169*	*(87.0)*	*56*	*(4.2)*	*25*	*(1.9)*	*75*	*(5.6)*	–	–	*18*	*(1.3)*
Israel	178	153	(86.0)	14	(7.9)	8	(4.5)	3	(1.7)	–	–	0	(0.0)
Kazakhstan	*5 621*	*4 987*	*(88.7)*	*435*	*(7.7)*	*119*	*(2.1)*	*73*	*(1.3)*	–	–	*7*	*(0.1)*
Kyrgyzstan	*3 845*	*3 121*	*(81.2)*	*256*	*(6.7)*	*125*	*(3.3)*	*322*	*(8.4)*	–	–	*21*	*(0.5)*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	80	75	(93.8)	4	(5.0)	0	(0.0)	0	(0.0)	–	–	1	(1.3)
North Macedonia	146	115	(78.8)	10	(6.8)	3	(2.1)	18	(12.3)	–	–	0	(0.0)
Republic of Moldova	*1 638*	*1 318*	*(80.5)*	*204*	*(12.5)*	*45*	*(2.7)*	*67*	*(4.1)*	–	–	*4*	*(0.2)*
Russian Federation	*43 926*	*26 516*	*(60.4)*	*6 042*	*(13.8)*	*5 583*	*(12.7)*	*2 080*	*(4.7)*	–	–	*3 705*	*(8.4)*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	446	381	(85.4)	26	(5.8)	2	(0.4)	33	(7.4)	–	–	4	(0.9)
Serbia excluding Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo[1]	446	381	(85.4)	26	(5.8)	2	(0.4)	33	(7.4)	–	–	4	(0.9)
Switzerland	326	246	(75.5)	19	(5.8)	0	(0.0)	8	(2.5)	–	–	53	(16.3)
Tajikistan	*3 635*	*3 347*	*(92.1)*	*158*	*(4.3)*	*27*	*(0.7)*	*103*	*(2.8)*	–	–	*0*	*(0.0)*
Türkiye	*8 947*	*7 192*	*(80.4)*	*747*	*(8.3)*	*25*	*(0.3)*	*252*	*(2.8)*	–	–	*731*	*(8.2)*
Turkmenistan	*1 878*	*1 515*	*(80.7)*	*129*	*(6.9)*	*114*	*(6.1)*	*58*	*(3.1)*	–	–	*62*	*(3.3)*
Ukraine	*14 396*	*10 755*	*(74.7)*	*1 732*	*(12.0)*	*1 060*	*(7.4)*	*800*	*(5.6)*	–	–	*49*	*(0.3)*
United Kingdom[e]	4 707	4 059	(86.2)	262	(5.6)	84	(1.8)	130	(2.8)	–	–	172	(3.7)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	**94 240**	**67 433**	**(71.6)**	**10 263**	**(10.9)**	**7 310**	**(7.8)**	**4 216**	**(4.5)**	**0**	**(0.0)**	**5 018**	**(5.3)**
Total European Region	**118 708**	**83 082**	**(70.0)**	**12 261**	**(10.3)**	**7 504**	**(6.3)**	**5 059**	**(4.3)**	**601**	**(0.5)**	**10 201**	**(8.6)**
Subtotal 18 HPCs	***96 406***	***69 059***	***(71.6)***	***10 958***	***(11.4)***	***7 377***	***(7.7)***	***4 338***	***(4.5)***	***58***	***(0.1)***	***4 616***	***(4.8)***

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

[a] Cases with unknown previous TB history are included among new TB cases.
[b] For non-EU/EEA countries: patients started on second-line treatment are excluded. For EU/EEA countries: rifampicin-resistant TB cases are excluded.
[c] In previous reports defined as "defaulted".
[d] In previous reports defined as "transferred out and unknown".
[e] Previous TB history is defined by previous diagnosis.
[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 17. Treatment outcome of previously treated TB cases (excluding relapse) notified in 2021, European Region, 2022

Country/area	New and relapse TB cases notified in 2021[a]	Success		Died		Failed		Lost to follow-up[b]		Still on treatment		Not evaluated[c]	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	9	6	(66.7)	0	(0.0)	0	(0.0)	1	(11.1)	2	(22.2)	0	(0.0)
Belgium	54	36	(66.7)	4	(7.4)	0	(0.0)	8	(14.8)	2	(3.7)	4	(7.4)
Bulgaria	*12*	*8*	*(66.7)*	*2*	*(16.7)*	*0*	*(0.0)*	*1*	*(8.3)*	*0*	*(0.0)*	*1*	*(8.3)*
Croatia	3	2	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–
Czechia	4	3	(75.0)	0	(0.0)	0	(0.0)	1	(25.0)	0	(0.0)	0	(0.0)
Denmark	18	2	(11.1)	1	(5.6)	0	(0.0)	1	(5.6)	0	(0.0)	14	(77.8)
Estonia	–	–	–	–	–	–	–	–	–	–	–	–	–
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–
France	222	81	(36.5)	14	(6.3)	0	(0.0)	7	(3.2)	3	(1.4)	117	(52.7)
Germany	102	56	(54.9)	11	(10.8)	0	(0.0)	8	(7.8)	4	(3.9)	23	(22.5)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	18	9	(50.0)	2	(11.1)	0	(0.0)	5	(27.8)	2	(11.1)	0	(0.0)
Iceland	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	5	0	(0.0)	1	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	4	(80.0)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*13*	*7*	*(53.8)*	*4*	*(30.8)*	*0*	*(0.0)*	*2*	*(15.4)*	*0*	*(0.0)*	*0*	*(0.0)*
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands (KIngdom of the)	11	8	(72.7)	3	(27.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Norway	14	14	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	42	25	(59.5)	3	(7.1)	0	(0.0)	3	(7.1)	11	(26.2)	0	(0.0)
Romania	*319*	*153*	*(48.0)*	*42*	*(13.2)*	*60*	*(18.8)*	*59*	*(18.5)*	*5*	*(1.6)*	*0*	*(0.0)*
Slovakia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	991	814	(82.1)	48	(4.8)	1	(0.1)	34	(3.4)	10	(1.0)	84	(8.5)
Sweden	12	11	(91.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(8.3)
Subtotal EU/EEA	**1 856**	**1 237**	**(66.6)**	**135**	**(7.3)**	**61**	**(3.3)**	**130**	**(7.0)**	**40**	**(2.2)**	**253**	**(13.6)**
Non-EU/EEA													
Albania	0	–	–	–	–	–	–	–	–	–	–	–	–
Andorra	–	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	*34*	*29*	*(85.3)*	*2*	*(5.9)*	*0*	*(0.0)*	*2*	*(5.9)*	–	–	*1*	*(2.9)*
Azerbaijan	*1 917*	*1 374*	*(71.7)*	*120*	*(6.3)*	*171*	*(8.9)*	*235*	*(12.3)*	–	–	*17*	*(0.9)*
Belarus	–	–	–	–	–	–	–	–	–	–	–	–	–
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	*93*	*63*	*(67.7)*	*4*	*(4.3)*	*5*	*(5.4)*	*16*	*(17.2)*	–	–	*5*	*(5.4)*
Israel	4	4	(100.0)	0	(0.0)	(0.0)	(0.0)	0	(0.0)	–	–	0	(0.0)
Kazakhstan	*54*	*37*	*(68.5)*	*8*	*(14.8)*	*4*	*(7.4)*	*5*	*(9.3)*	–	–	*0*	*(0.0)*
Kyrgyzstan	*374*	*261*	*(69.8)*	*43*	*(11.5)*	*20*	*(5.3)*	*49*	*(13.1)*	–	–	*1*	*(0.3)*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
North Macedonia	–	–	–	–	–	–	–	–	–	–	–	–	–
Republic of Moldova	*103*	*60*	*(58.3)*	*15*	*(14.6)*	*9*	*(8.7)*	*19*	*(18.4)*	–	–	*0*	*(0.0)*
Russian Federation	*7 413*	*3 603*	*(48.6)*	*680*	*(9.2)*	*1 486*	*(20.0)*	*829*	*(11.2)*	–	–	*815*	*(11.0)*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia excluding Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo[1]	0	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	*92*	*76*	*(82.6)*	*7*	*(7.6)*	*2*	*(2.2)*	*7*	*(7.6)*	–	–	*0*	*(0.0)*
Türkiye	*96*	*56*	*(58.3)*	*5*	*(5.2)*	*0*	*(0.0)*	*15*	*(15.6)*	–	–	*20*	*(20.8)*
Turkmenistan	*544*	*416*	*(76.5)*	*32*	*(5.9)*	*41*	*(7.5)*	*29*	*(5.3)*	–	–	*26*	*(4.8)*
Ukraine	*1 285*	*878*	*(68.3)*	*105*	*(8.2)*	*170*	*(13.2)*	*129*	*(10.0)*	–	–	*3*	*(0.2)*
United Kingdom	167	141	(84.4)	10	(6.0)	4	(2.4)	5	(3.0)	–	–	7	(4.2)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	**12 179**	**7 001**	**(57.5)**	**1 031**	**(8.5)**	**1 912**	**(15.7)**	**1 340**	**(11.0)**	**0**	**(0.0)**	**895**	**(7.3)**
Total European Region	**14 035**	**8 238**	**(58.7)**	**1 166**	**(8.3)**	**1 973**	**(14.1)**	**1 470**	**(10.5)**	**40**	**(0.3)**	**1 148**	**(8.2)**
Subtotal 18 HPCs	*12 349*	*7 021*	*(56.9)*	*1 069*	*(8.7)*	*1 968*	*(15.9)*	*1 397*	*(11.3)*	*5*	*(0.0)*	*889*	*(7.2)*

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] Excluding relapsed TB cases.
[b] In previous reports defined as "defaulted".
[c] In previous reports defined as "transferred out and unknown".
[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 18. Treatment outcome of new and relapsed[a] TB cases in children (0–14 years) notified in 2021, European Region, 2022

Country/area	New and relapse TB cases reported in 2021[b]	Success		Died		Failed		Lost to follow-up[c]		Still on treatment		Not evaluated[d]	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	13	9	(69.2)	0	(0.0)	0	(0.0)	1	(7.7)	3	(23.1)	0	(0.0)
Belgium[e]	40	34	(85.0)	0	(0.0)	0	(0.0)	2	(5.0)	1	(2.5)	3	(7.5)
Bulgaria	*18*	*13*	*(72.2)*	*0*	*(0.0)*	*(0.0)*	*(0.0)*	*4*	*(22.2)*	*0*	*(0.0)*	*1*	*(5.6)*
Croatia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–
Czechia	12	11	(91.7)	0	(0.0)	0	(0.0)	1	(8.3)	0	(0.0)	0	(0.0)
Denmark[e]	–	–	–	–	–	–	–	–	–	–	–	–	–
Estonia	–	–	–	–	–	–	–	–	–	–	–	–	–
Finland	4	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(75.0)
France	170	59	(34.7)	1	(0.6)	0	(0.0)	5	(2.9)	2	(1.2)	103	(60.6)
Germany	155	124	(80.0)	0	(0.0)	0	(0.0)	5	(3.2)	5	(3.2)	21	(13.5)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Iceland	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland[e]	–	–	–	–	–	–	–	–	–	–	–	–	–
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*13*	*13*	*(100.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands (Kingdom of the)	26	25	(96.2)	0	(0.0)	0	(0.0)	1	(3.8)	0	(0.0)	0	(0.0)
Norway[e]	4	3	(75.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(25.0)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	44	30	(68.2)	0	(0.0)	0	(0.0)	0	(0.0)	13	(29.5)	1	(2.3)
Romania	*278*	*263*	*(94.6)*	*7*	*(2.5)*	*1*	*(0.4)*	*4*	*(1.4)*	*3*	*(1.1)*	*0*	*(0.0)*
Slovakia	40	38	(95.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(5.0)
Slovenia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	106	43	(40.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	63	(59.4)
Sweden	14	13	(92.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(7.1)
Subtotal EU/EEA	**946**	**688**	**(72.7)**	**8**	**(0.8)**	**1**	**(0.1)**	**23**	**(2.4)**	**27**	**(2.9)**	**199**	**(21.0)**
Non-EU/EEA													
Albania	8	8	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Andorra	–	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	*18*	*18*	*(100.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	–	–	*0*	*(0.0)*
Azerbaijan	–	–	–	–	–	–	–	–	–	–	–	–	–
Belarus	*5*	*5*	*(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	*41*	*35*	*(85.4)*	*0*	*(0.0)*	*0*	*(0.0)*	*6*	*(14.6)*	–	–	*0*	*(0.0)*
Israel	10	10	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Kazakhstan	*199*	*191*	*(96.0)*	*2*	*(1.0)*	*6*	*(3.0)*	*0*	*(0.0)*	–	–	*0*	*(0.0)*
Kyrgyzstan	*180*	173	(96.1)	0	(0.0)	2	(1.1)	4	(2.2)	–	–	1	(0.6)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	–	–	–	–	–	–	–	–	–	–	–	–	–
North Macedonia	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Republic of Moldova	71	70	(98.6)	0	(0.0)	0	(0.0)	1	(1.4)	–	–	0	(0.0)
Russian Federation	*1 493*	*1 433*	*(96.0)*	*6*	*(0.4)*	*27*	*(1.8)*	*5*	*(0.3)*	–	–	*22*	*(1.5)*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia excluding Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	7	4	(57.1)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	3	(42.9)
Tajikistan	*204*	*194*	*(95.1)*	*6*	*(2.9)*	*0*	*(0.0)*	*4*	*(2.0)*	–	–	*0*	*(0.0)*
Türkiye	*387*	*285*	*(73.6)*	*14*	*(3.6)*	*1*	*(0.3)*	*6*	*(1.6)*	–	–	*81*	*(20.9)*
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	*364*	*346*	*(95.1)*	*5*	*(1.4)*	*9*	*(2.5)*	*4*	*(1.1)*	–	–	*0*	*(0.0)*
United Kingdom[e]	130	123	(94.6)	0	(0.0)	3	(2.3)	0	(0.0)	–	–	4	(3.1)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	**3 121**	**2 898**	**(92.9)**	**33**	**(1.1)**	**48**	**(1.5)**	**30**	**(1.0)**	**0**	**(0.0)**	**112**	**(3.6)**
Total European Region	**4 067**	**3 586**	**(88.2)**	**41**	**(1.0)**	**49**	**(1.2)**	**53**	**(1.3)**	**27**	**(0.7)**	**311**	**(7.6)**
Subtotal 18 HPCs	*3 271*	*3 039*	*(92.9)*	*40*	*(1.2)*	*46*	*(1.4)*	*38*	*(1.2)*	*3*	*(0.1)*	*105*	*(3.2)*

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] Cases with unknown previous tuberculosis history are included among new TB cases.
[b] For non-EU/EEA countries: patients started on second-line treatment are excluded. For EU/EEA countries: rifampicin-resistant TB cases are excluded.
[c] In previous reports defined as "defaulted".
[d] In previous reports defined as "transferred out and unknown".
[e] Previous TB history is defined by previous diagnosis.
[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 19. Treatment outcome of new and relapsed[a] TB cases of foreign origin notified in 2021, European Region, 2022

Country/area	New and relapse TB cases of foreign origin notified in 2021[b]	Success		Died		Failed		Lost to follow-up[c]		Still on treatment		Not evaluated[d]	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austriae	237	175	(73.8)	14	(5.9)	0	(0.0)	33	(13.9)	15	(6.3)	0	(0.0)
Belgium[e,f]	513	406	(79.1)	12	(2.3)	1	(0.2)	47	(9.2)	8	(1.6)	39	(7.6)
Bulgaria	*1*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*1*	*(100.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Croatia	–	–	–	–	–	–	–	–	–	–	–	–	–
Cyprus	43	23	(53.5)	1	(2.3)	1	(2.3)	3	(7.0)	1	(2.3)	14	(32.6)
Czechia	122	75	(61.5)	17	(13.9)	0	(0.0)	16	(13.1)	5	(4.1)	9	(7.4)
Denmark[f]	139	31	(22.3)	1	(0.7)	0	(0.0)	0	(0.0)	0	(0.0)	107	(77.0)
Estonia	*14*	*10*	*(71.4)*	*3*	*(21.4)*	*0*	*(0.0)*	*1*	*(7.1)*	*0*	*(0.0)*	*0*	*(0.0)*
Finland	69	7	(10.1)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	62	(89.9)
France	2 387	877	(36.7)	42	(1.8)	0	(0.0)	76	(3.2)	20	(0.8)	1 372	(57.5)
Germany	2 665	1 834	(68.8)	154	(5.8)	2	(0.1)	67	(2.5)	85	(3.2)	523	(19.6)
Greece[e]	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary[e]	23	11	(47.8)	1	(4.3)	0	(0.0)	3	(13.0)	0	(0.0)	8	(34.8)
Iceland	5	3	(60.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(40.0)
Ireland[f]	112	5	(4.5)	4	(3.6)	0	(0.0)	0	(0.0)	0	(0.0)	103	(92.0)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*4*	*2*	*(50.0)*	*1*	*(25.0)*	*0*	*(0.0)*	*1*	*(25.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	52	51	(98.1)	1	(1.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands (Kingdom of the)	518	431	(83.2)	20	(3.9)	3	(0.6)	14	(2.7)	11	(2.1)	39	(7.5)
Norway[f]	107	95	(88.8)	2	(1.9)	1	(0.9)	0	(0.0)	3	(2.8)	6	(5.6)
Poland[e]	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	377	226	(59.9)	8	(2.1)	0	(0.0)	23	(6.1)	98	(26.0)	22	(5.8)
Romania	*45*	*36*	*(80.0)*	*2*	*(4.4)*	*0*	*(0.0)*	*7*	*(15.6)*	*0*	*(0.0)*	*0*	*(0.0)*
Slovakia	6	6	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	36	24	(66.7)	5	(13.9)	0	(0.0)	0	(0.0)	6	(16.7)	1	(2.8)
Spain	861	227	(26.4)	15	(1.7)	1	(0.1)	11	(1.3)	6	(0.7)	601	(69.8)
Sweden	297	256	(86.2)	17	(5.7)	0	(0.0)	3	(1.0)	0	(0.0)	21	(7.1)
Subtotal EU/EEA	**8 633**	**4 811**	**(55.7)**	**320**	**(3.7)**	**9**	**(0.1)**	**306**	**(3.5)**	**258**	**(3.0)**	**2 929**	**(33.9)**
Non-EU/EEA													
Albania	0	–	–	–	–	–	–	–	–	–	–	–	–
Andorra	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Armenia	2	1	(50.0)	0	(0.0)	0	(0.0)	1	(50.0)	–	–	0	(0.0)
Azerbaijan	–	–	–	–	–	–	–	–	–	–	–	–	–
Belarus	–	–	–	–	–	–	–	–	–	–	–	–	–
Bosnia and Herzegovina	10	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	10	(100.0)
Georgia	–	–	–	–	–	–	–	–	–	–	–	–	–
Israel	171	145	(84.8)	*15*	*(8.8)*	*7*	*(4.1)*	*4*	*(2.3)*	–	–	*0*	*(0.0)*
Kazakhstan	*80*	*65*	*(81.3)*	*11*	*(13.8)*	*2*	*(2.5)*	*2*	*(2.5)*	–	–	*0*	*(0.0)*
Kyrgyzstan	–	–	–	–	–	–	–	–	–	–	–	–	–
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	1	(50.0)
North Macedonia	0	–	–	–	–	–	–	–	–	–	–	–	–
Republic of Moldova	*13*	*8*	*(61.5)*	*4*	*(30.8)*	*0*	*(0.0)*	*1*	*(7.7)*	–	–	*0*	*(0.0)*
Russian Federation	–	–	–	–	–	–	–	–	–	–	–	–	–
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia excluding Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	265	184	(69.4)	*10*	*(3.8)*	*0*	*(0.0)*	*5*	*(1.9)*	–	–	*66*	*(24.9)*
Tajikistan	10	8	(80.0)	*0*	*(0.0)*	*0*	*(0.0)*	*2*	*(20.0)*	–	–	*0*	*(0.0)*
Türkiye	*1 411*	*997*	*(70.7)*	*96*	*(6.8)*	*6*	*(0.4)*	*99*	*(7.0)*	–	–	*213*	*(15.1)*
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	*26*	*16*	*(61.5)*	*2*	*(7.7)*	*0*	*(0.0)*	*3*	*(11.5)*	–	–	*5*	*(19.2)*
United Kingdom[f]	3 622	3 179	(87.8)	156	(4.3)	53	(1.5)	112	(3.1)	–	–	122	(3.4)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	**5 613**	**4 605**	**(82.0)**	**294**	**(5.2)**	**68**	**(1.2)**	**229**	**(4.1)**	**0**	**(0.0)**	**417**	**(7.4)**
Total European Region	**14 246**	**9 416**	**(66.1)**	**614**	**(4.3)**	**77**	**(0.5)**	**535**	**(3.8)**	**258**	**(1.8)**	**3 346**	**(23.5)**
Subtotal 18 HPCs	***1 606***	***1 143***	***(71.2)***	***119***	***(7.4)***	***8***	***(0.5)***	***118***	***(7.3)***	***0***	***(0.0)***	***218***	***(13.6)***

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] Cases with unknown previous TB history are included among new TB cases.
[b] For non-EU/EEA countries: patients started on second-line treatment are excluded. For EU/EEA countries: rifampicin-resistant TB cases are excluded.
[c] In previous reports defined as "defaulted".
[d] In previous reports defined as "transferred out and unknown".
[e] Origin is based on nationality.
[f] Previous TB history is defined by previous diagnosis.
[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 20. Treatment outcome of HIV-positive new and relapse[a] TB cases notified in 2021, European Region, 2022

Country/area	HIV-positive TB cases notified in 2021[b]	Success		Died		Failed		Lost to follow-up[c]		Still on treatment		Not evaluated[d]	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	–	–	–	–	–	–	–	–	–	–	–	–	–
Belgium[e]	24	22	(91.7)	0	(0.0)	0	(0.0)	2	(8.3)	0	(0.0)	0	(0.0)
Bulgaria	–	–	–	–	–	–	–	–	–	–	–	–	–
Croatia	0	–	–	–	–	–	–	–	–	–	–	–	–
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–
Czechia	5	2	(40.0)	0	(0.0)	0	(0.0)	1	(20.0)	2	(40.0)	0	(0.0)
Denmark[e]	5	0	(0.0)	1	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	4	(80.0)
Estonia	*10*	*7*	*(70.0)*	*2*	*(20.0)*	*0*	*(0.0)*	*1*	*(10.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–	–	–	–	–	–	–
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	1	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)
Iceland	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland[e]	–	–	–	–	–	–	–	–	–	–	–	–	–
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*12*	*10*	*(83.3)*	*2*	*(16.7)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Luxembourg	0	–	–	–	–	–	–	–	–	–	–	–	–
Malta	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands (Kingdom of the)	11	9	(81.8)	1	(9.1)	0	(0.0)	1	(9.1)	0	(0.0)	0	(0.0)
Norway[e]	3	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(66.7)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	89	43	(48.3)	2	(2.2)	0	(0.0)	8	(9.0)	33	(37.1)	3	(3.4)
Romania	*120*	*69*	*(57.5)*	*33*	*(27.5)*	*6*	*(5.0)*	*9*	*(7.5)*	*3*	*(2.5)*	*0*	*(0.0)*
Slovakia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	0	–	–	–	–	–	–	–	–	–	–	–	–
Spain	134	59	(44.0)	13	(9.7)	0	(0.0)	10	(7.5)	2	(1.5)	50	(37.3)
Sweden	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal EU/EEA	**417**	**225**	**(54.0)**	**54**	**(12.9)**	**6**	**(1.4)**	**33**	**(7.9)**	**40**	**(9.6)**	**59**	**(14.1)**
Non-EU/EEA													
Albania	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Andorra	–	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	*23*	*16*	*(69.6)*	*3*	*(13.0)*	*4*	*(17.4)*	*0*	*(0.0)*	–	–	*0*	*(0.0)*
Azerbaijan	–	–	–	–	–	–	–	–	–	–	–	–	–
Belarus	*68*	*48*	*(70.6)*	*12*	*(17.6)*	*1*	*(1.5)*	*7*	*(10.3)*	–	–	*0*	*(0.0)*
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	*35*	*24*	*(68.6)*	*3*	*(8.6)*	*0*	*(0.0)*	*7*	*(20.0)*	–	–	*1*	*(2.9)*
Israel	12	7	(58.3)	2	(16.7)	2	(16.7)	1	(8.3)	–	–	0	(0.0)
Kazakhstan	239	168	(70.3)	51	(21.3)	6	(2.5)	11	(4.6)	–	–	3	(1.3)
Kyrgyzstan	*111*	*63*	*(56.8)*	*30*	*(27.0)*	*6*	*(5.4)*	*12*	*(10.8)*	–	–	*0*	*(0.0)*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	0	–	–	–	–	–	–	–	–	–	–	–	–
North Macedonia	*0*	–	–	–	–	–	–	–	–	–	–	–	–
Republic of Moldova	*150*	*95*	*(63.3)*	*42*	*(28.0)*	*6*	*(4.0)*	*7*	*(4.7)*	–	–	*0*	*(0.0)*
Russian Federation	*10 202*	*4 319*	*(42.3)*	*2 226*	*(21.8)*	*2 149*	*(21.1)*	*819*	*(8.0)*	–	–	*689*	*(6.8)*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia excluding Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo[1]	0	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	*86*	*57*	*(66.3)*	*25*	*(29.1)*	*1*	*(1.2)*	*3*	*(3.5)*	–	–	*0*	*(0.0)*
Türkiye	*85*	*53*	*(62.4)*	*15*	(17.6)	*1*	*(1.2)*	*3*	*(3.5)*	–	–	*13*	*(15.3)*
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	*2 727*	*1 777*	*(65.2)*	*535*	(19.6)	*215*	*(7.9)*	*187*	*(6.9)*	–	–	*13*	*(0.5)*
United Kingdome	–	–	–	–	–	–	–	–	–	–	–	–	–
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	**13 739**	**6 628**	**(48.2)**	**2 944**	**(21.4)**	**2 391**	**(17.4)**	**1 057**	**(7.7)**	**0**	**(0.0)**	**719**	**(5.2)**
Total European Region	**14 156**	**6 853**	**(48.4)**	**2 998**	**(21.2)**	**2 397**	**(16.9)**	**1 090**	**(7.7)**	**40**	**(0.3)**	**778**	**(5.5)**
Subtotal 18 HPCs	*13 868*	*6 706*	*(48.4)*	*2 979*	*(21.5)*	*2 395*	*(17.3)*	*1 066*	*(7.7)*	*3*	*(0.0)*	*719*	*(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. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] Cases with unknown previous TB history are included among new TB cases.
[b] Rifampicin-resistant TB cases are excluded.
[c] In previous reports defined as "defaulted".
[d] In previous reports defined as "transferred out and unknown".
[e] Previous TB history is defined by previous diagnosis.
[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 21. Treatment outcome among new and relapse[a] TB cases in prisons notified in 2021, European Region, 2022

Country/area	New and relapse TB cases in prisons notified in 2021[b]	Success		Died		Failed		Lost to follow-up[c]		Not evaluated[d]	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA											
Austria	–	–	–	–	–	–	–	–	–	–	–
Belgium	20	14	(70.0)	1	(5.0)	0	(0.0)	3	(15.0)	2	(10.0)
Bulgaria	*5*	*5*	*(100.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Croatia	–	–	–	–	–	–	–	–	–	–	–
Cyprus	–	–	–	–	–	–	–	–	–	–	–
Czechia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Denmark	–	–	–	–	–	–	–	–	–	–	–
Estonia	*2*	*2*	*(100.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Finland	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–	–	–	–	–
Greece	–	–	–	–	–	–	–	–	–	–	–
Hungary	4	0	(0.0)	1	(25.0)	1	(25.0)	1	(25.0)	1	(25.0)
Iceland	–	–	–	–	–	–	–	–	–	–	–
Ireland	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)
Italy	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–
Lithuania	–	–	–	–	–	–	–	–	–	–	–
Luxembourg	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Malta	0	–	–	–	–	–	–	–	–	–	–
Netherlands (Kingdom of the)	4	3	(75.0)	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)
Norway	–	–	–	–	–	–	–	–	–	–	–
Poland	–	–	–	–	–	–	–	–	–	–	–
Portugal	22	12	(54.5)	0	(0.0)	0	(0.0)	1	(4.5)	9	(40.9)
Romania	*97*	*80*	*(82.5)*	*5*	*(5.2)*	*0*	*(0.0)*	*8*	*(8.2)*	*4*	*(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	**160**	**121**	**(75.6)**	**8**	**(5.0)**	**1**	**(0.6)**	**13**	**(8.1)**	**17**	**(10.6)**
Non-EU/EEA											
Albania	–	–	–	–	–	–	–	–	–	–	–
Andorra	0	–	–	–	–	–	–	–	–	–	–
Armenia	*11*	*11*	*(100.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Azerbaijan	*112*	*106*	*(94.6)*	*3*	*(2.7)*	*1*	*(0.9)*	*2*	*(1.8)*	*0*	*(0.0)*
Belarus	*17*	*14*	*(82.4)*	*0*	*(0.0)*	*1*	*(5.9)*	*2*	*(11.8)*	*0*	*(0.0)*
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–
Georgia	*21*	*17*	*(81.0)*	*0*	*(0.0)*	*2*	*(9.5)*	*2*	*(9.5)*	*0*	*(0.0)*
Israel	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Kazakhstan	*76*	*69*	*(90.8)*	*0*	*(0.0)*	*2*	*(2.6)*	*2*	*(2.6)*	*3*	*(3.9)*
Kyrgyzstan	*58*	*50*	*(86.2)*	*1*	*(1.7)*	*0*	*(0.0)*	*6*	*(10.3)*	*1*	*(1.7)*
Monaco	–	–	–	–	–	–	–	–	–	–	–
Montenegro	–	–	–	–	–	–	–	–	–	–	–
North Macedonia	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Republic of Moldova	*83*	*71*	*(85.5)*	*3*	*(3.6)*	*3*	*(3.6)*	*6*	*(7.2)*	*0*	*(0.0)*
Russian Federation	*4 007*	*2 296*	*(57.3)*	*109*	*(2.7)*	*360*	*(9.0)*	*143*	*(3.6)*	*1 099*	*(27.4)*
San Marino	–	–	–	–	–	–	–	–	–	–	–
Serbia	–	–	–	–	–	–	–	–	–	–	–
Serbia excluding Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–
Switzerland	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	*38*	*31*	*(81.6)*	*3*	*(7.9)*	*2*	*(5.3)*	*2*	*(5.3)*	*0*	*(0.0)*
Türkiye	*95*	*71*	*(74.7)*	*5*	*(5.3)*	1	*(1.1)*	*7*	*(7.4)*	*11*	*(11.6)*
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–
Ukraine	*384*	*258*	*(67.2)*	*15*	*(3.9)*	47	*(12.2)*	*33*	*(8.6)*	*31*	(8.1)
United Kingdom	20	16	(80.0)	1	(5.0)	0	(0.0)	1	(5.0)	2	(10.0)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	**4 927**	**3 015**	**(61.2)**	**140**	**(2.8)**	**419**	**(8.5)**	**206**	**(4.2)**	**1 147**	**(23.3)**
Total European Region	**5 087**	**3 136**	**(61.6)**	**148**	**(2.9)**	**420**	**(8.3)**	**219**	**(4.3)**	**1 164**	**(22.9)**
Subtotal 18 HPCs	*5 006*	*3 081*	*(61.5)*	*144*	*(2.9)*	*419*	*(8.4)*	*213*	*(4.3)*	*1 149*	*(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.
Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.

[a] Cases with unknown previous TB history are included among new TB cases.
[b] Rifampicin-resistant TB cases are excluded.
[c] In previous reports defined as "defaulted".
[d] In previous reports defined as "transferred out and unknown".
[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 22. Treatment outcome after 24 months of RR/MDR-TB cases started on second-line treatment in 2020, European Region, 2022

Country/area	RR/MDR-TB[a] cases started on second-line treatment[b] in 2020	Success		Died		Failed		Lost to follow up[c]		Still on treatment		Not evaluated[d]	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	2	0	(0.0)	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Belgium	17	11	(64.7)	1	(5.9)	0	(0.0)	1	(5.9)	0	(0.0)	4	(23.5)
Bulgaria	–	–	–	–	–	–	–	–	–	–	–	–	–
Croatia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Cyprus	0	–	–	–	–	–	–	–	–	–	–	–	–
Czechia	11	1	(9.1)	3	(27.3)	0	(0.0)	3	(27.3)	2	(18.2)	2	(18.2)
Denmark	0	–	–	–	–	–	–	–	–	–	–	–	–
Estonia	*20*	*16*	*(80.0)*	*2*	*(10.0)*	*0*	*(0.0)*	*1*	*(5.0)*	*1*	*(5.0)*	*0*	*(0.0)*
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	100	47	(47.0)	3	(3.0)	0	(0.0)	4	(4.0)	7	(7.0)	39	(39.0)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	10	6	(60.0)	0	(0.0)	0	(0.0)	2	(20.0)	1	(10.0)	1	(10.0)
Iceland	0	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	–	–	–	–	–	–	–	–	–	–	–	–	–
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*105*	*53*	*(50.5)*	*21*	*(20.0)*	*2*	*(1.9)*	*7*	*(6.7)*	*22*	*(21.0)*	*0*	*(0.0)*
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands (Kingdom of the)	13	13	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Norway	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	16	13	(81.3)	1	(6.3)	0	(0.0)	0	(0.0)	1	(6.3)	1	(6.3)
Romania	*258*	*124*	*(48.1)*	*53*	*(20.5)*	*45*	*(17.4)*	*30*	*(11.6)*	*6*	*(2.3)*	*0*	*(0.0)*
Slovakia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	6	5	(83.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(16.7)
Subtotal EU/EEA	**566**	**297**	**(52.5)**	**86**	**(15.2)**	**47**	**(8.3)**	**48**	**(8.5)**	**40**	**(7.1)**	**48**	**(8.5)**
Non-EU/EEA													
Albania	4	2	(50.0)	2	(50.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Andorra	–	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	*45*	*28*	*(62.2)*	*2*	*(4.4)*	*5*	*(11.1)*	*10*	*(22.2)*	–	–	*0*	*(0.0)*
Azerbaijan	*586*	*360*	*(61.4)*	*59*	*(10.1)*	*145*	*(24.7)*	*22*	*(3.8)*	–	–	*0*	*(0.0)*
Belarus	*353*	*282*	*(79.9)*	*32*	*(9.1)*	*5*	*(1.4)*	*33*	*(9.3)*	–	–	*1*	*(0.3)*
Bosnia and Herzegovina	0	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	*149*	*113*	*(75.8)*	*4*	*(2.7)*	*2*	*(1.3)*	*23*	*(15.4)*	–	–	*7*	*(4.7)*
Israel	4	3	(75.0)	0	(0.0)	0	(0.0)	1	(25.0)	–	–	0	(0.0)
Kazakhstan	*3 400*	*2 580*	*(75.9)*	*453*	*(13.3)*	*81*	*(2.4)*	*120*	*(3.5)*	–	–	*166*	*(4.9)*
Kyrgyzstan	*835*	*599*	*(71.7)*	*77*	*(9.2)*	*33*	*(4.0)*	*125*	*(15.0)*	–	–	*1*	*(0.1)*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	0	–	–	–	–	–	–	–	–	–	–	–	–
North Macedonia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Republic of Moldova	466	288	(61.8)	65	(13.9)	24	(5.2)	79	(17.0)	–	–	10	(2.1)
Russian Federation	*21 638*	*11 034*	*(51.0)*	*3 476*	*(16.1)*	*2 754*	*(12.7)*	*2 819*	*(13.0)*	–	–	*1 555*	*(7.2)*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Serbia excluding Kosovo[1]	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Tajikistan	*356*	*287*	*(80.6)*	*37*	*(10.4)*	*3*	*(0.8)*	*29*	*(8.1)*	–	–	*0*	*(0.0)*
Türkiye	*132*	*70*	*(53.0)*	*15*	(11.4)	*1*	*(0.8)*	*14*	*(10.6)*	–	–	*32*	*(24.2)*
Turkmenistan	*519*	*311*	*(59.9)*	*89*	(17.1)	*63*	*(12.1)*	*45*	*(8.7)*	–	–	*11*	*(2.1)*
Ukraine	*4 882*	*3 179*	*(65.1)*	*756*	(15.5)	*414*	*(8.5)*	*519*	*(10.6)*	–	–	*14*	*(0.3)*
United Kingdom	42	33	(78.6)	3	(7.1)	1	(2.4)	2	(4.8)	–	–	3	(7.1)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	**33 416**	**19 174**	**(57.4)**	**5 070**	**(15.2)**	**3 531**	**(10.6)**	**3 841**	**(11.5)**	**0**	**(0.0)**	**1 800**	**(5.4)**
Total European Region	**33 982**	**19 471**	**(57.3)**	**5 156**	**(15.2)**	**3 578**	**(10.5)**	**3 889**	**(11.4)**	**40**	**(0.1)**	**1 848**	**(5.4)**
Subtotal 18 HPCs	*33 744*	*19 324*	*(57.3)*	*5 141*	*(15.2)*	*3 577*	*(10.6)*	*3 876*	*(11.5)*	*29*	*(0.1)*	*1 797*	*(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. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; RR/MDR: rifampicin-resistant and multidrug-resistant; TB: tuberculosis.
[a] 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).
[b] For EU/EEA countries, cases diagnosed postmortem are excluded, and cases with no treatment enrolment data reported are assumed to be enrolled in treatment.
[c] In previous reports defined as "defaulted".
[d] In previous reports defined as "transferred out and unknown".
[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 23. Treatment outcome after 24 months of pre-XDR-TB cases started on second-line treatment in 2020, European Region, 2022

Country/area	Pre-XDR-TB[a] cases started on second-line treatment in 2020[b]	Success		Died		Failed		Lost to follow-up[c]		Still on treatment		Not evaluated[d]	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	0	–	–	–	–	–	–	–	–	–	–	–	–
Belgium	3	2	(66.7)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)	0	(0.0)
Bulgaria	–	–	–	–	–	–	–	–	–	–	–	–	–
Croatia	0	–	–	–	–	–	–	–	–	–	–	–	–
Cyprus	0	–	–	–	–	–	–	–	–	–	–	–	–
Czechia	3	1	(33.3)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)	1	(33.3)
Denmark	0	–	–	–	–	–	–	–	–	–	–	–	–
Estonia	*5*	*3*	*(60.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*1*	*(20.0)*	*1*	*(20.0)*	*0*	*(0.0)*
Finland	0	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	14	6	(42.9)	1	(7.1)	0	(0.0)	1	(7.1)	1	(7.1)	5	(35.7)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	0	–	–	–	–	–	–	–	–	–	–	–	–
Iceland	0	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	0	–	–	–	–	–	–	–	–	–	–	–	–
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*34*	*1*	*(2.9)*	*7*	*(20.6)*	*1*	*(2.9)*	*3*	*(8.8)*	*22*	*(64.7)*	*0*	*(0.0)*
Luxembourg	0	–	–	–	–	–	–	–	–	–	–	–	–
Malta	0	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands (Kingdom of the)	0	–	–	–	–	–	–	–	–	–	–	–	–
Norway	0	–	–	–	–	–	–	–	–	–	–	–	–
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	0	–	–	–	–	–	–	–	–	–	–	–	–
Romania	*30*	*5*	*(16.7)*	*3*	*(10.0)*	*11*	*(36.7)*	*8*	*(26.7)*	*3*	*(10.0)*	*0*	*(0.0)*
Slovakia	0	–	–	–	–	–	–	–	–	–	–	–	–
Slovenia	0	–	–	–	–	–	–	–	–	–	–	–	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Subtotal EU/EEA	**91**	**20**	**(22.0)**	**11**	**(12.1)**	**12**	**(13.2)**	**15**	**(16.5)**	**27**	**(29.7)**	**6**	**(6.6)**
Non-EU/EEA													
Albania	0	–	–	–	–	–	–	–	–	–	–	–	–
Andorra	–	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	*7*	*4*	*(57.1)*	*0*	*(0.0)*	*2*	*(28.6)*	*1*	*(14.3)*	–	–	*0*	*(0.0)*
Azerbaijan	69	43	(62.3)	7	(10.1)	13	(18.8)	6	(8.7)	–	–	0	(0.0)
Belarus	*455*	*349*	*(76.7)*	*44*	*(9.7)*	*18*	*(4.0)*	*44*	*(9.7)*	–	–	*0*	*(0.0)*
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	*44*	*30*	*(68.2)*	*2*	*(4.5)*	*3*	*(6.8)*	*7*	*(15.9)*	–	–	*2*	*(4.5)*
Israel	1	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)	–	–	0	(0.0)
Kazakhstan	*1 178*	*934*	*(79.3)*	*144*	*(12.2)*	*53*	*(4.5)*	*39*	*(3.3)*	–	–	*8*	*(0.7)*
Kyrgyzstan	*67*	*41*	*(61.2)*	*12*	*(17.9)*	*4*	*(6.0)*	*10*	*(14.9)*	–	–	*0*	*(0.0)*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	0	–	–	–	–	–	–	–	–	–	–	–	–
North Macedonia	*0*	–	–	–	–	–	–	–	–	–	–	–	–
Republic of Moldova	71	36	(50.7)	12	(16.9)	8	(11.3)	13	(18.3)	–	–	2	(2.8)
Russian Federation	*6 201*	*2 857*	*(46.1)*	*1 142*	*(18.4)*	*1 126*	*(18.2)*	*700*	*(11.3)*	–	–	*376*	*(6.1)*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia excluding Kosovo[1]	0	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Tajikistan	*103*	*72*	*(69.9)*	*18*	*(17.5)*	*5*	*(4.9)*	*8*	*(7.8)*	–	–	*0*	*(0.0)*
Türkiye	*14*	*7*	*(50.0)*	*1*	*(7.1)*	*0*	*(0.0)*	*1*	*(7.1)*	–	–	*5*	*(35.7)*
Turkmenistan	264	157	(59.5)	60	(22.7)	18	(6.8)	27	(10.2)	–	–	2	(0.8)
Ukraine	–	–	–	–	–	–	–	–	–	–	–	–	–
United Kingdom	12	10	(83.3)	1	(8.3)	0	(0.0)	1	(8.3)	–	–	0	(0.0)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	**8 487**	**4 541**	**(53.5)**	**1 443**	**(17.0)**	**1 250**	**(14.7)**	**858**	**(10.1)**	**0**	**(0.0)**	**395**	**(4.7)**
Total European Region	**8 578**	**4 561**	**(53.2)**	**1 454**	**(17.0)**	**1 262**	**(14.7)**	**873**	**(10.2)**	**27**	**(0.3)**	**401**	**(4.7)**
Subtotal 18 HPCs	*8 542*	*4 539*	*(53.1)*	*1 452*	*(17.0)*	*1 262*	*(14.8)*	*868*	*(10.2)*	*26*	*(0.3)*	*395*	*(4.6)*

Note: European Region comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis; XDR-TB: extensively drug-resistant tuberculosis.
[a] 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).
[b] For EU/EEA countries, cases diagnosed postmortem are excluded, and cases with no treatment enrolment data reported are assumed to be enrolled in treatment.
[c] In previous reports defined as "defaulted".
[d] In previous reports defined as "transferred out and unknown".
[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 24. Treatment outcome after 36 months of XDR-TB notified in 2019, EU/EEA, 2022

Country	XDR-TB[a] cases reported in 2019	Success		Died		Failed		Lost to follow-up[b]		Not evaluated[c]	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA											
Austria	0	–	–	–	–	–	–	–	–	–	–
Belgium	0	–	–	–	–	–	–	–	–	–	–
Bulgaria	–	–	–	–	–	–	–	–	–	–	–
Croatia	0	–	–	–	–	–	–	–	–	–	–
Cyprus	0	–	–	–	–	–	–	–	–	–	–
Czechia	0	–	–	–	–	–	–	–	–	–	–
Denmark	0	–	–	–	–	–	–	–	–	–	–
Estonia	*2*	*0*	*(0.0)*	*0*	*(0.0)*	*1*	*(50.0)*	*1*	*(50.0)*	*0*	*(0.0)*
Finland	0	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–	–	–	–	–
Greece	–	–	–	–	–	–	–	–	–	–	–
Hungary	0	–	–	–	–	–	–	–	–	–	–
Iceland	–	–	–	–	–	–	–	–	–	–	–
Ireland	0	–	–	–	–	–	–	–	–	–	–
Italy	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*0*	–	–	–	–	–	–	–	–	–	–
Luxembourg	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–
Netherlands (Kingdom of the)	0	–	–	–	–	–	–	–	–	–	–
Norway	0	–	–	–	–	–	–	–	–	–	–
Poland	–	–	–	–	–	–	–	–	–	–	–
Portugal	0	–	–	–	–	–	–	–	–	–	–
Romania	*0*	–	–	–	–	–	–	–	–	–	–
Slovakia	0	–	–	–	–	–	–	–	–	–	–
Slovenia	0	–	–	–	–	–	–	–	–	–	–
Spain	–	–	–	–	–	–	–	–	–	–	–
Sweden	0	–	–	–	–	–	–	–	–	–	–
Total EU/EEA	**2**	**0**	**(0.0)**	**0**	**(0.0)**	**1**	**(50.0)**	**1**	**(50.0)**	**0**	**(0.0)**

Note: WHO European Region five TB high-priority countries in the EU/EEA are presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug-susceptibility data are also required.
EEA: European Economic Area; EU: European Union; N: number; TB: tuberculosis; XDR-TB: extensively drug-resistant tuberculosis.
[a] XDR-TB is defined as resistance to rifampicin and to at least one fluoroquinolone (pre-XDR-TB), as well as resistance to at least one additional Group A drug. For EU/EEA countries, XDR-TB is assessed on resistance to levofloxacin, moxifloxacin and/or bedaquiline and linezolid (in addition to meeting pre-XDR-TB criteria).
[b] In previous reports defined as "defaulted".
[c] In previous reports defined as "transferred out and unknown".

Table 25. Monitoring framework for follow-up of the TB action plan for the WHO European Region 2023–2030, 2022

Country	1. Integrated, patient-centred care and prevention											
	People at the centre: a shared approach on partnerships with PHC, public health , civil society and affected communities for united action		Comprehensive TB prevention, including programmatic management of TB preventive treatment, infection prevention and control and vaccination against TB		Systematic screening for TB disease among contact people, high-risk groups and other people who are vulnerable or in vulnerable situations	Early diagnosis of all forms of TB and universal access to DST, including the use of rapid tests							
	1.A.1 Number of Member States with adopted standards and operational procedures for CSOs in the provision of psychosocial support services to ensure treatment adherence for people with TB[a]	1.A.2 Number of Member States with adopted procedures of subcontracting mechanisms under the state funds or other relevant funding mechanisms for CSOs in the provision of psychosocial support and active case finding services for people with TB[a]	1.B.1 TPT coverage (%) among PLHIV (G). Target: ≥ 99%	1.B.2 TPT coverage (%) in childhood TB contacts aged < 5 years (E) (G). Target: ≥ 95%	1.C.1 Coverage of contacts with systematic screening for active TB (G). Target: ≥ 90%	1.D.1 Percentage of notified new and relapse TB patients tested using WHO-recommended rapid diagnostic tests (G). Target: ≥ 95%	1.D.2 Bacteriological confirmation: Percentage of new and relapse pulmonary TB patients who are bacteriologically confirmed. Target: 90%	1.D.3 Testing for drug resistance: Percentage of people diagnosed with bacteriologically confirmed pulmonary TB who had a documented susceptibility test result for rifampicin (G). Target: 100%	1.D.4 Testing for additional drug resistance: Percentage of people with RR-TB who had a documented susceptibility test result for fluoroquinolones. Target: 100%	1.D.5 RR/MDR-TB case-detection rate (%). Target: ≥ 95%[a]	1.D.6 TB case-detection rate (%). Target: ≥ 85%	1.D.7 TB incidence rate per 100 000 population (E). Target: ≥ 85% reduction	1.D.8 RR/MDR-TB notification rate per 100 000 population. Target: 1–5% annual reduction[a]
EU/EEA													
Austria	N/A	N/A	–	–	–	(74.0)	(94.4)	(93.7)	(100.0)	N/A	(93.8)	4.4	N/A
Belgium	N/A	N/A	–	–	–	(74.8)	(91.0)	(95.3)	(63.6)	N/A	(86.4)	7.8	N/A
Bulgaria	–	–	–	*(100.0)*	*(98.9)*	*(0.1)*	*(59.7)*	*(64.0)*	*(100.0)*	*(35.7)*	*(69.5)*	*16.0*	*(0.1)*
Croatia	N/A	N/A	–	–	–	(0.0)	(83.5)	(96.7)	(0.0)	N/A	(187.3)	2.7	N/A
Cyprus	N/A	N/A	–	–	–	(58.5)	(93.8)	(97.1)	(100.0)	N/A	(94.0)	8.3	N/A
Czechia	N/A	N/A	–	–	–	(86.3)	(92.5)	(91.3)	(81.3)	N/A	(86.1)	4.2	N/A
Denmark	N/A	N/A	–	–	–	(88.3)	(81.7)	(99.3)	(100.0)	N/A	(85.4)	4.0	N/A
Estonia	–	–	–	*(100.0)*	–	*(88.8)*	*(89.7)*	*(100.0)*	*(87.5)*	*(77.4)*	*(89.3)*	*11.0*	*(1.8)*
Finland	N/A	N/A	–	–	–	(66.8)	(96.1)	(96.4)	(100.0)	N/A	(86.4)	3.9	N/A
France	N/A	N/A	–	(100.0)	(78.5)	(0.0)	(68.0)	(4.0)	(98.0)	N/A	(81.5)	7.2	N/A
Germany	N/A	N/A	–	–	–	(86.6)	(89.6)	(91.2)	(72.7)	N/A	(90.5)	5.1	N/A
Greece	N/A	N/A	–	–	–	(68.2)	(92.3)	(73.7)	(0.0)	N/A	(131.3)	2.2	N/A
Hungary	N/A	N/A	–	–	–	(0.0)	(58.7)	(92.1)	(100.0)	N/A	(87.0)	5.0	N/A
Iceland	N/A	N/A	–	–	–	(68.8)	(100.0)	(100.0)	(100.0)	N/A	(88.9)	4.9	N/A
Ireland	N/A	N/A	–	–	–	(41.1)	(62.4)	(92.5)	(55.6)	N/A	(85.7)	4.5	N/A
Italy	N/A	N/A	–	–	–	(16.6)	(89.1)	(74.4)	(69.2)	N/A	(85.0)	4.6	N/A
Latvia	–	–	–	–	–	(83.3)	(92.7)	(88.7)	(88.0)	(80.0)	(87.4)	19.0	(1.3)
Liechtenstein	N/A	N/A	–	–	–	(100.0)	(100.0)	(0.0)	(0.0)	N/A	–	–	N/A
Lithuania	–	–	–	–	–	*(0.0)*	*(94.2)*	*(100.0)*	*(55.8)*	*(86.9)*	*(87.2)*	*30.0*	*(4.0)*
Luxembourg	N/A	N/A	–	–	–	(46.8)	(93.9)	(74.2)	(0.0)	N/A	(87.0)	8.3	N/A
Malta	N/A	N/A	–	(0.0)	(100.0)	(0.0)	(68.9)	(100.0)	(0.0)	N/A	(87.0)	13.0	N/A
Netherlands (Kingdom of the)	N/A	N/A	–	(79.0)	–	(81.0)	(89.1)	(98.7)	(87.5)	N/A	(86.8)	4.1	N/A
Norway	N/A	N/A	–	(100.0)	–	(92.1)	(94.2)	(99.0)	(100.0)	N/A	(84.4)	3.3	N/A
Poland	N/A	N/A	–	–	–	(41.2)	(85.2)	(91.1)	(43.3)	N/A	(87.8)	12.0	N/A
Portugal	N/A	N/A	–	(100.0)	(80.1)	(38.6)	(86.3)	(63.3)	(50.0)	N/A	(92.3)	16.0	N/A
Romania	–	–	–	–	–	*(45.4)*	*(91.3)*	*(90.7)*	*(20.6)*	*(79.4)*	*(88.2)*	*52.0*	*(1.4)*
Slovakia	N/A	N/A	–	–	–	(30.3)	(61.7)	(100.0)	(100.0)	N/A	(88.8)	2.9	N/A
Slovenia	N/A	N/A	–	(100.0)	(91.6)	(86.1)	(96.6)	(100.0)	(100.0)	N/A	(86.7)	3.9	N/A
Spain	N/A	N/A	–	–	–	(43.7)	(83.8)	(78.2)	(12.9)	N/A	(78.2)	6.9	N/A
Sweden	N/A	N/A	–	–	–	(92.4)	(94.8)	(99.1)	(100.0)	N/A	(87.1)	3.9	N/A
Subtotal EU/EEA	**–**	**–**	**–**	**(98.5)**	**(83.6)**	**(43.1)**	**(85.5)**	**(83.2)**	**(53.8)**	**N/A**	**(85.8)**	**8.6**	**–**

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 tuberculosis high-priority countries presented in italics. Numbers in red indicate that the target is not met, numbers in green that the target is met. Black text indicates that the indicator cannot be assessed.
CSO: civil society organization; DST: drug susceptibility testing; E: WHO European Region indicator; EEA: European Economic Area; EU: European Union; G: End TB Strategy global indicator; HPCs: high-priority countries; LTBI: latent tuberculosis infection; N: number; N/A: not applicable; PHC: primary health care; PLHIV: people living with HIV; RR/MDR: rifampicin resistant/multidrug-resistant; TB: tuberculosis; TBD: to be determined; TPT: TB preventive treatment.
[a] The indicator is only relevant to the 18 HPCs.
[b] For some non-EU/EEA countries and areas, patients who were diagnosed before 2022 but started on treatment in 2022 are included, resulting in an over 100% coverage.

1. Integrated, patient-centred care and prevention											
Equitable access to quality treatment and care for all people with TB, including those with drug-resistant TB and TB comorbidities; and support for patients to facilitate treatment adherence											Country
1.E.1 Percentage of patients starting first-line TB treatment at the outpatient health-care level (E). Target: documented increase[a]	1.E.2 Percentage of notified RR/MDR-TB patients enrolled in treatment (E) (G). Target: ≥ 99%[b]	1.E.3 Treatment success rate (%) among all new and relapse TB patients (E) (G). Target: ≥ 90%	1.E.4 Treatment success rate (%) among the RR/MDR-TB treatment cohort (E) (G): Target ≥ 85%	1.E.5 Treatment success rate (%) among the pre-XDR-TB treatment cohort (E) (G). Target: ≥ 80%	1.E.6 Total number of TB deaths (E) (G). Target: ≥ 85%	1.E.7 TB/HIV case-detection rate (%). Target: close to 100%[a]	1.E.8 HIV testing coverage (%) (E) (G). Target: 100%	1.E.9 Percentage of HIV positives among new and relapse TB patients with documented test results (E). Target: decrease	1.E.10 ART coverage (%) among TB/HIV patients. Target: close to 100%	1.E.11 Screening of TB patients for mental health and substance use disorders. Target: close to 100%	
											EU/EEA
N/A	(100.0)	(74.6)	(0.0)	–	29	N/A	–	–	–	–	Austria
N/A	(100.0)	(78.0)	(64.7)	(66.7)	33	N/A	(51.5)	(4.4)	–	–	Belgium
–	*(100.0)*	*(79.0)*	–	–	*95*	–	*(71.2)*	*(0.9)*	–	–	*Bulgaria*
N/A	(100.0)	(46.5)	(100.0)	–	35	N/A	(2.9)	(0.0)	–	–	Croatia
N/A	(100.0)	(51.1)	–	–	5	N/A	(55.3)	(19.2)	–	–	Cyprus
N/A	(100.0)	(67.5)	(9.1)	(33.3)	16	N/A	(65.2)	(2.0)	–	–	Czechia
N/A	(0.0)	(20.1)	–	–	10	N/A	(72.2)	(2.7)	–	–	Denmark
–	*(100.0)*	*(83.7)*	*(80.0)*	*(60.0)*	*9*	*(85.7)*	*(93.6)*	*(5.1)*	*(100.0)*	–	*Estonia*
N/A	(100.0)	(6.6)	–	–	30	N/A	–	–	–	–	Finland
N/A	(100.0)	(36.8)	–	–	440	N/A	–	–	–	–	France
N/A	(95.1)	(66.6)	(47.0)	(42.9)	270	N/A	–	–	–	–	Germany
N/A	(100.0)	–	–	–	43	N/A	(68.9)	(4.3)	–	–	Greece
N/A	(100.0)	(63.6)	(60.0)	–	63	N/A	(3.4)	(13.3)	–	–	Hungary
N/A	(100.0)	(57.1)	–	–	2	N/A	–	–	–	–	Iceland
N/A	(100.0)	(3.4)	–	–	19	N/A	(36.5)	(6.9)	(60.0)	–	Ireland
N/A	–	–	–	–	300	N/A	–	–	–	–	Italy
–	(78.3)	–	–	–	54	(87.5)	(100.0)	(9.2)	–	–	*Latvia*
N/A	–	(100.0)	–	–	–	N/A	–	–	–	–	Liechtenstein
–	*(100.0)*	*(86.4)*	*(50.5)*	*(2.9)*	*85*	–	*(96.0)*	*(2.7)*	–	–	*Lithuania*
N/A	(100.0)	–	–	–	1	N/A	(68.1)	(3.1)	–	–	Luxembourg
N/A	(100.0)	(98.1)	(100.0)	–	1	N/A	(100.0)	(0.0)	–	–	Malta
N/A	(40.0)	(81.8)	(100.0)	–	22	N/A	(70.1)	(4.1)	(61.1)	–	Netherlands (Kingdom of the)
N/A	(100.0)	(86.8)	(100.0)	–	19	N/A	(80.9)	(3.3)	–	–	Norway
N/A	(100.0)	–	–	–	530	N/A	–	–	–	–	Poland
N/A	(100.0)	(67.8)	(81.3)	–	240	N/A	(75.7)	(9.5)	–	–	Portugal
–	*(100.0)*	*(81.2)*	*(48.1)*	*(16.7)*	*730*	*(72.2)*	*(83.5)*	*(1.8)*	–	–	*Romania*
N/A	(100.0)	(87.8)	(100.0)	–	14	N/A	(52.8)	(2.7)	–	–	Slovakia
N/A	–	(74.4)	(100.0)	–	14	N/A	(84.7)	(0.0)	–	–	Slovenia
N/A	(100.0)	(37.4)	–	–	170	N/A	(52.4)	(11.5)	–	–	Spain
N/A	(100.0)	(85.0)	(83.3)	(100.0)	23	N/A	–	–	–	–	Sweden
–	**(97.4)**	**(64.0)**	**(52.5)**	(22.0)	**3300**	**–**	**(72.6)**	**(3.9)**	**(3.8)**	**–**	**Subtotal EU/EEA**

Table 25 contd.

Country	2. Bold policies and supportive systems					3. Intensified research and innovation
	Governance and leadership	Health finance and universal health coverage		Health workforce including community health workers	Strategic information and digital health	Discovery, development and rapid uptake of new tools, interventions and strategies
	2.A.1 Number of Member States that have a TB control strategy document publicly available that includes targets for reduction in TB mortality and incidence in line with regional and global targets	2.B.1 Percentage of TB affected households that experience catastrophic costs due to TB (G) (E). Target: 0%[a]	2.C.1 Proportion of people with TB found through active case-finding activities implemented through CSOs. Target: TBD[a]	2.C.2 Proportion of people with TB who started TB treatment and who received any form of treatment adherence support from CSOs (including psychosocial support). Target: TBD[a]	2.D.1 Proportion of individuals who received TB treatment and care using digital adherence technologies (e.g. video-supported treatment of TB). Target: ≥ 40%[a]	3.A.1 Number of Member States with a standalone national TB research agenda or research priorities integrated in the national TB strategic plans or relevant policies
EU/EEA						
Austria	–	N/A	N/A	N/A	N/A	–
Belgium	–	N/A	N/A	N/A	N/A	–
Bulgaria	–	–	–	–	–	–
Croatia	–	N/A	N/A	N/A	N/A	–
Cyprus	–	N/A	N/A	N/A	N/A	–
Czechia	–	N/A	N/A	N/A	N/A	–
Denmark	–	N/A	N/A	N/A	N/A	–
Estonia	–	–	–	–	–	–
Finland	–	N/A	N/A	N/A	N/A	–
France	–	N/A	N/A	N/A	N/A	–
Germany	–	N/A	N/A	N/A	N/A	–
Greece	–	N/A	N/A	N/A	N/A	–
Hungary	–	N/A	N/A	N/A	N/A	–
Iceland	–	N/A	N/A	N/A	N/A	–
Ireland	–	N/A	N/A	N/A	N/A	–
Italy	–	N/A	N/A	N/A	N/A	–
Latvia	–	–	–	–	–	–
Liechtenstein	–	N/A	N/A	N/A	N/A	–
Lithuania	–	–	–	–	–	–
Luxembourg	–	N/A	N/A	N/A	N/A	–
Malta	–	N/A	N/A	N/A	N/A	–
Netherlands (Kingdom of the)	–	N/A	N/A	N/A	N/A	–
Norway	–	N/A	N/A	N/A	N/A	–
Poland	–	N/A	N/A	N/A	N/A	–
Portugal	–	N/A	N/A	N/A	N/A	–
Romania	–	–	–	–	–	–
Slovakia	–	N/A	N/A	N/A	N/A	–
Slovenia	–	N/A	N/A	N/A	N/A	–
Spain	–	N/A	N/A	N/A	N/A	–
Sweden	–	N/A	N/A	N/A	N/A	–
Subtotal EU/EEA						

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 tuberculosis high-priority countries presented in italics. Numbers in red indicate that the target is not met, numbers in green that the target is met. Black text indicates that the indicator cannot be assessed. CSO: civil society organization; DST: drug susceptibility testing; E: WHO European Region indicator; EEA: European Economic Area; EU: European Union; G: End TB Strategy global indicator; HPCs: high-priority countries; LTBI: latent tuberculosis infection; N: number; N/A: not applicable; PHC: primary health care; PLHIV: people living with HIV; RR/MDR: rifampicin resistant/multidrug-resistant; TB: tuberculosis; TBD: to be determined; TPT: TB preventive treatment.

[a] The indicator is only relevant to the 18 HPCs.

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

Table 25 contd.

Country/area	1. Integrated, patient-centred care and prevention												
	People at the centre: a shared approach on partnerships with PHC, public health , civil society and affected communities for united action		Comprehensive TB prevention, including programmatic management of TB preventive treatment, infection prevention and control and vaccination against TB		Systematic screening for TB disease among contact people, high-risk groups and other people who are vulnerable or in vulnerable situations	Early diagnosis of all forms of TB and universal access to DST, including the use of rapid tests							
	1.A.1 Number of Member States with adopted standards and operational procedures for CSOs in the provision of psychosocial support services to ensure treatment adherence for people with TB[a]	1.A.2 Number of Member States with adopted procedures of subcontracting mechanisms under the state funds or other relevant funding mechanisms for CSOs in the provision of psychosocial support and active case finding services for people with TB[a]	1.B.1 TPT coverage (%) among PLHIV (G). Target: ≥ 99%	1.B.2 TPT coverage (%) in childhood TB contacts aged < 5 years (E) (G). Target: ≥ 95%	1.C.1 Coverage of contacts with systematic screening for active TB (G). Target: ≥ 90%	1.D.1 Percentage of notified new and relapse TB patients tested using WHO-recommended rapid diagnostic tests (G). Target: ≥ 95%	1.D.2 Bacteriological confirmation: Percentage of new and relapse pulmonary TB patients who are bacteriologically confirmed. Target: 90%	1.D.3 Testing for drug resistance: Percentage of people diagnosed with bacteriologically confirmed pulmonary TB who had a documented susceptibility test result for rifampicin (G). Target: 100%	1.D.4 Testing for additional drug resistance: Percentage of people with RR-TB who had a documented susceptibility test result for fluoroquinolones. Target: 100%	1.D.5 RR/MDR-TB case-detection rate (%). Target: ≥ 95%[a]	1.D.6 TB case-detection rate (%). Target: ≥ 85%	1.D.7 TB incidence rate per 100 000 population (E). Target: ≥ 85% reduction	1.D.8 RR/MDR-TB notification rate per 100 000 population. Target: 1–5% annual reduction[a]
Non-EU/EEA													
Albania	N/A	N/A	–	(27.0)	(56.7)	(90.1)	(76.4)	(92.6)	(0.0)	N/A	(68.0)	15.0	N/A
Andorra	N/A	N/A	–	–	(100.0)	(0.0)	(100.0)	(100.0)	–	N/A	(87.0)	5.8	N/A
Armenia	–	–	*(44.7)*	*(40.0)*	*(91.3)*	*(86.1)*	*(77.1)*	*(100.0)*	*(96.4)*	*(87.5)*	*(63.0)*	*25.0*	*(2.0)*
Azerbaijan	–	–	(76.6)	(100.0)	–	(95.1)	(79.9)	(99.0)	(91.5)	(105.5)	(57.0)	68.0	(6.6)
Belarus	–	–	*(15.2)*	*(100.0)*	*(100.0)*	*(96.2)*	*(96.3)*	*(100.0)*	*(100.0)*	(90.1)	*(64.0)*	*28.0*	*(7.6)*
Bosnia and Herzegovina	N/A	N/A	–	–	–	N/A	(92.1)	(98.4)	–	N/A	(55.0)	24.0	N/A
Georgia	–	–	–	*(17.0)*	–	*(0.0)*	*(94.3)*	*(97.0)*	*(87.9)*	(82.5)	*(68.0)*	*60.0*	*(4.4)*
Israel	N/A	N/A	–	–	–	N/A	(71.3)	(100.0)	(100.0)	N/A	(87.0)	2.6	N/A
Kazakhstan	–	–	*(73.0)*	*(60.0)*	*(100.0)*	*(99.7)*	*(91.1)*	*(100.0)*		(103.9)	*(66.0)*	*78.0*	*(17.7)*
Kyrgyzstan	–	–	*(33.8)*	*(19.0)*	*(97.4)*	*(84.3)*	*(67.6)*	*(95.5)*	*(86.3)*	(82.2)	(53.0)	*130.0*	*(11.8)*
Monaco	N/A	N/A	–	–	–	N/A	–	–	–	N/A	(0.0)	1.1	N/A
Montenegro	N/A	N/A	–	–	(63.3)	(95.8)	(92.2)	(100.0)	–	N/A	(79.0)	14.0	N/A
North Macedonia	*N/A*	*N/A*	–	–	–	*N/A*	*(96.8)*	*(95.9)*	*(0.0)*	*N/A*	*(64.0)*	*11.0*	*N/A*
Republic of Moldova	–	–	(20.8)	(100.0)	(87.0)	(91.5)	(73.2)	(100.0)	(100.0)	(87.3)	(87.0)	74.0	(13.1)
Russian Federation	–	–	–	*(100.0)*	–	*(87.9)*	*(58.1)*	*(93.9)*	*(92.0)*	(90.7)	(100.0)	*39.0*	*(13.2)*
San Marino	N/A	N/A	–	–	–	N/A	–	–	–	N/A	(0.0)	0.0	N/A
Serbia	N/A	N/A	–	–	(78.6)	N/A	(66.4)	(34.0)	(0.0)	N/A	(100.0)	14.0	N/A
Serbia excluding Kosovo[1]	N/A	N/A	–	–	–	N/A	(91.1)	(34.0)	(0.0)	N/A	–	–	N/A
Kosovo[1]	N/A	N/A	–	–	–	N/A	(43.9)	(0.0)	–	N/A	–	–	N/A
Switzerland	*N/A*	*N/A*	–	*(100.0)*	*(100.0)*	*N/A*	*(92.5)*	*(100.0)*	*(100.0)*	N/A	(87.0)	*4.6*	*N/A*
Tajikistan	–	–	*(90.6)*	*(100.0)*	–	*(86.7)*	*(65.4)*	*(99.4)*	*(80.7)*	(84.9)	(55.0)	*78.0*	*(5.2)*
Türkiye	–	–	–	(100.0)	(119.4)	N/A	(78.7)	(88.5)	(66.2)	(98.7)	(83.0)	14.0	(0.2)
Turkmenistan	–	–	–	*(100.0)*	(100.0)	*(78.6)*	*(47.6)*	*(100.0)*	–	(80.4)	(81.0)	*48.0*	*(6.3)*
Ukraine	–	–	(80.1)	(74.0)	(91.9)	(95.3)	(73.0)	(97.0)	(86.3)	(82.9)	(52.0)	90.0	(9.2)
United Kingdom	*N/A*	*N/A*	–	–	–	*N/A*	*(83.4)*	*(90.6)*	*(100.0)*	N/A	(92.0)	*7.6*	*N/A*
Uzbekistan	–	–	–	–	–	*(96.0)*	*(71.3)*	*(100.0)*	*(100.0)*	(100.0)	(50.0)	*83.0*	*(4.3)*
Subtotal non-EU/EEA	**N/A**	**N/A**	**(67.7)**	**(71.9)**	**(99.4)**	**(89.9)**	**(68.1)**	**(95.5)**	**(81.4)**	**N/A**	**(71.7)**	**40**	**N/A**
Total European Region	**N/A**	**N/A**	**(67.7)**	**(72.2)**	**(98.1)**	**(79.7)**	**(71.5)**	**(93.1)**	**(80.6)**	**N/A**	**(74.4)**	**25**	**N/A**
Subtotal 18 HPCs	–	–	*(67.7)*	*(71.9)*	*(99.5)*	*(85.9)*	*(69.3)*	*(95.4)*	*(80.8)*	*(91.0)*	*(72.0)*	*48*	*N/A*

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 tuberculosis high-priority countries presented in italics. Numbers in red indicate that the target is not met, numbers in green that the target is met. Black text indicates that the indicator cannot be assessed.
CSO: civil society organization; DST: drug susceptibility testing; E: WHO European Region indicator; EEA: European Economic Area; EU: European Union; G: End TB Strategy global indicator; HPCs: high-priority countries; LTBI: latent tuberculosis infection; N: number; N/A: not applicable; PHC: primary health care; PLHIV: people living with HIV; RR/MDR: rifampicin resistant/multidrug-resistant; TB: tuberculosis; TBD: to be determined; TPT: TB preventive treatment.
[a] The indicator is only relevant to the 18 HPCs.
[b] For some non-EU/EEA countries and areas, patients who were diagnosed before 2022 but started on treatment in 2022 are included, resulting in an over 100% coverage.
[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).

1. Integrated, patient-centred care and prevention											
Equitable access to quality treatment and care for all people with TB, including those with drug-resistant TB and TB comorbidities; and support for patients to facilitate treatment adherence											Country/area
1.E.1 Percentage of patients starting first-line TB treatment at the outpatient health-care level (E). Target: documented increase[a]	1.E.2 Percentage of notified RR/MDR-TB patients enrolled in treatment (E) (G). Target: ≥ 99%[b]	1.E.3 Treatment success rate (%) among all new and relapse TB patients (E) (G). Target: ≥ 90%	1.E.4 Treatment success rate (%) among the RR/MDR-TB treatment cohort (E) (G). Target ≥ 85%	1.E.5 Treatment success rate (%) among the pre-XDR-TB treatment cohort (E) (G). Target: ≥ 80%	1.E.6 Total number of TB deaths (E) (G). Target: ≥ 85%	1.E.7 TB/HIV case-detection rate (%). Target: close to 100%[a]	1.E.8 HIV testing coverage (%) (E) (G). Target: 100%	1.E.9 Percentage of HIV positives among new and relapse TB patients with documented test results (E). Target: decrease	1.E.10 ART coverage (%) among TB/HIV patients. Target: close to 100%	1.E.11 Screening of TB patients for mental health and substance use disorders. Target: close to 100%	
											Non-EU/EEA
N/A	(100.0)	(90.0)	(50.0)	–	7	N/A	(90.1)	(0.4)	(100.0)	–	Albania
N/A	–	(100.0)	–	–	0	N/A	–	–	–	–	Andorra
–	*(100.0)*	*(85.8)*	*(62.2)*	*(57.1)*	*10*	*(59.1)*	*(93.4)*	*(9.5)*	*(89.7)*	–	*Armenia*
–	(90.3)	(81.7)	(61.4)	(62.3)	550	(47.1)	(65.8)	(2.4)	(97.5)	–	*Azerbaijan*
–	(93.7)	(84.1)	(79.9)	(76.7)	210	(63.5)	(98.7)	(7.7)	(94.5)	–	*Belarus*
N/A	(100.0)	(46.0)	–	–	74	N/A	(6.7)	(0.0)	–	–	Bosnia and Herzegovina
–	(93.2)	(87.0)	(75.8)	(68.2)	67	(65.6)	(97.0)	(2.9)	(83.3)	–	*Georgia*
N/A	*(100.0)*	*(86.0)*	*(75.0)*	*(0.0)*	*22*	*N/A*	*(98.0)*	*(3.5)*	*(100.0)*	–	Israel
–	(99.6)	(88.7)	(75.9)	(79.3)	300	(65.2)	(98.2)	(6.6)	(85.6)	–	*Kazakhstan*
–	(91.6)	(81.2)	(71.7)	(61.2)	390	(51.7)	(96.1)	(2.8)	(82.3)	–	*Kyrgyzstan*
N/A	–	–	–	–	0	N/A	–	–	–	–	Monaco
N/A	–	(93.8)	–	–	1	N/A	(93.0)	(3.0)	(50.0)	–	Montenegro
N/A	(100.0)	(78.8)	100.00	–	11	N/A	(0.0)	–	–	–	*North Macedonia*
–	(110.5)	(80.5)	(61.8)	(50.7)	69	(83.9)	(96.5)	(11.5)	(91.5)	–	Republic of Moldova
–	(140.1)	(60.4)	(51.0)	(46.1)	5400	(101.4)	(98.8)	(25.7)	(78.1)	–	*Russian Federation*
N/A	–	–	–	–	0	–	–	–	–	–	San Marino
N/A	(100.0)	(85.4)	(100.0)	–	34	N/A	(39.7)	(0.5)	*(100.0)*	–	Serbia
N/A	*(100.0)*	–	(100.0)	–	–	*N/A*	*(8.5)*	*(5.1)*	*(100.0)*	–	Serbia excluding Kosovo[1]
N/A	–	(85.4)	–	–	–	N/A	(62.9)	(0.0)	–	–	Kosovo[1]
N/A	(100.0)	(75.5)	(100.0)	(100.0)	18	N/A	–	–	–	–	*Switzerland*
–	(75.6)	(92.1)	(80.6)	(69.9)	780	(54.5)	(99.4)	(2.6)	(90.8)	–	*Tajikistan*
–	(89.5)	(80.4)	(53.0)	(50.0)	310	(68.3)	(80.8)	(1.6)	(82.1)	–	*Türkiye*
–	(100.0)	(80.7)	(59.9)	(59.5)	660	–	–	–	–	–	*Turkmenistan*
–	(106.1)	(74.7)	(65.1)	–	2300	(42.1)	(98.7)	(18.2)	(92.2)	–	Ukraine
N/A	*(95.3)*	*(86.2)*	*(78.6)*	*(83.3)*	*230*	*N/A*	–	–	–	–	*United Kingdom*
–	*(100.0)*	–	–	–	*2900*	*(56.6)*	*(100.0)*	*(3.3)*	*(76.8)*	–	*Uzbekistan*
N/A	**(120.8)**	**(71.6)**	**(57.4)**	**(53.5)**	**14 000**	**(77.6)**	**(95.2)**	**(15.5)**	**(81.2)**	–	**Subtotal non-EU/EEA**
N/A	**(119.8)**	**(70.0)**	**(57.3)**	**(53.2)**	**18 000**	**(77.4)**	**(92.4)**	**(14.4)**	**(81.2)**	–	**Total European Region**
–	*(120.5)*	*(71.6)*	*(57.3)*	*(53.1)*	*15 000*	*(77.6)*	*(95.2)*	*(14.7)*	*(81.2)*	–	***Subtotal 18 HPCs***

[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 25 contd.

Country/area	2. Bold policies and supportive systems					3. Intensified research and innovation
	Governance and leadership	Health finance and universal health coverage		Health workforce including community health workers	Strategic information and digital health	Discovery, development and rapid uptake of new tools, interventions and strategies
	2.A.1 Number of Member States that have a TB control strategy document publicly available that includes targets for reduction in TB mortality and incidence in line with regional and global targets	2.B.1 Percentage of TB affected households that experience catastrophic costs due to TB (G) (E). Target: 0%[a]	2.C.1 Proportion of people with TB found through active case-finding activities implemented through CSOs. Target: TBD[a]	2.C.2 Proportion of people with TB who started TB treatment and who received any form of treatment adherence support from CSOs (including psychosocial support). Target: TBD[a]	2.D.1 Proportion of individuals who received TB treatment and care using digital adherence technologies (e.g. video-supported treatment of TB). Target: ≥ 40%[a]	3.A.1 Number of Member States with a standalone national TB research agenda or research priorities integrated in the national TB strategic plans or relevant policies
Non-EU/EEA						
Albania	–	N/A	N/A	N/A	N/A	–
Andorra	–	N/A	N/A	N/A	N/A	–
Armenia	–	–	–	–	–	–
Azerbaijan	–	–	–	–	–	–
Belarus	–	–	–	–	–	–
Bosnia and Herzegovina	–	N/A	N/A	N/A	N/A	–
Georgia	–	–	–	–	–	–
Israel	–	*N/A*	*N/A*	*N/A*	*N/A*	–
Kazakhstan	–	–	–	–	–	–
Kyrgyzstan	–	–	–	–	–	–
Monaco	–	N/A	N/A	N/A	N/A	–
Montenegro	–	N/A	N/A	N/A	N/A	–
North Macedonia	–	N/A	N/A	N/A	N/A	–
Republic of Moldova	–	–	–	–	–	–
Russian Federation	–	–	–	–	–	–
San Marino	–	N/A	N/A	N/A	N/A	–
Serbia	–	N/A	N/A	N/A	N/A	–
Serbia excluding Kosovo[1]	–	N/A	N/A	N/A	N/A	–
Kosovo[1]	–	*N/A*	*N/A*	*N/A*	*N/A*	–
Switzerland	–	N/A	N/A	N/A	N/A	–
Tajikistan	–	–	–	–	–	–
Türkiye	–	–	–	–	–	–
Turkmenistan	–	–	–	–	–	–
Ukraine	–	–	–	–	–	–
United Kingdom	–	N/A	N/A	N/A	N/A	–
Uzbekistan	–	–	–	–	–	–
Subtotal non-EU/EEA	**–**	**N/A**	**N/A**	**N/A**	**N/A**	**–**
Total European Region	**–**	**N/A**	**N/A**	**N/A**	**N/A**	**–**
Subtotal 18 HPCs	**–**	**–**		**–**	**–**	**–**

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 tuberculosis high-priority countries presented in italics. Numbers in red indicate that the target is not met, numbers in green that the target is met. Black text indicates that the indicator cannot be assessed.
CSO: civil society organization; DST: drug susceptibility testing; E: WHO European Region indicator; EEA: European Economic Area; EU: European Union; G: End TB Strategy global indicator; HPCs: high-priority countries; LTBI: latent tuberculosis infection; N: number; N/A: not applicable; PHC: primary health care; PLHIV: people living with HIV; RR/MDR: rifampicin resistant/multidrug-resistant; TB: tuberculosis; TBD: to be determined; TPT: TB preventive treatment.
[a] The indicator is only relevant to the 18 HPCs.
[b] For some non-EU/EEA countries and areas, patients who were diagnosed before 2022 but started on treatment in 2022 are included, resulting in an over 100% coverage.
[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).

7. Trend tables

Table I. Estimated TB mortality per 100 000 population, European Region, 2013-2022[a]

Country/area	2013		2014		2015		2016		2017		2018	
	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000
EU/EEA												
Austria	70	(0.8)	72	(0.8)	65	(0.8)	39	(0.4)	36	(0.4)	49	(0.6)
Belgium	57	(0.5)	42	(0.4)	61	(0.5)	32	(0.3)	33	(0.3)	33	(0.3)
Bulgaria	*160*	*(2.2)*	*130*	*(1.8)*	*120*	*(1.6)*	*120*	*(1.7)*	*98*	*(1.4)*	*98*	*(1.4)*
Croatia	54	(1.3)	40	(0.9)	46	(1.1)	58	(1.4)	61	(1.5)	60	(1.4)
Cyprus	1	(0.1)	5	(0.4)	2	(0.2)	3	(0.3)	3	(0.2)	5	(0.4)
Czechia	68	(0.6)	40	(0.4)	57	(0.5)	43	(0.4)	38	(0.4)	39	(0.4)
Denmark	17	(0.3)	13	(0.2)	17	(0.3)	23	(0.4)	14	(0.2)	10	(0.2)
Estonia	*26*	*(2.0)*	*29*	*(2.2)*	*22*	*(1.7)*	*28*	*(2.1)*	*23*	*(1.7)*	*13*	*(1.0)*
Finland	32	(0.6)	41	(0.8)	33	(0.6)	26	(0.5)	35	(0.6)	30	(0.5)
France	560	(0.9)	480	(0.8)	470	(0.7)	440	(0.7)	430	(0.7)	430	(0.7)
Germany	380	(0.5)	320	(0.4)	320	(0.4)	300	(0.4)	300	(0.4)	310	(0.4)
Greece	78	(0.7)	55	(0.5)	45	(0.4)	48	(0.4)	58	(0.5)	52	(0.5)
Hungary	95	(1.0)	84	(0.9)	100	(1.0)	64	(0.7)	63	(0.6)	84	(0.9)
Iceland	2	(0.6)	2	(0.6)	2	(0.6)	2	(0.6)	2	(0.6)	1	(0.3)
Ireland	22	(0.5)	24	(0.5)	17	(0.4)	17	(0.4)	18	(0.4)	18	(0.4)
Italy	270	(0.4)	290	(0.5)	340	(0.6)	310	(0.5)	310	(0.5)	300	(0.5)
Latvia	*110*	*(5.4)*	*69*	*(3.4)*	*99*	*(5.0)*	*80*	*(4.1)*	*75*	*(3.8)*	*65*	*(3.4)*
Liechtenstein[b]	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*210*	*(6.9)*	*230*	*(7.7)*	*190*	*(6.4)*	*180*	*(6.1)*	*160*	*(5.5)*	*120*	*(4.2)*
Luxembourg	1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	3	(0.5)	2	(0.3)
Malta	3	(0.7)	1	(0.2)	2	(0.4)	3	(0.6)	1	(0.2)	1	(0.2)
Netherlands (Kingdom of the)	40	(0.2)	35	(0.2)	37	(0.2)	30	(0.2)	24	(0.1)	28	(0.2)
Norway	21	(0.4)	13	(0.3)	12	(0.2)	18	(0.3)	18	(0.3)	18	(0.3)
Poland	580	(1.5)	580	(1.5)	580	(1.5)	600	(1.6)	560	(1.5)	570	(1.5)
Portugal	230	(2.2)	220	(2.1)	220	(2.1)	210	(2.0)	200	(1.9)	240	(2.3)
Romania	*1 200*	*(6.0)*	*1 100*	*(5.5)*	*1 100*	*(5.5)*	*990*	*(5.0)*	*950*	*(4.8)*	*930*	*(4.7)*
Slovakia	20	(0.4)	35	(0.6)	35	(0.6)	25	(0.5)	27	(0.5)	25	(0.5)
Slovenia	9	(0.4)	22	(1.1)	11	(0.5)	7	(0.3)	7	(0.3)	6	(0.3)
Spain	300	(0.6)	290	(0.6)	250	(0.5)	260	(0.6)	250	(0.5)	250	(0.5)
Sweden	44	(0.5)	30	(0.3)	25	(0.3)	26	(0.3)	23	(0.2)	22	(0.2)
Subtotal EU/EEA	**4 700**	**(1.1)**	**4 300**	**(1.0)**	**4 300**	**(1.0)**	**4 000**	**(0.9)**	**3 800**	**(0.8)**	**3 800**	**(0.8)**
Non-EU/EEA												
Albania	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)
Andorra	0	(0.0)	1	(1.4)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Armenia	*110*	*(3.8)*	*81*	*(2.8)*	*68*	*(2.4)*	*56*	*(2.0)*	*45*	*(1.6)*	*30*	*(1.1)*
Azerbaijan	*450*	*(4.7)*	*440*	*(4.5)*	*580*	*(5.9)*	*590*	*(5.9)*	*600*	*(6.0)*	*600*	*(5.9)*
Belarus	*650*	*(6.7)*	*510*	*(5.3)*	*460*	*(4.7)*	*400*	*(4.1)*	*330*	*(3.4)*	*260*	*(2.7)*
Bosnia and Herzegovina	150	(4.1)	140	(3.9)	130	(3.7)	120	(3.4)	110	(3.2)	100	(2.9)
Georgia	*190*	*(5.0)*	*170*	*(4.5)*	*150*	*(4.0)*	*170*	*(4.5)*	*160*	*(4.2)*	*150*	*(4.0)*
Israel	15	(0.2)	15	(0.2)	15	(0.2)	15	(0.2)	13	(0.2)	20	(0.2)
Kazakhstan	*1 100*	*(6.3)*	*930*	*(5.3)*	*720*	*(4.0)*	*610*	*(3.4)*	*580*	*(3.2)*	*500*	*(2.7)*
Kyrgyzstan	*630*	*(11.0)*	*520*	*(8.9)*	*460*	*(7.8)*	*420*	*(7.0)*	*380*	*(6.2)*	*360*	*(5.8)*
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	25	(1.2)	25	(1.2)	21	(1.0)	25	(1.2)	13	(0.6)	25	(1.2)
Republic of Moldova	*310*	*(9.1)*	*300*	*(9.0)*	*250*	*(7.6)*	*220*	*(6.8)*	*170*	*(5.3)*	*170*	*(5.4)*
Russian Federation	*18 000*	*(12.5)*	*16 000*	*(11.1)*	*14 000*	*(9.7)*	*12 000*	*(8.3)*	*10 000*	*(6.9)*	*9 200*	*(6.3)*
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	120	(1.6)	100	(1.3)	75	(1.0)	86	(1.1)	80	(1.1)	79	(1.1)
Switzerland	20	(0.2)	13	(0.2)	17	(0.2)	25	(0.3)	17	(0.2)	17	(0.2)
Tajikistan	*790*	*(9.7)*	*790*	*(9.5)*	*770*	*(9.0)*	*770*	*(8.8)*	*760*	*(8.5)*	*750*	*(8.2)*
Türkiye	*620*	*(0.8)*	*590*	*(0.8)*	*540*	*(0.7)*	*540*	*(0.7)*	*480*	*(0.6)*	*460*	*(0.6)*
Turkmenistan	*530*	*(9.5)*	*640*	*(11.3)*	*570*	*(9.9)*	*600*	*(10.2)*	*610*	*(10.2)*	*620*	*(10.2)*
Ukraine	*6 400*	*(14.1)*	*5 800*	*(12.8)*	*5 000*	*(11.1)*	*4 500*	*(10.0)*	*4 000*	*(9.0)*	*4 000*	*(9.0)*
United Kingdom	360	(0.6)	370	(0.6)	350	(0.5)	310	(0.5)	260	(0.4)	260	(0.4)
Uzbekistan	*2 200*	*(7.3)*	*2 200*	*(7.2)*	*2 000*	*(6.5)*	*1 900*	*(6.0)*	*1 600*	*(5.0)*	*1 300*	*(4.0)*
Subtotal non-EU/EEA	**33 000**	**(7.2)**	**30 000**	**(6.5)**	**26 000**	**(5.6)**	**23 000**	**(4.9)**	**20 000**	**(4.2)**	**19 000**	**(4.0)**
Total European Region	**37 000**	**(4.1)**	**34 000**	**(3.7)**	**31 000**	**(3.4)**	**28 000**	**(3.0)**	**24 000**	**(2.6)**	**23 000**	**(2.5)**
Subtotal 18 HPCs	***34 000***	***(8.6)***	***31 000***	***(7.8)***	***27 000***	***(6.7)***	***24 000***	***(5.9)***	***21 000***	***(5.2)***	***20 000***	***(4.9)***

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] Excludes HIV coinfected cases.
[b] Liechtenstein data are presented under Switzerland's data.

2019		2020		2021		2022		Mean annual % change in rate, 2018–2022	Mean annual % change in rate, 2013–2022	Country/area
N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000			
										EU/EEA
41	(0.5)	41	(0.5)	29	(0.3)	29	(0.3)	-12.5%	-9.9%	Austria
33	(0.3)	33	(0.3)	33	(0.3)	33	(0.3)	-0.4%	-6.4%	Belgium
98	*(1.4)*	*97*	*(1.4)*	*96*	*(1.4)*	*95*	*(1.4)*	*0.4%*	*-4.7%*	*Bulgaria*
36	(0.9)	36	(0.9)	36	(0.9)	35	(0.9)	-11.9%	-4.0%	Croatia
2	(0.2)	2	(0.2)	5	(0.4)	5	(0.4)	-0.7%	18.7%	Cyprus
23	(0.2)	22	(0.2)	30	(0.3)	16	(0.2)	-19.9%	-14.8%	Czechia
10	(0.2)	10	(0.2)	10	(0.2)	10	(0.2)	-0.5%	-6.2%	Denmark
16	*(1.2)*	*9*	*(0.7)*	*11*	*(0.8)*	*9*	*(0.7)*	*-8.9%*	*-11.2%*	*Estonia*
30	(0.5)	30	(0.5)	30	(0.5)	30	(0.5)	-0.1%	-0.9%	Finland
440	(0.7)	440	(0.7)	440	(0.7)	440	(0.7)	0.4%	-2.9%	France
270	(0.3)	270	(0.3)	270	(0.3)	270	(0.3)	-3.5%	-3.9%	Germany
44	(0.4)	44	(0.4)	43	(0.4)	43	(0.4)	-4.1%	-5.9%	Greece
62	(0.6)	62	(0.6)	62	(0.6)	63	(0.6)	-7.4%	-4.5%	Hungary
1	(0.3)	1	(0.3)	2	(0.5)	2	(0.5)	17.3%	-1.5%	Iceland
18	(0.4)	18	(0.4)	18	(0.4)	19	(0.4)	0.4%	-2.6%	Ireland
290	(0.5)	290	(0.5)	300	(0.5)	300	(0.5)	0.4%	1.4%	Italy
65	*(3.4)*	*64*	*(3.4)*	*55*	*(2.9)*	*54*	*(2.9)*	*-3.5%*	*-6.6%*	*Latvia*
–	–	–	–	–	–	–	–	–	–	Liechtenstein[b]
120	*(4.2)*	*120*	*(4.3)*	*87*	*(3.1)*	*85*	*(3.1)*	*-7.2%*	*-8.6%*	*Lithuania*
1	(0.2)	2	(0.3)	1	(0.2)	1	(0.2)	-17.2%	-1.9%	Luxembourg
1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	-2.0%	-13.4%	Malta
21	(0.1)	21	(0.1)	21	(0.1)	22	(0.1)	-6.2%	-6.8%	Netherlands (Kingdom of the)
18	(0.3)	18	(0.3)	19	(0.4)	19	(0.3)	0.8%	-1.8%	Norway
510	(1.3)	510	(1.3)	510	(1.3)	530	(1.3)	-2.6%	-1.3%	Poland
180	(1.7)	180	(1.7)	240	(2.3)	240	(2.3)	0.0%	0.7%	Portugal
930	*(4.8)*	*690*	*(3.5)*	*650*	*(3.4)*	*730*	*(3.7)*	*-5.9%*	*-5.2%*	*Romania*
14	(0.3)	14	(0.3)	14	(0.3)	14	(0.2)	-14.3%	-4.3%	Slovakia
14	(0.7)	14	(0.7)	14	(0.7)	14	(0.7)	23.4%	4.8%	Slovenia
230	(0.5)	230	(0.5)	170	(0.4)	170	(0.4)	-9.6%	-6.3%	Spain
22	(0.2)	23	(0.2)	23	(0.2)	23	(0.2)	0.2%	-7.9%	Sweden
3 500	**(0.8)**	**3 300**	**(0.7)**	**3 200**	**(0.7)**	**3 300**	**(0.7)**	**-3.6%**	**-4.0%**	**Subtotal EU/EEA**
										Non-EU/EEA
8	(0.3)	9	(0.3)	7	(0.2)	7	(0.2)	-3.0%	-1.3%	Albania
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	Andorra
35	*(1.2)*	*33*	*(1.2)*	*11*	*(0.4)*	*10*	*(0.4)*	*-23.6%*	*-23.0%*	*Armenia*
600	*(5.9)*	*480*	*(4.7)*	*510*	*(4.9)*	*550*	*(5.3)*	*-2.6%*	*1.4%*	*Azerbaijan*
210	*(2.2)*	*270*	*(2.8)*	*210*	*(2.2)*	*210*	*(2.2)*	*-4.8%*	*-11.6%*	*Belarus*
95	(2.8)	88	(2.7)	81	(2.5)	74	(2.3)	-6.1%	-6.4%	Bosnia and Herzegovina
140	*(3.7)*	*87*	*(2.3)*	*57*	*(1.5)*	*67*	*(1.8)*	*-18.1%*	*-10.8%*	*Georgia*
20	(0.2)	20	(0.2)	21	(0.2)	22	(0.2)	0.7%	2.5%	Israel
390	*(2.1)*	*310*	*(1.6)*	*240*	*(1.3)*	*300*	*(1.5)*	*-13.0%*	*-14.5%*	*Kazakhstan*
290	*(4.6)*	*290*	*(4.5)*	*320*	*(4.9)*	*390*	*(5.9)*	*0.4%*	*-6.7%*	*Kyrgyzstan*
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	Monaco
1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	0.2%	0.1%	Montenegro
9	(0.4)	9	(0.4)	11	(0.5)	11	(0.5)	-18.4%	-8.7%	North Macedonia
160	*(5.1)*	*100*	*(3.2)*	*180*	*(5.9)*	*69*	*(2.1)*	*-21.0%*	*-15.0%*	*Republic of Moldova*
8 000	*(5.5)*	*6 100*	*(4.2)*	*6 700*	*(4.6)*	*5 400*	*(3.7)*	*-12.3%*	*-12.6%*	*Russian Federation*
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	San Marino
54	(0.7)	49	(0.7)	41	(0.6)	34	(0.5)	-18.4%	-12.6%	Serbia
9	(0.1)	9	(0.1)	17	(0.2)	18	(0.2)	0.8%	-2.0%	Switzerland
730	(7.8)	750	(7.9)	770	(7.9)	780	(7.8)	-1.2%	-2.4%	*Tajikistan*
420	*(0.5)*	*380*	*(0.5)*	*340*	*(0.4)*	*310*	*(0.4)*	*-10.1%*	*-8.5%*	*Türkiye*
630	*(10.2)*	*640*	*(10.2)*	*650*	*(10.2)*	*660*	*(10.3)*	*0.1%*	*0.8%*	*Turkmenistan*
3 700	*(8.4)*	*2 900*	*(6.6)*	*2 500*	*(5.7)*	*2 300*	*(5.8)*	*-10.4%*	*-9.4%*	*Ukraine*
230	(0.3)	230	(0.3)	230	(0.3)	230	(0.3)	-3.4%	-5.4%	United Kingdom
1 000	*(3.0)*	*1 100*	*(3.3)*	*1 100*	*(3.2)*	*2 900*	*(8.4)*	*20.2%*	*1.5%*	*Uzbekistan*
17 000	**(3.6)**	**14 000**	**(2.9)**	**14 000**	**(2.9)**	**14 000**	**(2.9)**	**-7.5%**	**-9.5%**	**Subtotal non-EU/EEA**
20 000	**(2.2)**	**17 000**	**(1.8)**	**17 000**	**(1.8)**	**18 000**	**(1.9)**	**-6.1%**	**-8.0%**	**Total European Region**
18 000	*(4.4)*	*14 000*	*(3.4)*	*14 000*	*(3.4)*	*15 000*	*(3.7)*	*-7.0%*	*-9.0%*	*Subtotal 18 HPCs*

Table II. Estimated TB incidence per 100 000 population, European Region, 2013–2022

Country/area	2013		2014		2015		2016		2017		2018	
	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000
EU/EEA												
Austria	720	(8.5)	650	(7.6)	650	(7.5)	710	(8.1)	650	(7.4)	540	(6.1)
Belgium	1 000	(9.0)	1 000	(8.9)	1 100	(9.8)	1 100	(9.7)	1 100	(9.7)	1 000	(8.7)
Bulgaria	*2 500*	*(33.6)*	*2 300*	*(31.2)*	*2 100*	*(28.7)*	*1 900*	*(26.2)*	*1 800*	*(25.1)*	*1 600*	*(22.5)*
Croatia	590	(13.7)	570	(13.3)	560	(13.2)	520	(12.3)	420	(10.0)	420	(10.1)
Cyprus	47	(4.0)	45	(3.8)	72	(6.1)	66	(5.5)	60	(5.0)	59	(4.8)
Czechia	540	(5.1)	550	(5.2)	580	(5.5)	590	(5.6)	570	(5.4)	500	(4.7)
Denmark	380	(6.8)	340	(6.0)	370	(6.5)	340	(6.0)	290	(5.1)	310	(5.4)
Estonia	*300*	*(22.8)*	*270*	*(20.5)*	*240*	*(18.3)*	*220*	*(16.7)*	*200*	*(15.2)*	*170*	*(12.9)*
Finland	310	(5.7)	290	(5.3)	310	(5.7)	260	(4.7)	270	(4.9)	260	(4.7)
France	5 700	(9.0)	5 500	(8.6)	5 400	(8.5)	5 700	(8.9)	5 900	(9.2)	5 800	(9.0)
Germany	4 600	(5.6)	4 800	(5.9)	6 200	(7.6)	6 300	(7.7)	5 900	(7.1)	5 800	(7.0)
Greece	570	(5.2)	560	(5.2)	500	(4.6)	470	(4.4)	500	(4.7)	470	(4.4)
Hungary	1 200	(12.1)	920	(9.3)	990	(10.1)	850	(8.7)	750	(7.7)	690	(7.1)
Iceland	13	(4.0)	9	(2.7)	8	(2.4)	7	(2.1)	15	(4.4)	9	(2.5)
Ireland	410	(8.9)	340	(7.4)	340	(7.3)	340	(7.2)	350	(7.3)	340	(7.0)
Italy	3 500	(5.8)	3 800	(6.3)	4 000	(6.6)	4 300	(7.2)	4 400	(7.3)	4 300	(7.2)
Latvia	*1 000*	*(49.2)*	*850*	*(42.3)*	*800*	*(40.2)*	*740*	*(37.5)*	*620*	*(31.7)*	*540*	*(27.9)*
Liechtensteina	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*1 800*	*(59.4)*	*1 700*	*(56.8)*	*1 600*	*(54.0)*	*1 500*	*(51.1)*	*1 500*	*(51.6)*	*1 200*	*(41.7)*
Luxembourg	44	(8.1)	28	(5.0)	34	(6.0)	33	(5.7)	37	(6.2)	48	(7.9)
Malta	58	(13.3)	52	(11.6)	37	(8.1)	58	(12.4)	48	(10.0)	63	(12.8)
Netherlands (Kingdom of the)	960	(5.7)	940	(5.5)	980	(5.8)	1 000	(5.8)	890	(5.2)	910	(5.3)
Norway	420	(8.3)	350	(6.8)	330	(6.4)	320	(6.1)	270	(5.1)	220	(4.1)
Poland	8 100	(21.0)	7 500	(19.4)	7 200	(18.7)	7 100	(18.4)	6 400	(16.6)	6 000	(15.6)
Portugal	2 700	(25.8)	2 500	(24.0)	2 400	(23.2)	2 100	(20.3)	2 000	(19.4)	2 100	(20.4)
Romania	*18 000*	*(89.7)*	*17 000*	*(85.0)*	*16 000*	*(80.4)*	*15 000*	*(75.8)*	*14 000*	*(71.1)*	*13 000*	*(66.3)*
Slovakia	460	(8.5)	370	(6.8)	350	(6.5)	320	(5.9)	260	(4.8)	310	(5.7)
Slovenia	160	(7.7)	160	(7.7)	150	(7.2)	140	(6.7)	130	(6.2)	110	(5.2)
Spain	6 000	(12.9)	5 500	(11.8)	4 600	(9.9)	5 400	(11.6)	5 000	(10.7)	5 200	(11.1)
Sweden	700	(7.3)	730	(7.5)	900	(9.1)	810	(8.1)	560	(5.6)	550	(5.4)
Subtotal EU/EEA	**63 000**	**(14.1)**	**60 000**	**(13.4)**	**59 000**	**(13.2)**	**58 000**	**(12.9)**	**55 000**	**(12.2)**	**53 000**	**(11.8)**
Non-EU/EEA												
Albania	540	(18.7)	470	(16.3)	480	(16.7)	480	(16.7)	580	(20.1)	500	(17.4)
Andorra	6	(8.4)	7	(9.8)	5	(7.0)	5	(6.9)	1	(1.4)	2	(2.7)
Armenia	*1 700*	*(58.6)*	*1 600*	*(55.4)*	*1 400*	*(48.6)*	*1 300*	*(45.4)*	*1 000*	*(35.1)*	*880*	*(31.0)*
Azerbaijan	*7 500*	*(78.0)*	*7 400*	*(76.0)*	*7 000*	*(71.0)*	*6 600*	*(66.2)*	*6 700*	*(66.5)*	*6 400*	*(63.0)*
Belarus	*5 700*	*(58.8)*	*5 000*	*(51.6)*	*4 800*	*(49.5)*	*4 100*	*(42.2)*	*3 600*	*(37.1)*	*3 000*	*(30.9)*
Bosnia and Herzegovina	1 600	(44.2)	1 500	(42.0)	1 400	(39.7)	1 200	(34.5)	980	(28.5)	850	(25.0)
Georgia	*4 400*	*(116.2)*	*4 000*	*(106.0)*	*3 700*	*(98.1)*	*3 500*	*(92.8)*	*3 200*	*(84.8)*	*3 000*	*(79.5)*
Israel	350	(4.5)	420	(5.3)	320	(4.0)	290	(3.6)	270	(3.2)	340	(4.0)
Kazakhstan	*18 000*	*(103.8)*	*16 000*	*(90.9)*	*14 000*	*(78.5)*	*13 000*	*(71.9)*	*13 000*	*(71.0)*	*12 000*	*(64.7)*
Kyrgyzstan	*8 100*	*(141.6)*	*7 300*	*(125.5)*	*8 000*	*(135.2)*	*8 000*	*(132.9)*	*7 600*	*(124.2)*	*7 200*	*(115.7)*
Monaco	0	(0.0)	0	(0.0)	0	(0.0)	2	(5.4)	0	(0.0)	1	(2.7)
Montenegro	140	(22.1)	130	(20.5)	93	(14.7)	100	(15.8)	87	(13.8)	97	(15.4)
North Macedonia	400	(19.0)	360	(17.1)	360	(17.1)	330	(15.6)	270	(12.8)	280	(13.2)
Republic of Moldova	*4 300*	*(125.9)*	*3 800*	*(113.8)*	*3 300*	*(100.7)*	*3 300*	*(102.3)*	*3 000*	*(94.3)*	*2 700*	*(85.9)*
Russian Federation	*106 000*	*(73.6)*	*101 000*	*(70.0)*	*96 000*	*(66.4)*	*91 000*	*(62.7)*	*86 000*	*(59.1)*	*79 000*	*(54.2)*
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	2 100	(27.8)	1 800	(23.9)	1 600	(21.3)	1 400	(18.7)	1 400	(18.8)	1 300	(17.5)
Switzerland	540	(6.7)	490	(6.0)	610	(7.4)	660	(7.9)	610	(7.2)	540	(6.3)
Tajikistan	*8 100*	*(99.6)*	*7 600*	*(91.3)*	*7 300*	*(85.6)*	*7 400*	*(84.8)*	*7 500*	*(84.0)*	*7 600*	*(83.3)*
Türkiye	*15 000*	*(19.6)*	*15 000*	*(19.2)*	*15 000*	*(18.8)*	*14 000*	*(17.3)*	*14 000*	*(17.1)*	*13 000*	*(15.7)*
Turkmenistan	*3 900*	*(70.1)*	*3 300*	*(58.3)*	*2 800*	*(48.6)*	*2 700*	*(46.0)*	*2 600*	*(43.6)*	*2 800*	*(46.2)*
Ukraine	*44 000*	*(97.1)*	*43 000*	*(95.2)*	*41 000*	*(91.1)*	*39 000*	*(87.0)*	*37 000*	*(82.9)*	*36 000*	*(81.0)*
United Kingdom	8 300	(12.9)	7 400	(11.4)	6 600	(10.1)	6 500	(9.9)	5 900	(8.9)	5 400	(8.1)
Uzbekistan	*26 000*	*(86.8)*	*25 000*	*(82.1)*	*25 000*	*(80.8)*	*24 000*	*(76.3)*	*23 000*	*(72.0)*	*23 000*	*(70.9)*
Subtotal non-EU/EEA	**267 000**	**(58.2)**	**253 000**	**(54.7)**	**241 000**	**(51.7)**	**229 000**	**(48.8)**	**218 000**	**(46.1)**	**206 000**	**(43.4)**
Total European Region	**329 000**	**(36.3)**	**313 000**	**(34.4)**	**300 000**	**(32.8)**	**288 000**	**(31.4)**	**273 000**	**(29.6)**	**260 000**	**(28.1)**
Subtotal 18 HPCs	***276 000***	***(69.7)***	***262 000***	***(65.7)***	***250 000***	***(62.3)***	***237 000***	***(58.7)***	***226 000***	***(55.6)***	***213 000***	***(52.2)***

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] Liechtenstein data are presented under Switzerland's data.

2019		2020		2021		2022		Mean annual % change in rate, 2018–2022	Mean annual % change in rate, 2013–2022	Country/area
N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000			
										EU/EEA
530	(6.0)	440	(4.9)	450	(5.0)	390	(4.4)	-8.1%	-7.1%	Austria
1 000	(8.7)	890	(7.7)	940	(8.1)	910	(7.8)	-2.8%	-1.6%	Belgium
1 400	*(19.9)*	*1 300*	*(18.6)*	*1 200*	*(17.4)*	*1 100*	*(16.2)*	*-7.8%*	*-7.8%*	*Bulgaria*
340	(8.2)	200	(4.9)	180	(4.4)	110	(2.7)	-27.9%	-16.4%	Croatia
76	(6.2)	39	(3.2)	55	(4.4)	100	(8.0)	13.3%	7.9%	Cyprus
530	(5.0)	410	(3.9)	400	(3.8)	440	(4.2)	-3.1%	-2.2%	Czechia
300	(5.2)	240	(4.1)	220	(3.8)	240	(4.1)	-6.7%	-5.4%	Denmark
170	*(12.8)*	*140*	*(10.5)*	*120*	*(9.0)*	*140*	*(10.6)*	*-4.8%*	*-8.2%*	*Estonia*
260	(4.7)	200	(3.6)	200	(3.6)	220	(4.0)	-4.2%	-3.9%	Finland
5 900	(9.2)	5 300	(8.2)	4 900	(7.6)	4 700	(7.3)	-5.2%	-2.3%	France
5 100	(6.1)	4 400	(5.3)	4 200	(5.0)	4 300	(5.2)	-7.3%	-1.0%	Germany
500	(4.7)	440	(4.2)	220	(2.1)	230	(2.2)	-15.9%	-9.1%	Greece
610	(6.2)	440	(4.5)	360	(3.7)	500	(5.0)	-8.2%	-9.3%	Hungary
15	(4.2)	14	(3.8)	8	(2.2)	18	(4.8)	17.3%	2.1%	Iceland
280	(5.7)	260	(5.3)	240	(4.8)	230	(4.6)	-10.2%	-7.2%	Ireland
3 700	(6.2)	2 500	(4.2)	2 700	(4.6)	2 700	(4.6)	-10.7%	-2.6%	Italy
460	*(24.0)*	*370*	*(19.5)*	*290*	*(15.5)*	*350*	*(18.9)*	*-9.3%*	*-10.1%*	*Latvia*
–	–	–	–	–	–	–	–	–	–	Liechtensteina
1 200	*(42.1)*	*790*	*(28.0)*	*720*	*(25.8)*	*830*	*(30.2)*	*-7.8%*	*-7.3%*	*Lithuania*
55	(8.9)	37	(5.9)	39	(6.1)	54	(8.3)	1.4%	0.3%	Luxembourg
110	(21.8)	160	(31.0)	62	(11.8)	69	(12.9)	0.2%	-0.3%	Malta
860	(5.0)	710	(4.1)	770	(4.4)	720	(4.1)	-6.1%	-3.6%	Netherlands (Kingdom of the)
180	(3.4)	170	(3.2)	160	(3.0)	180	(3.3)	-5.4%	-9.7%	Norway
5 700	(14.8)	3 600	(9.4)	4 000	(10.4)	4 600	(11.5)	-7.2%	-6.4%	Poland
2 000	(19.4)	1 600	(15.5)	1 700	(16.5)	1 600	(15.6)	-6.5%	-5.5%	Portugal
13 000	*(66.6)*	*8 300*	*(42.7)*	*8 700*	*(45.0)*	*10 000*	*(50.9)*	*-6.4%*	*-6.1%*	*Romania*
250	(4.6)	180	(3.3)	150	(2.8)	160	(2.8)	-16.0%	-11.5%	Slovakia
110	(5.2)	86	(4.1)	91	(4.3)	83	(3.9)	-7.0%	-7.3%	Slovenia
4 700	(10.0)	3 400	(7.2)	3 900	(8.2)	3 300	(6.9)	-11.1%	-6.6%	Spain
550	(5.4)	360	(3.5)	400	(3.8)	410	(3.9)	-7.9%	-6.7%	Sweden
50 000	**(11.1)**	**37 000**	**(8.2)**	**37 000**	**(8.2)**	**39 000**	**(8.6)**	**-7.5%**	**-5.3%**	**Subtotal EU/EEA**
										Non-EU/EEA
470	(16.4)	440	(15.3)	440	(15.4)	430	(15.1)	-3.4%	-2.3%	Albania
6	(7.9)	2	(2.6)	2	(2.5)	5	(6.3)	23.8%	-3.2%	Andorra
740	*(26.2)*	*700*	*(25.0)*	*700*	*(25.1)*	*690*	*(24.8)*	*-5.4%*	*-9.1%*	*Armenia*
6 100	*(59.6)*	*5 900*	*(57.4)*	*6 400*	*(62.1)*	*7 000*	*(67.6)*	*1.8%*	*-1.6%*	*Azerbaijan*
2 800	*(28.9)*	*2 700*	*(28.0)*	*2 700*	*(28.2)*	*2 600*	*(27.3)*	*-3.1%*	*-8.2%*	*Belarus*
910	(27.1)	850	(25.6)	810	(24.8)	780	(24.1)	-0.9%	-6.5%	Bosnia and Herzegovina
2 800	*(74.3)*	*2 600*	*(69.0)*	*2 400*	*(63.9)*	*2 200*	*(58.8)*	*-7.3%*	*-7.3%*	*Georgia*
250	(2.9)	180	(2.1)	240	(2.7)	230	(2.5)	-10.8%	-6.2%	Israel
13 000	*(69.3)*	*13 000*	*(68.5)*	*14 000*	*(72.9)*	*15 000*	*(77.3)*	*4.5%*	*-3.2%*	*Kazakhstan*
7 000	*(110.7)*	*6 800*	*(105.8)*	*7 500*	*(114.9)*	*8 600*	*(129.7)*	*2.9%*	*-1.0%*	*Kyrgyzstan*
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	Monaco
92	(14.6)	91	(14.5)	90	(14.3)	90	(14.4)	-1.7%	-4.7%	Montenegro
250	(11.8)	250	(11.8)	240	(11.4)	220	(10.5)	-5.6%	-6.4%	North Macedonia
2 500	*(80.4)*	*2 300*	*(74.6)*	*2 300*	*(75.1)*	*2 400*	*(73.3)*	*-3.9%*	*-5.8%*	*Republic of Moldova*
73 000	*(50.1)*	*71 000*	*(48.8)*	*69 000*	*(47.6)*	*56 000*	*(38.7)*	*-8.1%*	*-6.9%*	*Russian Federation*
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	San Marino
1 100	(14.9)	1 100	(14.9)	1 100	(15.1)	1 000	(13.8)	-5.7%	-7.4%	Serbia
460	(5.4)	400	(4.6)	410	(4.7)	400	(4.6)	-7.8%	-4.1%	Switzerland
7 700	*(82.5)*	*7 600*	*(79.6)*	*7 700*	*(79.0)*	*7 800*	*(78.4)*	*-1.5%*	*-2.6%*	*Tajikistan*
13 000	*(15.6)*	*13 000*	*(15.5)*	*12 000*	*(14.2)*	*12 000*	*(14.1)*	*-2.7%*	*-3.6%*	*Türkiye*
2 700	*(43.8)*	*2 900*	*(46.4)*	*3 000*	*(47.3)*	*3 100*	*(48.2)*	*1.1%*	*-4.1%*	*Turkmenistan*
34 000	*(76.9)*	*33 000*	*(75.2)*	*35 000*	*(80.4)*	*36 000*	*(90.7)*	*2.9%*	*-0.8%*	*Ukraine*
5 400	(8.1)	4 700	(7.0)	5 400	(8.0)	5 100	(7.6)	-1.8%	-5.8%	United Kingdom
22 000	*(66.7)*	*22 000*	*(65.6)*	*24 000*	*(70.4)*	*29 000*	*(83.7)*	*4.3%*	*-0.4%*	*Uzbekistan*
196 000	**(41.1)**	**192 000**	**(40.1)**	**195 000**	**(40.6)**	**191 000**	**(40.0)**	**-2.0%**	**-4.1%**	**Subtotal non-EU/EEA**
246 000	**(26.5)**	**227 000**	**(24.4)**	**233 000**	**(25.0)**	**229 000**	**(24.6)**	**-3.3%**	**-4.2%**	**Total European Region**
204 000	*(49.8)*	*194 000*	*(47.3)*	*198 000*	*(48.2)*	*195 000*	*(47.7)*	*-2.2%*	*-4.1%*	***Subtotal 18 HPCs***

Table III. New and relapse TB cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2013–2022

Country/area	2013		2014		2015		2016		2017		2018	
	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000
EU/EEA												
Austria	628	7.5	567	6.7	564	6.6	619	7.2	561	6.4	470	5.4
Belgium	890	8.0	878	7.9	919	8.2	982	8.7	911	8.1	910	8.0
Bulgaria	*1 930*	*26.3*	*1 825*	*25.1*	*1 619*	*22.3*	*1 525*	*21.2*	*1 408*	*19.7*	*1 290*	*18.2*
Croatia	510	11.9	498	11.7	485	11.4	452	10.7	372	8.9	364	8.8
Cyprus	41	4.8	39	4.5	63	7.3	57	6.7	52	6.1	51	6.0
Czechia	468	4.5	472	4.5	507	4.8	511	4.8	495	4.7	434	4.1
Denmark	330	5.9	293	5.2	320	5.7	292	5.2	253	4.4	270	4.7
Estonia	*265*	*20.0*	*237*	*18.0*	*206*	*15.7*	*188*	*14.3*	*172*	*13.1*	*145*	*11.0*
Finland	263	4.9	257	4.7	270	5.0	223	4.1	241	4.4	226	4.1
France	4 947	7.6	4 888	7.5	4 457	6.7	5 446	8.2	5 006	7.5	4 760	7.1
Germany	4 094	5.1	4 350	5.4	5 626	7.0	5 739	7.1	5 369	6.5	5 331	6.5
Greece	494	4.5	484	4.4	438	4.0	417	3.8	434	4.0	406	3.8
Hungary	1 040	10.5	799	8.1	858	8.7	737	7.5	650	6.6	602	6.1
Iceland	11	3.4	9	2.8	7	2.1	6	1.8	13	3.9	8	2.4
Ireland	350	7.6	290	6.3	266	5.7	290	6.2	283	6.0	290	6.1
Italy	3 435	5.8	3 663	6.1	3 476	5.7	3 778	6.2	3 828	6.3	3 777	6.2
Latvia	*872*	*42.6*	*738*	*36.5*	*697*	*34.8*	*641*	*32.3*	*543*	*27.6*	–	–
Liechtenstein	0	0.0	0	0.0	1	2.7	2	5.4	1	2.7	1	2.6
Lithuania	*1 573*	*52.4*	*1 481*	*49.8*	*1 395*	*47.4*	*1 347*	*46.1*	*1 268*	*43.9*	*1 063*	*37.3*
Luxembourg	38	7.2	24	4.5	30	5.5	29	5.2	32	5.6	42	7.1
Malta	50	12.0	45	10.7	32	7.5	50	11.4	42	9.3	55	11.9
Netherlands (Kingdom of the)	828	4.9	805	4.8	846	5.0	875	5.2	772	4.5	780	4.6
Norway	354	7.1	299	5.9	282	5.5	273	5.3	237	4.5	188	3.6
Poland	7 043	18.5	6 539	17.2	6 237	16.4	6 143	16.2	5 535	14.6	5 196	13.7
Portugal	2 356	22.3	2 223	21.2	2 154	20.7	1 885	18.2	1 870	18.1	1 877	18.2
Romania	*15 505*	*77.2*	*14 834*	*74.1*	*14 215*	*71.3*	*12 774*	*64.3*	*12 303*	*62.3*	*11 581*	*59.0*
Slovakia	398	7.4	320	5.9	308	5.7	281	5.2	228	4.2	273	5.0
Slovenia	139	6.8	142	6.9	129	6.3	118	5.7	112	5.4	98	4.7
Spain	5 328	11.4	4 685	10.0	4 818	10.4	3 973	8.6	4 522	9.7	4 614	9.9
Sweden	603	6.4	625	6.5	776	8.0	691	7.1	487	4.9	474	4.7
Subtotal EU/EEA	**54 783**	**12.3**	**52 309**	**11.7**	**52 001**	**11.6**	**50 344**	**11.2**	**48 000**	**10.7**	**45 576**	**10.1**
Non-EU/EEA												
Albania	474	16.4	408	14.1	415	14.4	415	14.4	503	17.5	440	15.3
Andorra	5	7.0	6	8.4	4	5.6	4	5.5	1	1.4	2	2.7
Armenia	*1 397*	*48.1*	*1 329*	*46.0*	*1 171*	*40.7*	*1 027*	*35.8*	*841*	*29.5*	*734*	*25.9*
Azerbaijan	*5 860*	*60.9*	*5 788*	*59.4*	*5 456*	*55.3*	*5 159*	*51.7*	*5 231*	*51.9*	*5 038*	*49.6*
Belarus	*4 470*	*46.1*	*3 858*	*39.8*	*3 765*	*38.8*	*3 211*	*33.1*	*2 781*	*28.6*	*2 359*	*24.3*
Bosnia and Herzegovina	1 261	34.9	1 196	33.5	1 092	31.0	907	26.1	766	22.3	666	19.6
Georgia	*3 434*	*90.7*	*3 200*	*84.8*	*3 152*	*83.6*	*2 983*	*79.1*	*2 597*	*68.9*	*2 316*	*61.4*
Israel	308	4.0	361	4.6	280	3.5	250	3.1	234	2.8	292	3.5
Kazakhstan	*18 958*	*109.3*	*15 244*	*86.7*	*14 006*	*78.5*	*12 322*	*68.2*	*12 449*	*68.0*	*12 832*	*69.2*
Kyrgyzstan	*7 075*	*123.7*	*6 390*	*109.9*	*7 027*	*118.8*	*7 026*	*116.7*	*6 687*	*109.2*	*6 338*	*101.8*
Monaco	–	–	0	0.0	0	0.0	2	5.4	0	0.0	0	0.0
Montenegro	119	18.8	113	17.8	80	12.6	87	13.7	75	11.9	84	13.3
North Macedonia	318	15.1	284	13.5	282	13.4	263	12.5	216	10.2	217	10.3
Republic of Moldova	*4 485*	*131.3*	*4 058*	*121.6*	*3 608*	*110.1*	*3 571*	*110.7*	*3 358*	*105.6*	*3 022*	*96.2*
Russian Federation	*106 053*	*73.7*	*102 340*	*70.9*	*99 590*	*68.8*	*92 407*	*63.7*	*84 510*	*58.1*	*78 258*	*53.7*
San Marino	–	–	–	–	–	–	0	0.0	0	0.0	0	0.0
Serbia	2 106	27.8	1 818	24.1	1 649	21.9	1 472	19.6	1 450	19.4	1 330	17.9
Serbia excluding Kosovo[1]	1 184	16.2	984	13.8	879	12.4	755	10.7	738	10.5	641	9.1
Kosovo[1]	922	54.0	834	44.8	770	43.5	717	40.4	712	39.9	689	38.5
Switzerland	466	5.8	423	5.2	531	6.4	573	6.8	529	6.3	473	5.6
Tajikistan	*5 576*	*68.5*	*5 807*	*69.7*	*5 894*	*69.1*	*5 965*	*68.4*	*5 895*	*66.0*	*5 726*	*62.7*
Türkiye	*13 170*	*17.2*	*13 108*	*16.8*	*12 550*	*15.8*	*12 186*	*15.0*	*11 821*	*14.4*	*11 576*	*14.0*
Turkmenistan	3 047	54.8	2 537	44.8	2 191	38.0	2 068	35.2	1 968	33.0	2 157	35.6
Ukraine	*36 510*	*80.6*	*31 701*	*70.2*	*30 151*	*67.0*	*29 052*	*64.8*	*27 229*	*61.0*	*26 512*	*59.6*
United Kingdom	7 384	11.5	6 622	10.2	5 854	9.0	5 793	8.8	5 248	7.9	4 775	7.2
Uzbekistan	*20 812*	*69.5*	*18 345*	*60.3*	*16 315*	*52.7*	*16 050*	*51.0*	*16 842*	*52.7*	*16 413*	*50.6*
Subtotal non-EU/EEA	**243 288**	**53.0**	**224 936**	**48.6**	**215 063**	**46.1**	**202 793**	**43.2**	**191 231**	**40.5**	**181 560**	**38.2**
Total European Region	**298 071**	**32.9**	**277 245**	**30.5**	**267 064**	**29.2**	**253 137**	**27.6**	**239 231**	**25.9**	**227 136**	**24.6**
Subtotal 18 HPCs	*250 992*	*63.4*	*232 820*	*58.4*	*223 008*	*55.6*	*209 502*	*51.9*	*197 903*	*48.7*	*187 360*	*46.2*

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

2019		2020		2021		2022		Mean annual % change in rate, 2018–2022	Mean annual % change in rate, 2013–2022	Country/area
N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000			
										EU/EEA
464	5.3	382	4.3	387	4.3	366	4.1	-6.5%	-6.5%	Austria
890	7.8	774	6.8	811	7.0	786	6.8	-4.0%	-1.8%	Belgium
1 288	*18.3*	*887*	*12.7*	*673*	*9.7*	*764*	*11.0*	*-11.7%*	*-9.2%*	*Bulgaria*
297	7.2	191	4.7	170	4.2	206	5.1	-12.6%	-9.0%	Croatia
66	7.6	34	3.9	48	5.4	94	10.5	15.2%	9.2%	Cyprus
455	4.3	356	3.3	352	3.3	379	3.5	-3.6%	-2.5%	Czechia
263	4.5	207	3.6	200	3.4	205	3.5	-7.0%	-5.6%	Denmark
147	*11.1*	*120*	*9.1*	*107*	*8.1*	*125*	*9.4*	*-3.9%*	*-8.0%*	*Estonia*
225	4.1	174	3.2	170	3.1	190	3.4	-4.4%	-3.8%	Finland
4 924	7.3	4 313	6.4	3 979	5.9	3 831	5.7	-5.6%	-3.2%	France
4 656	5.6	4 066	4.9	3 827	4.6	3 893	4.7	-7.7%	-0.9%	Germany
434	4.0	380	3.5	195	1.8	302	2.8	-6.9%	-4.9%	Greece
528	5.4	384	3.9	314	3.2	435	4.5	-7.6%	-9.0%	Hungary
13	3.7	12	3.4	7	1.9	16	4.3	16.4%	2.6%	Iceland
238	4.9	224	4.6	210	4.2	197	3.9	-10.2%	-7.1%	Ireland
3 185	5.3	2 163	3.6	2 378	4.0	2 294	3.9	-11.2%	-4.4%	Italy
–	–	–	–	*255*	*13.4*	*306*	*16.2*	–	*-10.2%*	*Latvia*
0	0.0	2	5.2	1	2.6	1	2.6	-0.8%	–	Liechtenstein
1 006	*35.8*	*688*	*24.6*	*628*	*22.5*	*724*	*25.9*	*-8.7%*	*-7.5%*	*Lithuania*
48	8.0	32	5.2	34	5.4	47	7.4	1.0%	0.3%	Luxembourg
98	20.6	140	28.4	54	10.5	60	11.6	-0.7%	-0.3%	Malta
739	4.3	613	3.5	669	3.8	625	3.6	-5.9%	-3.5%	Netherlands (Kingdom of the)
154	2.9	142	2.7	139	2.6	152	2.8	-5.8%	-9.8%	Norway
4 983	13.1	3 150	8.3	3 446	9.1	4 037	10.7	-6.0%	-5.9%	Poland
1 849	18.0	1 477	14.4	1 489	14.5	1 476	14.3	-5.8%	-4.8%	Portugal
11 070	*56.7*	*7 189*	*37.0*	*7 588*	*39.3*	*8 818*	*45.9*	*-6.1%*	*-5.6%*	*Romania*
214	3.9	153	2.8	134	2.5	142	2.6	-15.2%	-10.9%	Slovakia
98	4.7	75	3.6	79	3.8	72	3.4	-7.9%	-7.3%	Slovenia
4 395	9.4	3 494	7.4	2 631	5.6	2 580	5.4	-13.9%	-7.9%	Spain
478	4.7	312	3.0	340	3.3	357	3.4	-7.7%	-6.6%	Sweden
43 205	**9.6**	**32 134**	**7.1**	**31 315**	**6.9**	**33 480**	**7.4**	**-7.5%**	**-5.5%**	**Subtotal EU/EEA**
										Non-EU/EEA
412	14.3	240	8.4	269	9.4	292	10.3	-9.5%	-5.1%	Albania
5	6.5	2	2.6	2	2.5	4	5.0	17.1%	-3.7%	Andorra
621	*22.0*	*394*	*14.0*	*398*	*14.3*	*440*	*15.8*	*-11.6%*	*-11.6%*	*Armenia*
4 823	*47.1*	*3 683*	*35.8*	*3 663*	*35.5*	*3 989*	*38.5*	*-6.1%*	*-5.0%*	*Azerbaijan*
2 207	*22.8*	*1 514*	*15.7*	*1 484*	*15.5*	*1 670*	*17.5*	*-7.9%*	*-10.2%*	*Belarus*
580	17.3	357	10.8	362	11.1	432	13.4	-9.1%	-10.1%	Bosnia and Herzegovina
2 169	*57.5*	*1 671*	*44.4*	*1 501*	*39.9*	*1 511*	*40.4*	*-10.0%*	*-8.6%*	*Georgia*
217	2.5	158	1.8	213	2.4	203	2.2	-10.2%	-6.2%	Israel
12 501	*66.7*	*9 603*	*50.6*	*9 757*	*50.8*	*10 009*	*51.6*	*-7.1%*	*-8.0%*	*Kazakhstan*
6 138	*97.1*	*4 241*	*66.0*	*4 596*	*70.4*	*4 568*	*68.9*	*-9.3%*	*-6.3%*	*Kyrgyzstan*
0	0.0	0	0.0	0	0.0	–	–	–	–	Monaco
80	12.7	40	6.4	80	12.7	71	11.3	-3.9%	-5.5%	Montenegro
199	9.4	143	6.8	143	6.8	144	6.9	-9.5%	-8.4%	North Macedonia
2 809	*90.3*	*1 767*	*57.3*	*2 067*	*67.5*	*2 121*	*64.8*	*-9.4%*	*-7.5%*	*Republic of Moldova*
73 328	*50.3*	*58 723*	*40.3*	*56 922*	*39.2*	*55 906*	*38.6*	*-7.9%*	*-6.9%*	*Russian Federation*
0	0.0	–	0.0	–	–	–	–	–	–	San Marino
1 106	14.9	439	6.0	445	6.1	1 074	14.9	-4.5%	-6.7%	Serbia
501	7.2	–	–	–	–	459	6.8	-7.2%	-9.3%	Serbia excluding Kosovo[1]
605	33.8	439	23.4	445	24.6	615	34.2	-2.9%	-4.9%	Kosovo[1]
402	4.7	351	4.1	355	4.1	346	4.0	-8.1%	-4.1%	Switzerland
5 755	*61.6*	*4 148*	*43.5*	*4 158*	*42.6*	*4 294*	*43.1*	*-8.9%*	*-5.0%*	*Tajikistan*
11 247	*13.5*	*8 830*	*10.5*	*9 047*	*10.7*	*9 723*	*11.4*	*-5.0%*	*-4.5%*	*Türkiye*
2 117	34.4	1 918	30.7	1 878	29.6	2 503	38.9	2.3%	-3.7%	Turkmenistan
25 379	*57.4*	*17 533*	*39.9*	*18 307*	*42.1*	*18 567*	*46.8*	*-5.9%*	*-5.9%*	*Ukraine*
4 803	7.2	4 185	6.2	4 795	7.1	4 716	7.0	-0.7%	-5.4%	United Kingdom
16 272	*49.3*	*12 111*	*36.1*	*13 544*	*39.7*	*14 302*	*41.3*	*-4.9%*	*-5.6%*	*Uzbekistan*
173 170	**36.3**	**132 051**	**27.6**	**133 986**	**27.9**	**136 885**	**28.6**	**-7.0%**	**-6.6%**	**Subtotal non-EU/EEA**
216 375	**23.4**	**164 185**	**17.7**	**165 301**	**17.8**	**170 365**	**18.3**	**-7.1%**	**-6.3%**	**Total European Region**
178 877	*43.9*	*135 020*	*33.0*	*136 573*	*33.4*	*140 340*	*34.3*	*-7.1%*	*-6.6%*	*Subtotal 18 HPCs*

[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 IV. TB cases in children under 15 years, European Region, 2018–2022[a]

Country/area	2018			2019			2020			2021			2022		
	N	Percentage among all TB	Rate per 100 000	N	Percentage among all TB	Rate per 100 000	N	Percentage among all TB	Rate per 100 000	N	Percentage among all TB	Rate per 100 000	N	Percentage among all TB	Rate per 100 000
EU/EEA															
Austria	28	(5.8)	2.2	22	(4.6)	1.7	12	(3.1)	0.9	14	(3.5)	1.1	13	(3.5)	1.0
Belgium	60	(6.1)	3.1	50	(5.2)	2.6	48	(5.8)	2.5	40	(4.6)	2.1	49	(5.8)	2.5
Bulgaria	*72*	*(5.3)*	*7.2*	*59*	*(4.4)*	*5.9*	*24*	*(2.6)*	*2.4*	*18*	*(2.6)*	*1.8*	*39*	*(4.9)*	*3.9*
Croatia	8	(2.2)	1.4	1	(0.3)	0.2	2	(1.0)	0.3	2	(1.2)	0.4	1	(0.5)	0.2
Cyprus	1	(1.9)	0.7	2	(2.9)	1.4	0	(0.0)	0.0	0	(0.0)	0.0	2	(2.1)	1.4
Czechia	5	(1.1)	0.3	4	(0.9)	0.2	2	(0.6)	0.1	12	(3.4)	0.7	11	(2.9)	0.6
Denmark	11	(3.8)	1.1	16	(5.6)	1.7	10	(4.5)	1.1	6	(2.8)	0.6	5	(2.2)	0.5
Estonia	*2*	*(1.4)*	*0.9*	*1*	*(0.7)*	*0.5*	*1*	*(0.8)*	*0.5*	*0*	*(0.0)*	*0.0*	*0*	*(0.0)*	*0.0*
Finland	2	(0.9)	0.2	9	(4.0)	1.0	5	(2.9)	0.6	4	(2.4)	0.5	7	(3.7)	0.8
France	248	(4.9)	2.0	238	(4.6)	2.0	195	(4.3)	1.6	171	(4.1)	1.4	180	(4.5)	1.5
Germany	213	(3.9)	1.9	195	(4.0)	1.7	172	(4.1)	1.5	157	(4.0)	1.4	190	(4.7)	1.6
Greece	6	(1.4)	0.4	17	(3.7)	1.1	17	(4.3)	1.1	7	(3.4)	0.5	6	(1.9)	0.4
Hungary	3	(0.5)	0.2	10	(1.8)	0.7	5	(1.2)	0.4	4	(1.2)	0.3	6	(1.4)	0.4
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	2	(16.7)	2.9	0	(0.0)	0.0	0	(0.0)	0.0
Ireland	7	(2.3)	0.7	9	(3.5)	0.9	6	(2.5)	0.6	1	(0.5)	0.1	5	(2.3)	0.5
Italy	164	(4.2)	2.1	180	(5.4)	2.3	104	(4.5)	1.4	76	(3.1)	1.0	78	(3.2)	1.0
Latvia	–	–	–	–	–	–	–	–	–	*5*	*(1.9)*	*1.7*	*5*	*(1.6)*	*1.7*
Liechtenstein	0	(0.0)	0.0	–	–	–	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
Lithuania	*19*	*(1.7)*	*4.5*	*27*	*(2.6)*	*6.4*	*13*	*(1.8)*	*3.1*	*13*	*(2.0)*	*3.1*	*15*	*(2.0)*	*3.6*
Luxembourg	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(2.1)	1.0
Malta	1	(1.8)	1.5	2	(2.0)	2.9	7	(5.0)	10.1	1	(1.9)	1.4	1	(1.6)	1.4
Netherlands (Kingdom of the)	21	(2.6)	0.8	48	(6.4)	1.8	19	(3.1)	0.7	26	(3.8)	1.0	21	(3.3)	0.8
Norway	7	(3.4)	0.7	4	(2.4)	0.4	10	(6.4)	1.1	4	(2.6)	0.4	6	(3.4)	0.7
Poland	52	(0.9)	0.9	81	(1.5)	1.4	39	(1.2)	0.7	37	(1.0)	0.6	42	(1.0)	0.7
Portugal	50	(2.6)	3.6	70	(3.7)	5.0	43	(2.8)	3.1	45	(2.9)	3.4	51	(3.4)	3.8
Romania	*542*	*(4.4)*	*17.8*	*390*	*(3.4)*	*12.9*	*261*	*(3.4)*	*8.6*	*281*	*(3.5)*	*9.1*	*326*	*(3.5)*	*10.6*
Slovakia	40	(14.2)	4.7	35	(16.4)	4.1	35	(22.2)	4.0	41	(29.9)	4.7	43	(27.7)	4.9
Slovenia	1	(1.0)	0.3	2	(2.0)	0.6	0	(0.0)	0.0	2	(2.5)	0.6	2	(2.7)	0.6
Spain	302	(6.3)	4.4	319	(7.0)	4.6	193	(5.3)	2.9	155	(4.3)	2.3	197	(5.3)	3.0
Sweden	31	(6.4)	1.7	19	(4.0)	1.0	16	(4.9)	0.9	15	(4.2)	0.8	19	(5.0)	1.0
Subtotal EU/EEA	**1 896**	**(3.6)**	**2.7**	**1 810**	**(3.6)**	**2.6**	**1 241**	**(3.7)**	**1.8**	**1 137**	**(3.4)**	**1.7**	**1 321**	**(3.7)**	**1.9**
Non-EU/EEA															
Albania	4	(0.9)	0.8	11	(2.7)	2.3	3	(1.3)	0.6	8	(3.0)	1.7	6	(2.1)	1.3
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	*37*	*(5.0)*	*6.5*	*38*	*(6.1)*	*6.6*	*23*	*(5.8)*	*4.0*	*18*	*(4.5)*	*3.2*	*17*	*(3.9)*	*3.0*
Azerbaijan	*200*	*(4.0)*	*8.0*	*179*	*(3.7)*	*7.2*	*91*	*(2.5)*	*3.7*	*77*	*(2.1)*	*3.1*	*110*	*(2.8)*	*4.5*
Belarus	*12*	*(0.5)*	*0.7*	*8*	*(0.4)*	*0.5*	*4*	*(0.3)*	*0.2*	*5*	*(0.3)*	*0.3*	*7*	*(0.4)*	*0.4*
Bosnia and Herzegovina	5	(0.8)	1.0	3	(0.5)	0.6	1	(0.3)	0.2	1	(0.3)	0.2	0	(0.0)	0.0
Georgia	*77*	*(3.3)*	*10.0*	*72*	*(3.3)*	*9.2*	*48*	*(2.9)*	*6.1*	*47*	*(3.1)*	*5.9*	*45*	*(3.0)*	*5.7*
Israel	16	(5.5)	0.7	7	(3.2)	0.3	4	(2.5)	0.2	10	(4.7)	0.4	26	(12.8)	1.0
Kazakhstan	*362*	*(2.8)*	*6.9*	*351*	*(2.8)*	*6.5*	*303*	*(3.2)*	*5.5*	*300*	*(3.1)*	*5.3*	*293*	*(2.9)*	*5.1*
Kyrgyzstan	*310*	*(4.9)*	*14.8*	*305*	*(5.0)*	*14.1*	*180*	*(4.2)*	*8.2*	*239*	*(5.2)*	*10.6*	*333*	*(7.3)*	*14.6*
Monaco	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–	–	–
Montenegro	2	(2.4)	1.7	1	(1.3)	0.9	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
North Macedonia	12	(5.5)	3.5	12	(6.0)	3.5	10	(7.0)	2.9	3	(2.1)	0.9	7	(4.9)	2.1
Republic of Moldova	*95*	*(3.1)*	*15.7*	*101*	*(3.6)*	*16.7*	*56*	*(3.2)*	*9.2*	*89*	*(4.3)*	*14.7*	*83*	*(3.9)*	*13.1*
Russian Federation	*2 169*	*(2.8)*	*8.5*	*2 028*	*(2.8)*	*7.9*	*1 627*	*(2.8)*	*6.3*	*1 746*	*(3.1)*	*6.8*	*1 742*	*(3.1)*	*6.8*
San Marino	0	(0.0)	0.0	0	(0.0)	0.0	–	–	–	–	–	–	–	–	–
Serbia	29	(2.2)	2.8	15	(1.4)	1.4	11	(2.5)	1.1	10	(2.2)	1.0	54	(5.0)	5.2
Serbia excluding Kosovo[1]	6	(0.9)	0.6	4	(0.7)	0.4	–	–	–	–	–	–	21	(4.6)	3.1
Kosovo[1]	23	(3.3)	5.2	11	(1.8)	2.5	11	(2.5)	2.5	10	(2.2)	2.3	33	(5.4)	9.3
Switzerland	26	(5.5)	2.0	15	(3.7)	1.2	16	(4.6)	1.2	7	(2.0)	0.5	16	(4.6)	1.2
Tajikistan	*346*	*(6.0)*	*10.4*	*404*	*(7.0)*	*11.8*	*240*	*(5.8)*	*6.9*	*231*	*(5.6)*	*6.5*	*257*	*(6.0)*	*7.1*
Türkiye	*599*	*(5.2)*	*3.0*	*496*	*(4.4)*	*2.5*	*391*	*(4.4)*	*2.0*	*387*	*(4.3)*	*1.9*	*392*	*(4.0)*	*2.0*
Turkmenistan	*37*	*(1.7)*	*2.0*	*44*	*(2.1)*	*2.3*	*50*	*(2.6)*	*2.6*	*24*	*(1.3)*	*1.2*	*41*	*(1.6)*	*2.0*
Ukraine	*580*	*(2.2)*	*8.4*	*585*	*(2.3)*	*8.6*	*382*	*(2.2)*	*5.7*	*463*	*(2.5)*	*7.0*	*452*	*(2.4)*	*7.4*
United Kingdom	159	(3.3)	1.3	182	(3.8)	1.5	153	(3.7)	1.3	140	(2.9)	1.2	144	(3.1)	1.2
Uzbekistan	*2 029*	*(12.4)*	*21.5*	*2 190*	*(13.5)*	*22.6*	*1 733*	*(14.3)*	*17.4*	*1 825*	*(13.5)*	*17.8*	*1 489*	*(10.4)*	*14.2*
Subtotal non-EU/EEA	**7 106**	**(3.9)**	**7.2**	**7 047**	**(4.1)**	**7.1**	**5 326**	**(4.0)**	**5.3**	**5 630**	**(4.2)**	**5.6**	**5 514**	**(4.0)**	**5.5**
Total European Region	**9 002**	**(4.0)**	**5.4**	**8 857**	**(4.1)**	**5.3**	**6 567**	**(4.0)**	**3.9**	**6 767**	**(4.1)**	**4.0**	**6 835**	**(4.0)**	**4.1**
Subtotal 18 HPCs	*7 488*	*(4.0)*	*8.8*	*7 460*	*(4.2)*	*8.7*	*5 580*	*(4.1)*	*6.5*	*5 908*	*(4.3)*	*6.8*	*5 790*	*(4.1)*	*6.7*

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] For non-EU/EEA countries, new and relapse cases are included; for EU/EEA countries, all tuberculosis cases under 15 years of age are included.
[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 V. RR/MDR-TB[a] notification among new bacteriologically confirmed[b] pulmonary TB cases with available DST results, European Region, 2018–2022

Country/area	2018			2019			2020			2021			2022			Mean annual % change in rate, 2018–2022
	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	
EU/EEA																
Austria	10	(4.6)	0.1	2	(1.0)	0.0	1	(0.6)	0.0	8	(4.7)	0.1	8	(4.5)	0.1	-5.8%
Belgium[c]	5	(1.1)	0.0	9	(2.0)	0.1	3	(0.9)	0.0	3	(0.7)	0.0	5	(1.4)	0.0	-0.5%
Bulgaria	*12*	*(2.3)*	*0.2*	*7*	*(1.3)*	*0.1*	*8*	*(2.2)*	*0.1*	*2*	*(0.7)*	*0.0*	*4*	*(1.3)*	*0.1*	*-23.4%*
Croatia	0	(0.0)	0.0	1	(0.5)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(0.8)	0.0	–
Cyprus	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	3	(10.3)	0.3	2	(3.0)	0.2	–
Czechia	10	(3.3)	0.1	8	(2.4)	0.1	8	(3.3)	0.1	9	(3.5)	0.1	15	(5.6)	0.1	10.9%
Denmark[c]	4	(2.5)	0.1	3	(1.8)	0.1	1	(0.8)	0.0	1	(0.9)	0.0	6	(4.6)	0.1	10.2%
Estonia	*22*	*(21.6)*	*1.7*	*17*	*(17.0)*	*1.3*	*16*	*(18.0)*	*1.2*	*15*	*(21.1)*	*1.1*	*17*	*(21.8)*	*1.3*	*-6.5%*
Finland	4	(3.0)	0.1	2	(1.6)	0.0	0	(0.0)	0.0	2	(2.2)	0.0	7	(6.6)	0.1	14.8%
France	46	(1.7)	0.1	27	(3.5)	0.0	18	(2.7)	0.0	21	(2.7)	0.0	26	(100.0)	0.0	-13.6%
Germany	62	(2.6)	0.1	43	(2.1)	0.1	43	(2.3)	0.1	55	(3.3)	0.1	89	(5.1)	0.1	9.3%
Greece	5	(3.0)	0.0	6	(2.7)	0.1	5	(1.9)	0.0	5	(5.6)	0.0	7	(5.5)	0.1	9.5%
Hungary	8	(2.5)	0.1	8	(3.1)	0.1	6	(3.5)	0.1	7	(4.5)	0.1	13	(5.8)	0.1	13.2%
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Ireland[c]	4	(3.7)	0.1	1	(1.0)	0.0	1	(1.9)	0.0	0	(0.0)	0.0	7	(13.0)	0.1	13.7%
Italy	37	(2.1)	0.1	41	(2.4)	0.1	33	(2.8)	0.1	40	(2.9)	0.1	36	(3.3)	0.1	-0.1%
Latvia	–	–	–	–	–	–	–	–	–	*13*	*(7.3)*	*0.7*	*21*	*(9.2)*	*1.1*	–
Liechtenstein	0	(0.0)	0.0	–	–	–	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Lithuania	*96*	*(12.8)*	*3.4*	*100*	*(13.8)*	*3.6*	*61*	*(12.6)*	*2.2*	*73*	*(15.7)*	*2.6*	*81*	*(15.1)*	*2.9*	*-4.1%*
Luxembourg	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Malta	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(3.6)	0.2	2	(6.5)	0.4	–
Netherlands (Kingdom of the)	3	(0.8)	0.0	7	(2.2)	0.0	5	(1.9)	0.0	7	(2.4)	0.0	6	(2.0)	0.0	18.2%
Norway[c]	6	(6.1)	0.1	1	(1.1)	0.0	2	(2.6)	0.0	6	(9.1)	0.1	7	(7.8)	0.1	3.3%
Poland	37	(1.1)	0.1	32	(0.9)	0.1	29	(1.3)	0.1	39	(1.5)	0.1	64	(2.1)	0.2	14.9%
Portugal	6	(0.6)	0.1	9	(0.9)	0.1	11	(1.5)	0.1	6	(0.7)	0.1	8	(1.1)	0.1	7.3%
Romania	*166*	*(2.6)*	*0.8*	*158*	*(2.5)*	*0.8*	*86*	*(2.1)*	*0.4*	*111*	*(2.4)*	*0.6*	*122*	*(2.3)*	*0.6*	*-6.8%*
Slovakia	1	(0.8)	0.0	1	(1.3)	0.0	0	(0.0)	0.0	3	(4.5)	0.1	3	(5.3)	0.1	31.7%
Slovenia	0	(0.0)	0.0	0	(0.0)	0.0	1	(1.8)	0.0	1	(1.7)	0.0	0	(0.0)	0.0	–
Spain	14	(0.8)	0.0	17	(1.1)	0.0	19	(1.5)	0.0	10	(1.2)	0.0	15	(1.5)	0.0	1.3%
Sweden	5	(1.8)	0.0	5	(2.1)	0.0	4	(2.4)	0.0	4	(2.3)	0.0	9	(4.4)	0.1	14.9%
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	3	(5.1)	0.1	2	(7.7)	0.1	1	(0.8)	0.0	5	(3.2)	0.2	1	(0.6)	0.0	-23.8%
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*	*(20.4)*	*1.8*	*38*	*(16.3)*	*1.3*	*28*	*(14.1)*	*1.0*	*44*	*(21.1)*	*1.6*	*36*	*(15.5)*	*1.3*	*-7.9%*
Azerbaijan	*237*	*(12.0)*	*2.3*	*219*	*(11.5)*	*2.1*	*149*	*(12.0)*	*1.4*	*172*	*(12.2)*	*1.7*	*199*	*(11.9)*	*1.9*	*-4.8%*
Belarus	*559*	*(36.6)*	*5.8*	*561*	*(37.7)*	*5.8*	*401*	*(39.5)*	*4.2*	*390*	*(37.8)*	*4.1*	*499*	*(41.5)*	*5.2*	*-2.4%*
Bosnia and Herzegovina	2	(0.5)	0.1	1	(0.3)	0.0	0	(0.0)	0.0	1	(0.4)	0.0	1	(0.3)	0.0	-14.8%
Georgia	160	(12.2)	4.2	165	(12.1)	4.4	114	(10.7)	3.0	101	(10.6)	2.7	105	(10.7)	2.8	-9.8%
Israel	*15*	*(9.7)*	*0.2*	*9*	*(8.6)*	*0.1*	*5*	*(5.6)*	*0.1*	*9*	*(8.7)*	*0.1*	*11*	*(10.9)*	*0.1*	*-9.0%*
Kazakhstan	*1 706*	*(27.1)*	*9.2*	*1 534*	*(27.0)*	*8.2*	*1 758*	*(36.2)*	*9.3*	*1 932*	*(37.7)*	*10.1*	*1 967*	*(33.5)*	*10.1*	*2.5%*
Kyrgyzstan	*663*	*(28.9)*	*10.7*	*700*	*(29.5)*	*11.1*	*493*	*(28.3)*	*7.7*	*500*	*(25.9)*	*7.7*	*487*	*(23.3)*	*7.3*	*-8.9%*
Monaco	*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*	*0.0%*
North Macedonia	0	(0.0)	0.0	1	(0.8)	0.0	1	(1.2)	0.0	1	(1.0)	0.0	2	(1.9)	0.1	0.0%
Republic of Moldova	*402*	*(28.8)*	*12.8*	*441*	*(32.9)*	*14.2*	*218*	*(26.0)*	*7.1*	*256*	*(25.8)*	*8.4*	*238*	*(21.7)*	*7.3*	*-13.2%*
Russian Federation	*9 654*	*(34.5)*	*6.6*	*9 246*	*(35.3)*	*6.3*	*7 657*	*(36.3)*	*5.3*	*7 707*	*(36.0)*	*5.3*	*8 023*	*(36.5)*	*5.5*	*-4.4%*
San Marino	*0*	*(0.0)*	*0.0*	*0*	*(0.0)*	*0.0*	–	–	–	–	–	–	–	–	–	–
Serbia	2	(0.7)	0.0	2	(0.9)	0.0	–	–	–	–	–	–	2	(1.6)	0.0	0.6%
Serbia excluding Kosovo[1]	2	(0.7)	0.0	2	(0.9)	0.0	–	–	–	–	–	–	2	(1.6)	0.0	2.2%
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	3	(1.1)	0.0	5	(2.6)	0.1	4	(2.3)	0.0	5	(2.3)	0.1	2	(0.6)	0.0	-10.2%
Tajikistan	*696*	*(28.0)*	*7.6*	*672*	*(29.0)*	*7.2*	*408*	*(24.2)*	*4.3*	*501*	*(26.9)*	*5.1*	*416*	*(23.4)*	*4.2*	*-14.0%*
Türkiye	*163*	*(3.5)*	*0.2*	*113*	*(2.4)*	*0.1*	*94*	*(2.5)*	*0.1*	*95*	*(2.6)*	*0.1*	*115*	*(2.9)*	*0.1*	*-9.0%*
Turkmenistan	–	–	–	–	–	–	–	–	–	*251*	*(46.4)*	*4.0*	*(157.0)*	*(21.0)*	*2.4*	–
Ukraine	*3 587*	*(29.0)*	*8.1*	*3 438*	*(27.2)*	*7.8*	*2 515*	*(28.6)*	*5.7*	*2 418*	*(26.2)*	*5.6*	*2 360*	*(25.2)*	*5.9*	*-7.4%*
United Kingdom[c]	24	(1.2)	0.0	27	(1.4)	0.0	31	(2.0)	0.0	33	(1.9)	0.0	32	(1.7)	0.0	7.0%
Uzbekistan	*735*	*(15.2)*	*2.3*	*615*	*(11.7)*	*1.9*	*721*	*(18.3)*	*2.2*	*912*	*(18.5)*	*2.7*	*807*	*(15.8)*	*2.3*	*0.7%*
Subtotal non-EU/EEA	**18 662**	**(26.4)**	**4.0**	**17 789**	**(26.0)**	**3.8**	**14 598**	**(27.5)**	**3.1**	**15 333**	**(27.4)**	**3.2**	**15 460**	**(26.1)**	**3.2**	**-5.1%**
Total European Region	**19 294**	**(21.1)**	**2.1**	**18 350**	**(21.3)**	**2.0**	**15 094**	**(23.1)**	**1.6**	**15 690**	**(22.5)**	**1.7**	**15 908**	**(21.4)**	**1.7**	**-5.0%**
Subtotal 18 HPCs	***18 909***	***(25.3)***	***4.7***	***18 024***	***(24.8)***	***4.5***	***14 727***	***(26.7)***	***3.6***	***15 493***	***(26.5)***	***3.8***	***15 654***	***(25.2)***	***3.8***	***-5.0%***

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics. The resistance pattern at the initiation of treatment is reported to The European Surveillance System irrespective of the method used for drug susceptibility testing or resistance prediction.
DST: drug susceptibility testing; EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; RR/MDR-TB: rifampicin-resistant or multidrug-resistant tuberculosis; TB: tuberculosis.
[a] 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).
[b] 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.
[c] Previous tuberculosis history is defined as previous diagnosis.
[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 VI. RR/MDR-TB[a] notification among previously treated bacteriologically confirmed[b] pulmonary TB cases with available DST results, European Region, 2018–2022

Country/area	2018			2019			2020			2021			2022			Mean annual % change in rate, 2018–2022
	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	
EU/EEA																
Austria	3	(21.4)	0.0	1	(8.3)	0.0	1	(20.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0%
Belgium[c]	1	(2.9)	0.0	4	(10.0)	0.0	0	(0.0)	0.0	2	(8.3)	0.0	2	(6.7)	0.0	18.4%
Bulgaria	*16*	*(21.3)*	*0.2*	*7*	*(14.0)*	*0.1*	*4*	*(11.1)*	*0.1*	*2*	*(11.1)*	*0.0*	*1*	*(3.8)*	*0.0*	*-49.6%*
Croatia	1	(6.3)	0.0	0	(0.0)	0.0	1	(12.5)	0.0	0	(0.0)	0.0	1	(14.3)	0.0	1.5%
Cyprus	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Czechia	0	(0.0)	0.0	0	(0.0)	0.0	3	(30.0)	0.0	1	(6.7)	0.0	1	(5.9)	0.0	–
Denmark[c]	0	(0.0)	0.0	0	(0.0)	0.0	1	(14.3)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Estonia	*10*	*(52.6)*	*0.8*	*10*	*(47.6)*	*0.8*	*3*	*(27.3)*	*0.2*	*10*	*(71.4)*	*0.8*	*7*	*(43.8)*	*0.5*	*-8.7%*
Finland	0	(0.0)	0.0	1	(25.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(33.3)	0.0	–
France	36	(14.8)	0.1	26	(14.8)	0.1	11	(100.0)	0.0	6	(100.0)	0.0	12	(100.0)	0.0	-24.3%
Germany	24	(17.5)	0.0	17	(13.9)	0.0	6	(6.0)	0.0	9	(7.8)	0.0	20	(14.7)	0.0	-4.6%
Greece	0	(0.0)	0.0	1	(5.9)	0.0	1	(7.1)	0.0	0	(0.0)	0.0	2	(14.3)	0.0	–
Hungary	5	(13.9)	0.1	5	(20.8)	0.1	5	(23.8)	0.1	5	(21.7)	0.1	1	(7.7)	0.0	-33.0%
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Ireland[c]	0	(0.0)	0.0	1	(11.1)	0.0	0	(0.0)	0.0	2	(50.0)	0.0	2	(25.0)	0.0	–
Italy	12	(17.9)	0.0	4	(17.9)	0.0	6	(12.9)	0.0	4	(23.1)	0.0	3	(26.7)	0.0	-28.9%
Latvia	–	–	–	–	–	–	–	–	–	*5*	*(20.8)*	*0.3*	*3*	*(18.8)*	*0.2*	–
Liechtenstein	0	(0.0)	0.0	–	–	–	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Lithuania	*92*	*(42.2)*	*3.3*	*70*	*(38.9)*	*2.5*	*43*	*(32.1)*	*1.5*	*32*	*(33.3)*	*1.1*	*32*	*(28.8)*	*1.1*	*-23.2%*
Luxembourg	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Malta	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Netherlands (Kingdom of the)	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	3	(17.6)	0.0	2	(11.8)	0.0	–
Norway[c]	0	(0.0)	0.0	1	(14.3)	0.0	0	(0.0)	0.0	2	(22.2)	0.0	1	(12.5)	0.0	–
Poland	18	(4.1)	0.0	12	(3.0)	0.0	11	(3.3)	0.0	19	(5.7)	0.1	33	(9.0)	0.1	16.6%
Portugal	2	(3.9)	0.0	5	(7.7)	0.0	3	(8.3)	0.0	3	(6.7)	0.0	2	(8.7)	0.0	-0.1%
Romania	*271*	*(14.7)*	*1.4*	*220*	*(12.8)*	*1.1*	*168*	*(13.7)*	*0.9*	*140*	*(11.6)*	*0.7*	*140*	*(10.5)*	*0.7*	*-14.7%*
Slovakia	2	(13.3)	0.0	4	(19.0)	0.1	1	(9.1)	0.0	2	(40.0)	0.0	2	(14.3)	0.0	0.0%
Slovenia	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(20.0)	0.0	–
Spain	4	(9.3)	0.0	1	(1.6)	0.0	3	(5.9)	0.0	14	(2.6)	0.0	11	(1.9)	0.0	28.2%
Sweden	2	(18.2)	0.0	0	(0.0)	0.0	1	(10.0)	0.0	0	(0.0)	0.0	2	(15.4)	0.0	-0.8%
Subtotal EU/EEA	**499**	**(15.3)**	**0.1**	**390**	**(13.0)**	**0.1**	**272**	**(13.0)**	**0.1**	**261**	**(10.2)**	**0.1**	**282**	**(10.0)**	**0.1**	**-13.4%**
Non-EU/EEA																
Albania	1	(25.0)	0.0	2	(66.7)	0.1	3	(23.1)	0.1	1	(25.0)	0.0	2	(15.4)	0.1	19.3%
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	*34*	*(41.5)*	*1.2*	*27*	*(40.9)*	*1.0*	*24*	*(50.0)*	*0.9*	*20*	*(42.6)*	*0.7*	*20*	*(43.5)*	*0.7*	*-12.0%*
Azerbaijan	*701*	*(25.6)*	*6.9*	*533*	*(24.4)*	*5.2*	*552*	*(24.4)*	*5.4*	*487*	*(22.6)*	*4.7*	*487*	*(22.6)*	*4.7*	*-9.2%*
Belarus	*425*	*(69.4)*	*4.4*	*313*	*(59.8)*	*3.2*	*424*	*(74.5)*	*4.4*	*367*	*(73.5)*	*3.8*	*222*	*(42.7)*	*2.3*	*-14.6%*
Bosnia and Herzegovina	0	(0.0)	0.0	–	–	–	0	(0.0)	0.0	0	(0.0)	0.0	2	(7.4)	0.1	–
Georgia	*137*	*(30.9)*	*3.6*	*139*	*(32.1)*	*3.7*	*77*	*(26.5)*	*2.0*	*79*	*(29.6)*	*2.1*	*60*	*(23.6)*	*1.6*	*-18.5%*
Israel	*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*	–
Kazakhstan	*2 337*	*(64.3)*	*12.6*	*1 446*	*(44.5)*	*7.7*	*1 101*	*(49.7)*	*5.8*	*1 011*	*(42.1)*	*5.3*	*1 461*	*(57.9)*	*7.5*	*-12.1%*
Kyrgyzstan	*850*	*(68.3)*	*13.7*	*603*	*(60.1)*	*9.5*	*377*	*(54.0)*	*5.9*	*339*	*(50.7)*	*5.2*	*294*	*(45.0)*	*4.4*	*-24.5%*
Monaco	*(0.0)*	*(0.0)*	*0.0*	*(0.0)*	*(0.0)*	*0.0*	*(0.0)*	*(0.0)*	*0.0*	*(0.0)*	*(0.0)*	*0.0*	–	–	–	–
Montenegro	*1*	*(33.3)*	*0.2*	*0*	*(0.0)*	*0.0*	*0*	*(0.0)*	*0.0*	*0*	*(0.0)*	*0.0*	*0*	*(0.0)*	*0.0*	*-100.0%*
North Macedonia	0	(0.0)	0.0	0	(0.0)	0.0	1	(10.0)	0.0	1	(9.1)	0.0	2	(20.0)	0.1	–
Republic of Moldova	*359*	*(59.6)*	*11.4*	*118*	*(34.2)*	*3.8*	*195*	*(53.1)*	*6.3*	*203*	*(39.6)*	*6.6*	*190*	*(58.1)*	*5.8*	*-15.6%*
Russian Federation	*17 011*	*(70.6)*	*11.7*	*17 199*	*(70.8)*	*11.8*	*14 306*	*(68.4)*	*9.8*	*12 745*	*(67.7)*	*8.8*	*11 022*	*(67.3)*	*7.6*	*-10.1%*
San Marino	*0*	*(0.0)*	*0.0*	*0*	*(0.0)*	*0.0*	–	–	–	–	–	–	–	–	–	–
Serbia	1	(3.7)	0.0	0	(0.0)	0.0	–	–	–	–	–	–	0	(0.0)	0.0	–
Serbia excluding Kosovo[1]	1	(13.3)	0.0	0	(0.0)	0.0	–	–	–	–	–	–	0	(0.0)	0.0	–
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	1	(6.7)	0.0	4	(16.7)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0%
Tajikistan	*208*	*(37.8)*	*2.3*	*206*	*(40.4)*	*2.2*	*147*	*(43.2)*	*1.5*	*105*	*(34.4)*	*1.1*	*102*	*(32.3)*	*1.0*	*-18.1%*
Türkiye	*53*	*(11.9)*	*0.1*	*37*	*(9.7)*	*0.0*	*33*	*(11.1)*	*0.0*	*25*	*(10.1)*	*0.0*	*33*	*(11.4)*	*0.0*	*-11.8%*
Turkmenistan	–	–	–	–	–	–	–	–	–	*165*	*(55.9)*	*2.6*	*(245.0)*	*(48.6)*	*3.8*	–
Ukraine	*2 888*	*(46.4)*	*6.5*	*2 498*	*(42.9)*	*5.7*	*1 662*	*(41.3)*	*3.8*	*1 607*	*(40.4)*	*3.7*	*1 287*	*(36.7)*	*3.2*	*-16.0%*
United Kingdom[c]	8	(5.3)	0.0	4	(3.3)	0.0	4	(5.3)	0.0	5	(6.4)	0.0	2	(3.3)	0.0	-29.6%
Uzbekistan	*687*	*(34.1)*	*2.1*	*467*	*(21.8)*	*1.4*	*679*	*(38.4)*	*2.0*	*740*	*(39.6)*	*2.2*	*693*	*(33.1)*	*2.0*	*-1.4%*
Subtotal non-EU/EEA	**25 702**	**(59.9)**	**5.4**	**23 596**	**(57.3)**	**5.0**	**19 585**	**(57.2)**	**4.1**	**17 900**	**(55.6)**	**3.7**	**16 124**	**(54.3)**	**3.4**	**-11.1%**
Total European Region	**26 201**	**(56.7)**	**2.8**	**23 986**	**(54.6)**	**2.6**	**19 857**	**(54.7)**	**2.1**	**18 161**	**(52.9)**	**2.0**	**16 406**	**(50.3)**	**1.8**	**-11.2%**
Subtotal 18 HPCs	*26 079*	*(58.2)*	*6.4*	*23 893*	*(55.7)*	*5.9*	*19 795*	*(55.8)*	*4.8*	*18 082*	*(54.0)*	*4.4*	*16 299*	*(52.3)*	*4.0*	*-11.1%*

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics. The resistance pattern at the initiation of treatment is reported to The European Surveillance System irrespective of the method used for drug susceptibility testing or resistance prediction.
DST: drug susceptibility testing; EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; RR/MDR-TB: rifampicin-resistant or multidrug-resistant tuberculosis; TB: tuberculosis.
The resistance pattern at the initiation of treatment is reported to TESSy irrespective of the method used for drug susceptibility testing or resistance prediction.
[a] 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).
[b] 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.
[c] Previous tuberculosis history is defined as previous diagnosis.
[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 VII. RR/MDR-TB[a] notification among all bacteriologically confirmed[b] TB cases with available DST results, EU/EEA, 2018–2022

Country/area	2018			2019			2020			2021			2022			Mean annual % change in rate, 2018–2022
	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	N	%	Rate per 100 000	
EU/EEA																
Austria	15	(5.3)	0.2	4	(1.5)	0.0	2	(0.9)	0.0	8	3.5	0.1	11	(4.7)	0.1	-7.9%
Belgium	7	(1.3)	0.1	13	(2.4)	0.1	9	(2.1)	0.1	6	1.3	0.1	11	(2.4)	0.1	11.4%
Bulgaria	*28*	*(5.1)*	*0.4*	*14*	*(3.1)*	*0.2*	*12*	*(4.9)*	*0.2*	*4*	*(2.3)*	*0.1*	*5*	*(2.3)*	*0.1*	*-34.5%*
Croatia	2	(0.7)	0.0	1	(0.4)	0.0	1	(0.6)	0.0	0	(0.0)	0.0	2	(1.4)	0.1	1.5%
Cyprus	0	(0.0)	0.0	1	(2.0)	0.1	0	(0.0)	0.0	3	(9.4)	0.3	2	(2.9)	0.2	–
Czechia	10	(3.4)	0.1	8	(2.5)	0.1	11	(4.7)	0.1	10	(3.9)	0.1	16	(6.1)	0.2	12.7%
Denmark	4	(2.3)	0.1	3	(1.6)	0.1	2	(1.5)	0.0	1	(0.8)	0.0	6	(4.2)	0.1	10.2%
Estonia	*32*	*(26.4)*	*2.4*	*27*	*(22.3)*	*2.0*	*19*	*(19.0)*	*1.4*	*25*	*(29.4)*	*1.9*	*24*	*(25.5)*	*1.8*	*-7.2%*
Finland	4	(3.1)	0.1	3	(2.3)	0.1	0	(0.0)	0.0	3	(3.3)	0.1	8	(7.5)	0.1	18.7%
France	82	(2.7)	0.1	77	(100.0)	0.1	45	(100.0)	0.1	38	(100.0)	0.1	49	(100.0)	0.1	-17.5%
Germany	108	(3.5)	0.1	77	(2.8)	0.1	74	(3.1)	0.1	81	(3.8)	0.1	154	(6.7)	0.2	9.1%
Greece	6	(4.4)	0.1	7	(3.5)	0.1	7	(2.4)	0.1	5	(7.2)	0.0	9	(6.8)	0.1	11.4%
Hungary	13	(3.8)	0.1	13	(4.9)	0.1	11	(6.2)	0.1	12	(7.3)	0.1	14	(6.3)	0.1	2.1%
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(11.1)	0.3	–
Ireland	5	(3.3)	0.1	3	(2.2)	0.1	1	(1.4)	0.0	4	(6.1)	0.1	9	(12.2)	0.2	14.5%
Italy	49	(2.7)	0.1	45	(2.6)	0.1	39	(3.3)	0.1	44	(3.1)	0.1	39	(3.5)	0.1	-11.4%
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	*25*	*(11.0)*	*1.3*	–
Liechtenstein	0	(0.0)	0.0	–	–	–	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Lithuania	*188*	*(19.4)*	*6.7*	*170*	*(18.8)*	*6.1*	*104*	*(16.9)*	*3.7*	*105*	*(18.7)*	*3.8*	*113*	*(17.5)*	*4.0*	*-11.9%*
Luxembourg	1	(3.4)	0.2	1	(3.8)	0.2	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0%
Malta	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(3.7)	0.2	2	(6.3)	0.4	–
Netherlands (Kingdom of the)	3	(0.8)	0.0	7	(2.2)	0.0	5	(1.9)	0.0	10	(3.3)	0.1	8	(2.6)	0.0	27.0%
Norway	6	(5.5)	0.1	2	(2.2)	0.0	2	(2.3)	0.0	8	(10.7)	0.1	8	(8.2)	0.1	6.8%
Poland	55	(1.5)	0.1	44	(1.2)	0.1	40	(1.7)	0.1	58	(2.1)	0.2	97	(3.1)	0.3	15.5%
Portugal	8	(0.9)	0.1	14	(1.8)	0.1	14	(2.4)	0.1	9	(1.4)	0.1	10	(2.0)	0.1	5.6%
Romania	*437*	*(5.5)*	*2.2*	*378*	*(4.9)*	*1.9*	*254*	*(5.2)*	*1.3*	*251*	*(4.5)*	*1.3*	*262*	*(4.2)*	*1.4*	*-11.4%*
Slovakia	3	(2.3)	0.1	5	(4.7)	0.1	1	(1.6)	0.0	5	(6.8)	0.1	5	(6.9)	0.1	13.7%
Slovenia	0	(0.0)	0.0	0	(0.0)	0.0	1	(1.6)	0.0	1	(1.6)	0.0	1	(1.7)	0.0	–
Spain	18	(2.1)	0.0	18	(1.7)	0.0	26	(2.2)	0.1	25	(2.4)	0.1	31	(2.0)	0.1	14.1%
Sweden	7	(2.4)	0.1	6	(2.3)	0.1	5	(2.8)	0.0	4	(2.1)	0.0	11	(4.7)	0.1	11.1%
Total EU/EEA	**1 091**	**(4.2)**	**0.2**	**941**	**(3.6)**	**0.2**	**685**	**(4.2)**	**0.2**	**739**	**(4.4)**	**0.2**	**933**	**(5.0)**	**0.2**	**-3.9%**

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region five TB high-priority countries in the EU/EEA are presented in italics. The resistance pattern at the initiation of treatment is reported to The European Surveillance System irrespective of the method used for drug susceptibility testing or resistance prediction.
DST: drug susceptibility testing; EEA: European Economic Area; EU: European Union; N: number; RR/MDR-TB: rifampicin-resistant or multidrug-resistant tuberculosis; TB: tuberculosis.
[a] 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).
[b] Culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases.

Table VIII. Pre-XDR tuberculosis notification among pulmonary RR/MDR-TB[a] cases with DST results to fluoroquinolones, European Region, 2018–2022[b]

Country/area	2018			2019			2020			2021			2022		
	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	15	4	(26.7)	3	2	(66.7)	2	0	(0.0)	8	1	(12.5)	11	1	(9.1)
Belgium	7	5	(71.4)	11	2	(18.2)	5	1	(20.0)	6	0	(0.0)	7	0	(0.0)
Bulgaria	*28*	*5*	*(17.9)*	*14*	*4*	*(28.6)*	*10*	*2*	*(20.0)*	*4*	*1*	*(25.0)*	*5*	*1*	*(20.0)*
Croatia	0	–	–	1	1	(100.0)	0	–	–	0	–	–	0	–	–
Cyprus	0	–	–	1	0	(0.0)	0	–	–	3	0	(0.0)	2	0	(0.0)
Czechia	10	1	(10.0)	2	0	(0.0)	5	3	(60.0)	10	2	(20.0)	13	4	(30.8)
Denmark	4	0	(0.0)	3	0	(0.0)	2	0	(0.0)	1	1	(100.0)	6	0	(0.0)
Estonia	*32*	*10*	*(31.3)*	*25*	*5*	*(20.0)*	*19*	*6*	*(31.6)*	*24*	*10*	*(41.7)*	*21*	*7*	*(33.3)*
Finland	0	–	–	0	–	–	0	–	–	1	0	(0.0)	8	3	(37.5)
France	46	19	(41.3)	77	14	(18.2)	41	8	(19.5)	28	6	(21.4)	48	9	(18.8)
Germany	68	24	(35.3)	59	12	(20.3)	55	11	(20.0)	52	9	(17.3)	112	29	(25.9)
Greece	6	1	(16.7)	4	0	(0.0)	3	0	(0.0)	0	–	–	0	–	–
Hungary	12	6	(50.0)	13	6	(46.2)	10	0	(0.0)	11	6	(54.5)	14	5	(35.7)
Iceland	0	–	–	0	–	–	0	–	–	0	–	–	1	0	(0.0)
Ireland	5	0	(0.0)	3	0	(0.0)	1	0	(0.0)	1	1	(100.0)	5	2	(40.0)
Italy	17	14	(82.4)	34	12	(35.3)	34	8	(23.5)	37	10	(27.0)	27	10	(37.0)
Latvia	–	–	–	–	–	–	–	–	–	*11*	*3*	*(27.3)*	*22*	*2*	*(9.1)*
Liechtenstein	0	–	–	–	–	–	0	–	–	0	–	–	0	–	–
Lithuania	*188*	*76*	*(40.4)*	*159*	*75*	*(47.2)*	*104*	*34*	*(32.7)*	*46*	*21*	*(45.7)*	*63*	*24*	*(38.1)*
Luxembourg	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Malta	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Netherlands (Kingdom of the)	3	1	(33.3)	0	–	–	4	0	(0.0)	10	1	(10.0)	7	4	(57.1)
Norway	6	1	(16.7)	2	1	(50.0)	2	0	(0.0)	8	2	(25.0)	8	2	(25.0)
Poland	41	18	(43.9)	31	7	(22.6)	14	12	(85.7)	30	9	(30.0)	42	11	(26.2)
Portugal	1	0	(0.0)	4	0	(0.0)	9	0	(0.0)	6	0	(0.0)	5	0	(0.0)
Romania	*265*	*70*	*(26.4)*	*147*	*51*	*(34.7)*	*101*	*29*	*(28.7)*	*90*	*24*	*(26.7)*	*54*	*16*	*(29.6)*
Slovakia	2	1	(50.0)	5	0	(0.0)	1	0	(0.0)	4	2	(50.0)	5	2	(40.0)
Slovenia	0	–	–	0	–	–	1	0	(0.0)	1	0	(0.0)	1	1	(100.0)
Spain	10	2	(20.0)	5	0	(0.0)	6	2	(33.3)	6	2	(33.3)	4	0	(0.0)
Sweden	7	0	(0.0)	6	0	(0.0)	5	2	(40.0)	4	1	(25.0)	11	2	(18.2)
Subtotal EU/EEA	**773**	**258**	**(33.4)**	**609**	**192**	**(31.5)**	**434**	**118**	**(27.2)**	**402**	**112**	**(27.9)**	**502**	**135**	**(26.9)**
Non-EU/EEA															
Albania	-	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Andorra	0	–	–	0	–	–	–	–	–	–	–	–	–	–	–
Armenia	*85*	*18*	*(21.2)*	*63*	*19*	*(30.2)*	*52*	*11*	*(21.2)*	*57*	*17*	*(29.8)*	*54*	*8*	*(14.8)*
Azerbaijan	*864*	*148*	*(17.1)*	*704*	*153*	*(21.7)*	*576*	*87*	*(15.1)*	*592*	*114*	*(19.3)*	*628*	*97*	*(15.4)*
Belarus	*984*	*272*	*(27.6)*	*874*	*277*	*(31.7)*	*825*	*354*	*(42.9)*	*757*	*310*	*(41.0)*	*721*	*314*	*(43.6)*
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	0	–	–	0	–	–
Georgia	*211*	*75*	*(35.5)*	*242*	*65*	*(26.9)*	*173*	*50*	*(28.9)*	*148*	*37*	*(25.0)*	*145*	*55*	*(37.9)*
Israel	15	3	(20.0)	9	1	(11.1)	5	1	(20.0)	9	5	(55.6)	11	1	(9.1)
Kazakhstan	*3 577*	*349*	*(9.8)*	*2 460*	*635*	*(25.8)*	*2 848*	*399*	*(14.0)*	*2 931*	*461*	*(15.7)*	–	*517*	–
Kyrgyzstan	*666*	*117*	*(17.6)*	*909*	*97*	*(10.7)*	*869*	*149*	*(17.1)*	*665*	*116*	*(17.4)*	*674*	*114*	*(16.9)*
Monaco	*0*	–	–	*0*	–	–	*0*	–	–	*0*	–	–	–	–	–
Montenegro	1	0	(0.0)	0	–	–	0	–	–	0	–	–	0	–	–
North Macedonia	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Republic of Moldova	*658*	*157*	*(23.9)*	*559*	*121*	*(21.6)*	*413*	*188*	*(45.5)*	*459*	*124*	*(27.0)*	*428*	*70*	*(16.4)*
Russian Federation	*23 919*	*7 737*	*(32.3)*	*25 331*	*9 077*	*(35.8)*	*20 449*	*7 822*	*(38.3)*	*18 843*	*7 346*	*(39.0)*	*17 527*	*6 191*	*(35.3)*
San Marino	*0*	–	–	*0*	–	–	–	–	–	–	–	–	–	–	–
Serbia	0	–	–	–	–	–	–	–	–	–	–	–	0	–	–
Serbia excluding Kosovo[1]	0	–	–	–	–	–	–	–	–	–	–	–	0	–	–
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	4	1	(25.0)	9	0	(0.0)	4	2	(50.0)	4	1	(25.0)	2	0	(0.0)
Tajikistan	*583*	*197*	*(33.8)*	*362*	*16*	*(4.4)*	*512*	*121*	*(23.6)*	*551*	*129*	*(23.4)*	*418*	*109*	*(26.1)*
Türkiye	*142*	*16*	*(11.3)*	*90*	*22*	*(24.4)*	*99*	*14*	*(14.1)*	*101*	*10*	*(9.9)*	*98*	*12*	*(12.2)*
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	*6 475*	*2 498*	*(38.6)*	*5 936*	*890*	*(15.0)*	*4 177*	*1 120*	*(26.8)*	*3 266*	*994*	*(30.4)*	*3 148*	*1 009*	*(32.1)*
United Kingdom	25	6	(24.0)	29	5	(17.2)	32	8	(25.0)	36	13	(36.1)	34	5	(14.7)
Uzbekistan	*1 422*	*11*	*(0.8)*	*466*	*209*	*(44.8)*	*1 400*	*378*	*(27.0)*	*1 645*	*394*	*(24.0)*	*1 500*	*622*	*(41.5)*
Subtotal non-EU/EEA	**39 631**	**11 605**	**(29.3)**	**38 043**	**11 587**	**(30.5)**	**32 434**	**10 704**	**(33.0)**	**30 064**	**10 071**	**(33.5)**	**25 388**	**9 124**	**(35.9)**
Total European Region	**40 404**	**11 863**	**(29.4)**	**38 652**	**11 779**	**(30.5)**	**32 868**	**10 822**	**(32.9)**	**30 466**	**10 183**	**(33.4)**	**25 890**	**9 259**	**(35.8)**
Subtotal 18 HPCs	*40 099*	*11 756*	*(29.3)*	*38 341*	*11 716*	*(30.6)*	*32 627*	*10 764*	*(33.0)*	*30 190*	*10 111*	*(33.5)*	*25 506*	*9 168*	*(35.9)*

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

[a] Includes cases that are RR/MDR but that also meet the pre-extensively drug-resistant and extensively drug-resistant case definitions (pre-extensively drug-resistant and extensively drug-resistant cases have not been excluded).

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

[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 IX. TB cases with HIV infection, European Region, 2018–2022[a]

Country/area	2018					2019					2020				
	All TB cases (N)	Cases with known HIV status		HIV positive		All TB cases (N)	Cases with known HIV status		HIV positive		All TB cases (N)	Cases with known HIV status		HIV positive	
		N	%	N	%[b]		N	%	N	%[b]		N	%	N	%[b]
EU/EEA															
Austria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Belgium	977	502	(51.4)	35	(7.0)	963	502	(52.1)	43	(8.6)	825	387	(46.9)	32	(8.3)
Bulgaria	*1 358*	*1 118*	*(82.3)*	*0*	*(0.0)*	*1 344*	*1 104*	*(82.1)*	*1*	*(0.1)*	*930*	*781*	*(84.0)*	*1*	*(0.1)*
Croatia	372	2	(0.5)	0	(0.0)	305	5	(1.6)	0	(0.0)	198	6	(3.0)	0	(0.0)
Cyprus	52	41	(78.8)	1	(2.4)	69	43	(62.3)	2	(4.7)	36	30	(83.3)	2	(6.7)
Czechia	443	190	(42.9)	4	(2.1)	461	270	(58.6)	8	(3.0)	363	199	(54.8)	7	(3.5)
Denmark	291	234	(80.4)	3	(1.3)	284	230	(81.0)	7	(3.0)	221	168	(76.0)	4	(2.4)
Estonia	*147*	*137*	*(93.2)*	*13*	*(9.5)*	*150*	*141*	*(94.0)*	*16*	*(11.3)*	*124*	*116*	*(93.5)*	*13*	*(11.2)*
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Greece	432	362	(83.8)	11	(3.0)	459	408	(88.9)	19	(4.7)	396	396	(100.0)	17	(4.3)
Hungary	640	23	(3.6)	3	(13.0)	552	32	(5.8)	3	(9.4)	406	18	(4.4)	2	(11.1)
Iceland	8	8	(100.0)	1	(12.5)	13	11	(84.6)	0	(0.0)	–	–	–	–	–
Ireland	310	160	(51.6)	13	(8.1)	257	115	(44.7)	13	(11.3)	236	100	(42.4)	5	(5.0)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*1 142*	*954*	*(83.5)*	*32*	*(3.4)*	*1 058*	*1 020*	*(96.4)*	*27*	*(2.6)*	*726*	*714*	*(98.3)*	*20*	*(2.8)*
Luxembourg	42	7	(16.7)	0	(0.0)	50	37	(74.0)	0	(0.0)	34	28	(82.4)	0	(0.0)
Malta	–	–	–	–	–	98	34	(34.7)	0	(0.0)	140	119	(85.0)	2	(1.7)
Netherlands (Kingdom of the)	795	624	(78.5)	21	(3.4)	754	600	(79.6)	21	(3.5)	622	498	(80.1)	14	(2.8)
Norway	208	184	(88.5)	7	(3.8)	166	134	(80.7)	6	(4.5)	157	123	(78.3)	3	(2.4)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	1 926	1 695	(88.0)	158	(9.3)	1 907	1 648	(86.4)	153	(9.3)	1 521	1 328	(87.3)	121	(9.1)
Romania	*12 199*	*10 355*	*(84.9)*	*255*	*(2.5)*	*11 618*	*10 218*	*(87.9)*	*200*	*(2.0)*	*7 693*	*6 580*	*(85.5)*	*151*	*(2.3)*
Slovakia	281	238	(84.7)	2	(0.8)	214	148	(69.2)	4	(2.7)	158	82	(51.9)	2	(2.4)
Slovenia	99	80	(80.8)	0	(0.0)	101	73	(72.3)	1	(1.4)	77	58	(75.3)	0	(0.0)
Spain	4 766	76	(1.6)	35	(46.1)	4 532	2 595	(57.3)	232	(8.9)	3 666	2 111	(57.6)	108	(5.1)
Sweden	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal EU/EEA	**26 488**	**16 990**	**(64.1)**	**594**	**(3.5)**	**25 355**	**19 368**	**(76.4)**	**756**	**(3.9)**	**18 529**	**13 842**	**(74.7)**	**504**	**(3.6)**
Non-EU/EEA															
Albania	440	215	(48.9)	6	(2.8)	412	368	(89.3)	8	(2.2)	240	199	(82.9)	2	(1.0)
Andorra	2	0	(0.0)	–	–	5	0	(0.0)	–	–	2	0	(0.0)	–	–
Armenia	*734*	*699*	*(95.2)*	*72*	*(10.3)*	*621*	*591*	*(95.2)*	*62*	*(10.5)*	*394*	*369*	*(93.7)*	*39*	*(10.6)*
Azerbaijan	*6 896*	*6 483*	*(94.0)*	*87*	*(1.3)*	*4 823*	*4 534*	*(94.0)*	*71*	*(1.6)*	*4 991*	*4 454*	*(89.2)*	*83*	*(1.9)*
Belarus	*2 359*	*2 359*	*(100.0)*	*182*	*(7.7)*	*2 207*	*2 207*	*(100.0)*	*157*	*(7.1)*	*1 514*	*1 514*	*(100.0)*	*135*	*(8.9)*
Bosnia and Herzegovina	–	–	–	–	–	580	18	(3.1)	0	(0.0)	357	15	(4.2)	0	(0.0)
Georgia	*2 316*	*2 174*	*(93.9)*	*45*	*(2.1)*	*2 169*	*1 841*	*(84.9)*	*33*	*(1.8)*	*1 671*	*1 494*	*(89.4)*	*29*	*(1.9)*
Israel	*292*	*292*	*(100.0)*	*12*	*(4.1)*	*217*	*217*	*(100.0)*	*8*	*(3.7)*	*158*	*158*	*(100.0)*	*15*	*(9.5)*
Kazakhstan	*12 832*	*12 236*	*(95.4)*	*717*	*(5.9)*	*12 501*	*12 375*	*(99.0)*	*666*	*(5.4)*	*9 603*	*9 440*	*(98.3)*	*614*	*(6.5)*
Kyrgyzstan	*6 338*	*5 771*	*(91.1)*	*187*	*(3.2)*	*6 138*	*5 810*	*(94.7)*	*131*	*(2.3)*	*4 241*	*4 007*	*(94.5)*	*131*	*(3.3)*
Monaco	–	–	–	–	–	*0*	–	–	–	–	*0*	–	–	–	–
Montenegro	84	43	(51.2)	0	(0.0)	80	76	(95.0)	0	(0.0)	40	35	(87.5)	0	(0.0)
North Macedonia	217	126	(58.1)	3	(2.4)	199	152	(76.4)	1	(0.7)	143	69	(48.3)	1	(1.4)
Republic of Moldova	*3 022*	*2 893*	*(95.7)*	*248*	*(8.6)*	*2 809*	*2 792*	*(99.4)*	*295*	*(10.6)*	*1 767*	*1 693*	*(95.8)*	*219*	*(12.9)*
Russian Federation	*78 258*	*74 075*	*(94.7)*	*14 797*	*(20.0)*	*73 328*	*70 610*	*(96.3)*	*16 453*	*(23.3)*	*58 723*	*55 838*	*(95.1)*	*13506*	*(24.2)*
San Marino	*0*	–	–	–	–	*0*	–	–	–	–	*0*	–	–	–	–
Serbia	1 330	56	(4.2)	8	(14.3)	1 106	39	(3.5)	3	(7.7)	–	–	–	–	–
Serbia excluding Kosovo[1]	641	56	(8.7)	8	(14.3)	501	39	(7.8)	3	(7.7)	–	–	–	–	–
Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	*5 975*	*5 545*	*(92.8)*	*227*	*(4.1)*	*5 755*	*5 660*	*(98.3)*	*167*	*(3.0)*	*4 148*	*4 043*	*(97.5)*	*118*	*(2.9)*
Türkiye	*11 576*	*8 234*	*(71.1)*	*67*	*(0.8)*	*11 247*	*8 814*	*(78.4)*	*104*	*(1.2)*	*8 830*	*7 062*	*(80.0)*	*83*	*(1.2)*
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	*26 512*	*26 312*	*(99.2)*	*6 053*	*(23.0)*	*25 379*	*25 210*	*(99.3)*	*5 800*	*(23.0)*	*17 533*	*17 375*	*(99.1)*	*3799*	*(21.9)*
United Kingdom	4 775	4 060	(85.0)	115	(2.8)	–	–	–	–	–	–	–	–	–	–
Uzbekistan	*16 413*	*16 413*	*(100.0)*	*736*	*(4.5)*	*16 272*	*16 272*	*(100.0)*	*647*	*(4.0)*	*14 127*	*14 127*	*(100.0)*	*379*	*(2.7)*
Subtotal non-EU/EEA	**180 371**	**167 986**	**(93.1)**	**23 562**	**(14.0)**	**165 848**	**157 586**	**(95.0)**	**24 606**	**(15.6)**	**128 482**	**121 892**	**(94.9)**	**19 153**	**(15.7)**
Total European Region	**206 859**	**184 976**	**(89.4)**	**24 156**	**(13.1)**	**191 203**	**176 954**	**(92.5)**	**25 362**	**(14.3)**	**147 011**	**135 734**	**(92.3)**	**19 657**	**(14.5)**
Subtotal 18 HPCs	*188 077*	*175 758*	*(93.5)*	*23 718*	*(13.5)*	*177 419*	*169 199*	*(95.4)*	*24 830*	*(14.7)*	*137 015*	*129 607*	*(94.6)*	*19 320*	*(14.9)*

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] HIV prevalence may be underestimated due to incomplete HIV testing and/or reporting of HIV serostatus. Countries were only included in this analysis if the total number of cases tested for HIV and test results were provided. HIV testing in non- EU/EEA countries is reported among new and relapse cases only. Exceptions are Azerbaijan in the 2018, 2020, 2021 and 2022 reporting years, Tajikistan in the 2018 reporting year, and Uzbekistan in the 2020, 2021, 2022 reporting years who provided HIV testing data among all notified TB cases.
[b] Proportion calculated from TB cases with known HIV test results.
[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).

2021					2022					Country/area
All TB cases (N)	Cases with known HIV status		HIV positive		All TB cases (N)	Cases with known HIV status		HIV positive		
	N	%	N	%[b]		N	%	N	%[b]	
										EU/EEA
–	–	–	–	–	–	–	–	–	–	Austria
868	462	(53.2)	28	(6.1)	852	437	(51.3)	23	(5.3)	Belgium
687	*477*	*(69.4)*	*0*	*(0.0)*	*792*	*562*	*(71.0)*	*5*	*(0.9)*	*Bulgaria*
173	3	(1.7)	0	(0.0)	212	6	(2.8)	0	(0.0)	Croatia
48	35	(72.9)	1	(2.9)	96	54	(56.3)	10	(18.5)	Cyprus
357	211	(59.1)	7	(3.3)	384	252	(65.6)	5	(2.0)	Czechia
218	171	(78.4)	6	(3.5)	225	161	(71.6)	6	(3.7)	Denmark
112	*104*	*(92.9)*	*12*	*(11.5)*	*129*	*121*	*(93.8)*	*7*	*(5.8)*	*Estonia*
–	–	–	–	–	–	–	–	–	–	Finland
–	–	–	–	–	–	–	–	–	–	France
–	–	–	–	–	–	–	–	–	–	Germany
206	51	(24.8)	2	(3.9)	320	221	(69.1)	9	(4.1)	Greece
335	7	(2.1)	1	(14.3)	440	16	(3.6)	2	(12.5)	Hungary
–	–	–	–	–	–	–	–	–	–	Iceland
217	68	(31.3)	2	(2.9)	216	78	(36.1)	7	(9.0)	Ireland
–	–	–	–	–	–	–	–	–	–	Italy
261	*188*	*(72.0)*	*24*	*(12.8)*	*319*	*319*	*(100.0)*	*29*	*(9.1)*	*Latvia*
–	–	–	–	–	–	–	–	–	–	Liechtenstein
646	*612*	*(94.7)*	*15*	*(2.5)*	*738*	*709*	*(96.1)*	*19*	*(2.7)*	*Lithuania*
35	25	(71.4)	0	(0.0)	48	33	(68.8)	1	(3.0)	Luxembourg
54	46	(85.2)	1	(2.2)	61	61	(100.0)	0	(0.0)	Malta
681	521	(76.5)	13	(2.5)	635	446	(70.2)	19	(4.3)	Netherlands (Kingdom of the)
155	130	(83.9)	4	(3.1)	174	136	(78.2)	4	(2.9)	Norway
–	–	–	–	–	–	–	–	–	–	Poland
1 533	1 289	(84.1)	101	(7.8)	1 514	1 148	(75.8)	116	(10.1)	Portugal
7 976	*6 604*	*(82.8)*	*146*	*(2.2)*	*9 270*	*7 745*	*(83.5)*	*143*	*(1.8)*	*Romania*
137	80	(58.4)	2	(2.5)	155	83	(53.5)	4	(4.8)	Slovakia
80	67	(83.8)	0	(0.0)	74	63	(85.1)	1	(1.6)	Slovenia
3 640	2 338	(64.2)	181	(7.7)	3 698	2 319	(62.7)	210	(9.1)	Spain
–	–	–	–	–	–	–	–	–	–	Sweden
18 419	**13 489**	**(73.2)**	**546**	**(4.0)**	**20 352**	**14 970**	**(73.6)**	**620**	**(4.1)**	**Subtotal EU/EEA**
										Non-EU/EEA
269	244	(90.7)	1	(0.4)	292	263	(90.1)	1	(0.4)	Albania
2	0	(0.0)	–	–	–	–	–	–	–	Andorra
398	*335*	*(84.2)*	*36*	*(10.7)*	*440*	*411*	*(93.4)*	*39*	*(9.5)*	*Armenia*
4 944	*4 448*	*(90.0)*	*92*	*(2.1)*	*5 169*	*3 399*	*(65.8)*	*80*	*(2.4)*	*Azerbaijan*
1 484	*1 484*	*(100.0)*	*128*	*(8.6)*	*1 670*	*1 649*	*(98.7)*	*127*	*(7.7)*	*Belarus*
–	–	–	–	–	432	29	(6.7)	0	(0.0)	Bosnia and Herzegovina
1 501	*1 430*	*(95.3)*	*43*	*(3.0)*	*1 511*	*1 466*	*(97.0)*	*42*	*(2.9)*	*Georgia*
213	*213*	*(100.0)*	*16*	*(7.5)*	*203*	*199*	*(98.0)*	*7*	*(3.5)*	Israel
9 757	*9 620*	*(98.6)*	*625*	*(6.5)*	*10 009*	*9 829*	*(98.2)*	*645*	*(6.6)*	*Kazakhstan*
4 596	*4 394*	*(95.6)*	*126*	*(2.9)*	*4 568*	*4 389*	*(96.1)*	*124*	*(2.8)*	*Kyrgyzstan*
0	–	–	–	–	–	–	–	–	–	Monaco
80	80	(100.0)	0	(0.0)	71	66	(93.0)	2	(3.0)	Montenegro
143	29	(20.3)	0	(0.0)	144	0	–	–	–	North Macedonia
2 067	*2 008*	*(97.1)*	*214*	*(10.7)*	*2 121*	*2 047*	*(96.5)*	*235*	*(11.5)*	*Republic of Moldova*
56 922	*54 821*	*(96.3)*	*14 132*	*(25.8)*	*55 906*	*55 225*	*(98.8)*	*14 191*	*(25.7)*	*Russian Federation*
–	–	–	–	–	–	–	–	–	–	San Marino
–	–	–	–	–	1 074	426	(39.7)	2	(0.5)	Serbia
–	–	–	–	–	459	39	(8.5)	2	(5.1)	Serbia excluding Kosovo[1]
–	–	–	–	–	615	387	(62.9)	0	(0.0)	Kosovo[1]
–	–	–	–	–	–	–	–	–	–	Switzerland
4 158	*4 103*	*(98.7)*	*118*	*(2.9)*	*4 294*	*4 269*	*(99.4)*	*109*	*(2.6)*	*Tajikistan*
9 047	*7 249*	*(80.1)*	*85*	*(1.2)*	*9 723*	*7 860*	*(80.8)*	*123*	*(1.6)*	*Türkiye*
–	–	–	–	–	–	–	–	–	–	*Turkmenistan*
18 307	*17 991*	*(98.3)*	*3 646*	*(20.3)*	*18 567*	*18 324*	*(98.7)*	*3 328*	*(18.2)*	*Ukraine*
–	–	–	–	–	–	–	–	–	–	United Kingdom
15 450	*15 450*	*(100.0)*	*441*	*(2.9)*	*16 174*	*16 174*	*(100.0)*	*538*	*(3.3)*	*Uzbekistan*
129 338	**123 899**	**(95.8)**	**19 703**	**(15.9)**	**132 368**	**126 025**	**(95.2)**	**19 593**	**(15.5)**	**Subtotal non-EU/EEA**
147 757	**137 388**	**(93.0)**	**20 249**	**(14.7)**	**152 720**	**140 995**	**(92.3)**	**20 213**	**(14.3)**	**Total European Region**
138 313	*131 318*	*(94.9)*	*19 883*	*(15.1)*	*141 400*	*134 498*	*(95.1)*	*19 784*	*(14.7)*	***Subtotal 18 HPCs***

[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 X. Treatment success after 12 months for new[a] and relapse TB cases, European Region, 2017–2021[b]

Country/area	2017			2018			2019			2020			2021		
	Cases reported (N)	Success		Cases reported (N)	Success		Cases reported (N)	Success		Cases reported (N)	Success		Cases reported (N)	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	543	375	(69.1)	455	334	(73.4)	459	341	(74.3)	380	266	(70.0)	378	282	(74.6)
Belgium[c]	905	718	(79.3)	902	737	(81.7)	877	709	(80.8)	759	511	(67.3)	806	629	(78.0)
Bulgaria	*1 386*	*1 167*	*(84.2)*	*1 268*	*1 085*	*(85.6)*	*1 278*	*1 045*	*(81.8)*	–	–	*(0.0)*	*671*	*530*	*(79.0)*
Croatia	372	245	(65.9)	363	237	(65.3)	296	176	(59.5)	191	115	(60.2)	170	79	(46.5)
Cyprus	51	34	(66.7)	51	30	(58.8)	65	18	(27.7)	34	15	(44.1)	45	23	(51.1)
Czechia	489	337	(68.9)	422	290	(68.7)	447	330	(73.8)	347	241	(69.5)	342	231	(67.5)
Denmark[c]	251	99	(39.4)	266	48	(18.0)	259	117	(45.2)	206	71	(34.5)	199	40	(20.1)
Estonia	*139*	*112*	*(80.6)*	*115*	*96*	*(83.5)*	*120*	*91*	*(75.8)*	*101*	*76*	*(75.2)*	*86*	*72*	*(83.7)*
Finland	235	85	(36.2)	222	52	(23.4)	222	85	(38.3)	173	44	(25.4)	167	11	(6.6)
France	5 006	2 439	(48.7)	4 760	1 976	(41.5)	4 858	1 824	(37.5)	4 263	1 578	(37.0)	3 942	1 449	(36.8)
Germany	5 251	3 715	(70.7)	5 221	4 069	(77.9)	4 572	3 123	(68.3)	3 966	2 559	(64.5)	3 738	2 491	(66.6)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	639	429	(67.1)	591	388	(65.7)	517	336	(65.0)	376	250	(66.5)	305	194	(63.6)
Iceland	13	12	(92.3)	8	8	(100.0)	13	13	(100.0)	12	4	(33.3)	7	4	(57.1)
Ireland[c]	277	163	(58.8)	284	110	(38.7)	234	52	(22.2)	223	14	(6.3)	204	7	(3.4)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	1	1	(100.0)	–	–	–	–	–	–	2	2	(100.0)	1	1	(100.0)
Lithuania	*1 086*	*905*	*(83.3)*	*926*	*806*	*(87.0)*	*866*	*754*	*(87.1)*	*601*	*514*	*(85.5)*	*528*	*456*	*(86.4)*
Luxembourg	–	–	–	–	–	–	47	17	(36.2)	32	12	(37.5)	–	–	–
Malta	–	–	–	–	–	–	98	97	(99.0)	137	136	(99.3)	53	52	(98.1)
Netherlands (Kingdom of the)	762	665	(87.3)	774	668	(86.3)	730	635	(87.0)	600	507	(84.5)	659	539	(81.8)
Norway[c]	228	214	(93.9)	182	160	(87.9)	153	132	(86.3)	140	126	(90.0)	129	112	(86.8)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	1 859	1 366	(73.5)	1 867	1 368	(73.3)	1 836	1 376	(74.9)	1 462	1 077	(73.7)	1 480	1 003	(67.8)
Romania	*12 007*	*10 348*	*(86.2)*	*11 271*	*9 483*	*(84.1)*	*10 812*	*9 051*	*(83.7)*	*7 017*	*5 727*	*(81.6)*	*7 396*	*6 007*	*(81.2)*
Slovakia	222	204	(91.9)	271	249	(91.9)	209	196	(93.8)	152	130	(85.5)	131	115	(87.8)
Slovenia	111	85	(76.6)	98	77	(78.6)	98	69	(70.4)	74	55	(74.3)	78	58	(74.4)
Spain	4 499	2 721	(60.5)	4 596	2 065	(44.9)	4 375	2 045	(46.7)	3 461	1 870	(54.0)	2 619	980	(37.4)
Sweden	477	413	(86.6)	462	361	(78.1)	468	303	(64.7)	307	229	(74.6)	334	284	(85.0)
Subtotal EU/EEA	**36 809**	**26 852**	**(72.9)**	**35 375**	**24 697**	**(69.8)**	**33 909**	**22 935**	**(67.6)**	**25 016**	**16 129**	**(64.5)**	**24 468**	**15 649**	**(64.0)**
Non-EU/EEA															
Albania	499	435	(87.2)	434	386	(88.9)	412	364	(88.3)	240	213	(88.8)	269	242	(90.0)
Andorra	1	1	(100.0)	2	2	(100.0)	5	3	(60.0)	2	2	(100.0)	2	2	(100.0)
Armenia	*710*	*563*	*(79.3)*	*615*	*497*	*(80.8)*	*485*	*399*	*(82.3)*	*303*	*244*	*(80.5)*	*317*	*272*	*(85.8)*
Azerbaijan	*1 777*	*1 492*	*(84.0)*	*1 751*	*1 471*	*(84.0)*	*1 702*	*1 429*	*(84.0)*	*1 180*	*973*	*(82.5)*	*1 276*	*1 043*	*(81.7)*
Belarus	*1 792*	*1 587*	*(88.6)*	*1 418*	*1 250*	*(88.2)*	*1 302*	*1 153*	*(88.6)*	*833*	*710*	*(85.2)*	*903*	*759*	*(84.1)*
Bosnia and Herzegovina	766	343	(44.8)	666	189	(28.4)	580	185	(31.9)	357	183	(51.3)	361	166	(46.0)
Georgia	*2 351*	*1 977*	*(84.1)*	*2 071*	*1 735*	*(83.8)*	*1 947*	*1 659*	*(85.2)*	*1 513*	*1 314*	*(86.8)*	*1 343*	*1 169*	*(87.0)*
Israel	225	196	(87.1)	292	227	(77.7)	217	182	(83.9)	152	123	(80.9)	178	153	(86.0)
Kazakhstan	*8 589*	*7 826*	*(91.1)*	*7 859*	*7 093*	*(90.3)*	*7 429*	*6 704*	*(90.2)*	*5 742*	*5 043*	*(87.8)*	*5 621*	*4 987*	*(88.7)*
Kyrgyzstan	*5 752*	*4 728*	*(82.2)*	*5 333*	*4 321*	*(81.0)*	*5 110*	*4 155*	*(81.3)*	*3 472*	*2 839*	*(81.8)*	*3 845*	*3 121*	*(81.2)*
Monaco	–	–	–	1	0	(0.0)	–	–	–	0	–	–	–	–	–
Montenegro	75	65	(86.7)	81	77	(95.1)	82	78	(95.1)	40	35	(87.5)	80	75	(93.8)
North Macedonia	219	193	(88.1)	214	187	(87.4)	199	177	(88.9)	148	125	(84.5)	146	115	(78.8)
Republic of Moldova	*2 715*	*2 187*	*(80.6)*	*2 312*	*1 954*	*(84.5)*	*2 215*	*1 854*	*(83.7)*	*1 408*	*1 117*	*(79.3)*	*1 638*	*1 318*	*(80.5)*
Russian Federation	*67 593*	*46 938*	*(69.4)*	*59 850*	*41 154*	*(68.8)*	*54 589*	*37 208*	*(68.2)*	*46 389*	*28 677*	*(61.8)*	*43 926*	*26 516*	*(60.4)*
San Marino	0	–	–	0	–	–	–	–	–	–	–	–	–	–	–
Serbia	1 440	1 239	(86.0)	1 265	1 032	(81.6)	602	513	(85.2)	434	347	(80.0)	446	381	(85.4)
Serbia excluding Kosovo[1]	738	616	(83.5)	579	459	(79.3)	–	–	–	–	–	–	–	–	–
Kosovo[1]	702	623	(88.7)	686	573	(83.5)	602	513	(85.2)	434	347	(80.0)	446	381	(85.4)
Switzerland	518	406	(78.4)	376	309	(82.2)	391	267	(68.3)	342	254	(74.3)	326	246	(75.5)
Tajikistan	*5 259*	*4 789*	*(91.1)*	*4 995*	*4 452*	*(89.1)*	*5 114*	*4 643*	*(90.8)*	*3 646*	*3 332*	*(91.4)*	*3 635*	*3 347*	*(92.1)*
Türkiye	*11 638*	*10 014*	*(86.0)*	*11 407*	*9 691*	*(85.0)*	*11 095*	*9 231*	*(83.2)*	*8 820*	*7 125*	*(80.8)*	*8 947*	*7 192*	*(80.4)*
Turkmenistan	*1 968*	*1 676*	*(85.2)*	*2 157*	*1 780*	*(82.5)*	*2 117*	*1 749*	*(82.6)*	*1 918*	*1 599*	*(83.4)*	*1 878*	*1 515*	*(80.7)*
Ukraine	*21 165*	*16 189*	*(76.5)*	*20 221*	*15 607*	*(77.2)*	*19 414*	*15 381*	*(79.2)*	*13 218*	*10 232*	*(77.4)*	*14 396*	*10 755*	*(74.7)*
United Kingdom[c]	5 176	4 216	(81.5)	4 684	3 724	(79.5)	4 739	3 675	(77.5)	4 386	3 409	(77.7)	4 707	4 059	(86.2)
Uzbekistan	*15 167*	*13 554*	*(89.4)*	*14 423*	*13 217*	*(91.6)*	*14 224*	*12 820*	*(90.1)*	*10 654*	*9 644*	*(90.5)*	–	–	–
Subtotal non-EU/EEA	**155 395**	**120 614**	**(77.6)**	**142 427**	**110 355**	**(77.5)**	**133 970**	**103 829**	**(77.5)**	**105 197**	**77 540**	**(73.7)**	**94 240**	**67 433**	**(71.6)**
Total European Region	**192 204**	**147 466**	**(76.7)**	**177 802**	**135 052**	**(76.0)**	**167 879**	**126 764**	**(75.5)**	**130 213**	**93 669**	**(71.9)**	**118 708**	**83 082**	**(70.0)**
Subtotal 18 HPCs	*161 094*	*126 052*	*(78.2)*	*147 992*	*115 692*	*(78.2)*	*139 819*	*109 326*	*(78.2)*	*106 815*	*79 166*	*(74.1)*	*96 406*	*69 059*	*(71.6)*

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; TB: tuberculosis.
[a] For EU/EEA countries, cases with unknown TB history are considered as new cases.
[b] Excluding rifampicin-resistant cases.
[c] Previous TB history is defined as previous diagnosis.
[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 XI. Treatment success after 24 months of RR/MDR-TB[a] cases started on treatment,[b] European Region, 2016–2020

Country/area	2016			2017			2018			2019			2020		
	Cases reported (N)	Success		Cases reported (N)	Success		Cases reported (N)	Success		Cases reported (N)	Success		Cases reported (N)	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	17	11	(64.7)	19	10	(52.6)	18	15	(83.3)	6	6	(100.0)	2	0	(0.0)
Belgium	12	10	(83.3)	8	6	(75.0)	9	7	(77.8)	16	14	(87.5)	17	11	(64.7)
Bulgaria	*22*	*12*	*(54.5)*	*29*	*18*	*(62.1)*	*28*	*17*	*(60.7)*	*13*	*6*	*(46.2)*	–	–	–
Croatia	0	–	–	0	–	–	2	0	(0.0)	1	1	(100.0)	1	1	(100.0)
Cyprus	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Czechia	5	2	(40.0)	8	3	(37.5)	12	4	(33.3)	6	4	(66.7)	11	1	(9.1)
Denmark	5	3	(60.0)	2	1	(50.0)	4	0	(0.0)	–	–	–	0	–	–
Estonia	*25*	*18*	*(72.0)*	*35*	*28*	*(80.0)*	*31*	*23*	*(74.2)*	*27*	*21*	*(77.8)*	*20*	*16*	*(80.0)*
Finland	6	4	(66.7)	5	2	(40.0)	3	2	(66.7)	3	2	(66.7)	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	121	45	(37.2)	138	75	(54.3)	129	79	(61.2)	101	46	(45.5)	100	47	(47.0)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	20	8	(40.0)	13	6	(46.2)	13	6	(46.2)	13	3	(23.1)	10	6	(60.0)
Iceland	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Ireland	7	5	(71.4)	6	2	(33.3)	8	1	(12.5)	6	2	(33.3)	–	–	–
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	*0*	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Lithuania	*255*	*110*	*(43.1)*	*264*	*111*	*(42.0)*	*189*	*103*	*(54.5)*	*173*	*78*	*(45.1)*	*105*	*53*	*(50.5)*
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	3	3	(100.0)
Netherlands (Kingdom of the)	15	11	(73.3)	10	8	(80.0)	6	5	(83.3)	9	8	(88.9)	13	13	(100.0)
Norway	11	10	(90.9)	9	8	(88.9)	6	5	(83.3)	2	1	(50.0)	2	2	(100.0)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	19	10	(52.6)	13	10	(76.9)	11	7	(63.6)	14	6	(42.9)	16	13	(81.3)
Romania	*547*	*271*	*(49.5)*	*455*	*183*	*(40.2)*	*439*	*192*	*(43.7)*	*377*	*184*	*(48.8)*	*258*	*124*	*(48.1)*
Slovakia	3	0	(0.0)	7	2	(28.6)	3	2	(66.7)	5	4	(80.0)	1	1	(100.0)
Slovenia	0	–	–	1	0	(0.0)	0	–	–	0	–	–	1	1	(100.0)
Spain	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Sweden	25	23	(92.0)	12	10	(83.3)	14	14	(100.0)	10	9	(90.0)	6	5	(83.3)
Subtotal EU/EEA	**1 115**	**553**	**(49.6)**	**1 034**	**483**	**(46.8)**	**925**	**482**	**(52.1)**	**782**	**395**	**(50.5)**	**566**	**297**	**(52.5)**
Non-EU/EEA															
Albania	1	1	(100.0)	0	–	–	4	3	(75.0)	2	1	(50.0)	4	2	(50.0)
Andorra	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	*118*	*58*	*(49.2)*	*104*	*52*	*(50.0)*	*85*	*39*	*(45.9)*	*53*	*29*	*(54.7)*	*45*	*28*	*(62.2)*
Azerbaijan	*798*	*480*	*(60.2)*	*858*	*509*	*(59.3)*	*821*	*471*	*(57.4)*	*815*	*486*	*(59.6)*	*586*	*360*	*(61.4)*
Belarus	*1 180*	*796*	*(67.5)*	*1 067*	*752*	*(70.5)*	*919*	*670*	*(72.9)*	*772*	*640*	*(82.9)*	*353*	*282*	*(79.9)*
Bosnia and Herzegovina	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	*339*	*222*	*(65.5)*	*316*	*203*	*(64.2)*	*230*	*155*	*(67.4)*	*218*	*171*	*(78.4)*	*149*	*113*	*(75.8)*
Israel	9	6	(66.7)	7	5	(71.4)	14	9	(64.3)	9	5	(55.6)	4	3	(75.0)
Kazakhstan	*6 260*	*4 979*	*(79.5)*	*5 338*	*4 340*	*(81.3)*	*4 336*	*3 499*	*(80.7)*	*5 892*	*4 486*	*(76.1)*	*3 400*	*2 580*	*(75.9)*
Kyrgyzstan	*1 232*	*655*	*(53.2)*	*1 166*	*643*	*(55.1)*	*1 244*	*775*	*(62.3)*	*1 173*	*841*	*(71.7)*	*835*	*599*	*(71.7)*
Monaco	–	–	–	–	–	–	–	–	–	0	–	–	–	–	–
Montenegro	0	–	–	0	–	–	1	1	(100.0)	0	–	–	0	–	–
North Macedonia	2	1	(50.0)	1	0	(0.0)	2	1	(50.0)	2	0	(0.0)	2	2	(100.0)
Republic of Moldova	*979*	*518*	*(52.9)*	*962*	*537*	*(55.8)*	*921*	*541*	*(58.7)*	*559*	*387*	*(69.2)*	*466*	*288*	*(61.8)*
Russian Federation	*22 593*	*12 141*	*(53.7)*	*22 901*	*12 629*	*(55.1)*	*28 706*	*14 757*	*(51.4)*	*26 570*	*13 658*	*(51.4)*	*21 638*	*11 034*	*(51.0)*
San Marino	0	–	–	0	–	–	–	–	–	–	–	–	–	–	–
Serbia	12	9	(75.0)	10	7	(70.0)	–	–	–	–	–	–	2	2	(100.0)
Serbia excluding Kosovo[1]	10	7	(70.0)	6	4	(66.7)	–	–	–	–	–	–	2	2	(100.0)
Kosovo[1]	2	2	(100.0)	4	3	(75.0)	–	–	–	–	–	–	–	–	–
Switzerland	17	8	(47.1)	12	10	(83.3)	9	6	(66.7)	12	11	(91.7)	1	1	(100.0)
Tajikistan	*681*	*440*	*(64.6)*	*546*	*352*	*(64.5)*	*727*	*510*	*(70.2)*	*588*	*454*	*(77.2)*	*356*	*287*	*(80.6)*
Türkiye	*211*	*131*	*(62.1)*	*202*	*139*	*(68.8)*	*180*	*99*	*(55.0)*	*155*	*71*	*(45.8)*	*132*	*70*	*(53.0)*
Turkmenistan	*557*	*303*	*(54.4)*	*343*	*226*	*(65.9)*	*549*	*248*	*(45.2)*	*649*	*358*	*(55.2)*	*519*	*311*	*(59.9)*
Ukraine	*7 277*	*3 590*	*(49.3)*	*6 685*	*3 407*	*(51.0)*	*5 953*	*3 006*	*(50.5)*	*7 259*	*4 460*	*(61.4)*	*4 882*	*3 179*	*(65.1)*
United Kingdom	59	39	(66.1)	56	35	(62.5)	40	30	(75.0)	47	31	(66.0)	42	33	(78.6)
Uzbekistan	*1 986*	*1 140*	*(57.4)*	*2 265*	*1 372*	*(60.6)*	*2 039*	*1 375*	*(67.4)*	*2 040*	*1 422*	*(69.7)*	–	–	–
Subtotal non-EU/EEA	**44 311**	**25 517**	**(57.6)**	**42 839**	**25 218**	**(58.9)**	**46 780**	**26 195**	**(56.0)**	**46 815**	**27 511**	**(58.8)**	**33 416**	**19 174**	**(57.4)**
Total European Region	**45 426**	**26 070**	**(57.4)**	**43 873**	**25 701**	**(58.6)**	**47 705**	**26 677**	**(55.9)**	**47 597**	**27 906**	**(58.6)**	**33 982**	**19 471**	**(57.3)**
Subtotal 18 HPCs	*45 060*	*25 864*	*(57.4)*	*43 536*	*25 501*	*(58.6)*	*47 397*	*26 480*	*(55.9)*	*47 333*	*27 752*	*(58.6)*	*33 744*	*19 324*	*(57.3)*

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; RR/MDR-TB: rifampicin-resistant or multidrug-resistant tuberculosis.
[a] Includes cases that are RR/MDR but that also meet the pre-extensively drug-resistant and extensively drug-resistant case definitions (pre-extensively drug-resistant and extensively drug-resistant cases have not been excluded).
[b] For EU/EEA countries, cases diagnosed postmortem were excluded, and cases with no data on treatment enrolment were assumed to be enrolled to treatment.
[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 XII. Treatment success after 24 months of pre-XDR-TB[a] cases started on treatment,[b] European Region, 2016–2020

Country/area	2016			2017			2018			2019			2020		
	Pre-XDR TB cases (N)	Success		Pre-XDR TB cases (N)	Success		Pre-XDR TB cases (N)	Success		Pre-XDR TB cases (N)	Success		Pre-XDR TB cases (N)	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	5	4	(80.0)	6	3	(50.0)	5	3	(60.0)	2	2	(100.0)	0	–	–
Belgium	0	–	–	0	–	–	5	4	(80.0)	2	2	(100.0)	3	2	(66.7)
Bulgaria	*3*	*0*	*(0.0)*	*4*	*2*	*(50.0)*	*5*	*2*	*(40.0)*	*4*	*0*	*(0.0)*	–	–	–
Croatia	0	–	–	0	–	–	0	–	–	1	1	(100.0)	–	–	–
Cyprus	–	–	–	–	–	–	0	–	–	0	–	–	0	–	–
Czechia	0	–	–	2	1	(50.0)	3	0	(0.0)	0	–	–	3	1	(33.3)
Denmark	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Estonia	*6*	*3*	*(50.0)*	*11*	*6*	*(54.5)*	*10*	*9*	*(90.0)*	*5*	*3*	*(60.0)*	*5*	*3*	*(60.0)*
Finland	2	1	(50.0)	0	–	–	0	–	–	0	–	–	0	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	24	8	(33.3)	15	7	(46.7)	25	14	(56.0)	14	4	(28.6)	14	6	(42.9)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	10	5	(50.0)	5	2	(40.0)	6	1	(16.7)	6	0	(0.0)	0	–	–
Iceland	0	–	–	0	–	–	0	–	–	–	–	–	0	–	–
Ireland	2	1	(50.0)	1	1	(100.0)	0	–	–	0	–	–	0	–	–
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	–	–	0	–	–	0	–	–	–	–	–	0	–	–
Lithuania	*88*	*11*	*(12.5)*	*108*	*12*	*(11.1)*	*76*	*23*	*(30.3)*	*76*	*4*	*(5.3)*	*34*	*1*	*(2.9)*
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands (Kingdom of the)	0	–	–	1	0	(0.0)	2	2	(100.0)	0	–	–	0	–	–
Norway	0	–	–	2	2	(100.0)	1	1	(100.0)	–	–	–	–	–	–
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	2	1	(50.0)	2	2	(100.0)	0	–	–	0	–	–	0	–	–
Romania	*96*	*34*	*(35.4)*	*76*	*8*	*(10.5)*	*69*	*10*	*(14.5)*	*50*	*11*	*(22.0)*	*30*	*5*	*(16.7)*
Slovakia	1	0	(0.0)	2	0	(0.0)	1	0	(0.0)	0	–	–	0	–	–
Slovenia	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	6	4	(66.7)	1	0	(0.0)	0	–	–	–	–	–	2	2	(100.0)
Subtotal EU/EEA	**245**	**72**	**(29.4)**	**236**	**46**	**(19.5)**	**208**	**69**	**(33.2)**	**160**	**27**	**(16.9)**	**91**	**20**	**(22.0)**
Non-EU/EEA															
Albania	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Andorra	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	*10*	*3*	*(30.0)*	*16*	*7*	*(43.8)*	*14*	*3*	*(21.4)*	*12*	*6*	*(50.0)*	*7*	*4*	*(57.1)*
Azerbaijan	–	–	–	*182*	*115*	*(63.2)*	*189*	*116*	*(61.4)*	*186*	*113*	*(60.8)*	*69*	*43*	*(62.3)*
Belarus	*393*	*207*	*(52.7)*	*419*	*256*	*(61.1)*	*383*	*293*	*(76.5)*	*287*	*206*	*(71.8)*	*455*	*349*	*(76.7)*
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	*55*	*31*	*(56.4)*	*47*	*28*	*(59.6)*	*54*	*29*	*(53.7)*	*53*	*30*	*(56.6)*	*44*	*30*	*(68.2)*
Israel	2	2	(100.0)	1	0	(0.0)	2	1	(50.0)	1	1	(100.0)	1	0	(0.0)
Kazakhstan	*435*	*207*	*(47.6)*	*300*	*145*	*(48.3)*	*386*	*293*	*(75.9)*	*655*	*476*	*(72.7)*	*1178*	*934*	*(79.3)*
Kyrgyzstan	*68*	*10*	*(14.7)*	*157*	*91*	*(58.0)*	*105*	*55*	*(52.4)*	*97*	*60*	*(61.9)*	*67*	*41*	*(61.2)*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	1	1	(100.0)	1	1	(100.0)	0	–	–	0	–	–	0	–	–
North Macedonia	0	–	–	0	–	–	0	–	–	–	–	–	0	–	–
Republic of Moldova	*65*	*17*	*(26.2)*	*62*	*20*	*(32.3)*	*62*	*32*	*(51.6)*	*37*	*21*	*(56.8)*	*71*	*36*	*(50.7)*
Russian Federation	*2 909*	*1094*	*(37.6)*	*4 140*	*1 710*	*(41.3)*	*27*	*11*	*(40.7)*	*6018*	*2787*	*(46.3)*	*6201*	*2857*	*(46.1)*
San Marino	0	–	–	0	–	–	–	–	–	–	–	–	–	–	–
Serbia	1	0	(0.0)	–	–	–	–	–	–	–	–	–	–	–	–
Serbia excluding Kosovo[1]	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo[1]	1	0	(0.0)	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	0	–	–	0	–	–	1	1	(100.0)	–	–	–	1	1	(100.0)
Tajikistan	*43*	*20*	*(46.5)*	*250*	*155*	*(62.0)*	*63*	*42*	*(66.7)*	*68*	*53*	*(77.9)*	*103*	*72*	*(69.9)*
Türkiye	*9*	*5*	*(55.6)*	*2*	*0*	*(0.0)*	*8*	*1*	*(12.5)*	*8*	*1*	*(12.5)*	*14*	*7*	*(50.0)*
Turkmenistan	–	–	–	*5*	*2*	*(40.0)*	*28*	*8*	*(28.6)*	*113*	*59*	*(52.2)*	*264*	*157*	*(59.5)*
Ukraine	*1 353*	*501*	*(37.0)*	*1 376*	*473*	*(34.4)*	*1 479*	*505*	*(34.1)*	–	–	–	–	–	–
United Kingdom	*7*	3	(42.9)	3	1	(33.3)	5	2	(40.0)	8	6	(75.0)	12	10	(83.3)
Uzbekistan	*184*	*91*	*(49.5)*	*258*	*162*	*(62.8)*	*404*	*280*	*(69.3)*	*627*	*411*	*(65.6)*	–	–	–
Subtotal non-EU/EEA	**5 535**	**2 192**	**(39.6)**	**7 219**	**3 166**	**(43.9)**	**3 210**	**1 672**	**(52.1)**	**8 170**	**4 230**	**(51.8)**	**8 487**	**4 541**	**(53.5)**
Total European Region	**5 780**	**2 264**	**(39.2)**	**7 455**	**3 212**	**(43.1)**	**3 418**	**1 741**	**(50.9)**	**8 330**	**4 257**	**(51.1)**	**8 578**	**4 561**	**(53.2)**
Subtotal 18 HPCs	*5 717*	*2 234*	*(39.1)*	*7 413*	*3 192*	*(43.1)*	*3 362*	*1 712*	*(50.9)*	*8 296*	*4 241*	*(51.1)*	*8 542*	*4 539*	*(53.1)*

Note: "European Region" comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; pre-XDR-TB: pre-extensively drug-resistant tuberculosis.
[a] Pre-XDR-TB defined as resistance to rifampicin 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).
[b] For EU/EEA countries, cases diagnosed postmortem are excluded, and cases with no treatment enrolment data reported are assumed to be enrolled to treatment.
[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 XIII. Treatment success after 36 months of XDR-TB[a] cases notified in EU/EEA, 2015–2019

Country	2015			2016			2017			2018			2019		
	XDR-TB cases (N)	Success		XDR-TB cases (N)	Success		XDR-TB cases (N)	Success		XDR-TB cases (N)	Success		XDR-TB cases (N)	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Belgium	0	–	–	0	–	–	0	–	–	1	1	(100.0)	0	–	–
Bulgaria	*0*	–	–	*0*	–	–	*0*	–	–	*0*	–	–	–	–	–
Croatia	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Cyprus	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Czechia	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Denmark	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Estonia	*0*	–	–	*0*	–	–	*0*	–	–	*0*	–	–	*2*	*0*	*(0.0)*
Finland	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	0	–	–	0	–	–	1	1	(100.0)	0	–	–	–	–	–
Greece	–	–	–	–	–	–	–	–	–	-	–	–	–	–	–
Hungary	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Iceland	0	–	–	0	–	–	0	–	–	–	–	–	–	–	–
Ireland	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	*0*	–	–	*0*	–	–	*0*	–	–	*0*	–	–	*0*	–	–
Luxembourg	–	–	–	–	–	–	0	–	–	0	–	–	0	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands (Kingdom of the)	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Norway	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Romania	*0*	–	–	*0*	–	–	*0*	–	–	*0*	–	–	*0*	–	–
Slovakia	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Slovenia	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Total EU/EEA	**0**	**–**	**–**	**0**	**–**	**–**	**1**	**1**	**(100.0)**	**1**	**1**	**(100.0)**	**2**	**0**	**(0.0)**

Note: WHO European Region 18 TB HPCs presented in italics. Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.
EEA: European Economic Area; EU: European Union; HPCs: high-priority countries; N: number; XDR-TB: extensively drug-resistant tuberculosis.
[a] 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, excluding the fluoroquinolones in the group. For EU/EEA countries, XDR-TB is assessed on resistance to levofloxacin, moxifloxacin and/or bedaquiline, linezolid (in addition to meeting pre-XDR-TB criteria).

Table XIV. New and relapsed TB cases tested using WRD such as Xpert MTB/RIF,[a] European Region, 2018–2022

Country/area	2018			2019			2020			2021			2022		
	New and relapse TB cases[b]	Cases tested using WHO recommended rapid diagnostics[c]		New and relapse TB cases[b]	Cases tested using WHO recommended rapid diagnostics[c]		New and relapse TB cases[b]	Cases tested using WHO recommended rapid diagnostics[c]		New and relapse TB cases[b]	Cases tested using WHO recommended rapid diagnostics[c]		New and relapse TB cases[b]	Cases tested using WHO recommended rapid diagnostics[c]	
	N	N	(%)	N	N	(%)	N	N	(%)	N	N	(%)	N	N	(%)
EU/EEA															
Austria	470	376	(80.0)	464	366	(78.9)	382	263	(68.8)	387	281	(72.6)	366	271	(74.0)
Belgium[d]	910	522	(57.4)	890	613	(68.9)	774	531	(68.6)	811	584	(72.0)	786	588	(74.8)
Bulgaria	*1 290*	*7*	*(0.5)*	*1 288*	*17*	*(1.3)*	*887*	*2*	*(0.2)*	*673*	*2*	*(0.3)*	*764*	*1*	*(0.1)*
Croatia	364	0	(0.0)	297	0	(0.0)	191	0	(0.0)	170	0	(0.0)	206	0	(0.0)
Cyprus	51	17	(33.3)	66	30	(45.5)	34	12	(35.3)	48	21	(43.8)	94	55	(58.5)
Czechia	434	274	(63.1)	455	313	(68.8)	356	255	(71.6)	352	264	(75.0)	379	327	(86.3)
Denmark[d]	270	262	(97.0)	263	241	(91.6)	207	199	(96.1)	200	192	(96.0)	205	181	(88.3)
Estonia	*145*	*127*	*(87.6)*	*147*	*132*	*(89.8)*	*120*	*106*	*(88.3)*	*107*	*87*	*(81.3)*	*125*	*111*	*(88.8)*
Finland	226	106	(46.9)	225	130	(57.8)	174	107	(61.5)	170	105	(61.8)	190	127	(66.8)
France	4 760	0	(0.0)	4 924	0	(0.0)	4 313	0	(0.0)	3 979	0	(0.0)	3 831	0	(0.0)
Germany	5 331	4 505	(84.5)	4 656	4 031	(86.6)	4 066	3 593	(88.4)	3 827	3 350	(87.5)	3 893	3 372	(86.6)
Greece	406	181	(44.6)	434	219	(50.5)	380	96	(25.3)	195	91	(46.7)	302	206	(68.2)
Hungary	602	0	(0.0)	528	0	(0.0)	384	0	(0.0)	314	0	(0.0)	435	0	(0.0)
Iceland	8	8	(100.0)	13	12	(92.3)	12	5	(41.7)	7	6	(85.7)	16	11	(68.8)
Ireland[d]	290	140	(48.3)	238	115	(48.3)	224	105	(46.9)	210	91	(43.3)	197	81	(41.1)
Italy	3 777	0	(0.0)	3 185	0	(0.0)	2 163	0	(0.0)	2 378	235	(9.9)	2 294	381	(16.6)
Latvia	–	–	–	–	–	–	–	–	–	*255*	*203*	*(79.6)*	*306*	*255*	*(83.3)*
Liechtenstein	1	1	(100.0)	–	–	–	2	2	(100.0)	1	1	(100.0)	1	1	(100.0)
Lithuania	*1 063*	*0*	*(0.0)*	*1 006*	*0*	*(0.0)*	*688*	*0*	*(0.0)*	*628*	*0*	*(0.0)*	*724*	*0*	*(0.0)*
Luxembourg	42	0	(0.0)	48	0	(0.0)	32	0	(0.0)	34	0	(0.0)	47	22	(46.8)
Malta	55	0	(0.0)	98	0	(0.0)	140	0	(0.0)	54	0	(0.0)	60	0	(0.0)
Netherlands (Kingdom of the)	780	582	(74.6)	739	573	(77.5)	613	500	(81.6)	669	539	(80.6)	625	506	(81.0)
Norwayd	188	150	(79.8)	154	129	(83.8)	142	121	(85.2)	139	116	(83.5)	152	140	(92.1)
Poland	5 196	1 054	(20.3)	4 983	1 094	(22.0)	3 150	876	(27.8)	3 446	1 164	(33.8)	4 037	1 664	(41.2)
Portugal	1 877	474	(25.3)	1 849	546	(29.5)	1 477	459	(31.1)	1 489	532	(35.7)	1 476	569	(38.6)
Romania	*11 581*	*2 757*	*(23.8)*	*11 070*	*2 840*	*(25.7)*	*7 189*	*2 231*	*(31.0)*	*7 588*	*2 457*	*(32.4)*	*8 818*	*4 003*	*(45.4)*
Slovakia	273	66	(24.2)	214	60	(28.0)	153	45	(29.4)	134	48	(35.8)	142	43	(30.3)
Slovenia	98	81	(82.7)	98	84	(85.7)	75	62	(82.7)	79	68	(86.1)	72	62	(86.1)
Spain	4 614	1 181	(25.6)	4 395	1 260	(28.7)	3 494	1 252	(35.8)	2 631	1 030	(39.1)	2 580	1 127	(43.7)
Sweden	474	326	(68.8)	478	386	(80.8)	312	273	(87.5)	340	289	(85.0)	357	330	(92.4)
Subtotal EU/EEA	**45 576**	**13 197**	**(29.0)**	**43 205**	**13 191**	**(30.5)**	**32 134**	**11 095**	**(34.5)**	***31 315***	***11 756***	***(37.5)***	***33 480***	***14 434***	***(43.1)***
Non-EU/EEA															
Albania	–	–	–	412	135	(32.8)	240	138	(57.5)	269	158	(58.7)	292	263	(90.1)
Andorra	2	2	(100.0)	5	5	(100.0)	2	2	(100.0)	2	0	(0.0)	4	0	(0.0)
Armenia	*734*	*619*	*(84.3)*	*621*	*512*	*(82.4)*	*394*	*326*	*(82.7)*	*398*	*326*	*(81.9)*	*440*	*379*	*(86.1)*
Azerbaijan	*5 038*	*3 472*	*(68.9)*	*4 823*	*4 096*	*(84.9)*	*3 683*	*3 033*	*(82.4)*	*3 663*	*3 125*	*(85.3)*	*3 989*	*3 794*	*(95.1)*
Belarus	*2 359*	*2 201*	*(93.3)*	*2 207*	*2 035*	*(92.2)*	*1 514*	*1 426*	*(94.2)*	*1 484*	*1 401*	*(94.4)*	*1 670*	*1 607*	*(96.2)*
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	*362*	*1*	*(0.3)*	–	–	–
Georgia	*2 316*	*1 940*	*(83.8)*	*2 169*	*1 824*	*(84.1)*	*1 671*	*1 468*	*(87.9)*	*1 501*	*1 403*	*(93.5)*	*1 511*	–	–
Israel	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Kazakhstan	*12 832*	*11 454*	*(89.3)*	*12 501*	*11 513*	*(92.1)*	*9 603*	*9 219*	*(96.0)*	*9 757*	*9 630*	*(98.7)*	*10 009*	*9 974*	*(99.7)*
Kyrgyzstan	*6 338*	*3 910*	*(61.7)*	*6 138*	*4 575*	*(74.5)*	*4 241*	*2 495*	*(58.8)*	*4 596*	*3 833*	*(83.4)*	*4 568*	*3 850*	*(84.3)*
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	84	64	(76.2)	80	57	(71.3)	40	35	(87.5)	80	68	(85.0)	71	68	(95.8)
North Macedonia	217	147	(67.7)	–	–	–	–	–	–	143	112	(78.3)	–	–	–
Republic of Moldova	*3 022*	*2 857*	*(94.5)*	*2 809*	*2 809*	*(100.0)*	*1 767*	*1 664*	*(94.2)*	*2 067*	*1 912*	*(92.5)*	*2 121*	*1 941*	*(91.5)*
Russian Federation	*78 258*	*57 344*	*(73.3)*	*73 328*	*58 300*	*(79.5)*	*58 723*	*47 901*	*(81.6)*	*56 922*	*48 208*	*(84.7)*	*55 906*	*49 145*	*(87.9)*
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	689	399	(57.9)	605	414	(68.4)	439	438	(99.8)	445	101	(22.7)	–	–	–
Serbia excluding Kosovo[1]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo[1]	689	399	(57.9)	605	414	(68.4)	439	438	(99.8)	445	101	(22.7)	–	–	–
Switzerland	–	–	–	402	304	(75.6)	–	–	–	355	243	(68.5)	–	–	–
Tajikistan	*5 726*	*4 235*	*(74.0)*	*5 755*	*4 915*	*(85.4)*	*4 148*	*3 502*	*(84.4)*	*4 158*	*3 544*	*(85.2)*	*4 294*	*3 721*	*(86.7)*
Türkiye	–	–	–	–	–	–	–	–	–	*9 047*	*318*	*(3.5)*	–	–	–
Turkmenistan	*2 157*	*1 611*	*(74.7)*	*2 117*	*1 650*	*(77.9)*	*1 918*	*711*	*(37.1)*	*1 878*	*889*	*(47.3)*	*2 503*	*1 967*	*(78.6)*
Ukraine	*26 512*	*23 093*	*(87.1)*	*25 379*	*22 537*	*(88.8)*	*17 533*	*16 774*	*(95.7)*	*18 307*	*17 451*	*(95.3)*	*18 567*	*17 693*	*(95.3)*
United Kingdom[d]	4 775	367	(7.7)	4 803	492	(10.2)	4 185	475	(11.4)	4 795	807	(16.8)	–	–	–
Uzbekistan	*16 413*	*14 390*	*(87.7)*	*16 272*	*12 074*	*(74.2)*	*12 111*	*11 062*	*(91.3)*	*13 544*	*13 273*	*(98.0)*	*14 302*	*13 730*	*(96.0)*
Subtotal non-EU/EEA	**167 472**	**128 105**	**(76.5)**	**160 426**	**128 247**	**(79.9)**	**122 212**	**100 669**	**(82.4)**	***133 773***	***106 803***	***(79.8)***	***120 247***	***108 132***	***(89.9)***
Total European Region	**213 048**	**141 302**	**(66.3)**	**203 631**	**141 438**	**(69.5)**	**154 346**	**111 764**	**(72.4)**	***165 088***	***118 559***	***(71.8)***	***153 727***	***122 566***	***(79.7)***
Subtotal 18 HPCs	***175 784***	***130 017***	***(74.0)***	***167 630***	***129 829***	***(77.4)***	***126 190***	***101 920***	***(80.8)***	***136 573***	***108 062***	***(79.1)***	***130 617***	***112 171***	***(85.9)***

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

[a] See:World Health Organization (2013). Automated real-time nucleic acid amplification technology for rapid and simultaneous detection of tuberculosis and rifampicin resistance. Policy update. Geneva: World Health Organization (https://apps.who.int/iris/handle/10665/112472, accessed 7 February 2022).
[b] Cases with unknown previous tuberculosis history are included among new tuberculosis cases.
[c] All nucleic acid amplification tests are counted as "tested using WHO-recommended rapid diagnostics" for EU/EEA countries.
[d] Previous TB history is defined as previous diagnosis.
[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).

8. Country profiles

Abbreviations used in country profiles

ART	antiretroviral therapy
C+	culture-positive
DR-TB	drug-resistant tuberculosis
DRS	drug-resistance surveillance
DST	drug-susceptibility testing
EQA	external quality assessment
MDR-TB	multidrug-resistant tuberculosis
N	number
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 2022, UN Statistical Database[1]: 2 842 321

Tuberculosis cases, 2022

Notifications

Total number of cases	292	
Notification rate per 100 000	10.3	
New[a] and relapse	292	
New[a] and relapse notification rate per 100 000	10.3	
Pulmonary	241	(82.5%)
of which laboratory-confirmed	188	(78.0%)
Mean age of new native TB cases	48.7 years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	266	(91.1%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	430	[380–520]

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

Drug-resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	174	(92.6%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low–high]	5	[3–8]
Pulmonary RR/MDR-TB cases notified	3	(1.7%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	3	
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	263	(90.1%)
HIV-positive TB cases	1	(0.4%)
of these on antiretroviral therapy	1	(100.0%)

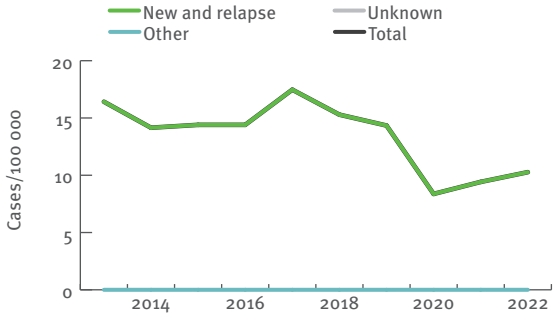
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

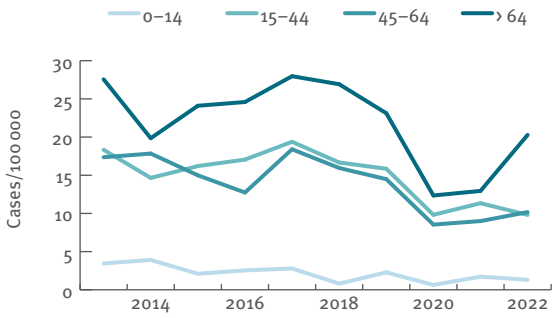
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR-TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	269		4	
Success	242	(90.0%)	2	(50.0%)
Died	9	(3.3%)	2	(50.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	16	(5.9%)	0	(0.0%)
Not evaluated	2	(0.7%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

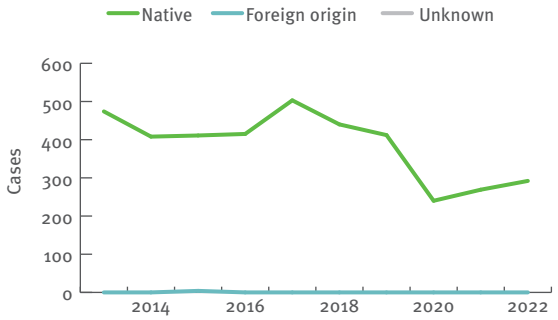
TB notification rates by previous treatment history, 2013–2022



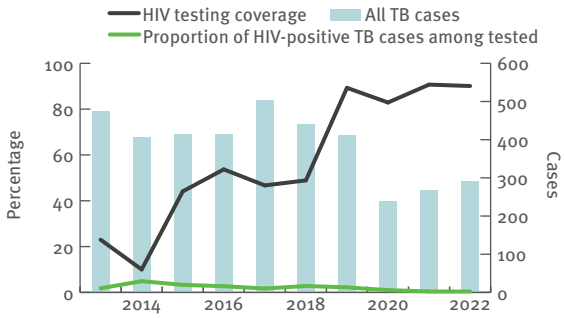
New and relapse TB cases – notification rates by age group, 2013–2022



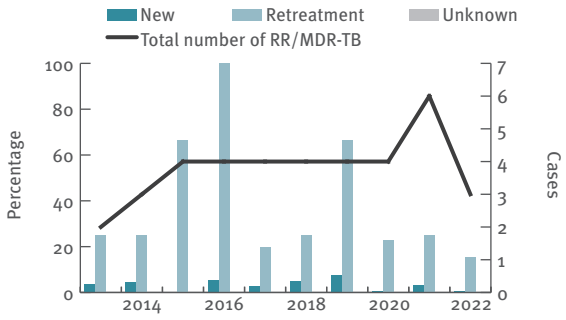
TB cases by geographical origin, 2013–2022



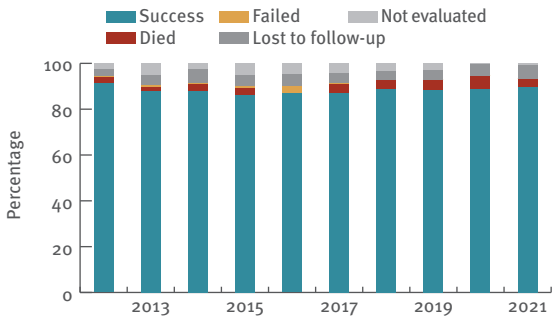
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Andorra

Total population estimate 2022, UN Statistical Database[1]: 79 824

Tuberculosis cases, 2022

Notifications		
Total number of cases	4	
Notification rate per 100 000	5.0	
New[a] and relapse	4	
New[a] and relapse notification rate per 100 000	5.0	
Pulmonary	4	(100.0%)
of which laboratory-confirmed	4	(100.0%)
Mean age of new native TB cases	37.5 years	
Foreign origin of all TB cases	3	(75.0%)
New (not previously treated)	4	(100.0%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	5	[4–5]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	4	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary 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	
of which pre-XDR-TB cases	–	–
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

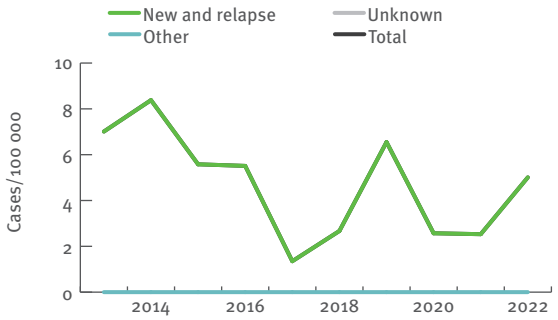
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

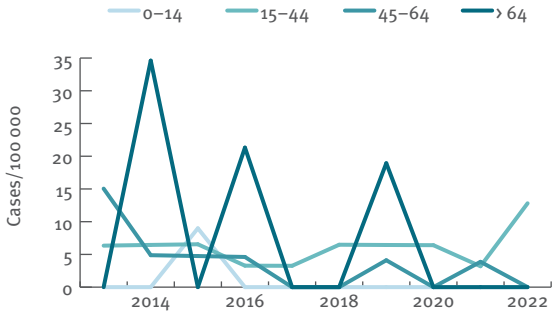
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR-TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	2		0	
Success	2	(100.0%)	–	–
Died	0	(0.0%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	0	(0.0%)	–	–
Not evaluated	0	(0.0%)	–	–

[a] Treatment outcome after 12 months (or 24 months).

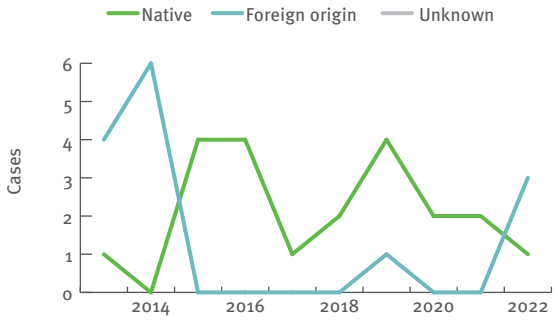
TB notification rates by previous treatment history, 2013–2022



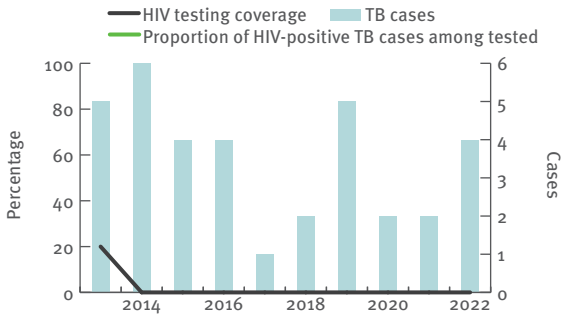
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

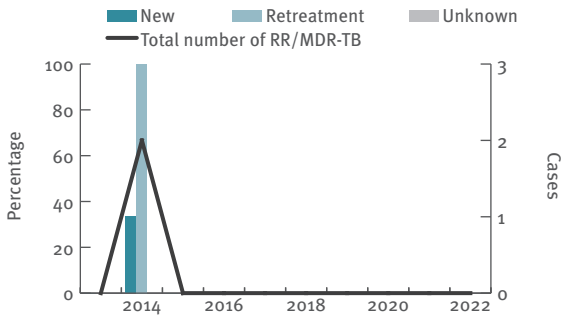


TB/HIV coinfection, 2013–2022

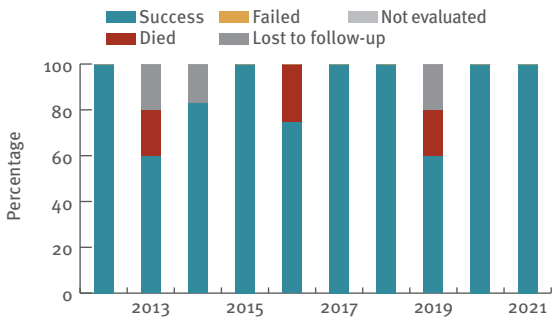


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Armenia

Total population estimate 2022, UN Statistical Database[1]: 2 780 469

Tuberculosis cases, 2022

Notifications

Total number of cases	472	
Notification rate per 100 000	17.0	
New[a] and relapse	440	
New[a] and relapse notification rate per 100 000	15.8	
Pulmonary	353	(74.8%)
of which laboratory-confirmed	279	(79.0%)
Mean age of new and relapse TB cases	45.8 years	
Foreign origin of all TB cases	6	(1.3%)
New (not previously treated)	411	(87.1%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	690	[540–890]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	279	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	64	[57–71]
Pulmonary RR/MDR-TB cases notified	56	(20.1%)
of which pre-XDR-TB cases	8	(14.8%)
Notified RR/MDR-TB	60	
of which pre-XDR-TB cases	8	(13.3%)
TB cases tested for HIV	411	(87.1%)
HIV-positive TB cases	39	(9.5%)
of these on antiretroviral therapy	35	(89.7%)

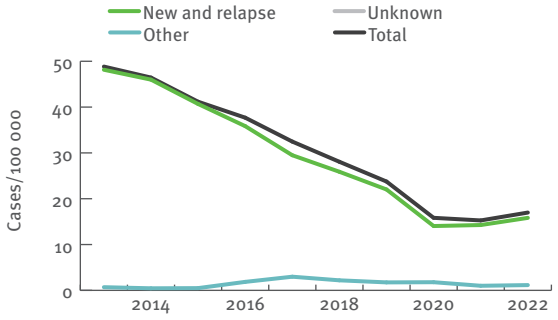
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

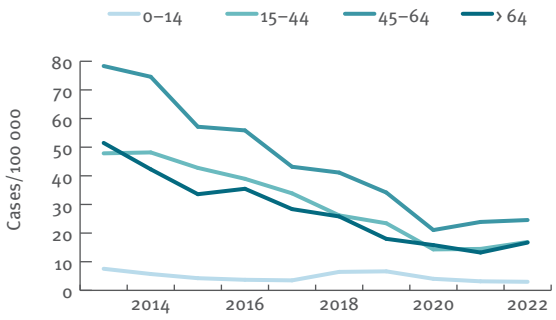
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR-TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	317		45	
Success	272	(85.8%)	28	(62.2%)
Died	14	(4.4%)	2	(4.4%)
Failed	8	(2.5%)	5	(11.1%)
Lost to follow-up	23	(7.3%)	10	(22.2%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

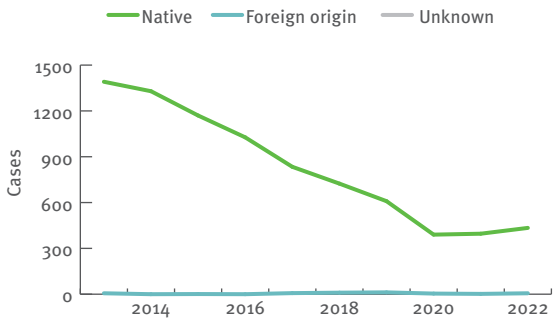
TB notification rates by previous treatment history, 2013–2022



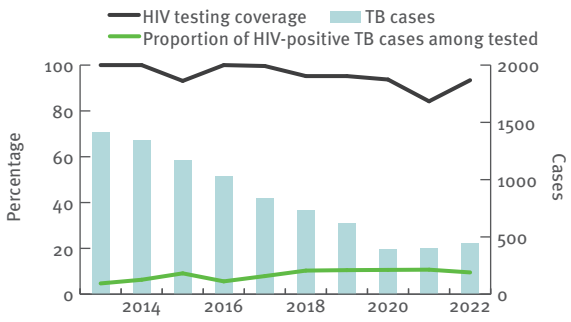
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

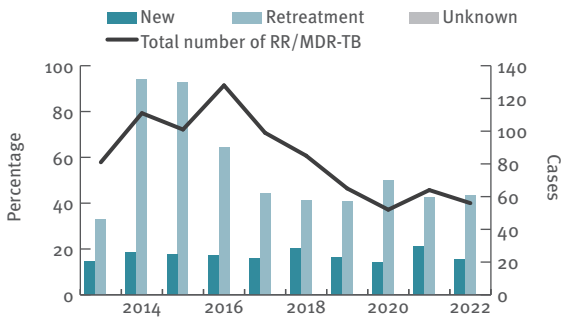


TB/HIV coinfection, 2013–2022

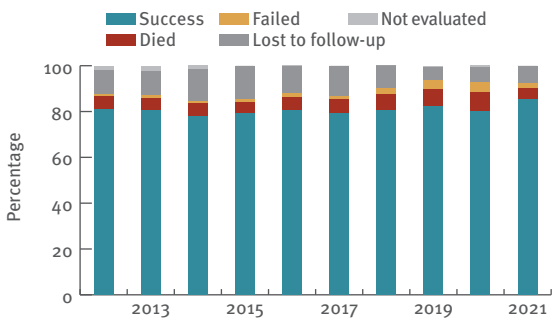


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Austria

Total population as of 31 October 2023, Eurostat[1]: 8 978 929

Tuberculosis cases, 2022

Notifications

Total number of cases	372	
Notification rate per 100 000	4.1	
New[a] and relapse	366	
New[a] and relapse notification rate per 100 000	4.1	
Pulmonary	307	(82.5%)
of which microscopy-positive	97	(31.6%)
of which laboratory-confirmed	252	(82.1%)
Laboratory-confirmed TB cases	294	(79.0%)
Mean age of new native TB cases	54.4 years	
Mean age of new foreign TB cases	41.3 years	
Foreign origin of all TB cases	240	(64.5%)
New (not previously treated)	265	(71.2%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	390	[330–450]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	272	(92.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	28	[16–40]
Pulmonary RR/MDR-TB cases notified	11	(4.7%)
of which pre-XDR-TB cases	1	(9.1%)
Notified RR/MDR-TB	12	(4.4%)
of which pre-XDR-TB cases	1	(8.3%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

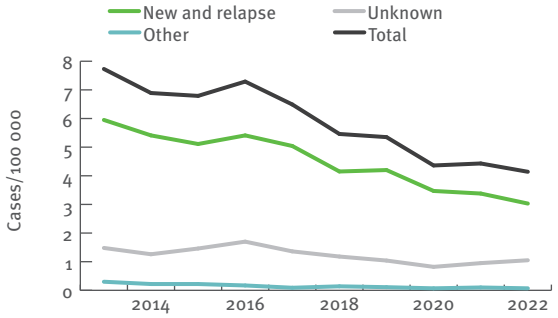
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

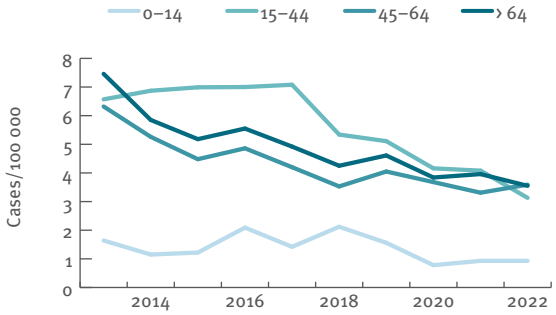
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	171		2	
Success	126	(73.7%)	0	(0.0%)
Died	14	(8.2%)	2	(100.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	15	(8.8%)	0	(0.0%)
Still on treatment	16	(9.4%)	0	(0.0%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

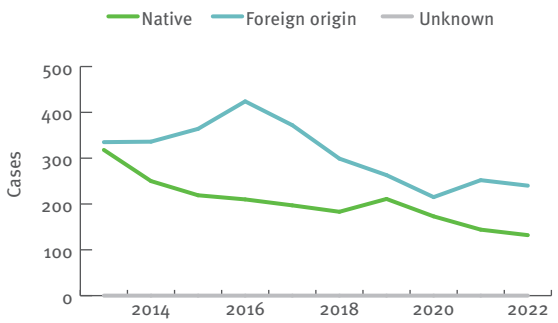
TB notification rates by previous treatment history, 2013–2022



New and relapse TB cases – notification rates by age group, 2013–2022



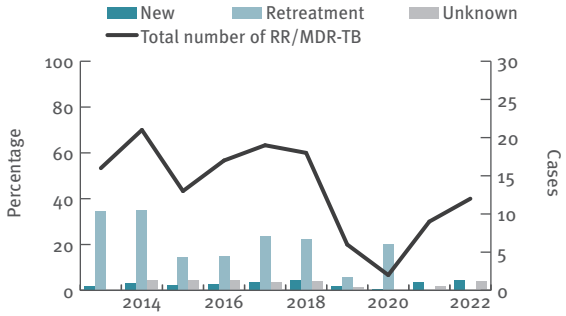
TB cases by geographical origin, 2013–2022



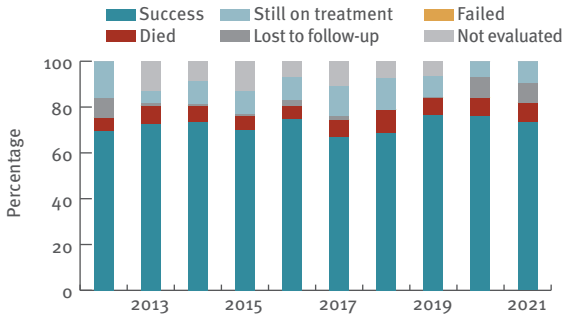
TB/HIV coinfection, 2013–2022

Data not reported

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Azerbaijan

Total population estimate 2022, UN Statistical Database[1]: 10 358 074

Tuberculosis cases, 2022

Notifications

Total number of cases	5 169	
Notification rate per 100 000	49.9	
New[a] and relapse	3 989	
New[a] and relapse notification rate per 100 000	38.5	
Pulmonary	4 442	(85.9%)
of which laboratory-confirmed	3 863	(87.0%)
Mean age of new and relapse TB cases	29.4 years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	2877	(55.7%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	7 000	[5 000–9 200]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	3 824	(99.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	650	[620–680]
Pulmonary RR/MDR-TB cases notified	686	(17.9%)
of which pre-XDR-TB cases	97	(15.4%)
Notified RR/MDR-TB	1031	
of which pre-XDR-TB cases	171	(16.6%)
TB cases tested for HIV	3 399	(65.8%)
HIV-positive TB cases	80	(2.4%)
of these on antiretroviral therapy	78	(97.5%)

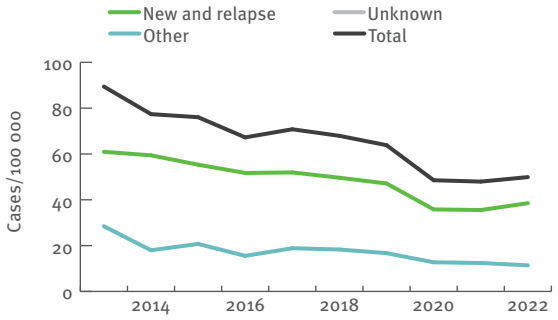
[a] National coverage 100% or culturing 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

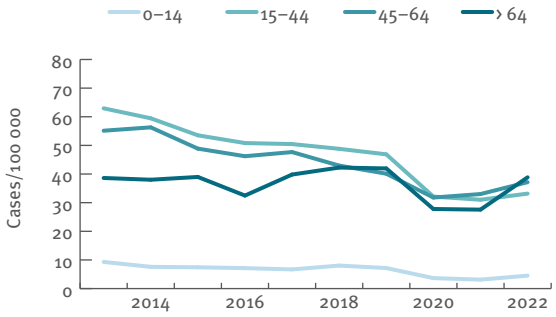
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR-TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	1 276		586	
Success	1043	(81.7%)	360	(61.4%)
Died	56	(4.4%)	59	(10.1%)
Failed	63	(4.9%)	145	(24.7%)
Lost to follow-up	106	(8.3%)	22	(3.8%)
Not evaluated	8	(0.6%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

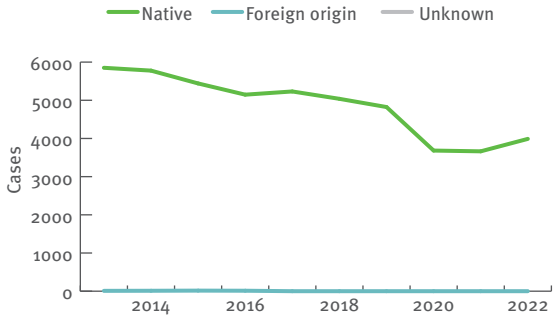
TB notification rates by previous treatment history, 2013–2022



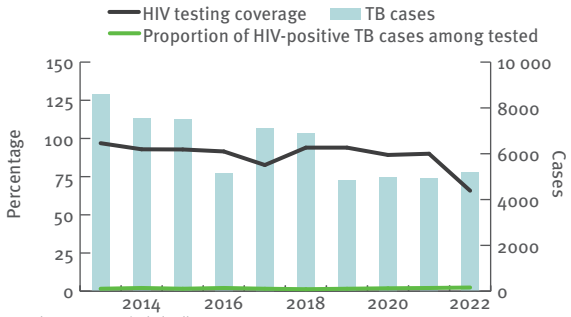
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

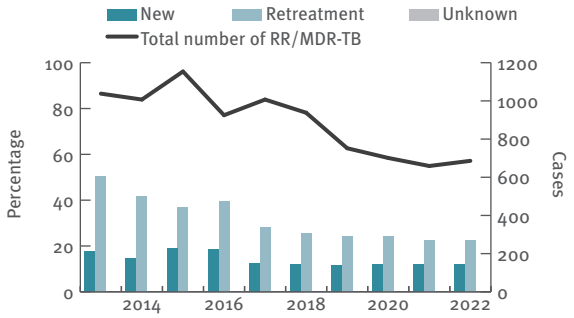


TB/HIV coinfection, 2013–2022

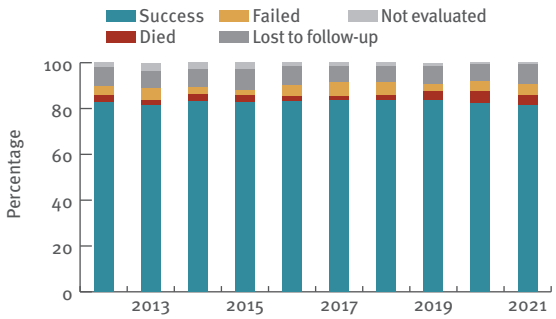


Note: data up to 2018 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Belarus

Total population estimate 2022, UN Statistical Database[1]: 9 534 955

Tuberculosis cases, 2022

Notifications

Total number of cases	1 903	
Notification rate per 100 000	20.0	
New[a] and relapse	1 670	
New[a] and relapse notification rate per 100 000	17.5	
Pulmonary	1 785	(93.8%)
of which microscopy-positive		
of which laboratory-confirmed	1 723	(96.5%)
Laboratory-confirmed TB cases		
Mean age of new native TB cases	50.3 years	
Mean age of new foreign TB cases		
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1 377	(72.4%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	2600	[2 000–3 400]

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

Drug-resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	1 723	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	800	[780–830]
Pulmonary RR/MDR-TB cases notified	721	(41.8%)
of which pre-XDR-TB cases	314	(43.6%)
Notified RR/MDR-TB	762	
of which pre-XDR-TB cases	314	(41.2%)
TB cases tested for HIV	1 649	(86.7%)
HIV-positive TB cases	127	(7.7%)
of these on antiretroviral therapy	120	(94.5%)

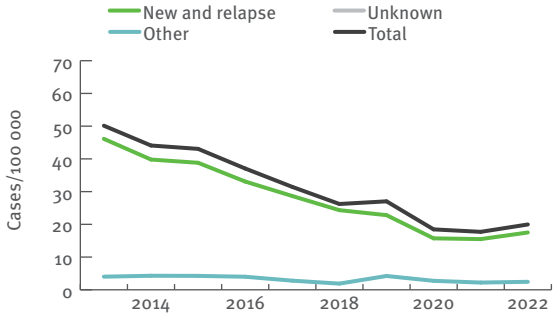
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

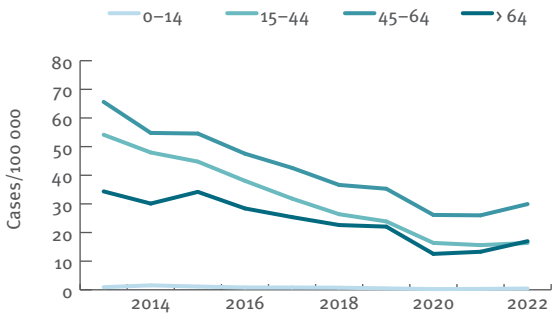
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR-TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	903		353	
Success	759	(84.1%)	282	(79.9%)
Died	81	(9.0%)	32	(9.1%)
Failed	19	(2.1%)	5	(1.4%)
Lost to follow-up	44	(4.9%)	33	(9.3%)
Not evaluated	0	(0.0%)	1	(0.3%)

[a] Treatment outcome after 12 months (or 24 months).

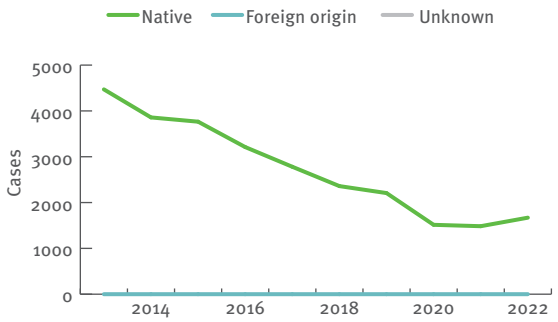
TB notification rates by previous treatment history, 2013–2022



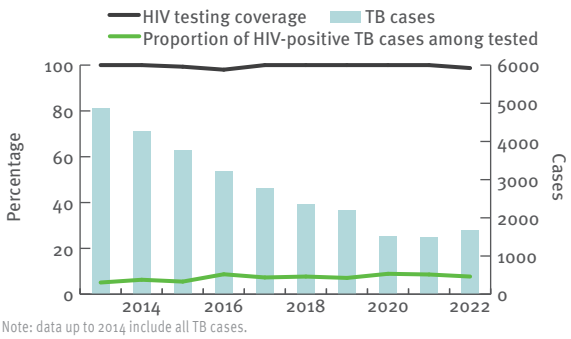
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

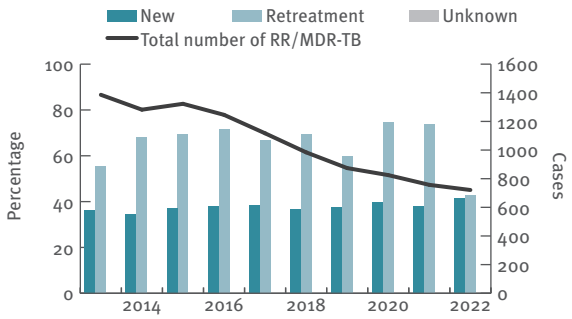


TB/HIV coinfection, 2013–2022

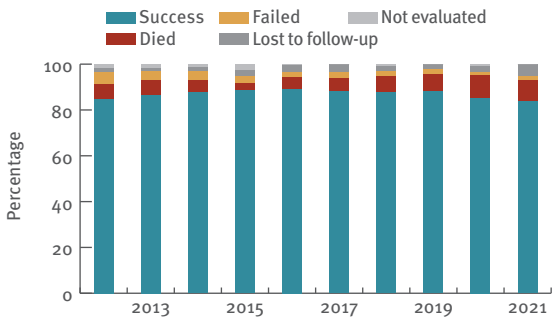


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021[a]



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Belgium

Total population as of 31 October 2023, Eurostat[1]: 11 617 623

Tuberculosis cases, 2022

Notifications

Total number of cases	852	
Notification rate per 100 000	7.3	
New[a] and relapse	786	
New[a] and relapse notification rate per 100 000	6.8	
Pulmonary	580	(68.1%)
of which microscopy-positive	279	(48.1%)
of which laboratory-confirmed	485	(83.6%)
Laboratory-confirmed TB cases	663	(77.8%)
Mean age of new native TB cases	44.7 years	
Mean age of new foreign TB cases	32.0 years	
Foreign origin of all TB cases	532	(62.4%)
New (not previously treated)	615	(72.2%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	910	[770–1 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	634	(95.6%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	26	[16–36]
Pulmonary RR/MDR-TB cases notified	11	(2.4%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	14	(2.2%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	437	(51.3%)
HIV-positive TB cases	23	(5.3%)
of these on antiretroviral therapy	–	–

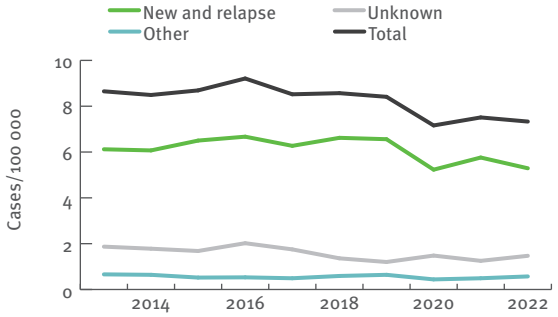
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

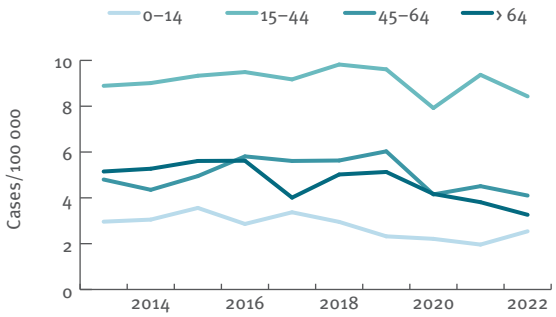
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All MDR-TB cases notified in 2019[b]	
Case-linked data-reporting	Yes		–	
Cases notified	400		17	
Success	308	(77.0%)	11	(64.7%)
Died	26	(6.5%)	1	(5.9%)
Failed	2	(0.5%)	0	(0.0%)
Lost to follow-up	33	(8.3%)	1	(5.9%)
Still on treatment	9	(2.3%)	0	(0.0%)
Not evaluated	22	(5.5%)	4	(23.5%)

[a] Treatment outcome after 12 months (or 24 months).

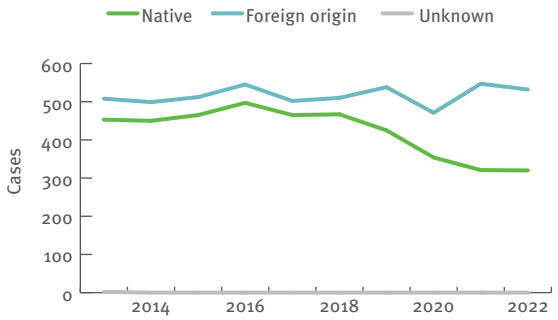
TB notification rates by previous treatment history, 2013–2022



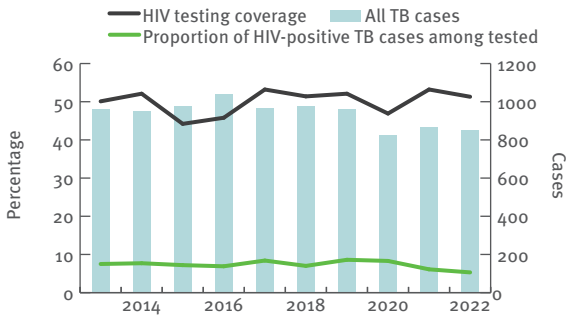
New and relapse TB cases – notification rates by age group, 2013–2022



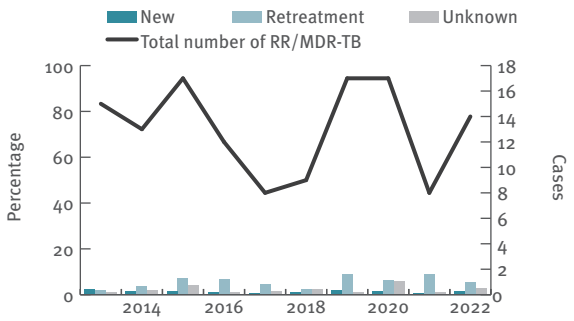
TB cases by geographical origin, 2013–2022



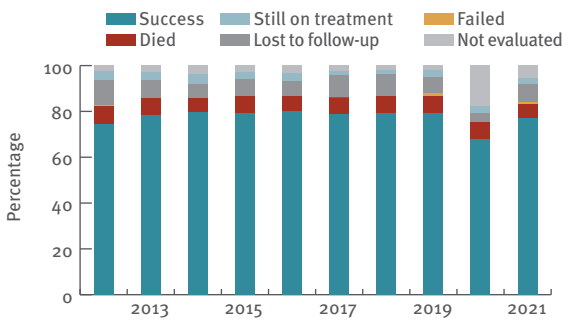
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Bosnia and Herzegovina

Total population estimate 2022, UN Statistical Database[1]: 3 233 527

Tuberculosis cases, 2022

Notifications

Total number of cases	434	
Notification rate per 100 000	13.4	
New[a] and relapse	432	
New[a] and relapse notification rate per 100 000	13.4	
Pulmonary	404	(93.1%)
of which laboratory-confirmed	372	(92.1%)
Mean age of new native TB cases	53.8 years	
Foreign origin of all TB cases	4	(0.9%)
New (not previously treated)	402	(92.6%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	780	[580–1 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	366	(98.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low–high]	2	[1–2]
Pulmonary RR/MDR-TB cases notified	3	(0.8%)
of which pre-XDR-TB cases	0	–
Notified RR/MDR-TB	3	
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	29	(6.7%)
HIV-positive TB cases	0	(0.0%)
of these on antiretroviral therapy	–	–

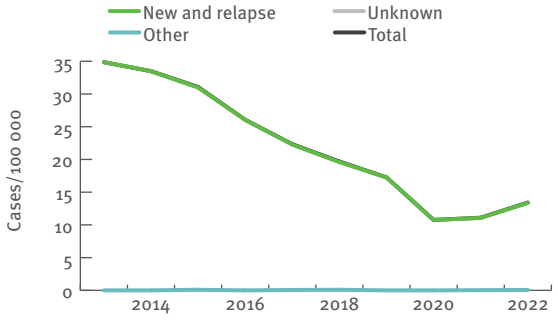
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

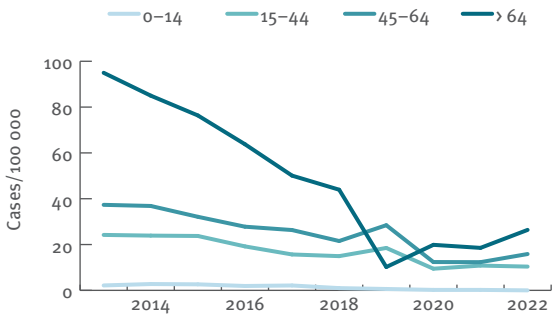
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR-TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	361		0	
Success	166	(46.0%)	–	–
Died	9	(2.5%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	5	(1.4%)	–	–
Not evaluated	181	(50.1%)	–	–

[a] Treatment outcome after 12 months (or 24 months).

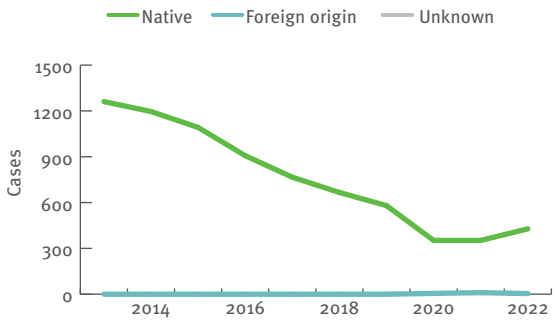
TB notification rates by previous treatment history, 2013–2022



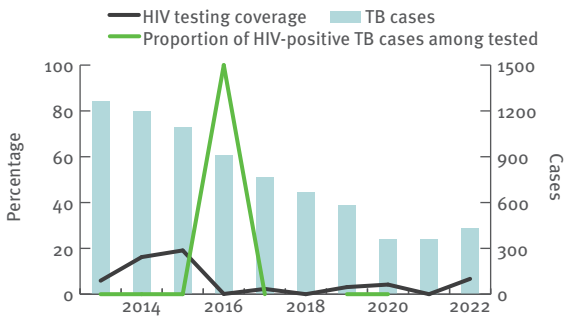
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

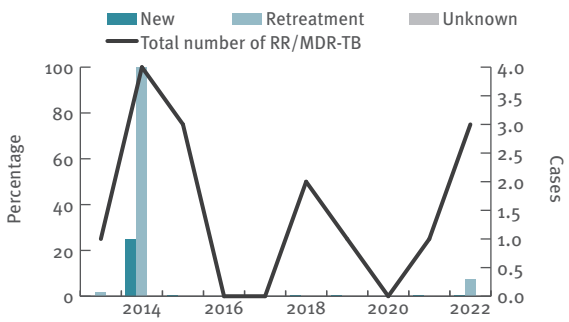


TB/HIV coinfection, 2013–2022

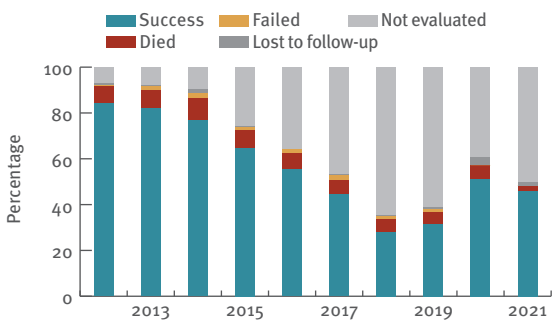


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Bulgaria

Total population as of 31 October 2023, Eurostat[1]: 6 838 937

Tuberculosis cases, 2022

Notifications

Total number of cases	792	
Notification rate per 100 000	11.6	
New[a] and relapse	764	
New[a] and relapse notification rate per 100 000	11.2	
Pulmonary	654	(82.6%)
of which microscopy-positive	322	(49.2%)
of which laboratory-confirmed	347	(53.1%)
Laboratory-confirmed TB cases	350	(44.2%)
Mean age of new native TB cases	50.2 years	
Mean age of new foreign TB cases	21.3 years	
Foreign origin of all TB cases	9	(1.1%)
New (not previously treated)	696	(87.9%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	1 100	[750–1 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	225	(64.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	36	[16–56]
Pulmonary RR/MDR-TB cases notified	5	(2.3%)
of which pre-XDR-TB cases	1	(20.0%)
Notified RR/MDR-TB	5	(2.2%)
of which pre-XDR-TB cases	1	(20.0%)
TB cases tested for HIV	562	(71.0%)
HIV-positive TB cases	5	(0.9%)
of these on antiretroviral therapy	–	–

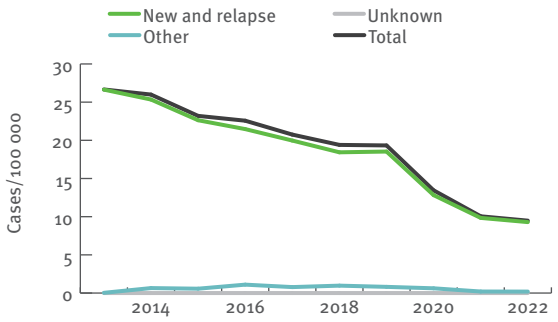
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

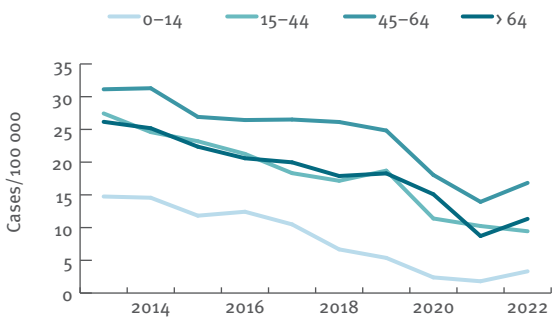
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	301		12	
Success	251	(83.4%)	0	(0.0%)
Died	26	(8.6%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	20	(6.6%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	4	(1.3%)	12	(100.0%)

[a] Treatment outcome after 12 months (or 24 months).

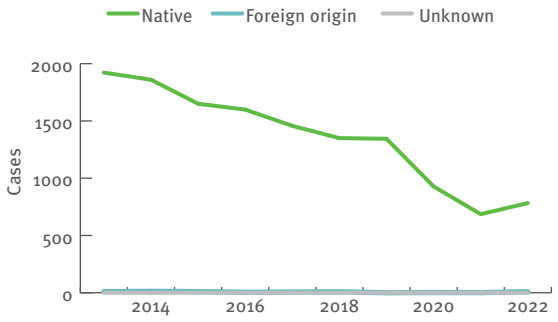
TB notification rates by previous treatment history, 2013–2022



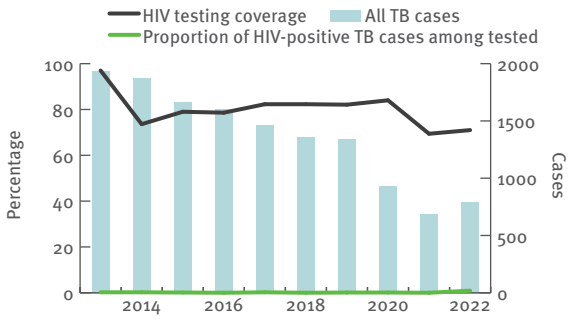
New and relapse TB cases – notification rates by age group, 2013–2022



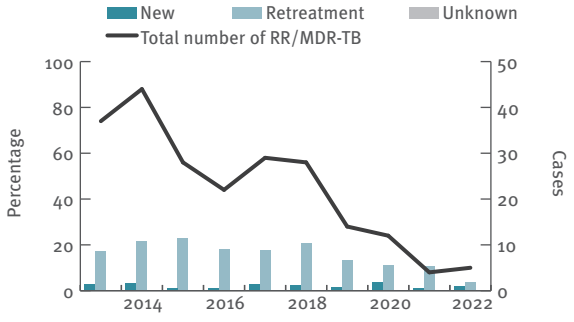
TB cases by geographical origin, 2013–2022



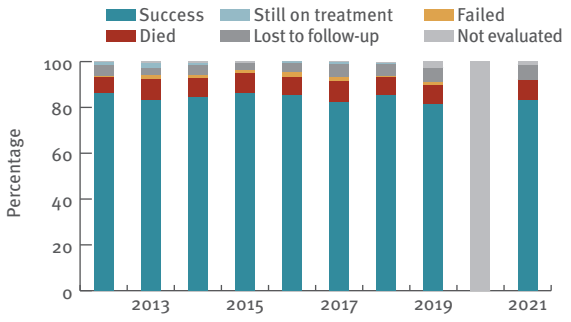
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Croatia

Total population as of 31 October 2023, Eurostat[1]: 3 862 305

Tuberculosis cases, 2022

Notifications

Total number of cases	212	
Notification rate per 100 000	5.5	
New[a] and relapse	206	
New[a] and relapse notification rate per 100 000	5.3	
Pulmonary	174	(82.1%)
of which microscopy-positive	103	(59.2%)
of which laboratory-confirmed	152	(87.4%)
Laboratory-confirmed TB cases	169	(79.7%)
Mean age of new native TB cases	56.7 years	
Mean age of new foreign TB cases	54.1 years	
Foreign origin of all TB cases	20	(9.4%)
New (not previously treated)	148	(69.8%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	110	[92–120]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	163	(96.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	1	[0–1]
Pulmonary RR/MDR-TB cases notified	2	(1.4%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	2	(1.2%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	6	(2.8%)
HIV-positive TB cases	0	(0.0%)
of these on antiretroviral therapy	–	–

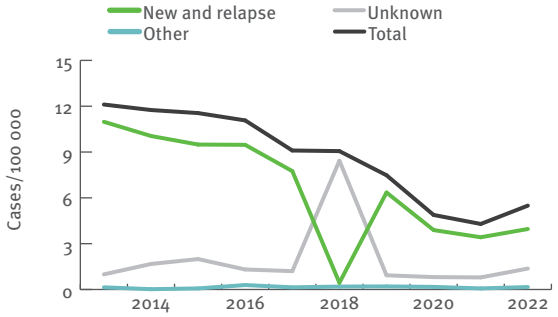
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

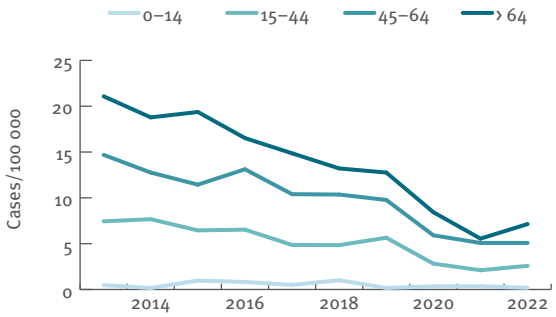
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	0		1	
Success	–	–	1	(100.0%)
Died	–	–	0	(0.0%)
Failed	–	–	0	(0.0%)
Lost to follow-up	–	–	0	(0.0%)
Still on treatment	–	–	0	(0.0%)
Not evaluated	–	–	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

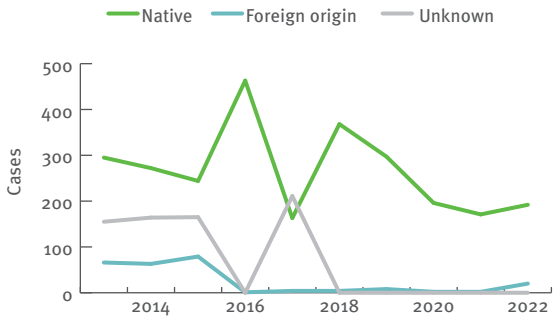
TB notification rates by previous treatment history, 2013–2022



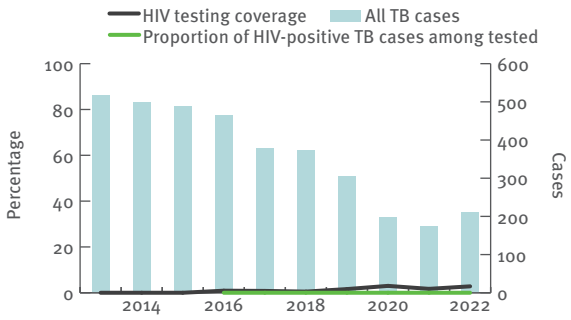
New and relapse TB cases – notification rates by age group, 2013–2022



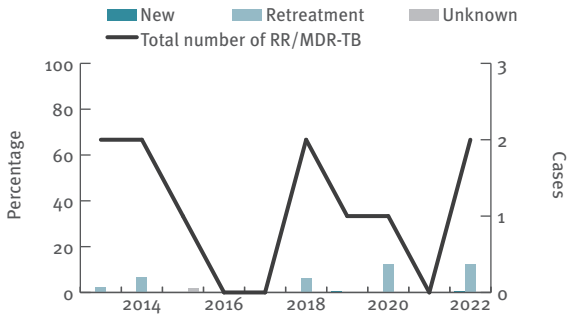
TB cases by geographical origin, 2013–2022



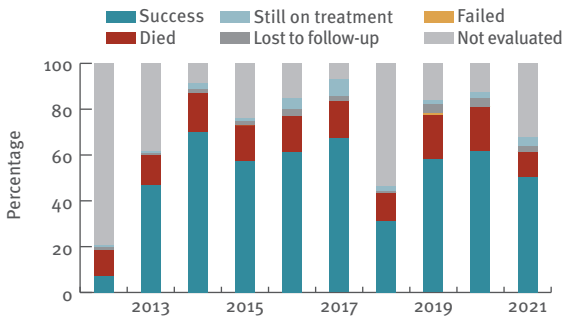
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Cyprus

Total population as of 31 October 2023, Eurostat[1]: 904 705

Tuberculosis cases, 2022

Notifications

Total number of cases	96	
Notification rate per 100 000	10.6	
New[a] and relapse	94	
New[a] and relapse notification rate per 100 000	10.4	
Pulmonary	82	(85.4%)
of which microscopy-positive	28	(34.1%)
of which laboratory-confirmed	70	(85.4%)
Laboratory-confirmed TB cases	79	(82.3%)
Mean age of new native TB cases	60.3 years	
Mean age of new foreign TB cases	29.2 years	
Foreign origin of all TB cases	90	(93.8%)
New (not previously treated)	91	(94.8%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	100	[89–120]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	75	(94.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	2	[1–4]
Pulmonary RR/MDR-TB cases notified	2	(3.0%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	3	(4.0%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	54	(56.3%)
HIV-positive TB cases	10	(18.5%)
of these on antiretroviral therapy	–	–

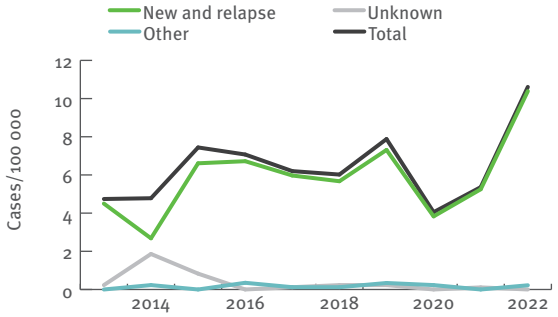
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

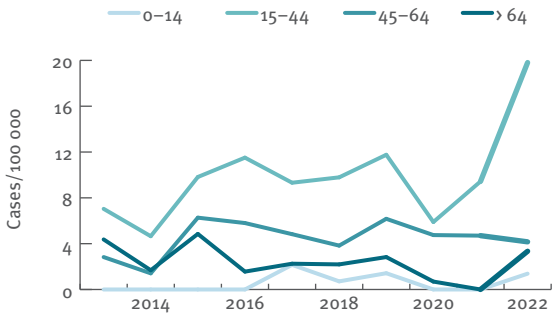
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	29		0	
Success	14	(48.3%)	–	–
Died	1	(3.4%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	4	(13.8%)	–	–
Still on treatment	0	(0.0%)	–	–
Not evaluated	10	(34.5%)	–	–

[a] Treatment outcome after 12 months (or 24 months).

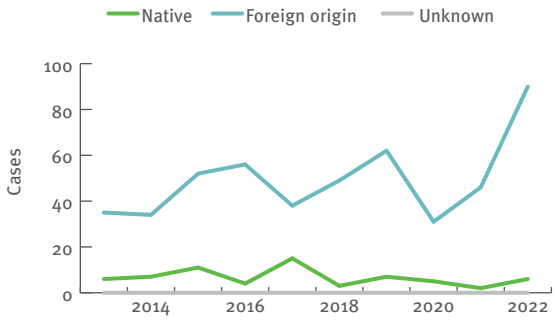
TB notification rates by previous treatment history, 2013–2022



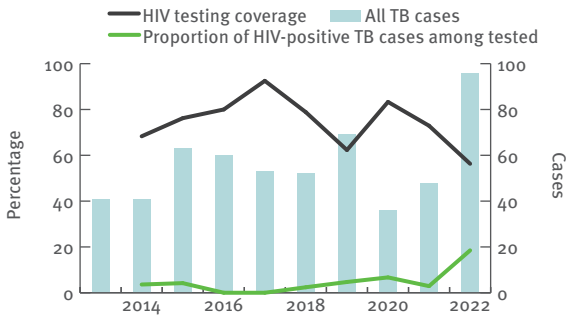
New and relapse TB cases – notification rates by age group, 2013–2022



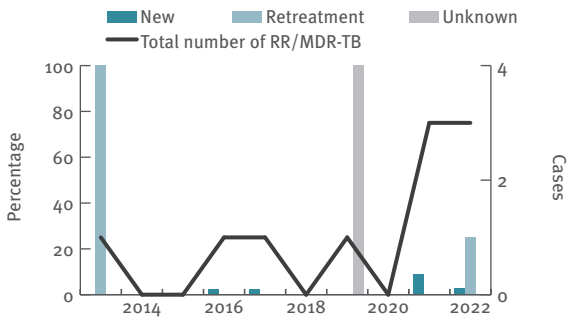
TB cases by geographical origin, 2013–2022



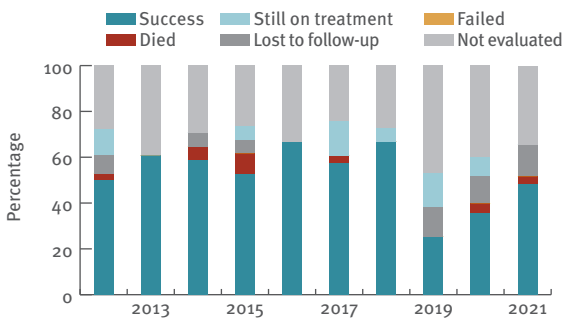
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Czechia

Total population as of 31 October 2023, Eurostat[1]: 10 516 707

Tuberculosis cases, 2022

Notifications

Total number of cases	384	
Notification rate per 100 000	3.7	
New[a] and relapse	379	
New[a] and relapse notification rate per 100 000	3.6	
Pulmonary	338	(88.0%)
of which microscopy-positive	192	(56.8%)
of which laboratory-confirmed	286	(84.6%)
Laboratory-confirmed TB cases	318	(82.8%)
Mean age of new native TB cases	54.4 years	
Mean age of new foreign TB cases	41.6 years	
Foreign origin of all TB cases	166	(43.2%)
New (not previously treated)	354	(92.2%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	440	[410–460]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	287	(90.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	19	[12–26]
Pulmonary RR/MDR-TB cases notified	16	(6.2%)
of which pre-XDR-TB cases	4	(25.0%)
Notified RR/MDR-TB	16	(5.6%)
of which pre-XDR-TB cases	4	(25.0%)
TB cases tested for HIV	252	(65.6%)
HIV-positive TB cases	5	(2.0%)
of these on antiretroviral therapy	–	–

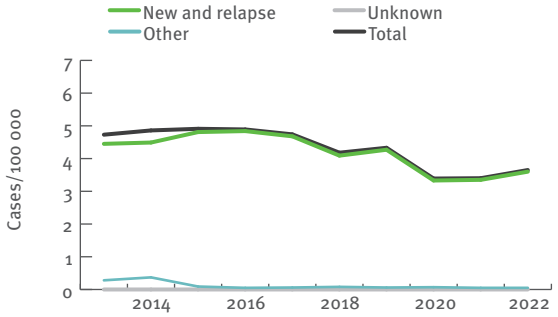
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

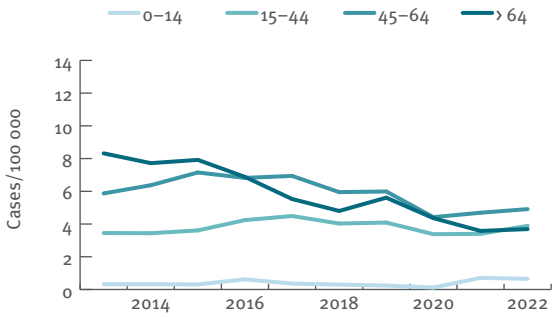
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	252		11	
Success	160	(63.5%)	1	(9.1%)
Died	46	(18.3%)	3	(27.3%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	24	(9.5%)	3	(27.3%)
Still on treatment	13	(5.2%)	2	(18.2%)
Not evaluated	9	(3.6%)	2	(18.2%)

[a] Treatment outcome after 12 months (or 24 months).

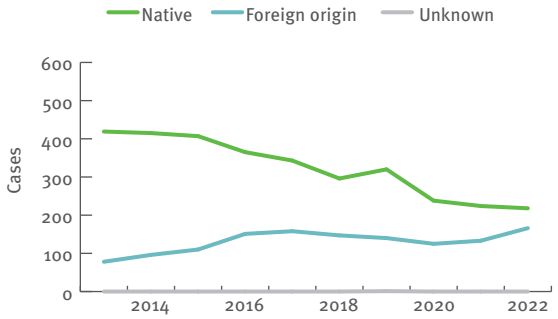
TB notification rates by previous treatment history, 2013–2022



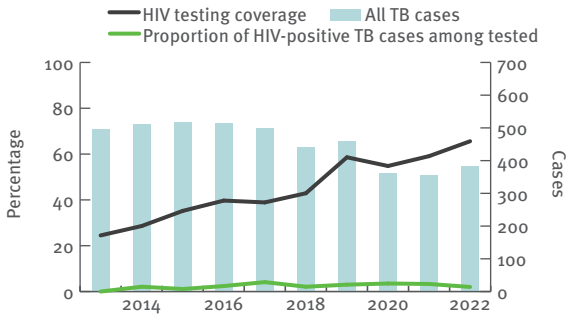
New and relapse TB cases – notification rates by age group, 2013–2022



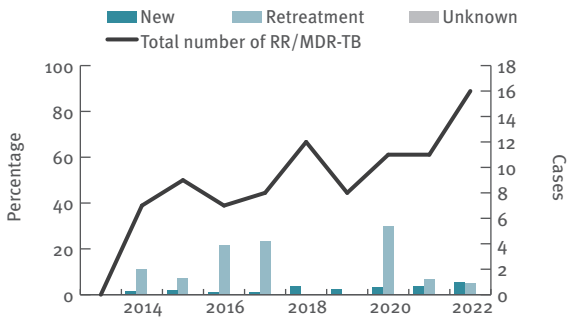
TB cases by geographical origin, 2013–2022



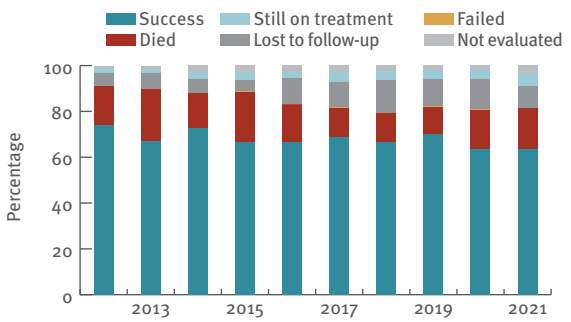
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Denmark

Total population as of 31 October 2023, Eurostat[1]: 5 873 420

Tuberculosis cases, 2022

Notifications

Total number of cases	225	
Notification rate per 100 000	3.8	
New[a] and relapse	205	
New[a] and relapse notification rate per 100 000	3.5	
Pulmonary	179	(79.6%)
of which microscopy-positive	86	(48.0%)
of which laboratory-confirmed	145	(81.0%)
Laboratory-confirmed TB cases	171	(76.0%)
Mean age of new native TB cases	61.0 years	
Mean age of new foreign TB cases	45.6 years	
Foreign origin of all TB cases	225	(100.0%)
New (not previously treated)	201	(89.3%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	240	[200–270]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	170	(99.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	5	[3–8]
Pulmonary RR/MDR-TB cases notified	6	(4.2%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	7	(4.1%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	161	(71.6%)
HIV-positive TB cases	6	(3.7%)
of these on antiretroviral therapy	–	–

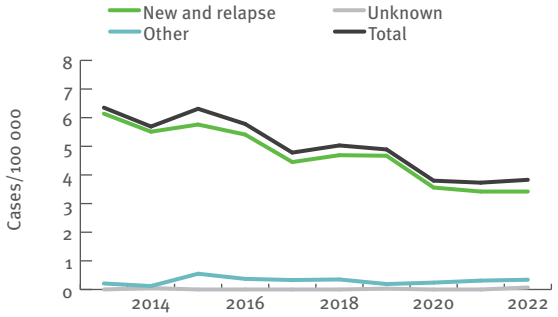
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

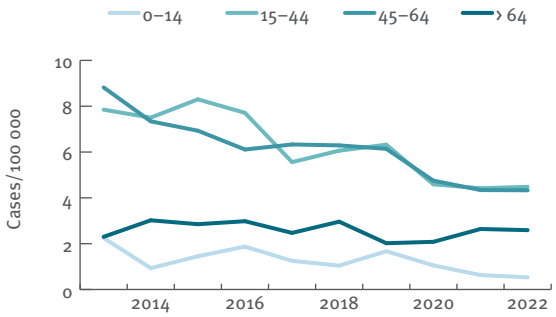
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	115		2	
Success	22	(19.1%)	0	(0.0%)
Died	1	(0.9%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	1	(0.9%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	91	(79.1%)	2	(100.0%)

[a] Treatment outcome after 12 months (or 24 months).

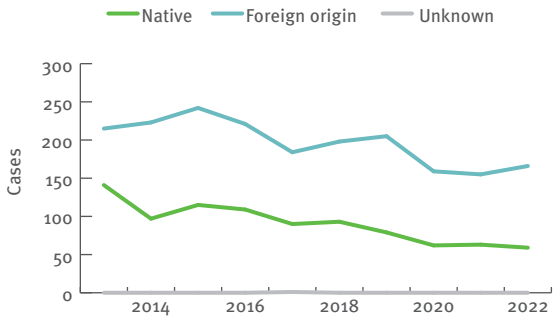
TB notification rates by previous treatment history, 2013–2022



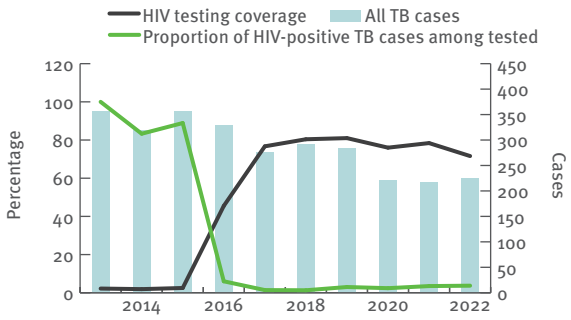
New and relapse TB cases – notification rates by age group, 2013–2022



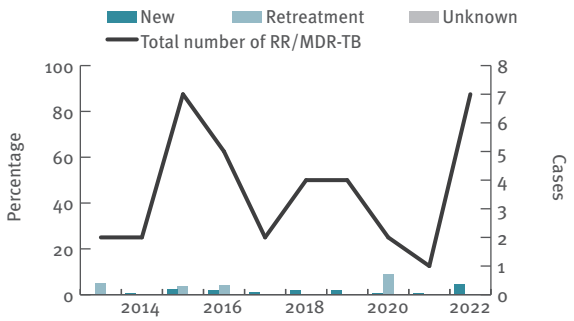
TB cases by geographical origin, 2013–2022



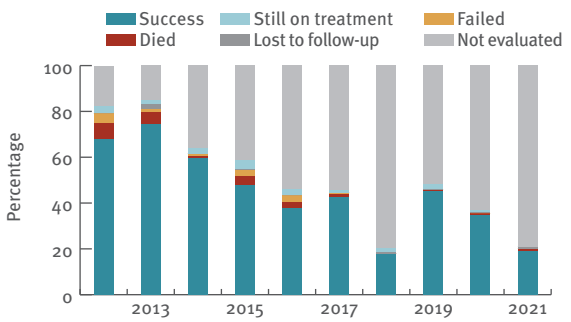
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Estonia

Total population as of 31 October 2023, Eurostat[1]: 1 331 796

Tuberculosis cases, 2022

Notifications

Total number of cases	129	
Notification rate per 100 000	9.7	
New[a] and relapse	125	
New[a] and relapse notification rate per 100 000	9.4	
Pulmonary	121	(93.8%)
of which microscopy-positive	52	(43.0%)
of which laboratory-confirmed	94	(77.7%)
Laboratory-confirmed TB cases	99	(76.7%)
Mean age of new native TB cases	57.1 years	
Mean age of new foreign TB cases	57.2 years	
Foreign origin of all TB cases	35	(27.1%)
New (not previously treated)	104	(80.6%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	140	[120–170]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	93	(93.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	39	[31–48]
Pulmonary RR/MDR-TB cases notified	24	(25.5%)
of which pre-XDR-TB cases	7	(29.2%)
Notified RR/MDR-TB	24	(25.8%)
of which pre-XDR-TB cases	7	(29.2%)
TB cases tested for HIV	121	(93.8%)
HIV-positive TB cases	7	(5.8%)
of these on antiretroviral therapy	6	(85.7%)

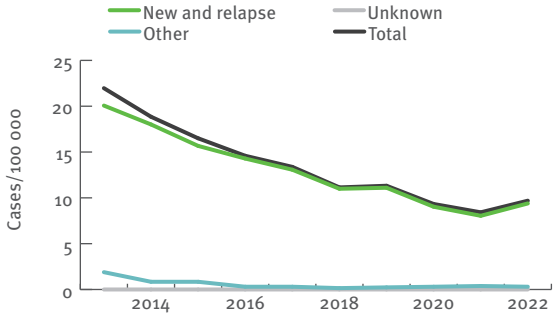
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

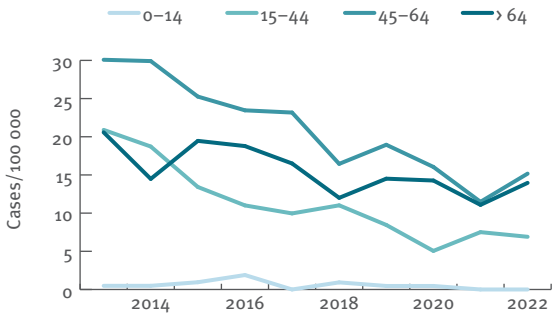
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	70		21	
Success	54	(77.1%)	16	(76.2%)
Died	10	(14.3%)	3	(14.3%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	2	(2.9%)	1	(4.8%)
Still on treatment	4	(5.7%)	1	(4.8%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

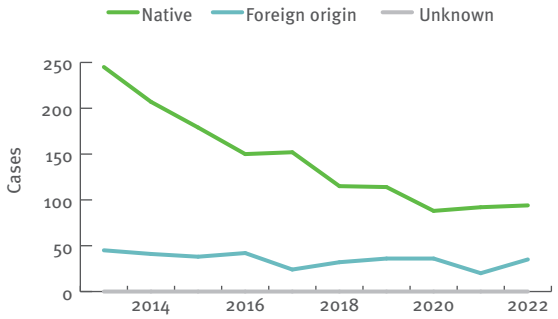
TB notification rates by previous treatment history, 2013–2022



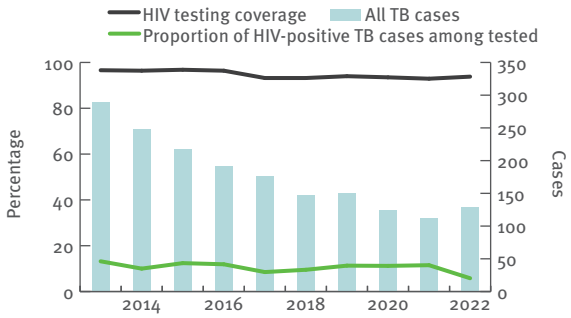
New and relapse TB cases – notification rates by age group, 2013–2022



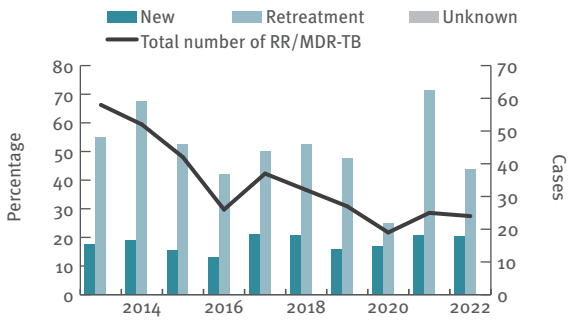
TB cases by geographical origin, 2013–2022



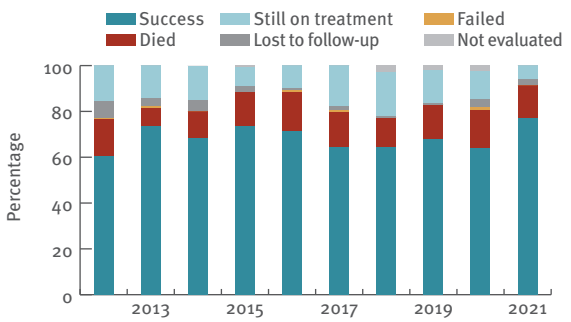
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Finland

Total population as of 31 October 2023, Eurostat[1]: 5 548 241

Tuberculosis cases, 2022

Notifications

Total number of cases	190	
Notification rate per 100 000	3.4	
New[a] and relapse	190	
New[a] and relapse notification rate per 100 000	3.4	
Pulmonary	128	(67.4%)
of which microscopy-positive	35	(27.3%)
of which laboratory-confirmed	110	(85.9%)
Laboratory-confirmed TB cases	151	(79.5%)
Mean age of new native TB cases	67.7 years	
Mean age of new foreign TB cases	38.5 years	
Foreign origin of all TB cases	70	(36.8%)
New (not previously treated)	183	(96.3%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	220	[190–250]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	144	(95.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	9	[6–13]
Pulmonary RR/MDR-TB cases notified	8	(7.5%)
of which pre-XDR-TB cases	3	(37.5%)
Notified RR/MDR-TB	8	(5.6%)
of which pre-XDR-TB cases	3	(37.5%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

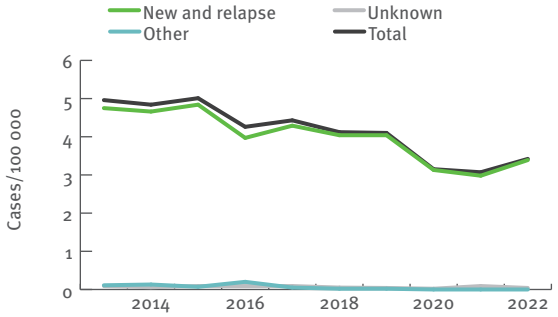
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

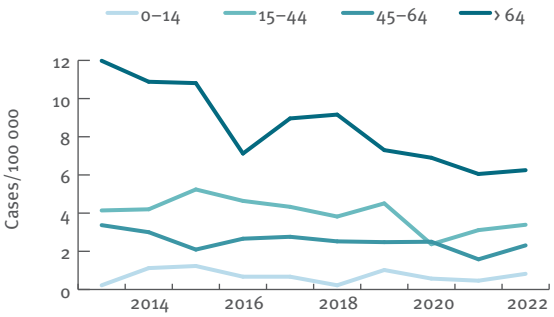
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	88		1	
Success	6	(6.8%)	0	(0.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	82	(93.2%)	1	(100.0%)

[a] Treatment outcome after 12 months (or 24 months).

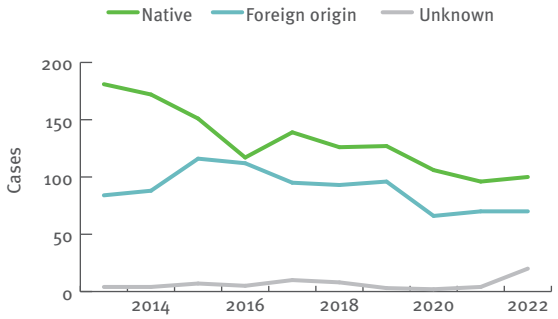
TB notification rates by previous treatment history, 2013–2022



New and relapse TB cases – notification rates by age group, 2013–2022



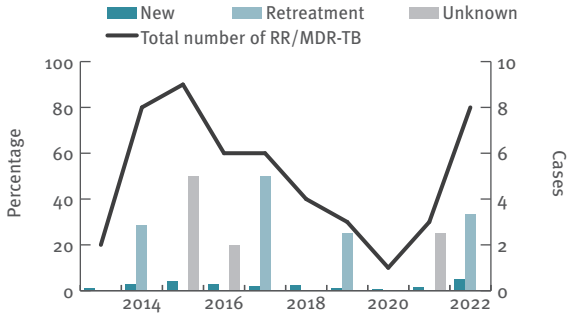
TB cases by geographical origin, 2013–2022



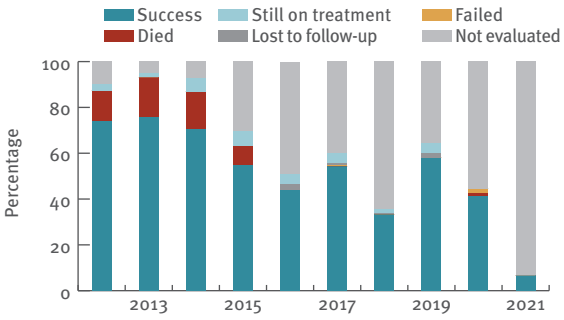
TB/HIV coinfection, 2013–2022

Data not reported

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

France

Total population as of 31 October 2023, Eurostat[1]: 67 871 925

Tuberculosis cases, 2022

Notifications

Total number of cases	4 040	
Notification rate per 100 000	6.0	
New[a] and relapse	3 831	
New[a] and relapse notification rate per 100 000	5.6	
Pulmonary	2 882	(71.3%)
of which microscopy-positive	1 305	(45.3%)
of which laboratory-confirmed	1 238	(43.0%)
Laboratory-confirmed TB cases	1 606	(39.8%)
Mean age of new native TB cases	46.9 years	
Mean age of new foreign TB cases	37.4 years	
Foreign origin of all TB cases	2554	(63.2%)
New (not previously treated)	2739	(67.8%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	4 700	[4 100–5 300]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	61	(3.8%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	79	[29–130]
Pulmonary RR/MDR-TB cases notified	49	(100.0%)
of which pre-XDR-TB cases	9	(18.4%)
Notified RR/MDR-TB	61	(100.0%)
of which pre-XDR-TB cases	9	(14.8%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

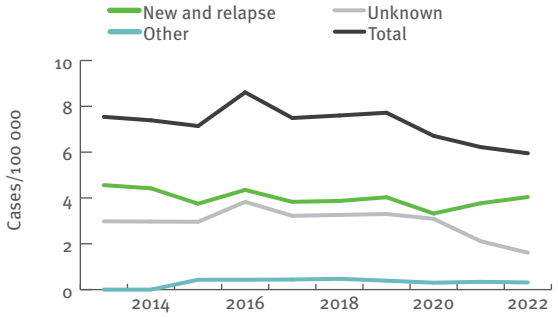
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

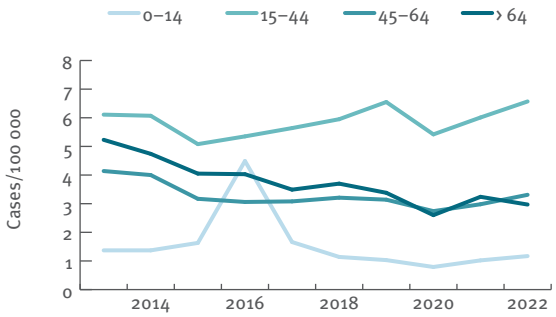
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	775		65	
Success	395	(51.0%)	1	(1.5%)
Died	33	(4.3%)	2	(3.1%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	29	(3.7%)	3	(4.6%)
Still on treatment	12	(1.5%)	0	(0.0%)
Not evaluated	306	(39.5%)	59	(90.8%)

[a] Treatment outcome after 12 months (or 24 months).

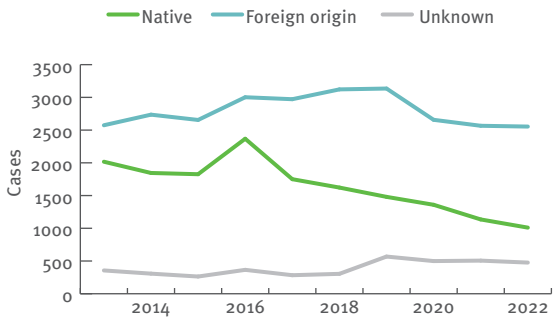
TB notification rates by previous treatment history, 2013–2022



New and relapse TB cases – notification rates by age group, 2013–2022



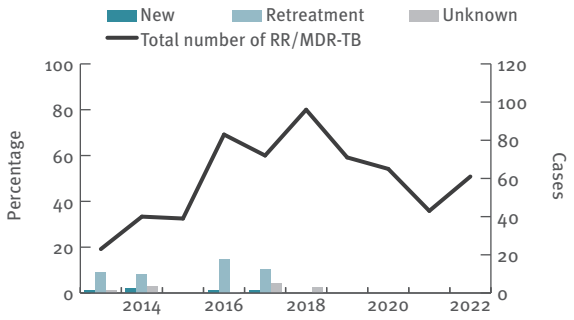
TB cases by geographical origin, 2013–2022



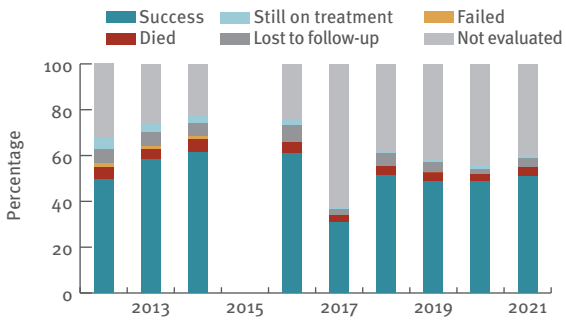
TB/HIV coinfection, 2013–2022

Data not reported

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Georgia

Total population estimate 2022, UN Statistical Database[1]: 3 744 386

Tuberculosis cases, 2022

Notifications

Total number of cases	1 654	
Notification rate per 100 000	44.2	
New[a] and relapse	1 511	
New[a] and relapse notification rate per 100 000	40.4	
Pulmonary	1 336	(80.8%)
of which laboratory-confirmed	1 274	(95.4%)
Mean age of new native TB cases	44.4 years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1 317	(79.6%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	2 200	[1 800–2 700]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	1 236	(97.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	200	[190–210]
Pulmonary RR/MDR-TB cases notified	165	(13.3%)
of which pre-XDR-TB cases	55	(37.9%)
Notified RR/MDR-TB	158	
of which pre-XDR-TB cases	55	(34.8%)
TB cases tested for HIV	1 466	(88.6%)
HIV-positive TB cases	42	(2.9%)
of these on antiretroviral therapy	35	(83.3%)

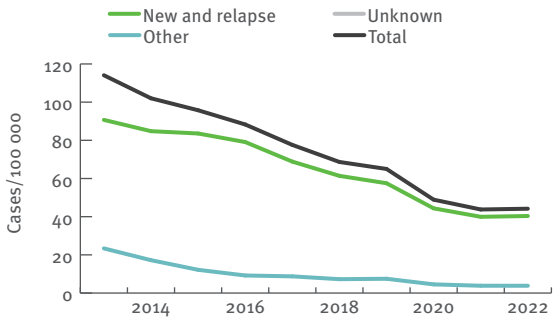
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

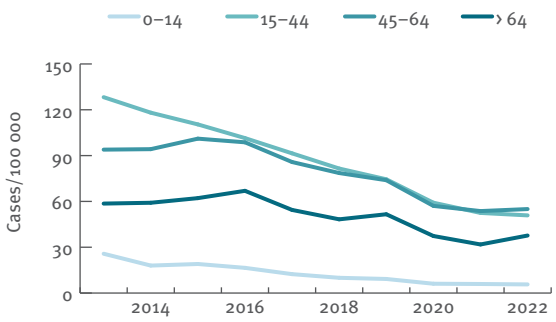
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR-TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	1 343		149	
Success	1 169	(87.0%)	113	(75.8%)
Died	56	(4.2%)	4	(2.7%)
Failed	25	(1.9%)	2	(1.3%)
Lost to follow-up	75	(5.6%)	23	(15.4%)
Not evaluated	18	(1.3%)	7	(4.7%)

[a] Treatment outcome after 12 months (or 24 months).

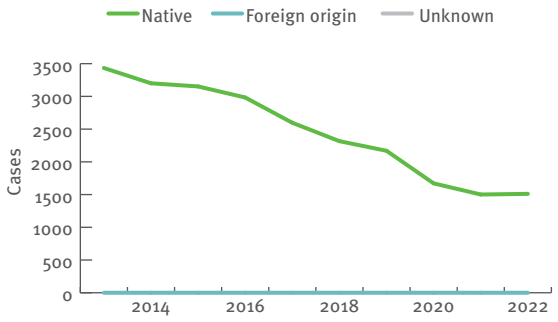
TB notification rates by previous treatment history, 2013–2022



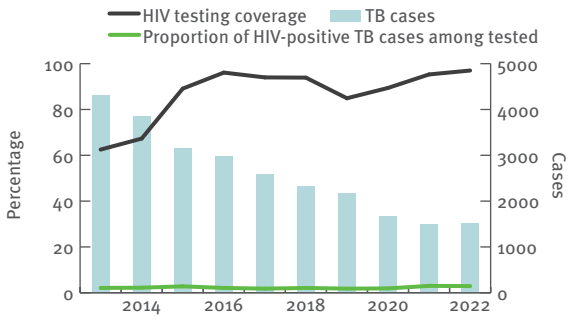
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

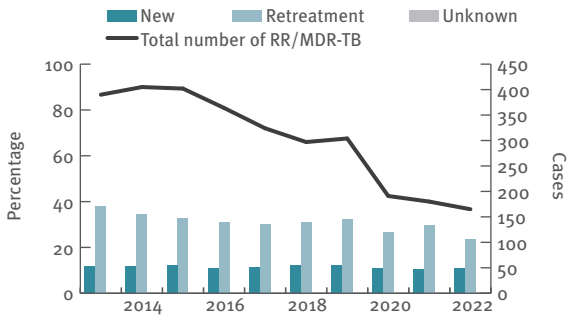


TB/HIV coinfection, 2013–2022

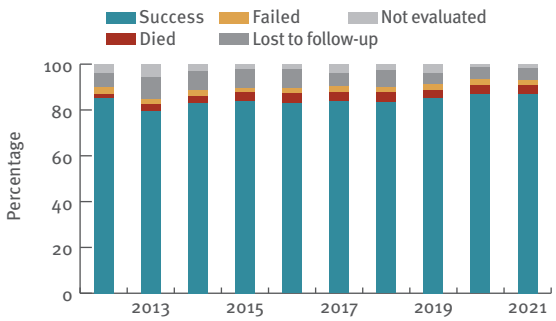


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Germany

Total population as of 31 October 2023, Eurostat[1]: 83 237 124

Tuberculosis cases, 2022

Notifications

Total number of cases	4 076	
Notification rate per 100 000	4.9	
New[a] and relapse	3 893	
New[a] and relapse notification rate per 100 000	4.7	
Pulmonary	3 042	(74.6%)
of which microscopy-positive	1 626	(53.5%)
of which laboratory-confirmed	2 525	(83.0%)
Laboratory-confirmed TB cases	3 199	(78.5%)
Mean age of new native TB cases	52.1 years	
Mean age of new foreign TB cases	38.5 years	
Foreign origin of all TB cases	2 953	(72.4%)
New (not previously treated)	2 732	(67.0%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	4 300	[3 900–4 700]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	2862	(89.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	140	[94–180]
Pulmonary RR/MDR-TB cases notified	154	(6.7%)
of which pre-XDR-TB cases	29	(27.4%)
Notified RR/MDR-TB	173	(6.0%)
of which pre-XDR-TB cases	30	(26.3%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

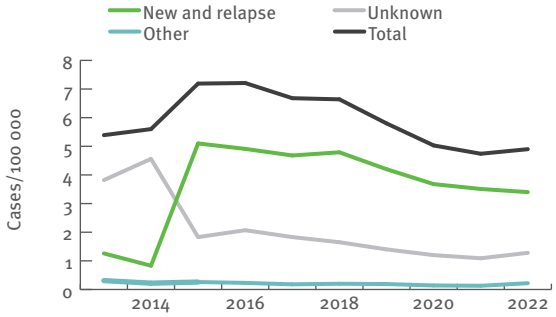
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

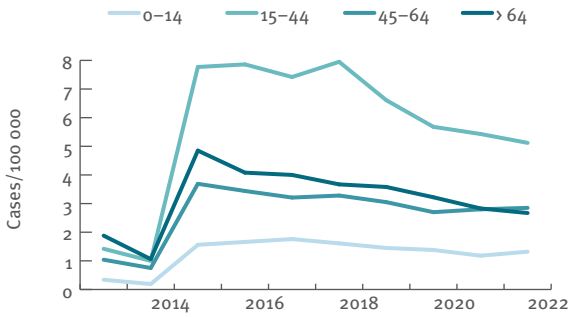
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	1 647		106	
Success	1 096	(66.5%)	48	(45.3%)
Died	164	(10.0%)	5	(4.7%)
Failed	1	(0.1%)	0	(0.0%)
Lost to follow-up	33	(2.0%)	4	(3.8%)
Still on treatment	64	(3.9%)	7	(6.6%)
Not evaluated	289	(17.5%)	42	(39.6%)

[a] Treatment outcome after 12 months (or 24 months).

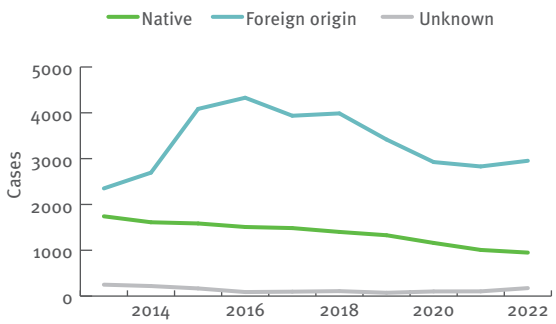
TB notification rates by previous treatment history, 2013–2022



New and relapse TB cases – notification rates by age group, 2013–2022



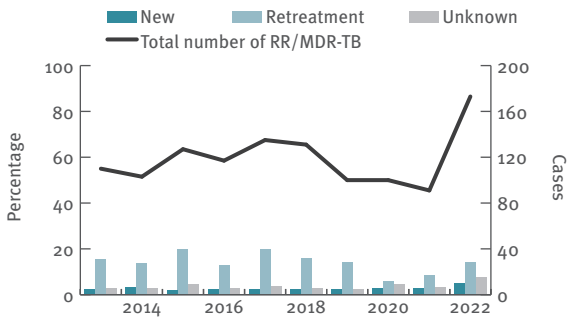
TB cases by geographical origin, 2013–2022



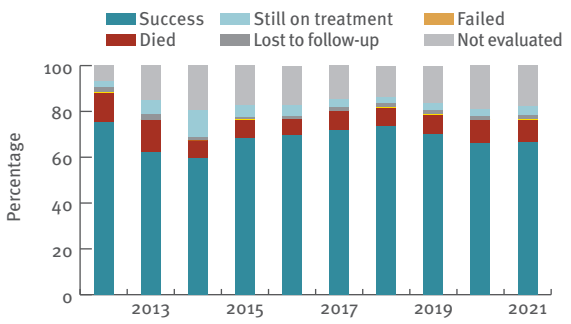
TB/HIV coinfection, 2013–2022

Data not reported

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Greece

Total population as of 31 October 2023, Eurostat[1]: 10 459 782

Tuberculosis cases, 2022

Notifications

Total number of cases	320	
Notification rate per 100 000	3.1	
New[a] and relapse	302	
New[a] and relapse notification rate per 100 000	2.9	
Pulmonary	230	(71.9%)
of which microscopy-positive	120	(52.2%)
of which laboratory-confirmed	179	(77.8%)
Laboratory-confirmed TB cases	251	(78.4%)
Mean age of new native TB cases	60.4 years	
Mean age of new foreign TB cases	35.1 years	
Foreign origin of all TB cases	175	(54.7%)
New (not previously treated)	209	(65.3%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	230	[190–260]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	190	(75.7%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	6	[2–10]
Pulmonary RR/MDR-TB cases notified	9	(6.9%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	10	(5.3%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	221	(69.1%)
HIV-positive TB cases	9	(4.1%)
of these on antiretroviral therapy	–	–

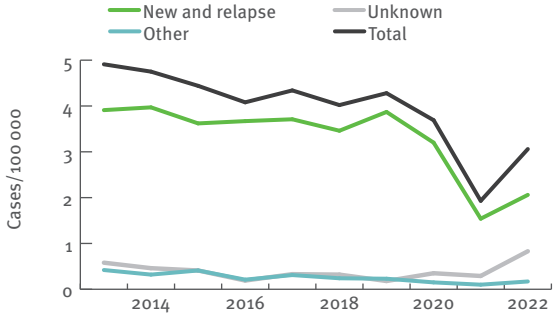
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

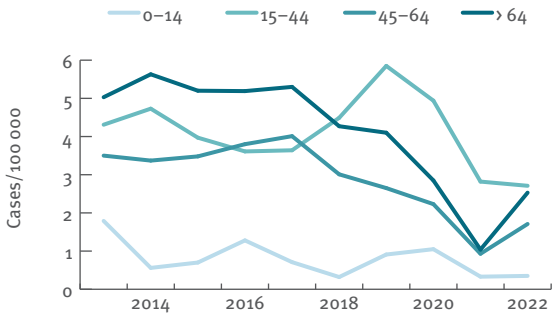
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	81		12	
Success	0	(0.0%)	0	(0.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	81	(100.0%)	12	(100.0%)

[a] Treatment outcome after 12 months (or 24 months).

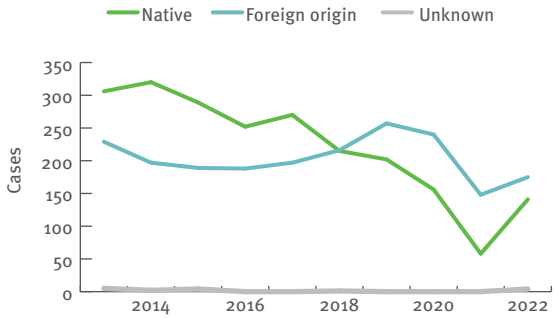
TB notification rates by previous treatment history, 2013–2022



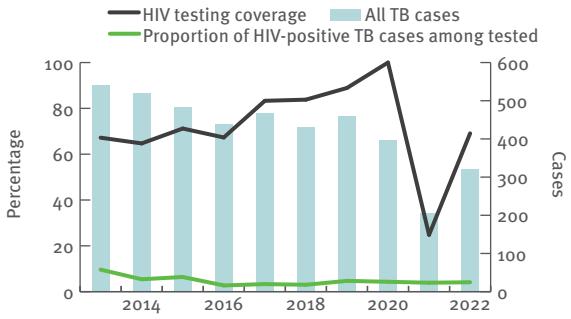
New and relapse TB cases – notification rates by age group, 2013–2022



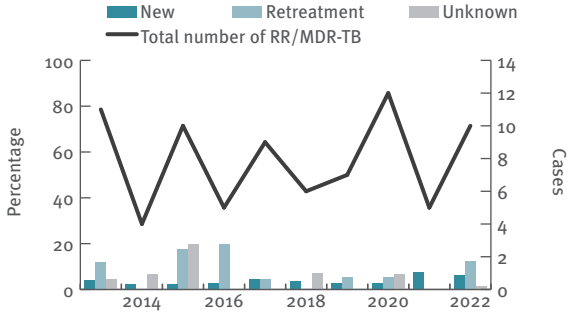
TB cases by geographical origin, 2013–2022



TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021

Data not reported

[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Hungary

Total population as of 31 October 2023, Eurostat[1]: 9 689 010

Tuberculosis cases, 2022

Notifications

Total number of cases	440	
Notification rate per 100 000	4.5	
New[a] and relapse	435	
New[a] and relapse notification rate per 100 000	4.5	
Pulmonary	428	(97.3%)
of which microscopy-positive	163	(38.1%)
of which laboratory-confirmed	240	(56.1%)
Laboratory-confirmed TB cases	242	(55.0%)
Mean age of new native TB cases	55.7 years	
Mean age of new foreign TB cases	36.6 years	
Foreign origin of all TB cases	36	(8.2%)
New (not previously treated)	413	(93.9%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	500	[430–580]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	220	(90.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	27	[17–37]
Pulmonary RR/MDR-TB cases notified	14	(6.4%)
of which pre-XDR-TB cases	5	(35.7%)
Notified RR/MDR-TB	14	(6.4%)
of which pre-XDR-TB cases	5	(35.7%)
TB cases tested for HIV	16	(3.6%)
HIV-positive TB cases	2	(12.5%)
of these on antiretroviral therapy	–	–

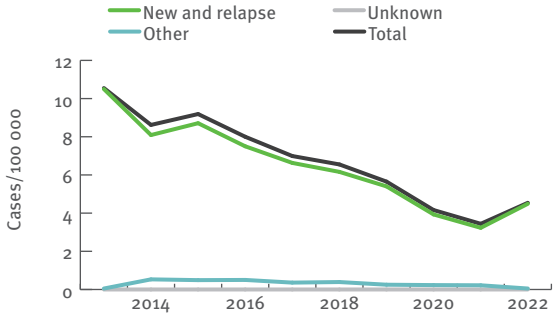
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

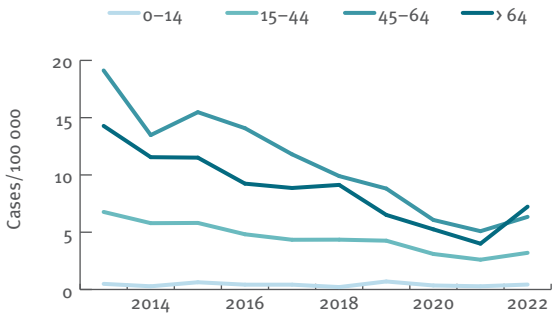
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	154		11	
Success	87	(56.5%)	6	(54.5%)
Died	28	(18.2%)	1	(9.1%)
Failed	4	(2.6%)	0	(0.0%)
Lost to follow-up	19	(12.3%)	2	(18.2%)
Still on treatment	11	(7.1%)	1	(9.1%)
Not evaluated	5	(3.2%)	1	(9.1%)

[a] Treatment outcome after 12 months (or 24 months).

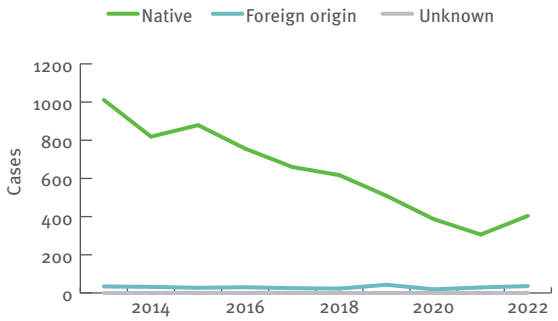
TB notification rates by previous treatment history, 2013–2022



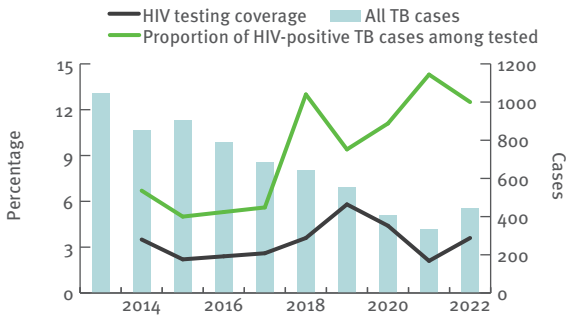
New and relapse TB cases – notification rates by age group, 2013–2022



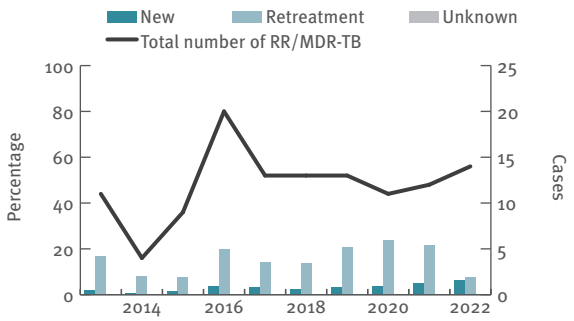
TB cases by geographical origin, 2013–2022



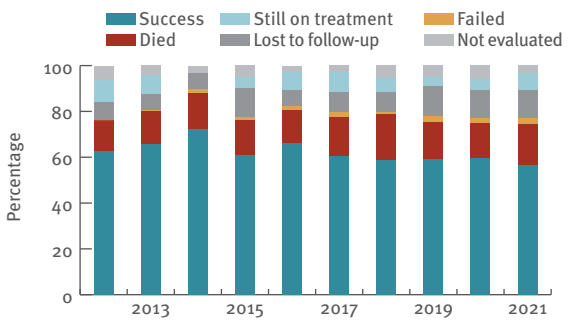
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Iceland

Total population as of 31 October 2023, Eurostat[1]: 376 248

Tuberculosis cases, 2022

Notifications

Total number of cases	17	
Notification rate per 100 000	4.5	
New[a] and relapse	16	
New[a] and relapse notification rate per 100 000	4.3	
Pulmonary	9	(52.9%)
of which microscopy-positive	2	(22.2%)
of which laboratory-confirmed	9	(100.0%)
Laboratory-confirmed TB cases	14	(82.4%)
Mean age of new native TB cases	– years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	13	(76.5%)
New (not previously treated)	0	(0.0%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	18	[16–21]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	13	(92.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	0	[0–1]
Pulmonary RR/MDR-TB cases notified	1	(11.1%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	1	(7.7%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

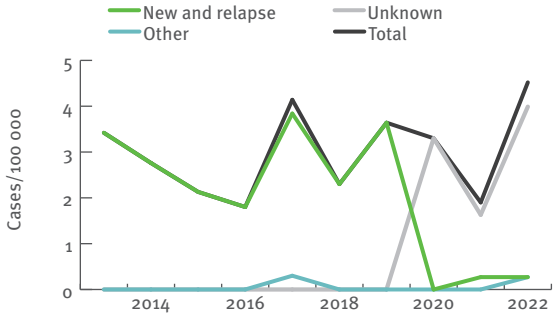
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

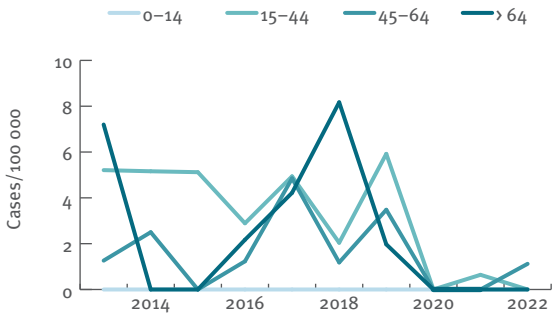
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	0		0	
Success	–	–	–	–
Died	–	–	–	–
Failed	–	–	–	–
Lost to follow-up	–	–	–	–
Still on treatment	–	–	–	–
Not evaluated	–	–	–	–

[a] Treatment outcome after 12 months (or 24 months).

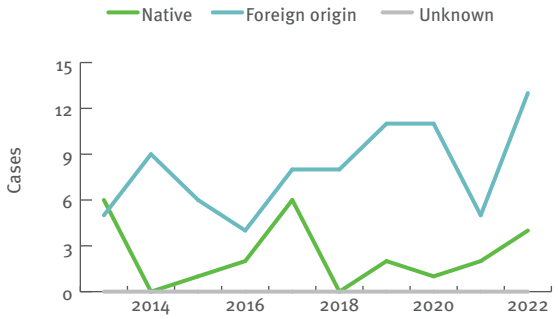
TB notification rates by previous treatment history, 2013–2022



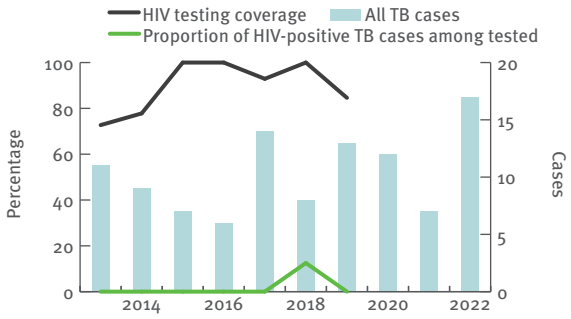
New and relapse TB cases – notification rates by age group, 2013–2022



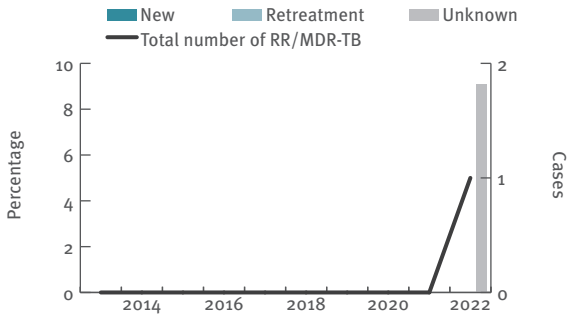
TB cases by geographical origin, 2013–2022



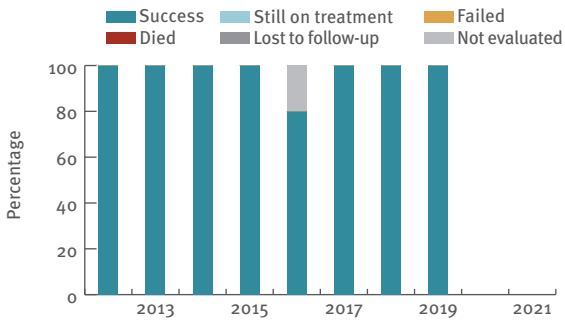
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Ireland

Total population as of 31 October 2023, Eurostat[1]: 5 060 004

Tuberculosis cases, 2022

Notifications

Total number of cases	216	
Notification rate per 100 000	4.3	
New[a] and relapse	197	
New[a] and relapse notification rate per 100 000	3.9	
Pulmonary	125	(57.9%)
of which microscopy-positive	48	(38.4%)
of which laboratory-confirmed	80	(64.0%)
Laboratory-confirmed TB cases	110	(50.9%)
Mean age of new native TB cases	52.6 years	
Mean age of new foreign TB cases	36.1 years	
Foreign origin of all TB cases	107	(49.5%)
New (not previously treated)	111	(51.4%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	230	[190–260]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	101	(91.8%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	5	[2–9]
Pulmonary RR/MDR-TB cases notified	9	(11.5%)
of which pre-XDR-TB cases	2	(22.2%)
Notified RR/MDR-TB	10	(9.9%)
of which pre-XDR-TB cases	2	(20.0%)
TB cases tested for HIV	78	(36.1%)
HIV-positive TB cases	7	(9.0%)
of these on antiretroviral therapy	3	(42.9%)

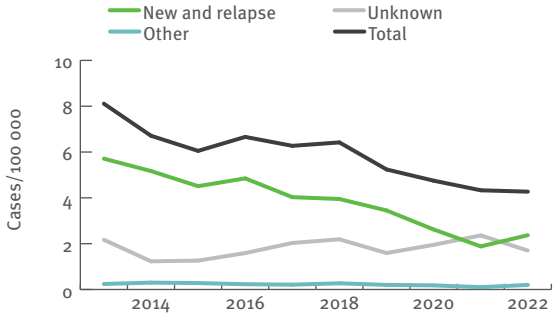
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

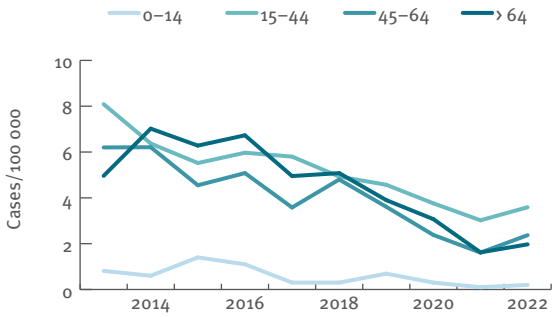
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	44		1	
Success	2	(4.5%)	0	(0.0%)
Died	5	(11.4%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	37	(84.1%)	1	(100.0%)

[a] Treatment outcome after 12 months (or 24 months).

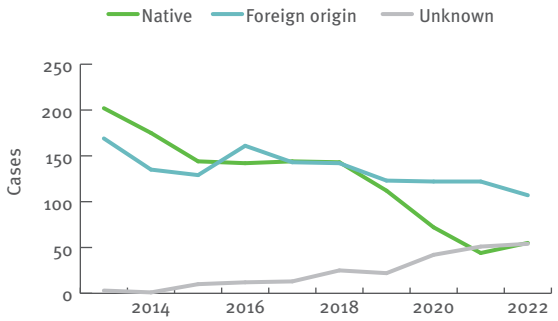
TB notification rates by previous treatment history, 2013–2022



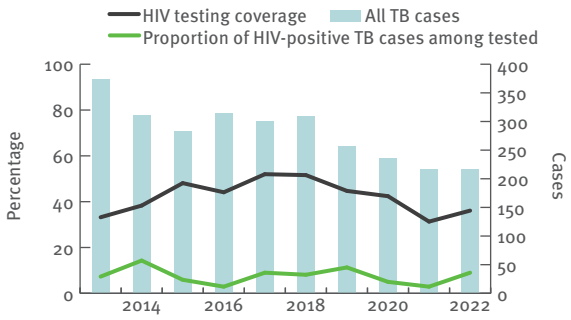
New and relapse TB cases – notification rates by age group, 2013–2022



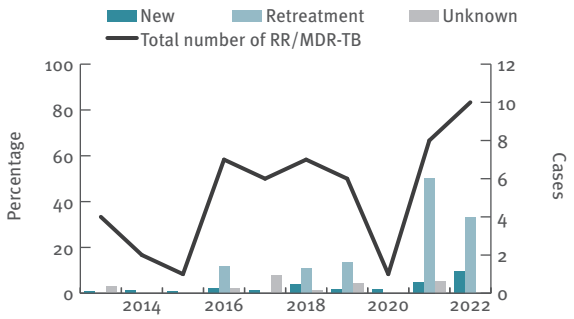
TB cases by geographical origin, 2013–2022



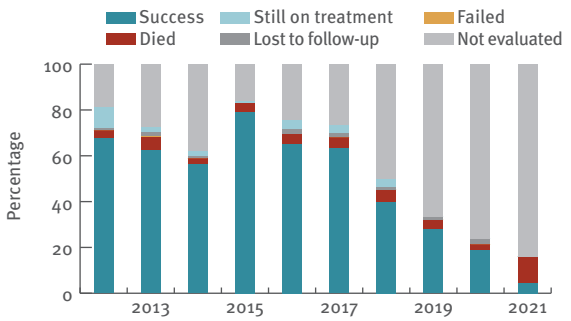
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Israel

Total population estimate 2022, UN Statistical Database[1]: 9 038 309

Tuberculosis cases. 2022

Notifications

Total number of cases	207	
Notification rate per 100 000	2.3	
New[a] and relapse	203	
New[a] and relapse notification rate per 100 000	2.2	
Pulmonary	147	(71.0%)
of which laboratory-confirmed	106	(72.1%)
Mean age of new native TB cases	41.4 years	
Foreign origin of all TB cases	59	(28.5%)
New (not previously treated)	202	(97.6%)
Estimate		
Estimated new and relapse cases. N. best [low–high]	230	[200–270]

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

Drug resistance surveillance and TB/HIV coinfection. 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	106	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases. N. best [low-high]	9	[7–12]
Pulmonary RR/MDR-TB cases notified	11	(10.4%)
of which pre-XDR-TB cases	1	(9.1%)
Notified RR/MDR-TB	13	
of which pre-XDR-TB cases	2	(15.4%)
TB cases tested for HIV	199	(96.1%)
HIV-positive TB cases	7	(3.5%)
of these on antiretroviral therapy	7	(100.0%)

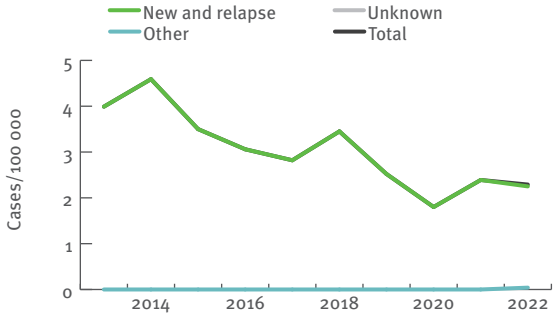
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases › 50%. DST done for C+ › 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

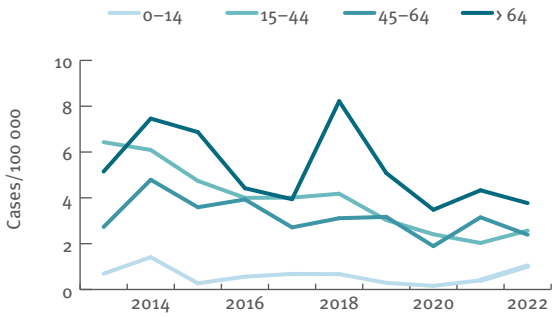
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR-TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	178		4	
Success	153	(86.0%)	3	(75.0%)
Died	14	(7.9%)	0	(0.0%)
Failed	8	(4.5%)	0	(0.0%)
Lost to follow-up	3	(1.7%)	1	(25.0%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

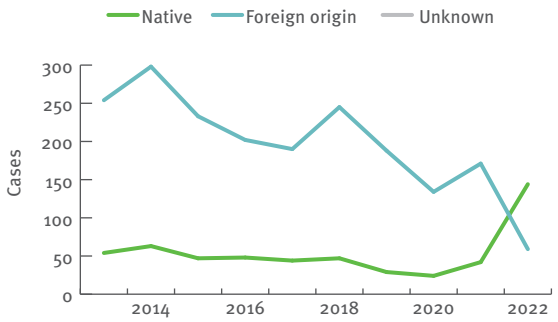
TB notification rates by previous treatment history, 2013–2022



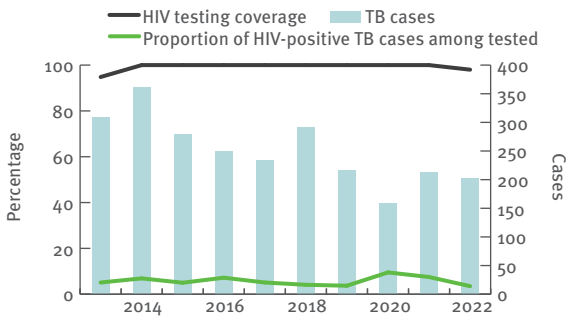
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

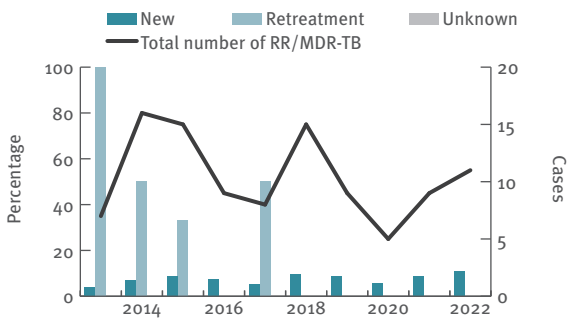


TB/HIV coinfection, 2013–2022

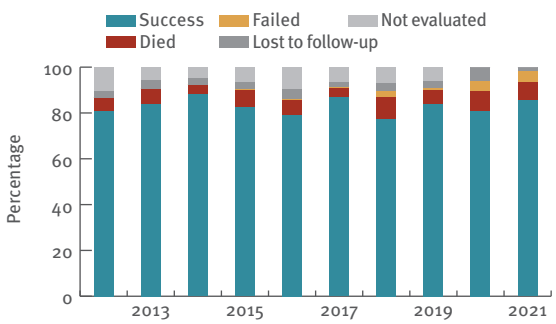


Note: data up to 2014 includes all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Italy

Total population as of 31 October 2023, Eurostat[1]: 59 030 133

Tuberculosis cases, 2022

Notifications

Total number of cases	2 439	
Notification rate per 100 000	4.1	
New[a] and relapse	2 294	
New[a] and relapse notification rate per 100 000	3.9	
Pulmonary	1 683	(69.0%)
of which microscopy-positive	806	(47.9%)
of which laboratory-confirmed	1 177	(69.9%)
Laboratory-confirmed TB cases	1 664	(68.2%)
Mean age of new native TB cases	47.8 years	
Mean age of new foreign TB cases	43.5 years	
Foreign origin of all TB cases	1 399	(57.4%)
New (not previously treated)	1 665	(68.3%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	2 700	[2 300–3 100]

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

Drug resistance surveillance and TB/HIV coinfection. 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	No	
Cases with DST results	1 499	(90.1%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases. N. best [low-high]	77	[55–100]
Pulmonary RR/MDR-TB cases notified	31	(2.1%)
of which pre-XDR-TB cases	10	(37.0%)
Notified RR/MDR-TB	39	(2.6%)
of which pre-XDR-TB cases	10	(37.0%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

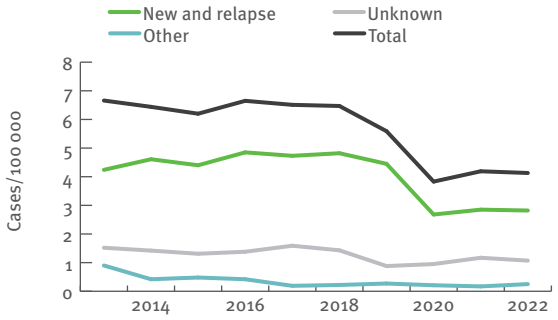
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases > 50%. DST done for C+ > 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

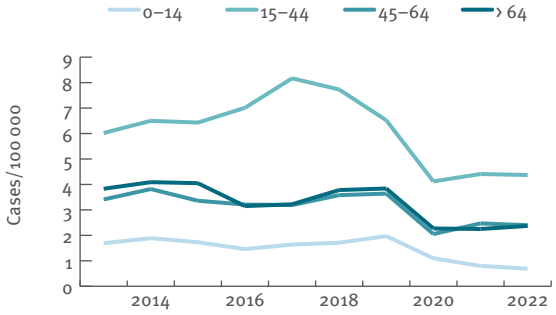
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	1 081		39	
Success	–	–	–	–
Died	–	–	–	–
Failed	–	–	–	–
Lost to follow-up	–	–	–	–
Still on treatment	–	–	–	–
Not evaluated	–	–	–	–

[a] Treatment outcome after 12 months (or 24 months).

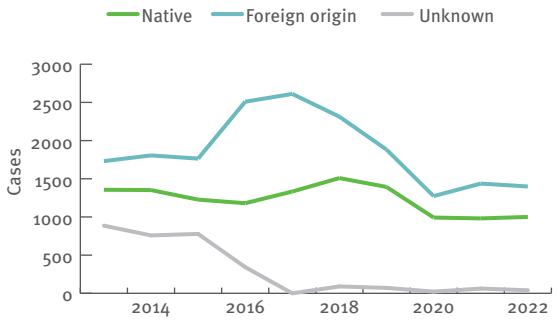
TB notification rates by previous treatment history, 2013–2022



New and relapse TB cases – notification rates by age group, 2013–2022



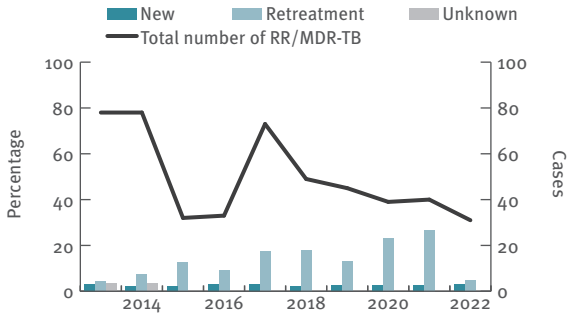
TB cases by geographical origin, 2013–2022



TB/HIV coinfection, 2013–2022

Data not reported

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021

Data not reported

[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Kazakhstan

Total population estimate 2022, UN Statistical Database[1]: 19 397 998

Tuberculosis cases, 2022

Notifications

Total number of cases	10 203	
Notification rate per 100 000	52.6	
New[a] and relapse	10 009	
New[a] and relapse notification rate per 100 000	51.6	
Pulmonary	8 977	(88.0%)
of which laboratory-confirmed	8 401	(93.6%)
Mean age of new native TB cases	45.0 years	
Foreign origin of all TB cases	155	(1.5%)
New (not previously treated)	7 352	(72.1%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	15 000	[10 000–21 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	8 397	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	3300	[3 200–3 300]
Pulmonary RR/MDR-TB cases notified	3 428	(40.8%)
of which pre-XDR-TB cases	517	(0.0%)
Notified RR/MDR-TB	3 556	
of which pre-XDR-TB cases	534	(15.0%)
TB cases tested for HIV	9 829	(96.3%)
HIV-positive TB cases	645	(6.6%)
of these on antiretroviral therapy	552	(85.6%)

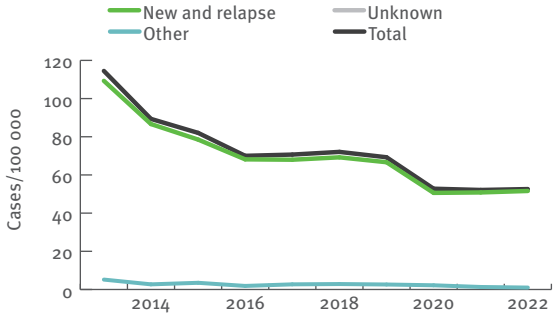
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

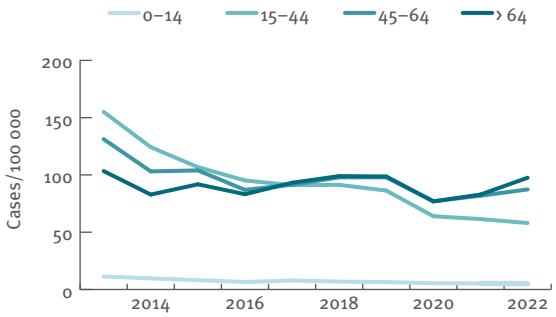
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	5 621		3 400	
Success	4 987	(88.7%)	2 580	(75.9%)
Died	435	(7.7%)	453	(13.3%)
Failed	119	(2.1%)	81	(2.4%)
Lost to follow-up	73	(1.3%)	120	(3.5%)
Not evaluated	21	(0.4%)	166	(4.9%)

[a] Treatment outcome after 12 months (or 24 months).

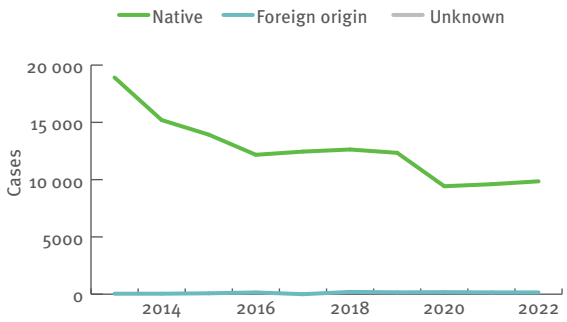
TB notification rates by previous treatment history, 2013–2022



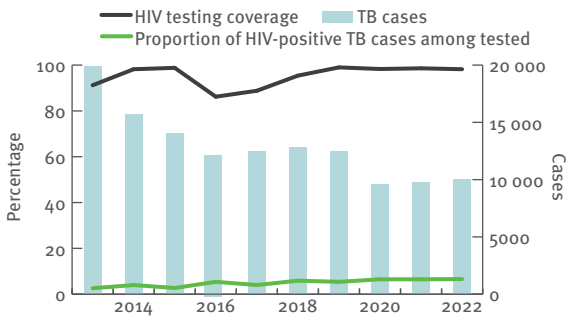
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

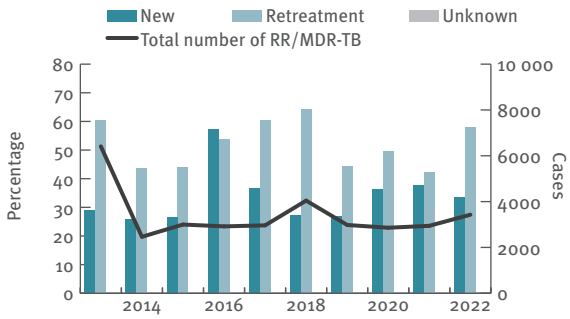


TB/HIV coinfection, 2013–2022



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, 2013–2022



Treatment outcome, new and relapse TB cases 2011–2020

[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Kyrgyzstan

Total population estimate 2022, UN Statistical Database[1]: 6 630 623

Tuberculosis cases, 2022

Notifications

Total number of cases	5 117	
Notification rate per 100 000	77.2	
New[a] and relapse	4 568	
New[a] and relapse notification rate per 100 000	68.9	
Pulmonary	4 042	(79.0%)
of which laboratory-confirmed	2 874	(71.1%)
Mean age of new native TB cases	40.5 years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	4 042	(79.0%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	8 600	[7 100–10 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	2 746	(95.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	950	[910–980]
Pulmonary RR/MDR-TB cases notified	781	(28.4%)
of which pre-XDR-TB cases	114	(16.9%)
Notified RR/MDR-TB	759	
of which pre-XDR-TB cases	135	(17.8%)
TB cases tested for HIV	4 389	(85.8%)
HIV-positive TB cases	124	(2.8%)
of these on antiretroviral therapy	102	(82.3%)

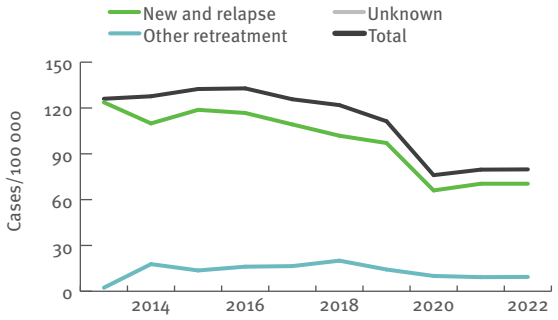
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

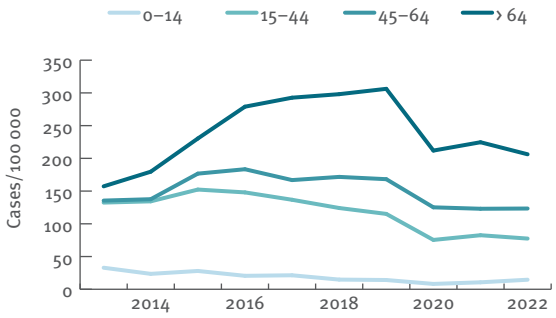
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	3 845		835	
Success	3 121	(81.2%)	599	(71.7%)
Died	256	(6.7%)	77	(9.2%)
Failed	125	(3.3%)	33	(4.0%)
Lost to follow-up	322	(8.4%)	125	(15.0%)
Not evaluated	21	(0.5%)	1	(0.1%)

[a] Treatment outcome after 12 months (or 24 months).

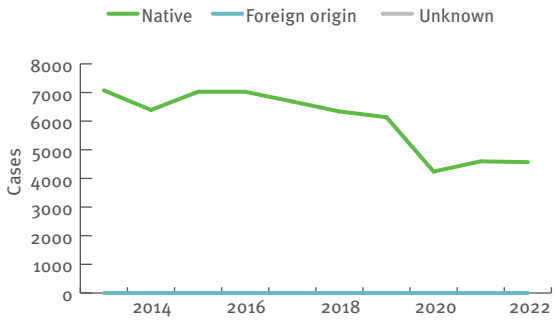
TB notification rates by previous treatment history, 2013–2022



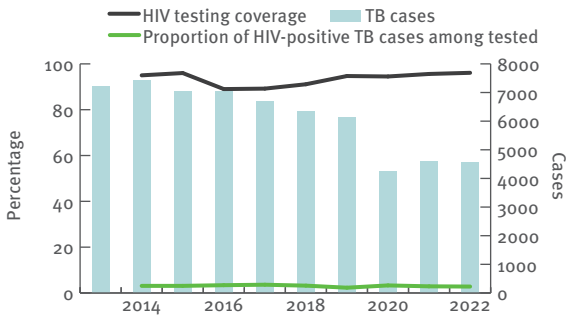
New and relapse TB cases - notification rates by age group, 2012–2021



TB cases by geographical origin, 2013–2022

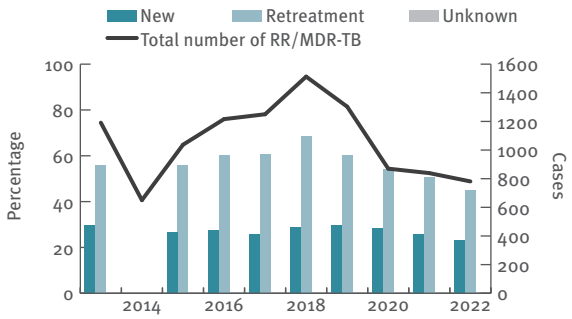


TB/HIV coinfection, 2013–2022

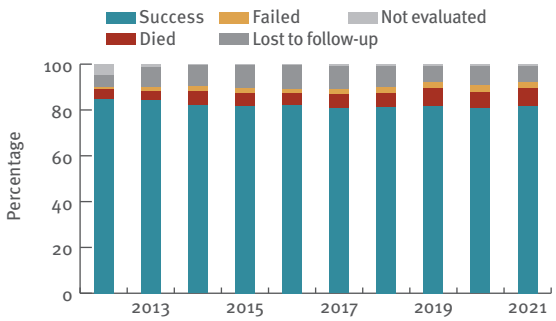


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Latvia

Total population as of 31 October 2023, Eurostat[1]: 1 875 757

Tuberculosis cases, 2022

Notifications

Total number of cases	319	
Notification rate per 100 000	17.0	
New[a] and relapse	306	
New[a] and relapse notification rate per 100 000	16.3	
Pulmonary	297	(93.1%)
of which microscopy-positive	138	(46.5%)
of which laboratory-confirmed	257	(86.5%)
Laboratory-confirmed TB cases	259	(81.2%)
Mean age of new native TB cases	48.9 years	
Mean age of new foreign TB cases	44.3 years	
Foreign origin of all TB cases	40	(12.5%)
New (not previously treated)	279	(87.5%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	350	[300 –410]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	230	(88.8%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	39	[30–48]
Pulmonary RR/MDR-TB cases notified	25	(10.4%)
of which pre-XDR-TB cases	2	(8.0%)
Notified RR/MDR-TB	25	(10.9%)
of which pre-XDR-TB cases	2	(8.0%)
TB cases tested for HIV	319	(100.0%)
HIV-positive TB cases	29	(9.1%)
of these on antiretroviral therapy	–	–

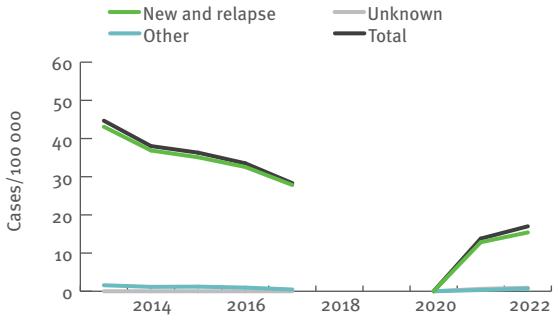
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

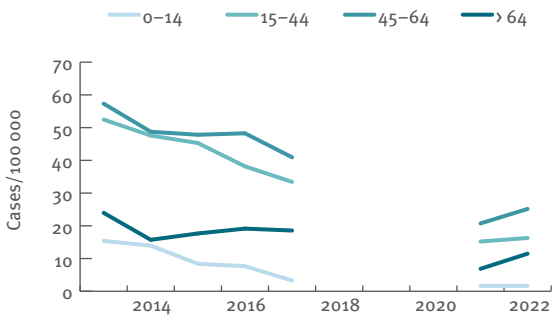
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	93		0	
Success	0	(0.0%)	–	–
Died	0	(0.0%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	0	(0.0%)	–	–
Still on treatment	0	(0.0%)	–	–
Not evaluated	93	(100.0%)	–	–

[a] Treatment outcome after 12 months (or 24 months).

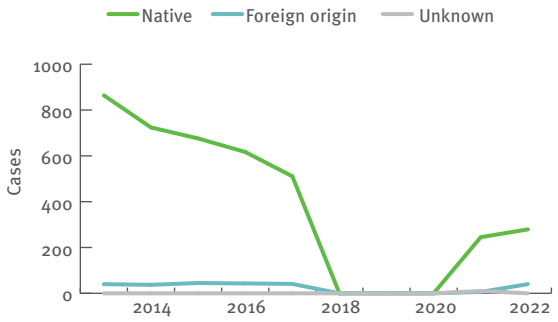
TB notification rates by previous treatment history, 2013–2022



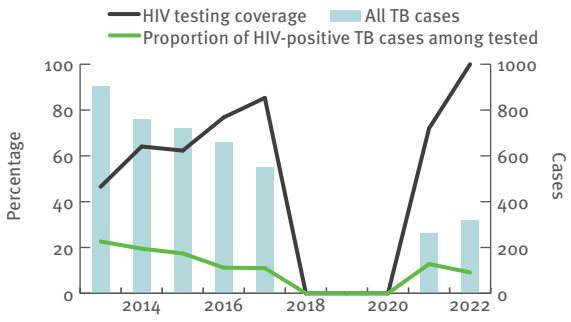
New and relapse TB cases – notification rates by age group, 2013–2022



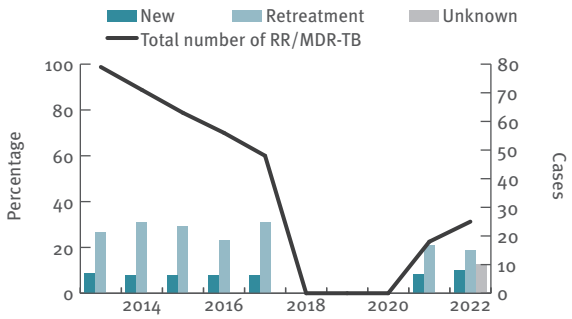
TB cases by geographical origin, 2013–2022



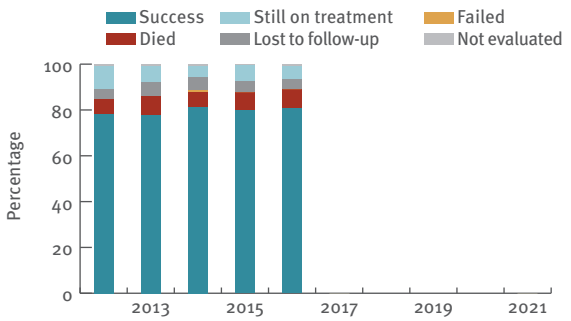
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Liechtenstein

Total population as of 31 October 2023, Eurostat[1]: 39 308

Tuberculosis cases, 2022

Notifications

Total number of cases	1	
Notification rate per 100 000	2.5	
New[a] and relapse	1	
New[a] and relapse notification rate per 100 000	2.5	
Pulmonary	1	(100%)
of which microscopy-positive	1	(100%)
of which laboratory-confirmed	1	(100%)
Laboratory-confirmed TB cases	1	(100%)
Mean age of new native TB cases	39.0 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1	(100%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	–	–

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	0	(0.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary 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 antiretroviral therapy	–	–

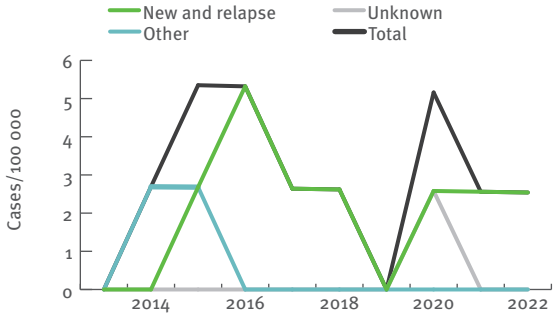
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

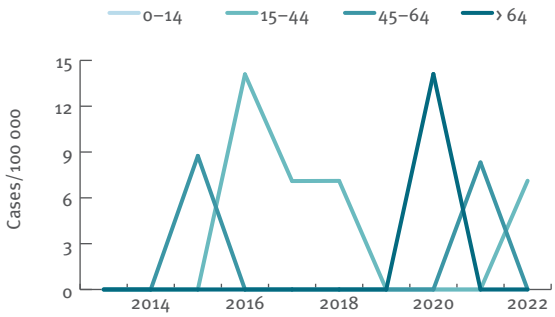
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	1		0	
Success	1	(100.0%)	–	–
Died	0	(0.0%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	0	(0.0%)	–	–
Still on treatment	0	(0.0%)	–	–
Not evaluated	0	(0.0%)	–	–

[a] Treatment outcome after 12 months (or 24 months).

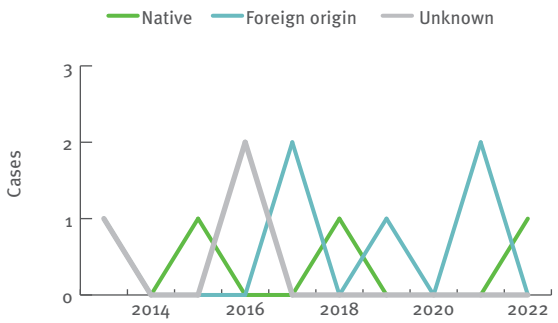
TB notification rates by previous treatment history, 2013–2022



New and relapse TB cases – notification rates by age group, 2013–2022



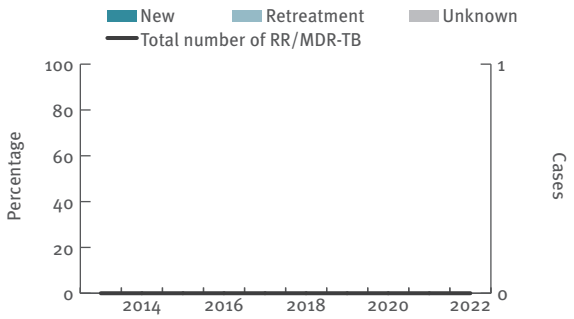
TB cases by geographical origin, 2013–2022



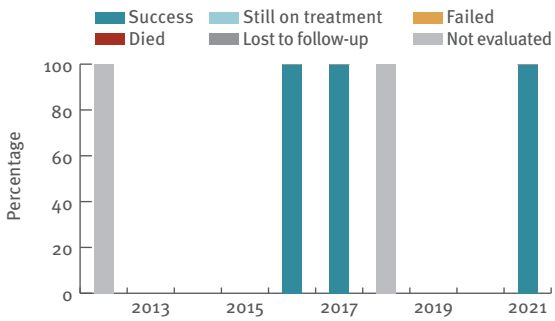
TB/HIV coinfection, 2013–2022

Data not reported

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Lithuania

Total population as of 31 October 2023, Eurostat[1]: 2 805 998

Tuberculosis cases, 2022

Notifications		
Total number of cases	738	
Notification rate per 100 000	26.3	
New[a] and relapse	724	
New[a] and relapse notification rate per 100 000	25.8	
Pulmonary	685	(92.8%)
of which microscopy-positive	438	(63.9%)
of which laboratory-confirmed	646	(94.3%)
Laboratory-confirmed TB cases	665	(90.1%)
Mean age of new native TB cases	50.7 years	
Mean age of new foreign TB cases	31.8 years	
Foreign origin of all TB cases	14	(1.9%)
New (not previously treated)	627	(85.0%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	830	[710–960]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	665	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	170	[140–200]
Pulmonary RR/MDR-TB cases notified	113	(17.5%)
of which pre-XDR-TB cases	24	(21.2%)
Notified RR/MDR-TB	115	(17.3%)
of which pre-XDR-TB cases	24	(20.9%)
TB cases tested for HIV	709	(96.1%)
HIV-positive TB cases	19	(2.7%)
of these on antiretroviral therapy	–	–

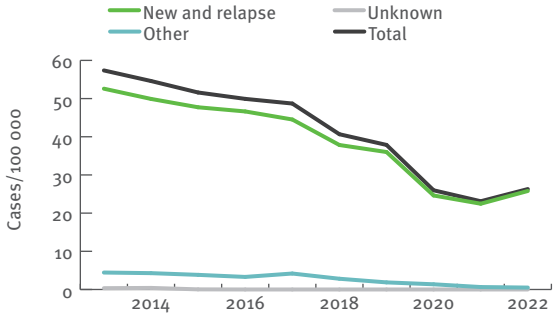
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

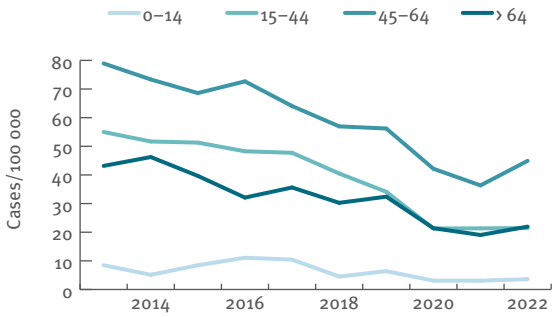
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	465		105	
Success	333	(71.6%)	53	(50.5%)
Died	61	(13.1%)	21	(20.0%)
Failed	3	(0.6%)	2	(1.9%)
Lost to follow-up	11	(2.4%)	7	(6.7%)
Still on treatment	57	(12.3%)	22	(21.0%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

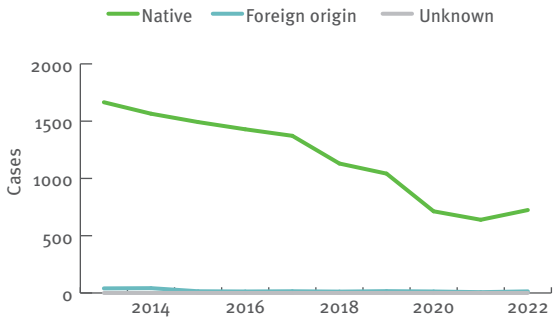
TB notification rates by previous treatment history, 2013–2022



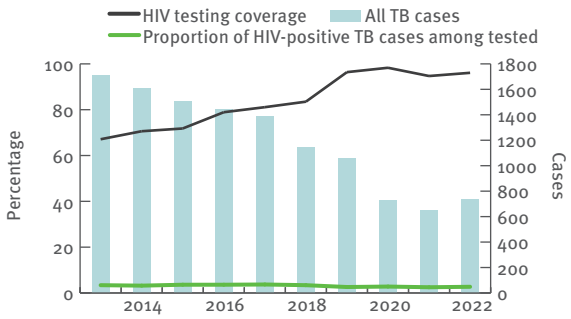
New and relapse TB cases – notification rates by age group, 2013–2022



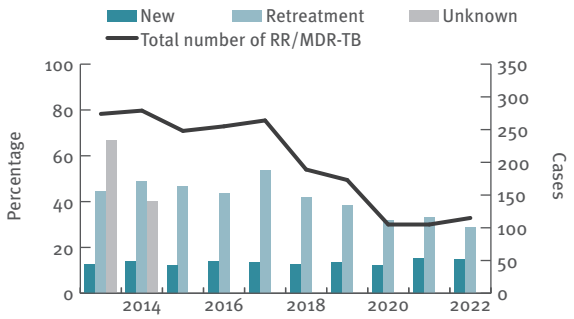
TB cases by geographical origin, 2013–2022



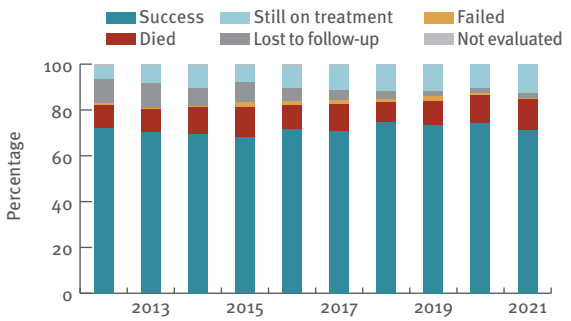
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Luxembourg

Total population as of 31 October 2023, Eurostat[1]: 645 397

Tuberculosis cases, 2022

Notifications

Total number of cases	48	
Notification rate per 100 000	7.4	
New[a] and relapse	47	
New[a] and relapse notification rate per 100 000	7.3	
Pulmonary	34	(70.8%)
of which microscopy-positive	24	(70.6%)
of which laboratory-confirmed	31	(91.2%)
Laboratory-confirmed TB cases	39	(81.3%)
Mean age of new native TB cases	22.0 years	
Mean age of new foreign TB cases	–	
Foreign origin of all TB cases	43	(89.6%)
New (not previously treated)	1	(2.1%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	54	[46–62]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	31	(79.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary 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	1	(3.2%)
of which pre-XDR-TB cases	0	–
TB cases tested for HIV	33	(68.8%)
HIV-positive TB cases	1	(3.0%)
of these on antiretroviral therapy	–	–

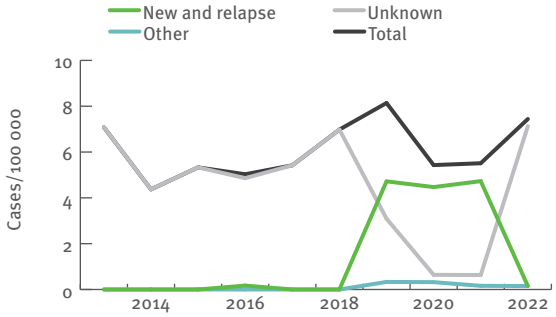
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

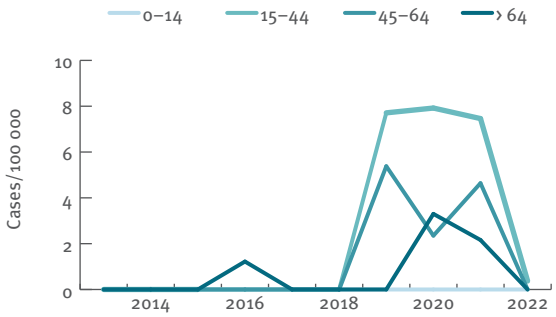
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	22		0	
Success	0	(0.0%)	–	–
Died	0	(0.0%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	0	(0.0%)	–	–
Still on treatment	0	(0.0%)	–	–
Not evaluated	22	(100.0%)	–	–

[a] Treatment outcome after 12 months (or 24 months).

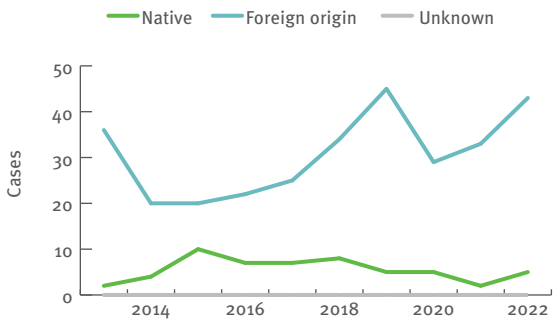
TB notification rates by previous treatment history, 2013–2022



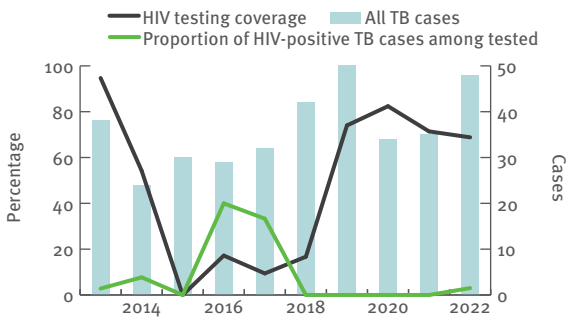
New and relapse TB cases – notification rates by age group, 2013–2022



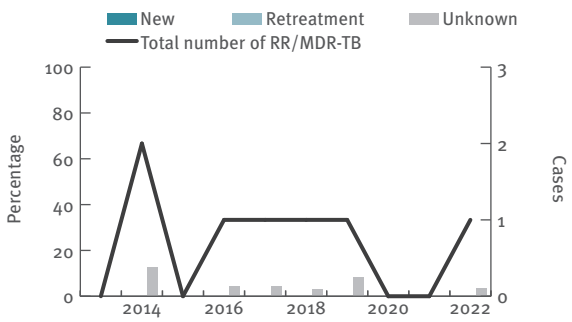
TB cases by geographical origin, 2013–2022



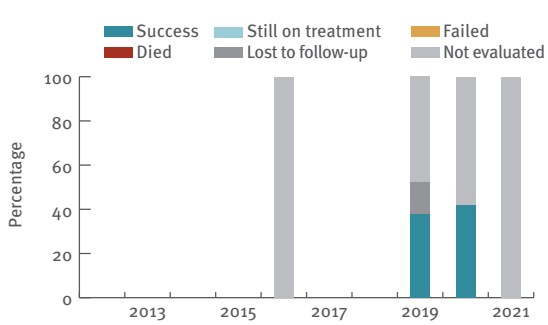
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Malta

Total population as of 31 October 2023, Eurostat[1]: 520 971

Tuberculosis cases, 2022

Notifications

Total number of cases	61	
Notification rate per 100 000	11.7	
New[a] and relapse	60	
New[a] and relapse notification rate per 100 000	11.5	
Pulmonary	46	(75.4%)
of which microscopy-positive	18	(39.1%)
of which laboratory-confirmed	32	(69.6%)
Laboratory-confirmed TB cases	38	(62.3%)
Mean age of new native TB cases	65.3 years	
Mean age of new foreign TB cases	32.8 years	
Foreign origin of all TB cases	55	(90.2%)
New (not previously treated)	60	(98.4%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	69	[59–80]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	38	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	1	[0–2]
Pulmonary RR/MDR-TB cases notified	2	(6.3%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	2	(5.3%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	61	(100.0%)
HIV-positive TB cases	0	(0.0%)
of these on antiretroviral therapy	–	–

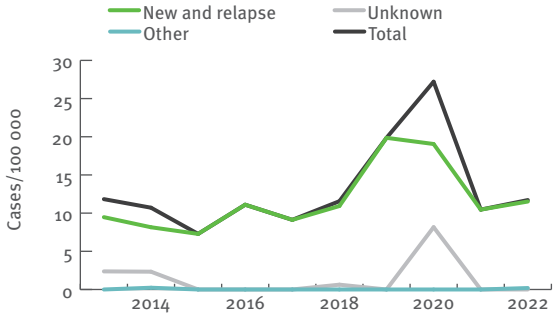
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

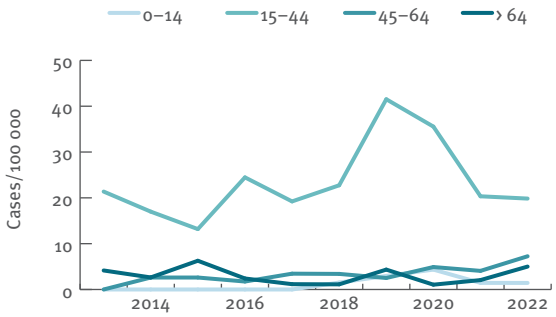
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	28		3	
Success	28	(100.0%)	3	(100.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

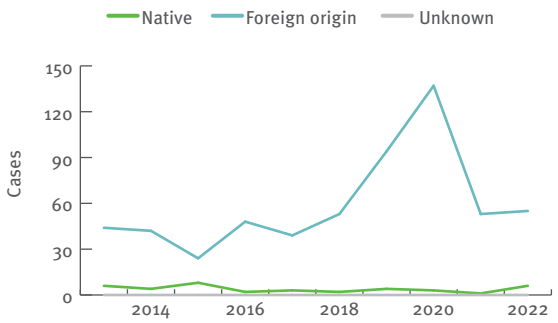
TB notification rates by previous treatment history, 2013–2022



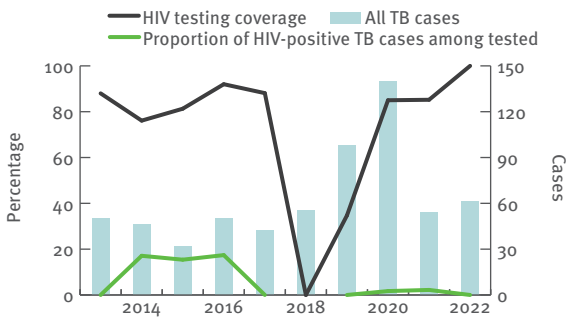
New and relapse TB cases – notification rates by age group, 2013–2022



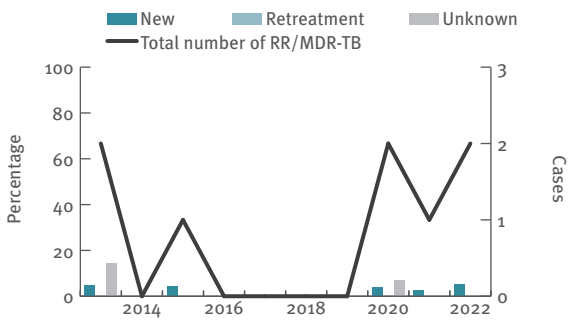
TB cases by geographical origin, 2013–2022



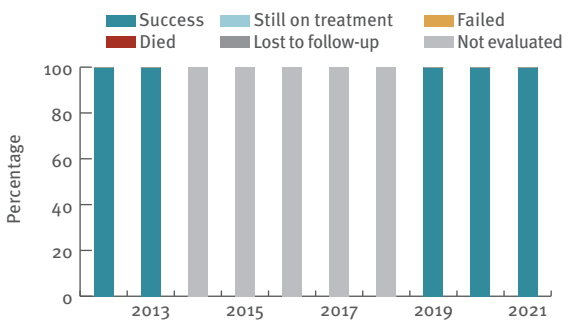
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Monaco

Total population estimate 2022, UN Statistical Database[1]: 36 469

Tuberculosis cases, 2022

Notifications		
Total number of cases	–	
Notification rate per 100 000	–	
New[a] and relapse	–	
New[a] and relapse notification rate per 100 000	–	
Pulmonary	–	–
of which laboratory-confirmed	–	–
Mean age of new native TB cases	–	
Foreign origin of all TB cases	–	–
New (not previously treated)	–	–
Estimate		
Estimated new and relapse cases, N, best [low–high]	0	[0–0]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	–	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	–	–
Estimated RR-TB among notified bacteriologically confirmed pulmonary 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 antiretroviral therapy	–	–

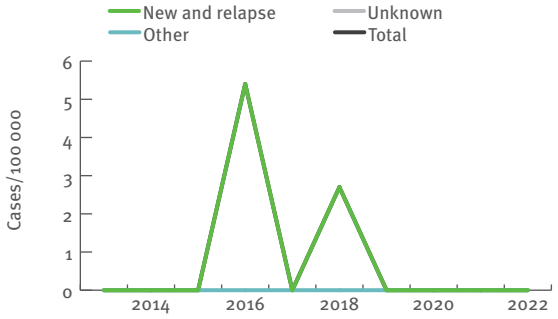
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

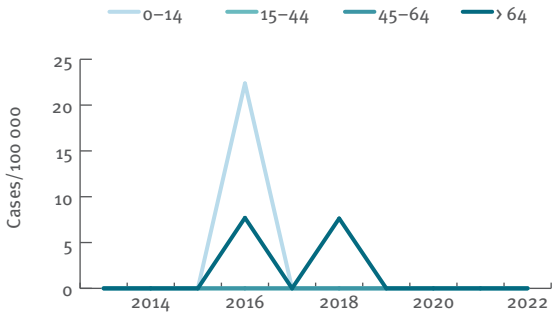
Geographical coverage	National	
Outcome cohort[a]	New and relapse TB cases notified in 2021	All RR/MDR-TB cases notified in 2020
Case-linked data-reporting	Yes	–
Cases notified	–	–
Success	–	–
Died	–	–
Failed	–	–
Lost to follow-up	–	–
Not evaluated	–	–

[a] Treatment outcome after 12 months (or 24 months).

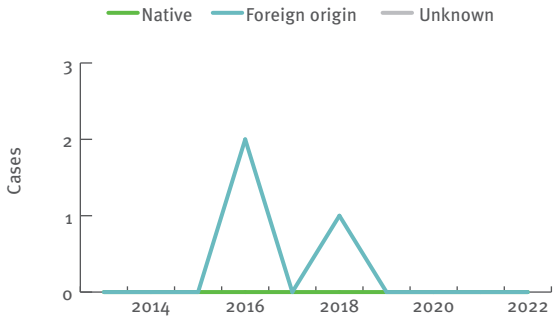
TB notification rates by previous treatment history, 2013–2022



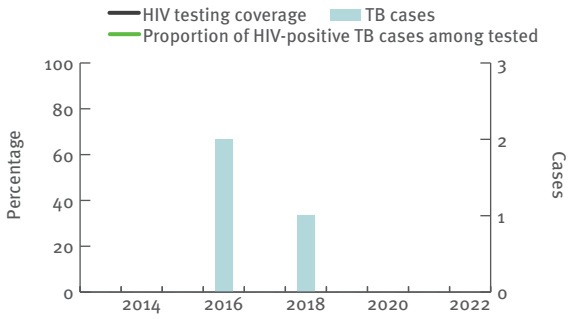
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

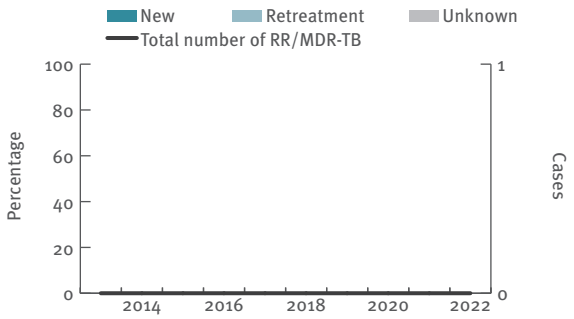


TB/HIV coinfection, 2013–2022

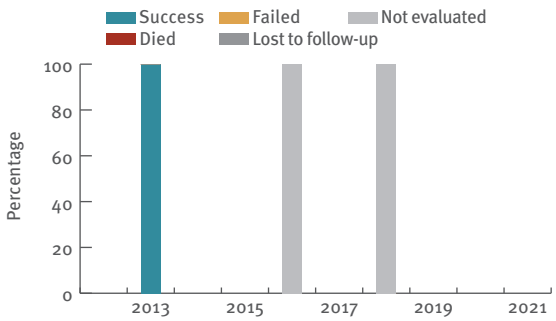


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Montenegro

Total population estimate 2022, UN Statistical Database[1]: 627 082

Tuberculosis cases, 2022

Notifications

Total number of cases	71	
Notification rate per 100 000	11.3	
New[a] and relapse	71	
New[a] and relapse notification rate per 100 000	11.3	
Pulmonary	63	(88.7%)
of which laboratory-confirmed	59	(93.7%)
Mean age of new native TB cases	47.5 years	
Foreign origin of all TB cases	5	(7.0%)
New (not previously treated)	62	(87.3%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	90	[79–100]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	59	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary 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	66	(93.0%)
HIV-positive TB cases	2	(3.0%)
of these on antiretroviral therapy	1	(50.0%)

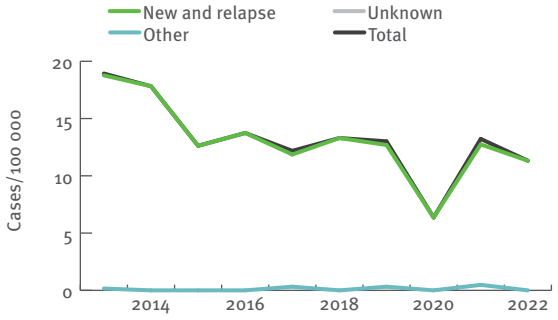
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

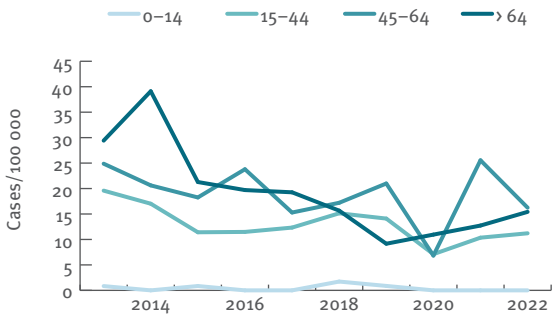
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR-TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	80		0	
Success	75	(93.8%)	–	–
Died	4	(5.0%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	0	(0.0%)	–	–
Not evaluated	1	(1.3%)	–	–

[a] Treatment outcome after 12 months (or 24 months).

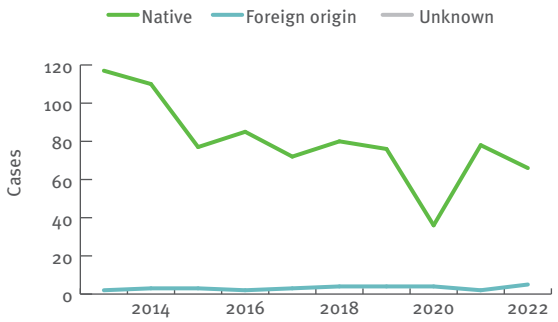
TB notification rates by previous treatment history, 2013–2022



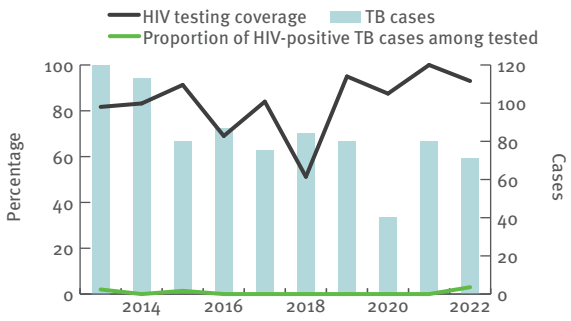
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

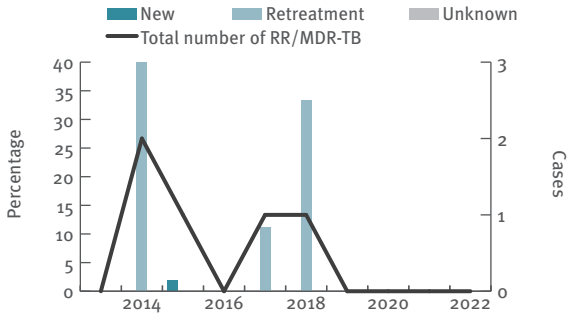


TB/HIV coinfection, 2013–2022

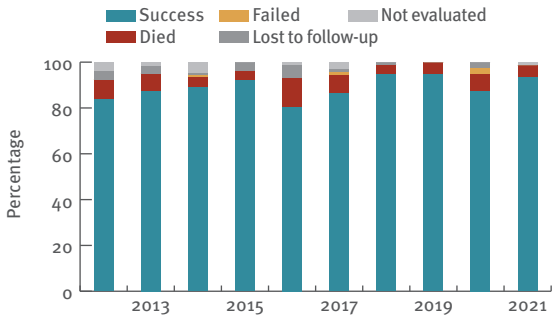


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Netherlands (Kingdom of the)

Total population as of 31 October 2023, Eurostat[1]: 17 590 672

Tuberculosis cases, 2022

Notifications

Total number of cases	635	
Notification rate per 100 000	3.6	
New[a] and relapse	625	
New[a] and relapse notification rate per 100 000	3.6	
Pulmonary	372	(58.6%)
of which microscopy-positive	175	(47.0%)
of which laboratory-confirmed	311	(83.6%)
Laboratory-confirmed TB cases	446	(70.2%)
Mean age of new native TB cases	42.7 years	
Mean age of new foreign TB cases	41.0 years	
Foreign origin of all TB cases	509	(80.2%)
New (not previously treated)	607	(95.6%)
Estimate		
Estimated new and relapse cases N. best [low–high]	720	[610–830]

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

Drug-resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	440	(98.7%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	23	[15–30]
Pulmonary RR/MDR-TB cases notified	8	(2.6%)
of which pre-XDR-TB cases	4	(50.0%)
Notified RR/MDR-TB	9	(2.0%)
of which pre-XDR-TB cases	4	(44.4%)
TB cases tested for HIV	446	(70.2%)
HIV-positive TB cases	19	(4.3%)
of these on antiretroviral therapy	11	(57.9%)

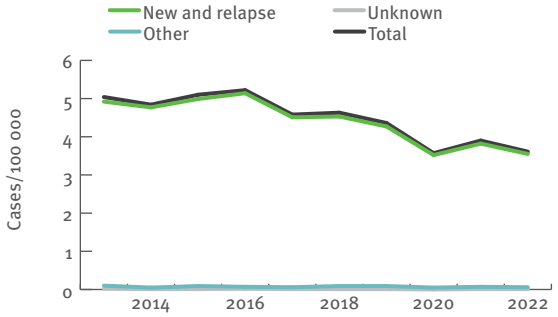
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases › 50%. DST done for C+ › 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

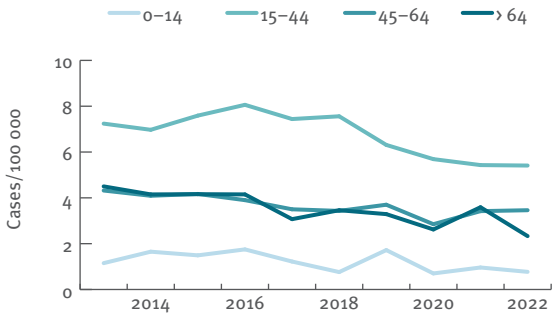
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	287		13	
Success	220	(76.7%)	13	(100.0%)
Died	16	(5.6%)	0	(0.0%)
Failed	2	(0.7%)	0	(0.0%)
Lost to follow-up	7	(2.4%)	0	(0.0%)
Still on treatment	16	(5.6%)	0	(0.0%)
Not evaluated	26	(9.1%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

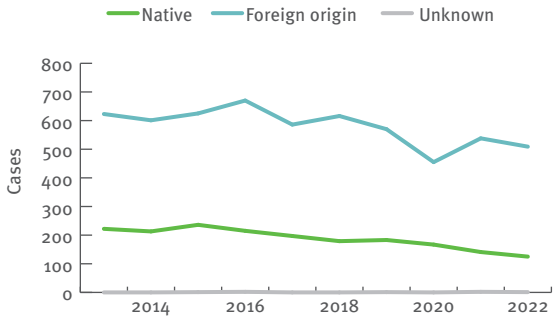
TB notification rates by previous treatment history, 2013–2022



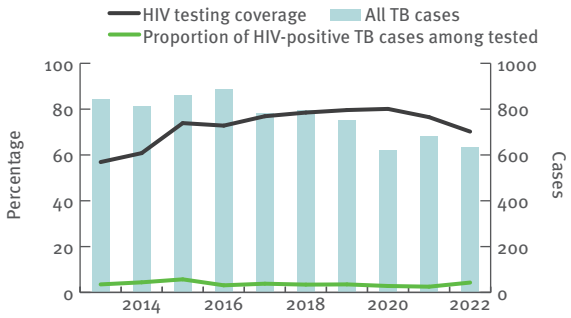
New and relapse TB cases – notification rates by age group, 2013–2022



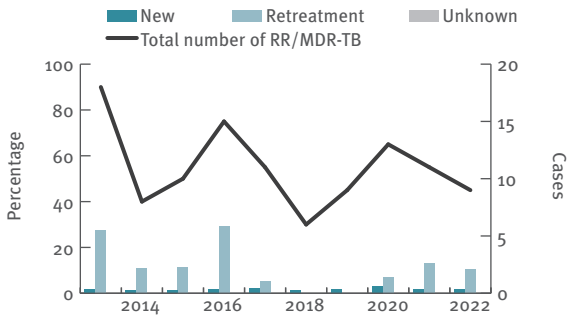
TB cases by geographical origin, 2013–2022



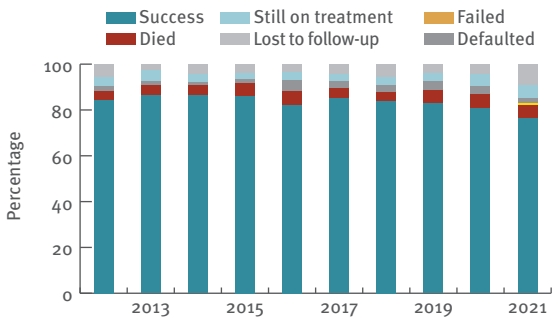
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

North Macedonia

Total population estimate 2022, UN Statistical Database[1]: 2 093 599

Tuberculosis cases, 2022

Notifications

Total number of cases	144	
Notification rate per 100 000	6.9	
New[a] and relapse	144	
New[a] and relapse notification rate per 100 000	6.9	
Pulmonary	127	(88.2%)
of which laboratory-confirmed	121	(95.3%)
Mean age of new native TB cases	44.9 years	
Foreign origin of all TB cases	3	(2.1%)
New (not previously treated)	131	(91.0%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	220	[170–290]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	116	(95.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	2	[1–3]
Pulmonary RR/MDR-TB cases notified	4	(3.4%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	4	
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

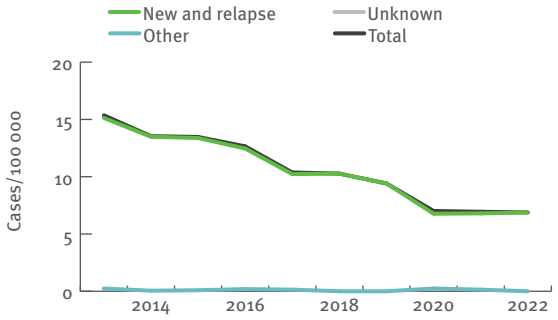
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

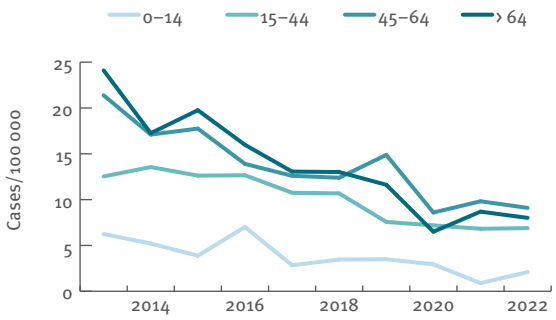
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	146		2	
Success	115	(78.8%)	2	(100.0%)
Died	10	(6.8%)	0	(0.0%)
Failed	3	(2.1%)	0	(0.0%)
Lost to follow-up	18	(12.3%)	0	(0.0%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

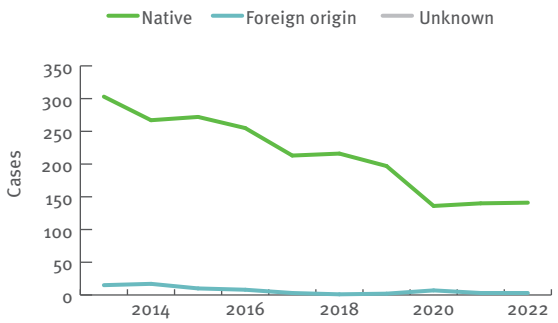
TB notification rates by previous treatment history, 2013–2022



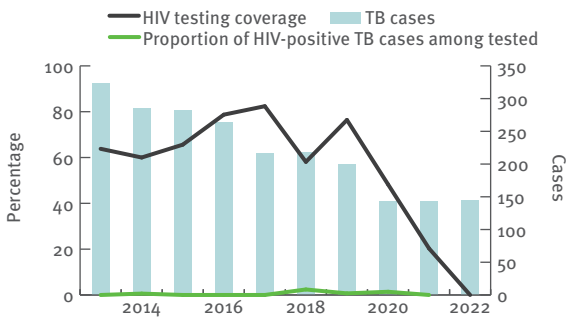
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

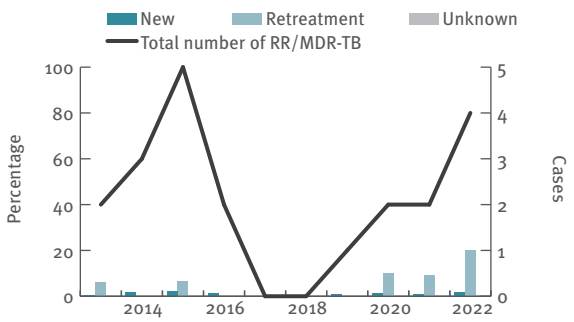


TB/HIV coinfection, 2013–2022

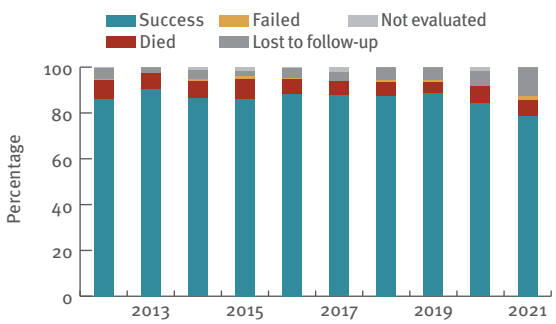


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Norway

Total population as of 31 October 2023, Eurostat[1]: 5 425 270

Tuberculosis cases, 2022

Notifications

Total number of cases	174	
Notification rate per 100 000	3.2	
New[a] and relapse	152	
New[a] and relapse notification rate per 100 000	2.8	
Pulmonary	113	(64.9%)
of which microscopy-positive	50	(44.2%)
of which laboratory-confirmed	98	(86.7%)
Laboratory-confirmed TB cases	140	(80.5%)
Mean age of new native TB cases	59.9 years	
Mean age of new foreign TB cases	41.1 years	
Foreign origin of all TB cases	157	(90.2%)
New (not previously treated)	152	(87.4%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	180	[150–210]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	138	(98.6%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	10	[6–13]
Pulmonary RR/MDR-TB cases notified	8	(8.2%)
of which pre-XDR-TB cases	2	(25.0%)
Notified RR/MDR-TB	11	(8.0%)
of which pre-XDR-TB cases	2	(18.2%)
TB cases tested for HIV	136	(78.2%)
HIV-positive TB cases	4	(2.9%)
of these on antiretroviral therapy	–	–

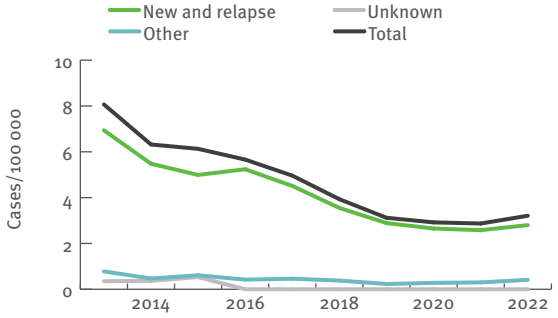
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

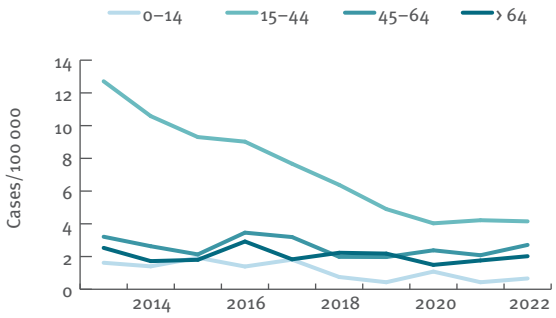
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	66		2	
Success	50	(75.8%)	2	(100.0%)
Died	3	(4.5%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	1	(1.5%)	0	(0.0%)
Still on treatment	6	(9.1%)	0	(0.0%)
Not evaluated	6	(9.1%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

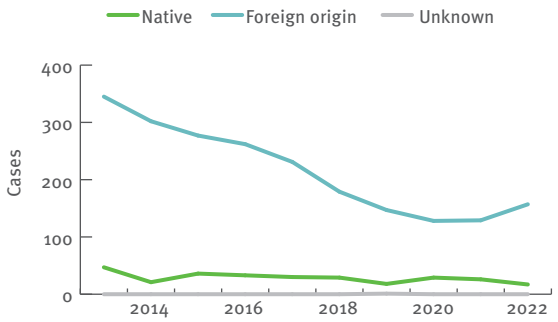
TB notification rates by previous treatment history, 2013–2022



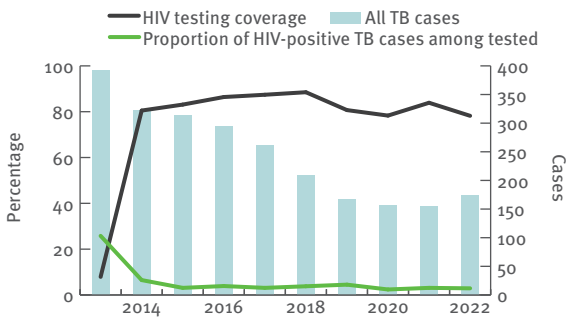
New and relapse TB cases – notification rates by age group, 2013–2022



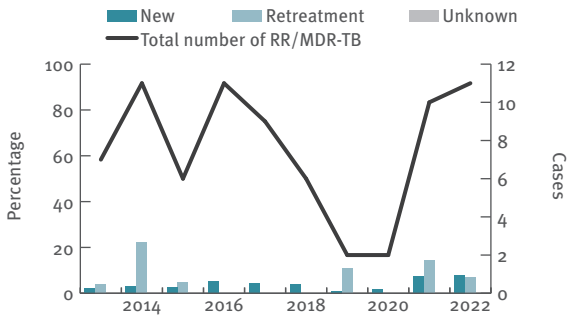
TB cases by geographical origin, 2013–2022



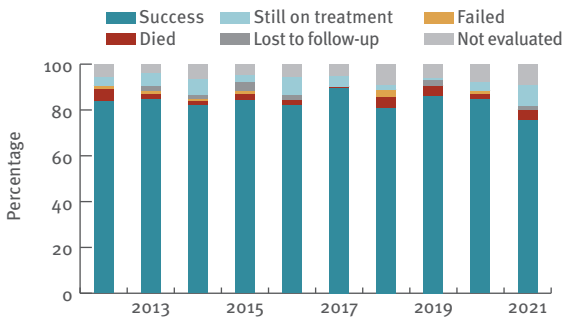
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Poland

Total population as of 31 October 2023, Eurostat[1]: 37 654 247

Tuberculosis cases, 2022

Notifications

Total number of cases	4 314	
Notification rate per 100 000	11.5	
New[a] and relapse	4 037	
New[a] and relapse notification rate per 100 000	10.7	
Pulmonary	4 148	(96.2%)
of which microscopy-positive	2 296	(55.4%)
of which laboratory-confirmed	3 397	(81.9%)
Laboratory-confirmed TB cases	3 488	(80.9%)
Mean age of new native TB cases	52.9 years	
Mean age of new foreign TB cases	37.5 years	
Foreign origin of all TB cases	294	(6.8%)
New (not previously treated)	3 788	(87.8%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	4 600	[3900–5300]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	3 162	(90.7%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	71	[57–86]
Pulmonary RR/MDR-TB cases notified	97	(3.1%)
of which pre-XDR-TB cases	11	(11.3%)
Notified RR/MDR-TB	103	(3.3%)
of which pre-XDR-TB cases	12	(11.7%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

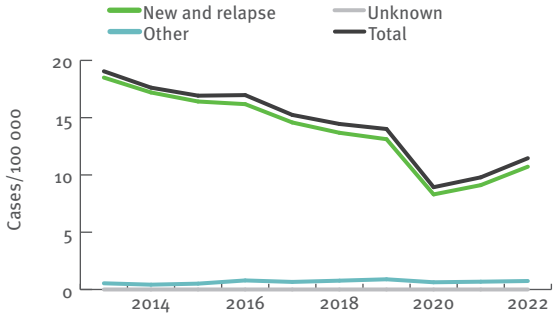
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

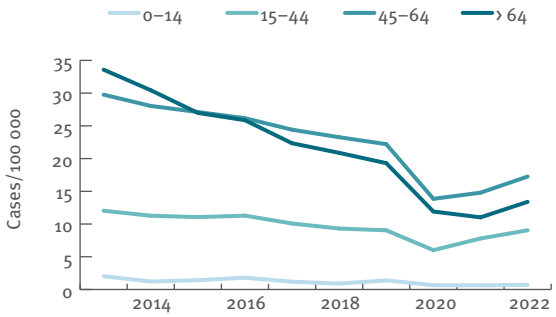
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	2 582		42	
Success	0	(0.0%)	0	(0.0%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	2 192	(100.0%)	45	(100.0%)

[a] Treatment outcome after 12 months (or 24 months).

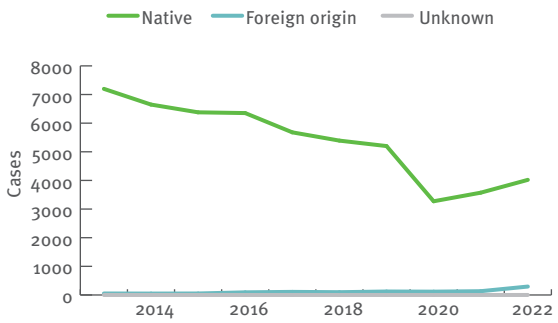
TB notification rates by previous treatment history, 2013–2022



New and relapse TB cases – notification rates by age group, 2013–2022



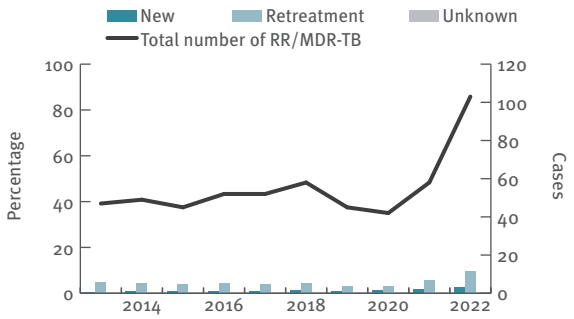
TB cases by geographical origin, 2013–2022



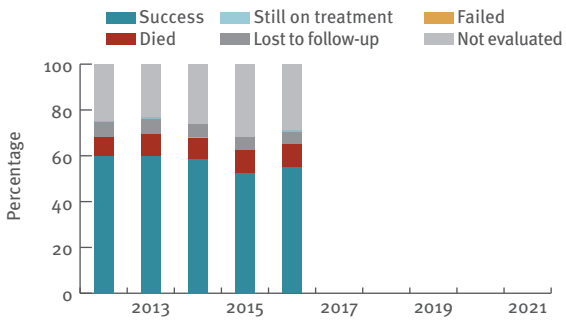
TB/HIV coinfection, 2013–2022

Data not reported

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Portugal

Total population as of 31 October 2023, Eurostat[1]: 10 352 042

Tuberculosis cases, 2022

Notifications

Total number of cases	1 514	
Notification rate per 100 000	14.6	
New[a] and relapse	1 476	
New[a] and relapse notification rate per 100 000	14.3	
Pulmonary	1 073	(70.9%)
of which microscopy-positive	585	(54.5%)
of which laboratory-confirmed	802	(74.7%)
Laboratory-confirmed TB cases	969	(64.0%)
Mean age of new native TB cases	53.7 years	
Mean age of new foreign TB cases	38.5 years	
Foreign origin of all TB cases	453	(29.9%)
New (not previously treated)	1 418	(93.7%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	1 600	[1 400–1 900]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	594	(61.3%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	20	[11–29]
Pulmonary RR/MDR-TB cases notified	10	(2.0%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	10	(1.7%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	1 148	(75.8%)
HIV-positive TB cases	116	(10.1%)
of these on antiretroviral therapy	–	–

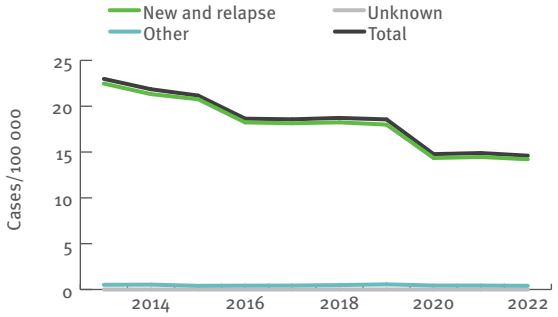
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

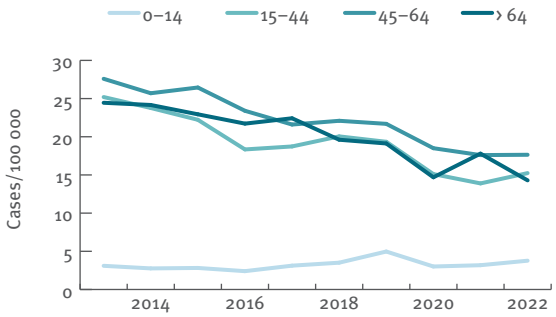
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	792		16	
Success	554	(69.9%)	13	(81.3%)
Died	47	(5.9%)	1	(6.3%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	45	(5.7%)	0	(0.0%)
Still on treatment	121	(15.3%)	1	(6.3%)
Not evaluated	21	(2.9%)	4	(26.7%)

[a] Treatment outcome after 12 months (or 24 months).

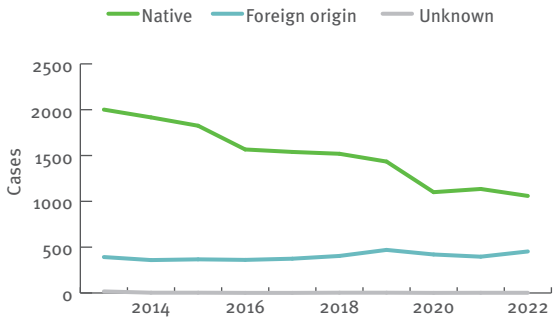
TB notification rates by previous treatment history, 2013–2022



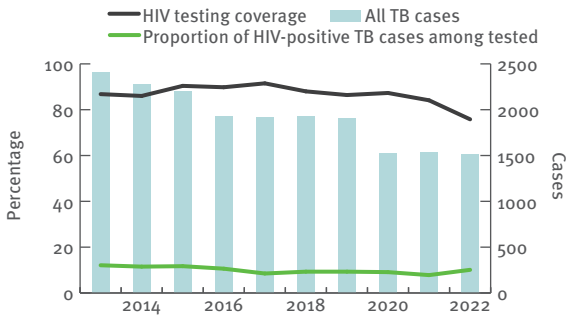
New and relapse TB cases – notification rates by age group, 2013–2022



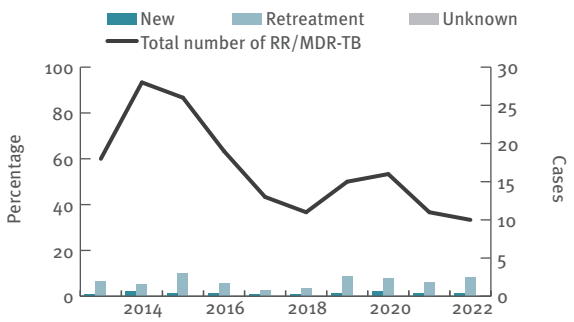
TB cases by geographical origin, 2013–2022



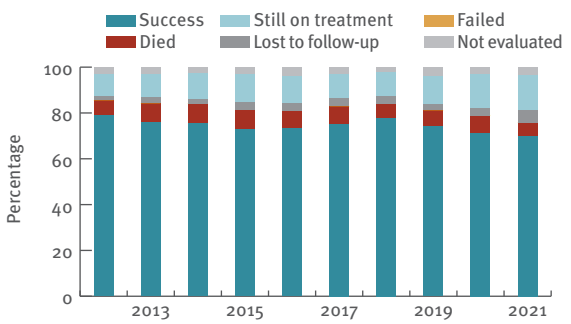
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Republic of Moldova

Total population estimate 2022, UN Statistical Database[1]: 3 272 996

Tuberculosis cases, 2022

Notifications

Total number of cases	2 191	
Notification rate per 100 000	66.9	
New[a] and relapse	2 121	
New[a] and relapse notification rate per 100 000	64.8	
Pulmonary	1 807	(82.5%)
of which laboratory-confirmed	1 423	(78.7%)
Mean age of new native TB cases	44.5 years	
Foreign origin of all TB cases	20	(0.9%)
New (not previously treated)	1 585	(72.3%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	2 400	[2 100–2 900]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	1 423	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	490	[480–510]
Pulmonary RR/MDR-TB cases notified	428	(30.1%)
of which pre-XDR-TB cases	70	(16.4%)
Notified RR/MDR-TB	478	
of which pre-XDR-TB cases	70	(14.6%)
TB cases tested for HIV	2047	(93.4%)
HIV-positive TB cases	235	(11.5%)
of these on antiretroviral therapy	215	(91.5%)

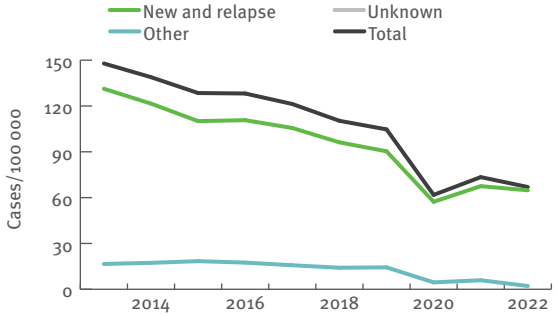
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

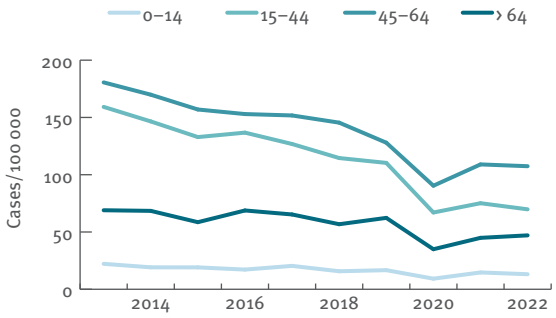
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	1 638		466	
Success	1 318	(80.5%)	288	(61.8%)
Died	204	(12.5%)	65	(13.9%)
Failed	45	(2.7%)	24	(5.2%)
Lost to follow-up	67	(4.1%)	79	(17.0%)
Not evaluated	4	(0.2%)	10	(2.1%)

[a] Treatment outcome after 12 months (or 24 months).

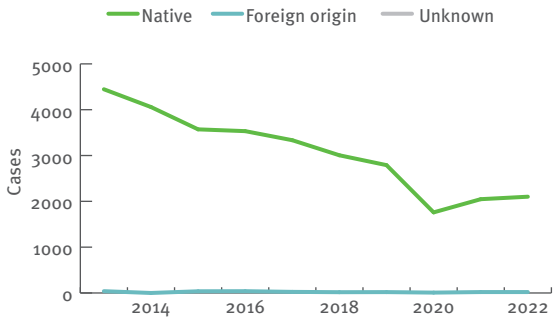
TB notification rates by previous treatment history, 2013–2022



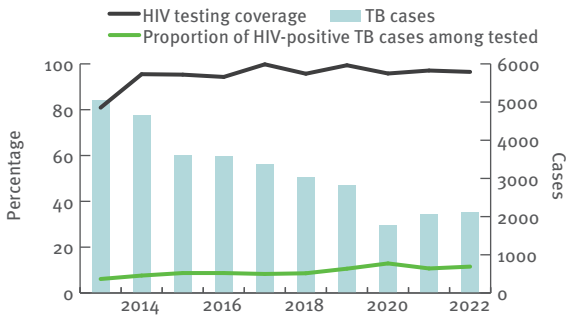
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

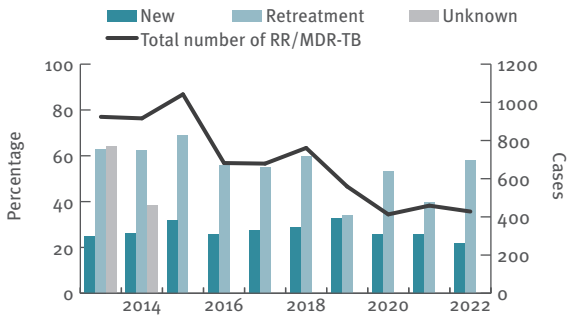


TB/HIV coinfection, 2013–2022

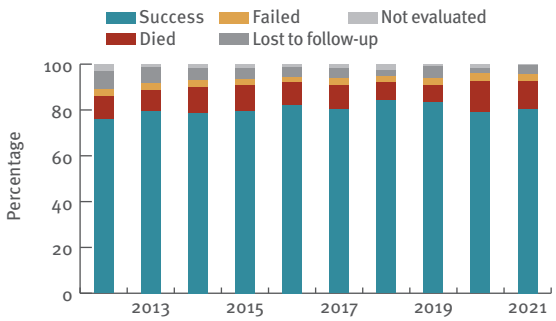


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Romania

Total population as of 31 October 2023, Eurostat[1]: 19 042 455

Tuberculosis cases, 2022

Notifications

Total number of cases	9 270	
Notification rate per 100 000	48.7	
New[a] and relapse	8 818	
New[a] and relapse notification rate per 100 000	46.3	
Pulmonary	8 144	(87.9%)
of which microscopy-positive	5 812	(71.4%)
of which laboratory-confirmed	6 866	(84.3%)
Laboratory-confirmed TB cases	7 132	(76.9%)
Mean age of new native TB cases	46.9 years	
Mean age of new foreign TB cases	28.6 years	
Foreign origin of all TB cases	51	(0.6%)
New (not previously treated)	7 450	(80.4%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	10 000	[8 700–12 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	6 037	(84.6%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	460	[350–530]
Pulmonary RR/MDR-TB cases notified	262	(4.5%)
of which pre-XDR-TB cases	16	(6.1%)
Notified RR/MDR-TB	265	(4.4%)
of which pre-XDR-TB cases	16	(6.0%)
TB cases tested for HIV	7 745	(83.5%)
HIV-positive TB cases	143	(1.8%)
of these on antiretroviral therapy	–	–

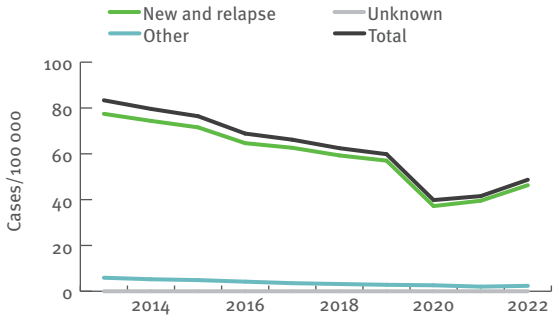
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

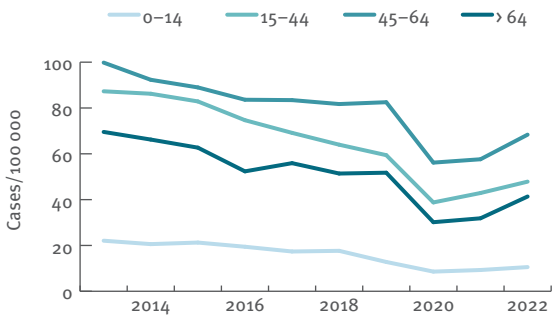
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	4 608		262	
Success	3 730	(80.9%)	124	(47.3%)
Died	528	(11.5%)	55	(21.0%)
Failed	102	(2.2%)	45	(17.2%)
Lost to follow-up	157	(3.4%)	32	(12.2%)
Still on treatment	90	(2.0%)	6	(2.3%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

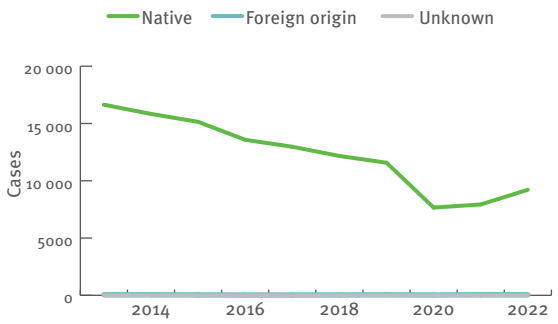
TB notification rates by previous treatment history, 2013–2022



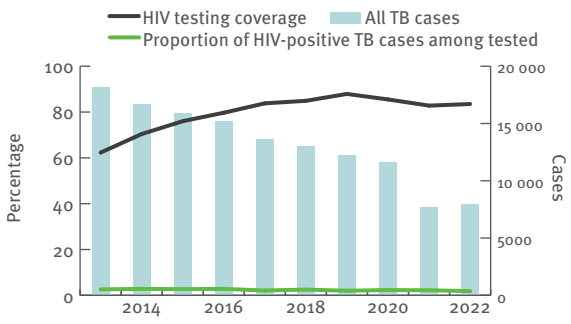
New and relapse TB cases – notification rates by age group, 2013–2022



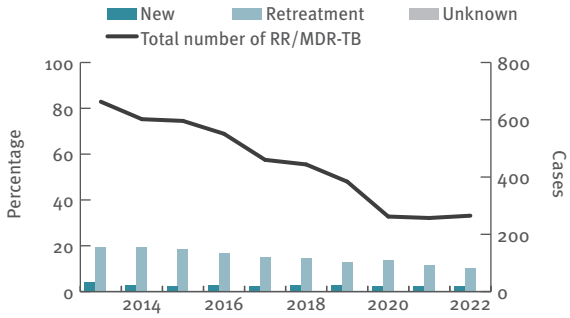
TB cases by geographical origin, 2013–2022



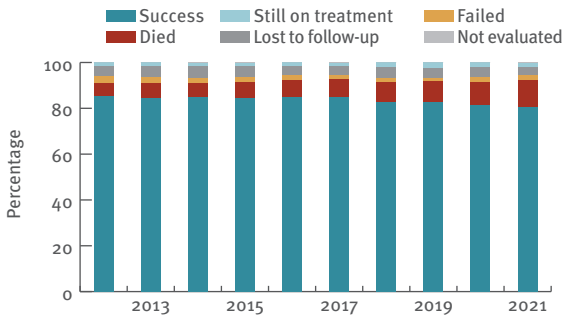
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Russian Federation

Total population estimate 2022, UN Statistical Database[1]: 144 713 315

Tuberculosis cases, 2022

Notifications

Total number of cases	75 589	
Notification rate per 100 000	52.2	
New[a] and relapse	55 906	
New[a] and relapse notification rate per 100 000	38.6	
Pulmonary	66 116	(87.5%)
of which laboratory-confirmed	40 862	(61.8%)
Mean age of new native TB cases	43.8 years	
Foreign origin of all TB cases	1 711	(2.3%)
New (not previously treated)	44 185	(58.5%)
Estimate		
Estimated new and relapse cases N, best [low–high]	56 000	[31 000–87 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	38 363	(93.9%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	21 000	[20 000–21 000]
Pulmonary RR/MDR-TB cases notified	19 045	(49.6%)
of which pre-XDR-TB cases	6 191	(35.3%)
Notified RR/MDR-TB	23 581	
of which pre-XDR-TB cases	6 191	(26.3%)
TB cases tested for HIV	55 225	(73.1%)
HIV-positive TB cases	14 191	(25.7%)
of these on antiretroviral therapy	11 088	(78.1%)

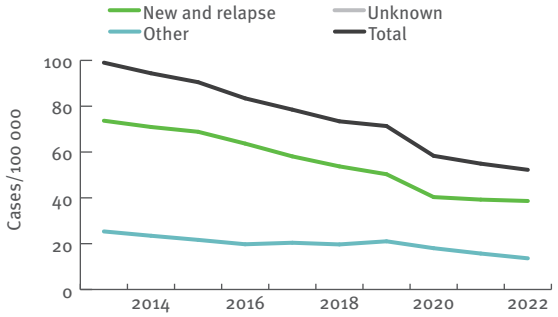
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

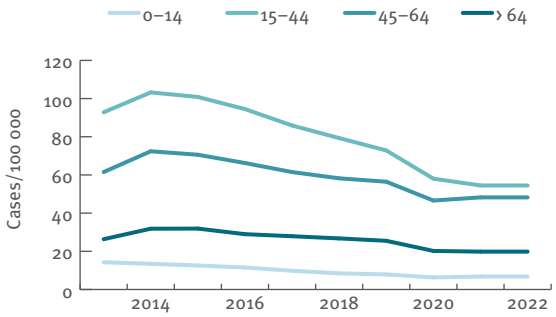
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	43 926		21 638	
Success	26 516	(60.4%)	11 034	(51.0%)
Died	6 042	(13.8%)	3 476	(16.1%)
Failed	5 583	(12.7%)	2 754	(12.7%)
Lost to follow-up	2 080	(4.7%)	2 819	(13.0%)
Not evaluated	3 705	(8.4%)	1 555	(7.2%)

[a] Treatment outcome after 12 months (or 24 months).

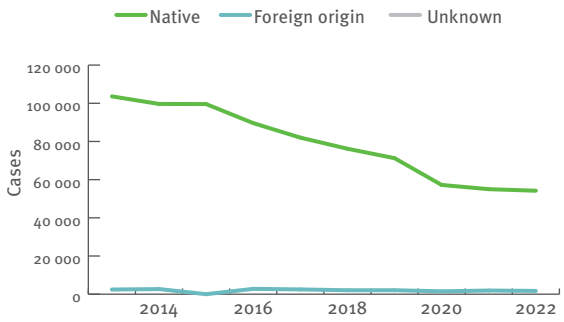
TB notification rates by previous treatment history, 2013–2022



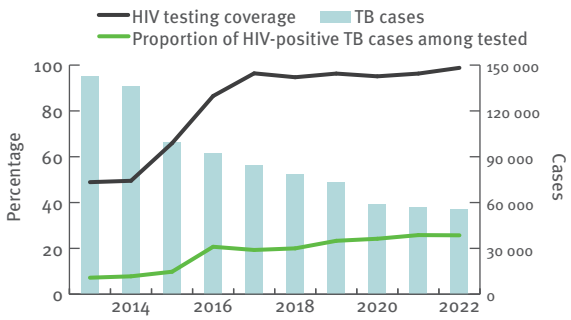
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

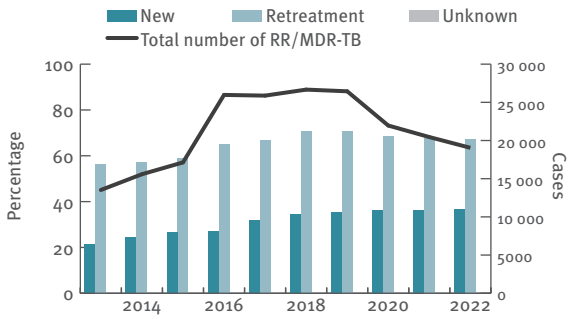


TB/HIV coinfection, 2013–2022

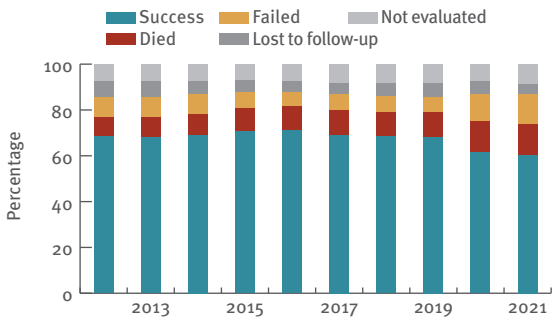


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

San Marino

Total population estimate 2022, UN Statistical Database[1]: 33 661

Tuberculosis cases, 2022

Notifications

Total number of cases	–	
Notification rate per 100 000	–	
New[a] and relapse	–	
New[a] and relapse notification rate per 100 000	–	
Pulmonary	–	–
of which laboratory-confirmed	–	–
Mean age of new native TB cases	–	
Foreign origin of all TB cases	–	–
New (not previously treated)	–	–
Estimate		
Estimated new and relapse cases N, best [low–high]	0	[0–0]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	–	
Completeness of HIV data[b]	–	
Case-linked data-reporting	Yes	
Cases with DST results	–	–
Estimated RR-TB among notified bacteriologically confirmed pulmonary 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 antiretroviral therapy	–	–

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

Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort[a]	New and relapse TB cases notified in 2021	All RR/MDR-TB cases notified in 2020
Case-linked data-reporting	Yes	–
Cases notified	–	–
Success	–	–
Died	–	–
Failed	–	–
Lost to follow-up	–	–
Not evaluated	–	–

[a] Treatment outcome after 12 months (or 24 months).

San Marino either reported zero cases or no data for all years

Serbia

Total population estimate 2022, UN Statistical Database[1]: 7 221 366

Tuberculosis cases. 2022

Notifications

Total number of cases	1 083	
Notification rate per 100 000	15.0	
New[a] and relapse	1 074	
New[a] and relapse notification rate per 100 000	14.9	
Pulmonary	877	(81.0%)
of which laboratory-confirmed	603	(68.8%)
Mean age of new native TB cases	47.9 years	
Foreign origin of all TB cases	4	(0.4%)
New (not previously treated)	1016	(93.8%)
Estimate		
Estimated new and relapse cases N. best [low–high]	1 000	[890–1 200]

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

Drug resistance surveillance and TB/HIV coinfection. 2022

Completeness of DRS data[a]	No	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	135	(22.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases. N. best [low-high]	8	[3–12]
Pulmonary RR/MDR-TB cases notified	2	(1.5%)
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	426	(39.3%)
HIV-positive TB cases	2	(0.5%)
of these on antiretroviral therapy	–	–

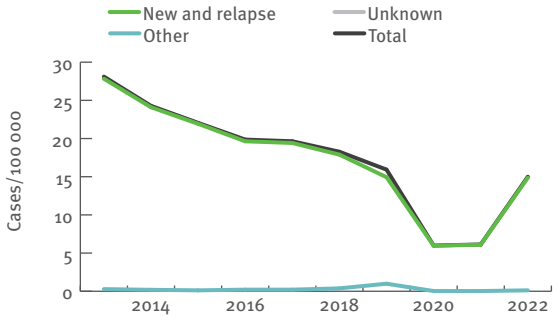
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases › 50%. DST done for C+ › 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

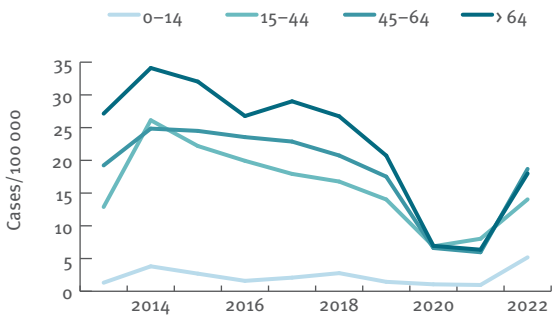
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	446		2	
Success	381	(85.4%)	2	(100.0%)
Died	26	(5.8%)	0	(0.0%)
Failed	2	(0.4%)	0	(0.0%)
Lost to follow-up	33	(7.4%)	0	(0.0%)
Not evaluated	4	(0.9%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

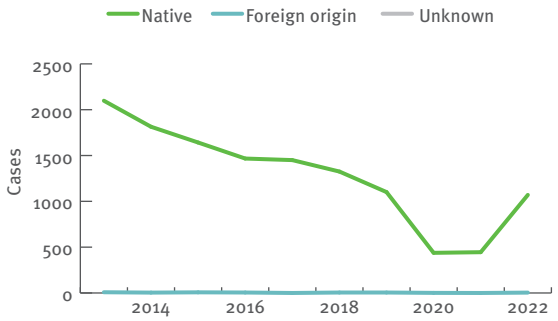
TB notification rates by previous treatment history, 2013–2022



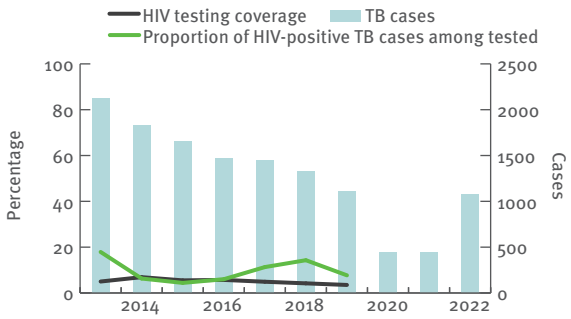
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

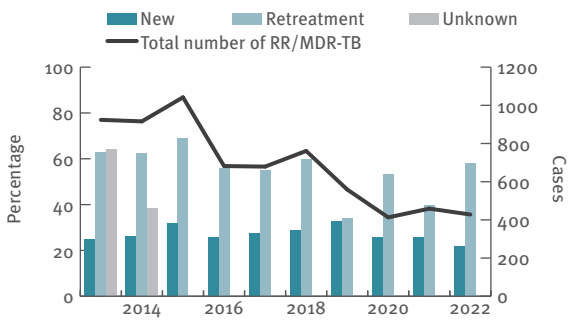


TB/HIV coinfection, 2013–2022

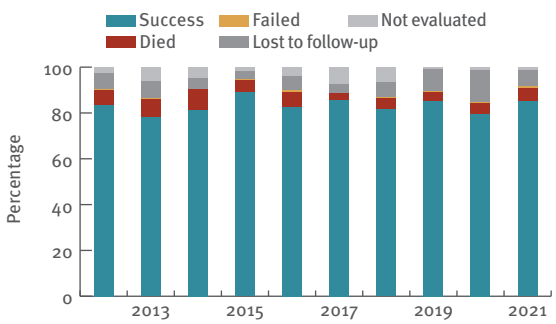


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Slovakia

Total population as of 31 October 2023, Eurostat[1]: 5 434 712

Tuberculosis cases, 2022

Notifications

Total number of cases	155	
Notification rate per 100 000	2.9	
New[a] and relapse	142	
New[a] and relapse notification rate per 100 000	2.6	
Pulmonary	141	(91.0%)
of which microscopy-positive	55	(39.0%)
of which laboratory-confirmed	72	(51.1%)
Laboratory-confirmed TB cases	75	(48.4%)
Mean age of new native TB cases	35.4 years	
Mean age of new foreign TB cases	38.2 years	
Foreign origin of all TB cases	17	(11.0%)
New (not previously treated)	122	(78.7%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	160	[140–190]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	75	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	6	[2–10]
Pulmonary RR/MDR-TB cases notified	5	(6.9%)
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	83	(53.5%)
HIV-positive TB cases	4	(4.8%)
of these on antiretroviral therapy	–	–

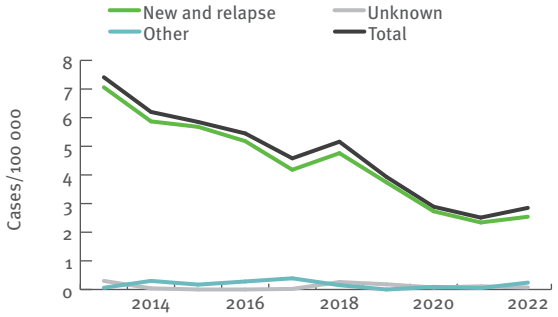
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

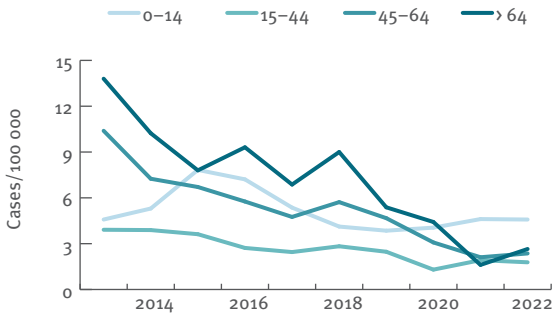
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	65		1	
Success	58	(89.2%)	1	(100.0%)
Died	5	(7.7%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	1	(1.5%)	0	(0.0%)
Still on treatment	1	(1.5%)	0	(0.0%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

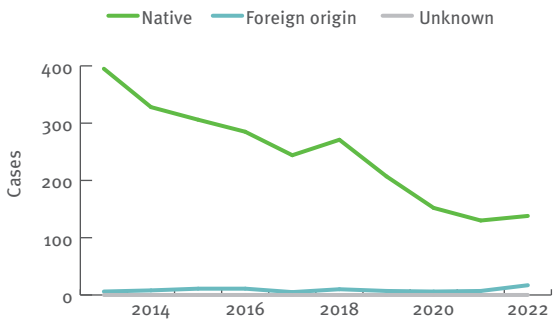
TB notification rates by previous treatment history, 2013–2022



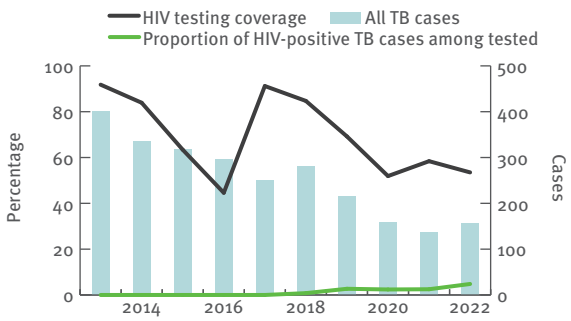
New and relapse TB cases – notification rates by age group, 2013–2022



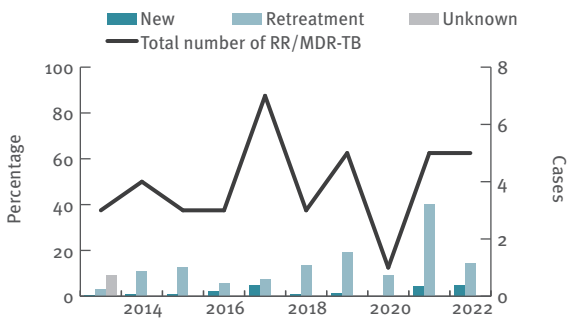
TB cases by geographical origin, 2013–2022



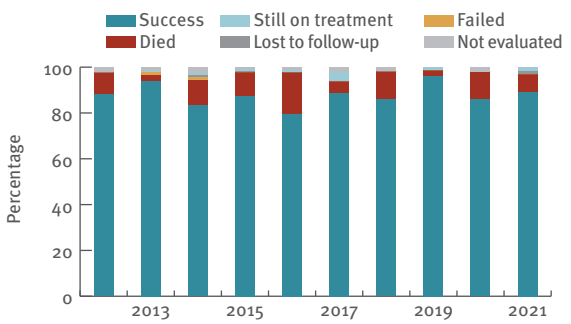
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Slovenia

Total population as of 31 October 2023, Eurostat[1]: 2 107 180

Tuberculosis cases, 2022

Notifications

Total number of cases	74	
Notification rate per 100 000	3.5	
New[a] and relapse	72	
New[a] and relapse notification rate per 100 000	3.4	
Pulmonary	61	(82.4%)
of which microscopy-positive	31	(50.8%)
of which laboratory-confirmed	58	(95.1%)
Laboratory-confirmed TB cases	67	(90.5%)
Mean age of new native TB cases	59.2 years	
Mean age of new foreign TB cases	51.6 years	
Foreign origin of all TB cases	31	(41.9%)
New (not previously treated)	68	(91.9%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	83	[71–96]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	67	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases. N. best [low-high]	1	[0–1]
Pulmonary RR/MDR-TB cases notified	1	(1.7%)
of which pre-XDR-TB cases	1	(100.0%)
Notified RR/MDR-TB	1	(1.5%)
of which pre-XDR-TB cases	1	(100.0%)
TB cases tested for HIV	63	(85.1%)
HIV-positive TB cases	1	(1.6%)
of these on antiretroviral therapy	–	–

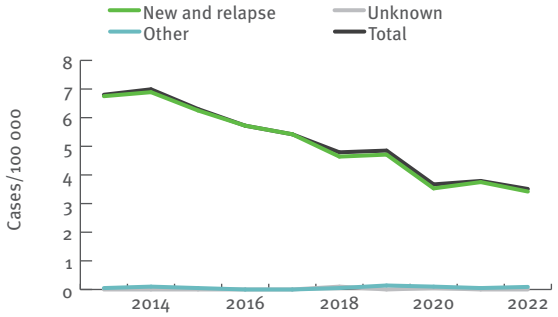
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases › 50%. DST done for C+ › 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

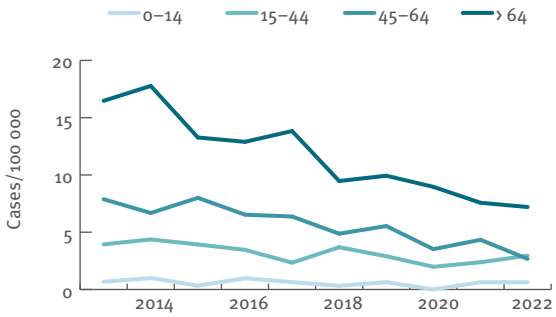
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	58		1	
Success	45	(77.6%)	1	(100.0%)
Died	7	(12.1%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	5	(8.6%)	0	(0.0%)
Not evaluated	1	(1.7%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

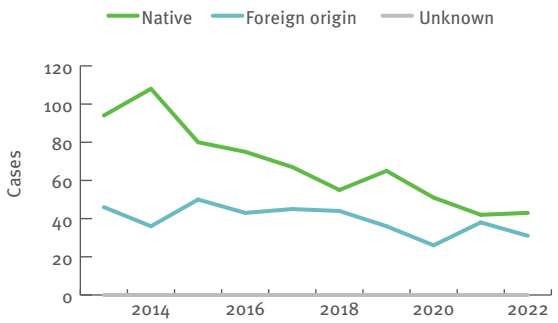
TB notification rates by previous treatment history, 2013–2022



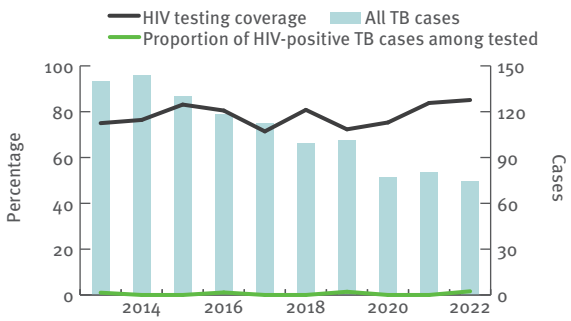
New and relapse TB cases – notification rates by age group, 2013–2022



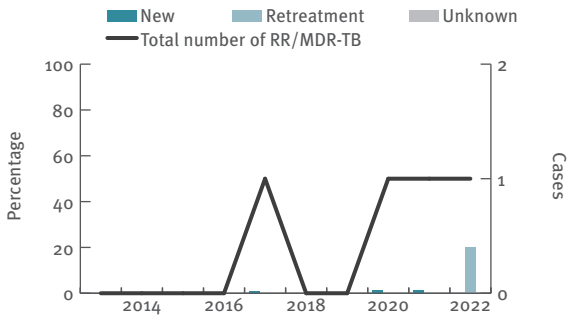
TB cases by geographical origin, 2013–2022



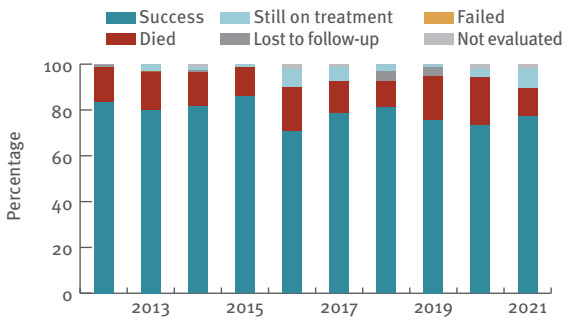
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Spain

Total population as of 31 October 2023, Eurostat[1]: 47 432 893

Tuberculosis cases, 2022

Notifications

Total number of cases	3 698	
Notification rate per 100 000	7.8	
New[a] and relapse	2 580	
New[a] and relapse notification rate per 100 000	5.4	
Pulmonary	2 672	(72.3%)
of which microscopy-positive	1 219	(45.6%)
of which laboratory-confirmed	2 016	(75.4%)
Laboratory-confirmed TB cases	2 533	(68.5%)
Mean age of new native TB cases	53.4 years	
Mean age of new foreign TB cases	40.6 years	
Foreign origin of all TB cases	1 506	(40.7%)
New (not previously treated)	1 669	(45.1%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	3 300	[2 800–3 800]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	1 902	(75.1%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	170	[71–260]
Pulmonary RR/MDR-TB cases notified	31	(2.0%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	37	(1.9%)
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	2 319	(62.7%)
HIV-positive TB cases	210	(9.1%)
of these on antiretroviral therapy	–	–

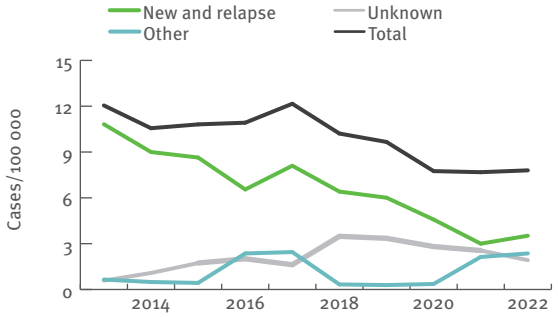
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

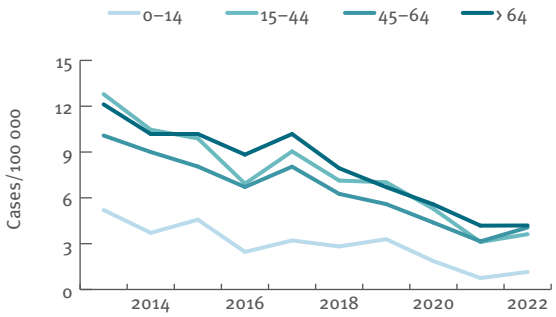
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	832		37	
Success	402	(48.3%)	28	(75.7%)
Died	60	(7.2%)	2	(5.4%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	7	(0.8%)	2	(5.4%)
Still on treatment	9	(1.1%)	0	(0.0%)
Not evaluated	354	(42.5%)	5	(13.5%)

[a] Treatment outcome after 12 months (or 24 months).

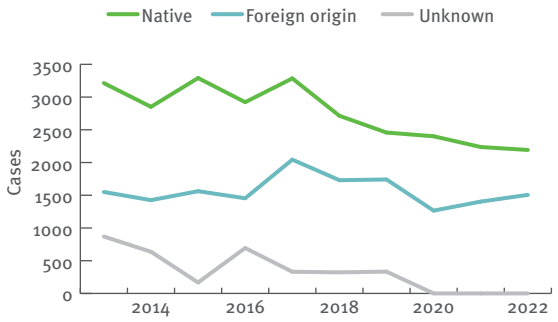
TB notification rates by previous treatment history, 2013–2022



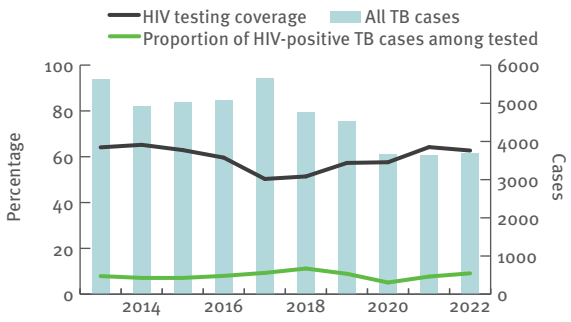
New and relapse TB cases – notification rates by age group, 2013–2022



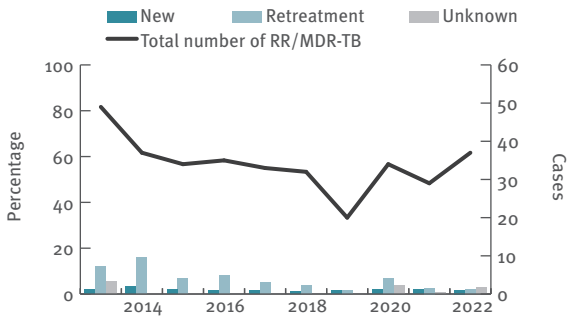
TB cases by geographical origin, 2013–2022



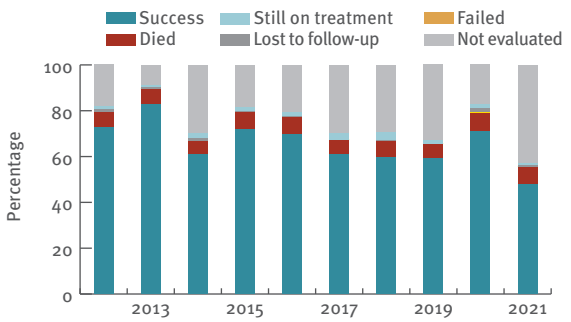
TB/HIV coinfection, 2013–2022



RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Sweden

Total population as of 31 October 2023, Eurostat[1]: 10 452 326

Tuberculosis cases, 2022

Notifications

Total number of cases	378	
Notification rate per 100 000	3.6	
New[a] and relapse	357	
New[a] and relapse notification rate per 100 000	3.4	
Pulmonary	261	(69.0%)
of which microscopy-positive	95	(36.4%)
of which laboratory-confirmed	235	(90.0%)
Laboratory-confirmed TB cases	324	(85.7%)
Mean age of new native TB cases	55.2 years	
Mean age of new foreign TB cases	41.2 years	
Foreign origin of all TB cases	316	(83.6%)
New (not previously treated)	314	(83.1%)
Estimate		
Estimated new and relapse cases, N, best [low–high]	410	[350–470]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data-reporting	Yes	
Cases with DST results	322	(99.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	19	[13–25]
Pulmonary RR/MDR-TB cases notified	11	(4.7%)
of which pre-XDR-TB cases	2	(18.2%)
Notified RR/MDR-TB	16	(5.0%)
of which pre-XDR-TB cases	3	(18.8%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

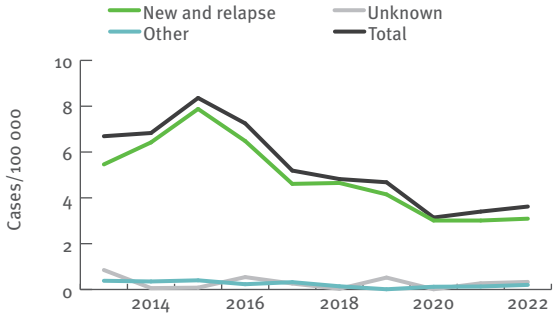
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

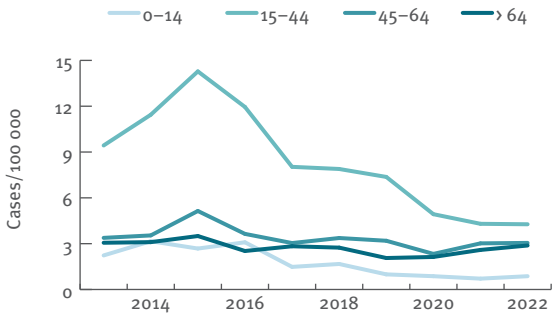
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	173		6	
Success	144	(83.2%)	5	(83.3%)
Died	13	(7.5%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	2	(1.2%)	0	(0.0%)
Still on treatment	0	(0.0%)	0	(0.0%)
Not evaluated	14	(8.1%)	1	(16.7%)

[a] Treatment outcome after 12 months (or 24 months).

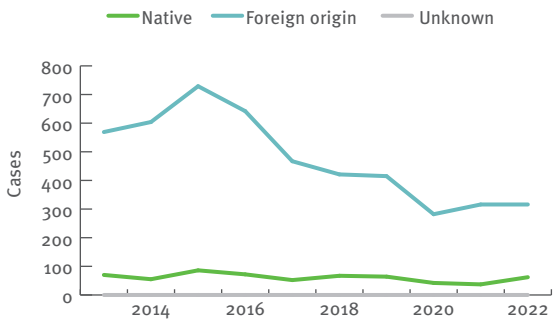
TB notification rates by previous treatment history, 2013–2022



New and relapse TB cases – notification rates by age group, 2013–2022



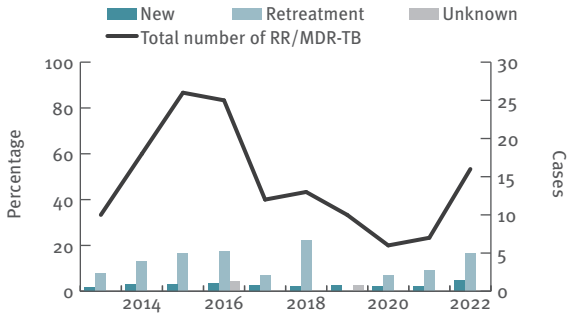
TB cases by geographical origin, 2013–2022



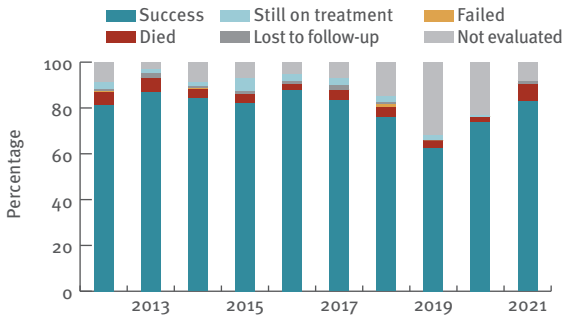
TB/HIV coinfection, 2013–2022

Data not reported

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



[1] All EU/EEA country population estimates are from Eurostat [website]. Brussels: Eurostat; 2023 (https://ec.europa.eu/eurostat/home, accessed 13 February 2024).

Switzerland

Total population estimate 2022, UN Statistical Database[1]: 8 740 472

Tuberculosis cases, 2022

Notifications

Total number of cases	365	
Notification rate per 100 000	4.2	
New[a] and relapse	346	
New[a] and relapse notification rate per 100 000	4.0	
Pulmonary	334	(91.5%)
of which laboratory-confirmed	309	(92.5%)
Mean age of new native TB cases	42.0 years	
Foreign origin of all TB cases	281	(77.0%)
New (not previously treated)	346	(94.8%)
Estimate		
Estimated new and relapse cases N, best [low–high]	400	[340–460]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	309	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	13	[8–18]
Pulmonary RR/MDR-TB cases notified	2	(0.6%)
of which pre-XDR-TB cases	0	(0.0%)
Notified RR/MDR-TB	3	
of which pre-XDR-TB cases	0	(0.0%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

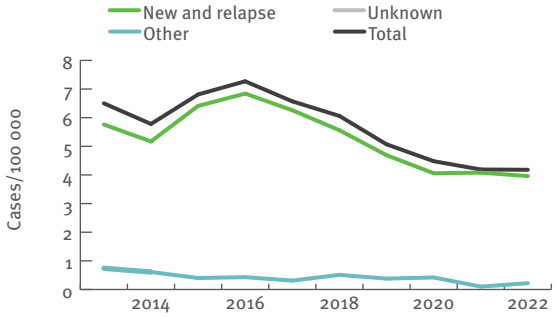
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

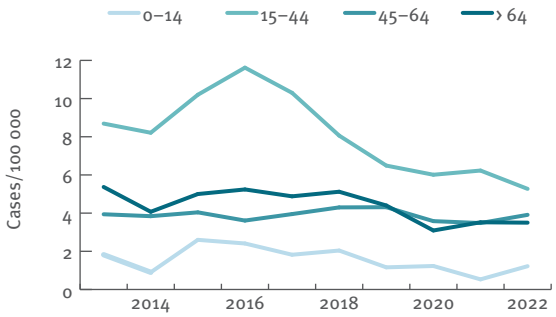
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	326		1	
Success	246	(75.5%)	1	(100.0%)
Died	19	(5.8%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	8	(2.5%)	0	(0.0%)
Not evaluated	53	(16.3%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

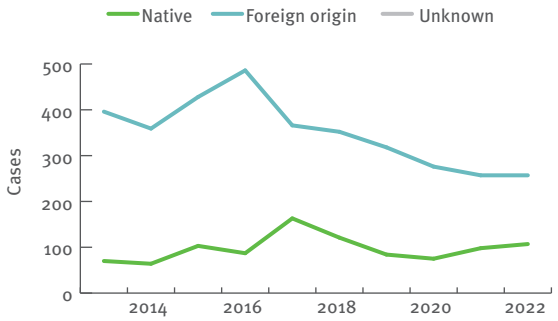
TB notification rates by previous treatment history, 2013–2022



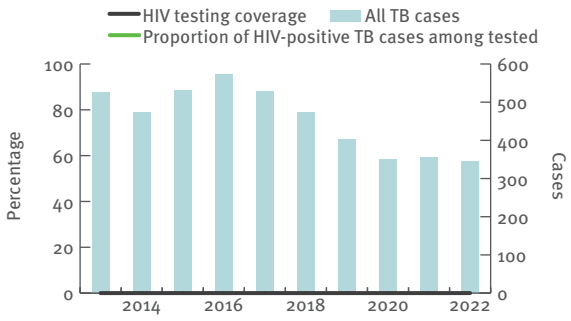
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

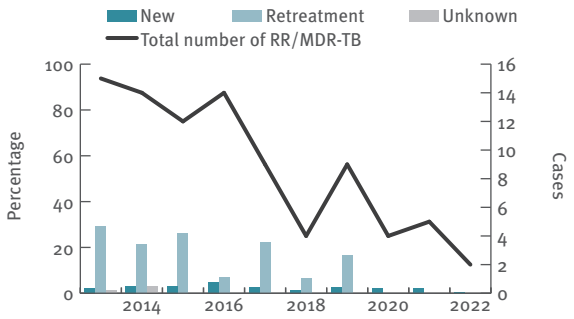


TB/HIV coinfection, 2013–2022

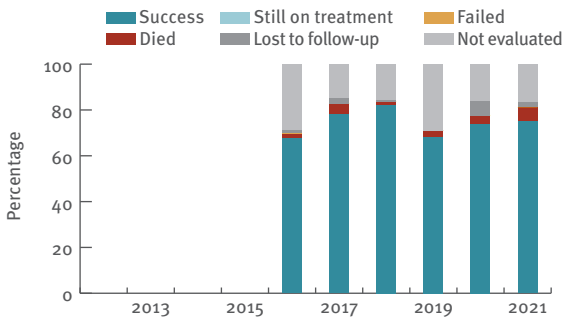


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Tajikistan

Total population estimate 2022, UN Statistical Database[1]: 9 952 787

Tuberculosis cases, 2022

Notifications

Total number of cases	4 421	
Notification rate per 100 000	44.4	
New[a] and relapse	4 294	
New[a] and relapse notification rate per 100 000	43.1	
Pulmonary	3 145	(71.1%)
of which laboratory-confirmed	2 106	(67.0%)
Mean age of new native TB cases	38.3 years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	3 925	(88.8%)
Estimate		
Estimated new and relapse cases, N, best (low-high)	7 800	[5 900–10 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	2 093	(99.4%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases. N. best [low-high]	610	[590–630]
Pulmonary RR/MDR-TB cases notified	518	(24.7%)
of which pre-XDR-TB cases	109	(26.1%)
Notified RR/MDR-TB	400	
of which pre-XDR-TB cases	109	(27.3%)
TB cases tested for HIV	4 269	(96.6%)
HIV-positive TB cases	109	(2.6%)
of these on antiretroviral therapy	99	(90.8%)

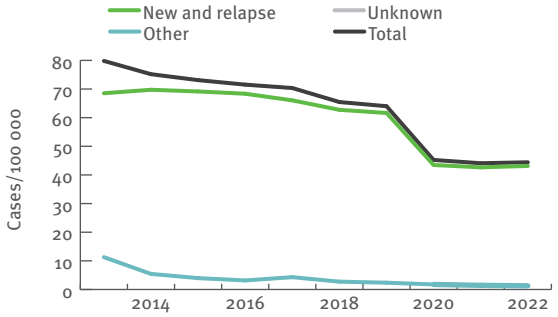
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases › 50%. DST done for C+ › 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

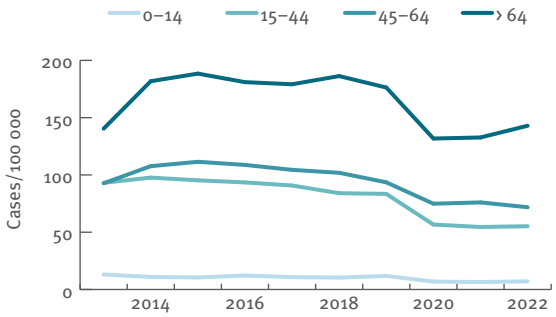
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	3 635		356	
Success	3 347	(92.1%)	287	(80.6%)
Died	158	(4.3%)	37	(10.4%)
Failed	27	(0.7%)	3	(0.8%)
Lost to follow-up	103	(2.8%)	29	(8.1%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome after 12 months (or 24 months).

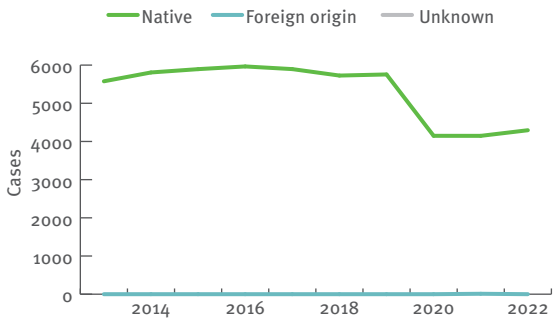
TB notification rates by previous treatment history, 2013–2022



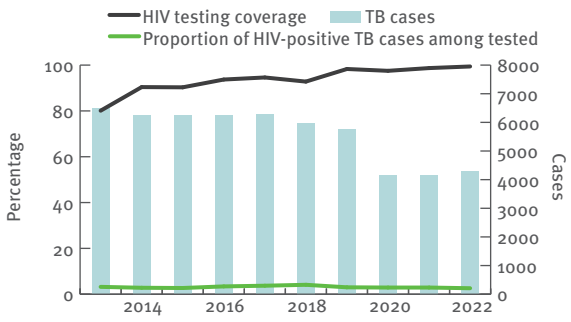
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

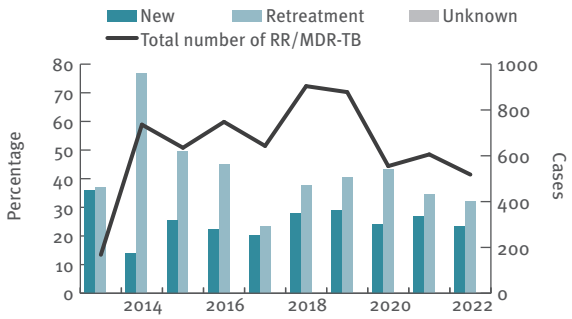


TB/HIV coinfection, 2013–2022

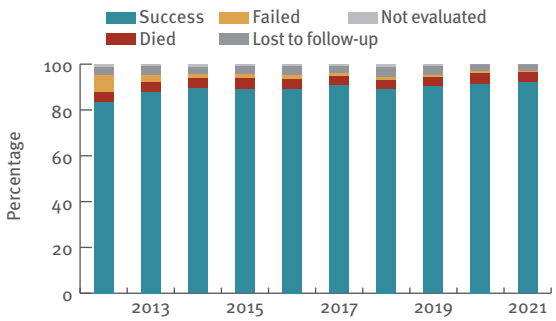


Note: data up to 2018 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Türkiye

Total population estimate 2022, UN Statistical Database[1]: 85 341 241

Tuberculosis cases, 2022

Notifications

Total number of cases	9 851	
Notification rate per 100 000	11.5	
New[a] and relapse	9 723	
New[a] and relapse notification rate per 100 000	11.4	
Pulmonary	6 123	(62.2%)
of which laboratory-confirmed	4 855	(79.3%)
Mean age of new native TB cases	45.5 years	
Foreign origin of all TB cases	1 538	(15.6%)
New (not previously treated)	9 235	(93.7%)
Estimate		
Estimated new and relapse cases, N, best (low-high)	12 000	[9 200–15 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	4 295	(88.5%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases. N. best [low-high]	150	[130–160]
Pulmonary RR/MDR-TB cases notified	148	(3.4%)
of which pre-XDR-TB cases	12	(12.2%)
Notified RR/MDR-TB	139	
of which pre-XDR-TB cases	12	(8.6%)
TB cases tested for HIV	7 860	(79.8%)
HIV-positive TB cases	123	(1.6%)
of these on antiretroviral therapy	101	(82.1%)

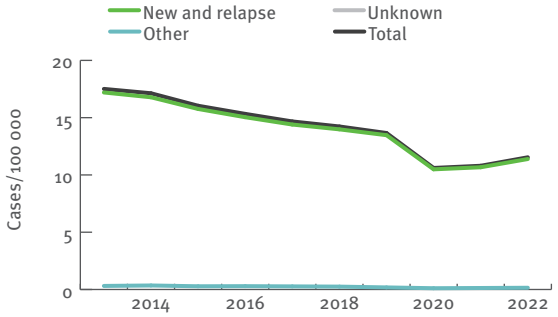
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases › 50%. DST done for C+ › 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

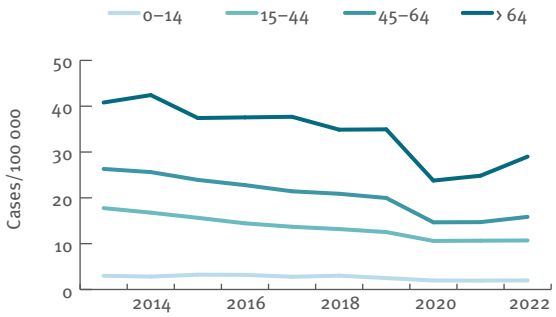
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	8 947		132	
Success	7 192	(80.4%)	70	(53.0%)
Died	747	(8.3%)	15	(11.4%)
Failed	25	(0.3%)	1	(0.8%)
Lost to follow-up	252	(2.8%)	14	(10.6%)
Not evaluated	731	(8.2%)	32	(24.2%)

[a] Treatment outcome after 12 months (or 24 months).

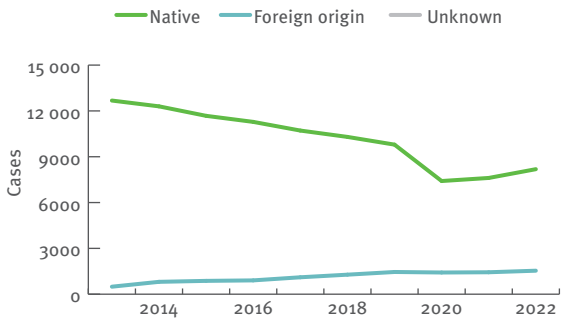
TB notification rates by previous treatment history, 2013–2022



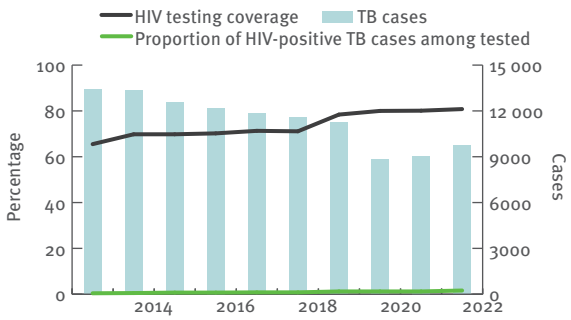
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

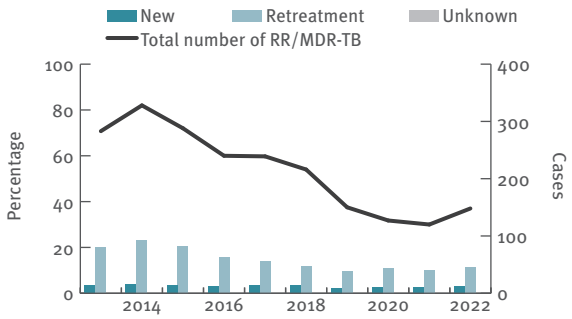


TB/HIV coinfection, 2013–2022

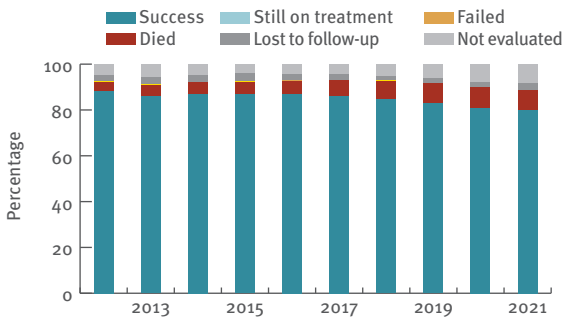


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Turkmenistan

Total population estimate 2022, UN Statistical Database[1]: 6 430 771

Tuberculosis cases, 2022

Notifications

Total number of cases	3 384	
Notification rate per 100 000	52.6	
New[a] and relapse	2 503	
New[a] and relapse notification rate per 100 000	38.9	
Pulmonary	1 999	(59.1%)
of which laboratory-confirmed	1 250	(62.5%)
Mean age of new native TB cases	42.5 years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1 766	(52.2%)
Estimate		
Estimated new and relapse cases, N, best (low-high)	3 100	[2 400–3 900]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	1 250	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases. N. best [low-high]	500	[470–520]
Pulmonary RR/MDR-TB cases notified	402	(32.2%)
of which pre-XDR-TB cases	–	–
Notified RR/MDR-TB	742	
of which pre-XDR-TB cases	228	(30.7%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

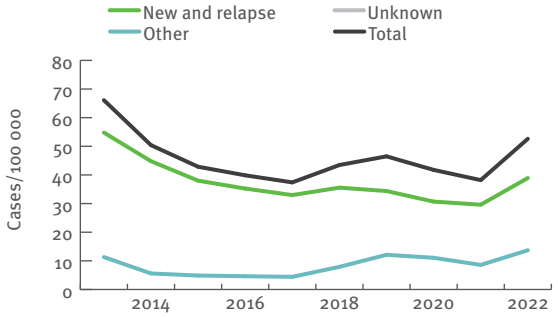
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases › 50%. DST done for C+ › 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

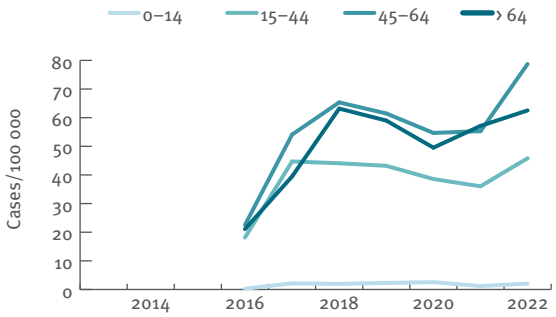
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	1 878		519	
Success	1 515	(80.7%)	311	(59.9%)
Died	129	(6.9%)	89	(17.1%)
Failed	114	(6.1%)	63	(12.1%)
Lost to follow-up	58	(3.1%)	45	(8.7%)
Not evaluated	62	(3.3%)	11	(2.1%)

[a] Treatment outcome after 12 months (or 24 months).

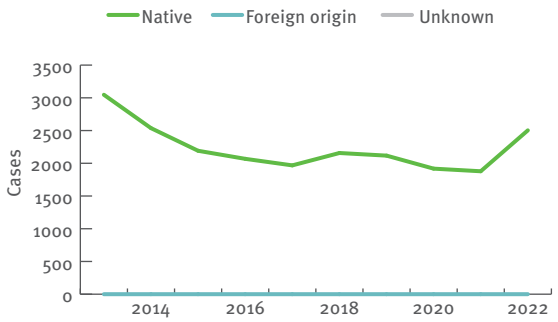
TB notification rates by previous treatment history, 2013–2022



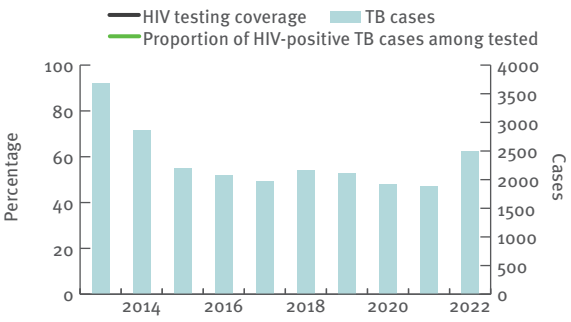
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

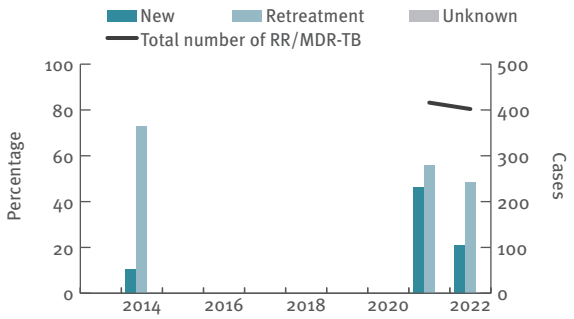


TB/HIV coinfection, 2013–2022

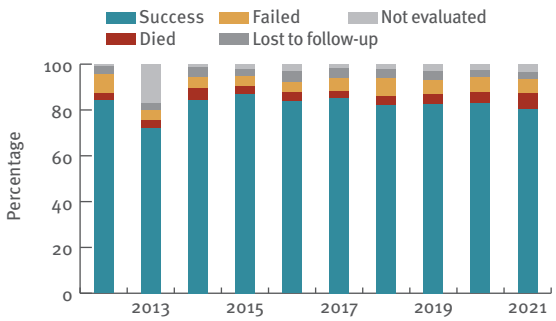


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

Ukraine

Total population estimate 2022, UN Statistical Database[1]: 39 701 739

Tuberculosis cases, 2022

Notifications

Total number of cases	19 566	
Notification rate per 100 000	49.3	
New[a] and relapse	18 567	
New[a] and relapse notification rate per 100 000	46.8	
Pulmonary	17 434	(89.1%)
of which laboratory-confirmed	13 278	(76.2%)
Mean age of new native TB cases	45.5 years	
Foreign origin of all TB cases	11	(0.1%)
New (not previously treated)	15 080	(77.1%)
Estimate		
Estimated new and relapse cases, N, best (low-high)	36 000	[24 000–50 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	12 876	(97.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases. N. best [low-high]	4 400	[4 300–4 400]
Pulmonary RR/MDR-TB cases notified	3 647	(28.3%)
of which pre-XDR-TB cases	1 009	(32.1%)
Notified RR/MDR-TB	4 158	
of which pre-XDR-TB cases	1 009	(24.3%)
TB cases tested for HIV	18 324	(93.7%)
HIV-positive TB cases	3 328	(18.2%)
of these on antiretroviral therapy	3 069	(92.2%)

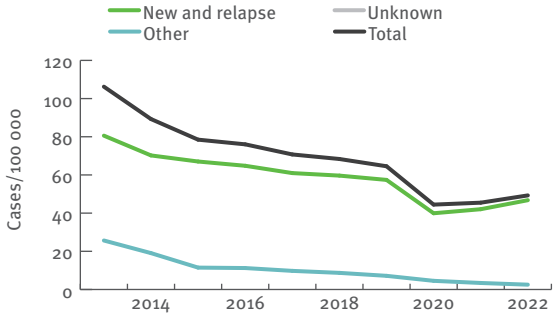
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases › 50%. DST done for C+ › 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

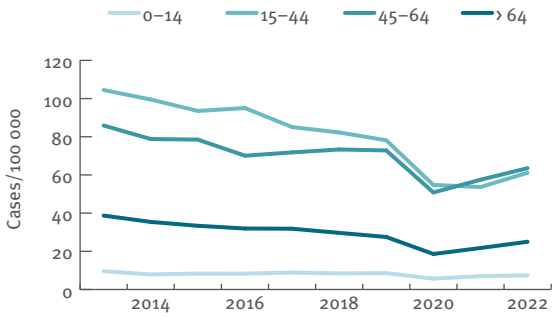
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	14 396		4 882	
Success	10 755	(74.7%)	3 179	(65.1%)
Died	1 732	(12.0%)	756	(15.5%)
Failed	1 060	(7.4%)	414	(8.5%)
Lost to follow-up	800	(5.6%)	519	(10.6%)
Not evaluated	49	(0.3%)	14	(0.3%)

[a] Treatment outcome after 12 months (or 24 months).

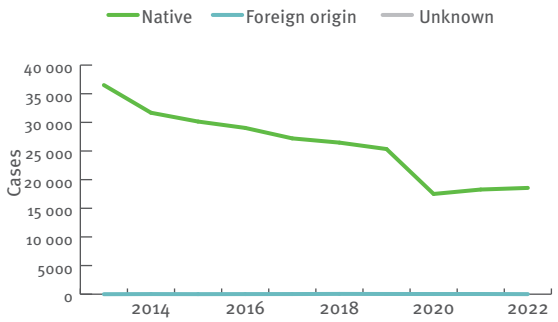
TB notification rates by previous treatment history, 2013–2022



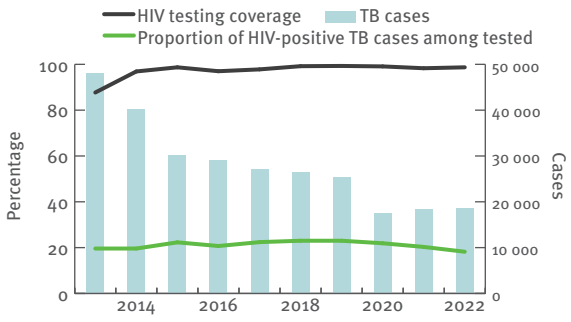
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

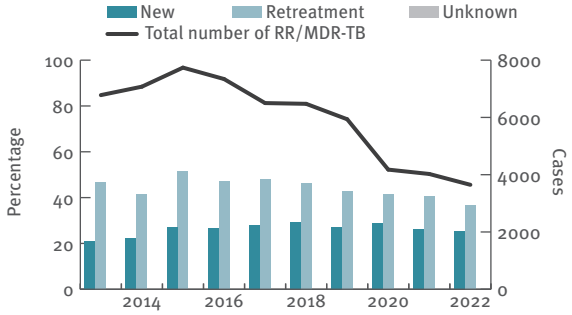


TB/HIV coinfection, 2013–2022

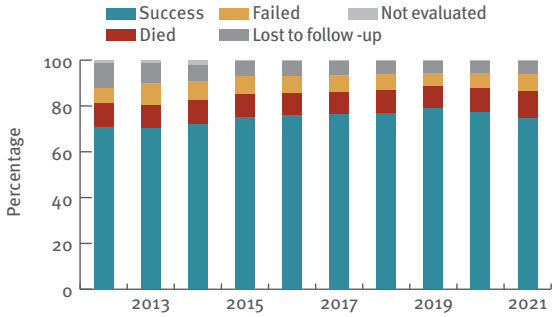


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



[1] All non-EU/EEA country population estimates are from World population prospects: the 2022 revision, medium variant. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022. (https://population.un.org/wpp/, accessed 13 February 2024).

United Kingdom

Total population estimate 2022, UN Statistical Database[1]: 67 508 936

Tuberculosis cases, 2022

Notifications

Total number of cases	4 716	
Notification rate per 100 000	7.0	
New[a] and relapse	4 716	
New[a] and relapse notification rate per 100 000	7.0	
Pulmonary	2 554	(54.2%)
of which laboratory-confirmed	2 152	(84.3%)
Mean age of new native TB cases	42.2 years	
Foreign origin of all TB cases	3 663	(77.7%)
New (not previously treated)	4 559	(96.7%)
Estimate		
Estimated new and relapse cases. N. best [low–high]	5 100	[4 600–5 600]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	1 949	(90.6%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases. N. best [low-high]	36	[31–43]
Pulmonary RR/MDR-TB cases notified	34	(1.7%)
of which pre-XDR-TB cases	5	(14.7%)
Notified RR/MDR-TB	47	
of which pre-XDR-TB cases	7	(14.9%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on antiretroviral therapy	–	–

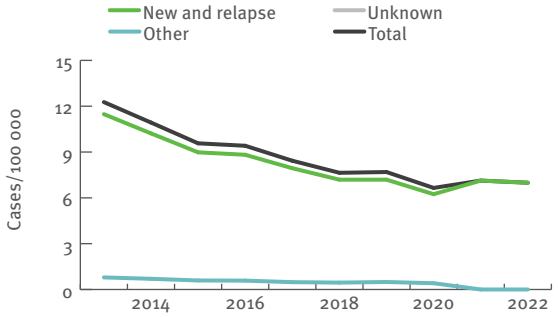
[a] National coverage 100% or culturing ≥ 90%. C+/all TB cases › 50%. DST done for C+ › 75%. EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

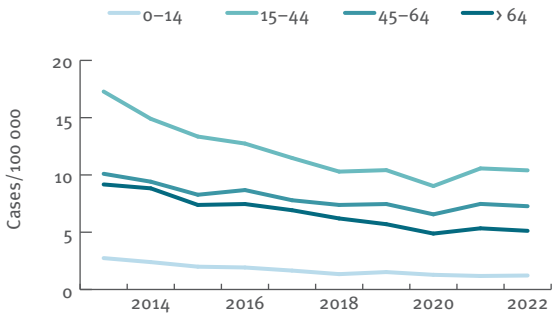
Geographical coverage	National			
Outcome cohort[a]	New culture positive pulmonary TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	4 707		42	
Success	4 059	(86.2%)	33	(78.6%)
Died	262	(5.6%)	3	(7.1%)
Failed	84	(1.8%)	1	(2.4%)
Lost to follow-up	130	(2.8%)	2	(4.8%)
Not evaluated	172	(3.7%)	3	(7.1%)

[a] Treatment outcome after 12 months (or 24 months).

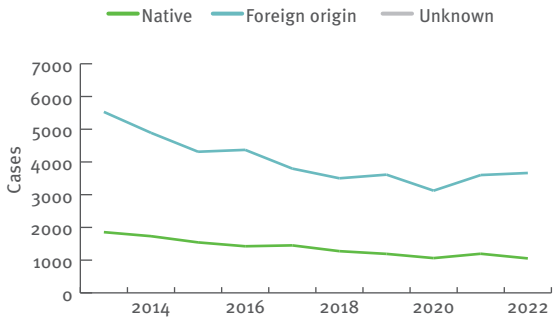
TB notification rates by previous treatment history, 2013–2022



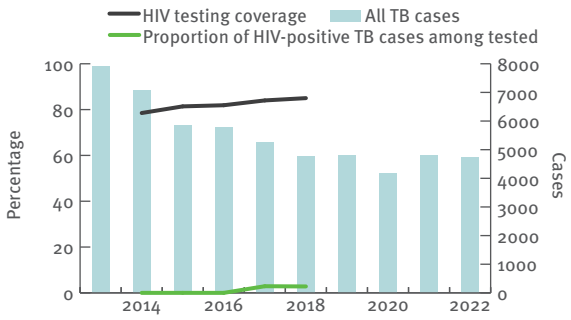
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

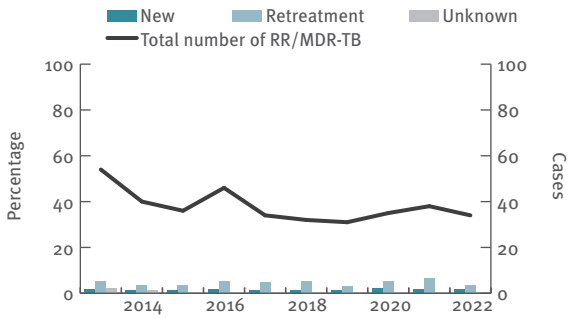


TB/HIV coinfection, 2013–2022

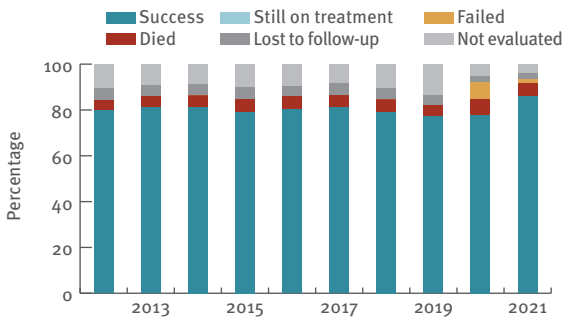


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new culture-confirmed pulmonary TB cases, 2012–2021



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Uzbekistan

Total population estimate 2022, UN Statistical Database[1]: 34 627 653

Tuberculosis cases, 2022

Notifications

Total number of cases	16 174	
Notification rate per 100 000	46.7	
New[a] and relapse	14 302	
New[a] and relapse notification rate per 100 000	41.3	
Pulmonary	10 015	(61.9%)
of which microscopy-positive		
of which laboratory-confirmed	7 205	(71.9%)
Laboratory-confirmed TB cases		
Mean age of new native TB cases	44.7 years	
Mean age of new foreign TB cases		
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1 2589	(77.8%)
Estimate		
Estimated new and relapse cases N. best [low–high]	29 000	[20 000–40 000]

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

Drug resistance surveillance and TB/HIV coinfection, 2022

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data-reporting	Yes	
Cases with DST results	7 205	(100.0%)
Estimated RR-TB among notified bacteriologically confirmed pulmonary cases, N, best [low-high]	1 500	[1 400–1 500]
Pulmonary RR/MDR-TB cases notified	1 500	(20.8%)
of which pre-XDR-TB cases	622	(41.5%)
Notified RR/MDR-TB	2117	
of which pre-XDR-TB cases	457	(21.6%)
TB cases tested for HIV	1 6174	(100.0%)
HIV-positive TB cases	538	(3.3%)
of these on antiretroviral therapy	413	(76.8%)

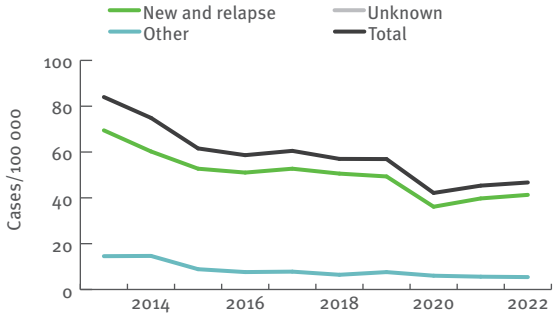
[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

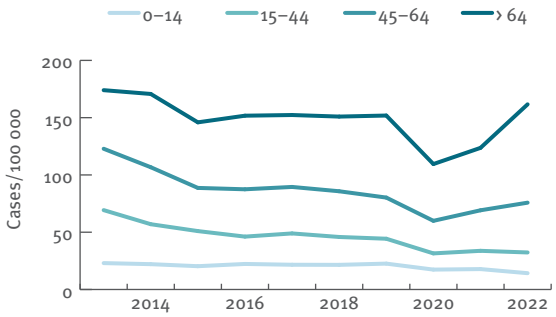
Geographical coverage	National			
Outcome cohort[a]	New and relapse TB cases notified in 2021		All RR/MDR TB cases notified in 2020	
Case-linked data-reporting	Yes		–	
Cases notified	–		–	
Success	–	–	–	–
Died	–	–	–	–
Failed	–	–	–	–
Lost to follow-up	–	–	–	–
Not evaluated	–	–	–	–

[a] Treatment outcome after 12 months (or 24 months).

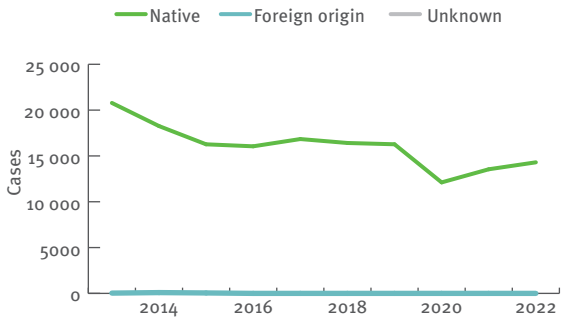
TB notification rates by previous treatment history, 2013–2022



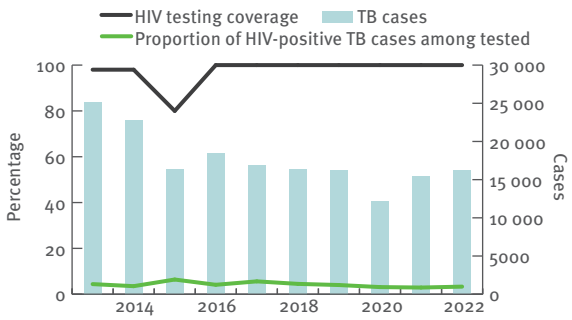
New and relapse TB cases – notification rates by age group, 2013–2022



TB cases by geographical origin, 2013–2022

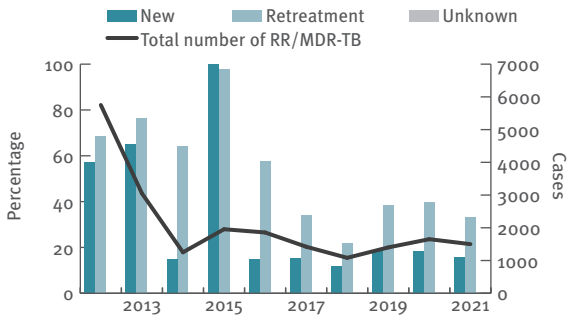


TB/HIV coinfection, 2013–2022

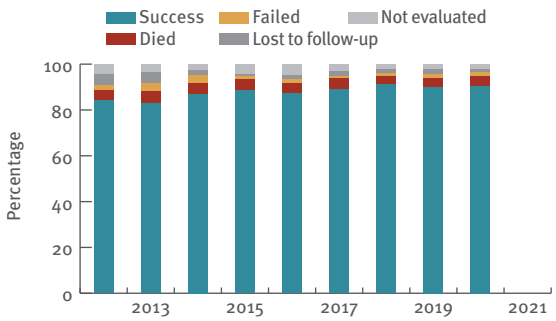


Note: data up to 2014 include all TB cases.

RR/MDR-TB cases and percentage of RR/MDR-TB cases by previous treatment history among all TB cases, 2013–2022



Treatment outcome, new and relapse TB cases, 2012–2021



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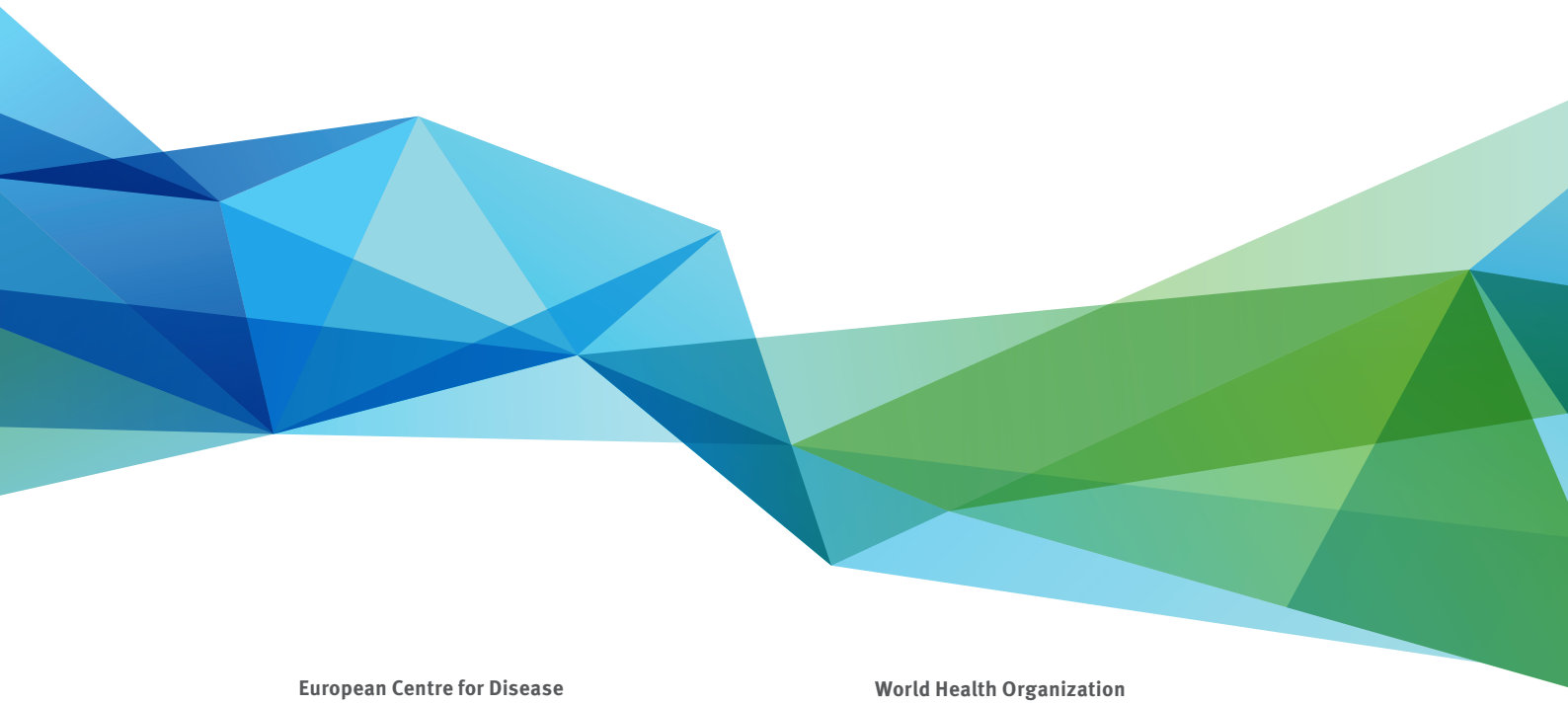

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